

World-Radio

THE BBC FOREIGN PROGRAMME JOURNAL ★ EVERY FRIDAY **2^D**

Programmes for September 4-10



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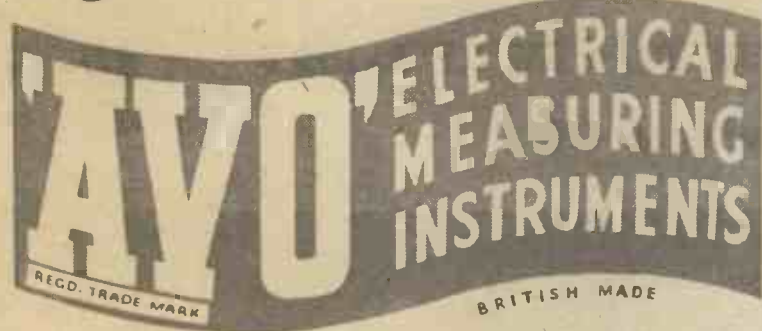
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MADAME IRENE DUBISKA, who gives a violin recital of old and new music at Warsaw on Wednesday, September 7, at 6.10 p.m.

THE PICK of the PROGRAMMES

innings, when Tor Mann and Nils Grevillius conduct a programme of recent works. Norway's turn is on Thursday, and most of its music, too, is by present-day composers; Odd Grüner-Hegge is the conductor of it. Denmark offers its own music on Friday, a varied programme of vocal and instrumental works, again mainly unfamiliar as yet, with Georg Höeberg, Launy Gröndahl, and Erik Tuxen as conductors, and Copenhagen artists as soloists. All these programmes are timed to begin at 8.10 p.m., and no one who hears even parts of them can have any doubt that music in those Northern lands is very much alive.

the times will no doubt tune in one or other of the Turin group of stations for parts, at least, of those two concerts.

The Nazi Party Congress

THROUGHOUT next week the annual Nazi Party Congress will be held in Nürnberg, and, as in former years, many of the speeches made there will be broadcast by the German stations. The detailed time-table had not come to hand at the time of going to press; the printed programmes, therefore, may be subject to considerable change. At all events, it can be assumed that the Congress will occupy a good share of next week's German programme times.

The Dutch Royal Jubilee

FROM Monday, September 5, till the end of the week the Dutch broadcasts will be devoted wholly to the national festivities in honour of the fortieth anniversary of Queen Wilhemina's Coronation. Other stations are to transmit commentaries and parts of the special broadcasts. On Monday at 2.10 (B.S.T.) the Queen's arrival at Amsterdam and the reception by the Municipality will be broadcast, as well as a programme of homage, conducted by Mengelberg; commentaries are also to be heard. Tuesday, the actual anniversary and national holiday, begins its broadcasts at 7.40 a.m., and from 10.25 till 12.30 the service of commemoration from the church will be relayed. National acclamations take up most of the afternoon, and at 8.40 p.m. a programme of youth's homage will be heard, after which, from 10.25 till 11.40 p.m., festivities in the town come through the microphone. On Thursday, at 2.25 p.m., the Queen will launch the *Oranje*, and on Friday, September 9, Amsterdam University is the centre of the festivities; the Queen is to receive the honorary degree of Doctor of Economy at 3 p.m.

As last week's issue of WORLD-RADIO showed, the celebrations have already begun, with talks on the events of the Queen's reign and the history of the House of Orange; programmes of national music have also been broadcast by one or other of the Dutch stations.

A Scandinavian Festival

BEGINNING on Saturday, September 3, with an Iceland programme, Kalundborg is broadcasting a series of festival concerts of Scandinavian music, one in which other broadcasters in that part of the world are to share. On Monday, September 5, music of Finland is to be presented, with the Finnish conductor Toivo Haapanen in charge; Sibelius's Third Symphony will be heard, along with newer music. On the following evening Sweden has its

New Music at Venice

MUSIC's advance-guard occupies the field in the Venice Festival, of which two concerts are to be broadcast by Italian stations in the coming week. On Monday, September 5, at 9.30 p.m. the Greek conductor Dimitri Mitropulos is to let us hear what present-day composers of Italian, Brazilian, and United States music have to say for themselves, in a programme which is more truly in accord with the "International" of the festival's title than the other. On Thursday, September 8, also at 9.30, it is devoted wholly to modern Italian orchestral music, with La Rosa Parodi as conductor. Not by any means everyone's meat, and not always such solid fare as the older masters set before us, the music at those international festivals does afford interesting samples of what our own time is contributing for our delectation. Listeners who welcome opportunities of keeping themselves abreast of

A Louis XV Première

ON Tuesday, September 6, at 8 p.m. Brussels No. 1 is to present an old French opera which had its first performance before Louis XV at the Italian Theatre, in Paris, in 1769; it is *Le Déserteur*, by Monsigny. "The musician who sang by instinct," as his fellow-countrymen called him, Monsigny was one of the self-reliant people who win success in their own ways in spite of having their energies forced into uncongenial channels. For many years a Civil Servant, he could turn to music only in leisure hours, and won his first success under an assumed name. Not till after the Revolution was he officially associated with the Opéra-Comique; he was seventy-one when he joined the staff of the Conservatoire, and eighty-four when he succeeded Grétry as a member of the Institute. Listeners who hear his opera on Tuesday will readily understand his popularity with the public of his day; his music is rich in melody which is as appealing now as it was then.

Two Vichy Concerts

THE French stations announce, among many interesting items—two Molière comedies, for instance—two concert relays from the Vichy Casino, on Monday and Wednesday respectively. The first will be directed by Bruno Walter, who, it will be remembered, conducted last Monday at Lucerne, and the second by Pierre Brun. The programme of the Walter concert includes Beethoven's *Eroïca* and Strauss's *Death and Transfiguration*. The first broadcast will be taken by Radio-Paris and its associated stations, and the second by Paris (PTT), Marseilles, and Grenoble.



H.M. QUEEN WILHELMINA OF THE NETHERLANDS, the fortieth anniversary of whose accession is to be celebrated next week. With her is standing Lord Baden-Powell.

THE WORLD

French P.M. to Broadcast Weekly



PAUL ROBESON, in a scene from "Showboat." He is the subject of next week's lecture-recital in Poste-Parisien's series of "Vedettes Internationales," on Thursday, September 8, at 9 p.m.

SALZBURG FESTIVAL THEATRE

IT is highly probable, according to an Austrian correspondent, that the Festival Theatre at Salzburg will not be used again for the Musical and Dramatic Festival after the present season, which ended—with *Fidelio*—on August 31.

There are wide differences of opinion among

those in authority as to what should be done with it: some are for building an entirely new theatre or opera-house in another part of the city and of an architectural design more in keeping with the famous old buildings which give Salzburg its especial distinction. There seems to be a positive "hate" of the present theatre's exterior, and it has been draped with Swastika flags and evergreens to hide what is considered its irretrievable ugliness. In some quarters its demolition is urged. This would leave exposed the rocks behind it, upon the face of which are now the *Egmont* scenic effects that have replaced the *Faust* background which had been there for many years.

THE FESTIVAL'S FUTURE

SALZBURG will now have to compete with Bayreuth and Heidelberg. The great problem facing those responsible for next year's Salzburg Festival is to revive the special lure that Salzburg has had during the last ten or twelve years for foreigners (and for North Germans). It held a fascination for British and American visitors such as no musical festival, anywhere, had ever done before, and brought them to Salzburg in August, year after year. The extraordinary beauty of the city and its surroundings was, of course, a potent factor, and that beauty remains. Whether a different kind of opera-house will improve the prospects of the Annual Festival would seem to be a matter for very careful consideration. Foreigners laugh at "Covent Garden's" bizarre situation, but a modern opera-house in Kingsway was rejected by the British opera public with disdain, and had to be turned into a picture-house—and Covent Garden remains.

BROADCASTING AND PEACE

FIVE years ago the League of Nations requested the International Institute of Intellectual Co-operation to draw up an international convention regarding the use of

broadcasting in the service of peace. This convention, after having been communicated to all States, whether or not members of the League, was submitted to an international conference at Geneva in September, 1936. The convention, signed by the representatives of twenty-three Governments, was ratified by eight of them (five belonging to the British Empire, the others being Denmark, Luxembourg, and Brazil), and came into force last April.

The aim of the convention, of course, is to seek to eliminate from broadcast transmissions everything that tends to discourage good feeling between nations and, at the same time, to promote measures which would foster a spirit of mutual understanding and sympathy. Certain countries have already passed legislative measures which are inspired by the spirit of the convention.

FRENCH P.M.'S WEEKLY BROADCAST

M. DALADIER'S important broadcast covering his proposals to introduce modifications in the forty-hour week was followed by another speech (not broadcast), in which he announced his intention of broadcasting from a State station once a week during the coming period in order to keep the country informed upon decisions taken by the Government.

INDIAN SHORT-WAVE STATIONS

ON August 16 the fourth short-wave station of All India Radio was opened at Calcutta. The new 10 kW transmitter, which has been set up at Cossipore, will broadcast on 31.48 m. (9.53 Mc/s) during the first transmission (from 7.6 a.m. to 9.6 a.m. B.S.T.) and on 61.48 m. (4.88 Mc/s) during the second transmission (from 11.36 a.m. to 5.6 p.m. B.S.T.). August 16 very nearly coincides with the eleventh anniversary of the opening of the Calcutta Broadcasting Station by the Indian Broadcasting Company. In those eleven years broadcasting has made considerable progress in India, though a parallel cannot be drawn with Western countries. Another short-wave station recently opened is that of Madras, where a 10 kW transmitter is operating on 60.6 m. (4.95 Mc/s) from 12 noon to 5 p.m. B.S.T.

Since June 16 Delhi has been broadcasting from a second short-wave transmitter on Sundays, Tuesdays, Thursdays, and Saturdays on 19.8 m. (15.15 Mc/s) for Transmission 1 (1.30 p.m. to 3.30 a.m.) and Transmission 2 (6.30 to 8.30 p.m.) and on 31.3 m. (9.59 Mc/s) for Transmission 3 from 12.30 to 5.30 p.m. These transmissions are additional to the regular Delhi short-wave broadcast, 31.3 m. (9.59 Mc/s) for Transmission 1 and 2 and 60 m. (4.99 Mc/s) for Transmission 3. Bombay short-wave transmissions are made on 31.4 m. (9.55 Mc/s) for Transmission 1 (2.30 to 3.30 a.m.) and Transmission 2 (6 to 8.30 a.m.) and on 61 m. (4.90 Mc/s) for Transmission 3 (12 noon to 5.30 p.m.).



DR. ENDRE HLATKY, Director of Programmes of the Hungarian Broadcasting Company, who has just been appointed "Staatsoberrat" (Higher State Counsellor).

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N.Z. PARLIAMENTARY PROPRIETY
 NEW ZEALAND'S House of Representatives, always enjoying a good reputation for its propriety, is being forced into even better manners through the introduction of Parliamentary broadcasts. Many letters have appeared in the newspapers from listeners who complained that they could not easily follow the Speaker addressing the House because there was a background of talk. So members who desire to chat adjourn to the lobbies. The Speaker (Hon. W. E. Barnard) recently made a pronouncement from the Chair, reminding members that as their proceedings are broadcast, the propriety of criticising persons who are outside Parliament comes into sharper outline. Therefore, he quoted for their guidance the rulings of two former Speakers that any references in debate to persons outside the House should be couched in language which is both temperate and moderate.

MBS ACQUIRES 23 NEW STATIONS

THE Mutual Broadcasting System of America, the third of the great chains, is to celebrate its fourth birthday on September 15 next, by taking under its rapidly expanding wing the newly-formed Texas State network of twenty-three stations. The Texas network has as its President Mr. Elliott Roosevelt, a son of the President. Its headquarters will be at Fort Worth, where elaborate studios and offices were to be ready on September 1.

The actual birthday, September 15, will be celebrated by a gala four-hour programme—to be carried from coast to coast on the Mutual network—saluting the new acquisition of twenty-three stations. The MBS, by the way, will now have affiliations with 107 stations in the United States and Hawaii.

AN INDISPENSABLE GADGET

EXASPERATION at having to listen to prolonged sales "blurbs" inserted in otherwise enjoyable programmes stimulated an American listener—Mr. Harry K. Todd, of Tacoma, Washington—to defend himself with a screwdriver and a few other simple household tools. A retired business man rather than an inventor, Mr.

Todd nevertheless devised a successful "hush plug," which, attached to his receiver, instantly reduces volume to a mere whisper. Pressing the button a second time at the close of the "commercial" returns the signal to full strength. A length of electric cord, on a self-winding reel, forms the attachment between the receiver and the listening "editor," who can thus sit at ease in his armchair at a distance while thwarting the persuasive sales efforts of announcers, the burbling of crooners, or the dreary eloquence of minor politicians. A further use for the "hush plug" occurs when the door-bell rings or someone in the room wants to speak on the telephone.



THELMA HUBBARD, CBS actress, who appears regularly in the "Hollywood Showcase" Friday programme, heard through Wayne short-wave station at 2 a.m. (Saturday).

