

BBC MONITORING SERVICE-
A LAYMAN LOOKS AT CAVERSHAM PARK

"BBC MS" is a symbol that has become familiar to many DXers in the last year or so, since the BBC MS Frequency Schedules and "Reception Notes" began to be available, on subscription, to DXers throughout the world. However, just what lies behind those initials is still a mystery to the majority of people even though the official "BBC Handbook" (e.g. the 1971 and 1972 editions) briefly records its existence, and Asa Briggs writing in the "History of Broadcasting in the U.K." (O.U.P. 1970, Vol III at page 187) records that "The Monitoring Service had its remote origins at the time of the Italo-Abyssinian War during the winter of 1935". It is interesting to note that he adds: "The origins of the service were very humble. The BBC spent £810 on a wooden hut, six receivers and a number of aerials, hoping to recover the money from the Ministry later". By contrast, the 1972 "BBC Handbook" shows that in the year ended 31 March 1971, the Grant-in-Aid for Monitoring Services was £993,000 and the cost value of Monitoring Service assets is shown as being £526,852. In brief, "its job is to listen to and report on the contents of broadcasts by foreign radio stations" (see 1972 "BBC Handbook, pages 109 et seq, and 205 et seq for further details).

On 22 March 1972, accompanied by Martin Hall, we became the first DXers to visit Caversham Park and, perhaps, it need hardly be said that such visits are not normally encouraged since, if for no other reason, they take up a great deal of the valuable time of a lot of people. The following notes try to explain, in layman's language, just what goes on in the complex that is covered by those five letters - "BBC MS".

When the idea of meeting the "professional DXers" of the BBC was first mooted it seemed to be a really marvellous idea but I confess that as I bashed steadily along the M4, listening to the well-familiar strains of Radio 2's "Breakfast Special" in the oh-so-professional hands of John Dunn, the nagging voice of doubt started to make itself heard and there were spells when I rather felt like turning the car round and heading westwards again. Just what had we got ourselves into? Were we just about to discover what we didn't know about DXing? Were we about to be baffled by science in every meaning of that phrase? It was, therefore, with mixed feelings that I threaded the car through the semi-chaos of Reading's one-way traffic system following an immaculate set of instructions supplied by our host-for-the-day, Gordon Weston - ultimately, the road-signs made it clear that Caversham Park must lie just around the corner, and so it did. If your geography isn't all that it might be, Caversham Park is located on the northern side of Reading, which, in turn, is some 40 miles west of London in the beautiful upper reaches of the Thames Valley.

Normally, one expects a Government installation to exhort one to "KEEP OUT" and whilst "Monitoring Service is part of the BBC's External Services although distinct from them geographically, functionally and financially (with) the Service financed by a separate Grant-in-Aid from the Treasury", it came as a surprise to find that Caversham Park was surrounded by nothing more forboding than an ordinary wall, some lovely entrance gates and a small "Private Property" notice. The butterflies-in-the-tummy feeling receded quite markedly as no-one stopped me to check my right to enter the premises and a heavy sigh of relief escaped my lips!

The phrase "Caversham Park" is a bit misleading as it really refers to two distinct entities - on the one hand, there is the actual Park itself which consists of acres and acres of serene parkland with a couple of charming lodges arrayed with a goodly mixture of Spring flowers: on the other hand, there is the actual house of that name. The house, itself, is truly very English and very charmingly set in this lovely parkland, possessing a rather grandiose facade of mellow golden-grey stone: the grounds, incidentally, are believed to have been originally set out by that master of the formal English garden, Capability Brown, and to date from the 18th Century.

Caversham Park is approached by a lovely quarter-mile drive through the quiet parkland that surrounds the house and my first reaction was an, unspoken, "where have all the aerials gone?", because there was nothing more exotic to be seen than a conventional T.V. aerial and HF and VHF yagis decorating the roof of the "BBC Club" which stands to the right of the main doors -- not very surprisingly, BBC MS has an active Social Club and Amateur Radio Club! However, you don't monitor the world for 24 hours a day on a T.V. aerial and a yagi, so, clearly, there were mysteries as yet unexplained! You never visit any BBC installation - from Broadcasting House down to the smallest local studio - without making the early acquaintance of one of the Corporation's commissionaires. In a long experience of the BBC, I have always found these Guardians of the Corporation to be unfailingly courteous, charming, cheerful and mines of information: the gentleman on duty in the foyer of Caversham was no exception and a murmured (and somewhat over-awed by the sheer magnificence of the building!) "Mr Weston is expecting me at 10.30", led, within seconds, to the appearance of Gordon Weston, Chief Monitor of Special Listening Section, who was to be our host and guide throughout the rest of the day. Gordon's voice was one that had become familiar to me over a period of months and many telephone conversations, but it was a real pleasure to meet him in person and his friendly welcome very quickly allayed the last of the nagging voices that had kept me company along the M4. We had arrived - and so had the moment of truth!

