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Number 111 August, 1958

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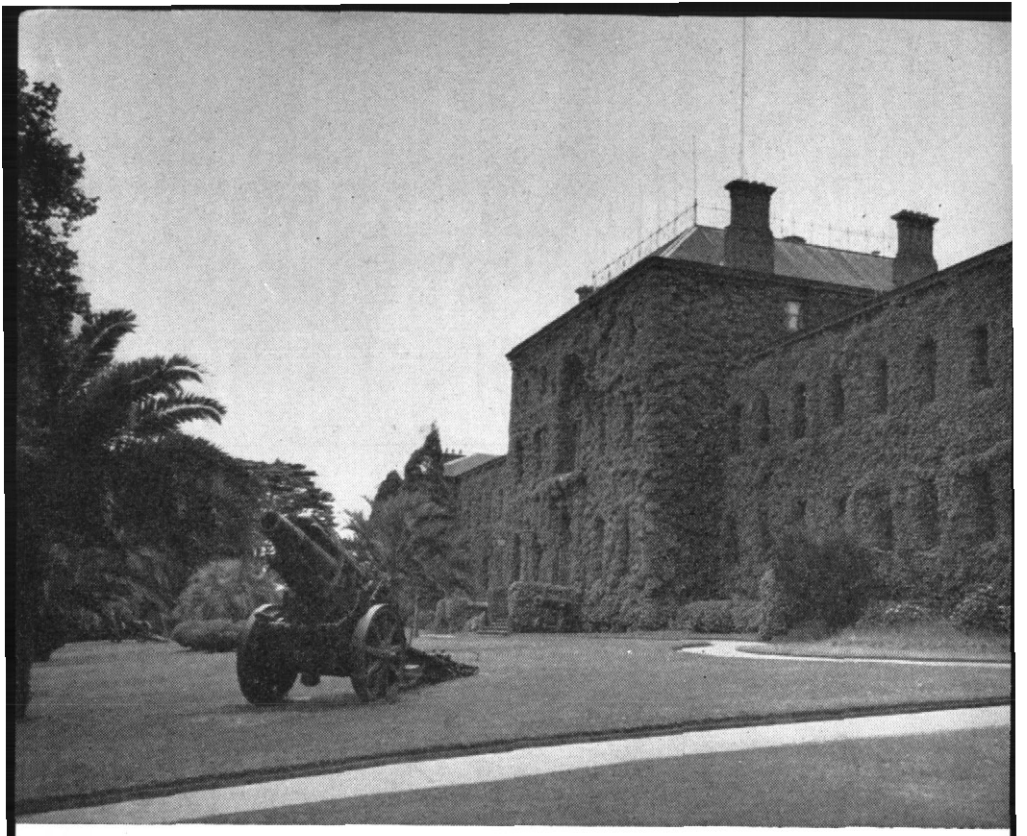

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AUSTRALIAN ARMY JOURNAL

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IMPROVEMENTS IN CONDITIONS OF SERVICE

Major-General R. E. Wade,
Adjutant-General, AMF

THE recommendations of the Allison Committee have now been promulgated and some of them have been implemented. There will be a variety of views on the full scope of these recommendations and of the bases and reasons underlying some of the more involved provisions. Possibly only those whose duties are intimately concerned with pay and allowances have a reasonable knowledge of these things at present. There is an urgent need for all officers to become familiar with the subject.

This article, however, does not intend to encourage either officers or men to become allowance chasers. In a well run unit the Adjutant, through the pay sergeant, will ensure that everyone knows about his entitlements and allowances. Officers should understand why allowances are paid and be in a position to give adequate explanations for apparent anomalies.

I have chosen to discuss the matter in this Journal for two reasons; firstly because of the freedom of expression which is acceptable in the Australian Army Journal as compared with the dull and matter-of-fact tones of MBIs and AHQ circulars; and secondly because the circulation of the Journal, one per officer, will I hope place upon officers the duty of explaining to their men promptly and clearly the effects of the new provisions. I regard this as an important aspect of man management which has not always received sufficient attention. All too often troops have been left to find out for themselves, sometimes incorrectly, from copies of orders on unit notice boards, or similar uninspiring sources, the rather complicated sets of rules which govern their allowances, rights and privileges.

The proposals made by the Allison Committee and accepted by the Government cover a wide range. In fact the Committee has had under review all aspects of conditions of service which may be termed "financial", ie, those which involve the expenditure of public monies. The approvals which have been promulgated relate to conditions other than retirement benefits. The latter are still under consideration. In giving priority to the more general conditions the Committee had regard to its terms of reference which, inter alia, stated that it "will give priority to the consideration of any adjustment affecting 'other rank' personnel". While many of the new conditions will give a measure of benefit to officers, their particular disabilities are more properly considered in relation to retirement benefits.

In order that all may properly understand the new provisions I think it would be well to state in full the terms of reference of the Committee under the heading "Pay and Allowances". These were —

"1. To review the rates of pay and allowances and other provisions of the Services' Pay Code and to recommend any adjustments considered to be reasonable and practicable, having in mind the need to attract and retain personnel for the three services and the current rates of pay and conditions of service n Commonwealth employment and in industry generally.

2. The Committee will report to the Treasurer and the Minister for Defence and will give priority to the consideration of any adjustment affecting 'other rank' personnel.

3. In carrying out its terms of reference the Committee may set up such working parties as it considers necessary."

It can be seen that the Committee did not have "carte blanche" to launch into magnificent new pay scales and allowances guaranteed to fill the Services and to keep them that way indefinitely. At all times it had to think of possible reactions elsewhere in the community, while the phrase "reasonable and practicable" was a constant reminder of the public purse. Even so the provisions of which the Government has now approved will cost nearly £5,000,000.

It was not considered feasible or proper to alter the basic structure of the Service pay scale related as it is to Commonwealth Public Service basic pay and margins for skill. Rather did the Committee examine the difference between service and civilian life and attempt some monetary compensation for the disabilities of the former. In addition the many special circumstances in which servicemen find themselves, and for which special allowances are paid, were considered. In many instances allowances have been increased. In some, new allowances have been introduced.

The principles on which the serviceman's pay is based are that the starting point is the Commonwealth Public Service Basic Wage. From this a deduction is made for rations and quarters. The adjusted base rate resulting is further varied on every occasion that the Commonwealth Public Service Basic Wage is adjusted by the Courts.

To the base rate are added loadings, margins and allowances. The loadings are those elements paid for a particular set of circumstances or conditions which carry right through the pay structure and are of constant application. The size of these loadings is usually determined after consideration of the need to give just compensation for unattractive conditions and the need to attract people to a particular occupation. When the public purse is involved the Treasury has an obligation to ensure that any attraction element is no more than adequate to meet the need. This of course does not mean that a loading which will attract any section of the community in adequate numbers is the appropriate solution. The loading must be sufficient to attract sufficient numbers of adequate quality to fulfil the requirement.

Margins in civil life are paid for skill and are usually determined by Arbitration as a result of Union claims. Occasionally there are apparent anomalies in the determination of the degree of skill applicable to the particular employment. There are various reasons for these apparent anomalies. In the Army, margins paid for trade skills are generally aligned with civilian margins except where the civil margin includes elements covered elsewhere in the Pay Code. Examples of margins, which are usually expressed in terms of shillings per week are 20/- waiter, 46/- draughtsmen Class IV, and 75/- a week for the metal trade

paid to tradesmen who have completed a five-year apprenticeship in that trade; 17/6 a week for a basic soldier (Gp 1) on completion of recruit training, rising in the case of tradesmen to an amount near to the appropriate civilian award on completion of trade training and classification (subject of course to his being employed in that trade). Every effort is made to ensure that men enlisted in a trade, or trained and qualified by the Army for a trade, are in fact employed in that trade. When special circumstances exist consideration may be given to the continued payment of trade rates to those temporarily otherwise employed.

In order to give greater wage justice to servicemen, the current three star system which gave an inadequate coverage of the full range of civil awards, has been further sub-divided and extended to cover a total of seven groups. Group 1 is the equivalent of one star, Group 3 the equivalent of two star, and Group 6 the equivalent of three star. Group 7 is a further extension to cover those trades with margins reasonably in excess of the metal trade 75/-. When the Army trade equates to the civil trade, eg, the army fitter does approximately the same trade job as a civil fitter, the Army trade is aligned for pay purposes with the civil award, ie, fitters are put into Group 6 (74/8 margin).

In the case of a soldier possessing military (as opposed to civil) skills he can progress from Group 1 through Group 3 to Group 6 subject to passing the tests of military skill fixed by AHQ. These tests must be demanding if we are to have an efficient fighting service.

Allowances are of two kinds, firstly continuing allowances paid to compensate for a continuing condition, eg, clothing allowance, living-out allowance and marriage allowance, and secondly allowances to meet specific conditions, eg, travelling allowance.

Specific allowances can be paid either as fixed amounts to meet an average requirement or as reimbursement of actual expenditure. The latter system involves considerable effort both to the individual in maintaining detailed accounts together with supporting documents and also for the finance staff in checking and auditing claims.

I shall deal now with the various new provisions as they affect the Army —

(a) There was previously an amount of 14/7 per week added to the basic pay of the trained soldier and throughout all ranks to Brigadier as an "attraction loading". It has been increased to 28/- per week and renamed "service loading".

(b) Recruits under 21 are to be paid the adult recruit rate instead of the previous recruit minor rate. It applies to ARA only and excludes CMF, NSM, "boy" categories, and females.

(c) The present 3 trade groups are to be increased to 7 with margins more closely aligned to civil awards. This is a very fair arrangement which will eliminate certain anomalies in our system of trade pay. There will be a substantial number of increases.

(d) The present limit of 25% in star-grading for military skill (2 star) is to be abolished and the 10% limit on 3 star-grading is to be increased to 20%. Gradings are to be retained on re-posting. This should be a major advantage to the so called "non-tradesmen".

(e) Margins for rank are to be constant in groups, eg, a private (Gp 2) on promotion to Corporal (Gp 2) would receive the same additional pay as the result of the promotion as would a private (Gp 7) on promotion to Corporal (Gp 7).

(f) The clothing maintenance allowance has been increased by 9d per day. The 2/6 (previously 1/9) allowance includes 1/6 (previously 1/-) contribution by the Government and 1/- (previously 9d) contribution by the soldier, the latter being in recognition of savings in civilian clothes resulting from the wearing of uniform. This results in an actual increase of 6d per day in gross pay.

(g) In recognition of the special disabilities of the married serviceman there is an increase of £1/1/0 per week for all married men, excluding General officers.

(h) A single man, newly posted to an area where no accommodation is provided for him, may be paid a higher rate of living out allowance for the first 60 days.

(j) Rates of Living Out Away From Home Allowance are to be increased substantially, eg, other ranks up to WO, from 8/- to 16/- a day.

(k) Single "living out" members travelling on duty will receive in addition to travelling allowance, the return of the 9/3 per day deduction in their pay for rations and quarters, ie, they will be better off by 9/3 per day than previously.

(l) "Retention of Lodging" Allowance is increased from £1/4/6 per week to a maximum of £3/4/9 for a single man and two thirds of LOAH allowance for a married man in receipt of LOAH and who enters hospital or goes away on temporary duty.

(m) The minimum period of posting necessary for entitlement to a free family removal within Australia is to be 12 months instead of two years.

(n) For a free family passage overseas the minimum posting will be 12 months instead of two years.

(o) A member, on marriage, will under normal circumstances have fares for his wife paid to his place of posting.

(p) Where there is no accommodation at his new station a member may have a free removal to a place reasonably near it, eg, Melbourne for Puckapunyal.

(q) A member voluntarily retiring after 20 years will have the same removal entitlement as one who retires normally. For details of entitlement under normal circumstances see MBI 44/1958.

(r) Depreciation allowance for removals to be £20 for first or second removal, £30 for third or fourth and £40 for fifth, or subsequent. The increased allowance will not be retrospective, but for the calculation of future entitlements all removals at public expense since 1 Jan 48 may be counted.

(s) District allowance for those "living in" increased from 50% to 70% of the rate for unmarried members "living out" in the same locality.

(t) An Education Allowance of £80 per annum will be payable to a married member whose family moves but whose child must be left behind to continue secondary education at his old station.

(u) Flying pay for Army pilots, at present ranging from 21/- to 35/- per week, will range from 24/6 to 73/6 per week.

(v) Parachutist Pay to be increased from 21/- to 52/6 per week. There is a small differential in favour of the parachute instructors at SLAW. Provision is also made for 7/6 a day on which a descent is made, to be paid to qualified parachutists not receiving an allowance but making casual descents.

(w) Good Conduct Pay to be increased from 6d and 1/- at 5 and 10 years respectively to 1/3 and 2/6. Female rate is increased from 4d and 8d to 10d and 1/8.

(x) Army Survey Parties to be paid an allowance while camping out.

(y) The Pay of Women's Services to be based on 75% of the base rate of pay of servicemen prior to deduction for rations and quarters; 100% of male rate is deducted for rations and quarters; 100% of male margins for skill where the women perform the identical job to the man; (in the case of drivers certain limitations are imposed on women which result in different rates), 66 2/3rds% of the margins for responsibility of rank, and the full male Service Loading. Initial outfit allowance to be increased from £15 to £18.

You will see that the minimum benefit received by single men will be 2/5 per day and married men 5/5 per day. There was a minimum increase provision to ensure that irrespective of how an individual fares after various adjustments have been made, nearly all would receive, as a minimum, the 2/5 and 5/5 per day for a single and married man respectively. Some categories will do substantially better than this.

The single man might wonder why the married man receives any allowances for being married. Just as there is a Service Loading which acknowledges the peculiar disabilities experienced by the servicemen generally, so there are additional disabilities not suffered by the community at large and not suffered by the single servicemen. These, and there are many of them, have been listed and debated in detail prior to the acceptance of any or all of them by the Committee. If the Services could be manned by single men it would possibly be more economical but experience indicates that the single man tends to marry and then leave the Service. Hence, if we are to retain a sufficient element of long service experienced personnel, we must offer compensation adequate to retain married men.

In explaining to troops their entitlements under the new scales, officers should ensure that they fully understand these themselves. There is a natural tendency for men to think only in terms of "take home pay". May I suggest that the true statement of their emoluments should be given somewhat along these lines?

You may feel that the soldier's pay entitlement is still a complicated matter. It certainly is; but no more so than many of the civilain rates paid under the various awards. Here are some typical cases showing how you might explain to men (or women) the manner in which their new daily pay is calculated (I have not included income tax) —

(a) *A single private (old 2 star, new Group 3) Living in* —

CPS Basic Wage		37/4
Plus Service Loading		4/–
Plus Margin for Skill		6/1
Plus Clothing Maintenance Allowance		2/6
		49/11
Less deduction for rations and quarters	9/3	
Less saving on civilian clothing	1/–	10/3
	Net Pay	39/8

(b) *A single private (Group 3) living out (after first 60 days in new Station)* —

CPS Basic Wage		37/4
Plus Service Loading		4/–
Plus Margin for Skill		6/1
Plus Clothing Maintenance Allowance		2/6
		49/11
Less saving on civilian clothing		1/–
	Net Pay	48/11

NOTE — The point to emphasize is that this man receives the true "basic soldier's pay", ie, the 9/3 per day should not be regarded as a living out allowance although it is titled as such. The soldier receives his full pay, including service loading and Clothing Maintenance Allowance, and is, therefore, in the same position as other single members of the community who are not provided with accommodation.