"VOX POP." CHANGES TIME

PARKS JOHNSON and Wally Butterworth, conductors of the original "man-in-the-street" "Vox Pop." broadcasts, great favourites with NBC audiences for the last six years, will have a new schedule and sponsor from Saturday, October 1, when they will be heard from 9.0 to 9.30 p.m., E.S.T. (Sunday, 2.0 a.m. to 2.30 a.m. G.M.T.) over the NBC-Red Network.

The new series will present the same enter-

tainment which has established "Vox Pop." as one of the country's outstanding radio programmes. The broadcasts, entirely unrehearsed, "star" only members of the public whom Johnson and Butterworth encounter in hotel lobbies and other public gathering-places. Johnson is one of the original interviewers who brought the programme to New York in June, 1935.

Ernest von Dohnányi



IT is always something of an occasion when Ernest von Dohnányi broadcasts in the Budapest programme. Apart from Dohnányi, the pianoforte virtuoso, concert-goers and broadcast listeners know Dohnányi the conductor and Dohnányi the composer. He is chairman - conductor of the

Budapest Philharmonic Orchestra, as well as the composer of many successful operas, symphonies, and pianoforte pieces.

Born more than sixty years ago of musical parents, his musical career might be said to have been decided while he was still in the cradle. His talent showed early, and he began to study music when only six. At the age of eighteen he had finished the composition of three string-quartets, a string sextet, a Mass, and many pieces for pianoforte and voice. While he was studying at the Budapest School of Music (of which he is now Director) his pianoforte quartet in C minor was performed by fellow-students in the presence of Johannes Brahms, then the greatest living master of music, who took a lively interest in the young composer and arranged for immediate performances of the quartet in many European concert-halls.

He completed his high-school education within three years, and began a concert tour as pianist, which extended over five years, and included most towns of any musical importance in Europe and the United States. In 1900, he gave, in England, thirty-two concerts in less than two months.

In 1908 the Berlin High School of Music offered Dohnányi the Chair for Pianoforte. He lived in Berlin for about ten years, increased his reputation as virtuoso and teacher, and continued to compose.

Among other compositions for the stage, a pantomime, *Pierrette's Veil*, and an opera, *Aunt Simone*, performed first in Dresden in 1910 and 1912 respectively, won for Dohnányi popularity in German musical circles.

Upon an invitation to take over the pianoforte professorship of the Budapest School of Music, he returned to Budapest in 1916. Within a short time he was appointed Director of the school. He has been actively interested in the development of the orchestra of the Budapest Philharmonic Society, to the direction of which he was elected by unanimous vote. As the head of this orchestra he has visited Italy and Paris during the last few years.

Among recent compositions the Hungarian symphony, *Ruralia Hungarica*, and the two repertoire pieces of the Budapest Opera House, *The Tower of the Woivoda* and *The Tenor*, are best known.

Dohnányi is keenly interested in broadcasting and is a member of the Advisory Council on Music of the Budapest Broadcasting Company.

DO YOU KNOW THE ANSWERS ?

The following questions are all based on subjects which should be familiar to readers of WORLD-RADIO. They are intended not only to be a test of observation, but to provide some diversion for the family circle. The answers will be found on page 11.

- Richard Wagner's "Ring" consists of four parts. Name them.
- What are the countries of origin of the following dances?—(a) Polonaise; (b) Czardas; (c) Minuet; (d) Galop; (e) Fandango; and (f) Hornpipe.
- Who was the composer of, and what was the name of the opera founded upon, a play of the same name by Oscar Wilde?
- "A treble Tosca," "Oh busy Kiev," and "O can Fidelio harp?" are anagrams. Rearrange them so as to give, in order, a noted conductor, a broadcasting station, and a famous singer.
- What are the "Northern Messenger" broadcasts? From which country do they originate?
- Who are the following?—(a) "The Gospel Singer;" (b) "Cavalier of Song;" (c) Dorothy Thompson; and (d) "Schnickelfritzers."
- Which American short-wave station broadcasts weekly a feature entitled "The New World Salutes the Old"? What is the nature of the broadcast?

Questions submitted by R. H. Miller, 63, Kingscourt Road, Streatham Hill, London, S.W.16.



There appears to be a general impression that this year's Radiolympia is concerned with two classes of exhibits only: television receivers and sets provided with press-button tuning. But, while these are undoubtedly the keynote of the Show, the short-wave enthusiast is generously catered for, as is shown in the following review.

THE Editor's instructions to me were that I should deal with the 1938 Radiolympia mainly from the point of view of the short-wave enthusiast. My first impression (subsequently proved to be entirely erroneous), after an initial rapid tour of the stands, was that he had set me an almost impossible task. The Exhibition has two key-notes: television and press-button tuning, and these are so strongly sounded on the majority of the stands that they tend to submerge everything else.

Possibly your first conclusions were much the same as mine: buttons everywhere for the listener's forefinger to press; screens everywhere for the eye of the viewer to gaze upon; but very little to attract the man or the woman, infected with the microbe of short-wave listening, who had come specially to see what progress had been made in equipment for the reception of those stations which transmit sound only on frequencies reckoned in Mc/s per second.

The truth is, as no doubt you also found, that there's plenty of short-wave interest at Olympia, and that it is very far from being just a press-button-cum-television show. There has been very real progress in short-wave and "all-wave" receiving gear, though the concrete proofs of it are not brought so prominently to our notice as in past years; you have to disperse the overshadowing haze of press buttons and television in order to find them.

Easier Tuning of S.W. Sets

First, receiving sets themselves. One important step that I noticed is that a good many makers are going in for the four-band or five-band "all-wave" type in their better-quality models. The greater number of bands, within reason, into which the short-wave range is split up, the easier does tuning become. I defy anyone to log the majority of the 15-Mc/s broadcasting stations—much less to note their settings for future reference—with a set on whose tuning dial the 19-metre band occupies a quarter of an inch, or less! In many receivers which have only a single short-wave range this rather important point has received attention. Scales are less cramped, pointers less reminiscent of the kitchen poker; in some instances, an auxiliary dial is provided, which makes not only fine tuning, but also fine reading, a very much simpler business.

There is a praiseworthy tendency for the better "all-wave" sets to cover both the 17-Mc/s

(16-metre) and the 21-Mc/s (13-metre) bands. These are most useful for daytime reception, and the repertoire of the set which covers them is greatly extended.

The increasing use of a radio-frequency amplifying stage operative on the short waves is another sign of progress. Besides making for that great sensitiveness which we so often need, this also helps to cut out second channels and to make the set generally more selective.

few things are more exasperating than one which suffers from backlash. I handled many tuning knobs whose motion was the sort of thing that one dreamt of, but never found realised, in years gone by. For successful work on the short waves your tuning drive must be as smooth as silk and completely positive. You will find just such drives as that in many of the new season's models.

Anti-Interference Aerials

A matter of increasing moment to short-wave enthusiasts is man-made interference. The best of sets is of little use on the short waves if unwanted noises from domestic or commercial electrical machinery, or from ignition systems of passing vehicles, are continually assaulting our ears. When anti-interference receiving equipment first began to appear it was pretty effective on the medium and the long waves, but on the short waves it had one rather serious disadvantage: it was apt to eliminate not only the interference which you didn't want, but also the signals that you did! Enormous strides have been made in the design of anti-interference aerials for use with "all-wave" sets. They are now thoroughly efficient on the short waves, and in the majority of instances it is possible to get rid of man-made interference without detriment to reception on any wavelength.

To the many sufferers from man-made interference the stand of the General Post Office must be of special interest. Though the authorities have still no power to compel those causing interference to take measures for its prevention, they can and do take any amount of trouble to help listeners to obtain interference-free reception. If you are at all in doubt as to whether an anti-interference aerial or other devices will prove effective in your particular case, the Post Office will investigate, making no charge for the time and trouble spent, and will give the soundest of advice. This splendid service, by the way, is now extended to television reception.

Apart from external noises, there are two kinds which are the particular bugbears of the long-distance listener, whether he is working on the medium waves or the short. The first of these, which has been all too common in the past, is the uproar that can be produced by a defective manual volume control. Simple though it looks, the volume control has proved one of the most difficult of all wireless components to design and manufacture satisfactorily. It is good to see that

(Continued in column 3, page 9)

A DX MAN AT RADIOLYMPIA

By R. W. HALLOWS

I was very interested in the specialised receivers of what is known as the communication type which were on view. These may be described as modified forms of the receivers used by professional operators for commercial work. They have certain features (such as selectivity adjustable at will to a matter of only a few kc/s, very close calibration, and the provision of a beat-frequency oscillator) not usually found in broadcast receiving sets, which make them a joy to handle on the short waves. I predict that we shall see a great deal more of this type of set.

Chassis Sets

Some years ago it was not possible to obtain "ready-made" sets in chassis form; you had to buy them complete with cabinet. Now receivers containing from three to a dozen valves are available as chassis pure and simple, and most attractive some of them are. Not the least of their charms from the point of view of the constructionally-minded enthusiast is that he can alter or "improve" them from time to time according to his own sweet will. Many patterns are to be obtained nowadays, and amongst them there is probably something which will exactly meet your particular requirements.

I was delighted with many of the tuning drives that I handled. You can't do fine tuning with a drive that goes in jumps and jerks, and

THE BERLIN SHOW AND RADIOLYMPIA

An English Visitor's Impressions of the Two Exhibitions

By MANDER BARNETT

ALTHOUGH technically the Berlin Radio Exhibition may have much in common with the Radiolympia show, there is a world of difference between the two exhibitions. The Berlin show has the advantage of very extensive exhibition halls and grounds, the buildings themselves being modern and light. This year a most impressive new hall has been built—a huge building which is really three halls in one—and, compared with Olympia, there seems to be more room for the exhibitors, and the stands are more widely spaced.

To an English visitor, the general atmosphere of the Berlin show seems to be that of a light-hearted festival where the technicalities of radio are frequently forgotten, but where the pleasure, the instruction, and the entertainment to be had by means of radio and television reception are very much emphasised. The open-air restaurants, with their gaily-coloured tables and umbrellas and the beautiful flower gardens overshadowed by the Broadcasting Tower all help to produce an atmosphere of gaiety. The English visitor must surely gain the impression that for Mr. and Mrs. German Listener a visit to the Berlin Radio Exhibition is an exciting day's outing for the whole family—for there were also more children to be seen there than one normally sees at Olympia.

Nevertheless, the Berlin show was an exceedingly comprehensive exhibition, and much space was devoted to receiver parts and technical apparatus, as well as complete receivers.

Television in Berlin and London

Undoubtedly, the television exhibits drew big crowds at both the exhibitions, but whereas in London very many firms were showing receivers in actual operation on the stands in the centre of the hall, in Berlin a separate hall was reserved for television, and many receivers could be seen in operation in semi-darkness. The arrangement at Olympia more closely approximates to actual home conditions, and viewers can see there that a very dark room is not essential for television reception.

The exhibition of large-screen television by the Fernseh Company in Berlin was very impressive, and a screen approaching cinema-screen size was reproducing excellent pictures to a crowd as big as one would find in a small cinema. The detail of the pictures was excellent, and the system certainly possesses distinct entertainment value.

Several firms were showing normal size television receivers, which are now to become available to the public for the first time in Germany.

The firms exhibiting television receivers at Olympia had the good fortune that on the first day of the show they were able to relay part of the last day of the Test Match at the Oval—for what could have been better than this for bringing home to the listener the future possibilities of television?

No Complete Radiograms

To the casual observer there does not appear to be any very great difference between the radio

receivers shown at Berlin and Olympia. The Germans seem to have gone in entirely for the horizontal cabinet rather than the upright type, and many of the cabinets are finished in a very dark shade, sometimes nearly black—a rather refreshing change from the proverbial "brown box" of the average receiver in this country. Another striking feature about the receivers at the Berlin show—possibly caused by economic conditions, but definitely not without its attractive points—was that there were practically no complete radiogramophones to be seen. Instead, many firms are producing "playing desks"—often in comparatively luxurious cabinets and generally consisting of a playing motor and pick-up mounted on a tray in the upper half and a

phone of the conventional type has no provision for storing records.

The receivers, too, appeared noteworthy for their very large tuning dials with many station names printed in large clear letters.

At Olympia this year, undoubtedly the biggest attraction in sound receivers is the emphasis on push-button tuning, whereas at Berlin only a few receivers were to be found with this feature. One firm at Olympia was exhibiting receivers in which the button, which is made of semi-transparent material, lights up as soon as it is pressed and one can see at a glance which station is tuned in. Just to prove that push-button tuning is by no means new, one firm was showing a motor-driven push-button tuning unit which, by its appearance, was probably made something like ten years ago!

Car Radio

Although car radio receivers seem very popular these days, judging by the number of car roof aerials seen on the roads, there was very little evidence of car receivers to be seen at either show. Probably at Olympia this is due to the fact that many receivers in use in this country are of trans-Atlantic origin.

At the Berlin show, nevertheless, car radios had a small exhibit all to themselves, and on a stand erected out in the grounds, several very shining and spick-and-span new cars were on show, in which car receivers were installed and apparently permanently switched on! The installations were particularly neat, the aerial systems being entirely hidden.

At Berlin, of course, one of the outstanding exhibits was the new little A.C./D.C. receiver which sells for the equivalent of 35s. at par. From a technical point of view, one noted the extreme care taken in completely covering all metal parts in contact with the chassis (important in universal receivers where contact with the chassis may produce a serious shock), at the same time providing adequate ventilation for the valves and voltage-dropping resistance.