If you will forgive a brief digression, there is a standard drill associated with visits to (most!) technical installations! You are almost immediately loaded with some 50 lbs weight of publicity handouts, given a cup of (usually) cool coffee and then treated to a discourse on what you are to be shown that leaves you utterly confused - generally, too, your questions are parried with a cool and practised: "I shouldn't worry about that, now, old boy - it's all in the bumph!". To which the 'experienced' visitor adds a mental "Ha, ha" and prepares to be bored for the rest of his stay and then spend hours, later, trying to relate 14-page "Handout No.22A/Rev4/71" to the room in which he spent 10 seconds, only to discover that he has nothing at all on the fascinating room where he spent 40 minutes listening to a 'guide' and didn't understand one word of what was being said. So... Surprise No.2 -- no publicity handouts: a gorgeous hot cup of coffee, and within minutes Gordon, Martin and myself (as we'd immediately become!) were admiring the beauty of the Staff Canteen (which had originally been designed as an Orangery), and the truly superb vista that the fortunate staff of BBC MS enjoy over their tea-breaks! It truly is quite breath-taking in its loveliness. Ah! Through the thin Spring mist which was being slowly burnt-off by lovely sunshine - some 'real' radio aerials came into view across the Park. A few discrete pylons carrying a number of relatively unimpressive aerials of 'caged-V' type with loop spreaders at each end. Gordon explained that these were used for monitoring the sort of broadcasts that one would expect to hear on a "bit of wet string" and promised that we would have our fill of aerials when we visited Crowsley Park later in the day.

Maybe, you are anxiously waiting for the "technical meat" of this account -- if so, bear with me for a few moments longer because "Caversham" is much more than a few people listening to radio stations! When arranging this visit, I recall telling Gordon that we wanted to meet the "professional DXers" and, thereby, I revealed the prevailing view of DXers everywhere that a Monitoring Station just consists of people fortunate enough to be paid for doing what we do just as a hobby. Just how wrong can you be? DXing, per se, is a very minute aspect of the work of BBC MS, and is, in fact, the prerogative of the Special Listening Section over which Gordon presides as Chief Monitor. To put things into their right perspective, S.L.S. will merit just a paragraph or two and consists of just four monitors out of a team of some 110 monitors and a total staff at Caversham Park of something like 400. No! A monitoring station is certainly not a collection of professional DXers but an immensely professional agglomeration of administrators, engineers, monitors, journalists and all the equally essential auxiliary staff - commissionaires, typists, technicians, canteen staff, gardeners and so on - needed to make any complex operate efficiently.

Finally, before we start looking at the "works", what then is the purpose of a Monitoring Service, and of Caversham Park in particular? In brief, to monitor just what the world is saying and, so also, what Country X is saying in its broadcasts directed to various countries: inevitably, the emphasis of the news directed to Area A may be quite different from that beamed to Area B. Clearly, the differences are of importance to those whose daily work is the formulation and guidance of a country's Foreign and Economic Policy! Naturally, friendly States collaborate with each other in the collection and assembly of summaries of this kind and, in addition to monitoring broadcasting stations' output a mass of information is monitored, in many languages, where the mode of transmission is RTTY. It will surprise no-one that the cooperation between the BBC and the FBIS (Foreign Broadcast Information Service of the U.S. Government) is on a very substantial scale indeed, since the two countries and their well placed monitoring stations can augment, for each other, information available from their own individual operations. FBIS maintains a network of monitoring stations around the world (see, for example, the EDXC March 1972 "Newsletter" reporting an interview with George Jacobs, of V.O.A.) and there is a considerable interchange of schedule and other information between the two organisations to their mutual benefit.

Starting our tour of Caversham Park, we pushed open the door of a medium-size room and braved the chatter of dozens of teleprinters spewing out endless masses of messages in a veritable babel of languages and types - Roman script vied with Arabic and Cyrillic script in the endless flood of material emanating from Press Agencies all over the world. This is the "R.T. Section", and, through a real torrent of noise, the Supervisor, Stan Cook, showed us an impressive array of rack after rack of receivers and teletype machines which handle some 150,000 words a day. Some of the receivers we noted were the low-frequency "Eddystone" 850/2, side-by-side with the "Racal" RA17L and the modern solid-state "Plessey" PR155. The technicalities governing the reasons for the various receivers are beyond the scope of this article, but for RTTY work frequency stability is an essential! In the midst of all this sophisticated modern machinery, a slightly discordant note was struck by the presence - and operational, too! - of one of the old ex-Service BC221 Frequency Meters, well known to most DXers at some stage in their DXing careers. By way of contrast with this item from yester-year was a very new "Revox" twin-track stereo recorder which Stan Cook explained is of great use as it can, of course, be used to simultaneously record two separate outputs if a RTTY terminal doesn't happen to be available when required. Through a noise that sounded like a light engineering shop, the telegraph operators moved quickly and efficiently, switching this receiver to a new channel or to another teletype machine to carry the next bulletin from Tanyug, MTI or whichever other agency was next on the monitoring schedule. If you are handling 150,000 words a day, then superb organisation and a cool head are required in the far from quiet chatter of batteries of teletype machines! The output of the "R.T. Section" - like that of the main Listening Room, of which more later - finds its way up to the Editorial Section: but, of that, too, more later!