(c) *A married private (Group 3) living out* —

(i) **He receives**

CPS Basic Wage		37/4
Plus Service Loading	4/–	
Margin for Skill	6/1	
Clothing Maintenance Allowance	2/6	12/7
		49/11
Less saving on civilian clothing		1/–
	Gross Pay	48/11
Less Elements of Provision and Marriage Allowances (See Note below)	9/3	
Minimum allotment to wife	12/9	22/–
	Net Pay	26/11

(ii) **His wife receives**

Member's minimum allotment		12/9
Marriage Allowance		7/9
Provision Allowance		7/–
	Net Allotment	27/6

(iii) **Total joint income**

Member		26/11
Wife		27/6
	Net joint income	54/5

NOTE — In the case of a single member living in, a deduction of 9/3 is made for rations and quarters. The married man living out is not rationed and quartered and although the same deduction is made from basic pay it is for quite different reasons. It is returned to the member, through the allotment to the wife, as Provision Allowance of 7/- and 2/3 addition to the true Marriage Allowance of 5/6.

The point to emphasize is that the married man living out is in the same situation as the single man living out (after 60 days) in total emoluments and receives in addition 5/6 per day.

(d) *A married private (Group 3) living in Camp —*

(i) **He receives**

CPS Basic Pay		37/4
Plus Service Loading	4/–	
Skill Margin	6/1	
Clothing Maintenance Allowance	2/6	12/7
		49/11
Less saving on civilian clothing		1/–
	Gross Pay	48/11
Less Elements of Separation and Marriage Allowances (See Note below)	9/3	
Minimum Allotment to wife	12/9	22/–
	Net Pay	26/11

(ii) **His wife receives**

Member's minimum allotment		12/9
Marriage Allowance		7/9
Separation Allowance		7/–
	Net Allotment	27/6

(iii) **Total joint income**

Member		26/11
Wife		27/6
	Net joint income	54/5

NOTE — The same basis applies as for the married man living out. In this case, however, the 7/- is not for Provision Allowance but Separation Allowance. The point to note here is that unlike the single man living in camp, no deduction is made for rations and quarters. The free rations are in effect some compensation for family separation.

(e) *A single corporal (Group 3) living in Camp —*

CPS Basic Wage		37/4
Plus Service Loading		4/–
Plus Margin for Skill		6/1
Plus Margin for Rank		5/2
Plus Clothing Maintenance Allowance		2/6
	Gross pay	55/1
Less deductions for rations and quarters	9/3	
Less saving on civilian clothes	1/–	10/3
	Net pay	44/10

(f) To ascertain the position in respect of any WO or NCO rank, the rank margins to be added to the pay of a private soldier irrespective of his condition, ie, married or single, living in or out of camp are —

L cpl	2/1 per day
Cpl	5/2 per day
Sgt	9/4 per day
S sgt	12/6 per day
WO 2	15/6 per day
WO 1	17/8 per day

(g) *A private (Group 3) — Female — Living in —*

75% of the CPS Basic Wage		28/–
Plus 100% Service Loading		4/–
Plus 100% Margin for Skill		6/1
Plus Clothing Maintenance Allowance		2/6
	Gross pay	40/7
Less deduction for rations and quarters	9/3	
Less saving on civilian clothes	1/–	10/3
	Net Pay	30/4

(h) *A private (Group 3) — Female — Living out of Camp (after first 60 days)* — As above with the return of the ration and quarters deduction in the form of a living out allowance 9/3

(j) *WO and NCOs (female)* — As for a private (either in or out of camp as appropriate) with the addition of the rank margin. This is two thirds of the male margin — see (f).

WHY 21 GUNS FOR ROYALTY?

Colonel E. R. Rivers-Macpherson, OBE

In *The Legionary*, National Magazine of the Canadian Legion

I WAS intrigued to see the great interest which was aroused in the Montreal press over the firing of the 21-gun salutes to welcome the Princess Royal on her visit to Canada.

Correspondents were asking: "Why 21 guns?" This evoked a number of replies and many solutions were put forward. The most popular was that the old ships of long ago carried only 21 guns. I admit I was quite stumped, so I wrote to Major T. J. Edwards, the well-known Army historian in the United Kingdom. He very kindly referred me to the Librarian at the Admiralty in Whitehall, who replied as follows:—

"In June 1688 'An Establishment Touching Salutes by Guns to be Henceforth observed in His Majesty's Royal Navy', was published. This Establishment laid down the following scale of salutes to be accorded the various Naval ranks:—

"For a Captain, 11 guns; for a Captain having other ships under Command, 13 guns; for a Rear-Admiral, 15 guns; for a Vice-Admiral, 17 guns; for an Admiral, 19 guns.

"No mention was made then of the number of guns to be accorded Royalty. However, the Naval Regulations of 1731 (the first issued) laid down that a Royal Salute was to consist of 'such number of guns as the Chief Officer shall think proper, not exceeding 21 guns each ship'.

"Thus the 19 guns laid down in 1688 for the highest rank in Royal Navy was increased in arithmetical progression to 21 for Royalty."

The foregoing, will I think answer the interesting question raised in the press.

One or two points came to my mind: Why was the cardinal number 11 selected as the starting point by the Admiralty? Again, all salutes are odd numbers — because some allege the odd number is easier to remember? In my old militia gunner days (1900) when we fired a salute, the executive officer in charge always carried the requisite number of marbles which he passed from one pocket to another as the gun fired. Old gunners will remember how easy it is to miscount a salute of guns.

It is noteworthy, too, that many foreign countries fire a 21-gun salute to honour their heads of state. They probably copied this from the British.

— From Canadian Army Journal

Cave Canem Militis

By "Old Firm"

"DOGS and women should never be discussed in polite society", or so runs a common Arabic adage; but the dog in the home or, craving the indulgence of the PMC, even in the Mess, of the British soldier is a dog of a different colour. Thus the canny caution which the reader may detect in my approach to such a sacred subject, later may well be considered amply justified. If the anathema of the Arab descends upon the dog and the woman, a compensating affection is bestowed upon the former, even occasionally I believe upon the latter, by the Anglo Saxon race.

In my less rabid moments I have frequently remarked the complex attitudes of the old British India, in which the Hindus revered cows, the Moslems abhorred pigs and the British, particularly the soldierly, adored dogs and horses. There indeed was a background of sheer dissension. It is not an accident that, where nations such as the Chinese, the German and the Persian have used the epithet dog as a term of contemptuous abuse, we, on the contrary, have envied lucky dogs, wantoned with gay dogs, shown dogged determination and oftimes, aye, gladly returned to the hair of the dog which had bitten us. Alas that the canine femine in our unchivalrous English language has yet to become an euphemism.

Of course military dogs can be classified in three categories; War Dogs, which are stern savage animals, at least when on parade and not being seduced with juicy steaks or succulent chops, and which jump out upon you when you least expect them; Officers' Dogs, which are invariably well treated by soldiers (when master is around), and are well-groomed, overfed, self-satisfied creatures; and Soldiers' Dogs, which contrive to live a life of calclulated risk and variety only exceeded by their masters. The dog military is, of course, a man's dog.

War Dogs which were in great vogue about 1943, and come in cycles like slumps and sun spots, are always accompanied by retinues of veterinarians, dog-trainers and dog-handlers. War dogs can be a supply officer's nightmare with their ration scales and the fussing of their attendant vestals. They are exclusive. So rigorous is the training that many a Fido was returned to the lap of his mistress in Belgravia, his documents marked NLGWD — or Not Likely to Make a Good War Dog. Many and furious were the aggrieved letters penned to local MPs, pleading the cause of Fido, whose only patriotic wish was to serve his country, and whose rejection had occasioned acute psychological illness. Arma canesque canto. War dogs can also pull sledges although, unlike men, they cannot carry packs or fire rifles. They are not to be despised, as rations during seiges, hence the succulent edible Aztec hound.

Officers' Dogs are the most spoiled, least productive, most over-rated of the whole species. The cult of the dapper little monster sniffing at his master's heels from subaltern to field marshal is apparently on the wane. Yet even Lesbia had her sparrows, and who can begrudge the bachelor officer his fido achatus? The most ardent dog lover I knew was a Second Lieutenant who shared a single room with four other lucky dogs in Catterick until the GOC inspected the quarters, and the dogs, not the subaltern (as Goldsmith would have

liked it) were removed. Again I recall a young Pilot Officer years ago in Shaibah, behind whose Viking moustaches beat a heart of pure Bob Martins. This worthy kept a dog, a gazelle, a hawk, a mongoose, and a pigeon onto whose wings he had grafted or glued 'auxilliary feathers — all in the same quarter. Need I mention this was summertime and 115 degrees in the shade; only the shade was forty miles away. A junior Indian Prince of my acquaintance was more considerate towards his two hundred odd assorted dogs. When he repaired to the cool of Kashmir he had a houseboat — kennels built to accommodate the creatures. The din at feeding time was terrific. He, fortunately, was very deaf, and always found his anchorage secluded.

Another passionate dog lover whom I knew in my youth was a brilliant young cavalry officer who affected loud dogs as other men affect loud clothes and Windmill Girls. If it was a Dalmatian this year, it would be a Great Dane next, and an Afghan the year following. He was a connoisseur among dog collectors, and habitually displayed his choicest pieces by driving a ponychaise through Calcutta, with his postillion gorgeously attired like the elder son of a maharajah, and the 'dog of the day' lolloping alongside. His fanaticism did credit to the cult. Indeed I understand that when his CO expressed a dislike for the animal he promptly obtained a transfer to a Line Regiment, forsaking his patrimony for an ideal! It is related that when a peppery major found the creature in his favourite chair in the ante-room and enquired "Is this your dog?" the owner seriously replied "Yessir — of course — isn't he a lovely animal?" Exit our young cavalryman. Actually it was the best thing he could have done — as he prospered greatly and, I understand, is still to be seen parading in Cheltenham, an older, yet no wiser Brigadier, followed by a mixed pack of beagles and otter-hounds.

The foxhound, the beagle and the otterhound, and the other near-relations of the hound tribe have a peculiarly military significance. Not only do they give soldiers healthy exercise, and of course teach junior leaders instinctively to recognize good tank country, but they are good for the soul. I can speak with knowledge and feeling, having once, in a misguided (? inspired) moment, agreed to walk a puppy for the Harriers. I was innocently ignorant of the meaning of the expression 'to walk a puppy'. To my amazement the term proved literally exact. My puppy was a mighty walker, with a Bedouin nomadism which impelled him, and in turn me, to walk the length and breadth of Wiltshire; until I was forced to apply for an overseas posting to escape from this fabulous ambulant. My feet yet ache at the memory.

If the Briton at Home is unusual in his devotion to dogs, the Briton at large, Empire-building or sojourning in exile, is often quite fantastic in his canomania (or should it be cynomania?). The Scottie, the Corgi or the Fox Terrier, is certain to be there. The Persians call this sort of thing 'sag prasti' or dog worship, but unfortunately, and I am sure quite fortuitously, the expression has degenerated in meaning, as a polite alternative for the oriental art of giving bribes. There was a "sag prast" young officer in my unit in a tropical station who doted on bull terriers. His prize animal detested the heat, and had to lie spreadeagled on master's bed all day with a great ceiling fan whizzing overhead. And every other officer in the Mess was, willy nilly, helping to pay for the fan, which must have cost hundreds of rupees a year: fair tribute to the godlike dog. Nobody murmured. Another friend 'borrowed' my quarters during my summer leave and kennelled four dogs in the dressing room. The fleas and the odour remained their memorial for evermore after that . . . .

The most privileged of military dogs was Gertrude Bell's old spaniel, which, out of regard for that intrepid and scholarly lady, was the only dog allowed to remain alive in the old Hinaidi cantonment at Baghdad; excepting of course the hounds of the Exodus pack.

I recall that the patent wheat germ shipped to Baghdad at great expense, to save the troops from scurvy, was naturally rejected by the men, but avidly eaten by the same hounds. Should one really talk of dog-sense instead of horse-sense? The horse can be a very stupid animal, indeed it must be, to obey the bluff of the bit.

Many of the greatest lovers of dogs in the Army are the wives of officers and soldiers. How many of us have seen the house crowded higgledy piggledy with children and dogs and parents and puppies: and young Atkins sharpening his new teeth on a dog biscuit, while Towser sups the young rascal's porridge? There was one military mother in Multan who had her values so mixed that she used to walk her young scallywag sons out on a dog leash and harness, uttering loud monitory cries like a whipper-in! These are the split personalities, who confuse dogs and husbands, addressing the former as "darling" or "sweetheart", and the latter as "Rover" or "Scamp".

It is conventionally accepted that no anthology of dog stories is complete without a touching sentimental tale of canine fidelity, often in the face of human unworthiness. This, of course, is a very one-sided view of the contractual relationship between soldier and dog. Man gives more than bones to his canine friend: and it is high time we advertised the fact. We need more stores of human fidelity to dogs. If America is the country where the obedience of parents to children is exemplary, then Britain is the land where the fidelity of men to dogs becomes superlatively heroic. I remember the amazement of a sophisticated, cosmopolitan American friend of mine as he recounted the story of the Invasion of Kashmir. Srinagar, the capital, had a considerable population of retired Army and Civil officers. The Pathan tribesmen were nearing the city in their advance, with plunder and rapine. After great difficulty the agent of the British High Commissioner reached Srinagar by air and explained to his charges that they would be evacuated forthwith by air. Then came the critical question "Can I take Fido with men in the aeroplane?" And the agent answered "No"; apologetically of course. "Then" said our hereos "we would rather stay here where we are and risk the blades of the tribesmen, than desert our dogs". Fortunately a road convoy did get them out — with Fido of course. But — what heroic fidelity, to an ideal, to a species, is here enshrined in man's humanity to dog? Why, these people should be ranked even with the great hound of Beddgelert in the canine Valhalla!

Of Soldiers' Dogs it is hard to know where to begin and where to end. Like their own fleas their name is legion. They are a tribute to the good nature of the British soldier, and often a sad reflection on the impotence of Standing Orders. They have left their mark upon the canine stock of the world, from the Peninsula to the East Indies and round to the West Indies. Only a Thurber could do them justice. I once heard an Australian Digger utter the ultimate anathema upon another "I once saw him kick a dog!" Enough said. Dogs occur frequently in common Hindustani allusions. Thus the Indian sepoy who wishes to describe a person as neither one thing nor the other says "He is like the washerman's dog — at home neither in the house nor at the washing trough." We should remember with pride that the canophobes (cynophobes?) of Chatham who mutinied because an officer ordered them "Down on your knees, dogs" were not soldiers, but those undogworthy hybrids, marines; who are deprived by their calling of civilizing canine society, so misunderstanding the praise of the officer as abuse.

There cannot be a regiment nor a company that has not a favourite dog story; of the dog that came on parade, or the dog that went to church, or even of the dog that bit the colonel's lady. One such legend was that of the subaltern's dog which was allowed in the Mess, and was given the breast of the turkey bustard which the colonel had shot at considerable expense of time and

effort. The subaltern nibbled his portion, muttered "Tastes of fish — here Towser" — and placed the morsel before his dog. Yet that same colonel loved his twin Irish setters and frequently exclaimed that they ranked equal to Field Officers. They certainly had the same dignified noble expressions and rather sad eyes, and, when setting hares, the same dogged persistence.

Having advocated a reorientation of the man-dog relationship to emphasize the element of human sagacity and affection, it requires no great wit to realize the underlying fallacy in the conceit of men. We mistakenly conceive a great pyramid of civilization with homo sapiens at the apex. A careful study of soldiers and their dogs will convince any philosopher that the men exist for the dogs, rather than Vice Versa; and that after all, it is not a dog's life, but a Dog's World to the last bone, bark and kennel. It behoves us, therefore, to create an army fit, not for mere men, but for the divine dog which lords it over them.