In Germany, aerials consisting of a straight vertical rod mounted on the roof or on a chimney stack appear to be very popular, and one sees this type of aerial all over the country. It is interesting therefore, to note that at Olympia this year an English firm is showing a good example of this type of aerial. It is claimed that they have a very good

pick-up and there must surely be many occasions when their use would be preferable to the usual horizontal wire. Where space is limited, they are comparatively easy to erect, and frequently their appearance is considerably neater than that of a long, straggling wire.



New type of flat loudspeaker in the entrance to the new hall in the Berlin Exhibition grounds.

compartment for holding many records in the lower half. The tray can be pulled out for the purpose of changing records, etc., and can be closed during the actual playing. This type of instrument has the advantage that a table-model receiver can be bought first and the gramophone portion purchased afterwards, if necessary; also, the set itself can be scrapped and changed for a later model at any future date without the necessity and expense of changing the complete radiogramophone—for motors and pick-ups change very little these days and do not go out of date in the space of a year or two. Furthermore, owing to the fact that the loudspeaker is up at the top alongside the receiver chassis, there is considerable room for storing records in the cabinet itself, whereas the average radiogramophone

A
Technical Review
of
RADIOLYMPIA
will be found on pp. 12 to 15

A Woman Visitor to Olympia agrees that

SEEING IS BELIEVING

THE *débutante* Radiolympia of 1926 has evolved into woman of the world. At this, her thirteenth, season she has discarded glamour and acquired poise.

Gone are the swaddling-clothes of gold and blue that were wont to drape the body of the hall; the glint of chromium no longer dominates the *décor* of every stand; demure maidens in poke bonnet and crinoline, and pseudo-Knights of Olde are not now thought necessary for the ensnarement of the unwilling or the unwary in the coils of a superhet. The centre-piece is no more, and even the great backcloth, which told the world, with strange device, Excelsior-fashion, the latest licence-figures, bears only the decorous design of the R.M.A. coat of arms.

Sure of its place in a radio-conscious universe, Radiolympia can now dispense with the heralds and the bunting, and leave the show to speak for itself—and act for itself. For grown-up Radiolympia makes itself both heard and seen. And there is no need for a show of hands to demonstrate that the "eyes have it" over the ears, so far as crowd-collecting goes. Television holds court at Olympia!

That is not to say that the broadcasting receiver does not arouse—and deserve—an equal share of attention. It does. But the study of the sound-receiving set is done by a steady progression in twos and threes and small groups; while Television lures, on the one hand, a patient queue for the studio performance, and, on the other, excited assemblies that swarm the stands to view the televised programme, and become almost swivel-eyed in their eagerness to compare the picture before them with that being received on larger or smaller screen sets ranged alongside.

Seeing the "Wheels Go Round"

On the opening morning (Wednesday, August 24), I was one of a throng of people, hushed and tense with interest, who watched the Test Match. My own interest in cricket is limited, but those of us who were less absorbed in the fortunes of the game were the more conscious of the miracle of science we were privileged to witness. We had seen how "the wheels went round" in a studio event, while we peered, fascinated, through the windows of the glass house—at which no one, I am sure, had thoughts of throwing anything but bouquets—while, apparently, a rehearsal was in progress. But this outdoor, unrehearsed happening was even more a thing of wonderment. No flood-lighting of the scene here; no make-up for the leading players; no adroit placing of the "supers" in the grandstand! Yet here they were: the men who were making cricket history for two hemispheres, and those who watched them in the flesh all unconscious that they, too, were being watched by absent spectators—spectators dotted about in mildly jostling crowds like ourselves or seated comfortably in the privacy of their homes. And we, the absent, could see all, and not be seen in turn. Small wonder that we felt like super-beings, possessed of a magic eye!

That over, some of us—strangers until we found ourselves so readily seeing, almost literally, eye to eye—lingered to discuss the "play;" others began straight away their tour of this vast showroom. Many, obviously, were trade buyers; the rest, like me, had come "shopwindow-gazing" to see what improvements the radio world could offer them on the set they used at present, at a price to suit their means.

A market-place of limitless variety and infinite possibility surrounded us. The products of one more year's research and experiment in laboratories and factories were "on appro." Riches indeed, but riches that need not, as once, em-

barrass the beholder. I thank whatever radio gods there be that masquerader-wireless-sets of earlier exhibitions seem to have died—unnatural deaths, I hope! Those "novel" loudspeakers in the guise of an African warrior's shield, or of a clock-case reminiscent of the Victorian little boy's essays in fretwork; the Tudoresque fire-screen that suddenly announced: "Pale Hands I Love," and the Old Master-turned-Old Moore who told us whence to-morrow's stormy winds would blow—these seem now but the skins sloughed by radio during the early stages of her evolution. Then came the "refined" phase of pastel-hued, shot-silk, and marzipan decorative effects, whose culminative expression I remember as two fat cherubs sitting on an alabaster lampshade, but whose reiteration to all and sundry of a whispered "Horsey, keep your tail up" seemed somehow faintly indelicate. "Not angels, but angles," might well have been the motto for yet another stage in radio's sartorial development—that transition period from the antique to the modern which is so ingenuously boasted of by

dued kind in use, which accords more with my own taste for natural, as opposed to highly-polished, woodwork.

Since vulgarity and expensiveness quite often go hand in hand, I should like to record that the most costly set I saw—one priced at more than 350 gns.—was one I thought really beautiful. Its oblong-shaped cabinet of pale cream was of the dimensions of a modern sideboard or curio cabinet. It had rippled, diagonally-set side panels, and the front section which formed the loudspeaker screen was a brilliant combination of an unusual kind of gauze and Chinese red lacquered carving. All tuning devices were cleverly concealed, as was also the gramophone section with record-holder. The set was already sold, and I can imagine it equally at home in some Eastern palace or in a Western music room, designed by the best among contemporary interior decorators.

Televised Fashion Show

Evening—and I must confess it, not only that evening—found me "queuing up" for the television programme, and naturally, first for "Fashion Forecast." The programme which pleased me most, for I am taking my holiday in September, was devoted to sports clothes—almost all of them in *suede*. I had previously



Leonard Hutton, the Yorkshire cricketer, facing the television camera.

the makers of meaninglessly distorted objects as "modernistic."

But Radiolympia, 1938, has said goodbye to all those. Within its well-ordered spaciousness there is not a place for even their ghosts. The stands have never been better arranged either from the consideration of presentation or of function. On most of those exhibiting television receivers everything possible has been done for the comfort of viewers in the way of wide approaches to the sets and ample room left around each to enable the maximum number to watch without inconvenience. A number of the exhibitors have fitted up dark rooms or recesses, and some of these have seating accommodation. Ornamental accessories on the stands have been almost entirely eliminated, so that attention is no longer distracted from the real exhibits. And these, for the most part, show improvement not only of performance and in ease of tuning, but in appearance, a matter which, perhaps, counts more with women than with men. Whether it be a small portable of the suitcase type, a receiving installation for the car, or a console radiogram and television receiver, it can be chosen to harmonise with its surroundings. There are sets there—some of them high-figure sets—which seem to me the epitome of vulgarity, but these are definitely in the minority this year. The one feature which I, personally, should like to see improved is the gauze panel. The average gilt-colour and the patterning of the mesh seem to introduce a flashy note to even the most restrained cabinet work. I have seen a more sub-

"viewed" one display on a stand, and knew that the televised picture, plus the spoken commentary, was as good as seeing the original in the studio, but nevertheless there was a special thrill in seeing the mannequins pose unconcernedly before the powerful arc lights, and then walk leisurely down a flight of stairs, along a "walk" and out through a door. Suits ranged from a Paprika-red outfit comprising *suede* semi-fitting overcoat worn over a jacket and skirt of the same material, and with matching beret, bag, and gloves, which would have made a striking effect on the race-course, to more everyday colour-combinations.

After Fashion, came "Picture Page." This was indeed a series of "pages from real life." Among them we saw a quartet of tap-dancers, a Chinese conjurer do a disappearing-girl trick (and she really was found inside the already corded-up trunk); we saw Hutton being interviewed by Leslie Mitchell, "Joss," the newspaper cartoonist, drawing lightning caricatures on pink paper, and three old Chelsea Pensioners in their scarlet coats and cockaded tricorns. And, afterwards, back in the big hall again, we "viewed" and listened to a performance of *The Rivals*, by Sheridan—a surprisingly vivid and arresting performance.

And only two years have elapsed since Television was instituted as a service! What will it, too, be showing us by the time it comes to its thirteenth season? When we are a world of viewers as well as listeners, shall we all see "eye to eye"?

E. F.-G.

LEAVES FROM MY LOG

By "Log-Roller"

THERE WERE DISTURBANCES

YOU may remember that a week or two ago I suggested that the terrific storms that we had at the beginning of August were probably something more than mere vagaries of the weather. I have just had the cosmic data report for this period, which shows that there were severe magnetic disturbances at the time. The sunspot report has unfortunately not come yet, but it will be surprising if it does not show pronounced solar activity. On the 1st August a rather violent magnetic disturbance began at 07.46 and continued for nearly 24 hours until 07.00 on the 2nd. A fresh disturbance, much more violent in character, began at 21.36 on the 3rd and lasted until 11.00 on the 4th. This was followed by further rather smaller disturbances. Tokio reports wireless black-outs at 01.50 on August 1st and at 01.05 on the 3rd.

WORTH NOTING

In the issue of August 12, if you remember, I described the experiences of a reader who obtained exceedingly good reception of stations in the middle and lower part of the medium-wave band, but could hear little or nothing of those whose wavelengths are above about 463 metres. I suggested then that the shortness of his aerial might possibly be the cause; but an Amersham Common reader reminds me of another possibility, which I ought to have thought of at the time. He had a very similar experience, but found, quite by accident, that by altering the H.T. voltage of the frequency-changer he could obtain reception on rather higher wavelengths, though he still could do

little with stations at the very top of the band. However, on replacing the valve with a brand-new one he was able to get right up to 549.5 metres—or right down to 546 kilocycles, whichever you prefer.

IT ISN'T UNCOMMON

As a fact, it isn't at all uncommon to find either the oscillator portion of a frequency-changer or a separate oscillator valve refusing, after a good deal of service, to oscillate properly on certain wavelengths. I certainly should have thought of that explanation myself, for I have had similar trouble with one of my own sets. It covers the short waves in no less than six bands, and not long ago it completely "packed up" on the one which takes in the higher frequencies. I located the trouble quite quickly: as even passing motor cars didn't produce a sound from the loud-speaker it was clear that the frequency-changer wasn't oscillating on the belt of frequencies involved. That, incidentally, is the only time that I have ever been grateful for ignition-system interference! I thought at first that the wave-change switch might be defective, but resolved to try a new valve before doing anything else. Directly the valves were changed the set regained all its old liveliness and all was well.

BETTER CONDITIONS

As soon as we get a spell of more settled weather you will, I think, be surprised at the improvement that you will find in conditions on the medium-wave band. My records, which go back for a good many years, show that as a

rule you don't get a gentle glide from summer to autumn conditions. The improvement seems nearly always to take place in a series of quite noticeable jumps, one of which very often occurs about the middle of August. This year the vagaries of the weather have made searching for distant medium-wave stations an unprofitable business during the greater part of the month. Things are rather better now, though atmospheric conditions are still more than a nuisance. Once these leave us in peace I am sure that you will be able to enter in your logs many stations that you haven't heard for months. The next big step may be expected towards the middle of September, and from then onwards progress should be rapid.

MAN-MADE INTERFERENCE

There's one way in which readers could help a good deal in reducing the menace of man-made interference. I said, a fortnight ago, that radiating domestic appliances were still being widely sold and that motor cars whose ignition systems played havoc with short-wave and ultra-short-wave reception were going on to the roads every day. Why shouldn't wireless enthusiasts make a vow not to purchase any household electrical appliances unless they are satisfied that they don't radiate? Again, why not refuse to buy a car which causes interference when its engine is running? If even a small proportion of listeners did this and wrote to the makers of the apparatus or the cars to tell them why they hadn't purchased their goods, we should soon see a very big difference. I don't see why this shouldn't be done, for manufacturers, after all, have received plenty of notice that anti-interference legislation is pending and it is surely up to them to protect their customers from the consequences of possessing offending apparatus when legislation comes into force, as it probably will before so very long.

READERS' FORUM

"RADIO-ANKARA TESTING"

SIR,—In the hope that it will be of interest to other readers, I take this opportunity of sending in this report. While tuning through the 19 metre band this morning at 10.15 (B.S.T.) I came upon an extremely loud signal which, from the type of item being broadcast, I took to be some fairly local station transmitting a programme for the East. After a few moments came the announcement "Hallo! Hallo! Radio-Ankara testing on 15,195 kc/s." After this came more Eastern music, followed by popular dance numbers, including "You can't take that away from me." These were followed by marches and more Eastern music and at 11.04 (app.) the station closed down with the words "We are now closing down." No indication of power or regular transmission times (if any) was given, but reception was exceptionally good, being at a signal strength of R9 for practically the whole transmission. There was however slight fading to R8, but the transmission was fully intelligible and quality was excellent.

The receiver used was an Sg-v-2, battery operated, and reception was on the loudspeaker. Have other readers any further details of this station?

PETER C. SHENTON.

Graveley, Huntingdon, August 29.