"Caversham" is a complex of inter-related operations and it just is not possible to present a narrative that moves from room to adjoining room: the result would not make any kind of sense to anyone who had not had the chance to see the entire complex in operation at first-hand. So, now let's leave "Caversham" for a while and pay a visit to Crowsley Park and the "Interception Room" - just as vital parts of the 'complex' as the "R.T. Section" and the "Listening Room" (which remains to be described). Crowsley Park lies some 4 miles from Caversham Park and for a delightful run through the quiet country lanes of Oxfordshire, Gordon, Martin and myself were joined by a young engineer, Mike Blackmun, who explained the technicalities of this aerial farm to beat all aerial farms!

At first glance, Crowsley Park is just acres and acres of placid parkland grazed by herds of equally placid cows! However, a closer glance amid the trees disclosed the most remarkable collection of aerial arrays that one is ever likely to see. Most DXers will, at least, have heard of the 'Beverage' aerial - the

long, long wire, about 10 ft high, stretching for about a mile, which is terminated in a resistor taken to ground. Its big disadvantage from the average DXers point of view is that it is so long and so directional! Crowsley Park boasts a collection of this type of aerial, set out at 20° intervals covering the area from 40° East of North through to 280° and a glance at a Great Circle Map shows that the remaining points of the compass contain little of radio interest. The frailties of even the most sophisticated aerial system was nicely illustrated by the stout wooden framework which surrounded each of the terminal resistors. If you haven't already guessed, then these are erected to foil the predilection of things bovine to lean against anything that is vertical or nearly so - Mike told us that they require a regular weekly check to make sure that a cow with an itch in the small of its back hasn't laid low the frame, or the aerial, by over-vigorous scratching against the support.

This astonishing array of sky-wire was backed up by a selection of "rhombics" of 311 ft cut for a centre frequency of 15 MHz, and a variety of sloping 'V' aeriels completed the aerial installations.

Beneath this impressive aerial array, in the midst of the parkland, stands a small brick-built building housing the "Interception Room", the function of which is to get the signals from the antennas to the "R.T. Section" and the "Listening Room". One steps into a smallish, quiet, room and is immediately surrounded by rack after rack containing, at a quick count, some 60 receivers all in operation but without a sound emerging from them, apart from the gentle hum of an immense number of valves all at work. The receivers were a real mixed bag - a few of the older versions of the "Racal" RA17 were out-numbered by countless RA17L's: a few of the newer solid-state "Racal" RA1217's were to be seen, together with the "Plessey" PR1554 and the "Eddystone" EC958, the '958' being especially favoured for long- and medium-wave work. Also on the racks were noted the "Eddystone" 850/2 low-frequency model and quite a number of very attractive G.E.C. BRT402K's, a very late version of the older BRT400 series originally introduced some 20 years ago.

Each receiver is fed via a 6-way coaxial switch, with a pre-determined choice of aeriels. To accommodate the required number of individual feeds from aeriels, an 18-way RF distribution is associated with each aerial, and to compensate for losses in the system, a wide-band R.F. amplifier is introduced between aerial and distribution, providing a 'zero-gain' feed to each separate output. A.F. output from each voice receiver is fed to the "Listening Room" at Caversham Park via a 38-pair P.O. cable. RTTY signals are carried on derived circuits on the same cable in the form of on-off tone. Various ancillary devices can be found in the "Interception Room", associated with the reception of particularly difficult transmissions. Amongst these, we spotted a "Signal Splitter Type MCL-50", manufactured by the J.L.A. McLaughlin Corporation of La Jolla, California. This is a complete variable bandwidth single side-band selector for patching into the I.F. of a general purpose Communications receiver and enables selection of optimum bandwidth for elimination, or reduction, of unwanted adjacent-channel QRM.

This complex assembly of equipment is in the operational control of a Duty Engineer who sits at a table carrying what looks like a medium-sized telephone switchboard with the usual (apparently!) haphazard collection of jackplugs, sockets, patchcords and switches. He is in telephone contact with the Operational Assistant on duty in the "Listening Room" - whom we shall be meeting shortly - and his function is to ensure that the best possible signals for any monitoring session are fed to the appropriate monitoring position via his console and the similar console in the "Listening Room". High up in one corner of the "Interception Room", atop a rack of receivers, stands a largish loud-speaker which, during our visit, played an astonishing collection of snippets of foreign broadcasts -- a snatch of Radio Moscow's 'Mayak' interval signal: a brief identification of Radio Pakistan: a few words of Bulgarian and so on. All this, of course, in response to the switching work of the Duty Engineer, whose tele-

-phone link with Caversham Park would suddenly be heard to say: "Can you give me a better signal on B2?" -- a few switches would move; a few sounds would emerge from the loudspeaker. Another minor crisis dealt with and another monitor provided with a monitorable signal. As in the "R.T. Section", the unhurried but speedy performance of complicated switching manoeuvres was the keynote as the engineer moved around the room re-tuning this RA17 or adjusting that BRT 402K to a new channel. Quiet, peaceful, busy efficiency in operation!