For those who doubt the divinity of the military dog I quote my first company commander — a courageous, dedicated bachelor officer, who spared neither himself nor, especially, his subordinates. And yet his career ended obliviously in a DID near Tel El Kebir. If you want to know why — may I remind you, that instead of a snappy terrier or a noble hound following at his heels, he was inseparable from his own devoted pet — a fat shiny black neuter cat — which followed him by day and night. Cats count for nothing in the military hierarchy, but dogs are sound, distinctive, and literally the guarantors of their protectors. I must cease this eulogy as I have to take my dachshund for his evening constitutional. You should see how well the little animal gets on with the Brigadier's bull terrier. Need I say more?

"Can courage be taught? In one sense physical courage can. What you must do is train the man not to draw too heavily on his stock of courage. Teach him what to expect, not to be frightened by the unknown."

— Field Marshal Sir William Slim

TALAVERA

THE RENAISSANCE OF THE BRITISH ARMY

Lieutenant-Colonel M. P. O'Hare
Acting Director of Administrative Planning AHQ

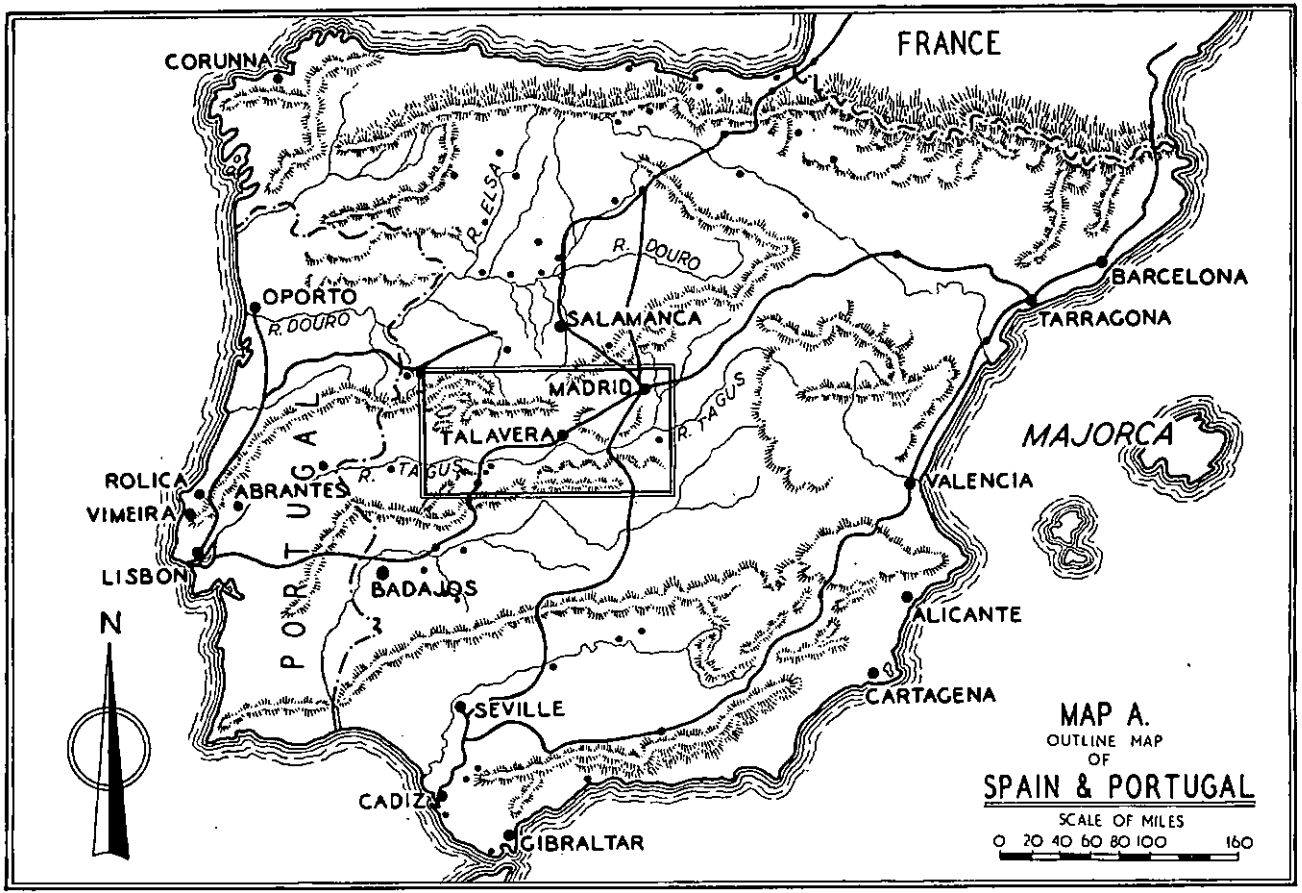
ON 11 September 1709 at Malplaquet, the Duke of Marlborough led 110,000 Allied troops to victory over Marshal de Villars, and the long war with France was virtually over. The rugged British soldiers, with their matchless training, organization, equipment and leadership, were the pride and awe of Europe.

A century later, after one hundred years of economy and neglect, defeat and disillusionment, the only formed British Army was in Portugal, 17,000 strong. This force was wanting in every element of military efficiency. The Supply Service — the Commissariat — had no experience, few officer and no transport. The Medical Service was a small civilian cell without hospitals, ambulances, tools or "physics". There were no bridging units, no heavy artillery, no ammunition transport columns and no engineers. There were plenty of horse-shoes but no hammers, nails or farriers. There were only a few squadrons of cavalry and the field artillery was dependent on bullocks for traction. There were no communication or signal units and no Staff as we understand the term and its purpose, beyond a few personal aides none of whom was familiar with the word "logistics".

From this unpromising list of deficiencies was forged, in just five years, the machine which destroyed half a million Frenchmen and invaded France. On 27 July 1809 Europe saw again the formidable British soldier, looming invincible through the battle smoke at Talavera de la Reyna. This was the turning-point. The French could claim that physically their advance had been checked; morally it was the greatest French military catastrophe since Blenheim.

The Background

Trafalgar ended French hopes of challenging England on the sea. Napoleon turned then to the Continental System to destroy British trade and commerce with such success that the ports and markets of Europe were closed to English ships and goods. Only Portugal remained loyal and Portugal had to be brought into the French fold. In a secret treaty France and Spain agreed jointly to invade and partition Portugal. Spain had been France's ally and England's enemy for generations, and in this shameless operation against Portugal the Spanish Government proposed to furnish soldiers and supplies and to facilitate the passage of a hundred thousand French troops. It was a supper for which the Spaniards lacked a long spoon. In three months Napoleon had garrisoned the main fortresses, had financed a rebellion which deposed Charles IV and had placed his brother Joseph on the Throne of Spain. Here Napoleon made a major political error. Spain was a country, where, despite


FRANCE
CORUNNA
R. ELSA
R. DOURO
OPORTO
R. DOURO
SALAMANCA
BARCELONA
TARRAGONA
MADRID
TALAVERA
R. TAGUS
MAJORCA
ROLICA
VIMEIRA
ABRANTES
R. TAGUS
VALENCIA
PORTUGAL
LISBON
BADAJOS
ALICANTE
N
SEVILLE
CARTAGENA
CADIZ
GIBRALTAR
MAP A.
OUTLINE MAP
OF
SPAIN & PORTUGAL
SCALE OF MILES
0 20 40 60 80 100 160

almost feudal social divisions within the community, there existed an over-riding sense of unity and racial destiny firmly rooted in the long glory of her heroic past. This proud and haughty nation, whose citizens had driven the Moor and infidel from Europe, whose soldiers had carried the sword and Bible across America to the Philippines, whose seamen had sailed round the world, exploded in revolt.

Spain

As can be seen in Map A, the topography and communications of Spain radiate from Madrid. The Peninsula, except for a narrow coastal strip, is a huge tableland, intersected by long rugged parallel mountain ranges and narrow river valleys. Movement is canalized by river crossings and mountain passes. It is a land where large armies starve and small armies get beaten. With the Capital and communications in the hands of the invader, the rebels elected Provincial Juntas which in turn elected a Central Junta as the Government of Spain, but government and co-ordination were loose and vague without the means and machinery of command. In this lack of central control lay both the strength and weakness of the Spanish cause. Previously in monarchial Europe, defeat of the Monarch's armies meant defeat of the country, war was not really the business of the people until they became infected with the virus of French nationalism. By 1808 the French Revolution had run its course; no longer could the masses of conscript soldiers pretend to bring liberte et equalite. The political aspirations of those who may once have welcomed the invader were shot away by the masses of cannon, the equality of the plain blue Republican uniforms had given place to an ostentation in dress and accoutrements never beheld before in Europe, the manœuvre of Austerlitz was replaced by the callous butchery of Wagram. Napoleon's political intuition failed in Spain as his military art had failed in Austria. To this tough historically-conscious people, the freedom of Spain was the burning vision of the exiled King and the meanest peasant.

The Spanish Revolution

So greatly had Napoleon underestimated Spain that the bulk of the occupying forces were untried conscripts and the initial actions of the revolt achieved surprising success. The culmination was the surrender of the French General, Dupont, with 18,000 men at Baylen on 20 July 1808, and the clearing of many of the provinces of French troops. British aid in arms and money arrived quickly and a British landing took place in Portugal.

In the end Spain paid dearly for the victory of Baylen. "Vigor and Energy" Napoleon said were the watchwords for the future and while 320,000 French veterans hastened south, the Spanish commanders became convinced from the early victories that they could hold their own with the French armies in the field. It was a vain hope. The invaders pounded across the Pyrenees, led in person by Napoleon. "Clemency and kindness" he said, "lead to nothing". Lack of them, however, soon brought a struggle of unparalleled barbarity. In a few swift battles the Spanish armies were dispersed and shattered and the French forces converged on Sir John Moore's small British army then approaching Salamanca. The war became pitiless, terrible, utterly lacking in any vestige of honour or chivalry. Again and again the raw, untrained, hastily assembled Spanish levies were mown down by the French war machine or dispersed to the hills, where, by guerilla(1) methods they regained control of a sufficient tract of country to assemble a formal army which would meet yet again the same merciless fate. No national struggle for freedom has produced the courage, endurance and faith of the Spanish people in these

(1) Here the term originated from Sp "guerilla" meaning "little war".

long cruel years. Each province raised time after time the manpower of a great army, but the Juntas, unexperienced in government and unco-ordinated by a strong central capital, appear to fritter away the sacrifices of their valiant and patriotic citizens. This was not the fault of the men who comprised the Juntas. It was not the fault of Spain. France controlled the communications and the established machinery of government, but otherwise they controlled only the ground swept by their guns. The fugitives from each vanquished Spanish army were embodied yet once more to face the same privations and the same disaster, neither better equipped nor better trained, without uniforms, without leaders and without confidence in themselves; yet each and everyone believing firmly that they could deliver Spain. "In vain are their armies defeated and dispersed, their fortresses taken, their plains overrun and their cities subdued; the Spanish armies rise, hydra-headed from disaster." And the guerillas increased in numbers, skill and ferocity until a French messenger required an escort of 300 men. Spain was permanently and chronically in revolt, and in revolt she was prepared to stay for generations, whatever the cost and whatever the sacrifice.

England Enters the War

In response to Spanish and Portuguese requests for aid, a British Army landed in Portugal in 1808 while Military Missions, liberally provided with funds and equipment, were set up in the main coastal towns. Lieutenant-General Sir Arthur Wellesley(2), the first British commander, defeated the French in Portugal at Rolica and then at Vimeira on 21 August 1808. For obscure political reasons Wellesley was superseded on the battlefield by men of very limited capacity who permitted the French General Junot to evacuate his troops with the honours of war by the notorious Convention of Cintra. Sir John Moore was then given the field command of the British Forces and he advanced along the valley of the River Douro to aid and encourage the Spanish Armies, at about the time Napoleon was crossing the Pyrenees with 320,000 men.

The problems facing Sir John Moore were stupendous, but Moore, remembered mainly as a corpse from the famous poem relating to his burial, was in fact one of Britain's greatest soldiers. By unflagging energy, without any information of the Spanish armies, with his motley untried troops, short of transport and funds, he marched 300 miles into Spain by divergent roads and succeeded in the strategic gamble of concentrating within range of the enemy. On 13 November 1808 Moore marched into Salamanca, as he said "Bridle in hand, ready to run for it". Moore had reasonable excuse to run; at Salamanca he found that all the major Spanish Armies had been defeated, that a French force was approaching his rear and that Napoleon with 130,000 men was before him. The British advance had drawn all the French troops northwards, and by saving the south of Spain, ensured that the war went on.

Sir John Moore switched his lines of communication from Lisbon to Corunna and marched out of the trap. Napoleon returned to France from the banks of the Esla in January 1809, leaving Soult to continue the whirlwind advance aimed at encircling the retreating and exhausted British Army. The Battle of Corunna was a sharp repulse for the French and a miracle of military skill by Sir John Moore, but France, in possession of the battlefield was the moral victor, avenged for Baylen and Vimeira. The Leopard(3), Napoleon claimed, had been driven into the sea.

(2) He became Lord Wellington after the Battle of Talavera, Field Marshal after the Battle of Vittoria (1813) and Duke of Wellington after the first fall of Napoleon (1814).

(3) From the ancient banners of the Kings of England. The lion as a British emblem is of relatively recent origin.

The lesson, if any, was lost on a seafaring nation. On 22 April 1809 Sir Arthur Wellesley landed at Lisbon and turned his matchless talent for organization to the production of a field army from chaos.

The British Army

After the defeats of the American War of Independence, the Duke of York, as Commander in Chief, initiated a series of reforms, and in this period considerable changes took place in training and tactical methods. In 1803 Sir John Moore became commander of the camp at Shorncliffe in England where, with tireless enthusiasm, he developed the methods which were finally vindicated at Waterloo. The only radically new weapon introduced was Shrapnel. Originally invented by Major Henry Shrapnel in 1784, this had a range of up to 1200 yards (three times that of case-shot or cannister) and was operated by a primitive wooden time fuze. Moore's doctrines depended on rapid and accurate musketry and the use of linear formations to deal with attacks by columns. At Shorncliffe also was developed the Light Division, armed with rifles, which was destined to become the most famous formation in the Peninsula Army. Moore opposed corporal punishment and strove to found discipline on professional pride and esprit de corps. The infantry was armed with the Tower Musket (Brown Bess); it fired a one ounce ball a maximum of 500 yards but accuracy was negligible over 100 yards. The soft lead bullet inflicted a shocking wound and each soldier carried 60 rounds in paper cartridges. The rifles of the Light Division had grooved barrels which made loading difficult but which improved accuracy. The artillery was based on the light six pounder pulled by horses if they were available. The gunners walked, except in Horse Artillery of which none was available until after Talavera. Moore's linear formation, the origin of "the thin red line" depended on a very high standard of training and on steady resolute troops. It enabled the full fire power of every unit to be used on the close ordered columns in which the French usually attacked. Wellington developed Moore's ideas and in addition he invariably managed to take up a position on the reverse slope of a hill where his troops were protected from the artillery bombardment preceding the enemy assault.

