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PROGRESS

THE Standing Finance Committee has approved the programme for the installation of new stations in India based on Mr. Kirke’s report. This is a step in advance, a step, no doubt, which impatient listeners have felt to be a long time in coming. Some of our contemporaries have accused the Controller of “having 40 lakhs in his pocket.” He wishes he had. No impatient listener can be more impatient than he for the rapid development of broadcasting in India. But a 40 lakhs grant does not mean 40 lakhs “in his pocket,”—not by a very long chalk.

No penny of such a grant can be utilized until a complete scheme has been approved by the Standing Finance Committee and the Assembly, and even after their approval, further departmental sanction remains necessary for each work, involving in each case estimates of the most painfully,—the word is really applicable to the complicated equipment of a broadcasting station,—accurate nature.

It was hoped, indeed, that a complete scheme might have been ready before the Assembly dispersed in April, but at that time Mr. Kirke’s report was not yet available, and the submission of a scheme to the Standing Finance Committee had therefore, willy-nilly, to wait until September.

The proposals are essentially as follows:

1. New medium-wave stations will be erected at—
   - Lahore
   - Trichinopoly
   - Dacca
   - Lucknow.

2. Short-wave stations will be erected at—
   - Delhi
   - Bombay
   - Madras
   - Calcutta.

All these stations will have a nominal power of 5 K.W. In the case of Madras a final decision as to whether the station shall operate on shortwaves or medium-waves has yet to be taken and will depend on studies which are being made to determine which type of transmitter will serve the area most satisfactorily.

In addition to these new transmitters, the existing medium-wave transmitter at Peshawar will be taken over and operated by AIR, while the present medium-wave transmitters at Bombay and Calcutta will be reconditioned and improved. The development programme also provides for a new Headquarters buildings in Delhi which will accommodate new and up-to-date studios, the Headquarters’ Administrative and Engineering Staff, a school for probationers, the staff of the Indian Listener, and, as line communications develop, the staff of an All-India News Service.

It will be seen that the new development programme is divided between medium-wave stations and short-wave stations. When the new scheme is in operation, medium-wave stations will be working at Delhi, Bombay, Calcutta, Lahore, Dacca, Trichinopoly, Lucknow and Peshawar. These stations,—except for Peshawar, which is a fait accompli,—have been placed in densely-populated areas, and their purpose is to provide a first-grade service in these towns and the adjacent districts, giving a reliable signal on an inexpensive receiver.

COMPARISONS

It is apparent that this present scheme can provide only a part of India with a first-grade service. Forty lakhs is a considerable sum of money, but it is negligible compared to the amounts spent on broadcasting in Europe. In England, for example, there are present nine 50-kilowatt transmitters, one 100-kilowatt transmitter and four stations of 1 kilowatt and less, whilst one of 50-kilowatts and one of 100-kilowatts are in course of erection and several more small stations are projected. This involves an expenditure of well over 100 lakhs for transmitting stations alone, excluding the cost of the elaborate studios which exist in all main centres, about 15 in all.

On the continent of Europe similar conditions obtain. In Europe, which may be compared with India from the point of view of size and coverage, there are over 100 high and medium power stations, representing a total cost of the order of 10 crores of rupees.

Now the area of the British Isles is about 90,000 square miles, while that of India is nearly 2,000,000 square miles. The population of the British Isles is roughly 46,000,000, while that of India is more than 350,000,000. From this it is clear that the service which can be given to India for a sum of 40 lakhs will be very modest compared with that given to England. Eventually it is hoped that the area covered by a first-grade service will be increased, but with the funds at present available these limits to the immediate development of first-grade service areas are inevitable.

However, in order to provide programmes which can be heard,—though in some places and at some seasons fading and distortion must occur,—over the whole country, short-wave stations are being erected at the main centres. By means of these stations, it is expected that a second-grade service and alternative programmes will be available over the whole of India. Information was given on the technical features of this scheme in the Indian Listener of September 22.

THE FIRST STEP

There is no finality about a broadcasting development scheme of this kind. It is not a closed book: it is the first step. Listeners who complain that this or that area has been overlooked should bear that fact in mind. The Controller is not unaware that the inevitable gaps must be filled, and we would point out at this stage that the claims of such places as Patna, Allahabad, Rangoon, Mysore, Cuttack, Rajamundry, Coimbatore, Nagpur, Ahmedabad and Katachi have been carefully weighted in the balance.

Nor is it less obvious that the present medium-wave transmitters at Calcutta and Bombay will eventually have to be replaced. It is hardly fair, however,—especially in view of the fact that short-wave stations are being established,—to expend large sums at points where a medium-wave transmitter, albeit of an old type, is still functioning satisfactorily, and thereby denying services to other parts of India which are, strictly speaking, at present out of range of all Indian stations. It is a question of money. If, as one hopes and expects, and as increasing license figures seem to show, broadcasting shows a constantly increasing revenue, further developments can be confidently anticipated. But even if greater funds were available at the present juncture, it is very doubtful whether immediate development on a larger scale than the present one would be wise or practicable. Little data is available, and much has yet to be learned from experience on the vexed questions of the range and reliability of short, intermediate, medium and even ultrashort wave transmitters under Indian conditions,—and under the different conditions prevailing in different parts of India,—and of the suitability to these conditions of differing wavelengths in each class.

A “STUDY” TOUR

M. C. W. GOYDER, the Chief Engineer, and Mr. A. S. Bokhari, the Deputy Controller of Broadcasting of All India Radio, will be visiting Calcutta, Madras, Trichinopoly, Bangalore,
Hyderabad, Bombay and possibly Trivandrum, during October and November. Mr. Goyder will fly from Calcutta to the Dutch East Indies and back to study at first-hand the technical conditions prevailing there.

This tour is designed for several purposes and depends for its success, amongst other things, on the co-operation extended to these two officers by all those in the towns mentioned above who are interested in any one of the several aspects of the radio development in India.

On the technical side, the Chief Engineer will very much appreciate any contacts that he can establish with institutions or amateurs who are occupied in studying technical problems. The radio amateur in India is both rare and obscure, and yet so much of the future of broadcasting in any country depends on amateurs who, by the very nature of their activity, are bound to possess first-hand information and practical skill that no country, least of all India, can afford to ignore their importance. There are hardly any societies of radio amateurs which can serve as clearing houses for new ideas and as agencies for exchange of information between individual enthusiasts and AIR. In the absence of such organisations, the next best thing is to undertake a tour of exploration in the hope that in the various towns which the Chief Engineer visits persons who can help to shape the future of broadcasting in India, either by their interest in it as a hobby or by qualifications which might enable them to join AIR as workers, will not hesitate to take this opportunity of exchanging their views with him.

LEARNING FROM EACH OTHER

AGAIN, in view of the fact that broadcasting has at last come to agitate the minds of authorities who are in a position to undertake development schemes both in British India and in the Indian States, the Chief Engineer would welcome all such opportunities as circumstances may offer him for the discussion of future plans. Needless to say, the co-operation and the advice of AIR, are always at the disposal of any Local Government or Indian State that may care to make use of them. India at present possesses only a few stations. It is hoped that in the near future this number will be at least tripled. It must be emphasized that even if the number of stations were to be increased tenfold, broadcasting in India should always be looked upon as one corporate activity. So far as the technical side is concerned, we can, as in all scientific matters, go on constantly learning from each other, and nothing can be more fatal to the development of a technical project than lack of harmony and lack of exchange of ideas between the various agencies engaged upon it.

The Chief Engineer has had the good fortune of studying broadcasting in most of the important countries of the world, and will before the end of his tour have also gained first-hand information about broadcasting in the Dutch East Indies. The system of broadcasting in the Dutch East Indies is unusual in so far as short-wave lengths are used for broadcasting instead of the more normal practice of using medium-wave lengths. This course has been deemed necessary due to the severe atmospheric disturbances prevalent there. It is believed that there is probably a greater similarity between the conditions in India and the Dutch East Indies than with almost any other country and therefore it is hoped that by the courtesy of the Broadcasting Administration there, information may be obtained which will be of assistance towards the studies which are being made with a view to the use of short-wave lengths in India.

PLANNING NEW SITES

THE Deputy Controller of Broadcasting will, in the course of the tour, be inspecting the staff and stations at Bombay and Calcutta, arranging for new studio accommodation both at Calcutta and Bombay in the near future. He will also be discussing with local governments the arrangements for sites and buildings to accommodate each of the new stations. During his visits to the Indian States, the Deputy Controller will discuss with the authorities concerned any measures of co-operation which might be achieved between their present and prospective stations and the stations of AIR, such as the exchange of programmes, the training of staff, and the likely recurring costs of any schemes of development which they may be contemplating.

CALLING THE TUNE

THE old proverb runs that he who pays the piper should call the tune. And a right good proverb that is, too. But a popular daily newspaper of Northern India wishes to modernise the axiom by declaring that he who listens to the music (irrespective of whether he has a hand in the payment therefore) should also, within limits, have a voice in deciding the character of the music.

The cause of this attempt to bring our proverbs up-to-date is broadcasting,—well, village broadcasting, to be precise. Commenting on a recent report of a Village Broadcasting Association the Pioneer of Lucknow becomes so solicitous for the desires of the villager that it actually suggests that rural programmes should be more or less decided by the villagers themselves. And because even villagers have their likes and dislikes about music, this generous-minded paper proposes that "before long it may be found necessary to have two separate stations: one broadcasting only ghazals and the other only bhajans." That certainly is an easy way, on
paper, to solve this very lively problem of musical whims and fancies, but we fear that it is not a solution which will appeal either to the Finance Member of the Government of India or even to the average listener.

Perhaps the more acceptable solution of this problem is that contained in the same paper's alternative proposal, namely, that stations should "at least arrange programmes in such a way as to enable one or the other 'fan' to revel in the music which he likes best." Here again, however, the remedy is nothing like so easy as it sounds, although listeners can at least feel assured that the broadcasting authorities are already doing their best to arrange programmes so as to give the maximum possible amount of pleasure to the many different "sections" of the public.

During the villagers' hour," of course, special attention is being paid to the items which are most likely to appeal to the villagers, which is only another way of saying that classical music is generally transmitted very sparingly.

**More Advisory Councils?**

But even more affrighting than two transmitting stations emitting "rival" music is the next suggestion of the Pioneer that India should also have a panchayat of representative villagers to make suggestions on what ought and what ought not to be broadcast." Think of it! If each village (or even group of villages) is to have its own advisory council to help the Controller map out programmes,—well, we pity the Controller, or even the Station Director of the transmitting station concerned. That discreet enquiries should be made in the villages themselves to see which items are most popular is admitted; indeed, the Delhi station staff have adopted that method from the outset. But we almost shudder to think of the new problems that would be created by tiny village broadcasting panchayats popping up all over the countryside, each thunderingly announcing what it wants and what it does not want, and each almost certainly contradicting its neighbour in the matter of selection. By all means let us consult the villagers informally in their own villages, but surely it is far too early in our broadcasting organisation to think about setting up a host of diminutive advisory councils. It is possible that perhaps one panchayat of experienced villagers might occasionally give helpful suggestions, but even the formation of such a body needs the most careful examination at this stage.

**Misplaced Devotion**

The Controller recently imported from England one of the latest short-wave sets. For a time it worked remarkably well, but quaint troubles eventually began to develop. In examining the set, the Controller discovered that a mouse had so much appreciated the programmes as to make the set her permanent home, and was raising a particularly large family to the strains of Daventry and Delhi. He was glad, of course, amidst so much criticism, to find so devoted a body of listeners, but considered, on the whole, that an expensive set for their personal use could not be justified. "Indian animals," as E. M. Forster says, "have to sense of an interior."

**Music's Loss**

On behalf of the many listeners all over India who knew and revered the late Pundit Vishnu Narayan Bhatkande, who died in Bombay on September 19th, we place on record our sincerest regrets. By his death India loses a great exponent of Indian traditions in music, for not only was he one of the most talented teachers of the present generation, but also was a simple man who contributed remarkable services to Indian art as a whole. He gave invaluable help and advice on musical problems to the Bombay broadcasting station, and in him All India Radio loses a good friend. In every sense of the word he was self-made; for although he was an educationist and lawyer in the early days of his life, he later dedicated practically all of his time and talents to music, carrying out research into almost-forgotten realms of art which will commemorate his name, as one admirer puts it, "as long as Hindustani music retains its field as a vital form of art, and as the inspiring medium of creative artists."

He inaugurated the First All-India Conference, and founded the Morris College of Music at Lucknow and the Madhava Sangeet Vidyalaya at Gwalior. He was consulted by the Government of Bengal when the Government, some years ago, were discussing the question of introducing systematic instruction in Hindustani music. His diaries and the records of the impressions of his interviews with famous musicians reveal the thorough investigation to which he had dedicated his life.

The Delhi station broadcast a special tribute to him on September 26th, whilst the Bombay station is broadcasting a talk on his life on October 31st.

**Attractions**

A particularly interesting phase of broadcasting which has manifested itself during recent weeks is the attention which is being paid by newspapers all over the country to talks given by prominent people. For example, the talk on the troubles of a politician by Satyamurti provoked an editorial in the Pioneer, whilst a talk by Mr. Marty Jones, a former M. P. who has been touring India for a few weeks, on illiteracy and unemployment in India resulted in a full-length editorial in the Hindustan Times. On the other hand, it was rather inexplicable that comparatively little editorial comment followed the publication of the sanctioned scheme of radio development by which a number of new stations are to be opened up in India. True, a Bombay paper registered a lively grouse because Bombay did not figure more prominently on the list, and several other papers made brief comments on the general scheme. But on the whole it must presumably be taken for granted that the new scheme meets with almost universal approval on the grounds that AIR authorities have sought to do the greatest good to the greatest number, irrespective of provincial rivalries or jealousies.

But apart from such items of news as this 36-lakh scheme, it is very gratifying to note that broadcasting now figures much more frequently in the news that it did even a few months ago.
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HAVE ABSOLUTE FAITH IN
RCA RADIOS

AC/DC UNIVERSE

Models T9-7 and T9-8

Model T9-7 is an excellent example to reveal the sensational possibilities of the new "Magic Eye" Radios with the RCA metal tubes. It has an international coverage of 540-18,000 kc/s., standard and short-waves including the 16, 19, 25, 31 and 49 metre bands. It incorporates the new 8" speaker semi-airplane type dial distinctly marked in separate colour. Additional features are Automatic tone control, Cathode ray tuning indicator, 3 point tone control, Antenna wave trap and audio compensation.

A-C Model T9-9

Model T9-9. 9 tubes including Magic eye. Magic Brain and Metal tubes. Three wave bands 140-410 kc/s., 540-1,800 kc/s. 5,400-18,000 kc/s., and the important 16, 19, 25, 31 and 49 metre bands. Easy tuning by the colour band dial and colour band indicator.

A-C Model T7-5

This is an efficient 7 tubes superhet covering all frequencies between 540 and 19,000 kc/s. including the standard broadcast band at 49, 31, 25, 19 and 16 metres. Cabinet shows modern American influence.

A-C Model T6-1

A 6-tube superheterodyne with a tuning range of 540 to 18,000 kc/s., covering standard and short-wave programmes, including the 49, 31, 25, 19 and 16 metre bands plus police, amateur and aviation communications.

Magic Brain Radio T8-18. 8 tubes with Magic Eye and RCA metal tubes. Superheterodyne covering 5 bands of foreign and standard programmes. 3 point tone control, wave trap, 5 watts output, 8" speaker, 2 speed tuning. Exquisite heart and butt walnut veneers.
Enterprising papers are sending their staffmen out to the villages to pick up "stories" about the manner in which rural radio is being received, whilst the way in which information and titbits from the Indian Listener are either copied or commented on in the daily press is further proof that broadcasting is no longer regarded as a trivial business scarcely worthy of mention.

**STUDY VISITS**

An interesting episode in the history of the Bombay Station this month will be the visit of the "touring party" from the Baroda College, who have included the Broadcasting Station in their Bombay itinerary. These study tours of students from the leading colleges of the country are becoming more and popular every year, and the fact that they cover almost the whole of India in their stride is a particularly valuable side of their endeavour. Incidentally, it is worth noting that this is the twelfth visit which the Bombay studio has had from parties belonging to educational institutions from all over the country, students having come from Bangalore, Poona, and Madras, to mention just three names.

**BRIDGE**

Amongst a very varied programme being planned by Bombay for the current fortnight, we are tempted to give special mention to one particular item in these notes, namely, that on the 23rd when "Raddy" will speak on Bridge. The speaker is known throughout Bombay as a real expert on this popular card game, and as Bombayites are regarded as very enthusiastic bridge players, we can expect both approval and criticism when the talk is finished! (We say criticism because we have yet to find any two bridge players who agree on all the finer points of the game!) And then, next month (to reveal a secret), a real game of bridge will be put over the microphone between four of Bombay's best players, with a commentary which should produce a really unique item.

As for the rest of the Bombay programme, we dare mention only a very few features, one being a talk on "The Conquest of the Ether" by authority on wireless, another being a practical reply to the question "Is your photography too expensive?" by the editor of India's most famous Illustrated Weekly, and a third being the welcome return of the orchestra of the liner Victory of India.

On the Indian music side, Bombay is providing a real treat by giving three famous singers within four days, the Director of Programmes informing me that unfortunately the engagements of the artists prevented him from spreading this "feast" over a longer period. The three are: Master Krishnarao, who makes his first microphonic appearance on the 16th, Aftabe-Muzeki Khan Sahib Faiz Khan on the 19th, and Sangit Ratna Abdul Khan on the 18th. A special Dussehra programme has, of course, been arranged in honour of one of India's greatest holiday festivals, whilst a novel feature item during that period will be that which will reveal to Bombay listeners the significance of the famous ceremonies in the Temple of the Goddess Durga in Bengal.

**DELHI'S PROGRAMMES**

In a recent issue we complimented Calcutta on making a scoop in topical talks by getting one of the unsuccessful Everest climbers to broadcast his experiences. Presumably there is nothing like friendly rivalry, for we now learn that Delhi promptly capped last month by securing one of the successful Nanda Devi explorers to recount the tale of the triumph of the Anglo-American expedition. These are talks which always prove popular, and although it is seldom possible to give adequate publicity to them, we believe that this is all to the good. If listeners know that surprise items of an attractive and topical character are likely to be included in the programme almost without notice, they will always be on the lookout for them, or will at least tune in every evening to the time when news and announcements are given.

On the musical side, Delhi continues to meet with a certain amount of difficulty in the matter of attracting artists, although Bombay and Calcutta, artists are now figuring much more frequently in the programme. Even the station's persistent critic, the Hindustan Times admits the seriousness of that problem, for on September 27th it said: "Talent is not easy of being procured in a place like Delhi, which for decades has ceased to be a centre of musical revival." That regular programmes, consisting generally of three transmissions daily, should have been possible during the past nine months reflects no small credit on those responsible, especially as at the moment Indian broadcasting has no large sum of money to spend in attracting artists to settle down in a place like Delhi when they can earn comparatively large sums in cinema work in Calcutta and Bombay. Apparently the newspapers are at last beginning to realise this, because the paper just referred to candidly admits that "within recent months we have had evidence to show that the Station authorities in Delhi have been endeavouring to improve their programmes in a number of directions." This tribute, although belated, is particularly welcome considering the source from which it comes, and we gladly pass on a goodly portion of the credit for that improvement to the daily press which has been unsparing in its criticism and has perhaps been mainly responsible for whipping up the much-needed enthusiasm among the general public which has produced a fast-growing co-operation.