EARLY-MORNING LISTENING

I am very interested in your reports of Early-Morning Listening, and in particular I wish to congratulate your Belfast correspondent Mr. J. P. Walsh and the writer of the S.W. News-Reel from Bexhill, not only on their wonderful achievements, but also on account of the fact

that they have not been threatened by summonses from irate and/or jealous-minded neighbours who may be disturbed by these stations coming in at "terrific volume" when everyone else is, or should be, sleeping!! How do they do it?

For my part, I get a very well-known pianist—who lives 200 yards diagonally opposite to me—complaining that I mustn't even use my set during the day because through his open window he can hear my wireless (while I can hear his typewriter). I dread to think what would happen if we dared to search the short-wave band and got stations at "terrific volume" at such an early hour. We have been told that people cannot object to one's wireless and that they have no business to threaten one. If a person spoils another neighbour's reception deliberately while another programme is being radiated (say, out in a garden) and does so continually then there may be grounds for complaint; but when a person is "eavesdropping" so to speak, that is another matter. The programmes are perfectly legal fare, meant to be heard, and I maintain that it is no one's business when or what one listens to, and there are sure

to be two or three other people's wireless sets going at the same time, that could be heard—if your own was not on—that do not interfere with each other.

BELINDA BEACON.

Manchester, August 28.

[While there is, of course, no embargo on the reception, at reasonable volume, of any broadcasting station, without causing inconvenience, the policy of "the good neighbour" is one to be kept in the forefront of every listener's mind.—Ed.]

A DX Man at Radiolympia

(Continued from page 6)

this year so much attention has been devoted to this small, but enormously important, part of the receiving set. It is perhaps not too much to hope that the scratchy, scappy volume control will soon be no more than an unpleasant memory.

The second noise nuisance is the hiss that is apt to occur in superhets. when they are used in a sensitive state. A new type of valve of great promise has made its appearance this year. It is actually a development of the high-frequency pentode, which has been made by the addition of an extra "silencing grid" between the cathode and the control grid. It certainly cuts down superhet. noises very considerably, and, once started, the idea is sure to be widely developed.

The long-distance listener, then, certainly has not been forgotten this year, whatever one's first impressions of Radiolympia might be. Genuine progress has been made in the equipment offered to him, and he can now buy at moderate prices receiving gear which will enable him to make the most of the most fascinating of hobbies.

Letters should be addressed to the Editor, "WORLD-RADIO," Broadcasting House, London, W.1. Letters intended for publication should be as brief as possible, and should always be accompanied by the full name and address of the writer, though not necessarily for publication.

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American Television Comes into the Open

RADIO CITY'S NEW "OUTDOOR STUDIO"

(By our New York Correspondent)

AMERICAN television was considered as being "out of the laboratory" with the opening of field tests originating in the Empire State Building transmitter two years ago and the inauguration of the series of more or less private demonstrations which have been staged from time to time in the RCA headquarters for technical, educational, and other groups.

This summer a further advance has been made. Television has been brought out in the open. The throngs of out-of-town sightseers who normally dawdle along the pavements of Radio City have gathered day after day during most of July watching the operation of the NBC's camera truck. Its setting was a colourful one—on Rockefeller Plaza, between the RCA and the British Empire Buildings, overlooking the sunken garden which serves as an open-air restaurant in summer and a skating-rink in the winter months. There is abundant contrast and movement here to stimulate experimental television pick-ups: drifting groups of women in bright print dresses, rippling fountains, modern sculpture, oversized striped parasols over the restaurant dining-tables, and neat rows of trees (the latter showing lighter than the eye sees them by reason of the infra-red reactions of the iconoscope tube in the camera).

Unexpected Tragedies

Passers-by have shown an enormous interest in these, the first glimpses afforded the general public here of television cameramen at work. They asked a great many questions; some with time on their hands even co-operated with Robert E. Shelby, the engineer in charge of these outdoor pick-ups. Candid shots were made from many angles of these volunteers and a technique worked out for a sort of "Vox Pop."

interview by camera; pedestrians as actors proved unexpectedly responsive in forming themselves into deliberately casual "street groups." Out of this pleasant metropolitan scene a small spectacular tragedy flashed unrehearsed on to the television screen one day. One of the cameramen had been instructed over the telephone connecting the truck with the control-room on the fifth floor of the RCA Building to "pan right and take in the upper part of Number Nine." As he did so, a stenographer opened a window on the 11th floor of the Times Building and was seen to fall to her death in the street. At the time the circuit was open no farther than the control-room (these test pick-ups were not transmitted from the Empire State), where the gasp of the crowd along the Plaza and the horrified exclamations of the engineers on the truck were heard as the image appeared on the monitor board. Strangely, the televising of preliminaries of a second tragedy was inevitable a few days later, when a deranged youth, after holding a vast crowd in suspense for several hours, jumped from the 17th floor of a Fifth Avenue hotel immediately in range of an RCA laboratory camera situated in a building facing the hotel.

Aerial 1,300 feet above the Street

All such shots, normal or gruesome, are over for the time being. They were strictly in the nature of tests rather than programme material, and these experiments were resumed on August 23. Meanwhile the Empire State transmitter has been overhauled, its power increased, and a newly-designed aerial put in place 1,300 feet above the street. At the same time there have been going on changes in the two NBC trucks (the second is the relay transmitter), with the object of obtaining greater smoothness and effi-

ciency of operation. On the whole, the field tests, in which studio programmes were regularly scheduled every day for several weeks, and the daily televising of Rockefeller Plaza's passing scene have yielded results satisfactory to American officials. "We have learned a good deal," Mr. O. B. Hanson, NBC Chief Engineer, told me, "from working out in the street in what is really television's first out-door studio. We hope by this autumn to be able to give New Yorkers a glimpse of current events in the city as they are actually happening."

Making Haste Slowly

Further experiments have been conducted, I learned, using the relay truck in conjunction with the camera pick-up from a Westchester suburb of New York. (A coaxial cable link served to connect the truck in the Radio City tests with the control-room, and similar means will be employed to connect Radio City with Madison Square Garden for the televising of sporting events.) The signal, from some twenty-six miles' distance, brought in recognisable likenesses of engineers and officials who stood in front of the camera and the rather small price tags on a wayside fruit-vendor's barrow could be clearly distinguished. The technical verdict respecting these relays was nevertheless not over-enthusiastic; the pictures had not yet reached the standard of excellence which it is assumed the American public will demand when television is launched as a daily service. Just when that will be remains highly conjectural. Conservative management, anxious to safeguard an investment already amounting to ten million dollars sunk in experimental work, is proceeding with extreme caution. The public waits expectantly. Efforts to "beat the gun" on the part of certain manufacturers have caused some consternation among the main groups. Recently a New York department store, announcing "Television is here! Come in and choose your set!" offered "unofficial" receivers with a very small screen, at a price of about twenty-five pounds, "sound attachment extra." RCA, with the heaviest stake of all the concerns involved in the television lottery, has as yet no sets on the market.

Standards constitute perhaps the most difficult element in the commercial dilemma which the promoters of television in America have to face. It is as necessary to manufacturers to have the industry "frozen" technically into position as soon as possible—although this would be fatal if done prematurely—as it is for the Federal authority, in its rôle of guardian of the public interest, to be certain that when sets are offered on a wide scale to the public they will not be quickly outmoded by the arrival of radical changes in the whole television set-up. Busy innovators are active in every branch of the new art. A distinctly American touch is to be seen in arrangements which one inventor has offered: to provide viewers in the home with the visual equivalent of the station identification and time signal characteristic of sound broadcasting, he has added to a standard set a tiny watch-like screen, on which would flash at the beginning and the close of a programme the "sign letters" of the station and a glimpse (mercifully brief) of the exact time, picked up from a master clock! The chance of any important technical advance coming along, however, is not thought sufficiently likely to warrant further delay in fixing the principal standards. A committee of manufacturers ratified a number of these, including the 441-line basis, quite recently.



NBC television van at Rockefeller Plaza: the television camera can be seen on the roof of the van.

TELEVISION NOTES AND NEWS

Viewers to "Visit" an Aerodrome

By "THE SEER"

THE first television visit to an aerodrome is scheduled for the middle of October, when, by courtesy of the Air Ministry, one of the mobile units will spend a day at an R.A.F. aerodrome. Viewers will be able to see the personnel at work—a privilege which is rarely extended to the public. The cameras will work at close quarters to the fighter planes, and near enough to show flying instruction and the manipulation of controls on the ground.

The ideal plan, of course, would be to take the cameras into the air to get a pilot's-eye view of the aerodrome, but at the present stage of technical development it just can't be done.

* * * * *

The growing television public will undoubtedly expect more outside broadcasts after dark, when fathers of families (who buy the sets) are at home to enjoy the fun. So the O.B. staff are busy planning programmes which can be introduced into the evening transmissions. The first, referred to in these columns last week, will be the Television Ball at the Pinewood Film Studio on September 23. Later it is hoped to televise boxing matches from the National Sporting Club premises at Earl's Court, and to pay visits to Harringay and Wembley for ice hockey and kindred sports.

* * * * *

When Stephen Thomas produced *The Mizzen Cross Trees* last summer he created a new art form for television—a revue of traditional songs in a dramatic setting, making use of all the technical resources of the studio. In the same

genre he offered *Powder and Pipeclay*, dealing with soldiers' songs through the centuries, and *Rogues' Gallery*, presenting the songs of highwaymen and buccaneers. On September 7 the cream of all three programmes will be whipped up to form a fourth—*Songs in Adversity*, acted and sung by the same team of artists, John Goss, Elizabeth French, Joan Collier, and Taylor Harris.

* * * * *

And Now is the title of an unusual pictorial booklet of 32 pages which the BBC has just published. In page after page of pictures it tells the story, with a racy commentary, of all that television means to viewers to-day.

"Television is obviously impossible," runs the foreword, "but it is happening every day." Many of the photographs were taken at the cameraman's elbow. We see the Coronation Procession as viewers saw it at Hyde Park Corner; famous stage and screen personalities in the studio; television plays with the camera in action; great national and sporting events as they were televised at the moment of happening.

And Now is an interesting attempt to bring television vividly before the eyes of those thousands who, from lack of time or opportunity, are still unacquainted with the Television Service as it is run to-day. The booklet is obtainable, price 6d., from the BBC stand at Radiolympia, or direct, price 8d., post free, from BBC Publications, 35, Marylebone High Street, London, W.1. It can also be obtained at local BBC offices.

PROGRAMMES

Vision : 45 Mc/s (6.67 m.); Sound : 41.5 Mc/s (7.23 m.). All programme times shown below are approximate. From 11.0 a.m. to 12.0 noon each weekday films intended for demonstration purposes will be shown.

SUNDAY, September 4

8.50 p.m.—News Bulletin.
9.5-10.20—"Winter Sunshine," a comedy by G. A. Thomas.

MONDAY, September 5

3.0 p.m.—"Hyacinth Halvey:" a comedy in one act by Lady Gregory.
3.35—Gaumont-British News.
3.45-4.15—Northolt Pony Racing.
8.0-8.50—Promenade Concerts, 1938 (Sound only).
9.0—Film: "The Student of Prague."
10.0—Interval Music. 10.25-10.45—News Bulletin.

TUESDAY, September 6

3.0-4.15 p.m.—"The Importance of being Earnest," by Oscar Wilde.
8.0-8.45—Promenade Concert (Sound only).
9.0—"My Cherub Family:" Louis Golding.
9.10—Cartoon Film: "Shanghai'd."
9.15—"Gianni Schicchi," an opera in one act by Puccini.
10.15—Interval Music. 10.25-10.45—News Bulletin.

WEDNESDAY, September 7

3.0 p.m.—"Contrasts," with Joe Adami (Juggler), and Raphael Medina (Spanish Songs).
3.10—Gaumont-British News.
3.20-4.0—Songs in Adversity.
8.0—Promenade Concert (Sound only). 9.0—Starlight.
9.10—Cartoon Film: "Orphan's Benefit."
9.15—"Masterpieces on your Walls."
9.30—British Movietonews.
9.40—European Folk Song and Dance.
10.0—Interval Music. 10.25-10.45—News Bulletin.

THURSDAY, September 8

3.0 p.m.—Stanelli's Bachelor Party.
3.30—British Movietonews. 3.40-4.0—"Picture Page."
8.0—Promenade Concert (Sound only). 9.0—Cabaret.
9.30—Gaumont-British News. 9.40—"Picture Page."
10.0—Interval Music. 10.25-10.45—News Bulletin.

FRIDAY, September 9

3.0-4.15 p.m.—"Winter Sunshine," a comedy by G. A. Thomas.
8.0—Promenade Concert (Sound only).
9.0—Speaking Personally: Raymond Gram Swing.
9.10—British Movietonews. 9.20—Songs in Adversity.
10.0—Interval Music. 10.25-10.45—News Bulletin.

SATURDAY, September 10

2.40 p.m.—Visit to the River Police Station at Wapping.
3.0-4.0—"Gianni Schicchi:" opera in one act by Puccini.
8.0—Promenade Concert (Sound only).
9.5—Cabaret. 9.35—Gaumont-British News.
9.45—"The Cab," a comedy in one act by John Taylor.
10.5—Interval Music. 10.25-10.45—News Bulletin.

LISTENERS' QUERY SERVICE

Which station was that?