Organization

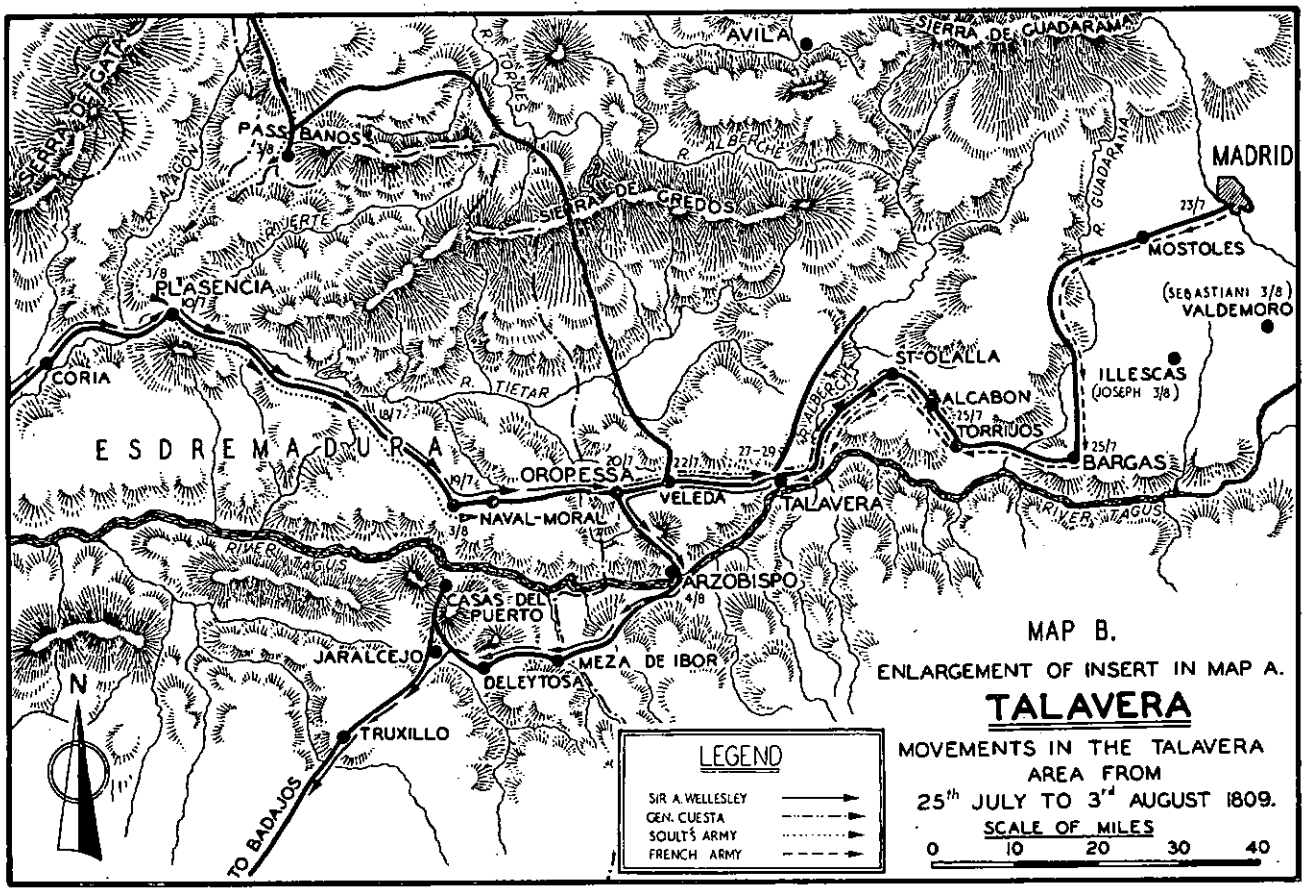
When Wellesley again took over command at Lisbon, the army had been built up to over 20,000 men, but only five battalions had seen action against the French and of these two were "Battalions of Detachments" formed from sick and stragglers of Sir John Moore's army (the rest of which had evaporated in the ill-fated Walcheren expedition). The remainder of the army was comprised of weak second battalions not intended for overseas service which had been strengthened — or rather, made more numerous — by recent drafts of untrained reinforcements, still wearing the equipment issued in training or militia units. There was no horse artillery and the cavalry was weak and ill-organized. The Portuguese Army was still in the process of being trained by Marshal Beresford and was not yet battleworthy. The general organization of the Army was based on brigades of four battalions and the allocation of these to Divisions was a rudimentary arrangement in which the senior brigade commander was loosely in charge of two or more formations, without a divisional staff and the necessary divisional troops. Although divisions are mentioned in all contemporary accounts of the British Army, they were "groups of Brigades"; the true divisional organization was seventy years in the future. The new commander, Wellesley, was a cold, austere, reserved man, never unbending with his officers and never popular with his troops, but he provided them always with the one cardinal component of morale — unremitting victory. He never lost a battle and he never lost a gun. If Wellesley had faults as a man they were

more than redeemed by his genius as a general. Of all the great captains of history none could grasp and co-ordinate, as well as he, the political, moral, geographical and military factors of any situation.

The Advance into Spain

Lisbon was menaced by Soult to the north and Victor to the east, both advancing leisurely and with confidence. On 12 May 1809 Wellesley crossed the Douro and by 14 May Soult's Army struggled over the northern mountains having lost a battle and all their guns. With Soult driven out of Portugal, Wellesley marched south to deal with Victor, whose force was the other claw of the French pincers which had reached out for Lisbon. Victor at this time had moved forward towards Abrantes, in some confusion as no contact could be made with Soult, but when the news of Soult's disaster reached him — three weeks late — he withdrew to a defensive position at Talavera de la Reyna on the Tagus. Wellesley's primary duty to the British Government was to defend Portugal, and in particular to ensure the safety of Lisbon. In any move he made to assist the Spaniards it was sensible in view of his limited numbers that he co-operated with the strongest Spanish Army at the time in being. Consequently, despite the numerous courses which may appear to have been open to him, the only one which provided for both conditions was to advance up the valley of the Tagus towards Madrid in co-operation with the Spanish Captain-General, Gregoria de la Cuesta, commanding the Army of Estremadura. The Captain-General had suffered a shattering defeat by Victor at the Battle of Medellin only four months earlier where the Spanish had 75,000 casualties and Cuesta had been ridden down by a panic of his own cavalry who thereby lost him a battle the Spanish infantry had won. Consequently his hastily reinforced army, although 41,000 strong was not a hardened band of veterans.

On 19 May Wellesley marched into Spain, through Abrantes, Castello Branco (17 June) Plasencia (10 July) and joined Cuesta at Oropesa on 20 July. The situation was now interesting, logistically as well as tactically. On his left flank Wellesley believed there was only the remains of Soult's forces; in fact there was Soult now commanding also the corps of Martier and Ney, a total of 50,000 men marching towards Plasencia onto the British lines of communication. Wellesley believed also, to his subsequent sorrow, that Cuesta had detached an adequate force to the easily defensible pass of Banos. Marshal Victor at Talavera was in logistic trouble, he wrote to King Joseph stating that "the results of starvation are deplorable, the enemy have made a desert around us, we are menaced with absolute famine which we cannot avoid by moving as the entire country is ruined". This then was the area into which Wellesley was marching, with little transport, few animals, a small civilian hospital and a conviction that the Spanish Central Junta would provide for him. With what from where? They had nothing. In retrospect it seems a monstrous error, yet it is a logistic phenomenon of which there are only too many sad examples, when an ally cannot fulfil a promise it is only human nature that the stranger suffers most. This campaign is of particular interest because of the logistic disaster. The results poisoned British relations with Spain for years, perhaps for ever. Even the word "Junta" which was a respectable Spanish word meaning committee or council was taken into the English language with the sinister implication it still retains. Unfortunately, Wellesley, his officers, his troops and many of the contemporary historians firmly and sincerely believed that the Spanish could have fed the British Army but deliberately did not do so for a multitude of reasons ranging from religious prejudice to revenge for the Armada. The plain facts were that the British Army had no transport, no logistic organization and no reserves, so it starved, and under the same conditions any force always will.


AVILA
SIERRA DE GUADARAMA
SIERRA DE GATA
PASS BANOS
SIERRA DE CREDOS
MADRID
MOSTOLES
PLASENCIA
(SEBASTIANI 3/8)
VALDEMORO
CORIA
ST OLALLA
ILLESCAS
(JOSEPH 3/8)
ALCABON
TORRIJOS
BARGAS
ESDREMADURA
OROPESSA
VELEDA
TALAVERA
NAVAL-MORAL
RIVER TAGUS
ARZOBISPO
CASAS DEL PUERTO
JARALCEJO
MEZA DE IBOR
DELEYTOSA
TRUXILLO
TO BADAJOS
N
LEGEND
SIR A. WELLESLEY
GEN. CUESTA
SOULT'S ARMY
FRENCH ARMY
MAP B.
ENLARGEMENT OF INSERT IN MAP A.
TALAVERA
MOVEMENTS IN THE TALAVERA AREA FROM 25th JULY TO 3rd AUGUST 1809.
SCALE OF MILES
0 10 20 30 40

The true attitude of the Spanish people to the British Army was apparent when Wellesley finally entered Madrid. "Famine was among them and misery but with tears and every sign of deep emotion they crowded around his horse, hung by his stirrups, touched his clothes, and throwing themselves on their knees blessed him aloud".(4)

There was yet another complicating factor; The British Minister to Spain, Mr Frere, had suggested often to his friends in the Central Junta the need for central control and the appointment of a British officer as Commander-in-Chief. Wellesley had heard nothing of these rumours but Cuesta had heard plenty. The British officers in the Talavera campaign, including Wellesley regarded Cuesta not only as too old(5) for the task, but as stubborn stupid, surly and impracticable. In this they were wrong; the brave old man was stirred by jealousy and suspicion not by pride and obstinacy. He felt that Wellesley was trying to get rid of him, that every proposal concealed some trap and that any British plan included his disgrace. In this Cuesta was wrong; never did Wellesley place personal ambition before his duty to the Government and the safety of his army. When the Allies moved forward on 20 July Wellesley had an empty larder, a hostile companion and 50,000 Frenchmen marching on his rear. Nor was his front free of Frenchmen. Victor was withdrawing from Talavera to a position behind the Alberche, not from fear of Wellesley, whose presence in Spain was kept from him by guerillas, but by logistics. He wrote: "Men are dropping from starvation, I have nothing to give them. I am forced back on Talavera where there is still nothing . . . . never was there a more distressing situation than ours". Meanwhile King Joseph was moving down from Madrid and General Sebastiani with the 4th French Corps, having evaded the dilatory Spanish General Venegas, was marching to join the King. Soult sent back urgent messages begging the King and Victor to avoid attacking the Allies until he, Soult, reached Plasencia with his 50,000 men and ensured the annihilation of the British Army. The Commanders to be involved were now apparent; old Cuesta tired and suspicious with 34,000 infantry, 7000 cavalry and 70 guns, the reinforced remnants from Medellin, unpracticed and untrained; the man who was to become the Duke of Wellington with 30 guns, 3000 cavalry and 21,000 infantry, fresh from victory at Oporto, ironfaced and confident. Opposing them was Joseph Boneparte, a pale shadow of his terrible young brother, and Victor, brave, headstrong and impulsive with 56,000 infantry, 7000 cavalry and 80 guns. Marching on Plasencia was Soult, a formidable soldier, who skill and courage were worthy of his fame.

(4) Napier.

(5) He was helped on or off his horse by a tall grenadier and two pages, but he did most of his movement and reconnaissance from a padded coach drawn by nine mules.

The Opening Gambit

The Allies delayed unnecessarily at Oropesa, partly due to Cuesta's intransigence and partly because of Wellesley's frantic efforts to obtain rations and transport. Some of his letters were addressed in very tactless terms to the Spaniards. From an area where Victor starved it was unlikely that the Central Junta at Seville could produce food. Men were falling sick and only 21,000 British troops were marching along the Tagus on 22 July. Cuesta on the right made first contact and the French screen held up the Spanish advanced guard for four hours until British cavalry came up on the left. The French withdrew in good order, each small party defying the Spanish cavalry and marching steadily into the main position across the Alberche. Wellesley quickly reconnoitred the French position under a hail of cannon shot, and knowing that Joseph was still well to the east and that Victor had only 22,000 men, he drew up a clear and simple plan for an

attack at dawn before the French forces could unite. Cuesta "received it with dry civility" and procrastinated all night 22/23 July, finally refusing to move after the British had been under arms for five hours. Wellesley tried to persuade him to attack on the afternoon of the 23rd. Cuesta again refused, and Victor, who had been careless to remain exposed for so long, withdrew to join Joseph on the road from Madrid. Historians are unanimous in agreeing that Wellesley's plan must have enabled him to defeat the French in detail. There is no logical explanation of Cuesta's refusal to attack; his own papers give no reasons. Furious, Wellesley quarrelled bitterly with Cuesta and declined to move forward of the Alberche unless rations and transport were provided. It was all so inexplicable and unfortunate; the only deduction seems to be that when Allies co-operate they must sink national pride and appoint an overall commander. Wellesley was now in serious logistic trouble, there was nothing to be had locally and without transport he could not bring up sufficient supplies from Plasencia.

On 24 July Cuesta determined to advance alone. He was motivated by involved political factors stemming from his relations with the Central Junta and General Venegas. Ignoring Wellesley's advice[6] he followed hard on the heels of Victor, with an enthusiasm which could have been decisive on the 23rd. But on 24 July the French had concentrated over 50,000 men at Bargas and Cuesta got himself into his scrape at Torrijos. Immediately he retreated to Talavera where his vast army[7] bivouacked in confusion and danger on the French side of the Alberche for the night 25/26 July, refusing to join Wellesley at Talavera, until "I made the Englishman go down on his knees."[8]

It was fortunate for Spain, that behind Cuesta and his shaken army was one of the world's greatest soldiers. During Cuesta's abortive pursuit of Victor, the British Commander had found a typical defensive position forward of Talavera de la Reyna (Map C). The position was based on the low line of hills, west of the Portina. On the right were forests of cork and olives, mud walls, ditches, and breast works of earth and fallen trees; the left was more open but the Portina became a more significant obstacle as it curved around the Cerro de Medellin, the round hill which was the key to the position. The foothills of the mountains to the north were impassable and the greater part of the two mile front provided the easy reverse slope where Wellesley always sheltered his thin red line from the French artillery. The British troops had done two days work on the line by the time the Spanish army poured back into the thickets of the position they had been allotted on the right. The Junction Point between the two armies was a partially completed redoubt intended as a bastion for Spanish artillery.

First Contact

The general situation was one to disturb lesser men than Sir Arthur Wellesley, and worse was to come. The British screen was made up of Sherbrooke's and MacKenzie's divisions on the Alberche and as the Allies took up position Wellesley was observing the French movements from the roof of the ruined Casa de Salinas. The leading French division under Lapisse crossed the Alberche in the smoke of some burning

(6) "Cuesta will get himself into a scrape" Wellesley to Hill.

(7) Contemporary eye-witnesses describe the move of this army as an outstanding sight, accompanied as it was by hordes of camp followers, caravans, travelling shops, side-shows, women, children, tinkers and tailors as well as flocks of animals and beasts of burden, all stirring up an immense cloud of dust.

(8) Seven histories in the Defence Library use this phrase but they differ on what Cuesta referred to; it seems obvious that he was asked not only to join the British at Talavera as the older authorities state, but also to place himself under command of Wellesley for the battle as stated by Oman (Vol II) and Cuesta's subsequent actions indicate that he accepted British command.

houses, right under the noses of the British piquets[9] and assailed[10] the withdrawing screen. Heavy musket fire broke out all round Wellesley and panic broke out in certain battalions whose arms were piled. Wellesley mounted in the middle of the action, England almost lost her greatest leader as Donkin's Brigade was scattered. MacKenzie's Division was rallied with some difficulty and withdrew under heavy pressure with the loss of 440 men. This sort of inexcusable tragedy always seems to happen to green troops. Perhaps because MacKenzie died bravely the next day, before the despatches were written, there is no record of Wellesley's comments, but he was a man who did not suffer fools gladly.

From the Casa de Salinas action the roar of battle did not cease and those who expected darkness to bring quiet were going to be sharply disappointed. The French laid on one of the few night actions fought by the field armies in the Peninsula war.

Not expecting battle until the morrow the British had been slow in taking up position and by miscalculation[11] Hill was not in position on the vital ground at Cerro de Medellin, which was flanked only by two battalions of the King's German Legion (KGL).