Back now to Caversham Park and straight into the "Listening Room" which is at once both impressive and something of an anti-climax. I suppose that one expects each monitoring position to be equipped with a variety of sophisticated electronic gadgetry. In fact, each of the 'positions' is extremely simple. The reason for this is, of course, two-fold: (a) the individual monitor is not a DXer but a professional listener with the facility for extracting the essence of a broadcast and transcribing it in English; and (b) the technical 'gimmickry' has already been accomplished at Crowsley Park and/or on the main "Listening Room" console which is under the control of the "Operational Assistant". During our visit the console was in the charge of Bill Fieldhouse who summed up his job as being "the contact point between Crowsley Park and the monitors in the Listening Room".

Let us stand at one end of the long, and rather narrow, "Listening Room" occupying the position of Bill Fieldhouse whose desk is dominated by a massive console showing at a glance which recorders are 'booked' by monitors - denoted by a neat row of small white lights - and which allows him to switch signals from Crowsley Park to any particular monitor, if necessary. Again, the panel was criss-crossed with patchcords although, in fact, it is not often necessary for him to arrange signal switching to monitors since the outputs from Crowsley Park are paralleled to his console and to the actual monitoring positions which handle them. His intervention is only called for when a particular signal 'feed' is not up to standard and an alternative has to be provided by Crowsley Park.

At right-angles to the Operational Assistant's console run two long tables each accommodating some 16 separate monitoring positions, with further positions at the end of the room farthest from him. The outer walls of the room are flanked by tables carrying the typewriters on which the monitors type up their precis or transcript of programmes which they have just monitored before it is sent upstairs for editing. Not all of "Caversham's" 110 or so monitors are on duty at the same time. In the peak evening period some 40 monitors will be on duty and the "Listening Room" has a peak facility of 50 or so monitors on duty at one time. As Gordon Weston put it - a Monitoring Service thrives on world crises and must be arranged to be able to cope adequately with extra calls on its facilities. So, its operations must have a great degree of flexibility allied to the routine monitoring of over 400 news bulletins and commentaries, each day, in well over 30 languages from the same number of countries. The Operational Assistant's 'bible' was an immense rack-mounted set of charts which reminded me somewhat of the chained bibles that one can find in some of our older Cathedrals.

Since flexibility must be the keynote of "Listening Room" operations, the arrangement of duty rosters, including covering the inevitable periods of sickness and holidays is an immense task. Just behind the Operational Assistant sits the Listening Room Supervisor whose task it is to arrange all the monitoring coverage required for his shift, and to make the ad hoc arrangements that are called for when some world event leads to an 'over-run' of a routine monitoring period, or the news that has broken means that a particular monitor cannot handle his next scheduled session as he will be busy typing up a full transcript of what he has just been listening to. If a really newsy story has broken, the "News Bureau" will have been alerted by the Supervisor and the Editorial staff will be waiting to get their hands on the full copy in order to feed their finished product to the Home and External Services newsrooms, Government departments and those Press Agencies and newspapers which subscribe to their services. Coverage

of the unexpected is aided by BBC policy of recruiting, to a very large extent, monitors who are proficient in two or more languages, as well as English - clearly, this helps the task of the Listening Room Supervisor to a very appreciable extent.

I have already mentioned that the Operational Assistant in the "Listening Room" controls, by means of his console, the distribution of the signals that reach him from Crowsley Park. In addition, he is in direct telephone communication with each of his monitoring positions and with the Duty Engineer at Crowsley: this position is the hub of all that goes on in the "Listening Room". Strangely, despite there being 30 or 40 people in a not very large room, there is a quite surprising quietness about the whole operation even though monitors are for ever slipping into their seats, slipping out again to take over a typewriter, coming along to mention that they are having a spot of technical trouble with their recorder or with the signal on position 7 on their panel, and so on, and so on. Throughout all this, Bill Fieldhouse flicked switches here and there: 'patched' this to that: dealt with innumerable phone calls, and through it all remained as unflappable and unperturbed as if he was about to settle down to listen to the hi-fi. Truly, the sheer expertise of the entire operation is almost alarming in the unhurried way in which it proceeds: it is hard to believe that this is the place in which over 400 bulletins are monitored each day. It just does not seem possible that all this can be going on without a great deal of the noise that the DXer associates with monitoring just one station. Here, something like 15 or 20 programmes were being monitored at the same time but unless one tapped into Bill Fieldhouse's console there was no indication whether a particular monitor was working at Radio Moscow in Hungarian, or having a quiet 15 minutes listening to Radio 2 until his next assignment meant a flick of the dial to another frequency - the only 'give-away' was to walk around the room and take a quiet peek at the frequency to which his receiver was tuned!

Earlier in this article, I referred to the problem of trying to describe the Caversham "complex" as the installation consists of so many interlocking pieces. In some ways, it is rather like trying to describe a spider's web: do you start at the outside and work in along a radial? Do you go round the outside gradually working towards the centre in a spiral pattern. Neither would be totally satisfactory if you had never seen what was being described. So, before we take a look at an actual monitoring position, a few lines regarding the organisation of the actual monitors. Basically, the entire monitoring team is organised in separate language groups, each of which either covers a specific language or a group of languages. Gordon told us that the groups vary in size from a team of just one, up to the Russian 'team' which has a total complement of about 30 monitors. The seeming rather heavy emphasis on the Russian language is explained by the fact that the Moscow Home Services are monitored in their entirety throughout the 24 hours of the day. The monitors are supplied with transcripts of the last few days broadcasts as background material to their day's work, whilst a large blackboard is annotated with the items which are to be given special attention in the next few hours. "The Listening Room" operates on a 24 hour, 7 days a week schedule but the main bulk of the monitoring falls in the evening period, and during the night hours the Operational Assistant in the "Listening Room" - with a battery of eight I.B.M. recorders standing on both sides of his console - records nearly 100 bulletins throughout the night for later transcription. Some task!