**BOMBARDMENT**

A MOST interesting and topical talk, given by Capt. T. H. Hudson, R.N.R. (Rtd.), at present Commander of the R.I.S.N. Co.'s S.S. Dunara, was broadcast from Calcutta Station on the 13th September under the title: "The Bombardment of Algiers."

The S.S. Dunara, on her way from London to Calcutta, passed through the Straits of Gibraltar early in August, when the Bombardments of Algiers and Almeida were at their height, and Capt. Hudson, who was an eye-witness as his ship passed through the Straits, gave a graphic description of all that he saw. It will also interest listeners to know that Capt. Hudson was Navigating Officer to Sir Ernest Shackleton on his expedition to the South Pole.
MEMORIES of TRAFALGAR
To be Broadcast from Bombay on October the 21st,

EPISODE 1.
Bombay in 1775.
Characters: Midshipman Nelson; citizen.

EPISODE 2.
Bombay in 1803.
Characters: A "John Company" official; his secretary.

EPISODE 3.
England: A Ridge in Wessex in March, 1805.
Characters: 3 coach passengers; the conductor; a horseman; and some soldiers.

EPISODE 4.
Characters: A Band; 3 spectators.

EPISODE 5.
Characters: Two old men; a woman; Private Cantle.

EPISODE 6.
Off Trafalgar: The Deck of the "Bucentaure" on October 21st, 1805.
Characters: Admiral Villeneuve; Flag-Captain Magendie; Lieut. Daudignon; Petty officer; Crew.

EPISODE 7.
Off Trafalgar: The Quarter Deck of the "Victory" on October 21st, 1805.
Characters: Admiral Nelson; Captain Hardy; 2 officers; a midshipman.

EPISODE 8.
Off Trafalgar: On the "Bucentaure" again.
Characters: As in Episode 6, and Fournier.

EPISODE 9.
Off Trafalgar: The Cockpit of the "Victory."
Characters: Nelson; Dr. McGrath; Dr. Beatty; a midshipman; 2 officers; Scott (Chaplain).

EPISODE 10.
London: Outside the Guildhall at the end of 1805.
Characters: 2 citizens; 2 boatmen; a boy; and Pitt.

Produced by the Bombay Amateur Dramatic Club.
Arranged by Beatrice Foy, Episodes 3 to 10 being based on scenes from Thomas Hardy's "The Dynasts."

Shanthakumari, a Bombay film star who figures "on the air" this month in a delightful series of songs.
Along the Frontier
A series of unique talks from the Delhi Station on the peoples and countries of the frontier from Baluchistan to beyond Chittagong.

No. 2. BALUCHISTAN
By DEWAN BAHADUR DEWAN JAMJAT RAI

The Province about which I am to talk is known as Baluchistan and is bounded on the south by the Arabian Sea, on the east by Sindh, the Punjab and the N. W. F. P., on the north by tribal territory and Afghanistan and on the west by Persia. Not without justice does it claim high rank among the frontier provinces of India, for 520 miles it matches with Persia, for 723 miles with Afghanistan, for 38 miles with independent territory and there are 471 miles of coast line along the Arabian sea.

The characteristic divisions of the country are the upper highlands locally known as Khurasan occupying the central and the east central portion of the country where the mountains reach an elevation of nearly 12,000 feet, while the valleys lie about 500 feet above the sea level; the lower highlands include the slopes of the Sulaiman range on the east, the Pab and Khirtar ranges on the south, and the ranges of Mekran, Kharan and Chagai on the east. The plains include the peculiar strips of the country known as Kachhi and Las Bela, and the valley of the Dasht River.

There are very few rivers which have a permanent supply of water, and the principal among these are the Hingol, or Gidar Dhor, Hab, Purali and Dasht in the States, and Zhob, Pishin Lora and Nari in the districts, from which supply for irrigation is taken off wherever practicable. The climatic conditions vary with the natural divisions, it being extremely hot in the low lands while in Khurasan the winter is severe.

The total area of the Province is 1,34,518 square miles, and population 8,68,617 of which 5,10,104 are in the Kalat and Las Bela States. Of the population of the States 96.9 per cent are Muslims, and 3 per cent. Hindus who have lived in the country for many generations.

The majority of the Muslins are of the Sunni Sect, but among them is a community known as the Zikti or Dai, who are found chiefly in southern Baluchistan and Lasbela. They accept the Holy Koran but repudiate its orthodox interpretations. They have their holy place of pilgrimage at Khoi-Murad in Kech, a few miles from Turbat, where they resort on the 9th day of the month of Zilhajj. Exception is taken by their neighbours to some of their practices, especially marriage rites among some of them: it is a more or less regular thing for a water skin to be saturated with the Mulla’s breath and a marriage to be solemnised (possibly miles off) after deftating it into the bride’s face.

For administrative purposes the province is divided into six districts or agencies, each district having a Political Agent (or Deputy Commissioner) with the necessary subordinate staff. All these officers are under the Agent to the Governor-General, designated as the Chief Commissioner for British Baluchistan.

The country is thinly populated. The density per square mile is 31 in the Quetta-Pishin District, and one in Chagai, the greater part of which is a sandy desert where there is scarcity of water, and vegetation beyond Nushki is non-existent; in fact, it is said that there the shade of a tree is as rare as silver is in Persia. Hence there is a constant fear of raids by the tribesmen in this district.

The wind known as the had-i-rad-o-bist-roz blows for 120 days from about the middle of May to the middle of September.

The principal dialects spoken are the Baluchi, Brahui, Pashto, Jatki, and a small number speak Dehwar, a corrupt form of Persian; and the Lori (a wandering tribe) talk a jargon of their own.

RELIGION

The Muslims are particular in the performance of Nimaz, Roza and Zakat and those who can afford the expense do not fail to perform the Hajj. The masses, however, in their everyday practices have faith in shrines, Pirs, Faqirs, and ancestral worship is common; and there are certain sections, families or individuals among some of the tribes who are considered sacred, and credited with performing many a miracle.

Superstition in various forms is common. The domiciled Hindus have been largely affected by the practices of the Muslims, among whom they have lived for several generations in a subordinate position. In outlying places, even now, Muslim women are employed in domestic service, and water is carried in earthen pots on donkeys and used even in places of worship. They freely resort to the shrines of Muslim pirs and saints.

The principal occupations are agriculture, pasturage, breeding of cattle, sheep and goats, and to some extent trade. Besides doing all the household work, which includes the washing and sewing of clothes, the tribeswomen often help in the agricultural process, and in looking after the flock of sheep and goats.

To illustrate the working and economic value of women, I may mention what a tribeseen once told me. He was a levy sowing on Rs. 45 p.m., had a wife and couple of children, and had raised a loan of Rs. 600 to get a second wife. I questioned him as to the wisdom of this action, and his reply briefly was “Among us a woman does as much work as a couple of bullocks, costs less to maintain, and if I get a girl out of her in time I shall be able to obtain Rs. 600, if not more, for her Wanber (bride price) and then the wife I am now taking would be a net profit to me.”

FINANCE

The annual revenue of the Province is about 26 lakhs and the expenditure about 92 lakhs or more, the difference being met by the central government.

Before the Baluchistan Agency was established in 1877, the Sind and the Punjab borders were seldom free from raids by the tribesmen from across the borders, to which the records of the Sind Horse bear witness. But now one seldom hears of such raids. And internally, too, where there were constant fights and no one’s property was safe, and cultivation, small as it was, had to be confined within certain limits, now peace and prosperity reign. An occasional raid may occur, but on the whole the crime of a serious nature is less than that in some of the districts of the adjoining provinces.

The officers of the Baluchistan Administration are paid land revenue system, the tribal levy, and the Jirgas.

In the greater part of the country the land revenue is assessed in kind by actual division of the produce or appraisement of the standing crops, the Government share generally being one-sixth of the producer, but in lands irrigated by Government canals it includes water rate also. The local headmen are associated in the assessment.

PRESEVING LAW AND ORDER

The regular police, numbering about 2,500, are employed in bazaars, cantonments, in the railway lines, etc., where the population is mainly alien, and they also supply escorts, guards over jails and sub-treasuries, etc.

In the tribal country the Local levies are employed. These levies, including the Zhob Militia, the Mekran and Chagai Levy Corps, number about 3,000, and cost about 27 lakhs.

The administration and duties have thus been described by one of the officers who had long experience of the country:

“This system has been an integral feature of Baluchistan Administration from the earliest days of our rule. In the main it is designed to fulfill two objects, both of which are directed to pacification and self-government of the frontier as far as may be, by the frontier tribesmen themselves. In the first place by entrusting the levies not only the duties of watch and ward and the investigation of crime in all parts of the country outside our few regular alien settlements, but also the carrying of mails and serving or processes and other miscellaneous works. We have, therefore, found it much better to attach the levies in the everyday administration of the country. Indeed, our object is not merely to employ Baluchistan tribesmen in the Baluchistan administration, but rather to convey local self-government.

Indeed, our object is not merely to employ Baluchistan tribesmen in the Baluchistan administration, but rather to convey local self-government to the tribes. Indeed, our object is not merely to employ Baluchistan tribesmen in the Baluchistan administration, but rather to convey local self-government to the tribesmen themselves. In the first place by entrusting the levies not only the duties of watch and ward and the investigation of crime in all parts of the country outside our few regular alien settlements, but also the carrying of mails and serving of processes and other miscellaneous works. We have, therefore, found it much better to attach the levies in the everyday administration of the country.
system as it obtains in Baluchistan keeps the principle of tribal responsibility from decay, and gives it vigorous life. The levy service involves tribal and territorial responsibility which is again supported by local usage and custom. If an offence is committed within the limits of a village or tribe, the offender must be traced and handed over to the authorities, when justice is administered according to customary law, and when the village or the community concerned cannot produce the offender the fine or compensation imposed on the recommendation of the Jirga must be paid by them. Thus the tribal responsibility devolves on families and individuals, and all of them are anxious in their own interests to assist in the detection of crime."

ADMINISTERING JUSTICE

THERE are two systems for the administration of justice, the regular judicial proceedings which are enforced in the Urban areas, where the population is almost wholly alien, and the Jirga system which is working in the rural areas.

The Jirga System (another name for the Panchayat) is indigenous to the country and the essence of Tribal Law which it follows is re-conciliation, the satisfaction of the aggrieved not the punishment of the aggressor. This is the system which along with the levy service was introduced by Governor-General, the late Col. Sir Robert Sandeman.

It is the local tribesmen who sit on Local, District, Joint and ad hoc Jirgas, and important cases which cannot be disposed of satisfactorily by them, and questions pertaining to the tribal law and concerns, there have been no quarrels such as in other parts of the country, and people live in peace and unity. Let us hope that this Satisfactory state will continue and that the legitimate claims of the local people will be adequately met.

IMPRESSING CONDITIONS

In the three Districts, (Quetta-Pishin, Sibi and Loralai) for which information is available, 29.9 per cent. of the cultivable land is dependent on rain and flood water. The great need of the people is, therefore, an extension of irrigation works. The principal sources in country are karezis, springs, and a few streams and flood water which is precarious as the rain, fall varies from year to year and exceeds 12 inches, Government makes liberal takavi advances for the construction of new works, repairs to the existing sources of irrigation, and for the purchase of plough, oxen and seed again, at a low rate of interest, and in special cases without interest.

Special attention has been paid to opening up canals, where possible, and Government has spent over 66 lakhs of rupees on works which are classed as unproductive and protective. Experiments have also been made at considerable expense for artesian wells, but most of them have been unsuccessful.

You may like to know what has been done by the Government in respect of the Departments known as beneficent, the first among which is Education. A beginning was made in 1882 when a Primary School was opened at Quetta with two teachers and about two dozen boys, and in 1911-12 there were 116 schools with 8,972 pupils besides 314 Maktabs with 2,964 pupils in charge of Mullas, whose co-operation is being enlisted for the extension of education.

When the agency was established in 1877, a Medical Officer was appointed, dispensaries opened at Quetta and Mastung and with the extension of territories this most useful department has rapidly progressed. At the close of the year 1933-34 there were 49 public, state, and aided dispensaries, in which about 74 lakhs of outdoor, and ten thousand indoor patients, were treated, and about 15,000 major operations were performed.

In olden times when there were no hospitals and no trained doctors in the country the Hakims and Mullas treated the patients, the former generally with herbs, and the latter with their charms and prayers, etc., and branding with a heated plough share or some other iron implement was not uncommon.

The women in their child-birth were left to their own devices, and even now in distant parts midwives are unknown, the common idea being

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that if sheep and goats can bring forth without extraneous help, healthy full grown women should be able to do the same.

**MEANS OF COMMUNICATION**

**WHAT** a change has been made during the last 50 years. When I came, in 1881, it took me ten days from the rail-head at Sibi to get to Quetta by bullock carts, a distance of 100 miles. The path (a road did not then exist) lay for the greater part in the bed of the Bolan river or on the slopes of the adjoining hills. Now the railway runs from Jhatpat to Quetta (via the Bolan and the Harrai valley) to Chaman, Speenzand to Nokkandi on the Seistan border, and Khalani to Fort Sandeman, in all a length of 79 miles, and it takes about 24 hours to get to Quetta from Karachi, and 28 hours from Lahore and one can take a pleasant trip to Ziarat 62 miles from Quetta in a couple of hours. All the important stations are connected with good metalled roads, the total road mileage is 2,564, and mechanical transport is gradually taking the place of camels, bullocks, etc. Tribesmen who can afford them have motor cars, some motor cycles, and push bikes are in common use.

Those of us who have been long in the Province are in a position to bear testimony to the fact that there has been a great advance in the life of the tribesmen in all directions. They have comparatively better houses, well furnished, in some cases with up-to-date furniture, crockery, etc., better clothes, better food, and they have now a ready market for the various commodities they can produce. Among the well-to-do some educated young men have taken European dress and there are some local boys in the Dehla Dun Academy also in colleges in the Punjab and the United Provinces.

**ABOUT QUETTA**

SINCE the earthquake a good deal has been said about Quetta, and the weekly bulletins which appear in papers contain up-to-date information. So I need not say much. After the treaty of 1876, Quetta was occupied in 1877, and by gradual steps became a most flourishing station on the frontier. It became the capital of the Province, the Head Quarters of the Western Command of the Indian Army and centre of trade for southern Persia and Afghanistan, and attracted people from various parts of India. It had a first class Club, well stocked shops, excellent medical, educational and religious institutions and places of amusement. Its population rose from 18,802 to 60,722 in 1931, and in summer there is influx of people from Sind and the Punjab which adds from 25 to 50 per cent. to the civil population.

At 5-0 a.m. on the 31st of May 1935, when people were fast asleep, the terrible unprecedented earthquake came which ruined the whole of the city, caused immense loss of life and property and disorganised, for a time, everything. There had been several earthquake shocks before in 1888, 1892 and 1931 but none so severe as that of 1935.

His Excellency the Viceroy and Lady Willingdon paid us a visit in July, went round the ruined city and the camp of the refugees, and gave them an assurance that everything possible would be done to alleviate the suffering. A Relief fund was soon opened, to which generous contributions were made by all classes of people in India, in England, and in other countries. A Provincial Relief Committee was organised at Quetta and the branches opened in various parts of India, especially at Karachi and Lahore afforded valuable relief to the sufferers.

The latest account shows that:

(a) About 4,000 temporary huts and shops have been erected, but no applications for permanent buildings have so far been received.

(b) Property of the value of Rs. 8,130 has been delivered to the owners.

(c) 8,676 corpses have been recovered from under the debris.

(d) 1,31,252 spent on clearing and renewing fences and springs.

(e) The construction of rural huts of an improved pattern is progressing in the Quetta district and is now practically completed.

To conclude this somewhat hurried and brief account all that I can say is I saw Quetta in its infancy, watched its steady growth for over 50 years, and to the misfortune of us all witnessed its entire ruin in a few seconds by the earthquake which caused incalculable loss of life and property, and destroyed many of its most magnificent buildings.

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**RADIO PHOTOS**

Readers are cordially invited to send us topical and interesting photos relating to any phase of broadcasting in India. All photos used will be paid for.

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The Proper Use of Reaction

A large number of radio receivers now in use rely on the use of reaction for amplifying weak signals, since the ideal method of straightforward valve amplification is practicable only in fairly elaborate receivers using a large number of valves. Properly used, reaction is capable of giving very high amplification, but misuse spoils your own reception, and most probably other peoples' reception also. The following outline of the design and operation of reaction circuits should be helpful both to the amateur set constructor and to the layman interested in getting maximum performance.

WHEN an incoming radio signal is applied to the grid of the detector valve in a receiver, anode current of the valve undergoes audio-frequency (low-frequency) variations which operate the subsequent stages of sound amplification. There is also a radio-frequency (high-frequency) variation, mainly of the same frequency as that of the incoming signal but including higher harmonics which may be neglected for the present. This radio frequency portion has to be prevented from entering the audio-frequency side of the receiver, and for this purpose a radio-frequency (h.f.) choke and a by-pass condenser are used. (Fig. 1.)

This radio frequency portion may be usefully employed by passing it, before grounding, through a coil which is inductively coupled to the grid tuning coil. Provided the connections are made in the proper direction, the effect will be to induce currents in the grid coil which add to the signal current and consequently the voltage applied to the grid of the detector valve.

Owing to the amplifying property of the valve, a very small proportion of energy fed back in this manner would be sufficient to magnify the signal a great deal, the amplification depending within limits, upon the amount of feed-back or reaction. (Fig. 2.)

If, however, this reaction exceeds a certain limit, the valve commences to oscillate, energy passing from grid circuit to anode circuit through the valve and back again through the reaction coil, somewhat after the fashion of a dog chasing its own tail and going round and round in circles. The valve is now in effect a transmitter, and oscillations set up will not only distort the signals being received but are capable of disturbing reception all around. Every step should, therefore, be taken to avoid oscillation due to excess of reaction.

The critical limit of permissible reaction depends upon a variety of factors such as the

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coupling between reaction and grid coils, the mutual conductance of the valve, and the setting of the grid tuning condenser. Since the last has to be varied in order to receive signals on different wavelengths, it is necessary to provide means of controlling the reaction to suit reception at different wavelengths.

Several methods have been developed for controlling reaction. The earlier methods of moving the reaction coil nearer to or farther from the grid coil, or of varying the anode voltage of the detector (altering thereby the mutual conductance), have now fallen into disuse, and modern receivers have a system of condensers (real or virtual) controlling the amount of radio frequency energy passed through a fixed reaction coil. Two paths are provided for the R. F. currents, one through the reaction coil and one directly to the ground. A variable condenser is connected in series with the reaction coil to control the current passing through it, while the capacity of the usual by-pass condenser is reduced to a much smaller value. (Fig. 3.)

Alternatively, a differential condenser is used, wherein the by-pass section is progressively reduced as the reaction section is increased. (Fig. 4). In certain cases the by-pass condenser is omitted, the self-capacity of the wiring, audio-frequency transformer, etc., being considered sufficient.

The reaction control in a radio receiver should be smooth in operation. It should be possible to bring the circuit right up to the point of oscillation and keep it there without any signs of instability. There should be no stiffness of reaction, and as the reaction-condenser knob is manipulated the detector must glide in and out of oscillation. When the reaction control is turned backwards, oscillation should cease at the exact point at which it began without any sign of overlap. To obtain smooth and effective reaction control, proper attention must be paid to the following points:

(a) The effective anode voltage of the detector must be suitable to the valve used; with too low a voltage, the valve would not oscillate while too high a voltage would make the reaction fierce.