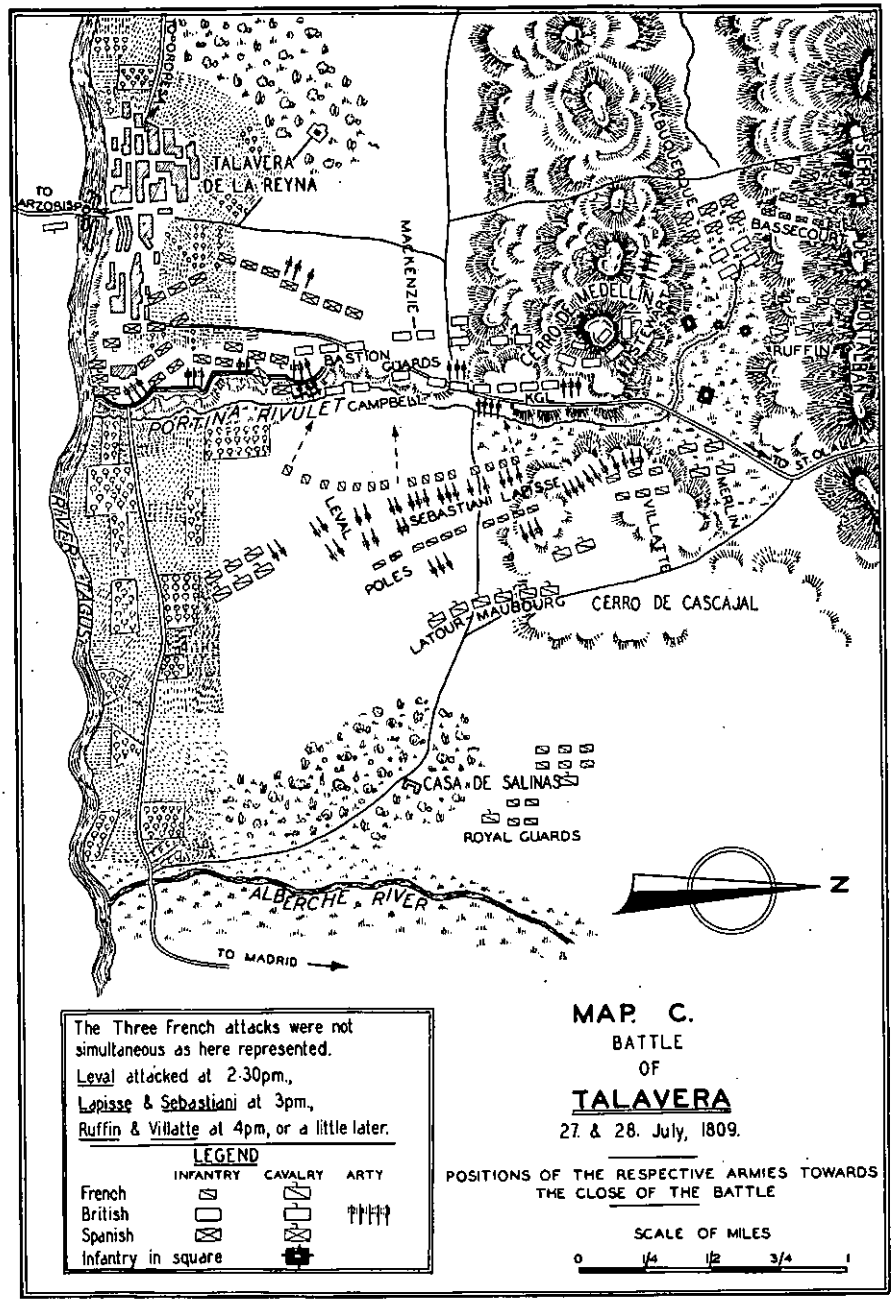
Following MacKenzie's performance the British Commander was about to get some more food for thought. The French advanced guard fanned out along the allied line, bringing some artillery into action against the British left whilst Milhaud's cavalry rode up to the Spanish sector to pin-point their forward localities. Wellesley was with Campbell at the Bastion when the Spanish fired a tremendous salvo from their whole front at the few, distant, out of range, French horsemen. At the sound of this stupendous volley the four left-hand Spanish battalions fled to the rear gaining momentum and companions as they went, artillerymen on their gun horses joining the flood[12]. The rear troops and many of the British commissaries joined in the far-reaching race to the rear and tragic tales of disaster were 50 miles behind the Allies before battle was joined. As Wellesley watched the collapse of the centre of his position, Victor, full of enthusiasm and ignoring Joseph, still ten miles in rear, determined to employ his extensive local knowledge of his old camp site by capturing the Cerro de Medellin. His plan was a bombardment from the Cerro de Cascajal followed by the storm of the British Cerro by Ruffin's nine battalions with Lapisse creating a diversion in the centre. At 2100 hours Ruffin crossed the Portina and surprised the KGL lying down or lighting fires. Twice in an afternoon the piquet system had failed, and the KGL was scattered losing 150 prisoners. Three French battalions were on the Cerro before Hill commenced to climb it. Wild confusion reigned. Hill escaped capture by cutting off the hand of the voltiguer who clutched his bridle and then commenced a loud and dreadful struggle in the dark. It must have been an awe inspiring sight; the shells whirling overhead showering sparks from the wooden fuzes, the long flashes from thousands of muskets and the dense white

(9) "We were by no means such good soldiers in those days and precautions had not been taken" Lord Munster.

(10) There is not space to deal in detail with the enemy and his methods. It can be taken that, as ever, the French soldiers were absolutely first class. "It is unnecessary to describe the onward burst of a French army; it is well known with what gallantry the officers lead, with what vehemence the troops follow and with what a storm of fire they waste a field of battle" Napier.

(11) Hill was dining in Talavera and issued no warning order to his division.

(12) There may be some excuse for the Spanish infantry recruits fresh from the catastrophe at Medellin, but none for the artillery, nor for the numbers of British personnel who joined further in rear. This peculiar mass panic is perhaps more prevalent than national history books admit. The famous Light Division had a similar outbreak in 1810, German records indicate several mysterious collapses in Russia in 1944, while a platoon panic occurred (fortunately more humorous than tragic) in an elite AIF Battalion in 1943.



The Three French attacks were not simultaneous as here represented.

Leval attacked at 2·30pm.,

Lapisse & Sebastiani at 3pm.,

Ruffin & Villatte at 4pm, or a little later.

LEGEND

	INFANTRY	CAVALRY	ARTY
French	▨	▨	
British	▯	▯	†††††
Spanish	▩	▩	
Infantry in square	■		

MAP C.

BATTLE OF

TALAVERA

27. & 28. July, 1809.

POSITIONS OF THE RESPECTIVE ARMIES TOWARDS THE CLOSE OF THE BATTLE

SCALE OF MILES

0 1/4 1/2 3/4 1

smoke from the primitive powder turning the darkness into an eerie gloom in which 10,000 men, subject only to voice control, with drums beating, flags flying and trumpets blowing, carried out drill evolutions which would stagger modern soldiers rehearsing for a tattoo. A Battalion of Detachments (from Moore's Army) reached the summit, then another, and in the confusion the fourth of Ruffin's battalions — obviously without direction-keeping aids — moved diagonally across the British front, drums beating the pas-de-charge and men shouting 'vive l'Empereur'. It received a two battalion volley in the flank and as Ruffin's remaining battalions had lost their way the crisis on Cerro de Medellin was over. Lapisse was so involved in the Portina and the scrub that he played little part in the action. By midnight the firing died down and the British deployment continued. It was a wild night west of the Portina, nerves were on edge, stomachs were empty and sleep would have involved disregard of periodic brigade volleys from the Spanish infantry, and more ominous to the thoughtful, above the screams of wounded men and horses could be heard for hours the cracking of whips, jingle of harness and rattle of wheels indicating long columns of French artillery deploying on the British left front.

Meanwhile the Spanish Army had sorted out its front and Cuesta sent off some regiments of cavalry to round up the fugitives. The Spanish officers were not enchanted with the debacle which had occurred in the full view of the British Army and within a few yards of the British Commander and his staff. The cavalry collected considerable numbers of fugitives(13) but many artillerymen had left the parish on the gun horses and at the crisis of the battle the Bastion was not fully manned.

(13) Cuesta decided to decimate those who fled, on the old law of the Roman Legions. Nearly 400 were condemned by Court Martial and although most were reprieved following energetic appeals by Sir Arthur Wellesley and British Liaison Officers, 35 men were dressed in white and actually shot in sight of a horrified British battalion.

The French Plan

Victor regarded the failure of his night attack as bad luck; actually, owing to the tardiness of the British deployment and the carelessness of the Kings German Legion, he had done better than he deserved. Then, as now, night attack is one of the most tricky operations of war, an operation only to be undertaken with great care by rehearsed troops on to a strictly defined objective. However, Victor expected an easy win in the morning, having secured the reluctant assent of the King to a resumption of the attack at dawn. Victor's plan certainly had the modern virtue of simplicity. Following a bombardment of the British by all his artillery from the Cerro de Cascajal he proposed to assault the British position with, from the right, the divisions of Ruffin, Villatte and Lapisse, and, such was his confidence that he made the advance of Villatte and Lapisse contingent on the success of Ruffin against the Cerro de Medellin. In the same way the King made the advance of Sebastiani's 4th corps dependent on Victor's success on the right. The French plan, therefore, became a perfect example of the progress of Mr Brown's famous cows. This was brought about by the fact that Joseph and his adviser, Marshal Jourdan, were reluctant to attack the strong British position and would have preferred to await the effect of Soult's advance, but they were compromised by fear of their lack of enthusiasm reaching the ears of Napoleon. The Emperor disapproved of "culpable timidity", Joseph was only nominally senior to the veteran Marshals. In addition Victor was attacking with troops who had been involved until a late hour the previous evening, troops who already had formed a very different opinion of the British soldiers from that held by their Corps Commander.

The Second Attack

At 0500 hours 28 July the 54-gun battery on Cerro de Cascajal opened with serious effect on the British left, and the

heavy smoke drifted in the light easterly breeze over Ruffin's division on the forward slopes and obscured its headlong advance from the anxious watchers on Medellin. Ruffin's troops climbed the Cerro de Medellin in three solid columns marching swiftly to where Hill's six battalions were lying behind the skyline. The British units dressed their ranks, marched forward in level lines and at fifty yards fired a single murderous volley. The result was terrible, and as the line lapped round the stalled and reeling columns they broke and fled and were cleared to the lower slopes of the Cascajal, leaving 1300 casualties on the field.

This repulse involved the conditional advance of the remainder of Victor's corps which withdrew without becoming involved. As the firing died away Joseph and Jourdan summoned Victor to a council of war. Then occurred for the first time a peculiar truce which was to develop into an unwritten code of chivalry between the British and French armies in the Peninsula. Both sides went down and intermingled to drink at the muddy creek and to collect the wounded "all parties agree that a very friendly spirit was shown"(14). This event, incredible to we who have been nurtured on the ideological hatreds of modern war, was the forerunner of a curious code of signalling whereby sentries were ordered out of the way of a serious advance, and patrol clashes and outpost raids were limited to battle days.

Meanwhile the French Council of War was a stormy and unpleasant meeting — Jourdan and the King knew now that Soult was delayed, they considered frontal attack on the British to be hopeless and they feared that an attack around Wellesley's left flank would in turn expose the French left flank to a sortie by Cuesta's Army from the olive groves. Victor was furious, his pride and reputation were at stake. He harangued Jourdan and the King claiming that if Sebastiani's 4th Corps engaged the British centre, he with his three divisions could isolate the Cerro de Medellin. Victor insisted that if this plan failed he would give up soldering (il faudrait renoucer a faire la guerre). King Joseph reluctantly agreed to attack the British with 23 supported batalions, over 25,000 men, leaving the Spaniards in their thickets to be contained by Milhaud's dragoons supported by the Royal Guard in reserve. Consequently by their mere presence the Spaniards were holding down 15,000 French troops.

Sir Arthur Wellesley had not been idle. As can be seen in Map C he had strengthened the garrison on Cerro de Medellin and he had received from Cuesta the loan of Barrecourt's Division(15) to hold the lower slopes of the Sierra de Segurilla. In response to a request for artillery Cuesta loaned two heavy twelve-pounders which were deployed on the north west of the Cerro de Medellin where they fought all day with such devotion and efficiency as to win the unstinted praise of Hill's Division. At the same time the Duke of Albuquerque, on his own initiative moved his division into a new position at the head of the valley on the British left.

Although the French plan was to be supported by every gun at point blank range, the key position again was to be assaulted by Victor's corps with Ruffin's Division in the post of honour on the right. The records offer no reason why this sorely tried formation should have been committed for the third time in 18 hours; that it still maintained its cohesion is a fitting tribute to the valour and discipline of the French soldier.

The Third Attack

At 1400 hours 28 July, on the King's signal, 80 guns engaged the British lines

(14) Napier

(15) This was Cuesta's personal reserve and the best division in his army so apparently he was not as unco-operative as contemporary accounts allege. Barrecourt had seven battalions and six guns (5000 men) and Albuquerque had six regiments and a battery of horse artillery (4500 men).

"with a shower of shot and shell, thick and swift as a hail storm" which was maintained with deadly accuracy and unflagging energy. Only 30 British light guns and six Spanish twelve-pounders could reply and for once the British soldiers were glad to see the enemy infantry advance. Unintentionally the French attacks were not concurrent, they echeloned into action from their left.

First in contact was Leval's Division of the 4th Corps. The troops were mostly Germans supported by Poles; advancing in nine parallel battalion columns[16], they merged in the olive groves and thickets into a confused mass 4500 strong. Ten guns riddled them with cannister as Campbell's men fired regular battalion volleys and as the Germans weakened the British line charged with the bayonet[17], throwing Leval's Division back over the Portina and capturing six guns. The French Division reformed on the Poles and steadfastly returned to the attack in support of Sebastiani's left; again the columns faded under the terrible volleys, and the Spanish Regimiento del Rey, from Henestrosa's 2nd Cavalry Division, took the reeling Germans in the flank and rode them down capturing eleven guns. It was a brilliant stroke by the Spanish cavalry and Leval's Division ceased to exist.

North of Campbell, Sherbrooke's Brigades became engaged in the most desperate fighting of the day and here, except for the calm genius of Wellesley, Britain would have lost the battle; lost it not for any failure of the soldiers but by the rashness of the officers. By 1500 hours the eight British battalions, having withstood a hurricane bombardment by the French artillery, saw the two divisions of Lapisse and Sebastiani advancing with "incredible grandeur"; the front wave in column of divisions, the second in column of battalions and behind them the whole of Latour-Maubourg's cavalry "gaudy with all the colours of the rainbow". This was the standard French assault which had toppled the thrones of Europe. In a hundred battles none had withstood it. On rolled the French army, on irresistibly, on to where the thin red line stood silent, with grounded muskets. At one hundred yards the French drums beat the pas-de-charge. The British soldiers turned half right, their muskets levelled. On charged the storm troops of France, the shouts of victory rising from their close packed ranks when as one man the eight British battalions fired an all-shattering volley. Whole companies of French fell in heaps as the storm of shot and shrapnel whistled through their ranks. The two divisions halted stunned, staggered and for a moment silent at the sheer naked violence of the blow — and then as with a great cheer the bayonets were upon them. They went, leaving 2000 dead and wounded on that fatal field. The column had met the line and the column had been found wanting.

Now came the crisis of the battle; the Guards of the King's German Legion pursued the French far across the Portina until, in hopeless disorder, they were flanked by the French artillery, and Latour-Maubourg's cavalry was among them. Only Cameron halted his two battalions in time and these were swept away by the disaster. The KGL lost a complete battalion in five minutes and the Guards lost 611 men. Calmly Wellesley moved MacKenzie into the gap just in time and after a savage struggle in which MacKenzie lost his life the situation in the south centre was restored.