This feature is intended for the use of readers who desire the identification of broadcasting stations only, whether on long, medium, or short waves.

Free Queries

Each query should be numbered and the questions on the coupon carefully answered. Letters must be addressed to the Editor, WORLD-RADIO, Broadcasting House, London, W.1.

The Alternative Postal Service

In addition to the free service of "Which Station Was That?" printed in these columns, replies to station identification queries can be obtained within forty-eight hours of receipt of details on payment of 6d. per query, in stamps, or P.O., accompanied by stamped addressed envelope (marked in left-hand top corner "Postal Query Service"), and coupon as per conditions for "Free Queries."

IDENTIFICATION COUPON (No. 499)

This coupon is valid for ONE QUESTION only and should be cut out and attached to a separate sheet, upon which the following questions should be answered in the order shown. No coupon more than one month old is valid. A coupon is not required from readers living in countries outside Europe who desire identification of transmissions.

1. Time and date of reception.
2. Approximate frequency in kilocycles (or, for short waves, in megacycles) per sec. (or wavelength in metres).
3. Nearest known stations, above and below.
4. Call or interval signal, if heard.
5. Language.
6. Type of receiver in use and strength of signals.
7. Details of programme or signal received.
8. Name and address.
9. Nom de plume. (Proprietary names must not be used.)

P.C. 72 (Gibraltar): (12) cannot trace any Italian transmitter on the frequency stated; (13a) Moscow (U.S.S.R.) RIB, on 11.7 Mc/s; (13b) Tangiers (International Zone), CNI; (13c) FN, Amateur transmitters in French India. D.X. PHONE (West Bromwich): (1) there is no German or Dutch station working on a channel above 49.83 m.; would appear to be seventh harmonic of Strasbourg (France) on 49.89 m.; (2) SBO, Motala (Sweden), on 49.46 m.; (3) regret, cannot trace. CURIOUS (Leeds. 8): apparently, OLR5A, Prague - Podebrady (Czechoslovakia) on 15.23 Mc/s but you may also have heard W2XE, Wayne (N.Y.), U.S.A., on 15.27 Mc/s. PATTI BOLI (Birmingham): WHK, Cleveland (Ohio), on 215.8 m.; KMOX, St. Louis (Mo.) on 275.1 m.; WABC, New York, on 348.6 m., all in the Columbia broadcasting network. NUNKUN (Teddington): would appear to have been a relay from Berlin; the stations heard were WQV, Rocky Point (N.J.), U.S.A., and WQL, New Brunswick (N.J.), on 20.27 m. and 20.25 m. respectively. CATCH-EM (Bolsover): (1) CSW2, Lisbon (Portugal), on 27.17 m.; (2) cannot confirm but there is a Moscow station (RRRE) entitled to work on 21.84 m. and 21.77 m. INTERESTED (N.W.9): VLR, Melbourne (late Lyndhurst) (Victoria), on 9.58 Mc/s. BATHWICK (Boscombe): yes, Monte Ceneri (Switzerland), on 257.1 m. ANXIOUS ENQUIRER (St. Leonards-on-Sea): (1) CRCX, Toronto (Canada), on 49.26 m.; (2) XEWI, Mexico City (Mexico), on 49.88 m. AIR SICK (Langold): possibly Courtrai (Belgium), on 201.1 m. DX-ER 100 A (Woodford Wells): (1) HPSG, Panama City (11.78 Mc/s); (2) (a) OAXIA, Chiclayo (Peru), on 48.78 m.; (b) OAX4P, Huancayo (Peru), on 49 m.; (3) (a) XEBF, Vera Cruz, Mexico, on 49.26 m.; (b) TGXA is no longer given in official lists, but wavelength was 48.94 m.

Esperanto Transmissions

Sunday : Barcelona, 377 m. and 42 m. 00.30 a.m. Parolado. Monday : Rome (2) and (2RO) (31.13 m.) about 10 p.m. Informoj, Prague, 10.25 p.m. Kroniko pri Cehoslovakio. Paris (PTT) 11 p.m. 1-akta komedio de Labiche, "La Krimo de Strato Lourcine." Tuesday : Kaunas 9.20 p.m. Nia Anguleto—Informoj pri Litovujo. Estonian stations 10 p.m. Estona Kroniko. Rio de Janeiro (31.58 m.) 11.30 p.m. Oficialaj Informoj en la Brazilo. Wednesday : Mexico (50.17 m.) 2.45 a.m. Parolado kaj Sciigoj. Paris (PTT) and relays, 2 p.m. Elementa Kurso. Saturday : Rome (1) and 2RO (25.4 m.) 7 p.m. Turismaj Notoj.

"DO YOU KNOW...?"—24

Answers to Questions on page 5

1. *Das Rheingold, Die Walkure, Siegfried*, and *Götterdämmerung* (Twilight of the Gods).
2. (a) Poland; (b) Hungary; (c) France; (d) Germany; (e) Spain; and (f) England.
3. Richard Strauss; *Salome*.
4. Albert Coates; Kouibyshev; Feodor Chaliapin.
5. Messages sent from home in winter on Saturday night to the people of the lonely outposts in the Canadian Arctic. Canada chiefly, though the United States (Pittsburgh KDKA and its affiliated short-wave station) transmits messages, too.
6. (a) Edward MacHugh, greatest of America's radio Scots; (b) Donald Peers, broadcaster in Radio-Normandie programmes; (c) famous American newspaper correspondent, broadcasting weekly on world affairs from Schenectady; and (d) a group of six musicians, recently presented on the air by Rudy Vallee, who get their instruments off junk heaps.
7. Bound Brook W3XAL. The broadcast deals with happenings in countries below the Rio Grande, with folk and traditional music interludes.

Behind the scenes at the BBC

BROADCASTING FROM WITHIN

By S. W. SMITHERS of the BBC

This fascinating new book will appeal to every listener. In its pages you will find intimate descriptive sketches, illustrated by portraits, of outstanding BBC personalities and the work they do, of how broadcasts are controlled, of how television is "put over," of how technical breakdowns are overcome—in short, how the wheels go round at Broadcasting House. net

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PITMAN, Parker Street, London, W.C.2.



NEW TELEVISION RECEIVERS

THERE is no doubt that during the past few months television has fired the public imagination in no uncertain manner. This is largely the result of the concerted activities of the BBC, the radio manufacturer, the retailer, and the Press. It is not surprising, therefore, to find television the keynote of Radiolympia this year, and to observe that no effort has been spared to stimulate public interest in this wonderful new development.

In the first place, the BBC, in co-operation with the R.M.A., has transplanted a television studio, complete with all the paraphernalia of transmission, from Alexandra Palace to Radiolympia, and a large proportion of the specially arranged television programmes are performed in this studio and relayed to Alexandra Palace for broadcasting, by means of the special balanced cable. Members of the public are permitted to promenade around the outside of the studio walls and are able to catch a glimpse behind the scenes of television production, through windows in the walls.

Secondly, the radio manufacturers have done their part by offering for sale to the public a wide range of television receivers, giving a commendably high standard of reproduction, and at prices which, a year ago, would have been considered unbelievably low.

Direct, or Mirror Viewing

A large number of different models are available to suit all tastes and purses, mounted in cabinets styled to harmonise with a variety of decorative and furnishing schemes. Most of the receivers, of course, employ cathode-ray tube picture reproduction, and a notable feature is that at least 75 per cent. of the new designs make use of direct viewing of the fluorescent screen, while only 25 per cent. employ mirrors.

This trend of design seems to accord with the general view that "direct" is preferable to "reflected" viewing, presumably because mirrors tend to catch and accentuate irritating reflections of any lights or windows in the room, and also because direct vision facilitates, to some extent, viewing over wider angles. No doubt this increasing tendency to use "direct" viewing has been largely influenced by the development of shorter cathode-ray tubes, which do not require inconveniently deep cabinets.

A number of manufacturers are exhibiting large-screen projection-type cathode-ray receivers, and several examples of mechanically-scanned large-screen receivers are also being successfully demonstrated. The cost of these instruments is around 150 to 200 guineas, so that their appeal is limited to people of ample means, or to those who wish to show television to a large number of viewers simultaneously.

Picture Sizes

Most manufacturers offer one or more television reproducing units giving certain more-or-less standard picture sizes, and these may be obtained mounted in various cabinets, either as television receivers alone or combined with all-wave radio receivers, and in some cases with a radiogramophone as well. The prices naturally vary a good deal according to the picture size, the scope of the instrument, and the elaborateness of cabinet work, but a rough indication of prevailing prices may be gathered from the following.

The largest pictures, other than those produced by projection methods, are approximately 14 in. by 11 in., and a combined television receiver and all-wave receiver giving pictures of this size costs about 70 to 80 guineas; or, with radiogram, from 100 to 120 guineas.

The next standard picture size is about 10 in. by 8 in., and in this range, for a "picture and television sound only" receiver the cost varies from about 37 to 60 guineas. If an all-wave radio receiver is included the prices range from about 47 to 80 guineas, and, with a radiogram as well, from about 70 to 100 guineas.

After these come receivers giving pictures approximately 8 in. by 6½ in., which, for "picture and television sound only" are obtainable at all prices between 28 and 45 guineas. Combined with all-wave radio the prices vary between about 29 and 50 guineas, or with a gramophone, the cost is about 65 guineas.

Next, there is a range of receivers giving picture sizes varying between 6½ in. by 5 in. and 5 in. by 4 in., which for "picture and television sound only" are offered at remarkably low prices ranging from 23 to 35 guineas, or, with an all-wave radio receiver, 45 guineas. In addition, a few makers are offering vision receivers giving a picture about 5 in. by 4 in., without

any sound reproducer, but containing a frequency-changer so designed that the ultra-short-wave television sound is translated to a medium wave, and may be reproduced through the medium of an ordinary broadcast receiver.

One interesting feature of the sets exhibited is that, almost without exception, the pictures are of a rich shade of black and white, with excellent tonal gradation and ample brightness to render them acceptable in a partially lighted room. Some receivers appear to give rather better definition than others, but in no case is a really bad reproduction to be seen, and the quality of definition in most cases is exceptionally good.

Despite the fact that some of the cheaper models produce pictures a good deal smaller than those to which the average person has become accustomed, these little pictures give such a charming impression of crisp definition and have an indefinable smooth cameo-like quality, that they possess a fascination all their own, and clearly have a remarkable potential entertainment value.

In consequence it may fairly safely be forecast that the cult of the small picture will become extremely popular among those whose means do not admit of the acquisition of a larger receiver, and there is no reason why the results which they obtain should not yield a full measure of satisfaction, particularly where the viewers do not exceed two or three in number.

Simplicity of Operation

Another feature of the sets of to-day, which will no doubt be much appreciated by the public, lies in the general simplification of the television controls. In the majority of receivers, only picture brightness and contrast controls appear on the front panel, so that manipulation is an operation of the utmost simplicity. Such things as synchronising, focus, and shift controls, are situated at the side or rear, and are of the pre-set variety, the maker's claim that these controls do not require adjustment for months on end being amply justified by experience. Consequently no one, however ignorant of matters technical, need have the slightest apprehension as to their ability to operate a television receiver to the best possible advantage.

Apart from the excellence of the sets they have produced, the manufacturers have been extremely wise in the manner in which they have presented them to the public. Gone are the rather stuffy booths where the people were

herded into chairs to obtain a distant and unsatisfying view of a small picture the very nature of which dictates that it should be viewed at a distance of comparatively few feet. Television is primarily a home entertainment, and should ideally be viewed at the appropriate distance—which depends on the picture size—and under conditions which prevail in the home.

Such viewing conditions are clearly most difficult to obtain in an exhibition where a great number of people wish to view the sets, but at Radiolympia the manufacturers have achieved a very reasonable approximation to this condition by causing members of the public to approach the receivers in more-or-less single file in a narrow passage, so that everyone is at about the optimum distance from the picture. As a result, the public is being brought to realise that a comparatively small picture can be quite satisfying if viewed from the proper distance and under suitable conditions.

In conclusion, the outstanding impression to be gained by inspection of the television sets at Radiolympia is that television has made immense strides and to-day offers first-class entertainment in the home, at a price which is now within the reach of a great number of people. The sets which are offered are splendid value for the money which is asked for them, and are backed up with their makers' twelve-months guarantees.

It is, moreover, clear that, in placing television sets on the market at to-day's prices the manufacturers have embarked upon a very courageous policy, and it is evident that no important change of technical policy or further price reductions of any magnitude can be expected for some considerable time to come. Anyone who is dissatisfied with the variety and value of sets now on exhibition at Radiolympia must certainly be extremely difficult to please, and it now only remains for the public to give its support to television and so consolidate the foundation of a new and important industry.

BROADCAST RECEIVERS

FOR the last few years it has not been easy for the average visitor to the Radio Exhibition at Olympia to find any appreciable change in the design of broadcast receivers. The general outward appearance seemed very much the same each year, and as for the inside, well, it required more than a little technical knowledge to enable a visitor to tell whether any important changes in design had taken place there.

This year it is obvious to the most casual visitor that there has been a change in design since last year. Although television is undoubtedly the main attraction at Radiolympia this year, one cannot fail to notice that practically every manufacturer of sound broadcast receivers is exhibiting sets with "push-button tuning." This method of tuning, whereby the

pressing of a button automatically tunes the receiver to the station whose name is indicated on a label above or below the button, is by no means new. Receivers with this facility have been on show for many years, but whereas one had to look for them carefully in previous years, as they appeared on only one or two stands, it is impossible to miss them this year.