Now, let's look at the actual monitoring positions. What do they look like? Essentially, very simple compared with what one would expect. At each position you will find either an "Eddystone" EB36A general-coverage receiver, or the "Drake" SPR-4 on which the 2.4kHz bandwidth position is normally found to be the optimum one for monitoring. It is understood that the SPR-4 has been found to possess better frequency stability and audio quality than the older EB36A. Sitting atop the receiver you will see a small card bearing details of the broadcasts to be monitored at that position as well as another card bearing the position number, e.g. "D5", for identification by the Operational Assistant.

To one side of the receiver, a telephone gives the monitor contact with the Operational Assistant and a small I.B.M. recorder of the magnetic-belt type, capable of taking some 18 minutes on a belt, stands ready to record each monitoring session. Since most news-casts last some 10 or 15 minutes, these are perfectly adequate for their task and additional recorders are easily switched in should a broadcast extend beyond the capability of the recorder. Every word of every monitored broadcast is recorded which adds up to an immense use of belts in the course of a day!

To complete the individual monitoring position, a small control panel serves as a base for the receiver which is angled upwards for ease of use. On the left of this control panel a simple "A" or "B" switch provides the monitor with a signal from one of the simple aerial installations at Caversham Park itself: on the extreme right of the panel, a 10-position rotary switch provides the signals fed from Crowsley Park through the console there and through - and in parallel with - the Operational Assistant's console in the "Listening Room". The centre of this control panel is taken up with a simple 6 push-button unit, with small white indicator lights above each button, indicating which of a group of 5 I.B.M. recorders is 'booked' by that position for that monitoring session: the sixth button is a 'spare' position should it be necessary to feed in an additional recorder for some reason. As indicated earlier, this allocation of recorders is duplicated on the Operational Assistant's console so that he can see, at a glance, the recording facilities that are available at any particular moment. In addition, the use of a particular recorder is also duplicated on the indicator panels of the other monitors who share that group of recorders - after all, one doesn't want a belt which contains Radio Moscow in Swahili overlaid with Radio Cairo's latest news in Arabic. Apart from the indispensable monitor and his pair of headphones that's all that a monitoring position contains - a far cry from the popular idea that the monitors are 'super-DXers', and that they are operating immensely sophisticated equipment. Any DXer would feel quite at home in a monitoring position in just a few minutes: BUT it should not be forgotten that the sophistication in equipment does exist. It does not exist at the actual monitoring position but 4 miles away at Crowsley Park and in the massive technical operation necessary to ensure that the signal received by a particular monitor, at a particular time, is the best that can be achieved. It was quite a revelation to be plugged into Bill Fieldhouse's console and to hear the really astonishing quality of the signal being fed to the individual monitor: perhaps this - more than anything else - brings home to one the amazing efficiency of that aerial farm and the other technical facilities at the disposal of the Monitoring Service!

So far, little has been said regarding the monitors themselves, who are the sine-qua-non of any Monitoring Service! Apart from the ability to master, preferably, two or more languages apart from English, they must have the ability to translate the monitored language into good English and, also, must be sufficiently well-versed in world affairs to be able to extract the important item from the mass of verbiage that passes as a news bulletin in many radio organisations. Then, too, they require the ability to decide, on the spot, whether the bulletin heard was of sufficient importance to supply the Editorial staff with a complete transcription of the broadcast, or whether it was so lacking in important items that a brief precis will suffice. In the last resort, all that technical equipment is "at the mercy" of the judgement of an individual, although, since every word is recorded, it is always possible to have a complete transcript if other minds decide it is required. Normally, the belts are retained for a period of a month before they are wiped clean for re-use, and material of historical interest is transferred to permanent tapes for future use. As one may imagine, the 'library' is immense with rack after rack of belts available for re-use at some time in the future.

Tucked away in the right-hand corner of the "Listening Room" as you stand at the Operational Assistant's console is a small studio equipped with a couple of "Ferrograph" Series 7 recorders and a "Philips" cassette recorder. This small

studio, by means of a normal type distribution panel, enables Monitoring Service to make direct feeds to both the Home and External Services Newsrooms if 'hot' news inserts are required.