(16) A French Battalion of 600 to 800 men had six companies and a reconnaissance company. In "Column of Divisions" each battalion was on a two company front, ie, 60 - 80 men in each of 9 ranks. In "Column of Battalions" each battalion was on a one company front; ie, 30 - 40 men in each of 18 ranks. A regiment of 3 or 4 battalions could, therefore, be on a one or two company front, or could have its battalions in parallel. The ranks were about one pace behind each other so that the column made an attractive target.

(17) The advance was led by Colonel Myers of the 2nd Bn of the 7th Foot, waving the King's Colour of the Regiment. He was killed at Albuera.

Sebastiani withdrew with the loss of 82 officers and 2100 men. The situation in the north centre was even more acute as there was no British reserves in rear. The Cerro de Medellin was under tremendous fire from the French guns, and the KGL was completely scattered. With his usual prescience, Wellesley sent the 48th Battalion (700 men) from Stewart's Brigade on the Cerro to take up the KGL's old position. This Battalion[18] saved the day. The 48th stood firm in the wreckage flowing back from the rash pursuit and alone held up Lapisse's counter-attack until the scattered British troops reformed. For a few minutes the French columns stood firm under volleys of musketry from the reforming infantry in front and showers of shrapnel from the Cerro, but with the death of Lapisse they drifted back in disorder leaving 1500 dead. The KGL had equivalent casualties including General Langwerth.

Villette made no direct attack on Cerro de Medellin; he waited, he claimed, for Ruffin to outflank it. The skill with which Wellesley had garrisoned the northern valley pinned Ruffin down. If he moved against the Cerro his right flank was exposed to nearly two divisions of cavalry; if he proceeded up the valley his left flank was open to the British force on the hill. For one of Napoleon's Generals, to do nothing was to do worng. Therefore, when the noise of battle in the centre was at its height, Ruffin led his severely shaken troops into the valley under accurate shrapnel fire from the Cerro and into a stream of grape-shot and cannister from the Spanish guns with Barrecourt and Albuquerque. As the position in the centre stabilized, Wellesley directed the British cavalry to charge Ruffin, forcing him to form square under the hot muzzles of the guns on the Cerro. But the headlong cavalry charged to disaster; an unseen ditch in the long grass brought men and horses crashing down in hundreds, the few survivors being shot at by the squares and finally routed by Merlin's regiments behind them. Ruffin was glad to retire as the attack in the centre failed and the battle came to a standstill with a bush fire raging in the scrub where hundreds of French and British wounded perished in misery. Joseph withdrew towards the Alberche unpursued by the Allies. The firing slackened and the thunder of the cannon echoed into history as the news of the victory[19] flashed across Spain and brought hope again to the people of Europe.

There was no pursuit; the Spanish were not yet sufficiently well trained to manœuvre in the open, while the French and the British, exhausted by battle, were facing squarely the spectre of famine. At the same time Wellesley began to comprehend that Soult was moving on his rear.

The Aftermath

The casualties were shocking. Britain lost 801 killed, 3915 wounded and 649 missing, a total of 5365, more than a quarter of the force engaged. Officers formed a high proportion and included two Divisional Commanders and three Brigade Commanders. France lost 7389 men[20] which included two generals and many other senior officers — Sebastiani's Division lost all four Brigade Commanders and seven of the twelve Battalion Commanders. The Spanish losses were 1201, including de Lastra, the heroic commander of the Regimiento del Rey. Proportionate to the numbers involved, these casualties were something new to the French; never again did they face the iron wall of red-clad soldiers with the same confidence. The fame of

(18) It is significant that this battalion, the strongest and steadiest, was one in which flogging was practically unknown.

(19) There was a modern note in Joseph's first report to Napoleon " . . . . Le champ de bataille sur lequel nous sommes etablis est jouche de leurs morts . . . . J'ai un regret, Sire, c'est celui de n'avoir pas fair prisonniere toute l'armee anglaise".

(20) From Jourdan's official return. Wellesley estimated the French losses as "over 10,000".

British arms was once again resounding through Europe.

Despite the fearful price paid for the tactical and moral victory, strategically Wellesley had lost the campaign. For three days the army, reinforced by Craufurd's Light Brigade[21] collected the hundreds of wounded and carried them to shelter of a sort in Talavera, shelter in houses, ruins, barns and stables. Woe unto the wounded in those days; for most it was a lingering death with gangrene the normal development of relatively minor abrasions. Worse was to come. Wellesley and Cuesta spent the Second of August in the discussion of future plans, Cuesta desiring that half of the British Army be sent to the Pass of Banos and Wellesley refusing to divide his force. Finally as news of the French incursion became clearer, Wellesley parted from Cuesta and marched back with the whole British force to meet Soult. From Oropesa he sent a note to the Spaniards requesting them to look after the remainder of the British wounded and to ensure their removal if the Spanish found it necessary to change position. This was a fantastic arrangement and the results were tragic. "The abandonment of the town was a heart-rendering scene, such of our poor soldiers who were in a condition to move at all crawled after us, some still bleeding and most with their wounds open and undressed"[22]. The most incomprehensible part of the disaster is the unanimity with which the Spanish in general and Cuesta in particular were allotted the blame; the culprit is the government which would send an army into action without adequate support.

On 3 August Wellesley discovered the true strength of Soult's force, then in Plasencia, and he knew that he would have to cross the Tagus, take up the southern line of communications through Badajos, and withdraw his starving troops to Portugal. In seven days the Army had "one and one half pints" of ungristed local grain per main. "Several herds of swine were feeding in the wood and the men broke ranks and ran in, stabbing and shooting in a frenzy like men possessed, cutting off and eating the flesh while the beasts were yet alive"[23]. Hunger will destroy any human organization. Cuesta marched to Oropesa on 4 August and thus nearly 2000 of the most severely wounded British soldiers were captured by Victor. It is of eternal credit to France that these unfortunate men were treated with the utmost humanity and kindness. On the same day the British crossed the Tagus at Arzobispo and the Talavera campaign was over.

Conclusions

The Battle of Talavera illustrates every principle which always has been and always will be applicable to war. Clearly it emphasises the need for training, for reconnaissance, for local protection, for co-operation, for mutual support and, above all, for leadership. Talavera shows the importance of a good choice of ground, of the intelligent siting and use of reserves; and from the French side, the need for concentration, while the experiences of both sides show the dangers of divided control.

Beyond all these points, which could be expanded at length, there are two aspects which cannot fail to impress the Australian reader. Firstly, we too are likely to operate at great distances from home, in the company of Allies and on alien hungry ground. Grimly and clearly does Talavera show what well could happen if our logistic system will not permit our army to go it alone. Secondly, it is remarkable how little we Australians know of Spain. To many it is a far

(21) After the famous march stated by Napier to be 62 miles in 22 hours. Oman states that he measured the distance in 1903 and that it was 43 miles. Sir Winston Churchill gives 62 miles in 26 hours. Craufurd had with him the first battery of British horse artillery (all personnel mounted) to serve in the Peninsula; it is now the Chestnut Troop RHA.

(22) Lord Londonderry.

(23) Lord Londonderry.

distant land vaguely associated with the Inquisition and Bullfights. In fact, Spain has been for more than a thousand years the strong custodian of Western Civilization, a steadfast martial nation whose long and lurid history is an absorbing saga.

It is now 149 years since Victor reeled back from the Cerro de Medelli, leaving the shot-torn flags of England standing, not for the last time, as the symbols of Man's hope to be free. This was the turn of the Napoleonic tide. Talavera is a fitting monument to the courage and endurance of the soldiers whose traditions we inherit, to the honour of France, to the power of England and to the glory of Spain.

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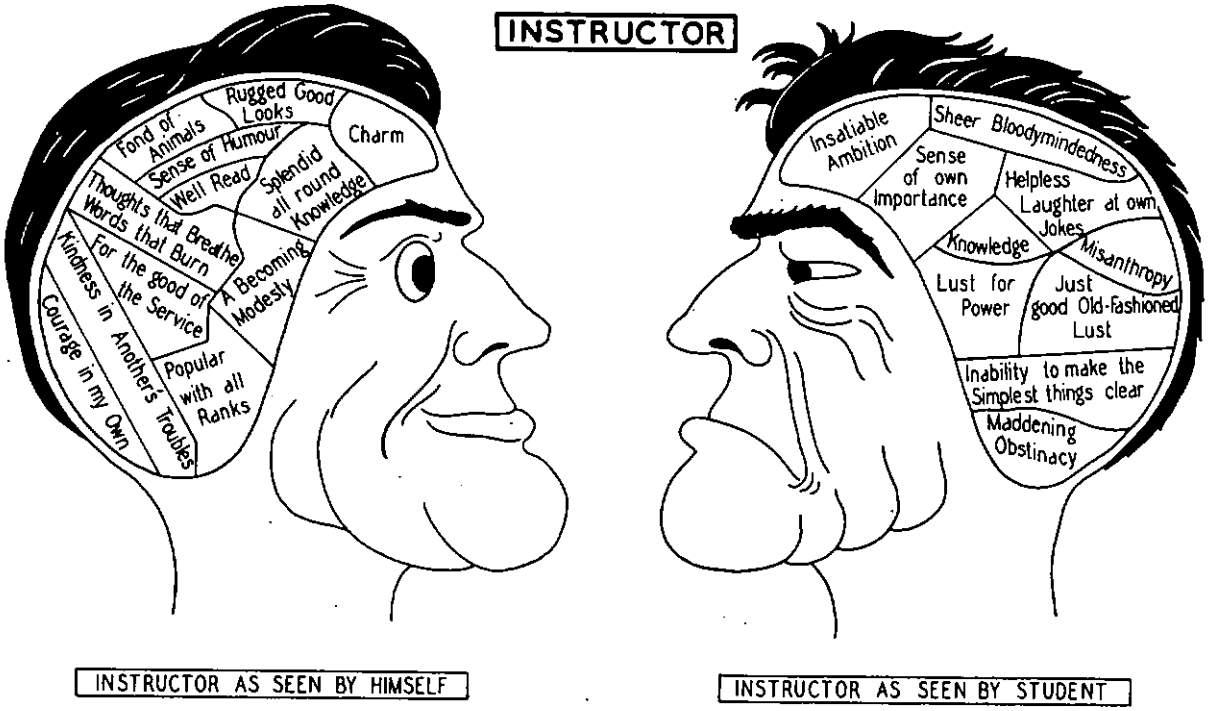
Direct quotations are acknowledged in the text.

COMPETITION FOR AUTHORS

The Board of Review has awarded first place and the prize of £5 for the best original article published in the June issue to "Some Thoughts on Ambushes in Tropical Warfare" by Colonel M. Austin, Australian Staff Corps.

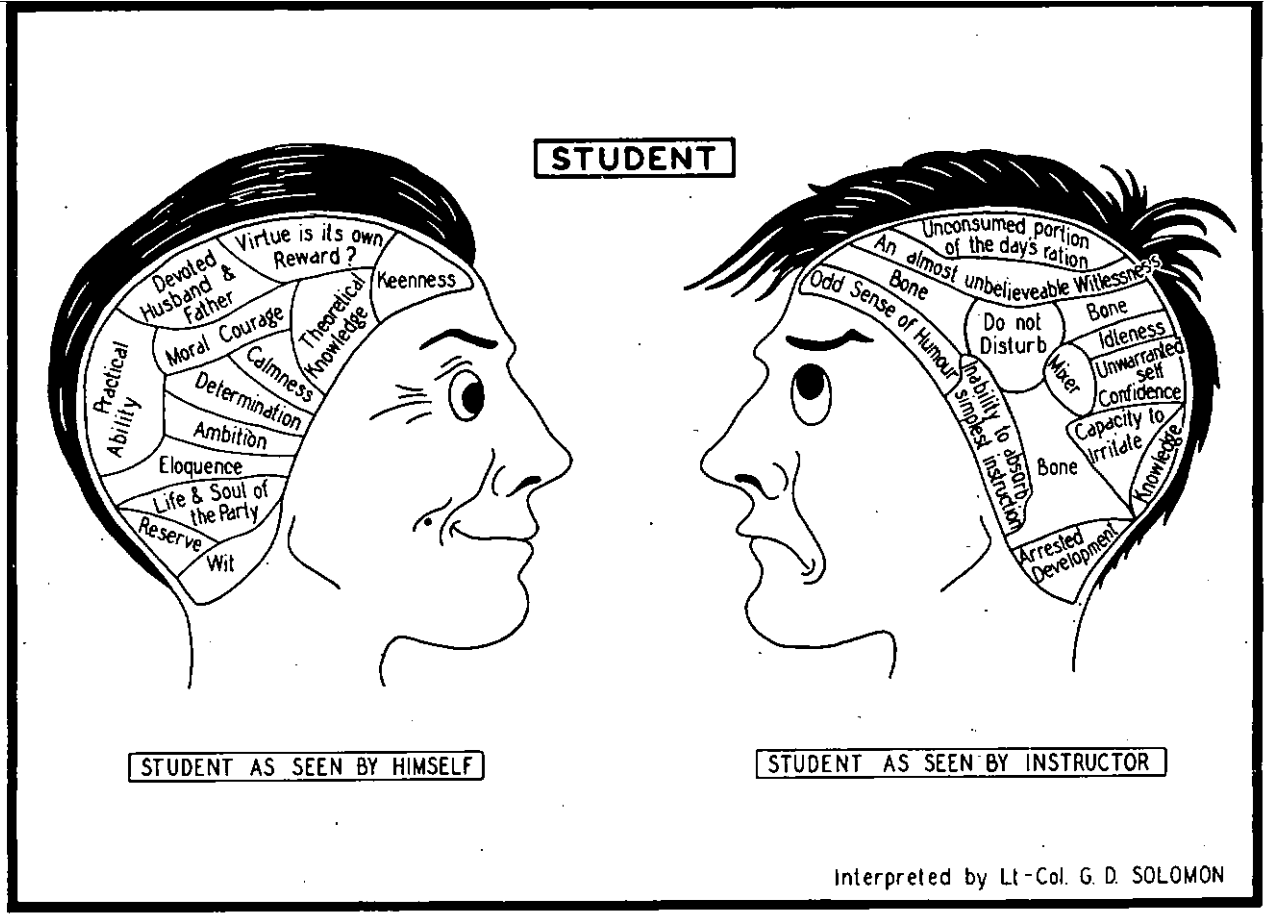
PRACTICALLY PHRENOLOGY

INSTRUCTOR



INSTRUCTOR AS SEEN BY HIMSELF

INSTRUCTOR AS SEEN BY STUDENT


STUDENT
Practical Ability
Devoted Husband & Father
Virtue is its own Reward ?
Keenness
Moral Courage
Theoretical Knowledge
Calmness
Determination
Ambition
Eloquence
Life & Soul of the Party
Reserve
Wit
Unconsumed portion of the day's ration
An almost unbelieveable Wilessness
Bone
Odd Sense of Humour
Do not Disturb
Bone
Idleness
Mixer
Unwarranted self Confidence
Inability to absorb simplest instruction
Capacity to irritate
Knowledge
Bone
Arrested Development
STUDENT AS SEEN BY HIMSELF
STUDENT AS SEEN BY INSTRUCTOR
Interpreted by Lt-Col. G. D. SOLOMON

Strategic Review

The USSR's Economic Offensive

THE USSR, during the last three years, has spent up to $2,000,000,000 (£713,000,000) in economic programmes of assistance in certain undeveloped areas. This is a summary of the report prepared in February, 1958, by Mr Alan Dulles, Head of the US Central Intelligence Agency. The bulk of the money was spent in the last two years; the expenditure was closely aligned to the vigorous Soviet diplomacy and infiltration in the sensitive areas of the world.