The methods employed for obtaining easy tuning vary somewhat, but they all have in view the object of making the handling of a wireless set as easy as possible. The old-time "knob twiddler" may bemoan this pandering to laziness, but to the listener who regards a wireless set as a means to an end and not an end in itself, any developments which make for simple operation will no doubt be very welcome.

It is difficult to see how sets can be made much simpler in this respect than they are this year. These results can be achieved only by greater complexity in the mechanical and electrical design of the interior of the receiver, and extremely careful thought and attention have to be given by the manufacturers to these points if increased cost and maintenance troubles are to be avoided. It is only by mass production methods that the remarkable results which have now been achieved have been possible at the extremely low prices which are in force to-day; for example, excellent all-wave receivers can be bought for 10 guineas and even less.

The internal arrangements employed for push-button tuning are of two main types. In one system each push-button is made to rotate the



Three new moderately-priced television sets. Lower left—Cossor (23 gns.). Centre—Marconi-phonograph (29 gns.). Upper right—G.E.C. (30 gns.).

normal gang tuning condenser to the required position for receiving a particular station. In most receivers employing this system a mechanical arrangement of levers and cams operated by the button is used, but in the more expensive sets a small electric motor and some form of selector system is used.

The second system utilises the push-buttons to operate switches which are connected to pre-set condensers or inductances arranged to tune the set to the selected wavelength. In one or two cases the push-buttons are replaced by a dial control similar to that used on automatic telephones.

Provision is usually made for selecting at least five stations and in some cases as many as ten. Usually the purchaser has the option of deciding which stations two or three of the buttons are to select, the remainder being adjusted and fixed by the manufacturer. It is also customary for provision to be made for ordinary manual control so that any desired station can be tuned-in in the normal way. Some receivers also employ automatic frequency control which "pulls" the circuits into exact tune with the carrier being received even if the tuning controls have not been accurately adjusted.

It has been the practice for some years to provide large illuminated scales marked with the names of stations showing to which station the set is tuned and this very useful practice has been continued.



Control knobs are still small in size and number, one knob being made to perform several functions where possible. A tone control is a common fitting, but the provision of variable selectivity does not appear to have made much progress and is chiefly confined to the more expensive sets. Automatic volume control is universal on all but the cheapest receivers.

The superheterodyne type of receiver still maintains its supremacy, even in the cheaper models, but one or two examples of straight receivers are shown.

There is plenty of choice for visitors looking for either a battery-operated receiver or one for use on A.C. mains, and although the listener with D.C. mains has not been forgotten he is not catered for to the same extent as listeners with A.C. mains.

Visitors to the Show this year have an opportunity of judging the performance of the various receivers on the stands, which, for the first time, are being fed with radio-frequency signals instead of audio-frequency signals.

These demonstrations should not be regarded as taking the place of the demonstration which a prospective purchaser should always have in his own home before making a final choice, but they give a valuable indication of a receiver's performance and show how much performances in general have improved during the last few years.

Portable receivers have changed considerably since they were first introduced many years ago. The old suitcase type is not quite dead, but externally it has moved with the times just as suitcases themselves have. The tendency for portable sets to follow similar lines to non-portable sets, which has been evident for some years, still continues and there are many examples of handsome sets which can be moved from room to room and not look out of place in any one of them. Their performance is not seriously below that of most non-portable sets and the quality that one normally associated with portable sets not very many years ago is a thing of the past. Quite a number of midget receivers are exhibited. One of these, which is claimed to be the world's smallest all-wave set, is only 12 in. by 8 in. by 5½ in. and requires no aerial or earth. It tunes from 16-2,000 metres and works off either A.C. or D.C. mains. The price is £6 19s. 6d.

That the quality of reproduction in most types of sets has improved is beyond question. This has been made possible not only by valve improvements but also by improved circuit technique. The use of negative feedback, or reversed reaction, has been a long time in coming, but its advantages have now been appreciated and are being utilised. It enables greater outputs to be obtained with reduced harmonic distortion and can also be used to improve the



frequency characteristic of a receiver. It is one of the many refinements which manufacturers have embodied in their receivers without any outward sign that they have done so—except in the resultant overall improved performance—and without noticeable increase in price.

The thrill which listeners in the early days of broadcasting obtained merely by succeeding in hearing signals from a distant station, even if their programme value was nil, is not experienced by the listener to whom programme value is everything, and who is satisfied to be able to receive the programme he wants by simply pressing a button; manufacturers, however, are catering more and more for the listener who wants both programme value and the satisfaction of hearing a station at the other side of the world. More receivers than ever are on view this year with provision for the reception of short waves as well as medium and long waves.

These all-wave receivers enable many distant short-wave stations to be tuned in almost as easily as medium and long-wave stations and provide the listener with the thrills of long-distance listening for its own sake as well as the excellent programmes which can be regularly received from many distant short-wave stations. This year's Show indicates that it will not be very long before the receiver which cannot receive short waves will be in the minority.

Although car radio has not yet become as popular in this country as it has in America, it is evident that manufacturers are alive to the possibilities of this form of radio entertainment. An excellent choice of receivers for this purpose is available and visitors to Olympia can see for themselves how easily the equipment can be installed in a motor car. The increasing number of vehicles equipped with car radio which one sees on the roads shows that more and more people are realising its appeal.

SHORT-WAVE EQUIPMENT

ONE of the features of Radiolympia this year is the appearance of the British "communications type" receiver, of which some half-a-dozen makes are on view. This type of receiver with its wide frequency coverage, good performance on the high frequencies, and refinements of control, is of particular interest to the more serious short-wave listener. On one stand there are some good examples of this type with tuning ranges of from $9\frac{1}{2}$ -190 m. and very satisfactory tuning dials—both from the point of view of operation and ease of logging stations.

Turning to the standard all-wave receiver, it was of interest to note that every manufacturer is exhibiting at least one range of models which tune up to 18 Mc/s and include the 16-metre band. This is a great advance on last year when so many models tuned only to 15 Mc/s and consequently did not allow reception of the afternoon and early evening programmes from W3XAL, Bound Brook, 17.78 Mc/s.

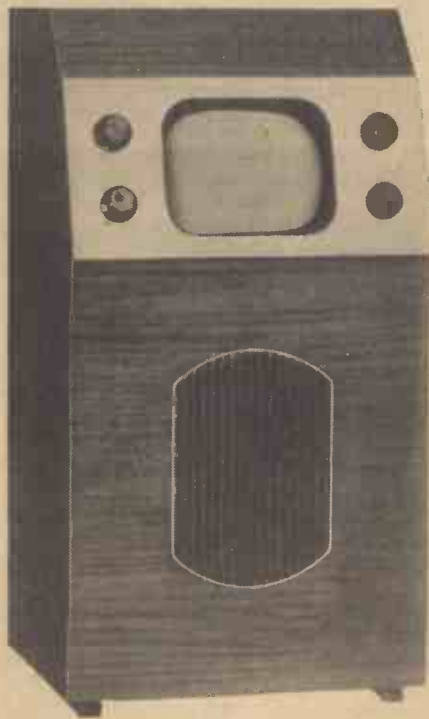
The more ambitious receivers however, included the 21 Mc/s band and many of them tuned up to 26 Mc/s. Most of these receivers cover these short-wave ranges in two bands—i.e., 26-10 Mc/s, 12-4 Mc/s, and consequently their performance is generally likely to be better than the single-band receiver, owing to more favourable L-C ratios in the tuning circuits. Many of the more expensive receivers also include a fifth band of 50-30 Mc/s, approximately, which allows reception of the sound transmissions from Alexandra Palace.

Electronic tuning indicators have now come into general use and these, in conjunction with larger and clearer dials and good slow-motion drives, considerably improve the handling of the receivers.

Most of the receivers so far mentioned have been mains-driven and although the user of a battery-driven receiver has not such a wide choice of sets, there are some good examples of this type to be seen. That favourite of the old time "fan," the 0-v-1—with modern improvements—is shown; the price, of course, is very different from that of the all-wave receiver.

In the "all-wave" class practically every manufacturer has at least one battery-driven model, usually with a short-wave range of 18-6 Mc/s. There are a few examples which can compete on nearly equal terms with the mains-driven receiver but, generally speaking, export types are not displayed at Olympia, it being necessary to enquire for the Export Manager at the individual stands if details of these receivers are required.

It is very pleasing indeed to find that the British manufacturers have broken away from the "4-valve complex" and are now producing multi-valve receivers. Ten-valve receivers are quite usual this year and the resulting "one-valve-one-job" technique cannot but give improved performance. This is more noticeable perhaps on the short-wave side. A great deal has been said in praise of the short wave performance of the large multi-valve U.S.A.



The Murphy Television Set which sells at £30.

receivers, but one feels that the large British receivers are equal or superior in performance, particularly on the highest frequencies.

There is one all-wave receiver at the Show of very interesting design. When the wave-change switch of this receiver is in the "short waves" position, against each of the 7 push buttons appears one of 5 usual short-wave broadcast bands (16-50 m.) and the 21 m. and 42 m. amateur bands. When any push button is pressed the set is automatically tuned to the centre of that band. Tuning of the individual stations in that band is then carried out in the usual way with the main tuning control knob which, on the short-wave bands, controls a band-spread condenser, a very ingenious method which overcomes the main troubles of automatic tuning on the higher frequencies. This receiver works as a double superhet on short waves with a first intermediate frequency of 3,100 kc/s and a second I.F. of 465 kc/s. This receiver does not include the 21 Mc/s band, although this is included in a more expensive model.

The short-wave listener is probably more aware of the necessity for a good outside aerial than his medium-wave contemporaries and at one or two stands he will find the latest developments in this sphere. Noise-reducing aerials of various types are, of course, shown by most manufacturers to-day, but the many methods of fitting them, and also the fittings themselves, are on view on these stands. Anyone who has attempted to fix poles to chimney stacks, and experienced all the other troubles attendant upon aerial erection, will appreciate the thoroughness with which these firms have tackled this problem.

A further interesting aerial development is to be seen on one of the stands. Although this is rather outside the scope of the ordinary listener it will have many applications—for connecting remote aerials to receivers (as in relaying stations), and for feeding a large number of receivers from a common aerial. It is a remote aerial amplifier, which accepts the signals from an all-wave aerial and, after amplification, will pass them into any low-impedance feeder line. The wave-range covered is 12-60 m. and 200-2,000 m. and the gain is some 20 db. Lengths of feeder up to half a mile can be used without loss.

The requirements of the amateur constructor have not been entirely forgotten and there are several stands on which suitable components are displayed, although the number appears to be diminishing each year.

RADIOGRAMOPHONES

THERE does not appear to be any radical change in the general design of radiogramophones at Olympia this year. Any modifications which have been made are of a detailed nature, such as improvements in pick-up performance, a greater degree of speed constancy of gramophone motors, and so on. The use of automatic record changers has become more popular, showing that these devices are now thoroughly reliable and easy to operate. A casual estimate indicated that radio-gramophones without automatic record changers were in the minority, and it was clear that the increased demand for the automatic changer has enabled the cost to be reduced, thereby enabling manufacturers to fit these without increasing greatly the total cost of the instrument.

Care must be exercised in the choice of needles for the pick-up when an automatic record changer is used, a semi-permanent type of needle being highly desirable. Too little attention is often given to this matter with a consequent loss of quality of reproduction accompanied by excessive record wear.

The number of different makes of pick-up seems to be decreasing and only one or two outstandingly new designs were noticed. Manufacturers have made a number of improvements to existing models, however, particularly with a view to decreasing record wear. The design of a pick-up which produces but little record wear, gives a really good frequency response characteristic, and introduces little distortion, involves the use of very light moving parts. Although such an instrument may be a thoroughly good mechanical job it is nevertheless more fragile than the comparatively robust types of pick-up produced some years ago.

One new type observed on one of the stands is of particular interest. Quite small in size, and correctly counterbalanced, it bears very lightly on the records and this, in conjunction with other points in the design, reduces record wear very considerably. The frequency characteristic is sensibly flat over the required frequency range, the resonance occurring above the required range—i.e., at about 10,000 cycles per second. Special needles are used in this pick-up—smaller than the standard size and of the semi-permanent type.

The absence of pick-ups using sapphires instead of steel needles was noted, there being a tendency for development in other countries to proceed along these lines. One of the advantages resulting from the use of a sapphire is that the tedious process of changing needles is avoided, one sapphire being capable of reproducing some thousands of records. A further advantage which helps in the design is that since it is unnecessary to change the sapphire, this can be mounted directly on the end of the armature, the total mass of the moving parts thus being reduced to a very low value.

One complete home-recording equipment—consisting of an all-wave receiver, an automatic record changer and pick-up, and a recording machine—was examined in considerable detail. The recording equipment consists of a turntable driven by a synchronous motor of adequate power, an arm on which is mounted the cutter



A very compact record-player (H.M.V.).

head carrying the sapphire or steel cutter, and a traversing mechanism. The cutter head is connected to the amplifier which is normally used to operate the loudspeaker associated with the radio-gramophone. The operation of the machine is simple and a little experience should enable satisfactory records to be made.