Still in the main "Listening Room", but quite distinct from the main flow of scheduled operations, one finds "Special Listening Section" - the DX Section, one might call it, of BBC Caversham Park, under the control of its Chief Monitor, Gordon Weston. Asa Briggs (ibid p.189) writing of the early days of the Monitoring Service says that by April 1940 "a Special Listening Section had been set up 'to patrol the ether', check programme schedules and identify new stations". Gordon heads a team of four monitors who 'cruise' the bands and who, inter alia, are responsible for the assembly, checking out, publication and distribution of the published "BBC Monitoring Service Reception Notes" and their associated Schedules of foreign broadcasts. S.L.S. operates with a very nice 'shack' consisting of two "Racal" RA17L's, backed up by an "Eddystone" EC958 which he finds superior for operations on the long- and medium-wave bands, which isn't surprising as Racal themselves refer to the RA17 as operating with "some slight degradation of performance" below 1mHz. John Sheringham, the Assistant Head of the Monitoring Service, in a letter to me, some months ago, described S.L.S. as "roughly, if you like, our DX Section but with wider responsibility, to find out what is being broadcast and when it is monitorable, as distinct from loggable". (the underlining is mine). The distinctions are important in the context of what S.L.S. does. The S.L.S. 'shack' receivers are surrounded by file after file of BBC MS and other schedules, copies of "World Radio Handbook" -- oh! "BANDSPREAD" and a couple of other DX bulletins were on file, too. What then does S.L.S. actually do and how does it do it?

S.L.S. is not part of the day-to-day monitoring operations, as such, but is an essential adjunct of it, compiling the detailed schedules of the frequencies which are actually used by stations, rather than the ones they publish or announce over the air. The magnitude of the task can be gauged from the fact that the current "Radio Moscow" External Services Schedule runs to some 40 pages, whilst that of Radio Peking is just a 'mere' 15 pages or so long. One can imagine what is involved in checking that lot and several hundred more schedules each year, and then keeping them updated from day to day.

Two questions that I, immediately, put to Gordon were these:-

- (a) why don't you use a "Drake" SPR-4 or an "Eddystone" EB36A like the monitors?
- (b) how do you, and your fellow-members of S.L.S., manage to trace all the parallel channels of, say, Radio Moscow's 1500 G.M.T. programme in Shona? (Yes - there is one!)

The answer regarding the choice of receivers lies in the use to which they are put. S.L.S. requires receivers which are suitable for 'cruising' - i.e. rapid switching from frequency to frequency - and the RA17-series is ideal for this, as any owner of one will know. It was interesting to note that in the "R.T. Section", too, RA17's (in various versions) were on prominent display, as they were in the "Interception Room" at Crowsley Park: all locations in which frequent channel re-setting was required. In contrast, the monitors' SPR-4s and EB36A's are required to make many less frequency shifts in the course of a day.

Tracking down parallel frequencies is done by means of simple, technical trick that anyone can use who possesses two receivers fitted with phone sockets - like all good ideas this one is so simple that one wonders why one did not think of it oneself! A pair of ordinary headphones is re-wired so that each of the separate phones is terminated in an ordinary (mono) jack plug: just to make this clear, the left-hand headphone is terminated in one jack-plug and the right-hand headphone in a similar jack-plug. One of the jacks is plugged into receiver 'A' and the required programme tuned in in the usual way. The other jack is then plugged into receiver 'B' and this is tuned through the bands until the appear-

-ance of a stereo-like sound in the phones indicates that you have two parallel channels on the two receivers in use: the frequencies are logged and one starts the search once more. To avoid sheer cacophony, it is desirable that the use of the 'phone sockets on the receivers should mute the loudspeaker(s) to which they are connected, or that the speakers can be switched out of use.

The compilation of the published BBC MS Frequency Schedules and "Reception Notes" is another side of the work of S.L.S., which is responsible for the production and issue of the finished product as well as the acquisition of the material that they contain. When you consider that S.L.S. normally has only two monitors "on station", working under Gordon Weston, one full-time and one part-time clerk/typist, it will be appreciated that they have a task calling for a great deal of hard work and sheer application, since those schedules are essentially the raw material on which "Interception Room" and "Listening Room" base their choice of frequencies for feeding to the monitors at their working positions.

There's yet another aspect of the work of S.L.S. and moving from the "Listening Room" S.L.S. 'shack' to Gordon's office on the first floor, we saw the archives which have been accumulated over years and years of monitoring foreign broadcasts. Imagine a spacious room crammed from floor to ceiling along one wall with files of schedules, frequency lists, station lists, the "Radio Times" of just about any country you care to mention, and lots more besides. What a collection of material relating to the 'movements' of the world's broadcasters over many years. After a day of escorting us around the "works", Gordon's desk bore a pile of teletype messages, and a quick flick through them disclosed enough DX news to fill a DX bulletin for a couple of issues. That's the size of the material that flows into S.L.S. and which, in turn, leads to the immense output of the News and Publications Department after it has been checked, incorporated into Frequency Schedules, used to provide monitors with suitable signals which they can use to provide the news of what the world has been saying, and to whom.

That then is the 'technical' side of BBC MS at Caversham Park but there are some further aspects of its mode of operation and its 'end-products' that are well worth a mention to complete the picture. However, there is one 'feature' of Caversham Park which seemed so incongruous that it must have a mention. As you leave the main "Listening Room" you enter an immense central hall and meet a device which seems to have been designed by a combination of Heath Robinson and Rowland Emmett at their zaniest! A motor drives an endless cord which moves unceasingly up the walls, across the higher reaches of the hall, disappears at intervals into various rooms scattered about the building, and just keeps on and on and on, with the endless cord ever in motion. It looks as though the entire device has escaped from some 19th Century Industrial Museum, but Gordon assured us that it was a "Lamson Conveyor" - my apologies to its designers and builders, but I feel sure that they would admit that it does look odd! - and was a very important part of the set-up. Its function is to allow material to be passed rapidly from the "Listening Room" and the "R.T. Section" to the "News Bureau" simply by clipping the appropriate transcript or RTTY material to holders, and a constant supply of such material could be seen making its way up and across, and through, and then into the remotest regions of what, after all, is a very generously sized building! Certain it is, that it is much quicker than any messenger service could ever hope to be.