(b) The grid of the detector must be maintained at the proper voltage. The grid leak is normally connected to the positive leg of the filament in battery-heated valves, and in diode cases (usually with a 4 volt and 6 volt valves) this positive voltage would be too high. The remedy is to connect the grid leak terminal to the slider of a potentiometer of about 400 ohms connected across the filament, the slider being adjusted to give the best compromise between maximum signal strength and smooth reaction.

The components should be laid out carefully to avoid interaction.

(f) The movement of the reaction condenser should be mechanically smooth and free from stiffness, jerkiness or slackness. Provision of a slow motion control to the reaction control is a great help; if this cannot be arranged, at least a large knob must be used.

When searching for a station, the reaction control should be set just short of the oscillation point while the tuning dial or dials are slowly turned. It would be necessary to increase the setting of the reaction condenser a little for stations on higher wavelengths than on the lower wavelengths, but in any case the receiver should not be set oscillating. After a little practice it will be easy to recognize when a station is received, even during intervals, by the slight increase in background noise. The final adjustments of tuning must be made at the same time as the reaction is advanced to the required extent, as any alteration in reaction may have an effect on the tuning, although with a good reaction system this effect should be very small.

The receiver is in its most sensitive condition when the set is just before the oscillation point, i.e., nearly but not actually oscillating. If reaction is increased further, a slight roughness will be noticed when the tuning dial is turned to either side of the station setting. The license regulations specifically forbid the use of the receiver radiating oscillations, and care must be exercised in tuning, at least out of consideration for other listeners.

**Features Include:**

- Theoretical Articles discussing new principles
- Detailed Technical Reviews of Commercial Radio Receivers
- Designs for Experimental Receivers specially prepared to illustrate the practical application of new principles in valves, components or circuit arrangements.

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Public Wireless . . .

Performances

SPECIAL LICENCE RULES

In a communique some three months ago it was explained that the ordinary wireless licence which is obtainable on demand at all important post offices, is intended to cover wireless reception for private and domestic purposes only, and does not cover reception and reproduction of broadcast programmes in public rooms of hotels, restaurants, and places of entertainment. A special form of licence is necessary in such cases which is called a commercial broadcast receiver licence.

It has now been decided to reduce the initial fee for this type of licence to Rs. 2.5 for one receiver and an additional Rs. 1.0 for each additional receiver, loudspeaker, or similar appliance. This licence will be valid for 12 months from the first day of the month in which the licence is issued, and when the licence is renewed for a subsequent year, a reduction of Rs. 2.5 will be made, provided the renewal fee is paid on or before the date of expiry, that is to say, the annual renewal fee will be Rs. 20 for one receiver and one loudspeaker and the additional Rs. 1.0 for each additional receiver or loudspeaker where the fee is forwarded by means of an Indian postal or money order. The date of issue of such postal or money order will be considered as the date of payment.

FULL DETAILS NEEDED

When forwarding applications for renewal, full details of the licence should be given but it is not necessary to forward the licence itself. The term "one receiver" will ordinarily be held to cover an apparatus capable of receiving and reproducing a single broadcast programme at one time and will include the aerial and earth systems necessary for the purpose. One licence will only cover the single set. For the present these licences will only be issued by officers of the Director-General of Posts and Telegraphs (Wireless Branch), New Delhi, to whom applications should be addressed, together with the fee by money order or postal order. Cheques are not accepted.

COPYRIGHT ARRANGEMENTS

In making applications the number of receivers and loudspeakers and arrangements for installation should be clearly indicated and any material change which will thereafter have to be reported. The licence conveys no permission in respect of any infringement of copyright in the matter of broadcast and the licensee will have to make his own arrangements with copyright holders in so far as such claims have not already been met by the broadcasting authority.
ALL wireless waves travelling through the ether have the same speed, whatever their frequency. This speed, or velocity, is the same as that of light, which is 186,000 miles or 300,000 kilometres, per second. Light is of the same nature as the waves used in wireless but of a considerably higher frequency.

In any form of wave motion we have a series of peaks, or crests, and troughs travelling outwards from the source of the disturbance. The distance between any two successive crests or troughs is always the same for waves of a given frequency and is called the wavelength of the waves of that particular frequency. The speed at which any particular crest or trough is travelling is obviously the speed at which the wave is travelling. For every cycle of the vibrations at the transmitter which produce the wave motion there will be one peak and one trough. It follows, therefore, that any particular crest or trough will travel a distance of one wavelength during the time occupied by one cycle. The number of cycles which occur during one second is called the frequency, as we have already seen, so the distance travelled by the wave in one second will be equal to the frequency multiplied by the wavelength. This is the velocity of the wave, so we get the relation: velocity equals frequency multiplied by wavelength for any type of wave motion.

**EITHER WAVES**

In the case of ether waves, whether they are light waves or wireless waves, the velocity is 300,000 kilometres or 186,000,000 metres per second, so if we measure the wavelength in metres and the frequency in cycles per second we get the relation: 300,000,000 equals wavelength in metres times the frequency in cycles per second. It is usual to measure the frequency of waves employed for broadcasting in cycles, or kilocycles, per second, so the relation then becomes 300,000 equals wavelength in metres 2 times the frequency in kilocycles per second. Hence if the wavelength in metres is known, the frequency in kilocycles per second (kc/s) can be found by dividing it into 300,000.

Similarly, the wavelength in metres can be found by dividing 300,000 by the frequency in kilocycles per second.

Now although ether waves of all frequencies behave in the same way when travelling through the ether, they are affected in different ways if they encounter any obstacles in their path. Waves of high frequency (short wavelengths) are absorbed more readily by the ground than are longer waves, consequently long waves are capable of travelling to a greater distance along the surface of the earth before they become too weak to be received.

**DIRECT AND INDIRECT RAYS**

It has been found in practice, however, that even short waves can be received at very great distances from the transmitter. Waves are sent out by the transmitter in all directions. Those travelling horizontally (sometimes called the direct or ground ray) are readily absorbed by the earth and have a very limited range. Waves radiated in a more or less upward direction, however, encounter ionised layers of the upper atmosphere, and are reflected back towards the earth again so that they may arrive and be received at points on the earth's surface at considerable distances from the transmitter.

These ionised layers are due to the gases of which the atmosphere is composed being split up into ions or electrified particles by the action of the sun. During hours of darkness many of the ions recombine. The amount of ionisation which occurs is, therefore, greatest during daylight, and is greater in summer than in winter.

The reflecting properties of these layers will therefore vary considerably throughout the day and seasons of the year. In addition, the amount of reflection will depend on the wavelength of the waves which reach the layers. If there are only a few ions present, and they are far apart, short waves will be able to pass between them without appreciable reflection. Longer waves, however, will be more readily reflected.

**THE IONISED LAYERS**

One of these layers, called the Kennelly-Heaviside layer, is situated at a height of approximately sixty miles, and is mainly responsible for reflecting waves whose wavelengths lie in the medium-wave broadcasting band, i.e., from about 200 to 600 metres - as well as longer waves. Shorter waves pass through this layer but are reflecting by a still higher layer called the Appleton layer, which is situated at a height of something like 110 miles. Very short waves of less than 7 or 8 metres, however, are able to pass through even the Appleton layer, but cases have been noticed when even these very short waves have been reflected in the upper atmosphere and received thousands of miles from the transmitter.

Since the amount of reflection depends on the degree of ionisation of these layers, the strength of signals on a given wavelength will vary throughout the day and year. Also, waves which pass through the lower layer lose part of their energy in so doing, and the amount of such absorption of energy will also depend on the state of the lower layer. Consequently, although these waves may be well reflected from the upper layer they may become so weak by their passage through the lower layer that they cannot be received.

It will be seen, therefore, that the most suitable wavelength for transmission to a given part of the world will vary throughout the day and year.

**SUNSPOTS**

There is also another factor which influences the ionisation of the upper layers of the atmosphere. Spots on the sun play an important part in such ionisation. These spots cause considerable electrical disturbances which give increased ionisation, and so during periods of sunspot activity conditions during darkness and winter approximate more nearly to daylight and summer conditions occurring during periods of little sunspot activity.

It has been found that the number of sunspots reaches a maximum every eleven years, so at such times extremely short wavelengths are well reflected. During periods of minimum sunspots longer waves are found to be the best.

**FADE**

When two or more waves which have travelled by different paths from the transmitter are received at once, what is known as "fading" occurs. The waves may sometimes assist and sometimes oppose each other, depending on whether the crests of one coincide with crests of the other or not. This effect limits the "service area" of a medium or long-wave broadcasting station.

Beyond distances of fifty miles or so the indirect or reflected rays begin to reach the earth and interfere with the ray received direct along the ground. The latter has become weak through the spreading out of the waves as the distance increases, and through absorption by the ground, so that the indirect rays which have been well reflected and not so greatly attenuated or reduced in strength, have considerable influence.

On short waves the direct ray has a very limited range, and beyond that distance no reception is possible until a point is reached at which the direct ray reaches the ground. This distance throughout which no reception is possible, is called the "skip distance." Short waves are therefore largely used for long distance communication - e.g., the Empire Service, - and they also possess the advantage that the transmitting aerial can be arranged to be "directional," so that the radiated waves are mainly concentrated in the desired direction.

You must not let your "Indian Listener" Subscription Expire.
Friday, 16th October

p.m.

5-40 Nawab Jan Rampuri.

5-50 Sayyad Barkat Ali.

6-00 Muhammad Husain.

6-10 Iresh Ali. Ghazal.

6-20 1st News and Weather Report (English).

6-30 1st News and Weather Report (Hindustani).

6-40 Sayyad Barkat Ali.

6-50 Nawab Jan Rampuri.

7-00 "For Villagers Only.

7-20 Talk (Hindustani): Man vs. Microbe.

8-0 Talk.

8-15 Rajni Kant Desai of Baroda. Khayal Bashpeshor.

8-45 Nawab Jan Rampuri.

9-0 Talk (English).

9-30 Erwin Klein and his Viennese Orchestra.

9-45 Talk (English): "The Month in Agriculture."

10-0 A Studio Programme By S. Rose & Co.

10-10 vocal Selection.

10-30 Close down.

VUD 340.13 metres, 882 kcs.

VUB 350.9 metres, 855 kcs.

p.m.

5-40 Nawab Jan Rampuri.

5-50 Sayyad Barkat Ali.

6-00 Muhammad Husain.

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10-0 A Studio Programme By S. Rose & Co.

10-10 vocal Selection.

10-30 Close down.

VUC 370.4 metres, 810 kcs. 49.10 metres, 6,109 kcs.

p.m.

12-30 Time Signal.

12-40 AIR Orchestra. Mian ka Sarang.


10-0 A Studio Programme By T. E. Bevan & Co. ("Columbia" Records.)

10-10 Talk: "Our Daily Bread." No. 3.

12-30 Time Signal.

12-40 AIR Orchestra. Mian ka Sarang.


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10-10 Talk: "Our Daily Bread." No. 3.

VUB 350.9 metres, 855 kcs.

All Times are given in Indian Standard Time.

1006
TRANSMISSION 5.

GSF 15.14 Mc/s (19.82 m.).

5-40 Big Ben. Variety.

4-47 A Short Recital.

10-11 Electric recording.

1-0 * Nautical Nonsense.*

6-40 The News and Announcements.

5-45 The Empire Bookshelf.

THE INDIAN LISTENER.

October 7, 1936.

1-00 All times are given in Indian Standard Time.
Saturday, 17th October

9:30 a.m. - 10:15 a.m.

**Gowardhan Das.**

"Bhajan mori nayya us par laga dena." Bhajan.

10:15 a.m. - 10:30 a.m.

**G. A. Khan Gwallori.**

"Ufalt hui hui woh hua bewafa hua Achcha hua bura hua jo kuchh hua hua." (Hafez).

10:30 a.m. - 10:45 a.m.

**Master Jiwana.** Ware on Clarinet.

10:45 a.m. - 11:00 a.m.

**Mumtaz Begum.**

"Fi ki sam tum jo chale jhunte mai khane se jhuke ke kuchh kah shehne na paunam se." (Hurfai).

11:00 a.m. - 11:15 a.m.

**Dance Tune.**

SADAR, Violin.

MUKHERJII, Violin.

TAJ, Tabla.

11:15 a.m. - 11:30 a.m.

**Gowardhan Das.**

"Jo Prabhu mehr dor chhurto." Bhajan.

11:30 a.m. - 11:45 a.m.

**Mumtaz Begum.**

"Mahabat dil men rakhi ya bala-i-nagahan rakhi di. Tha tune yeh dozakh ki chingari kahan rakhi di." (Dekhudo).

11:45 a.m. - 12:00 a.m.

**1st News and Weather Report (English).**

12:00 a.m. - 12:15 a.m.

**1st News and Weather Report (Hindustani).**

12:15 a.m. - 12:30 a.m.

**Ghumal Sabir.** Kamod on Sarangi.

12:30 a.m. - 12:45 a.m.

**Mumtaz Begum.**

"Mandirwa men divola kaise jale." Dadra.

12:45 a.m. - 12:50 a.m.

**7:00 For Villagers Only.**

(Delhi Market Rates at 7:30 p.m.)

12:50 a.m. - 12:55 a.m.


The Quests that are Pets.

By KHWAJA HASSAN HUZAMI.

12:55 a.m. - 1:10 a.m.

**A Chorus from the Mahabharat.**

"Swakh men sab ayy guru gagan." By AIR ARTISTS.

1:10 a.m. - 1:25 a.m.

**Bhupali on Sarod and Harmonium.**

1:25 a.m. - 1:40 a.m.

**Gowardhan Das.**

"Pya ko samaih man main kaise saapti." Thumri Tilang.

1:40 a.m. - 1:55 a.m.

**G. G. Khan Gwallori.**

"Roni bajat." Thumri.

1:55 a.m. - 2:10 a.m.

**Street Noises of Delhi.** Part 3. Between the Fountain and the Jama Masjid.

Presented by KHWAJA HASSAN SHAH.

1:50 a.m. - 2:05 a.m.

**Time Signal.**

1:05 a.m. - 2:20 a.m.

**2nd News and Weather Report (Hindustani).**

2:20 a.m. - 2:35 a.m.

**Talk (English):** 

"Psychology and its Contribution to Crime Detection." By S. S. BHURJATI.

2:35 a.m. - 2:50 a.m.

**2nd News and Weather Report (English).**

2:50 a.m. - 3:05 a.m.

**Talk (English):** "Mari Kashmirni Safar." Presented by KIRISHI SISTERS.

3:05 a.m. - 3:20 a.m.

**Time Signal.**

3:20 a.m. - 3:35 a.m.

**A Recorded Programme (Hindustani).**

"Lowdown." By S. B. MUKHERJEE.

3:35 a.m. - 3:50 a.m.

**Time Signal.**

3:50 a.m. - 4:05 a.m.

**A Recorded Programme.**

"Le CD." By K. J. MUKHERJEE.

4:05 a.m. - 4:20 a.m.

**Time Signal.**

4:20 a.m. - 4:35 a.m.

**Light Music.**

By AYANTRA MADHIY KAMAT.

4:35 a.m. - 4:50 a.m.

**Talk (Hindi).** "Yon, kar shikhar sani ravan." By BELLA HALDER.

4:50 a.m. - 5:05 a.m.

**Time Signal.**

5:05 a.m. - 5:20 a.m.

**A Village Programme.**

Bhuta Singh.

5:20 a.m. - 5:35 a.m.

**Available Market Rates.**

JULONI and his Quintet.

Relayed from Taj Mahal.

(By kind permission of the Management.)

"Sreyo Dombu." Shree Dombu.

5:35 a.m. - 5:50 a.m.

**Time Signal.**

5:50 a.m. - 6:05 a.m.

**A Musical Comedy Switch.**

"Accordeon Nights." By MUKHERJEE.

6:05 a.m. - 6:20 a.m.

**Time Signal.**

6:20 a.m. - 6:35 a.m.

**A Musical Comedy Switch.**

"A Village Concert." By K. J. MUKHERJEE.

6:35 a.m. - 6:50 a.m.

**Time Signal.**

6:50 a.m. - 7:05 a.m.

**A Musical Comedy Switch.**

"A Studio Concert."

By THE ART PLAYERS. ASSISTED BY B. N. MADHUKAR.

VUC 340.13 metres, 882 kc/s.

12:30 a.m. - 12:40 a.m.

**Gowardhan Das.**

"Thare rahiyo Ghasanmoh."

Thumri Sarangi.

12:40 a.m. - 12:50 a.m.

**Gowardhan Das.**

"Kushnadad dast-karam jab woh beniaz kare Niazamad a andul mein pada ho kare."

1:00 a.m. - 1:10 a.m.

**G. A. Khan Gwallori.**

"Pya ko samaih man main kaise saapti." Thumri Tilang.

1:10 a.m. - 1:20 a.m.

**Mumtaz Begum.**

"Bach karti meri ras-ahna ho gaya Na jane mere dil ko kia ho gaya." (Jigar).

1:20 a.m. - 1:30 a.m.

**Mumtaz Begum.**

"Pardas paise pya kah as.

Dadra.

1:30 a.m. - Close down.

**TRANSMISSION II.**

12:30 a.m. - 12:35 a.m.

**AIR Orchestra.**

Lambird Sarangi.

12:35 a.m. - 12:40 a.m.

**Gowardhan Das.**

"Thare rahiyo Ghasanmoh."

Thumri Sarangi.

12:40 a.m. - 12:50 a.m.

**Gowardhan Das.**

"Kushnadad dast-karam jab woh beniaz kare Niazamad a andul mein pada ho kare."

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1:20 a.m. - 1:30 a.m.

**Mumtaz Begum.**

"Pardas paise pya kah as.

Dadra.

1:30 a.m. - Close down.

**TRANSMISSION III.**

12:30 a.m.

**AIR Orchestra.**

Pila.

12:35 a.m. - 12:40 a.m.

**Mumtaz Begum.**

"Aab to se na bula negi phirwa."

Thumri Plasi.

12:40 a.m. - 12:45 a.m.

**Time Signal.**

12:45 a.m. - 12:50 a.m.

**AIR Orchestra.**

Pila.

12:50 a.m. - 12:55 a.m.

**Mumtaz Begum.**

"Aab to se na bula negi phirwa."

Thumri Plasi.
Saturday, 17th October

P.m.

1-15 "Sea Power : No. 2. The Instruments of Sea Power." Greenwich Time Signal at 1-30 p.m.


2-25 The News and Announcements.

2-45 Close down.

TRANSMISSION 1.

P.m.

12-45 Big Ben. The BBC Dance Orchestra.

Directed by Henry Hall.

1009

TRANSMISSION 2.

P.m.


5-2 A Studio Concert.

6-10 A Programme of Light Orchestral Music.

7-0 A Studio Programme. Directed by Henry Hall.

8-1 Sports Commentaries.

GARDENIA (Berlin)


10-40 p.m. Weekend Music. 11-45 p.m. Weekend Music (contd). 12-30 p.m. Greetings to our listeners. 12-30 p.m. News and Economic Review in English. 12-45 p.m. Today in Germany. Sound Pictures. 1-45 p.m. "Eternal token of German Culture: Beethoven House in Bonn." 1-45 p.m. Little musical masterpieces. 2-45 p.m. Talk: "New German Law." 3-15 p.m. "The Coming-Relayed." 3-30 p.m. "In Town To-night." 4-15 p.m. "Goodbye, dear ones, the parting must come." 5-30 p.m. "Soldier marches through the streets." 6-00 p.m. "A Technical test for the Radio lad."