CATHODE-RAY TUBES AND VALVES

THE visitor to Radiolympia this year will have noticed two outstanding changes—push-button tuning, and television receivers at moderate prices. The first innovation is accomplished in several ways, none of which call for anything special or new in the way of valves. The popularising of television receivers, on the other hand, has been accomplished largely owing to more efficient valves and cheaper cathode-ray tubes.

Cathode-ray tubes are now cheaper than they have ever been and quite reasonably long lives are obtained. The less expensive sets have small tubes, mainly, it is believed, on account of cheaper replacement when this becomes necessary. It may be argued that small tubes are not the best medium for television and large tubes are desirable. Since it costs little more to fit a large tube as compared with a small tube, it is obviously all a matter of prime cost of the tube. Manufacturers must therefore concentrate on the production of tubes having large screens and costing little money. Considerable progress has, in fact, been made in this direction, as a tour of the stands will show; 16 in. and even 20 in. tubes are to be seen. On the Phillips stand, a practical demonstration of television on a very large tube is given.

On the Ediswan stand the complete range of Mazda valves is shown. All the new types have the Mazda Octal base, and considerable advantages are claimed for this base in that it enables a reduction in size, and proper spacing of the leads in the base and pinch, so that capacities are much reduced, which is a very important

point for television work. A new range of battery valves with directly-heated two-volt filaments has been introduced and consists of a triode-pentode frequency-changer, a triode and a double-diode triode, a variable- μ H.F. pentode, and an output pentode. Filament current is very low, being 200 milliamperes for the triode-pentode, 150 milliamperes for the output pentode, and only 50 milliamperes for the other types. These very low currents should result in long life from batteries.

The Marconi-Osram stands show the first battery two-volt triode hexode—claimed to have a conversion conductance of 250 microamperes per volt—and a new range of midjet valves for deaf-aids and similar equipment. Additions have been made to the "International range" evolved from the American octal base valves and introduced last year. The KTZ.41, a four-volt indirectly-heated valve, is not new, but still remains one of the most interesting valves, having a mutual conductance of 12 mA/V. Other new valves in the four-volt A.C. range are to be seen.

Amateur transmitting enthusiasts will be interested in new small transmitting valves of moderate cost and suitable for operation on short-wave amateur bands; a complete range of small transmitting valves is displayed on the Osram stand. The KT.8 is a tetrode capable of giving an output of 25 watts with 64 per cent. efficiency at 60 Mc/s (5 metres) and the DET.14 is a triode capable of considerable output even on as high a frequency as 120 Mc/s (2.5 metres).

The Mullard stand shows a very complete range of valves and small-power transmitting valves, cathode-ray tubes, photo-electric cells, and many other thermionic devices. The "E" type series of valves introduced last year is continued, and many important additions have been made to this range. Like the Osram International range, the Mullard "E" type operate with heaters requiring a 6.3 volt supply. These "E" type, however, are fitted with a side-contact base, now popular on the Continent.

One of the most interesting exhibits on the Mullard stand is a new secondary-emission valve, the EE50, having a conductance of 14 mA/V. It is claimed that this type of valve has advantages when used with low-impedance circuits and is particularly useful as an I.F. amplifier in television receivers. The construction is original in that it is composed entirely of glass and the normal bakelite base is replaced by a glass foot through which the electrodes are led out. A locating key simplifies insertion of the valve into the socket, on the same principle as the octal type of base.

It is obvious that valve manufacturers are well aware of the requirements for television and modern types of receivers, and are to be congratulated on their efforts in this direction in the past year. One thing will, however, be obvious; namely, that there is a multiplicity of types of base available, and the number increases year by year. Many of these bases have points in their favour, but one cannot help feeling that it would be to the advantage of the radio industry as a whole if one type of base was selected and standardised for the British market.

COMPONENTS AND ACCESSORIES

FOR some years now the space devoted to components at Olympia has been very small compared with that devoted to complete receivers. This year's show follows the same lines. Nevertheless, there are several stands which contain exhibits of considerable interest to the visitor who likes to build his own receivers or desires to carry out modifications to a receiver he already possesses.

In addition to the usual exhibits of normal components such as condensers, resistances, tuning coils, etc., components to enable the latest developments in receiver design to be incorporated in receivers by the home-constructor are on view. There are several examples of push-button units which can be used to build a receiver with the most modern type of tuning, and there are also examples of remote control units both for tuning the receiver to one of several pre-selected wavelengths or for simply switching on the receiver from a distance.

Meters and testing equipment of various kinds are essential to the constructor and the service man. This year there is a bigger range than ever on view. There are several excellent small multi-range meters for measuring voltage, current, and resistance, and in at least one of the larger examples, capacity can be measured as well.

There are also several inexpensive instruments for more accurate measurement of wider ranges of capacity and for testing valves, as well as simple attachments to multi-range meters to enable all types of valves to be tested. One entirely new instrument is a high-resistance D.C. meter for direct measurement of high-tension and grid-bias voltages from 2½ volts to 1,000 volts, its resistance being 20,000 ohms per volt. It also measures current from 0 to 250 microamperes.

The measurement of the performance of a receiver and the carrying out of adjustments are a simple matter if one of the many oscillator and oscillograph units on show is available. These instruments are a very interesting feature of the Exhibition. There are numerous examples of small portable radio-frequency oscillators capable of being modulated externally or internally, and small compact oscillographs for use with the oscillators to measure the output of the receiver. Anyone interested in the performance and adjustment of receivers or experimental transmitters will find these exhibits of particular interest. Instruments for measuring noise and detecting electrical interference are also shown.



A modern portable set (Ekco).

There are, of course, numerous self-contained loudspeakers of the now universal moving-coil type but a new exhibit is a pair of high-fidelity moving-coil headphones. There has been a demand for really high-quality headphones for some time but the price has hitherto been prohibitive. Now these phones are on the market at the reasonable price of four guineas for the single earpiece or £9 for the double set with adjustable headband. It is claimed that they have a uniform response for all practical purposes from 50 to 8,000 cycles per second.

Listeners who are troubled with electrical interference will find numerous interference suppressors on show and being demonstrated, and there are also various types of aerials and connecting leads designed to reduce electrical "noise."

BBC ENGINEERING SERIES

The BBC Sound-Recording Service

By A. E. BARRETT, M.A., A.M.I.E.E., Research Department, BBC

The first of a series of articles describing the three systems of sound-recording used in the BBC

SOME years ago, when broadcasting was in its infancy, the now familiar gramophone record was the only source of recorded speech and music. Since that time, rapid strides have been made in the development of sound-recording systems, which, in conjunction with new ideas of presentation, enable types of programme to be produced which were hitherto impossible.

A brief survey of the events which have led to the adoption of three different systems of recording by the BBC will form an appropriate introduction to the technical details of each system.

As early as the year 1925, the BBC investigated a method of magnetic recording on steel wire, but the quality was not good enough. About the year 1930, a machine known as the "Blattnerphone" became available in this country for recording on steel tape. Tests on one of the first machines indicated that a great deal of development and improvement was still necessary before this system would attain a standard of recording suitable for broadcasting purposes. It did, however, enable the recording to be heard during the recording process, and the steel tape could be "cleaned" and used over and over again. Development work was carried out on this system, which is now used to a great extent; particularly in connexion with the Empire service. It is not convenient, however, when a large number of copies of a recording are required, and attention was given to direct recording on discs.

This method employs a disc of suitable material to form a base, which is coated with a layer of cellulose, gelatine, or other similar substance to form the recording medium. The discs can be reproduced immediately after recording and do not require any complicated treatment. The wear is very slight, provided suitable reproducing equipment is used, it being possible to play a disc 50 or 100 times without noticeable deterioration of quality. Alternatively, copies—known as "pressings"—can be made from it by a process similar to that employed during the manufacture of the standard type of gramophone record.

Neither of these systems is ideally suitable when a high-quality record is required of a programme lasting for some considerable time. The magnetic system provides a permanent and long-playing record, but the tape used is expensive and bulky and is therefore not an economic proposition. The direct-recording disc method is relatively cheap, but the playing-time of each disc is comparatively short—about 4½ minutes for a 12 in. disc. The reproduction of an hour's programme thus involves linking up approximately 15 records, and although this presents no great difficulty, as will be described later, it is nevertheless an undesirable complication. Furthermore, since wear, although slight, does take place during reproduction, a truly permanent record is not obtained. If the equivalent of this is procured by having a number of pressings from the original disc the cost becomes considerable.

The BBC is now using a third system—the Philips-Miller—developed by N. V. Philips' Gloeilampenfabrieken, Eindhoven, Holland. The recording medium is an opaque layer on a film base, which is cut by a sapphire in such a way that a variable area track is produced. This is reproduced optically in a similar way to a standard film track, on which the sound is

recorded photographically. The record is permanent, and each spool of film has a playing time of fifteen minutes.

PROGRAMME REQUIREMENTS

The three systems outlined above form the basis upon which the present recording service is built. Any one of the systems above is inadequate to meet the demands of present-day programme presentation and technique, but by using each of the three systems for the type of work for which it is best suited it is possible to fulfil the majority of technical and programme requirements.

The programme requirements are many and varied. In addition to the recording of a straightforward programme, it must be possible to make a record of a programme lasting for some hours, take extracts from it, mix, fade, and superimpose extracts from other recordings and produce what is termed a composite record. This may be required in a permanent or semi-permanent form, and to consist of one or a number of copies.

When discussing the relative merits of the various systems in their relation to programme requirements, it will be convenient to divide the types of recordings into two groups—permanent and non-permanent.

Permanent recordings consist chiefly of items of historic interest, such as national ceremonies and speeches, effects records used to provide backgrounds in the production of plays, feature programmes, and so on.

The non-permanent group includes recordings of rehearsals, and of home programmes required for subsequent transmission on the short-wave Empire service. This may involve four or five reproductions to cover the various zones, after which the record is of no further interest and may be destroyed.

TECHNICAL REQUIREMENTS

Let us consider now the technical requirements of recording systems in general. These concern—

(1) All factors involved in the production of what is often termed "good quality."

(2) The possibility of the duplication of the original record without noticeable deterioration of quality and without resorting to re-recording.

(3) The time which must elapse before the first reproduction can be obtained.

(4) The reliability of the system as a whole.

(5) The reliance which can be placed on the success of any individual recording.

(6) The ease of operation of the system.

(7) The permanence of quality of a record (a) during storage and (b) after repeated reproduction.

(8) The suitability of the records for storing from the point of view of weight, size, etc.

It is proposed to describe now, in greater detail, the three systems used by the BBC and then discuss their relative merits in relation to the programme and technical requirements.

(1) Magnetic Recording

The process of magnetic recording was introduced by Poulsen round about the year 1900 under the name "Telegraphone," and was used in conjunction with his arc system of radio-telegraphy. Telegraph signals were transmitted at high hand-speed and were recorded at the receiving station on a steel wire which was driven at a higher velocity when recording than during the subsequent reproducing process. Thus the signals could be transcribed by the receiving operator at a convenient speed. The apparatus used at that time was unsuitable for the recording of music, being somewhat crude when compared with present-day equipment.

MARCONI-STILLE SYSTEM*

About 1924 a German engineer, Dr. Stille, began to work on the subject, and made a careful study of both the mechanical and electromagnetic problems involved. He introduced the use of steel tape instead of wire, which overcame certain difficulties, and developed an electromagnetic system which resulted in a reduction of waveform distortion. Development work on magnetic recording in this country dates from the year 1930 and has continued from that time until the present day.

FUNDAMENTAL PROCESSES

The process of magnetic recording depends fundamentally upon two properties of steel: remanence and coercivity. It is by virtue of the property of coercivity that neighbouring elements in a length of steel can be magnetised, to a great extent, independently.

Magnetic recording in its simplest form can be carried out by passing a length of steel tape or wire at constant velocity through an electromagnetic device (a recording head) which will produce variations in the distribution of remanent flux along its length.

* Extract from a joint paper by the BBC and Marconi's Wireless Telegraph Co., Ltd., presented before the Institution of Electrical Engineers and reproduced by courtesy of the Council. (I.E.E. Journal, March, 1938.)

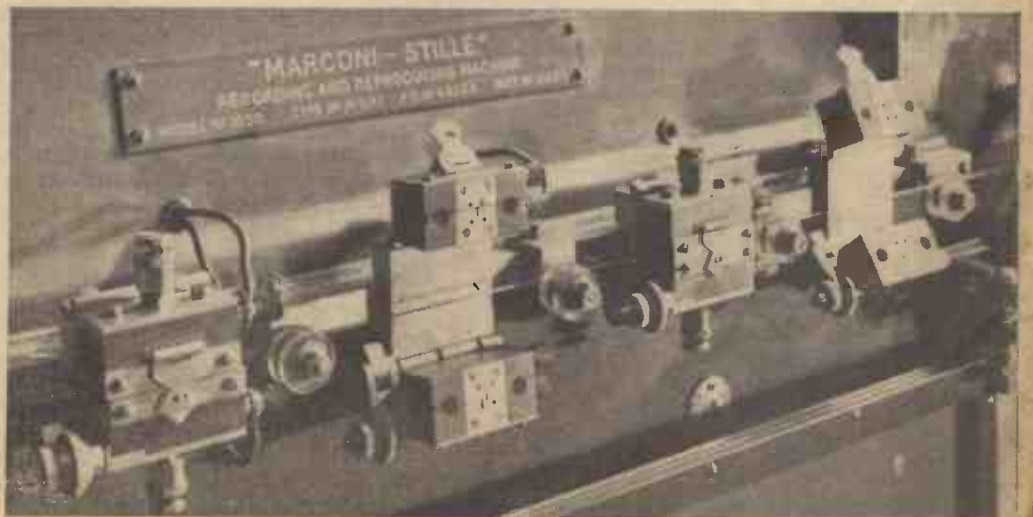


Fig. 1—Steel tape recording machine, showing four "heads."