Asa Briggs, in the "History of Broadcasting in the U.K." (already referred to), traces the early days of the Monitoring Service from its inception in 1935. By 1938 certain selected news bulletins were being monitored at Tatsfield and in the spring of 1939 'an enlarged scheme' was mooted which culminated in the Monitoring Service being established at Wood Norton, near Evesham, where it remained until it moved to Caversham Park and Crowsley Park in April 1943. Whilst the Domestic Services of the BBC are financed wholly from licence revenues, BBC External Services - of which Monitoring Service is a part, although separate from it "geographically, functionally and financially" - are financed by a Grant-in-Aid from H.M. Government which, in layman's language, means that they are

allocated a certain amount of money by the Government, each year, and in return perform certain specific tasks. Whilst Caversham Park and Crowsley Park, together, form the centre of BBC MS operations there are out-stations abroad, including that located at Nairobi (Kenya), and, as mentioned earlier, there is close cooperation with the U.S. Government's FBIS which has its own network of monitoring stations. The "BBC Handbook" sets out the job of the Monitoring Service in formal terms: in a broad way, it might be said that it exists to provide H.M. Government, and other interested bodies, with a detailed summary of what the world is saying.

By far the most important publication to emerge from BBC MS is the "Summary of World Broadcasts", which sets out what the world has been saying, just who said it, when, and for whom the statement was intended. Divided basically into four parts, the "Summary" covers the Soviet Union, the Middle East and Africa, Eastern Europe and the Far East in those parts, but a complicated system of sub-division and cross-referencing means that an item concerning, say, the supply of radio material by Czechoslovakia to South Yemen would appear in both the Eastern Europe and the Middle Eastern parts of the "Summary"; since different customers require different parts of the whole of the material available. There are, too, weekly publications available in a variety of different forms and anyone interested should contact BBC Monitoring Service for details. However, it might be as well to add that the cost of an annual subscription to the complete "Summary" runs from £144 a year, whilst the annual cost of the weekly "Parts B", which only cover broadcasting matters, runs from £11. These publications are not, naturally, designed for the average reader but for specialists in the field of international affairs or finance and, apart from Government agencies, the main subscriber-public consists of bodies such as Universities and International agencies of one kind or another. The "Summary" deals in fact not opinion! It contains no editorial comment of any kind: just a cold, sober, reporting of material facts broadcast since the last issue appeared: it is not written with the eye-to-a-story approach of "Time", but with the assurance that comes from knowing that you are dealing with fact that really is fact. The "Summary" is fascinating to read and if your library has copies many an interesting hour may be spent reading some of the transcripts of broadcasts made by "Clandestine" stations - often with eye-opening results.

Our schedule included a courtesy call on John Sheringham, Assistant Head of the Monitoring Service, who received us with such warmth and kindness that the "courtesy call" developed into nearly an hour in which we ranged the whole world of radio! Much of what we discussed is, perhaps, better left unwritten (at least at this time), but I was particularly anxious to establish with John Sheringham the view of BBC MS on the re-use of their 'Schedule' material in DX bulletins. Clearly, there were both ethical and copyright questions involved here and the matter was discussed with real frankness on both sides. It might be as well to re-state what had brought about the present position. Rather less than a year ago, I started 'pestering' BBC MS to make available to the public its own detailed frequency schedules, which run to something like 400 or 500 pages a year. At that time, they were meant for the Corporation's own use and, indeed, early copies that were released bear the legend "For authorised recipients only". In July 1971, Mr C.H. Macmillan, Assistant Editor, News and Publications, told me that the go-ahead had been given for the schedules to be made generally available on subscription, and this was generally announced in a B.B.C. "World Radio Club" programme at the end of November 1971, in which it was stated that they might be rather dear for the average DXer but would be ideal for DX Clubs - they cost between £12 and £24 a year, depending on one's location. Shortly afterwards, DXers started to subscribe to the 'Schedules' and, in the last few months, some DX bulletins have begun to publish extracts from the schedules - and indeed, virtually complete schedules in some cases - sometimes, regretfully, without even a source acknowledgement! In many cases, the Club concerned was not a subscriber to the service and had obtained its material from an individual member who did subscribe to the schedules, which are clearly marked "copyright".

John Sheringham summed up the Corporation's stand on this matter in just a few words. They had no objection to DX Clubs using BBC MS material, provided that source acknowledgement was accorded, if the Club (itself, or through a Section Editor) was a subscriber. However, they drew the line at the re-use of their material for any profit-making purpose (e.g. in the issue of lists of particular stations). In such cases, and in cases where the Club using the material reproduces schedules in full, they must reserve the right to charge for the re-use of material which was the subject of copyright in the hands of BBC MS.