FRANCE (Radio Colonial)

Wavelength 19.68 m. and/or 25.24 m.

11-30 a.m. Relay from P.T.T. Transmitter. 11-50 a.m. Market Prices. 12 noon. Records. 12-10 p.m. Relay from P.T.T. Transmitter.

12-25 p.m. Records. 1-0 p.m. Talk on events in France. 1-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m. News in English. 2-30 p.m. Close down.

3-25 p.m. Day's Programme. 3-30 p.m. Relay from Radio-Paris—Concert. 4-30 p.m. News in English. 4-45 p.m. Concert—Relayed (contd.). 5-15 p.m. News in French. 5-45 p.m. Concert—Relayed (contd.). 6-30 p.m. Message, from Paris, by Mr. Francois Porche. 6-40 p.m. Literary Talk, by Mr. Francois de Terrand. 6-50 p.m. Colonial Market Prices. 7-00 p.m. Fantasies and Varieties. 8-30 p.m. Close down.

9-45 p.m. News in French, Market Prices, Rates of Exchange. 10-30 p.m. Concert—Relayed. 11-0 p.m. Relay of Radio-journal of France (French News). 11-20 p.m. Cronica Literaria, by Mr. Francois de Terrand. 11-30 p.m. Concert—Relayed (contd.). 12 midnight. News in English. 12-30 a.m. News in French. Market Prices. 1-0 a.m. Relay. 3-30 a.m. Close down.

HOLLAND (Phohi)

Wavelength 16.68 Metres.

6-30 p.m. Opening music. 6-35 p.m. Music. 6-40 p.m. Latest news from Holland. 6-55 p.m. The Phohi cello serenaders. 7-10 p.m. Microphone debutants. 7-25 p.m. News talk. 7-30 p.m. The Phohi cello serenaders. 8-00 p.m. From mail to mail in Holland. 8-20 p.m. The Phohi cello serenaders. 8-30 p.m. Close down.

ITALY (Rome)

Wavelength 25.40 and/or 31.31 Metres.


All Times are given in Indian Standard Time.

October 7, 1936.
Delhi
VUD 340.13 metres, 882 kc/s.

TRANSMISSION I

8.40
Indian Music. (Recorded).

9.0
Talk

12-00
By Bhatian.

12-10
Shiv Dayal Batish.

12-20
AIR Orchestra.

12-30
Talk (Hindi) 

12-40
"Balamow tum ka jano priti." Khansara.

12-50
Talk

9-0
"Main piya sang lar pachhtai." Khayal Chandr Kauns.

9-15
AIR Orchestra. (The abode of the dead). "Nindon ki Dasti.

9-25
Saraswati Bai of Bombay.

9-30

9-45
AIR Orchestra. "Song without words.".

10-0
Shiv Dayal Batish.

10-15
AIR Orchestra. "Study in E Major."

10-30
Talk (Hindi) : "Cooking for Pleasure." No. 7.

10-45
AIR Orchestra. "Souvenir D'Ukraine."

11-0
AIR Orchestra. "Mendelssohn."

VUD 350.9 metres, 855 kc/s.

TRANSMISSION II

11-40
Time Signal.

12-00
AIR Orchestra. Baroo.

12-20

12-50
Brinder Singh.

1-0
Shiv Dayal Batish. "Prabhu gan g a re ma matware." Thumi Gandhari.

1-10
Brinder Singh.

1-20
Ghulam Farid.

1-30
AIR Orchestra. "March - El Capitan."

VUD 350.9 metres, 855 kc/s.

TRANSMISSION III

1-45
Time Signal.

2-00
AIR Orchestra.

2-15
AIR Orchestra. "Puttin all my eggs in one basket."

2-30
By Igor Stravinsky.

3-00
AIR Orchestra. "Purisimilitude of Schubert."

3-15
AIR Orchestra. "D'Albert."
Sunday, 18th October


11.30 A Short Recital.


GSS 19.79 Mc/s (19.66 m.).

11-30 Weekly Newsletter

and Announcements.

11.30 The Indian Listener


12-30 Callender's Second Band.


2-25 Weekly Newsletter

Sports Summary and Announcements.

GSS 19.79 Mc/s (19.66 m.).

2-50 Close down.

TRANSMISSION 2.

GSS 21.47 Mc/s (19.97 m.).

2-30 a.m.

4-30 Big Ben. A Studio Concert.


5-30 "Sea Power: No. 2. The Instruments of Sea Power."

5-45 Violoncello Solos.

6-0 The Walford Hyden Mayfair Orchestra.


6-30 Opera at the Grand Hotel Orchestra.

By Capt. V. D'Auvergne. (A Temple Scene). Written by NARESHWAR BHATTACHARYA. By CAPT. V. D'AUVERGNE. (A Temple Scene).

6-55 A Short Religious Service


7-00 Weekly Newsletter

Sports Summary and Announcements.

GSS 19.79 Mc/s (19.66 m.).

7-30 Musial Interludes.

7-45 A Short Religious Service


7-10 Envoi.

7-15 Close down.

TRANSMISSION 3.

GSS 17.99 Mc/s (18.96 m.).

7-30 Big Ben. A Recital.

By Esther Coleman (Contralto). Dream in the Twilight (Benn). Jess (Kissher). By the Kast-Ahasian String Quintet, The Sun Sets Down.

7-50 The BBC Military Band.


8-30 "Sea Power: No. 2. The Instruments of Sea Power."

8-45 A Recital.


9-00 Weekly Newsletter

Sports Summary and Announcements.

GSS 19.79 Mc/s (19.66 m.).

9-15 Weekly Newsletter

Sports Summary and Announcements.

GSS 19.79 Mc/s (19.66 m.).

9-30 Close down.

TRANSMISSION 4.

Three of the following programmes will be used:

GSS 17.99 Mc/s (18.96 m.).

GSS 19.79 Mc/s (19.66 m.).

GSS 21.47 Mc/s (19.97 m.).

11-45 Big Ben. Fred Hartley and his Novelty Quintet.

With Brian Lawrence (Bass); Frank Lawrence (Contralto); Baritone, a Song (Youngman). Mandala, Will You Walk? (Mondale). Down in the Woodland. Hymn, Come Down, O Love Divine (A., and M., 490; S.P. 177); Psalms 92, Hymn.

All Times are given in Indian Standard Time.

1011
Monday, 19th October

p.m.
5-30 Muhammad Hashim.

"Lab hon akshat sahna dil mein khayaal-iyar ho.
Us ko khub ro bo ya mujhe jo na razdar ho.
Khidai ki qabla hui r-s-i Muhammad
Jo khs;i-Khidai hui wo kh-s-i-Muhammad."

5-40 Thy竺ue Sabir.

Paradise on Earth.

6-0 Irdah Ali.

"Dil kis kia chashmi-i-nast ki bimar ho gaya
Kis ki naaz lagi jo yeh bimar ho gaya." (Mir Durr)

6-10 Muhammad Hashim.

"Khabar hai kia jo apne qatil de do khel hain
Dil ham ko dekhta hain ham dil ko dekhte hain." (Amir Minat)

6-20 1st News and Weather Report (English).

6-30 1st News and Weather Report (Hindustani).

6-40 Jegi Bai.

"Bhi sari gharai mori dharae chhali." Thumri Kedara.

6-50 Muhammad Hashim.

"Mar meen kis i nakhs-i-dari-i-panam ki qaran
Ab hii bhceitene reh jumbish-i-daman ki qaran." (Delhi Market Rates at 7-30 p.m).

7-0 For Villagers Only.

(Delhi Market Rates at 7-30 p.m.).


By RAM CHANDRA SHARMA.

8-15 A Chorus from the Mahabharat.

"Man har lino jiya muskae ke." By AIR ARTISTS.


"Ab man le parar uchhol paa paa." By AIR ARTISTS.

8-35 Ashli Bai of Patiala.

"Dil ma deko ke dare nahein jiya jane se
Laxat-i-os-i-jigar puchohne parwane se." (Ghazal Zila Bharair).


9-15 Time Signal.


By Professor P. C. M. MURALIDARAN, I.S., Statistical Laboratory, Presidency, Calcutta.

10-0 Peter Mendoza and his Dance Band.

10:30 Close down.

11-0 Talk (Marathi): "Aicha Pashuna." By Dr. MIRAZAM BHATT.

11-0 Talk (English): "Some Recent Developments in Science." By Dr. NAVIN BHATT.

11-0 11-0 Ken and his Band in Dance Night.

11-0 Talk (English): "News in Hindi." By Dr. NAVIN BHATT.

11-0 Talk (English): "Commercial News and Hindi." By NAVIN BHATT.

11-0 Talk (English): "Hindustani Duets." By SARLADIV and RADHI PANDIT.

11-0 Talk (English): "Some Recent Developments in Science." By DRAHAR AHMED.

11-0 News in English.

11-0 Ken Mae and his Dance Band in a Dance Night.

11-0 Talk (English): "Aisha Pashuna." By Dr. MIRAFAZAM BHATT.
Monday, 19th October

12.30-12.45 “Entertainment Parade.”

1.30-1.45 “The Rescue Home at Dum Dum.”
By Mrs. S. C. Mooree, of The All India Women’s Conference.

2.30-3.00 “The Rescue Home at Dum Dum.”
By Mrs. S. C. Mooree, of The All India Women’s Conference.

3.30-3.45 “The Rescue Home at Dum Dum.”
By Mrs. S. C. Mooree, of The All India Women’s Conference.

5.00-5.15 “The Rescue Home at Dum Dum.”
By Mrs. S. C. Mooree, of The All India Women’s Conference.

7.00-7.15 “The Rescue Home at Dum Dum.”
By Mrs. S. C. Mooree, of The All India Women’s Conference.

9.00-9.15 “The Rescue Home at Dum Dum.”
By Mrs. S. C. Mooree, of The All India Women’s Conference.

All Times are given in Indian Standard Time.

1013
Tuesday, 20th October

p.m.
5-30 Abid Husain.

5-45 Airforce Orchestra.

5-50 Naushad.

6-0 Sangam.

6-15 Amdur Rahman.

6-30 Talk (Hindustani).

6-45 Relaxation.

7-0 VCU.

7-15 Talat Husain.

7-30 Amjad Ali Khan.

7-45 Non-Stop Time Signal.

VUC 359.9 metres, 855 kc/s, 31.36 metres 9.65 kc/s.

p.m.
11-30 The V. U. B. Indian Orchestra.

12-0 Hindustani Songs


p.m.
2-30 Available Market Rates.

A Dance Programme.

All Times are given in Indian Standard Time.

1014
Tuesday, 20th October

a.m.
8-50 The BBC Dance Orchestra.*
   Directed by Henry Hall.

9-10 The News and Announcements.

   By P. K. Mullick.

11-50 "Foreign Affairs."*
   By Sir Frederick Whyte, K.C.S.I., L.L.D.

12-5 The Bernard Creagh Quintet.

12-30 "World for Sale."*
   A satirical revue by John Watt. Music by various composers.
   Production by William MacLure.

1-15 A Recital.
   By Margaret Field-Hyde (Soprano).

2-30 The News and Announcements.

2-50 "Scientists at Work."*

3-19 Chamber Music.
   The Robert Quartet.

4-15 "Musical Interlude.
   By Sir Frederick Whyte, K.C.S.I., L.L.D.

4-50 "World for Sale."*

5-25 "World for Sale."*

7-0 The News and Announcements.

7-10 "Round and About.

7-30 Close down.

TRANSMISSION 1.

GSD 11.75 Mc/s (25.33 m) GSB 9.51 Mc/s (50.55 m).

12-45 Big Ben. Beethoven's Pianoforte Sonatas—No. 3.
   "Empire Exchange."*

1-15 "Empire Exchange."*
   Paints of view on Imperial affairs given by travellers from the Dominions and the Colonies.

2-30 Musical Interlude.

2-45 The News and Announcements.

3-15 A Recital.
   By Sir Frederick Whyte, K.C.S.I., L.L.D.

GSM 21.47 Mc/s (13.97 m) GSM 17.79 Mc/s (16.86 m).

3-40 Big Ben. "Empire Magazine," No. 10.*

4-34 "Musical Interlude.

5-2 The News and Announcements.

5-25 "Musical Interlude.

6-10 A Recital.
   By Kathleen Denyer (Pianoforte).

6-30 "Musical Interlude.

7-15 "Round and About.

7-30 Close down.

TRANSMISSION 2.

GSM 21.47 Mc/s (13.97 m) GSM 17.79 Mc/s (16.86 m).

7-30 Big Ben. "Empire Magazine," No. 10.*

8-10 "Round and About.

8-30 Close down.

TRANSMISSION 3.

GSM 21.47 Mc/s (13.97 m) GSM 17.79 Mc/s (16.86 m).

11-30 Big Ben. "Foreign Affairs."*
   By Sir Frederick Whyte, K.C.S.I., L.L.D.

12-45 "Musical Interlude.

1-0 The News and Announcements.

1-30 "Round and About.

2-0 Close down.

PLANETARY TIME SIGNAL.

3-30 "Round and About.

3-30 Close down.

TRANSMISSION 4.

3-30 "Musical Interlude.

4-00 Big Ben. "Empire Magazine," No. 10.*

11-17 The Continents.

11-30 The News and Announcements.

All Times are given in Indian Standard Time.

GERMANY (Berlin)


10-40 a.m. Light Music. 11-45 a.m. Light Music (contd.). 12-30 p.m. News and Economic Review in English. 12-45 p.m. "Round and About.

FRANCE (Radio Colonial)

Wavelength: 19.68 m. and/or 25.24 m.

11-30 a.m. Relay from P.T.T. Transmitter. 11-50 a.m. Market Prices, Rates of Exchange. 12 noon. Records. 12-10 p.m. Relay from P.T.T. Transmitter. 12-25 p.m. Records 1-0 p.m. Talk on Events in France. 1-15 p.m. Records 4-0 p.m. News in English. 4-15 p.m. News in French. 4-30 p.m. Talk on Events in France.

ITALY (Rome)

Wavelength: 25.40 and 31.31 Metres.

5-15 p.m. "Musical Interlude.

12-00 Midnight News. 12-30 a.m. News in English. 12-30 a.m. Relay. Lyric, Federal Broadcast. 3-30 a.m. Close down.

MEMORIES OF TRAFALGAR

Bombay : Oct. 21st, 10-0 p.m.
**Wednesday, 21st October**

**TRANSMISSION I**

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.m.</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>8:00</td>
<td>Indian Recorded Music.</td>
</tr>
<tr>
<td>9:00</td>
<td>Talk (Hindustani) : &quot;Outline History of the World&quot; No. 8.</td>
</tr>
<tr>
<td>9:15</td>
<td>Selection.</td>
</tr>
<tr>
<td>9:45</td>
<td>1st News.</td>
</tr>
<tr>
<td>11:30</td>
<td>Close down.</td>
</tr>
</tbody>
</table>

**TRANSMISSION II**

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>p.m.</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>12:30</td>
<td>AIR Orchestra. Madh Mad Sarang.</td>
</tr>
<tr>
<td>12:40</td>
<td>Lachhi Ram.</td>
</tr>
<tr>
<td>14:10</td>
<td>Master Mahboob. Quawwul.</td>
</tr>
<tr>
<td>14:40</td>
<td>1st News.</td>
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<tr>
<td>15:30</td>
<td>Close down.</td>
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</table>

**TRANSMISSION III**

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>p.m.</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>14:00</td>
<td>AIR Orchestra. Blam Plai.</td>
</tr>
<tr>
<td>14:10</td>
<td>Backer Bai.</td>
</tr>
<tr>
<td>14:50</td>
<td>Master Mahboob.</td>
</tr>
<tr>
<td>15:30</td>
<td>Lachhi Ram.</td>
</tr>
<tr>
<td>15:50</td>
<td>Close down.</td>
</tr>
</tbody>
</table>

**BOMBAY**

**TRANSMISSION IV**

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.m.</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>8:00</td>
<td>AIR Orchestra. Blam Plai.</td>
</tr>
<tr>
<td>9:00</td>
<td>Backer Bai.</td>
</tr>
<tr>
<td>10:00</td>
<td>Master Mahboob.</td>
</tr>
<tr>
<td>10:30</td>
<td>Lachhi Ram.</td>
</tr>
<tr>
<td>11:00</td>
<td>Close down.</td>
</tr>
</tbody>
</table>

**BOMBAY**

**TRANSMISSION V**

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>p.m.</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>2:00</td>
<td>AIR Orchestra. Blam Plai.</td>
</tr>
<tr>
<td>3:00</td>
<td>Backer Bai.</td>
</tr>
<tr>
<td>4:00</td>
<td>Master Mahboob.</td>
</tr>
<tr>
<td>4:30</td>
<td>Lachhi Ram.</td>
</tr>
<tr>
<td>5:00</td>
<td>Close down.</td>
</tr>
</tbody>
</table>

**TRANSMISSION VI**

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.m.</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>8:00</td>
<td>Selection of Indian Music.</td>
</tr>
<tr>
<td>9:00</td>
<td>Backer Bai.</td>
</tr>
<tr>
<td>10:00</td>
<td>Master Mahboob.</td>
</tr>
<tr>
<td>10:30</td>
<td>Lachhi Ram.</td>
</tr>
<tr>
<td>11:00</td>
<td>Close down.</td>
</tr>
</tbody>
</table>

All Times are given in Indian Standard Time.
The Indian Listener

Wednesday, 21st October

TRANSMISSION 1.
GSD 11.75 Mc (105.50 m), GSD 9.51 Mc (115.50 m).
12-45 Big Ben. Chamber Music.
The Nobby Phillips String Quartet : Nobby Phillips (Violin) ; join in from Whitby (105.50 m.) ; Lily Phillips (Violoncello). Quartet in G, Op. 38, No. 3 ; Allegro moderato. (Allegretto : Adagio ; Allegro moderato : Presto ; Allegro ; Nobby Phillips (2) ; Lily Phillips : Jamine Tameem (2). Recorded by H. M. V."

1-30 "Foreign Affairs."
By Sir Frederick Wyke, K.C.S.I., I.L.D.

1-45 "Hartfield."

1-55 "Empire Magazine."
No. 10.*
A weekly review of things at home. Edited by Paxto Thorsten.

2-25 The News and Announcements.
Greenwich Time Signal at 2:30 p.m.

TRANSMISSION 2.
GSH 21:47 Mc (13.97 m), GSH 17:29 Mc (16.86 m).
4-30 Big Ben. Sidney Torch, at the Organ of the Regal Cinema.

5-15 "Nelson Expectations."
A play by William Fitzmaurice Hill. Production by Howard Rose.

6-0 Luigi Vosseli and his Hungarian Orchestra.

12-00 "Franz's Imagination."

12-45 "Emperor Exchange."

G pp. 3-10 ("Foreign Affairs")

"Fabulous Fun." A play by William Fitzmaurice Hill. Production by Howard Rose.

"Hartfield."

"Empire Magazine."

The News and Announcements.
Greenwich Time Signal at 6:30 p.m.

"An Organ Recital."
By G. T. Franks, Finsouthwell Minster, Evening Song [Harmonie], Choral Prelude, O God our Help in Ages Past [Orch], Questions and Answers (Welshbohemian). Fantasia in E minor (Silas). Capriccio Albackarm (Lies)."