There are two main economic thrusts, closely linked to Soviet political policy —

(1) The Middle East (Egypt, Syria, Yemen);

(2) Asia (India, Afghanistan, Ceylon).

In addition, it is becoming increasingly clear that Communist economic infiltration is planned for the continent of Africa. Already some progress has been made in the signing of trade agreements with the independent African states; emissaries of the USSR's Foreign Trade Organization have made contact with government officials and business men in Morocco, Tunis, Sudan, Ethiopia and Ghana.

It is significant also that a Soviet offer of all-round aid without strings was discussed at the December (1957) meeting of thirty-eight Afro-Asian countries in Cairo.

— Courtesy "An Cosantoir", Eire.

Comparison with USA

Compared to the lavish sums given away or loaned by the USA since the end of World War 2 — estimated at over £18,000 millions — the Soviet effort seems puny indeed. The results of American policy are seen today in a revived and kicking Free World — a war-shattered Europe restored to life and now working as a partner in helping undeveloped areas. All American money so spent had to be accounted for and the American people kept informed through democratic Parliamentary procedure.

The Soviet effort reveals the close link between the military, political and economic policies of the Communist bloc. Economic aid is another infiltration plan designed to gain economic, and ultimately political control of the countries earmarked for help.

The fact that USSR's gross national production — the total value of all goods and services — was estimated at the end of last year to be $160 billion in comparison with the United States' total of $450 billion should not lead to an under-estimation of the capabilities of the Communist bloc in a struggle for economic supremacy. The nature of economic aid offered by the USSR points to her tremendous industrial progress since the end of World War 2. In addition the launching of the Sputniks

underlined the striking Russian achievements in engineering, electronics and metallurgy and, without doubt, must have made an extraordinary impact on the peoples of the uncommitted states of Asia and Africa.

It must not be forgotten that practically all of the countries that are receiving Communist economic aid, have already received, and continue to receive, American aid. These are the sensitive areas of the world which demand constant attention and necessitate the deployment of economic as well as military resources in the struggle for positions of strength as between East and West.

Communist Tactics

One of the striking features of the Soviet economic offensive is not so much the size of the aid given as the opportunist touch in seeking political rather than economic gain in the transactions. The Suez affair led to the "freezing" of Egyptian reserves by Great Britain, USA and France, but the Soviet credits to Egypt solved the immediate problem of financing the foreign exchange cost of of the industrialization programme. (It is clear, however, that Egypt's progress will be limited until a proper settlement is concluded with the West, and at the present time there is little prospect of tackling such problems as the building of the Aswan Dam without Western help in the provision of foreign currency).

In the same way, the opportunist element is again noted in the Soviet economic dealings with Syria. In addition to a USSR-Syrian aid agreement ratified in Moscow in December 1957, covering military aid as well as the provision of capital and technicians for the development of hydro-electric power stations, dams, railways and mining development, there was an additional £60 million loan to Syria from Czechoslovakia. This loan was for the purchase of factory equipment for nylon, cardboard, steel and farm produce processing. Repayment will be in the form of farm produce.

The timing of this Czech loan coincided with the Afro-Asian conference at Cairo, some members of which were, no doubt, impressed. The fact that the loan was from Czechoslovakia rather than direct from the USSR would appear to point a way out for these states which do not wish to give offence to the West or which are afraid of internal repercussions from having direct contact with the USSR. The Syrian loan had powerful propaganda value in the effort to attract supporters within the Arab world.

Examining the aid programme in India and Asia it could be said that, while foreign investment in India is still over 75 per cent British and American, the USSR is gaining friendship by the offer to build a steel mill and help in the Indian development programme. In Afghanistan, in addition to military aid, a long-term loan (30 years) was offered to build hydro-electric stations.

Interest Rates

Soviet loans have strong appeal in the attractive terms offered. An interest rate of 2½ per cent compares with 6 per cent World Bank rate and 4 per cent for US loans, while repayment periods may vary from 12 up to 30 years. Other features of the Soviet loan include clauses easing the initial repayments of the loan and provision is made for the supply of technicians and experts to the country concerned. It would appear, too, that thought has been given to maintaining maximum employment in the East European satellite countries, since practically all the countries are involved in supplying capital goods for the underdeveloped areas, and each satellite specializes in the type of goods offered: East Germany — electrical equipment, precision instruments; Poland — mining equipment, rolling stock; and so on.

Soviet Might

The Red economic offensive has been effective. It is to be expected that the Communist bloc will endeavour to avail of every opportunity to improve the position, especially at the present time, when a growing trade recession in the West may have the effect of whittling down Western aid programmes.

It must not be forgotten that a sweeping reorganization of Soviet industry was initiated in the middle of last year. Decentralization of industrial management control was the aim. Over 105 new economic councils replaced the unweildy central ministries in Moscow with a view to better supervision of Soviet production. The central planning authority — the USSR Gosplan — continues to distribute strategic materials and heavy industrial goods among the economic regions, but the centralized industrial bureaucracy was reduced by over 1,000,000 employees. It must be expected that the reorganization was designed to give better co-ordination in military, economic and political planning, and to be of maximum use in the event of thermo-nuclear warfare.

It must also be expected that the Communist bloc will have the capacity to increase its economic activity since it is already availing of nuclear power.

Conclusion

It is no wonder, then, that the Soviet economic offensive is a matter of deep concern to the Free World. Speaking at a Joint Industrial and Agricultural Conference in London (February 1958) Mr Maudling, British Paymaster-General said he belived that the great struggle between the Free World and the Communist world would take place in the economic field. In Eisenhower's message to Congress asking for some $4,000,000,000 for foreign aid funds, he noted the offers of economic aid to newly independent countries by the Communist countries, and said, "it was for the US to convince such countries that it is NOT necessary to sacrifice liberty for bread."

The Communist challenge in the economic field is perhaps one of the strongest arguments for a United Europe, since only an integrated European economic area can give adequate safe-guards against economic infiltration by the Soviet bloc.

A Firm Base: Military Training

Lieutenant-Colonel A. R. Long
Royal Australian Army Ordnance Corps

THE aim of our Army is to train in peace for war. I suggest that it is pertinent to ask — Are we?

I have had dinned into my head the principle that every operation must be launched from a firm base. Somewhere in the etheral realms of tactics the basic meaning of operation and firm base have become obscured to most officers and senior NCOs.

In simple parlance operation means "the act of doing" — whether it be writing a military paper or whether it be carrying out some phase of war, and a firm base is a "haven" which provides security — a place from which one may sally forth and if necessary, return and find relative safety. In a miltary writing the facts on which it is based provides the firm base — half-truths leave the writer in a position to be "shot at", and so it is with a commander in the field who does not conduct his operations from a firm base.

Bearing in mind that —

"The ultimate aim of any operation is the destruction of the enemy. This can only be achieved by hard and prolonged fighting . . . . the maintenance of an offensive spirit is essential."(1) — What then is the firm base from which we can conduct operations as it affects our training in peace for war, and how should be go about establishing it to achieve the aim?

(1) The Infantry Division in Battle — 1950.

The clay which we have to mould is the private soldier and it is dependent on the potter whether he produces a work of art which has no utilitarian value, or whether he produces an item of good quality which can withstand the rigours of constant usage. I rather feel that instead of starting with the daub on the potter's wheel, we try and convert a product which is partially completed into something for which it was not originally designed. The fundamentals of the complete article are, therefore, unsound, and it lacks either artistry of design, or quality and durability.

In order to live in a civilized society an individual is taught progressively from infancy —

Feeding
Hygiene
Protection
Movement
Obedience

Having acquired these characteristics in varying degrees, the child, in adolescence and finally adulthood, achieves certain scholastic attainments and skills in order to support himself and ultimately a family.

Do we in our military training establish these fundamentals of existence? We do not. We start trying to teach a child how to support himself before we have taught him how to walk. We try to

fit a glove on a hand that does not exist. We have not established a solid foundation or a firm base on which to build.

It appears, therefore, that the basic principle on which we should establish our training is the art of living in the field. This involves —

(a) Discipline.
(b) Protection.
(c) Hygiene.
(d) Feeding
(e) Sleeping.
(f) Movement.
(g) First aid.

It is submitted that these are "musts" for any individual who is required to live in virgin country whether he be civilian or soldier. If a civilian needs this basic training then surely it is vital that the soldier receives it, as he should not be required to fight the elements as well as the enemy. It is obvious that there are difficulties to be overcome, but overcome they must be.

In our war planning we say that there may not be any precautionary period. Then surely we must plan for the worst case. We must be prepared to fight without assistance. This means that in the projected area of operations we should plan on going over the beaches in order to establish our initial base. If we don't have to do this, then it is a bonus which can be put to good use and the troops have a lighter task. If the troops are not trained and are unable to withstand the rigours of such an operation, then the commander is in a position where his force is unable to "live", let alone posses that "offensive spirit" which is so vital to the achievement of his aim.

Our selection of ground on which we force the enemy to fight is the ultimate in strategic and tactical planning. We have a very wily probable enemy, and because the area of proposed operations is so large, it is questionable whether we would have that choice. The establishment of a force in a police role, or for that matter in a cold war role, may well still leave us on the "back foot", which means that we must have the highest degree of flexibility possible.

Unlike North West Europe, the South East Asia area is undeveloped, and if flexibility is to be achieved the basic material — the men — must be highly skilled in the art of "living" in order to maintain the ability of the force to fight. It is anticipated that the theatre of operations will be in a tropical area involving a nuclear threat. This dictates that each man irrespective of Arm or Service, must be skilled in the art of both jungle and open warfare and be competent to take his place in a combat team. This basic training of the man must be complete.

At this stage the virtues of pre-war PMF and CMF training will not be extolled, but there cannot be anything more demoralizing for our young CMF soldiers than to attend a week-end bivouac in one of our dingy, inadequate metropolitan training depots. Certainly the youth of today has different facets from the youth in your day or in my day, but fundamentally he is the same. He enjoys freedom with guidance; he enjoys possessing the ability to work and create; he enjoys the open-air life; and finally he enjoys mixing with men he can respect. Why then stifle these qualities inherent in our youth by cooping them up in training depots during their bivouacs? The use of a few vehicles and a few stores can transform a dreary week-end into one of achievement and enjoyment with the completion of another step toward the establishment of a firm base, ie, the adjustment of the young soldier to living in the field.

Having trained the young soldier to live in the field we are then in a position to conduct operations. We can "sally forth" on more advanced training to prepare him for the achievement of the commander's aim, knowing full well that, no matter in which direction we

go, we can always return to our basic soldier.

Circumstances may be different now as regards administration in CMF units, but in pre-war days we had the Universal Trainees who were something similar to the National Servicemen, in that they had to be clothed, paid, fed and generally administered. If we have become "bogged down" with administration in the CMF, to the detriment of realistic and interesting training, then the system needs a comprehensive and detailed overhaul in order that we can get on with our basic task. A greater proportion of time should be devoted to the development and execution of a proficient and realistic training programme.

In order to devote the maximum time to training, certain administrative tasks such as the payment of fares and "Q" activities should probably be attended to after the training parade. Obligatory evening parades are positively futile as they only provide "lip-service" to the execution of the training programme. The sole benefit gained from these parades is to provide evidence that a member has fulfilled his obligation in respect of service. They should be eliminated. Week-end bivouacs should be conducted in lieu, with a consequent reduction of the overall administrative burden. With very little imagination much more valuable training could be achieved by these means. During the annual camps a more realistic approach to living in the field should be adopted. In this regard, to mention only one of the important aspects, cooking in the field is rapidly becoming a lost art. We must re-orient our thoughts on this. Such items as built-in ovens, salamanders, electric hot-plates and urns will not be found at company or similar sub-unit level when engaged in operations. We must learn to live hard, yet comfortably. It would be more likely to convince the CMF member that the training is worthwhile. It would undoubtedly boost morale and encourage voluntary enlistment.

The next consideration is to find competent instructors who, by their dress and bearing, will command the respect of the young soldier and on whom they will have a desire to model themselves.

There seems to have developed in the post-war era a desire to adopt a policy of "off with the old, on with the new", before any satisfactory "new" has been developed. In this regard reference is made to the Australian Instructional Corps — it has been disbanded, but what constructive organization has replaced it? It is not proposed to submit pros and cons for the case, but is contended that the need for some such distinctive specialist instructor establishment still exists, call it what you may.

The personnel of this Corps were not only instructors, but with the assistance of a storeman, in many cases coped with the "A" and "Q" functions of the unit as well. Today we are faced with the problem of trying to find avenues for promotion for RQMS as the only vacancies that exist in the rank of Warrant Officer Class 1 are for RSM. It is considered that a good RQMS may well make a poor RSM, thereby proportionately decreasing the number of competent instructors. In the majority of cases this would be so, as generally speaking, they lack that basic training of the barrack square and barrack room. This then, surely is another reason why we should have a specialist instructor corps, the members of which would have a good knowledge of "A" and "Q" functions.

In order to enhance the respect for the Army, which the CMF soldier must have if he is to be efficient, we must have a dynamic training cadre which should have a distinctive uniform, irrespective of the Corps to which members are allotted. Apart from giving some recognition for special qualification, the distinguishing uniform would establish pride in dress and general soldierly bearing. Where is it in our instructors today? If we are to encourage volunteers for the CMF we

must have instructors who, because of their knowledge, soldierly attributes and leadership, will command the respect of the men.

The CMF will provide our forces in war, therefore, apart from any considerations of the economics of their service, it behoves us to provide a firm base for their training, ie, to teach them to "live" in the field with all its ramifications, before going on with the more advanced training peculiar to their corps.

It is a moral duty to the soldier, and ultimately to the commander, they we face up to this basic training carried out by competent instructors who have the confidence and respect of the men.

This article is not intended to cover the subject of training, but is rather designed for the purpose of stimulating thought, particularly among members of the CMF cadres and CMF members themselves. Its purpose is "to keep our feet on the ground" in our approach to training in peace for war.

I sometimes feel that there is a tendency to regard general war as the only contingency that really matters — that it requires all our preparations to the exclusion of consideration of lesser situations. It would be a mistake, I believe, to become so hypnotized by the possibility of a great atomic war that we prepare for no other kind of military challenge. In the long run, these less catastrophic forms of warfare may prove more dangerous than the direct threat of atomic attack. Hence I feel that we must take care to produce forces with such a scale of application and flexibility in tactics and in weapons that they are not keyed to one reaction but offer a wide range of possibilities to our responsible leaders who make the critical decisions.

Furthermore, I am impressed with the fact that our deterrent strength cannot be unidimensional. I use that term because I consider it descriptive of our conditions after World War II when we had only one kind of military response, namely the air-delivered atomic bomb. Despite our possession of this capability for retaliation, we have seen the enemy wage war in Greece, in Korea, in Vietnam; we have seen the tragedy of Hungary — historical facts which remind us that one kind of reaction is not adequate to meet all situations.

On the contrary, our strength must be tridimensional in character — on the land, on the sea, and in the air — and we can afford no chink in the armour of deterrence.

General Maxwell D. Taylor, US Army

Modern Radio for the Modern Army

A COMPLETE new range of wireless sets will shortly be introduced into the Army. Most of these sets will be used by regimental personnel other than Royal Signals. This article describes the new sets, gives some of the reasons for their greater efficiency and finally offers some guidance on how to get the best out of them. Because it is a relatively short non-technical article on a highly technical subject there will inevitably be a number of minor inaccuracies. It is hoped that the technically trained reader will not allow himself to become too indignant.