Subscribers to the schedules will know that they have been backed up by a weekly bulletin of DX news, called "BBC MS Reception Notes", since the start of 1972. I asked John Sheringham whether it might be possible to include more schedule up-dating material in "BBC MS RN". Whilst he - and Gordon Weston, whose Section is responsible for their preparation - was sympathetic to our pleas, they pointed out that essentially the Schedules are compiled for their own internal use and that their availability to DXers, and the general public, was in the nature of a 'spin-off' from their work. However, John Sheringham promised to take a closer look at the matter and, also, to consider whether some price reduction might not be mutually beneficial for the BBC and for the number of DXers and Clubs able to meet the costs involved. (Later information is that, having considered the points made, they have decided that a price reduction is not on - for the time being, at any rate). It is, though, only fair to point out - as John Sheringham did! - that BBC MS exists to do a particular job and that that job is not the advancement of DXing as we know it. I am, though, certain that our hard-hitting exchange of views left both sides with a much better understanding of what the other felt on a great number of issues and we were very appreciative of John Sheringham's kindness in spending so much time in putting the Corporation's side of the matter to us. He will, I am sure, forgive me for saying that our protracted "courtesy call" played havoc with Gordon's pre-arranged schedule which suffered viciously from the endless questions that Martin and I had fired at the various, ever-willing-to-help, 'experts' we had met throughout the morning.

Another courtesy call appearing in our schedule was with Mr V. Rubinstein: in BBC jargon 'HRDMS' which translates as Head of the Reception Department, Monitoring Services. As in our earlier visit with John Sheringham, we were received with such charm and friendliness that I was reminded of Jack de Manio's words (in "To Auntie with Love": Hutchinson: London 1967): "A lot of people regard the broadcasting authorities in this country as overbearing, insensitive monsters My own experience ... certainly does not support this notion". Mr Rubinstein was much interested in our impressions of "our little show", as he called it, and I'm afraid that neither of us was as coherent as we should have liked - there had been so much to see and digest! In the event, our planned "courtesy call" spread into 30 or 40 minutes of questions ranging from the requirements for a monitor: the problems of finding suitable people for the job: the harmony that prevails amongst them as a team despite their various racial and other backgrounds and a host of similar topics. Yet again - and this cannot be stressed too often - our questions were answered fully and with that absence of 'jargon' which, so often, makes it difficult for the 'pro' to get his views across to the interested outsider. Had it not been for Gordon Weston's, timely, reminder that we were now running roughly two hours behind schedule I have a feeling that this meeting would have been even more protracted. We both hope that, one day, we shall be able to accept Mr Rubinstein's kind invitation to "come and see us again", and our very sincere thanks are accorded to him for his great kindness to us on this occasion.

And so we ended seven or eight hours of which most DXers must just dream! For reasons that are too plain to need expression, visits of this kind are not encouraged as they take busy people away from their day-to-day work. We had the great pleasure of being the first two non-professional, non-official, non-journalist visitors to "Caversham". It is, therefore, no formal pattern of words to

express our very sincere thanks to Mr John Rae, Head of the Monitoring Service, for allowing this visit to be made: to Messrs Sheringham and Rubinstein for receiving us and giving so generously of their time: to Messrs Blackmun, Cook and Fieldhouse for having the patience to answer the interminable questions that we threw at them: and an equally sincere 'thank you' to all those I have not named who made our visit such a memorable one. Then, too - and this is very much a case of 'last, but not least' - our deepest debt of gratitude must go to Gordon Weston, our host throughout a long and strenuous day, for proving the most admirable guide that one could ever hope to meet. Gordon's charming friendliness: his apparent unbounded knowledge of what-is-on-where and what-was-on-where: his fund of fact and theory about some of the DXing 'mysteries': -- all these contributed in very great measure to a DXing experience that I shall never forget in the years ahead!

Finally: yet another word of thanks to Messrs Sheringham, Rubinstein, Weston and many others I do not know by name, for taking the trouble to read through the draft notes from which this article has been compiled and for setting me right where memory had led me astray, or for clearing up some technical point that wasn't quite clear. I can only hope that this, the finished article, will be read by them as being, as nearly as is humanly possible, a factual record of "Caversham" as seen through the eyes of a layman: I can only say that I have, strenuously, tried to achieve their standard of dealing in facts and not opinion, except in subjective impressions of the trivia associated with any complex installation. Of course it would have been possible to reduce this article to half its present length but only at the cost of not trying to record the atmosphere which pervades BBC MS and, by not putting on record some of the 'philosophy' of BBC MS so ably put to us by John Sheringham in a discussion that will, I am certain, be of much interest to many DXers all over the world.

Enquiries concerning the publications of BEC Monitoring Services should be addressed to them at Caversham Park, Reading RG8 4TZ, Berkshire, England. The various quoted sources are, I trust, all sufficiently identified for further reference. Technical details of "The Engineering Facilities of the BEC Monitoring Service" are contained in "BBC Engineering Monograph No.22", published by the BBC in January 1959: however, with the passage of years, some of the information contained in that publication is now out of date.

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