7-15 Close down.

TRANSMISSION 3.
GSH 21:47 Mc (13.97 m), GSH 17:29 Mc (16.86 m), GSH 15:14 Mc (19.84 m).
12-00 Big Ben. The BBC Dance Orchestra.

12-45 A Recital of Hebridean Songs.
By Ann Russell (Soprano). Thoughts Have Wings (Lis Lembrion). My Darkest Heart (Quinlan). A Butterfly's Kiss (London Rosen). Johnson (Stanford). Love, I Have You Was (Haydn Wood)."

12-45 "Empire Exchange."

1-30 "Foreign Affairs."
By Sir Frederick Wyke, K.C.S.I., I.L.D.

2-00 A Short Recital.
By Louise Hayward (Soprano). Thoughts Have Wings (Lis Lembrion). My Darkest Heart (Quinlan). A Butterfly's Kiss (London Rosen). Johnson (Stanford). Love, I Have You Was (Haydn Wood)."

4-30 "Emperor Exchange."

GERMANY (Berlin)
10-40 a.m. Playing for you, 11-45 a.m. Playing for you (contd.). 12-25 p.m. Greetings to our Listeners. 12-30 p.m. News and Economic Review in English. 12-45 p.m. Today in Germany Sound Pictures. 1-0 p.m. "High up the air is fresh and pure." 2-00 p.m. A Homeland Evening. We come from Pomeranien. 2-45 p.m. German Winter Sport Territory: II. Bavarian Alps. 3-15 p.m. Big Ben.

4-30 p.m. Concert of Light Music. 5-30 p.m. News in German. 5-45 p.m. Greetings to our Listeners in India. 5-50 p.m. Concert of Light Music (contd.). 6-00 p.m. Solo Concert by Dr. H. B. Sumner (ond). 7-00 p.m. Economic and Social Talk, by Mr. W. Qudile. 7-30 p.m. News and Economic Review in English on D.J. D.J. 1-10 p.m. Today in Germany Sound Pictures. 6-00 p.m. Women's Hour: Healthy Occupations for little children. 8-15 p.m. The varied world of the opera. 9-30 p.m. Close down.

FRANCE (Radio Colonial)
Wavelength 19.68 m. and/or 25.24 m.
11-30 a.m. Relay from P.T.T. Transmitter. 11-50 a.m. Market Prices, Rates of Exchange. 12.00 noon. Records. 12-10 p.m. Relay from P.T.T. Transmitter.

21-00 Reception. 2-30 p.m. Talk on Events in France.

2-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m. News in English. 2-30 p.m. Close down.

3-30 p.m. Day's Programme. 3-30 p.m. Relay from Radio-Paris-Concert. 4-45 p.m. News in English. 4-55 p.m. Concert-Relayed (contd.). 5-15 p.m. News in French. 5-30 p.m. Concert-Relayed (contd.). 6-00 p.m. Economic and Social Talk, by Mr. A. F. T. Transmitter. 6-15 p.m. Colonial Market Prices, Rates of Exchange. 7-00 p.m. Concert conducted by Mr. H. B. Sumner, with Mr. J. H. Sumner (piano). 7-45 p.m. Rates of Exchange and Foreign Stock (Rentes). 8-30 p.m. Close down.

9-45 p.m. News in French, Market Prices, Rates of Exchange. 10-30 p.m. Close down. 11-00 p.m. Relay from Radio-Journal of France (French News). 11-20 p.m. Cronica Literaria, by Mr. Francisco de Tarazona. 11-30 p.m. Concert-Relayed (contd.). 12-00 a.m. News in French. 12-30 a.m. News in French, Market Prices. 1-0 a.m. Relay. 3-30 a.m. Close down.

ITALY (Rome)
Wavelength 25.40 and/or 31.13 Metres.

1017
Thursday, 22nd October

p.m.
5-50 Chulam Sabir. "Jai Sir/Sar."
5-60 Gowdaran Das.
6-10 Asad Ali Khan.
6-20 Air Orchestra.
6-30 Asad Ali Khan.
6-35 Air Orchestra.
6-40 Brinder Singh.

COURT SYMPHONY ORCHESTRA.
BBC DANCE ORCHESTRA.
AIR Orchestra.
BARNABAS VON CECZHY AND HIS ORCHESTRA.

"Jan-o-dil sazgar hain donon
Yaani turn par nisar halo donon."
"Jan-o-dil sazgar halo donon
"Dar dar pat phule re."
"Bakhuda ba Khuda raha hun main."
"To jina hamen apna dushwar hoga."
"Dunya men us ghari ko na rakhkhe Khuda mujhe."
"Hona pare jo ap ke dar se judo mujhe"
"Dinclayalu mere dukh ke tarayya."
"Matti bhi jis ko tere na dil ka ghubar de."

FAHR-I-ALAM QAWWAL
Ghazals.

INDURALA
S e le cтиров  " Princess Ida."

TRANSMISSION I.

a.m.
8-30 Time Signal.
8-45 Saraswati Bai of Bombay.

The Indian Listener

VUD 340.13 metres, 882 kc/s.

VUC 370.4 metres, 810 kc/s. 49.10 metres, 6,109 kc/s.

All Times are given in Indian Standard Time.

The Indian Listener
Thursday, 22nd October

**TRANSMISSION 2.**

**p.m.**

8-55 The BBC Dance Orchestra,*

Directed by Henry Hall.

2-25 The News and Announcements.

Greenwich Time Signal at 2.30 p.m.

2-45 Close down.

**TRANSMISSION 3.**

**p.m.**

4-30 Big Ben. "World for Sale."*

A rhetorical attack by John Watt. Music by various composers. Production by William MacLure.

5-15 Musical Interlude.*

5-20 The BBC Welsh Orchestra.

Leader, Frank Thomas; conductor, Ida Lewis. Nuyack Ellis (Soprano).

5-55 "Food for Thought."

Three talks on topical matters.

6-15 Partworks by J. L. Hatton (1809-1886).

1809-1886. The BBC Singers (Section B); conductor, Leslie Woodgate. "He that Hath a Pleasant Face, the Hunt is up." The Realms. Over Hill, over Dale. Selby Falls the Shadows of Ensign's Series; the Sunseeps. The Sunseeps. The Sunseeps. That Gently Blow.

Greenwich Time Signal at 6.30 p.m.

6-30 The News and Announcements.

6-50 Usd University Midday Concert.

7-15 Close down.

**TRANSMISSION 4.**

**p.m.**

7-30 Big Ben. A Programme of Military Marches,*

"Overture and Beginners, Please."

A visit to the stage of a London theatre just before the curtain rises.

Arranged by Pascoe Thornton.

8-0 The BBC Empire Orchestra.

Leader, Daniel Mela; conductor, E. Furey.

9-0 "A Countryman's Diary."*

By A. G. Street.

9-15 "Nelson Expect."*

A play by William Fitzmurry Hall. Production by Howard Rose.

**Radio-Paris—Concert.**

**p.m.**

10-0 The News and Announcements.

10-20 Dance Music.*

10-30 Close down.

**NOTE.**


All Times are given in Indian Standard Time.

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**GERMANY (Berlin)**


10-40 a.m. Music for all. 11-45 a.m. Music for all (contd.).

12-30 p.m. News and Economic Review in English. 12-45 p.m. Today in Germany. Sound Pictures. 1-0 p.m. Pitter. Balls and Uncle Heinrich. 2-15 p.m. Folk Music.

3-15 p.m. Hitler Youth Programme. Hitler Youth in the Labour Service.

**FRANCE (Radio Colonial)**

Wavelength 19.69 m. and/or 25.24 m.


12-25 p.m. Records. 1-0 p.m. Talk on Events in France. 1-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m. News in English. 2-30 p.m. Close down.

2-35 p.m. Day's Programme. 3-30 p.m. Relay from Radio-Paris—Concert. 4-30 p.m. News in English. 4-45 p.m. Concert—Relayed (contd.). 5-15 p.m. News in French. 5-45 p.m. Concert—Relayed (contd.). 6-30 p.m. International Talk. By Mr. Jacques Kayser. 6-40 p.m. Talk on Music. By Mr. Charles Aloumin. 6-50 p.m. Colonial Market Prices. Rates of Exchange. 7-0 p.m. Concert with Mr. Chouiller and Miss Brilly. 8-25 p.m. Rates of Exchange and French Stock (Rentes). 8-50 p.m. Close down.


**HOLLAND (Phoibi)**

Wavelength 16.68 m.

6-30 p.m. Opening announcement. 6-35 p.m. Music. 6-40 p.m. Latest news from Holland. 6-45 p.m. Irish recording concert by Danny Malone. 7-0 p.m. Well known Hollanders before the Phoibi microphone. 7-30 p.m. Popular music. 8-10 p.m. Talk. 8-30 p.m. Close down.

**ITALY (Rome)**

Wavelength 25.40 and/or 31.13 m.

5-13 p.m. Varied programmes. 6-45 p.m. Concert. Talk: "Ruggiero di Semino da San Pietro Vernetto, Gold Medal." 7-30 p.m. News in English. Selections from the opera "Così fan tutte." By W. A. Mozart. 10-0 p.m. Instrumental concert. Mandoline—guitar, and xylaphone with orchestral accompaniment. Dance music. 11-10 p.m. Concert of Arabian music.
Friday, 23rd October

VBD 34°13. metres, 882 kc/s.

TRANSMISSION I

8-40 Time Signal.

Recitation from the Quran-i-Sharif. (Text and Translation). By QARI MUHAMMAD YEHUD.

10-15 Indian Music. (Recorded).

FAURE - "La Veuve Solitaire" - Thumri and Dadra.
ANGURBA - "Ghazal and Ghazal.
PRATAPRAO THAKKAR - "Chhapan and Chhapan.
KALIKA DHOLI - "Ghazal and Ghazal.
MATTER SANATHI - "Chhapan and Chhapan.
AYURDI RAI PATEWARI - "Ghazal and Ghazal.

9-0 Talk (Hindiast): "Elements of Civics." No. 2. Public Obligations. By PROFESSOR GANPAT RAJ.


10-03 Alfaaz Husain of Nasiga. "Lag ri annam ki jhadi," Thumri Bhairo.


11-00 "Dildar kamandan wale da." By PROFESSOR GANPAT RAJ.


12-20 Time Signal.

AIR Orchestra. Mian ki Malhar.


13-00 Muhammad Afzal. "E ri mai ri." Khayal Mian ki Todi.

13-45 Mrs. B. C. Verma. Thumri Sarang.

14-00 Malang Khan. Barwai on Sur Bahar.

14-30 "Deiling in the Classics." (Recorded).

LAC SCALA ORCHESTRA. (Milan).

In memory of Fran Schubert.

ARRIGI KATTAYAN. "L'Ultimo Cantore."

HECTOR AND THE LONDON PREMIER ORCHESTRA. "Symphonic Odes and Beauties.

ARTHUR KENYON TAYTAYAN.

PALMSON. No. 2 to E flat minor.

FEUERMANN AND SYMPHONY ORCHESTRA. (Concerto D major for Cello and Orchestra. (Requena).

15-30 Close down.

TRANSMISSION II

P.M.

12-30 Time Signal.

AIR Orchestra. Arosh Nal.

12-45 Sahay Barkat Ali.

13-00 Mrs. B. C. Verma. Thumri Sarang.


14-30 "Deiling in the Classics." (Recorded).

LAC SCALA ORCHESTRA. (Milan).

In memory of Fran Schubert.

ARRIGI KATTAYAN. "L'Ultimo Cantore."

HECTOR AND THE LONDON PREMIER ORCHESTRA. "Symphonic Odes and Beauties.

ARTHUR KENYON TAYTAYAN.

PALMSON. No. 2 to E flat minor.

FEUERMANN AND SYMPHONY ORCHESTRA. (Concerto D major for Cello and Orchestra. (Requena).

15-30 Close down.

TRANSMISSION III

P.M.

13-40 Time Signal.

AIR Orchestra. Pardepeki.

14-00 Sahay Barkat Ali.

14-45 Afzal Husain.

15-00 "Ne sae suraj sikhi cherry bikhane." Koyalia mahat kare pukar kare jawa lage katar." Thumri Sita.

15-30 Mrs. B. C. Verma. Thumri Sita.

16-00 Sahay Barkat Ali.

All Times are given in Indian Standard Time.
Friday, 23rd October

TRANSMISSION 2.

P.M.

2-45 The News and Announcements.

Greenwich Time Signal at 2.30 p.m.

FRANCHE (Radio Colonial)

Wavelength 19.66 m. and/or 25.24 m.

11.30 a.m. Relay from P.T.T. Transmitter. 11.50 a.m. Market Prices, Rates of Exchange. 12 noon. Records.

12-10 p.m. Relay from P.T.T. Transmitter.

12-25 p.m. Records. 1-45 p.m. Talk on Events in France. 1-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m. News in English. 2-30 p.m. Close down.

3-25 p.m. Day's Programme. 3-30 p.m. Relay from Radio-Palis—Concert 4-30 p.m. News in English. 4-45 p.m. Concert—Relayed (contd.). 5-15 p.m. News in French. 5-45 p.m. Concert—Relayed (contd.). 6-30 p.m. The Important Trends of Contemporary Thought by Mr. P. Descaves. 6-40 p.m. Humour of To-day, by Mr. Desoussey. 6-50 p.m. Colonial Market Prices, Rates of Exchange. 7-45 p.m. "Les Voyages Verses."

7-30 p.m. Close down.

8-45 p.m. News in French, Market Prices, Rates of Exchange. 10-30 p.m. Concert—Relayed. 11-30 p.m. Relay of Radio-Journal of France (French News). 11-20 p.m. The French Epic, by Mr. Etienne Buisson. 11-30 p.m. Concert—Relayed (contd.). 12 midnight. News in English. 12-30 a.m. News in French, Market Prices. 1-45 a.m. Dramatic, Federal Broadcast. 3-30 a.m. Close down.

HOLLAND (Phohi)

Wavelength 16.88 Metres.

6-30 p.m. Opening announcement. 6-35 p.m. Music. 6-40 p.m. Latest news from Holland. 6-55 p.m. Violin recital by Mr. Emile v. Amersfoort. 7-20 p.m. Netherlands composers: "Wolfgang Wielders" 7-30 p.m. Violin recital (contd.). 7-50 p.m. Talk. 8-10 p.m. Dance music.

ITALY (Rome)

Wavelength 25.40 and/or 31.33 Metres.


All Times are given in Indian Standard Time.

1021
Saturday, 24th October

**BRC DANCE ORCHESTRA.**

Marching along together.

"Let's all Sing like the birdies Sing."

p.m. 2-30 Close down.

**TRANSMISSION III.**

p.m. 5-0 Time Signal.

**AIL ORCHESTRA. Nilam Bar.**

5-30 Pandit Bhushan Joshi.

"Hare Ram hare hare Ram hare Ram hare."

-Keeratin.

"Bholu main Ram charan sukdiyo."

- Bhajan.

5-30 Brinder Singh.

"Raghuvrat tum ko meri hai."

Bhajan.

5-40 Malang Khan.

Maanaa oon Sirat.

5-50 Muhammad Hashim.

"Ae nigha-f-yar ka karna tha aur khi ho gaya
Tu ne aankhen pheer liin yan haath barga ho gaya."

6-0 Pandit Bhushan Joshi.

Bhagwan Shudh

Kaliyan.

6-10 Muhammad Hashim.

"Nigahi-yar ki kya tu ne
Dil ko bimar kar diya tu ne."

(Sstf).

6-20 1st News and Weather Report (English.)

6-30 1st News and Weather Report (Hindustani).

6-40 Nazir Bar.

"Kal na parid mine.
Khajal Puraa Titula.
Majmun ne shair chhors to sahra bhi chhor de
Nazare ke bawas hai to Laila bhi chhor de."

(Tptf.)

**Dussera Programme EPISODES FROM THE RAMAYANA.**

**8.0 Talk (Hindustani)**

"Public Nuisances" No. 3.

The Poet.

By Dr. ABD HUSAYN.

9-15 M. Rafique Ghaznavi.

Durbani - Astkai Khajal.

Thumri - Desi.

Thumri - Khammaji.


9-30 Time Signal.


9-45 Talk (English): "Science and Religion."

By BOSHI SEN.

10-0 M. Rafique Ghaznavi.

Malhar Klagedh.

Ghazals and Punjab Folk Song.

11-0 Close down.

**BOMBAY**

VUB 350.9 metres, 855 kc/s.

p.m. 11-30 Dance Tunes.

BANNE KHAN.

Sarangi.

S. PALAKKAR.

Violin.

J. SHAH.

Bulbul Tarang.

12-0 Light Music.

By SHARNAI PAINANJAKAR.

p.m. 1.0 Available Market Rates.

Jales Crem and His Quintet.

Relayed from Taj Mahal Hotel.

(By kind permission of the Management.)

**CALCUTTA**

VUB 370.4 metres, 810 kc/s. 49.10 metres, 6,109 kc/s.

p.m. 12-30 SB

Time Signal.

**The Grand Hotel Orchestra.**

Relayed from the Palm Court of the Grand Hotel.

Calcutta Weather Bulletin for Ocean and Rivercraft.


5-6 Time Signal.

**Pala Kirtan**

By NABOGOPAL MITRA, THAKUR GITASDWAAR.

GOVIDANGOPAL MITRA, THAKUR SUBHANSAH.

8-21 Dulal Babu on Puja Leave.

(In Trouble.)

8-41 Commercial News and Weather Report (In Bengali.)

8-46 The News and Announcements.


9-6 The News and Announcements.

All Times are given in Indian Standard Time.
October 7, 1936.

**TRANSMISSION 2.**

GSH 21.47 Mc/s (13.87 m). GSH 17.79 Mc/s (16.96 m).

4-30 Big Ben. Henry Cradock, at the Organ of the Paramount Theatre.


9-0 A Studio Concert.

9-35 Gipsy Encampment Programme.

6-10 The Children's Hour.

Stories, plays, and poems by listeners between the ages of 6 and 15.

**TRANSMISSION 3.**

GSH 21.47 Mc/s (13.87 m). GSH 17.79 Mc/s (16.96 m).


A weekly review of things at home. Edited by Percival Thornton.

8-1 The Coventry Hippodrome Orchestra.


8-30 Sports Commentaries.

9-15 Eugene Pini and his Tango Orchestra.


**TRANSMISSION 4.**

Three of the following programmes will be used:


9-45 A Recital.


10-0 The News and Announcements.

10-10 Marek Weber and his Orchestra.

10-30 Close down.

11-30 The News and Announcements.
Sunday, 25th October

p.m.
8.23 Navab Jan Rampuri.
8.31 A Chorus from the Mahabharata.
9.0 “Durga Devi Ke Mandir Me.”
9.30 Time Signal.
9.45 News in English.
10.0 Talk (English): “International Affairs.”

p.m. 9.0 A Programme of Hawaiian Music.

VUC 370.4 metres, 810 kc/s. 49.10 metres, 6,109 kc/s.

a.m. 8.36 A Vocal Concert

VUC 340.13 metres, 882 kc/s.

TRANSMISSION I.

8.40 Time Signal.

Indian Music (Recorded).

Najat Forum

Gobin Jan (The Late)

Kamal (Bhuri)

Moiratichar

Bai Moi: Minnali and Minrul

Kohil

Khan: Meena and Bhaban

PANITA RAI

Qawwals and Drums.