The new sets

Many of the existing high frequency (HF) sets at present used will be replaced by new very high frequency (VHF) sets. As the terms HF and VHF will often be used it will be as well to explain them now. A HF set is one which, for the most part, works on frequencies lying between 3 and 30 megacycles per second (Mc/s). A VHF set is one which works on frequencies which lie between 30 and 300 Mc/s. Whilst most of the new sets are of the VHF type. HF sets will still be used in some roles where fairly long ranges may be expected as the rule rather than the exception.

Now the sixty-four dollar question in all this is "Will the new sets really be much better than the old ones and if so in what ways and why?" The short answer is "Yes they will be, provided they are handled properly". The technique, however, for working a VHF set is entirely different from that required with a HF equipment. It may well be a failure to appreciate this technique which has caused some officers to report unfavourably on the existing VHF sets, namely the WS31 and WS88.

In order to understand how and why the new sets will be better, and in order to appreciate how to handle them, it is essential to have some knowledge of a few basic principles. These principles are quite simply outlined in non-technical language below.

The propagation of wireless waves

A wireless wave can travel from a sender to a receiver in three different

ways. Depending on how the wave travels it is known as a surface wave, a direct wave or a skywave.

Surface waves

These waves cling to the earth's surface. The waves are weakened (or, as it is usually called, attenuated) by any obstacles such as woods or buildings through which they pass. The nature of the earth's surface over which they pass also has an effect on the amount of weakening. For example sea water conducts well but dry sand conducts badly. Consequently ranges are poor over desert, in dense jungle or in built up areas but good over the sea. There is also attenuation due to spreading out of the wave as the distance from the transmitter increases. (Throw a brick into a pond and the waves get weaker as they spread outwards.) This attenuation is, however, relatively small compared with that mentioned earlier. The waves are not greatly affected by topography and will give good results in all except the most mountainous country. Surface waves are radiated by vertical aerials such as the "fishing rod" type used on field wireless sets.

Direct waves

These are waves which try to follow a direct line between the sender and receiver. The waves will bend round obstacles but the greater the angle through which they are bent and the more often they have to bend, the more they are attenuated. The waves are not affected by the surface *over* which they pass but they are attenuated by trees and buildings, etc, *through* which they pass. VHF waves are particularly susceptible to this form of attenuation. If the waves can travel through space for most of their journey they will only suffer from slight attenuation due to the spreading out of the waves. That such attenuation is very small is well illustrated by the fact that a WS88 will work satisfactorily over a distance of 50 miles if a line of sight path exists. Direct waves can be produced by both horizontal and vertical aerials.

Skywaves

As the name implies these are waves which are radiated upwards into the sky. One might reasonably suppose such waves to be valueless but this is not the case. At heights of between 30 and 300 miles there are layers of gases which are ionized by the rays of the sun. When a wireless wave strikes such a layer of gas, in certain circumstances it will be reflected back to earth. The wave may come back to earth at any distance from nought to several thousand miles from the transmitter, a factor which depends on the frequency. Skywaves are not greatly attenuated on the journey to and from the layer of gas but they are attenuated by the process of reflection. As a general rule skywaves communication is only possible using frequencies between 2 and 25 Mc/s and skywaves can only be produced by long horizontal wire aerials.

The reader may wonder why no mention has been made of ground waves, a term which is often used in connection with wireless. Ground wave is a rather indefinite term which covers both surface and direct waves parallel to the ground.

The characteristics of HF and VHF sets

Types of modulation

Modulation is the process of impressing intelligence such as speech or music on to a wireless wave. Modulation may consist of varying the amplitude of the wireless wave (AM) or by altering the frequency of the wave (FM). In practice AM is used with HF sets and FM is used with the new VHF sets. The advantages of FM are the "all or nothing" effect, "capture" effect and ease of tuning.

With an AM set the weaker the incoming wireless wave the weaker the signal in the earphones of the receiver. With an FM set the output in the receiver earphones is largely unaffected by the strength of the wireless wave received; whether the wave is strong or weak the receiver will produce a loud and clear signal. There is, however, a limit to what the receiver can work on

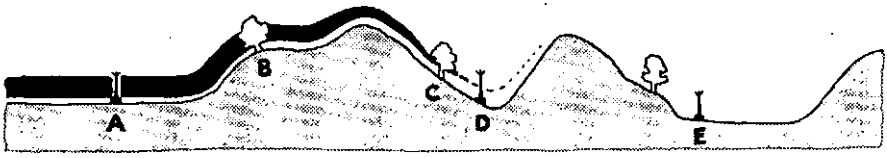


FIGURE 1

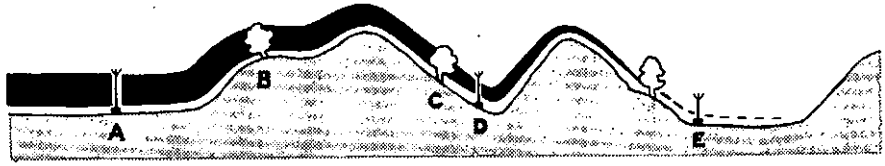


FIGURE 2

and, if the incoming wave is below this limit, then the receiver will not work at all. It is thus a case of perfect reception or no reception at all. As there is no official name for this phenomonon we will call it the "all or nothing" effect.

"Capture" effect concerns interference. If an AM set is suffering from interference from another station, both the wanted and the unwanted signal are heard together and the result is often unintelligible. With an FM set the more powerful of the two signals is heard perfectly, the weaker signal is not heard at all. A further advantage of "capture" effect is that when the signal comes into the receiver, all background noise vanishes.

The final advantage of FM is that it renders netting unnecessary. No manual skill is required to tune the set yet it will always be exactly netted. This is due to a device called Automatic Frequency Control which can in general only be incorporated in FM sets.

Propagation by HF/AM and VHF/FM sets

HF sets radiate both surface waves and skywaves but as a general rule they radiate very little direct wave. VHF sets on the other hand radiate most of their energy as direct waves and cannot normally work on surface or skywave. This is really the basic difference between the two types of equipment and its effect must be examined in some detail.

Figure 1 represents a HF link working on surface wave. The transmitter is at A and receivers are at D and E: from A to B and from B to C there is steady attenuation due to the surface over which the wave travels; at B and at C woods will cause severe attenuation due to absorption; by the time the wave reaches D it will be very weak. A good operator may be able to work a receiver at D but, at the best, communication will be intermittent; reception at E will be impossible. If the aerial at A is lengthened we get the effect shown in Figure 2. Reception at D will now be fair and it may be just possible to get through to E. This ability to stretch the range is characteristic of HF sets.

With VHF sets which work on direct wave the situation is quite different. Figure 3 gives an idea of what occurs. The transmitter is at A and receivers are at E and H; while the wave is travelling from one point to another there is very little attenuation other than that due to the spreading out of the wave; at points C and F bending occurs; the less the wave is bent the less it is attenuated. At D and G the trees will cause attenuation

due to absorbtion. A set at E will receive a weak signal but due to the "all or nothing" or "capture" effect of FM it will work satisfactorily. A set at H will not work at all as the incoming wave will be below the minimum working level and, however good the operator at H may be, communication will be impossible. In order to get through to H one of four things must be done. The set at H may be moved to a point J; the aerial at H may be elevated to a position L so that it is placed in the line of a less bent and stronger wave from F which has travelled *over* not *through* the wood at G; the set at H can be moved to a point K; or finally the transmitter aerial at A can be elevated. The effect of this last measure is shown at Figure 4. Because the attenuation at B is eliminated and that at C is reduced, the overall signal level is increased throughout. (Note most of the new VHF sets have an aerial of fixed length which can be placed at some distance from the set. The aerial is connected to the set by a special cable which does not itself radiate energy.)

We can now assess the characteristics of VHF propagation. The range cannot be stretched. If the transmitter in a given link is giving a sufficiently strong signal to work the receiver at all, then communication will be good. If not, either the sets must be moved or the aerials elevated, or both.

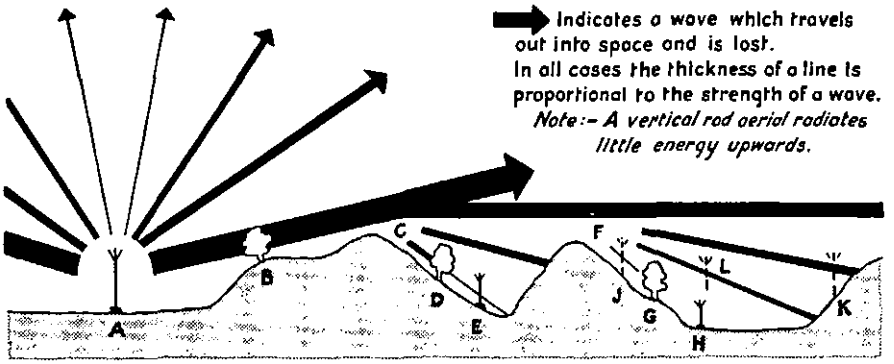


FIGURE 3

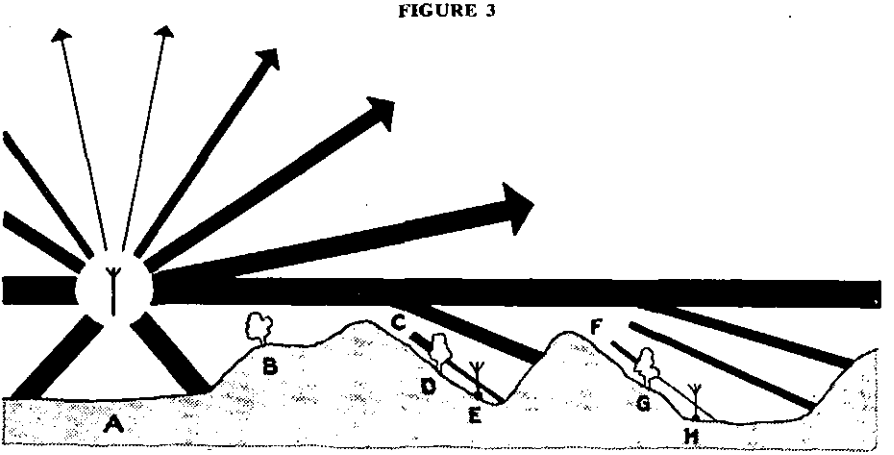


FIGURE 4

It is possible to deduce a little more than this. In any given type of country there will be a distance within which the transmitter will always give a sufficiently strong signal to work the receiver without any special measures being taken. We call this distance the *FIRM* range. In the example at Figure 3 the point D is within the firm range. The new type of VHF sets are so designed that in average European country their firm ranges will cover the great majority of their operational roles. Only in unusual circumstances will it be necessary to consider the propagation characteristics of the sets. `It must, however, be stressed that in such circumstances ignorance of these characteristics means failure of communications.

It is at this stage that we can see why some new HF sets are being produced. Where the firm range of a VHF set, of reasonable size and weight, cannot cover a high proportion of the operational requirements then a HF set will still be required.

Interference

A HF set suffers from skywave interference, surface wave interference and atmospheric interference. Absolutely nothing can be done to prevent skyway interference (which incidentally is much worse at night). Such interference is a basic characteristic of HF working. However carefully the army may assign frequencies, important tactical circuits may at any time be blotted out by a transmitter situated the other side of the world.

Surface wave interference is usually caused by enemy or friendly stations in the same theatre. Nothing can be done about the enemy stations but interference from friendly stations can be reduced by careful frequency assignment and rigid discipline on the part of the operators. In practice, field HF sets are not always accurately set to the given frequency and stations may often work inadvertently on a frequency which has been assigned to a nearby unit and interference inevitably results.

Atmospheric interference is often very severe in the HF band particularly at night. It is, in fact, the great increase in atmospheric and skywave interference occurring at night which renders so many HF circuits unworkable during the hours of darkness.

The liability to interference is far less with VHF sets. Skywave interference is non-existent as also is atmospheric noise, the latter being confined to frequencies in the HF band. It therefore follows that with VHF sets communication will be as good by night as it is by day. The great menace of the HF band, namely the nearby station which is off its assigned frequency, can not occur with the VHF sets. They are so easy to tune accurately that anyone who can read will have no difficulty in tuning them to the assigned frequency. Should interference occur for any peculiar reason, then the "capture" effect of the new sets will normally make it inaudible.

Odd effects at VHF

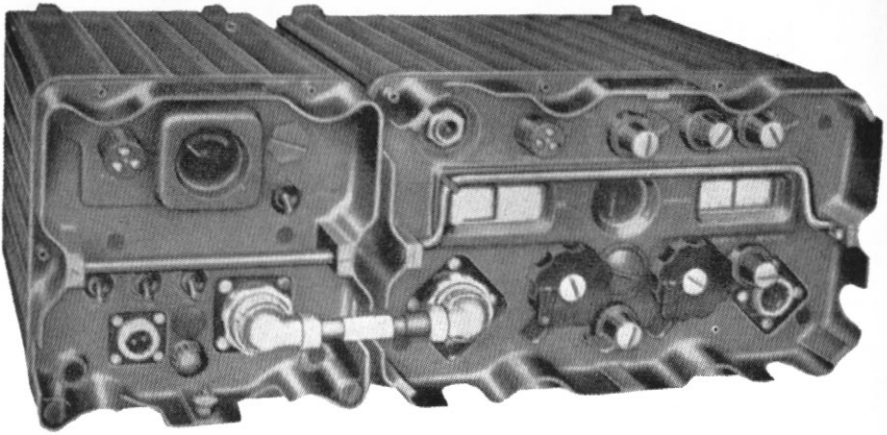
Some odd propagation effects may be noticed at VHF. These are fading, dead spots and reception of distant stations.

These effects are not very common or serious but a few words are needed to explain when they might occur and what causes them.

Fading may possibly occur when the received signal is weak, although due to the "capture" effect of FM the weakness of the signal may not be apparent. There are two sorts of fading, regular fading and irregular fading.

In regular fading the signal fades and the background noise comes up in regular beats. This form of fading is caused by reflections from moving vehicles, aircraft, etc, between the transmitter and receiver. It can often be removed by raising the aerial. This effect is sometimes seen on a television set when an aircraft is flying in the vicinity.

Irregular fading occurs on long links only, usually around dusk and dawn.



ONE OF THE NEW VHF SETS

It is caused by freak changes in the atmosphere between the transmitter and receiver and the signal may disappear for several seconds. There is little that can be done about it except raising the aerial and improving the site.

Dead spots may be experienced beyond the firm range of a given set. They are caused by the receiver aerial picking up both a direct signal from the transmitter and a signal reflected by some static object such as a hill or a building. In some places these two signals add up and in others they cancel each other. A dead spot is where they cancel. It follows that near a dead spot there will be a good spot and moving the receiver a few feet often produces a complete cure.

Distant stations several hundred miles away may be received occasionally due to reflections occurring in the upper atmosphere. While such interference is very rare it is a reminder that VHF circuits are not secure.

Summary of the advantages and disadvantages of the new sets

We are now in a position to assess the type of communication which the new VHF sets will provide. To start with they are entirely free from atmospheric noise and practically free from interference from other stations. Communication will be as good by night as it is by day. There will be no mediocre communication, either a set will be through loud and clear or it will not be through at all. In the latter event no amount of knob twiddling (or cursing the operator) will make the slightest difference, though changing the site may. The quality of the speech is excellent and similar to that provided by a telephone circuit. No manual skill is needed to work the sets and netting drill may soon become a thing of the past.

And the disadvantages? There is but one. The sets rely on direct wave communication. In the past the commonest factor which determined whether or not a set worked was the skill of the operator in netting and tuning. Now success or failure depends on the propagation path between the two stations. For most of the time such a path will exist without any engineering on the part of the users, but just occasionally communicators will need to use their brains. For this they must know at least as much as is in this article and they must also have had much practical experience of trying to work in difficult conditions.