Qawwals and Drums.

Sadhik and Ghouses.

Kohil

Qawwals and Drums.

Ghazal and Drums.

9.0 Talk (Hindustani): “Cooking for Pleasure” No. 8.

Bengali Sweets.

“Jab keh zulf-i-munbar bixhar jagi
By AHSAN MAREHRAVI.

Talk Qawwals.

1st News and Weather Report

5.10 Muhammad Shafi.

5.0 Time Signal.

1.10 Nawab Jan Rampuri.

1.10 Nawab Jan Rampuri.

“Tiri is taraf

Keh duniya idhar ki udhar ho gai.”

AIR Orchestra.

Muhammad Shafi.

Atash-i-me ka bahut josh hai paimane men
“Hamesha rani diya us pe nech-o-ka diya
Zaban se bhi ajab waqt par jawab diya.”

AIR Orchestra.

Produced by ABBC Recorded Programme.

“Tiri is taraf

Keh duniya idhar ki udhar ho gai.”

AIR Orchestra.

Produced by ABBC Recorded Programme.

ARRANGED FOR BROADCASTING (from Booth Tarkington’s Novel,

“Jin sab mil mori bagiya men phulwa hanan ko.”

Ashiq Ali Khan of Patiala.

5.0 Time Signal.

5.0 Time Signal.

9.15 AIR Orchestra.

“Shah-i-jahangir ac ri sajani man hhae.”

Khayal Kurti Desi.

Bengali Sweets.

Produced by Gordon Mc Corne and Rik Haworth.

“Jadu lae wivajeh men.”

Mud.

Close down.

“Bharat men kaise kaise hue bir”

MAJOR W. R. HAY, Counsellor to the British Legation, Kabul.

(ABBC Recorded Programme.)

“Darrondon de dil da har aur koi hush mahebran ko.”

Khyal Gaur Sarang Iktala.

Produced by Gordon Mc Corne and Rik Haworth.

Close down.

“Along the Frontier, “No. 1024.

“(Hindustani).

“(English).

“(English):

“(Hindustani).

“(English).

“(English):
**Sunday, 25th October**

**p.m.**

8-30 "Down to the Sea in Ships : Sea Power"—No. 3.

8-50 A Pianoforte Recital.

9-15 A Short Religious Service.

From the Studio.

10-0 Weekly Newsletter.

Sports Summary and Announcements.

10-25 Envoi‡

10-30 Close down.

**TRANSMISSION 4.**

Three of the following frequencies will be used:

- GSF 15.79 Mc/s (19.82 m.)
- GSO 15.79 Mc/s (19.82 m.)
- GSG 17.79 Mc/s (16.86 m.)
- GSO 15.18 Mc/s (19.76 m.)

**p.m.**

10-45 Big Ben. The BBC Military Band.

Norman Allen (Tenor).

Greenwich Time Signal at 11-30 a.m.

11-30 Weekly Newsletter.

Sports Summary and Announcements.

11-50 Potpourri of English Tunes.

midnight

12-0 Orchestral Concert.

a.m.

1-20 Organ Music.

1-25 A Congregational Service

From Union Church, Brixton.

2-30 Weekly Newsletter.

Sports Summary, and Announcements.

2-50 The Coventry Hippodrome Orchestra.

Greenwich Time Signal at 3-30 a.m.

3-30 Henry Russell Programme.

4-0 Epilogue.

4-15 Close down.

‡ Electrical recording.  

<table>
<thead>
<tr>
<th><strong>TRANSMISSION 1.</strong></th>
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</thead>
<tbody>
<tr>
<td>GSD 11.75 Mc/s (25.53 m.)</td>
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<tr>
<td>GSF 9.51 Mc/s (31.32 m.)</td>
</tr>
</tbody>
</table>

**p.m.**


From Emmanuel Church, Streatham, London.

1-30 Ballad Concert.

1-55 The BBC Military Band.

2-25 Weekly Newsletter.

Sports Summary and Announcements.

2-50 Close down.

**TRANSMISSION 2.**

GSH 21.47 Mc/s (13.97 m.)  
GSC 17.79 Mc/s (16.86 m.)

**p.m.**

3-40 Big Ben. The BBC Empire Orchestra.

5-30 "Down to the Sea in Ships : Sea Power"—No. 3.

5-50 A Song Recital.

6-0 The BBC Theatre Orchestra.

6-25 Weekly Newsletter.

Sports Summary and Announcements.

6-50 Musical Interlude.

6-55 A Short Religious Service.

7-10 Envoi.

7-15 Close down.

**TRANSMISSION 3.**

GSH 21.47 Mc/s (13.97 m.)

**p.m.**

7-30 Big Ben. A Violin Recital.

7-50 The Wingates Temperance Band.

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**GERMANY (Berlin)**


10-40 a.m. Musical Introduction to the week. 11-45 a.m. Musical Introduction (contd.). 12-25 p.m. Greetings to our Listeners. 12-30 p.m. News and Review of the Week in English. 12-45 p.m. Popular Orchestral Concert. 2-0 p.m. Breeding of horses in Germany. 2-30 p.m. Little Folkmusic. 2-45 p.m. Hitler Youth Programme: Bear Skin and Buffalo Horns. 3-15 p.m. Talk: "German Law in the life of Stalin."

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**FRANCE (Radio Colonial)**

Wavelength 19.68 m. and/or 25.24 m.

11-30 a.m. Relay from P.T.T. Transmitter. 11-50 a.m. Market Prices. 12-10 p.m. Relay from P.T.T. Transmitter. 12-25 p.m. Records. 1-45 p.m. Talk on Events in France. 1-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m. News in English. 2-20 p.m. Close down.

3-25 p.m. Day's Programme. 3-30 p.m. Relay from Radio-Paris—Concert. 4-30 p.m. News in English. 4-45 p.m. Concert—Relayed (contd.). 5-15 p.m. News in French. 5-45 p.m. Concert—Relayed (contd.). 6-30 p.m. Reviews and Periodicals.

6-40 p.m. The Week's Programme, by Mr. P. C. Brive. 6-50 p.m. Colonial Market Prices. 7-0 p.m. Relay. 7-30 p.m. Close down.

8-45 p.m. News in French, Market Prices. 8-10 p.m. Concert—Relayed. 10-0 p.m. Relay of Radio-Journal of France (French News). 11-20 p.m. Talk on the Cinema, by Mr. Lasse-Desvareilles. 11-30 p.m. Concert—Relayed. 12 midnight. News in English. 12-30 a.m. News in French. Market Prices. 1-9 a.m. Relay. 3-30 a.m. Close down.

**ITALY (Rome)**

Wavelength 25.40 and/or 31.13 Metres.

5-13 p.m. Varied programmes. 6-45 p.m. Concert 10-0 p.m. Selections from musical comedies and reviews. Sketches by Tito Angeletti, Poetical readings, Elio Sanangelo.
Monday, 26th October

p.m.

6-20 G. A. Khan.

"Piya se sanadda kar di." Thumi Bejha.

6-50 Jogbi Bai of Nainital.

"Nam in bale pardi." Dadra.

7-0 "For Villagers Only." (Delhi Market Rates at 7-30 p.m.)

8-0 Talk (Hindustani): "Science in the Making." No. 2.

8-15 Sardar Sohan Singh.

"Mam ka ji piyere tum bhang rahun." Khayal Puriya.

"Kam gat bhai mori ali." Khayal Baghechauri.


9-0 Jogbi Bai.

"Man mah chha bhangla des." Dadra.

9-7 G. A. Khan.

"Saqi bhi hai chaman bhi hai thiendi hawa bhi hai." Khayal Tejwar.


9-30 Time Signal.


10-0 Talk (English): "Trembling Millions." No. 4.

Population in its relation to Agriculture and Industries.

By Professor C. N. Vakil, Head of the Department of Economics, University of Bombay. 

Relyed from Bombay.

10-10 "An Hour with Franz Liszt.

HUNGARIAN Rhapsody No. 2. (Recorded)." Lyricum.

RENATE. (Piano Solo). Note by Agreement.

Pianone in e major.

MADURY MURALY. (Cello Solo). - Recorded.

THIERRY KARLIN. (Piano Solo). Note by Agreement.

SUSEH RUSCH. (Pianone in F major). - Recorded.

ELISHEV LEIGH. (Cello Solo). Hungarian Rhapsody No. 12. - Recorded.

ZUEFELD. (Piano Solo). Hungarian Rhapsody No. 2. (Recorded).

THIERRY KARLIN. (Piano Solo). Hungarian Rhapsody No. 12. (Recorded).

IVAN SHIBALYUK. (Piano Solo). Hungarian Rhapsody No. 2. (Recorded).

ILJA KARIN. (Piano Solo). Hungarian Rhapsody No. 2. (Recorded).

WERNER HEFFERMANN. (Piano Solo). Hungarian Rhapsody No. 2. (Recorded).

Hans-Siegfried Schmidt. (Piano Solo). Hungarian Rhapsody No. 2. (Recorded).

WERNER HEFFERMANN. (Piano Solo). Hungarian Rhapsody No. 2. (Recorded).

JACQUES DUPONT AND ORCHESTRA SYMPHONIQUE.

"Sara de Viennes." Hungarian Fantasia for Piano and Orchestra (Recorded).

Close down.

VUC 350.9 metres, 855 kc/s. 31.36 metres, 9565 kc/s.

p.m.

11-0 Selection of Indian Music. (Aero-Phone Records).

p.m.

11-30 Selection of Indian Music. (Aero-Phone Records).

p.m.

12-30 Selection of Indian Music. (Recorded).
Monday, 26th October

TRANSMISSION 1.

P.M.
12-45 Big Ben. The BBC Empire Orchestra.
1-40 "World for Sale."
2-25 The News and Announcements.
2-45 Close down.

TRANSMISSION 2.

P.M.
4-30 Big Ben. Henry Russell Programme.
5-2 "A Policeman's Lot."
5-17 Haydn, Beethoven and his Band.
5-45 Variety.
6-0 Studio Concert.
6-30 The News and Announcements.
6-50 The BBC Dance Orchestra. Directed by Henry Hall.
7-15 Close down.

TRANSMISSION 3.

P.M.
7-30 Big Ben. Arthur Sullivan and his Orchestra.
8-5 The BBC Midland Orchestra.
9-15 Light Pianoforte Music.
10-0 Cinema Organ Recital.
10-20 Light Orchestral Music.
10-30 Close down.

TRANSMISSION 4.

Three of the following frequencies will be used:

GSH 21.47 Mc/s (13.97 m.), GSG 17.79 Mc/s (16.86 m.),(In English).
GSH 21.47 Mc/s (13.97 m.), GSG 17.79 Mc/s (16.86 m.),
GSH 15.14 Mc/s (19.82 m.),
GSH 15.14 Mc/s (19.82 m.),
GSH 9.51 Mc/s (31.55 m.).

P.M.
10-45 Big Ben. Talk: "A Policeman's Lot."
11-2 An Instrumental Recital.
11-30 The News and Announcements.
11-50 The Emilie Colombo Octet.
A.M.
12-30 British Ballads.

American-Bosch Round The World Radios

Better, Clearer tone, Centromatic Unit, More Stations to enjoy.
Tuning made easier. Dial drift eliminated. Extra performances from new metal tubes. Greatest Value in Radio. Models to suit all purses available

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Sole Distributors:

PRE S IDEN Y  R A D I O  C O .
27, NEW QUEEN'S ROAD, BOMBAY.
**Tuesday, 27th October**

**TRANSMISSION III.**

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<thead>
<tr>
<th>p.m.</th>
<th>Time Signal.</th>
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<tr>
<td>3-10</td>
<td>AIR Orchestra. Parka.</td>
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<tr>
<td>5-10</td>
<td>Shamim Bai.</td>
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<tr>
<td>7-10</td>
<td>Rashid Ahmad Panipati.</td>
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<tr>
<td>9-10</td>
<td>Shamim Bai.</td>
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<tr>
<td>11-10</td>
<td>Rashid Ahmad Panipati.</td>
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<tr>
<td>11-20</td>
<td>Shamim Bai.</td>
</tr>
<tr>
<td>12-00</td>
<td>Rashid Ahmad Panipati.</td>
</tr>
</tbody>
</table>

**p.m.**

| 1-00 | Available Market Rates. |
| 1-05 | A Brunswick Decca Concert. |
| 1-10 | (Recorded). |
| 1-15 | The Berlin State Opera Orchestra. |
| 1-20 | "Light Cavalier." |
| 1-25 | THE UNFINISHED SYMPHONY. |
| 1-30 | PRAY YON, VEERI, AND A. ADDI. |
| 2-00 | "Scepta Laetitia." |
| 2-05 | "Scorsca, That's my Paradise." |
| 2-10 | THE QUARTET. |
| 2-15 | VERSI QUARTET IN E MINOR. |
| 2-20 | THE BERLIN PHILHARMONIC ORCHESTRA. |
| 2-25 | "Peer Gynt." |
| 2-30 | CORSICA CHOIR WITH BAKALAKA ORCHESTRA. |
| 2-35 | "Skolar Songs." |

**p.m.**

| 2-30 | Release from Rotary Club. |
| 3-00 | Close down. |
| 3-30 | Release from Capitol Cinema. |
| 4-00 | (By kind permission of the Management.) |
| 4-30 | A Recorded Programme. |
| 5-00 | INTRODUCED BY J. C. ALLEN. |
| 5-30 | A Programme of light music and songs introducing EDWARD COYTE, REX PALMER, HARRY SPURTH AND MARK WEBER AND HIS ORCHESTRA. |
| 6-00 | Talk (English): "Cooking without tears." Small Cakes. |
| 6-30 | By HELDA FLANDERS. |
| 7-00 | Mendoza and his Orchestra. |
| 7-30 | Overture. |
| 8-00 | "For Villagers Only." |
| 9-00 | Mendoza and his Orchestra. |
| 9-30 | S. S. BISWANATH CHAKRABARTY. |
| 10-00 | SB. |

**VUC 340.13 metres, 882 kc/s.**

**BOMBAY**

<table>
<thead>
<tr>
<th>p.m.</th>
<th>Time Signal.</th>
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<tbody>
<tr>
<td>3-10</td>
<td>Bul-Bul Tarang Solos.</td>
</tr>
<tr>
<td>4-10</td>
<td>Gazals and Quwalis.</td>
</tr>
<tr>
<td>5-10</td>
<td>Clarinet Solos.</td>
</tr>
</tbody>
</table>

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<tr>
<th>p.m.</th>
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<tr>
<td>1-00</td>
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<td>1-05</td>
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<td>2-35</td>
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**p.m.**

| 2-30 | Release from Rotary Club. |
| 3-00 | Close down. |
| 3-30 | Release from Capitol Cinema. |
| 4-00 | (By kind permission of the Management.) |
| 4-30 | A Recorded Programme. |
| 5-00 | INTRODUCED BY J. C. ALLEN. |
| 5-30 | A Programme of light music and songs introducing EDWARD COYTE, REX PALMER, HARRY SPURTH AND MARK WEBER AND HIS ORCHESTRA. |
| 6-00 | Talk (English): "Cooking without tears." Small Cakes. |
| 6-30 | By HELDA FLANDERS. |
| 7-00 | Mendoza and his Orchestra. |
| 7-30 | Overture. |
| 8-00 | "For Villagers Only." |
| 9-00 | Mendoza and his Orchestra. |
| 9-30 | S. S. BISWANATH CHAKRABARTY. |
| 10-00 | SB. |

**VUC 340.14 metres, 810 kc/s. 49.10 metres, 6.09 kc/s.**

**CALCUTTA**

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<td>Gazals and Quwalis.</td>
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<td>Clarinet Solos.</td>
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| 7-30 | Overture. |
| 8-00 | "For Villagers Only." |
| 9-00 | Mendoza and his Orchestra. |
| 9-30 | S. S. BISWANATH CHAKRABARTY. |
| 10-00 | SB. |

**VUC 330.9 metres, 855 kc/s.**

**All Times are given in Indian Standard Time.**

1098
Tuesday, 27th October

TRANSMISSION 1.
GSD 11.75 Mc/s (25.53 m.), GSB 9.51 Mc/s (31.55 m.)

p.m.
12-45 Big Ben. "Bach's Pianoforte Sonatas,"—
By No. 4.
1-15 "A Policeman's Lot."
1-30 A Recital.
1-45 Cellobium Rhythm.
2-25 The News and Announcements.
2-45 Close down.

TRANSMISSION 2.
GSD 21.47 Mc/s (19.97 m.), GSC 17.99 Mc/s (16.86 m.)

p.m.
4-30 Big Ben. "Empire Magazine."
5-2 The BBC Military Band.
5-35 Talk: "Settlement Final Reports."
5-47 Variety.
6-0 Dance Music.
6-30 The News and Announcements.
6-50 Chamber Music.
7-15 Close down.

TRANSMISSION 3.
GSD 21.47 Mc/s (19.97 m.), GSC 17.99 Mc/s (16.86 m.), GSF 15.14 Mc/s (19.82 m.)

p.m.
7-30 Big Ben. "Imperial Affairs."
7-46 Musical Interlude.
7-50 Cellobium Rhythm.
8-30 The Torquay Municipal Orchestra.
9-0 The News and Announcements.
9-20 The Philip Whitney Ensemble.
10-30 Close down.

GERMANY (Berlin)


10-40 a.m. A Happy Celebration. 11-45 a.m. A Happy Celebration (contd.).
12-30 p.m. News and Economic Review in English. 12-45 p.m. Today in Germany. Sound Pictures.
1-0 p.m. Little Evening Entertainment. 1-45 p.m. Music and Poetry. Germans abroad. 2-30 p.m. Solo Concert.
Gaspar Cassado. 3-15 p.m. Little German Reader. 3-30 p.m. Aloha from Hawaii (A love greeting from Hawaii).
4-30 p.m. Concert of Light Music. 5-30 p.m. News in English. 5-50 p.m. Concert of Light Music.
6-45 p.m. The Felse Quartette. Quartette in E flat major Op. 124 by Schubert. 7-15 p.m. A little German Reader.
7-30 p.m. News and Economic Review in English on DJE.
DJE, DJQ. 7-45 p.m. Today in Germany. Sound Pictures.
8-0 p.m. Music and Poetry. A new song and new words.
8-45 p.m. Hitler Youth Programme. New songs of workers.
9-0 p.m. Solo Concert. Gaspar Cassado. 9-30 p.m. Close down.

FRANCE (Radio Colonial)

Wavelength 19.60 m. and/or 25.24 m.

11-30 a.m. Relay from P.T.T. Transmitter. 11-50 a.m. Market Prices, Rates of Exchange. 12 noon. Records. 12-10 p.m. Relay from P.T.T. Transmitter.
12-25 p.m. Records. 1-40 p.m. Talk on Events in France.
1-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m. News in English. 2-30 p.m. Close down.
3-25 p.m. Day's Programme. 3-30 p.m. Relay from Radio-Paris—Concert. 4-30 p.m. News in English. 4-45 p.m. Concert—Relayed (contd.). 5-15 p.m. News in French. 5-45 p.m. Concert—Relayed (contd.). 6-30 p.m. Maritime Talk, by Mr. Botzapes. 6-40 p.m. Social Topics, by Mr. Rives. 6-50 p.m. Colonial Market Prices, Rates of Exchange. 7-45 p.m. Theatre Broadcast. 8-25 p.m. Rates of Exchange and French Stock (Rentes). 8-30 p.m. Close down.
9-45 p.m. News in French and Market Prices. 10-30 p.m. Concert—Relayed. 11-0 p.m. Relay of Radio-Journal of France (French News). 11-20 p.m. Judicial Talk by Mr. Henri Delmont. 11-30 p.m. Concert—Relayed (contd.).
12 midnight. News in English. 12-30 a.m. News in French, Market Prices. 1-40 a.m. Relay : Lyric, Federal Broadcast. 3-30 a.m. Close down.

ITALY (Rome)

Wavelength 25.40 and/or 31.13 Metres.

5-13 p.m. Varied programmes. 6-45 p.m. Concert: "Ballilla Day: Old Fables": 7-30 p.m. News in English. Symphonic concert, conducted by Fernando reviata. 10-0 p.m. Vocal concert, chorus and folkloric.
11-10 p.m. Concert of Arabian music.

All Times are given in Indian Standard Time.
Wednesday, 28th October

VUB 350.9 metres, 855 kc/s: 31.36 metres, 9563 kc/s.

Selection of Indian Music. (H.M.V.)

6:40 Daru Hussain.
7:00 For Villagers Only. (Delli Market Rates at 7.30 p.m.)
8:00 Talk (Hindustani) : The Indian Farmer. No. 1. In the Punjab.
9:45 Talk (English).: "The Village as I see it." No. 7.
10:45 An Orchestral Programme.

Selection from the O pera - "Aida "
Selection from the Ballet Overture "March - - - The God of Thunder " - - - " Madame Butterfly "
Selection from the Ballet "The Swan "
Selection from the Opera "La Traviata "
Selection from the Opera "Aida "

Close down.

The Village as I see it." No. 7.


By Prof. John Kellas.

1:30 Talk : "Taru Datta and Her Poems." By KAMAL Bose.

VUB 340.13 metres, 882 kc/s.

TRANSMISSION I.

8:00 Time Signal.

Indian Music (Recorded.)

By PROF. MOHD. MUJEIB. (Hindustani).

By H. M. V.

Kalia Bai

"Piya ke milan komain kaise faun."
"Banre ke sehre peh main wari."
AIR Orchestra.

Kalia Bai

Shishe men jawani ki taswir nazar ai."
"Binan dekhe tore chain nahin."
"Atash-i-ishq kaleje men dabi rahti hai
Nala-i-dilgudaz ne arsh-i-barin hila diya." (Mir A hadi)

Kalia Bai

Janan-i-Murtaza ho banda nawaz Khwaja."
"Nan chhero nan chhero nan chhero mora sayan."

Kalia Bai

"Outline history of the world" No.

"Selection from the Ghazal and Thumri."

Daim Hussain.

"Banre ke sehre peh main wari."
Made Husain. Khayal Bhim

5-40
5-20

"Deshkar"

Ghazal and Thumri.

"Janan-i-Murtaza ho Banda nawaz Khwaja."
Nadiya kinare mora gaon.
"Chamkan lagi raja morel bindiya." Dadra Pahari.

"For Villagers Only."

"Thumri Bhairvin"

Daim Hussain.

"Janan-i-Murtaza ho banda nawaz Khwaja." (Munqahat.)

Thumri Bhairvin

Janan-i-Murtaza ho banda nawaz Khwaja."
Nadiya kinare mora gaon.
"Chamkan lagi raja morel bindiya." Dadra Pahari.

"Janan-i-Murtaza ho banda nawaz Khwaja."
Nadiya kinare mora gaon."

Kalia Bai

"Janan-i-Murtaza ho banda nawaz Khwaja."
Nadiya kinare mora gaon."

Kalia Bai

"Janan-i-Murtaza ho banda nawaz Khwaja."
Nadiya kinare mora gaon.
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Nadiya kinare mora gaon."

Kalia Bai

"Janan-i-Murtaza ho banda nawaz Khwaja."
Nadiya kinare mora gaon.
"Chamkan lagi raja morel bindiya." Dadra Pahari.

"Janan-i-Murtaza ho banda nawaz Khwaja."
Nadiya kinare mora gaon."

Kalia Bai

"Janan-i-Murtaza ho banda nawaz Khwaja."
Nadiya kinare mora gaon.
Wednesday, 28th October

TRANSMISSION 3.

GSH 21.47 M (13.97 m.), GSH 17.79 M (18.66 m.),
GSH 15.14 M (19.82 m.),

5-45 p.m.- 7-30 Big Ben. The BBC Welsh Orchestra.
8-30 "A Policeman's Lot."
9-0 The John McArthur Quintet.
9-30 The BBC Dance Orchestra.
Directed by Henry Hall.
10-0 The News and Announcements.
10-20 Military Band Concert.
10-30 Close down.

TRANSMISSION 4.

Three of the following frequencies will be used:
GSH 17.79 M (18.66 m.), GSH 15.14 M (19.82 m.),
GSH 11.29 M (25.53 m.),

10-45 p.m.- 10-50 Big Ben. "Food for Thought."
11-7 Dance Music.
11-30 The News and Announcements.
11-50 A Song Recital.

a.m.- 12-10 The BBC Orchestra.
12-45 Stanelli's Bachelor Party.
1-30 Variety.
1-45 The Birmingham Philharmonic String Orchestra.
2-10 The News and Announcements.
2-50 A Recital.

By Myra Hess (Pianoforte) solo and Jelly d'Aranyi (Violin).

Gnomatron Time Signal at 3-45 a.m.
3-30 "Empire Magazine."
4-0 Talk: "A Policeman's Lot."
4-15 Close down.

* Electrical recording.  + Gramophone records.

GERMANY (Berlin)

10-40 a.m. A light Concert Programme. 11-45 a.m.
Concert Programme (contd.). 12-25 p.m. Greetings to our

listeners. 12-30 p.m. News and Economic Review in English.
12-45 p.m. Today in Germany. Sound Pictures. 1-45 p.m.
Opera by Giuseppe Verdi: "Rigoletto." 2-45 p.m.
Concert of Light Music. 3-15 p.m. Quartette e flat major Op. 125
by Franz Schubert.

4-30 p.m. Concert of Light Music. 5-30 p.m. News in
English. 5-45 p.m. Greetings to our Listeners in India.
5-50 p.m. Concert of Light Music (contd.). 6-45 p.m.
Music and poetry. Germany abandoned. 7-15 p.m.
News and Economic Review in English on DFE, DJQ. 7-45 p.m.
Today in Germany. Sound Pictures. 8-0 p.m. Aloha from Hawaii.
(A love greeting from Hawaii.) 8-15 p.m. Life in a German Training
centre. 8-50 p.m. "A lullaby sounds in the breeze." 8-45 p.m.
German Marches. 9-15 p.m. Good-Night. 9-30 p.m. Close down.

FRANCE (Radio Colonial)

Wavelength 19.68 m. and/or 25.24 m.
11-30 a.m. Relay from P.T.T. Transmitter. 11-50 a.m.
Market Prices, Rates of Exchange. 12 noon. Records. 12-10
p.m. Relay from P.T.T. Transmitter.
12-25 p.m. Records. 1-0 p.m. Talk on Events in France.
1-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m.
News in English. 2-30 p.m. Close down.
3-25 p.m. Day's Programme. 3-30 p.m. Relay from
Radio-Paris—Concert. 4-30 p.m. News in English. 4-45 p.m.
Concert—Relayed. 5-15 p.m. News in French. 5-45 p.m.
Concert—Relayed (contd.). 6-30 p.m. Literary Talk, by Mr. Francois de Teramond.
6-40 p.m. Economic and Social Talk, by Mr. Quaidul.
6-50 p.m. Colonial Market Prices, Rates of Exchange.
7-0 p.m. Concert conducted by Mr. Henry Tomasi.
8-25 p.m. Rates of Exchange and French Stock (Rentes).
8-30 p.m. Close down.
9-45 p.m. News in French, Market Prices, Rates of Exchange.
10-30 p.m. Concert—Relayed. 11-0 p.m. Relay of Radio-
journal of France (French News). 11-20 p.m. Cronica
Literaria, by Mr. Francois de Teramond. 11-30 p.m.
Concert—Relayed (contd.). 12 midnight. News in English.
12-30 a.m. News in French, Market Prices. 1-0 a.m. Relay.
3-30 a.m. Close down.

ITALY (Rome)

Wavelength 25.40 and/or 31.13 Metres.
5-12 p.m. Varied programmes. 6-45 p.m. Patriotic
songs and choruses. Concert. Talk: "Paolo III." Vocal concert.
7-30 p.m. Patriotic songs. News in English. Talk:
"Italian Laws on Agriculture" by Prof. Comm. Giovanni
Carra of the International Institute of Agriculture. Orchestral
concert: Ear orchestra: Vocal concert: "Music Giovannin—
ter. Maria Mascagno—soprano, Adolfo Annenelli—bass.
10-0 p.m. Patriotic songs and choruses of military songs.
1-10 p.m. Concert of Arabian music.

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SOLE AGENTS FOR INDIA FOR BELMONT -

Dazzle Electric Works, Indore.

All Times are given in Indian Standard Time.

1031
Thursday, 29th October

p.m.
5-50 Asad Ali Khan.
6-00 Malang Khan.
6-10 Benazir Bai of Jaipur.
6-40 Aziz-ur-Rahman.
7-00 "For Villagers Only.
8-00 Talk (Hindustani): "Where does it come from?"
8-15 Pandit Brij Bhushan Joshi.
8-25 Asad Ali Khan.
8-55 Benazir Bai of Jaipur.
9-25 S. J. Gopal Ch. Lahiri.
9-30 "The Table under the Tree.
9-45 Talk (English): "The Way of the World"
9-50 Current events in Europe.
10-00 "Our Rites and Rituals.
10-15 Pandit Brij Bhushan Joshi.
10-25 S. S. Mukherji.
11-00 "Close down.

VUC 350 metres, 855 kc/s. 31.36 metres, 9565 kc/s.

p.m.
12-30 Time Signal.
12-45 Talk (English): "Lives of Great men"
12-45 News in Hindi.
13-00 "Our Rites and Rituals.
13-15 Pandit Brij Bhushan Joshi.
13-25 Shokh chutwan ko tiri rashik-i-qamar delhi liya.
13-30 Selection of Indian Music.

VUC 570.4 metres, 810 kc/s. 49.10 metres, 6,109 kc/s.

p.m.
12-30 Time Signal.
13-55 "Bengali Songs.
13-50 Talk: "Desire of the Sky."
14-00 Time Signal. Close down.
14-05 "A Village Programme."
5-56 "Bengali Songs.
6-51 Kheyal, Iman. By Maya Devi.
7-06 "The Goddess of Fortune."

All Times are given in Indian Standard Time.
Thursday, 29th October

TRANSMISSION 4.
Three of the following frequencies will be used: GSF 15.31 Mc/s (19.82 m.), GSD 11.75 Mc/s (25.53 m.), GSC 9.56 Mc/s (31.53 m.).

p.m. 10-45 Big Ben. Roy Fox and his Band. Greenwhich Time Signal at 10-30 a.m.
11-30 The News and Announcements.
11-50 Swansea Police Band.
12-30 Interlude of New Gramophone Records.
2-50 Speeches by the Earl of Athlone and the Secretaries of State for the Dominions and Colonies from the Royal African Society Dinner.
3-20 Brass Band Concert. Greenwhich Time Signal at 3-30 a.m.
3-57 Talk.* Close down.
4-15 Close down.

* Electrical recording. Gramophone records.

GERMANY (Berlin)
10-40 a.m. Little musical gems. 11-45 a.m. Musical gems (contd.). 12-30 p.m. News and Economic Review in English. 12-45 p.m. Today in Germany. Sound Pictures. 1-0 p.m. A stroll through theatre and film: "When Father with his son." 2-15 p.m. Chamber Music. 3-15 p.m. Topical Talk. 3-30 p.m. Songs. A lullaby sounds in the breeze.
4-30 p.m. Concert of Light Music. 5-30 p.m. News in English. 5-45 p.m. Greetings to our Listeners in the Far East. 5-50 p.m. Concert of Light Music (contd.). 6-45 p.m. Hitler Youth Programme: Bd., Fairy Tales in Songs. 7-15 p.m. Women's Hour: The Duty of the Staff Organisers. 7-30 p.m. News and Economic Review in English on DJQ, DJE and DIA. 7-45 p.m. Today in Germany. Sound Pictures. 8-0 p.m. Opera "Rigoletto" by Giuseppe Verdi. 9-15 p.m. Topical Talk. 9-30 p.m. Close down.

FRANCE (Radio Colonial)
Wavelength 19.68 m. and/or 25.24 m.
11-30 a.m. Relay from P.T.T. Transmitter. 11-50 a.m. Market Prices, Rates of Exchange. 12 noon. Records. 12-10 p.m. Relay from P.T.T. Transmitter. 12-25 p.m. Records. 1-0 p.m. Talk on Events in France. 1-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m. News in English. 2-30 p.m. Close down. 3-25 p.m. Day's Programme. 3-30 p.m. Relay from Radio-Paris-30. 4-30 p.m. News in English. 4-45 p.m. Concert-Relayed (contd.). 5-15 p.m. News in French. 5-45 p.m. Concert-Relayed (contd.). 6-30 p.m. International Talk, by Mr. Jacques Kayser. 6-40 p.m. Talk on Music, by Mr. Charles Oulmont. 6-50 p.m. Colonial Market Prices, Rates of Exchange. 7-0 p.m. concert Chamber Music with The Paris String Quartet. 8-25 p.m. Rates of Exchange and French Stock (Returns). 8-30 p.m. Close down.
9-45 p.m. News in French, Market Prices, Rates of Exchange. 10-30 p.m. Concert-Relayed. 11-0 p.m. Relay of Radio-Journal of France (contd.). 11-30 p.m. Talk. 11-30 p.m. Concert-Relayed. 12 midnight. News in English. 12-30 a.m. News in French, Market Prices. 1-0 a.m. Relay. 3-30 a.m. Close down.

ITALY (Rome)
Wavelength 25.40 and/or 31.13 Metres.
5-15 p.m. Varied programmes. 6-45 p.m. Concert. Talk: "Caruso: Giardino." 7-30 p.m. News in English. Selections from the opera 'The Girl of the Golden West' by Giacomo Puccini. 10-0 p.m. Concert of varied music. 11-10 p.m. Concert of Arabian music.

BBC Programmes for Transmissions 5 and 6 for October 12th (not received in time for the previous issue).

TRANSMISSION 5.
GSF 15.31 Mc/s (19.82 m.), GSD 11.75 Mc/s (25.53 m.), GSC 9.56 Mc/s (31.53 m.).
8.00 a.m.
4-30 Big Ben. BEETHOVEN'S String Quartets.
The Kutzer String Quartet: Samuel Kutzer (Violin); Frederic Friske (Violin); Raymond Jerome (Violin); Douglas Cameron (Violoncello). Quartet in G, Op. 18, No. 2; Allegro; Adagio cantabile; Scherzo—allegro; Allegro molto quasi presto.
5-15 The Crystal Palace Band.
6-00 Weekly Newsletter
Sports Summary and Announcements. Greenwhich Time Signal at 6.15 a.m.
6-30 Close down.

TRANSMISSION 6.
GSF 15.31 Mc/s (19.82 m.), GSD 11.75 Mc/s (25.53 m.).
7.00 a.m.
8-21 A Short Recital.
8-35 "Sea Power: (No. 1)"
8-55 A Recital of Roger Quilter's Songs.
Fair House of Joy.
9-10 Weekly Newsletter
Sports Summary and Announcements. Greenwhich Time Signal at 9.15 a.m.
9-30 Close down.

A REQUEST
All subscribers, when writing to us about any irregularity of receipt of the paper, or renewal of subscription, would do us a great favour if they would quote the reference number given on the wrappers of the copies.

And please remember 2 things:—
1. The subscription is Rs. 4 yearly.
2. Copies are NOT sent by V.P.P.
Friday, 30th October

p.m. 5-10 Ghulam Farid. "Aurat-i-mohabbat ka yeh kar-i-mumayan hai. Jo aakhir hai hairan kyo dehi hai parshan hai. Mahbub hain mahboob ki kar bat baja hai. Ab mujh se tagdibh bhij weh farmen to ki hain." (Hunar).


6-20 1st News and Weather Report (English).

6-30 1st News and Weather Report (Hindustani).


10-0 Erwin Klein and His Viennese Orchestra. "Erla Meth, from Teetagram, London.


All Times are given in Indian Standard Time.

1034
Friday, 30th October

TRANSMISSION 4.

Three of the following frequencies will be used:

- GSF 15.31 Mc/s (19.60 m.)
- GSC 9.58 Mc/s (31.32 m.)
- GSP 15.31 Mc/s (19.60 m.)

11-05 A Musical Interlude.

Programme: Vocal extracts from "D'ye Ken John Peel?" Directed and produced by Pierre Thorton.

11-30 The News and Announcements.

11-55 The BBC Theatre Organ.

12-00 "D'ye Ken John Peel?"

12-30 The BBC Dance Orchestra.

13-00 The News and Announcements.

13-50 Music and the Broadcasts of the World.

14-30 Variety.

14-45 A Recital.

15-00 A Song Recital.

15-30 Talk.

15-55 Dance Music.

16-45 Close down.

* Electrical recording.  † Gramophone records.

GERMANY (Berlin)


10-45 A.m. Happy sounds. 11-45 A.m. Happy sounds (contd.). 12-30 p.m. News and Economic Review in English. 12-45 p.m. To-day in Germany. Sound Pictures. 1-00 p.m. An entertaining radio picture. "What would you do without your car?" 2-00 p.m. Concert of Light Music. 2-45 p.m. Songs from the Indies. 3-15 p.m. Trio B flat major Op. 99 by Franz Schubert. 4-30 p.m. Concert of Light Music. 5-30 p.m. News in English. 5-50 p.m. Concert of Light Music (contd.). 6-45 p.m. Chamber Music. 7-30 p.m. News and Economic Review in English on DJE, DJJ. 7-45 p.m. To-day in Germany. Sound Pictures. 8-40 p.m. Review of the Month's Periodicals. 8-15 p.m. Military Concert. 9-30 p.m. Close down.

FRANCE (Radio Colonial)

Wavelength 19.66m. and/or 25.24m.

11-30 a.m. Relay from P.T.T. Transmitter. 11-50 a.m. Market Prices, Rates of Exchange. 12 noon. Records. 12-10 p.m. Relay from P.T.T. Transmitter. 12-25 p.m. Records. 1-00 p.m. Talk on Events in France. 1-15 p.m. Records. 1-45 p.m. News in French. 2-15 p.m. News in English. 2-30 p.m. Close down. 3-25 p.m. Day's Programme. 3-30 p.m. Relay from Radio-Paris—Concert. 4-30 p.m. News in English. 4-45 p.m. Concert—Relayed (contd.). 5-15 p.m. News in French. 5-45 p.m. Concert—Relayed (contd.). 6-30 p.m. The Important Trends of Contemporary Thought, by Mr. P.

All Times are given in Indian Standard Time, 1035.
**Saturday, 31st October**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.40</td>
<td>Niari Bai of Patiala.</td>
</tr>
<tr>
<td>5.45</td>
<td>Hamid Hussain.</td>
</tr>
<tr>
<td>6.00</td>
<td>Afsal Hussain.</td>
</tr>
<tr>
<td>6.10</td>
<td>Niari Bai of Patiala.</td>
</tr>
<tr>
<td>6.15</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>6.40</td>
<td>Qawwals.</td>
</tr>
<tr>
<td>7.00</td>
<td>&quot;For Villagers Only.&quot;</td>
</tr>
<tr>
<td>9.45</td>
<td>Niari Bai.</td>
</tr>
<tr>
<td>10.00</td>
<td>AIR Qawwals. Qawwals.</td>
</tr>
<tr>
<td>10.15</td>
<td>Play (Hindustani). &quot;Dehra Jaiga.&quot;</td>
</tr>
</tbody>
</table>

**TRANSMISSION II**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.30</td>
<td>AIR Orchestra. Good Mahar.</td>
</tr>
<tr>
<td>1.00</td>
<td>Afsal Hussain. &quot;Arai juno mori. Absurd mursal Furqat mun hundori nehal.&quot;</td>
</tr>
<tr>
<td>1.10</td>
<td>Niari Bai of Patiala. &quot;Humik ki bandi rahunji.&quot;</td>
</tr>
<tr>
<td>1.25</td>
<td>Master Jiwan. Bham Plai.</td>
</tr>
<tr>
<td>1.30</td>
<td>&quot;A Mixed Bag.&quot;</td>
</tr>
</tbody>
</table>

**TRANSMISSION III**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.30</td>
<td>Time Signal.</td>
</tr>
</tbody>
</table>

**Shab-I-Barat.**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.00</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>5.10</td>
<td>AIR Orchestra. Malat.</td>
</tr>
<tr>
<td>5.20</td>
<td>Bajrangi. &quot;Jab tumhara dar peh main Sarwar Chal.&quot;</td>
</tr>
<tr>
<td>5.40</td>
<td>Afsal Hussain. &quot;Na pachcho yeh mujh se kehiko mil gayan.&quot;</td>
</tr>
</tbody>
</table>

**VU D 340.13 metres, 822 kc/s.**

**BOMBAY**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.30</td>
<td>Gazalas and Qawwals. By Mohmed Hussien.</td>
</tr>
<tr>
<td>12.15</td>
<td>Marathi Songs. By Siddha Yajbar.</td>
</tr>
</tbody>
</table>

**VU B 350.9 metres, 855 kc/s.**

**CALCUTTA**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.30</td>
<td>Time Signal.</td>
</tr>
<tr>
<td>12.35</td>
<td>&quot;Something To Laugh At&quot; By T.C. Western Brothers and Ronald Frankau.</td>
</tr>
<tr>
<td>12.50</td>
<td>A Promenade Concert S.B. By Robert Pickler and his Hungarian Orchestra.</td>
</tr>
</tbody>
</table>

**VUC 370.4 metres, 310 kc/s. 310 kc/s. 491.0 metres. 6.1G9 kc/s**

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All Times are given in Indian Standard Time.

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October 7, 1936.

**The Indian Listener**
**ITALY (Rome)**

Wavelength 25.40 and/or 31.13 Metres.

5.45 p.m. Varied programmes. 6.45 p.m. Concert: Talk: "Galileo's trial." 7.20 p.m. News in English, News in Hindustani. Concert of varied music. Music played on request of radio listeners. 10.0 p.m. Selections from the opera "The Girl of the Golden East." By Giacomo Puccini. 11.10 p.m. Concert of Arabian music.

**BBC Programmes for Transmissions 5 and 6 for October 14th (not received in time for the previous issue).**

**TRANSMISSION 5.**

GSF 15.31 Mc/s (0.55 m.). GSC 9.58 Mc/s (0.32 m.).

a.m.

4-30 Big Ben. "Isn't Nature Wonderful!"

9-15 "Imperial Affairs.""\(^{**}\)

2-15 "Imperial Affairs.""\(^{**}\)

5-25 Reginald Dixon, at the Organ of the Tower Ballroom

6-10 The News and Announcements.

9-30 The News and Announcements.


10.00 p.m. "Wage-Earners." By H. V. Hodson.

**TRANSMISSION 6.**

GSF 15.14 Mc/s (0.92 m.). GSC 9.58 Mc/s (0.32 m.).

a.m.

7.30 Big Ben. A Programme of Irish Music.


9-30 "Imperial Affairs.""\(^{**}\)

8-45 The BBC Dance Orchestra.\(^{**}\)

9-10 The News and Announcements.

**ALL TIMES ARE GIVEN IN INDIAN STANDARD TIME.**
October 7, 1936.

Our Listeners’ Troubles Corner

Problems solved by the Technical Service Department

No. 51.—Could you please prepare for me a blue print of the circuit given on page 780 of “Radio Physiology Course,” with all its components and values?—R.B.K., Miraj.

No. We are very sorry that our Technical Service does not extend quite as far as that. Our responsibility covers only definite troubles which are interfering with good reception, and hence the request which you make comes under the heading of commercial service which must be attended to by a wireless engineer who makes his living out of building and designing sets.

No. 52.—My set has been making a Crower noise for the past three months from noon to 5-0 p.m. daily, thus making the reception of programmes almost impossible. I complained to my dealer, but he found that the set worked admirably when moved to his shop. All users of radios in this district have the same complaint, although we have only noticed it during the past few weeks. What is wrong?—C.S.S., Ahmedabad.

Your sets are undoubtedly picking up a noise from a motor generator somewhere in the vicinity. We have been informed that Ahmedabad has recently had certain unavoidable trouble with its electric supply system, and it would seem that your trouble could ultimately be traced to this system, unless you are fortunate enough to discover a private owner of a near-by generator. The only possible remedy is for you to persuade the owner (or the Electric Supply Company) to use suppressors at the source of the power. At the moment, as we have several times pointed out in these columns, you have no legal redress.

No. 53.—We have a 5-valve set whose dial differs materially from the ordinary sets, in that its readings are not given in metres. Could you tell me how to convert the readings on the dial to those given in your paper?—V.C.C., Meerut.

This is a case where your dealer, or the leading branch of the distributors, should help you, and we are sending a copy of your letter to the head office. At the same time, your list reveals that you have already worked out a brief table which shows the corresponding readings of the Indian stations, and if you listen to the call-signs and announcements of the foreign stations which appeal to you, you should soon be able to add to your own table of dial readings. Indeed, it should be a most fascinating task thus to explore the ether in order to solve the puzzle of the dial on your set.

No. 54.—I have never been able to get any American stations on my 6-valve set. Can you tell me if any American station is ever heard in India, and if so, what special gadget is required? Or should I change the direction of the aerial?—J.R.T., Monghyr.

It has been our experience that only very high-powered sets receive America with any satisfaction, although of course we have known of smaller sets which, in exceptional cases, manage to catch an occasional programme, due perhaps to some accidental series of local circumstances which make reception unusually favourable. Certain places in India, admittedly, receive America fairly well sometimes during some seasons of the year, but reception is almost universally weak, with abundance of fading and background noise.

No. 55.—I am delighted to learn that television receivers have been introduced in England. Could you tell me immediately if the reception is good, if the pictures are clear, if sets are available in India, if they will be expensive, if they will work well in this country, and where I can buy one?—A.R.S., Siakt.

We are afraid that this enquirer is doomed to disappointment. It is too early to expect many details. As for India, we fear that television is a long way off. At the present time, reception on television sets is limited to about 25 miles, whilst the transmitters are so costly that India cannot expect to see one erected here for many a long day. Let us be satisfied with the gradual growth of ordinary wireless in this country before we start thinking of radio luxuries like television.

No. 56.—My set has suddenly stopped working, although the lights inside appear to be quite alright. What could have gone wrong?—R.B.K., Bombay.

The fact that the valves are showing a light is no proof that they are still working. In the absence of details, it would seem from your letter that the valves have lost their emission, and we would therefore advise you to take them to your dealer for testing, and replacement if necessary.

No. 57.—Would you please tell me whether the growing of creepers on the aerial poles is likely to have any bad effect on reception? My tenant has grown them in order to hide their ugliness, and declares that reception will not in any way be affected.—K.B.R., Bombay.

This is the type of question which we are unable to answer owing to insufficiency of details. You have not given any description of the set being used,—not even its valve strength or make. You only state that you have no outdoor aerial which, incidentally, is probably the reason why you do not get any foreign stations.

No. 58.—My medium-wave set suddenly increases its strength tenfold without any warning right in the middle of a programme. Normality is resumed after a minute or so, but at intervals of about fifteen minutes the increased strength returns. What is wrong?—N.D.A., Margao.

This is the type of question which we are unable to answer owing to insufficiency of details. You have not given any description of the set being used,—not even its valve strength or make. You only state that you have no outdoor aerial which, incidentally, is probably the reason why you do not get any foreign stations.

No. 59.—How can I improve my reception with an aerial pointing 30 degrees west of north? It is 75 feet long, 12 feet from the top of the roof, and about 36 feet above the ground.—K.A.R., Bangalore.

Owing to lack of information about the geographical location of this enquirer’s house, the only advice that can be given is that he should experiment with different other positions until he finds the one that gives best reception. With reference to the second question about the effect of a talkie house in close proximity, there should be only a slight series of “clicks” or purring noise under ordinary circumstances. The background noise of which he speaks in the first paragraph of his letter is probably due to this cinema.

No. 60.—Can I use wire stays for holding my aerial posts in place of the ropes which are not proving satisfactory owing to strong wind?—E.H., Garhwal.

Yes, wire stays are quite all right if there is no other method of keeping the aerial poles in position. There should be no effect on reception under normal circumstances.

AIRCLIPSE AERIAL

banishes interference. It sharpens selectivity and gets distant stations with amazing clarity. This is no cheap “aerial eliminator.” The AIRCLIPSE Is not a condenser. It is an auto-inductive screened aerial. With an outside aerial it will render music and speeches crystal clear.

Dr. M. M. Khot, M.B. (Hon.), F.R.C.H., Kampoo (Gwalior), writes: Airclips has really reduced aerial interference to a great degree, and it also helps the set to work without aerial.

AIRCLIPS—AERIAL

Price Rs. 2.50

Chicago Telephone & Radio Co.
129, Esplanade Road, Fort, Post Box 459—BOMBAY

Call for Free Literature

NEW BELDEN ALL-WAVE AERIAL

Doubles foreign reception and reduces interference on any make of Radio

Aerial Kit No. 8918: Rs. 29/6

1038
## Short-Wave Time-Table

<table>
<thead>
<tr>
<th>Stations</th>
<th>Metres Kc/s</th>
<th>I. S. T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittsburgh, Pa</td>
<td>13.93</td>
<td>6-30 a.m., 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Bandeng, Java</td>
<td>13.93</td>
<td>6-30 a.m., 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Bangkok, Siam</td>
<td>18.83</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Schenectady, N. Y.</td>
<td>19.77</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Buenos Aires, Arg.</td>
<td>19.62</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>New York, N. Y.</td>
<td>13.77</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Pontoise, France</td>
<td>19.68</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Pittsburgh, Pa</td>
<td>19.72</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Vatican City (Italy)</td>
<td>19.84</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Tokyo, Japan</td>
<td>20.15</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Suva, Fiji</td>
<td>22.94</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Rabat, Morocco</td>
<td>23.38</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Moscow, U.S.S.R.</td>
<td>25.00</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Rome, Italy</td>
<td>25.24</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Pontoise, France</td>
<td>25.33</td>
<td>6-30 to 7-30 a.m. daily.</td>
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<tr>
<td>Pittsburgh, Pa</td>
<td>25.77</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Manila, Philippines</td>
<td>25.77</td>
<td>6-30 to 7-30 a.m. daily.</td>
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<tr>
<td>Pontoise, France</td>
<td>25.60</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Tokyo, Japan</td>
<td>27.93</td>
<td>6-30 to 7-30 a.m. daily.</td>
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<tr>
<td>Tokyo, Japan</td>
<td>28.01</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Medan, Sumatra</td>
<td>28.76</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Bandeng, Java</td>
<td>29.24</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Madrid, Spain</td>
<td>30.43</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Macao (China)</td>
<td>31.00</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Lisbon (Portugal)</td>
<td>31.01</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Rome (Italy)</td>
<td>31.23</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Philadelphia (Pa)</td>
<td>31.28</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
<tr>
<td>Sydney (Australia)</td>
<td>31.28</td>
<td>6-30 to 7-30 a.m. daily.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stations</th>
<th>Metres Kc/s</th>
<th>I. S. T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buenos Aires (Art.)</td>
<td>31.12</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Schenectady (N. Y.)</td>
<td>31.48</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Jeloy (Norway)</td>
<td>31.48</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Moscow, U.S.S.R.</td>
<td>31.50</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Melbourne (Australia)</td>
<td>31.50</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Havana (Cuba)</td>
<td>31.82</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Budapest, Hungary</td>
<td>32.88</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Hongkong (China)</td>
<td>34.29</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Tokio (Japan)</td>
<td>39.95</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Tenerife (C. I.)</td>
<td>41.60</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Georgetown (Br. Guiana)</td>
<td>42.37</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>San Jose (Costa Rica)</td>
<td>44.71</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Guayaquil (Ecuador)</td>
<td>45.00</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Moscow (U.S.S.R.)</td>
<td>45.38</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Valencia (Venezuela)</td>
<td>46.00</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<td>46.37</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
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<td>47.05</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Colombo</td>
<td>48.70</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Winnipeg (Canada)</td>
<td>48.78</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
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<td>48.78</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Santiago (Cuba)</td>
<td>48.78</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Pittsburgh (Pa)</td>
<td>48.86</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Lourenzo Marques (Africa)</td>
<td>48.89</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Havana (Cuba)</td>
<td>48.92</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>New York (N. Y.)</td>
<td>49.02</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Johannesburg (Africa)</td>
<td>49.21</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Pittsburgh (Pa)</td>
<td>49.50</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Lourenzo Marques (Africa)</td>
<td>49.79</td>
<td>6-30 to 7-30 p.m. daily.</td>
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<tr>
<td>Havana (Cuba)</td>
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<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>New York (N. Y.)</td>
<td>49.21</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
<tr>
<td>Johannesburg (Africa)</td>
<td>49.21</td>
<td>6-30 to 7-30 p.m. daily.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stations</th>
<th>Metres Kc/s</th>
<th>I. S. T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi (Kenya)</td>
<td>49.31</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Vienna (Austria)</td>
<td>49.41</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Cincinnati (Ohio)</td>
<td>49.51</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Philadelphia (Pa)</td>
<td>49.70</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Cincinnati (Ohio)</td>
<td>49.51</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Barranquilla (Col.)</td>
<td>49.61</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Panama City (Pan.)</td>
<td>49.71</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Singapore (S.S.)</td>
<td>49.83</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Bogota (Colombia)</td>
<td>49.85</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Singapore (Malaya)</td>
<td>49.85</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Bogota (Colombia)</td>
<td>49.85</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Havana (Cuba)</td>
<td>49.92</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Mexico City</td>
<td>50.00</td>
<td>6-30 to 7-30 a.m.</td>
</tr>
<tr>
<td>Moscow (U.S.S.R.)</td>
<td>50.00</td>
<td>6-30 to 7-30 a.m.</td>
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<td>Vatican City (Italy)</td>
<td>50.26</td>
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<tr>
<td>San Jose (Costa Rica)</td>
<td>51.32</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Hongkong (China)</td>
<td>51.45</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Sourabaya (Java)</td>
<td>67.10</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Kharbarovsk (U.S. S.R.)</td>
<td>70.2</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Khabarosk (Siberia)</td>
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<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Ponta Delgada (Azores)</td>
<td>71.04</td>
<td>6-30 to 7-30 a.m.</td>
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<tr>
<td>Batavia (Java)</td>
<td>71.04</td>
<td>6-30 to 7-30 a.m.</td>
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### Notes
- *Kc/s* stands for kilocycles per second.
- Times are given in 24-hour format.
- Daily times indicate regular broadcast hours.
- *Weekly* times indicate days of the week.
- Irregular times indicate specific days or times.
- Night times indicate broadcast during the night.
- Sunday times indicate broadcast on Sundays.
- Mon-Fri times indicate broadcast from Monday to Friday.
- Weekends times indicate broadcast on weekends.
- Time spans indicate the duration of the broadcast.
### SELECTED LONG AND MEDIUM BROADCASTING STATIONS.

**ARRANGED IN ORDER OF WAVELENGTHS.**

<table>
<thead>
<tr>
<th>Metres</th>
<th>Kc/s</th>
<th>Kw</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>1,500</td>
<td>25</td>
<td>Peshawar (India) VUP.</td>
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<tr>
<td>206</td>
<td>1,450</td>
<td>20</td>
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<tr>
<td>214.4</td>
<td>1,393</td>
<td>25</td>
<td>Radio-lyons (France)</td>
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<tr>
<td>234</td>
<td>1,233</td>
<td>30</td>
<td>Dhaka (East Pakistan) VULU.</td>
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<tr>
<td>238.5</td>
<td>1,258</td>
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<td>Riga (Latvia).</td>
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<tr>
<td>240.5</td>
<td>1,249</td>
<td>10</td>
<td>Saarbrucken (Germany).</td>
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<tr>
<td>242.2</td>
<td>1,222</td>
<td>10</td>
<td>Trniste (Yugoslavia).</td>
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<tr>
<td>247.3</td>
<td>1,218</td>
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<td>Lille (France).</td>
</tr>
<tr>
<td>251.0</td>
<td>1,190</td>
<td>10</td>
<td>Frankfurt (Germany).</td>
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<tr>
<td>258.2</td>
<td>1,188</td>
<td>10</td>
<td>Nice-Corse (France).</td>
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<tr>
<td>255.1</td>
<td>1,176</td>
<td>10</td>
<td>Copenhagen (Denmark).</td>
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<tr>
<td>257.1</td>
<td>1,157</td>
<td>10</td>
<td>Monto Ceners (Switzerland).</td>
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<tr>
<td>261.1</td>
<td>1,140</td>
<td>10</td>
<td>London National (Great Britain).</td>
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<tr>
<td>265.3</td>
<td>1,130</td>
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<td>Hong (Sweden).</td>
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<td>267.7</td>
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<td>Nuevo Laredo (Mexico) XENT.</td>
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<td>267.8</td>
<td>1,119</td>
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<td>Radio Normandie (France).</td>
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<td>269.5</td>
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<td>Moravská-Ostrava (Czechoslovakia).</td>
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<td>276.6</td>
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<td>286.5</td>
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<td>Scottisch National (Great Britain).</td>
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<td>288.5</td>
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<td>291.1</td>
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<td>292.6</td>
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<td>Midland Regional (Great Britain).</td>
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<td>298.8</td>
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<td>Poitiers (France).</td>
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<tr>
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<td>Bruxelles (Belgium).</td>
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<tr>
<td>321.9</td>
<td>941</td>
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<td>Brussels II (Belgium).</td>
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<tr>
<td>322.4</td>
<td>922</td>
<td>10</td>
<td>Bruno (Belgium).</td>
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### SELECTED SHORT-WAVE BROADCASTING STATIONS.

**ARRANGED IN ORDER OF WAVELENGTHS.**

<table>
<thead>
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<th>Metres</th>
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<th>Station</th>
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</thead>
<tbody>
<tr>
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<td>Brook (N.J.) W3XAL.</td>
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<td>16.45</td>
<td>17,770</td>
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<td>Huizen (Holland) PHIL.</td>
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<td>Zeesen (Germany) D.J.F.</td>
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<tr>
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<td>16.56</td>
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<td>15,000</td>
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<tr>
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<tr>
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<td>14,870</td>
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<td>Daventry (Great Britain) GSC.</td>
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<tr>
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