Reproduction can be effected by passing the magnetised tape at an identical velocity through a device (a reproducing head) which is sensitive to changes of the flux in the tape. The spatial variations of flux will then be transformed into alternations of e.m.f. with respect to time. In the ideal case these correspond to the original alternations applied to the recording head.

It is necessary that any previous variations in the flux distribution in the tape should be removed before recording. This can be done by passing the tape through a "wiping head," which magnetises the tape to saturation.

The essentials of the system are thus:—

(1) A length of steel tape driven at constant velocity.

(2) A wiping head.

(3) A recording head.

(4) A reproducing head.

In the simplest case the heads might take the form of coils wound round the tape, but if consideration is given to the wide field distribution associated with such coils it is clear that it would be impossible to obtain satisfactory results with practicable tape velocities, except at very low frequencies. It is therefore necessary to introduce a medium of high permeability into the system in order to concentrate the field.

The "heads" designed to perform these various functions are similar in appearance and construction; they are shown in the photograph, Fig. 1. Each head consists of two similar blocks of insulating material held together by a hinge at the back. When closed, a slot is formed for the tape to pass through. In each half a strip of magnetic alloy known as a "pole-piece" is placed, making mechanical contact with the tape when the head is closed. The pole-pieces are at right angles to the plane of the tape, and are surrounded by coils through which they are free to slide, the pressure of the pole-pieces on the tape being adjusted by spring-loaded plungers. One half of the head can be moved in relation to the other, in the direction of the movement of the tape, so that a variable longitudinal gap is formed between the two pole-pieces. The wiping, recording and reproducing heads used have different types of coils and pole-pieces, but are in other respects identical.

The tape may be magnetised longitudinally, or transversely through its width or through its thickness, or in any combination of these directions. It is generally accepted that transverse magnetisation of the tape through its width gives inferior results. This article is concerned essentially with longitudinal magnetisation, though it is inevitable that there will also be a transverse component through the thickness of the tape.

It is convenient in the first place to consider the various processes in a simplified form. Let it be assumed that the whole width of the tape is used, and that at any point in its length the flux distribution is substantially uniform over the cross-section.

The wiping head carries a direct current adequate to saturate the tape completely, so that it leaves the head fully magnetised—i.e. with the maximum remanent induction (B_r max.) in a longitudinal direction.

RECORDING PROCESS

The object of the recording head is to produce variations in the flux in the tape of the largest amplitude consistent with linearity. It will be shown that the alternating current representing the programme to be recorded must be superimposed on a direct current, the purpose of which is to bring the tape to a suitable magnetic state. It is also necessary for the net current in the head to produce a field that is always opposed in direction to that of the wiping head, otherwise partial rectification may occur. For this reason the direct current in the recording

head is usually referred to as the demagnetising current.

Each elementary length of tape passing through the head will be demagnetised to an extent which is largely dependent upon the net value of the alternating and the steady components of the field acting upon it, and will leave the head with a corresponding value of remanent induction (B_r). If the recording current is sinusoidal, of frequency f cycles per sec., and the tape speed is u , variations in the flux in the tape will be produced of wavelength

$$\lambda = \frac{u}{f}$$

The process may be followed by referring to a "B-H" curve for the tape (Fig. 2). An elementary length of tape enters the wiping head in some unknown condition, and is then brought to saturation (point 1). It leaves the wiping head fully magnetised (point 2) and is then subjected to the recording field. If, at this moment, the sinusoidal A.C. component is zero, the effect of the D.C. component is to reduce the magnetisation to a state corresponding to point 3, and on leaving the head the remanent magnetisation is represented by point 3a. The effect of the A.C. component is to increase and decrease the effective value of the demagnetising current. If the A.C. component is at either of its peak values the tape is demagnetised to a degree represented by points 4 or 5, and leaves the head in a state corresponding to points 4a or 5a. Point 3 may be called the working point, and its position is determined by the state of the tape as it enters the recording head, and by the value of the D.C. component of the demagnetising current.

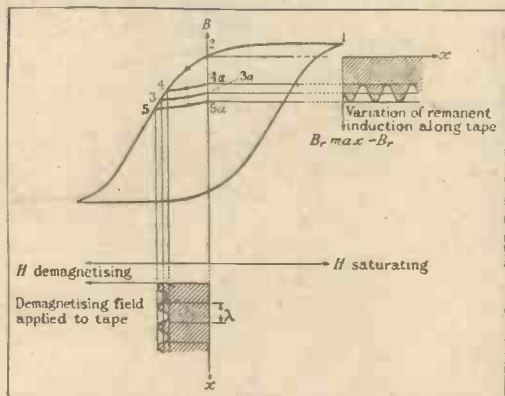


Fig. 2—Simplified recording process.

It is important to realise that the whole of the tape is not subjected to an alternating cycle, but that each elementary length of tape is demagnetised separately to a degree depending upon the net demagnetising current, so that the tape leaves the head with a value of B_r (the remanent induction) which varies sinusoidally along its length, provided that there is a linear relation between the demagnetising current and B_r . Referring again to Fig. 2 this implies that, in this simplified consideration, variations in induction represented by points 4a, 3a, and 5a (rather than 4, 3, and 5) should be proportional to the corresponding values of the demagnetising current.

Now in order that points 4, 3, and 5 should have a linear relationship to the demagnetising current through as wide a range as possible, the largest possible hysteresis loop must be used. In other words, the tape should enter the recording head fully magnetised. In practice, it appears that this condition also fulfils the requirement that the range through which the remanent magnetisation is linear with the demagnetising current should be a maximum. The optimum value of the D.C. component of the demagnetising current to give the maximum variation of remanent flux with minimum distortion can be found empirically.

Let it be assumed that the variation of longitudinal flux in the tape after it has left the

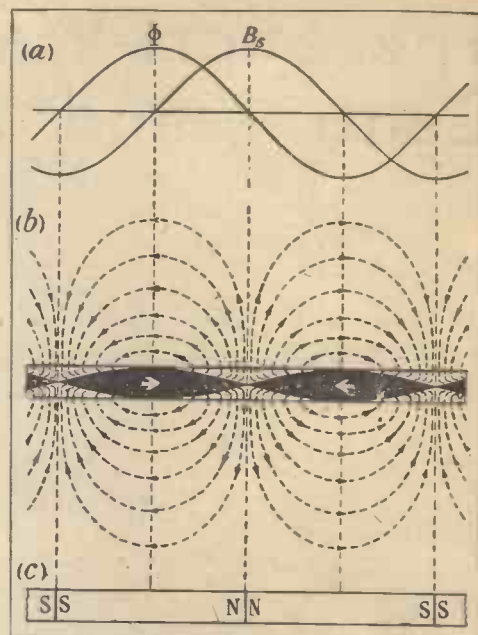


Fig. 3—Flux distribution for recorded tape.

recording head is sinusoidally distributed along its length. Any variation in the flux in the tape implies that a corresponding number of lines of magnetic induction enter or leave the tape. These lines may be termed the external flux. It follows that the surface density (B_s) of external flux at any point in the length of the tape is proportional to the rate of change of the flux along the tape at that point. This surface flux density is independent of the mean state of magnetisation of the tape, which is the datum about which variations take place, and which is determined by the D.C. component of the recording field. There is one value of this component for which variations will occur about the state of zero longitudinal magnetisation as a datum, but in practice a somewhat lower value is used, so that the direction of magnetisation in the mean state is the same as that of the fully-magnetised tape.

In this consideration it may be assumed that the value of this datum has no effect upon the external flux distribution, and it is taken as being zero. A diagrammatic representation of the longitudinal and external flux is shown in Fig. 3 (b). The value of the longitudinal induction at any point is given by the width of the dark area at that point, whilst its direction is given by the white arrow in the centre. If ϕ represents the longitudinal flux in the tape in any section and Φ is the peak value of this, then $\phi = \Phi \sin 2\pi x/\lambda$, where x represents distance along the tape and the mean surface flux density B_s is proportional to $\delta\phi/\delta x$, which is given by

$$\frac{\delta\phi}{\delta x} = \frac{2\pi}{\lambda} \Phi \cos \frac{2\pi x}{\lambda}$$

The distribution of external flux is thus in phase quadrature with the longitudinal flux (Fig. 3 (a)) and its maximum values are reached where the rate of change of longitudinal flux is highest, though the flux itself is at its datum value. At these points poles will, in effect, be formed on the surface of the tape.

From the above expression it will be seen that, for a given value of Φ , the strength of these surface poles is inversely proportional to the wavelength. Since the tape moves with constant velocity $u = x/t$ the rate of change of the flux along the tape can be expressed as a time rate of change of flux passing a given point. Thus

$$B_s \propto \frac{\omega}{u} \Phi \cos \omega t, \text{ where } \omega = 2\pi f.$$

In an ideal case, the external flux passing any given point will vary sinusoidally with time, and the problem now arises of transforming these variations of flux back into variations of e.m.f.

(To be continued next week)

Short-Wave News-Reel

Compèred by "RANGER"

First place this week is given to the account of the broadcast from the salt flats over which Capt. Eyston drove his wonderful car at the record-breaking speed of 345 miles per hour. It is interesting to reflect that the roar of the engine starting up would actually be heard by distant short-wave listeners before it became audible to many spectators along the track.

LAND RECORD BROKEN

ANOTHER outstanding special broadcast was heard on Saturday, August 27—this time from W2XE at 15.45. It was a commentary on the breaking of the world's land speed record by Capt. G. E. T. Eyston in his reconstructed car *Thunderbolt*.

The British motorist had already completed the North to South run of approximately 15 miles with the measured mile in the middle, and was only waiting for the all-clear signal before completing the run in the opposite direction. As soon as the "O.K." was received the 7-ton monster *Thunderbolt* was quickly got under way, the 24-cylinder engine starting up with a tremendous report. We were passed then to the middle section of the course overlooking the measured mile, where Dick Evans "took over," and in a few seconds listeners heard *Thunderbolt*, a "streak of grey on the white salt," flashing past the measured mile on the Salt Flats. Again we were switched over, this time to the South end, where, after a few seconds only, it seemed, *Thunderbolt* was sighted and very soon was at the end of its journey. Capt. Eyston, after being released from the cockpit, spoke a few words to the international wireless audience. He said that the run both ways had been very comfortable and that everything had worked perfectly.

The Governor of Utah congratulated Capt. Eyston, and then it was announced that *Thunderbolt* had raised the record speed another 33 m.p.h., having covered, with Capt. Eyston at the wheel, the round trip at the amazing average speed of 345.49 m.p.h.

Hounslow, Mddx.

J. I. W.

THE HEAD-HUNTERS

Next, by way of contrast, we have an account of the primitive, the natives of Formosa.

FROM W2XAD, at 18.30 on August 26, I heard a most interesting travel talk from a series now being broadcast weekly by the roving professor, Prof. MacGovern.

The Head-Hunters of the Isle of Formosa were the subject; the name Formosa incidentally, when translated, means "The beautiful isle." The population of Formosa consists of the Head-Hunters, who live far in the interior, Chinese, and Japanese, who at present are in the majority.

Describing the Head-Hunters he said that under Japanese rule they were now much more subdued, but still made occasional lightning raids on Japanese outposts, usually returning with a number of heads as trophies. Prof. MacGovern, after much persuasion on his part, was given permission by the authorities to travel amongst them alone, and to his great surprise had a warm welcome everywhere. This he discovered was due to the surprising fact that he had a big nose. He explained that the Head-Hunters had many years ago enjoyed living under the Dutch flag, the ruler's name translated being "The man with the big nose." They thought the professor was either a descendant or the ruler himself returned from the dead.

Glenfarg, Perth.

J. R.

AFRICAN ENTERTAINMENT

Primarily reporting a broadcast from Addis Ababa, this contributor indicates that, if one listens at the right time, the African stations can provide interesting reception.

ON Thursday, August 18, at 19.05, after listening to an operatic song recital from Nairobi, VQ7LO, and eight o'clock chimes and talk in Afrikaans from Pretoria, ZRH (50 m.), I turned to the 31 m. band to attempt reception of the new 1 kW station at Addis Ababa, Ethiopia.

Immediately above the powerful Norwegian station LKC, I discovered a transmission in Italian, which soon proved to be a news bulletin, read by a lady announcer, coming from Addis Ababa. This bulletin was afterwards repeated in French. Then came a programme of Ethiopian songs and dances, and strange instrumental items which, though very weird, was all very interesting. Unfortunately, at 19.30, interference from Moscow, transmitting on 31.51 m., became too severe to allow of further enjoyable reception from this newcomer to the short-wave sphere.

The frequency of Addis Ababa was given as 9.525 Mc/s, and transmissions take place daily between 19.00 and 20.00 B.S.T. Reception on this occasion was at a strength of R5.

To conclude an evening of entertainment from Africa I tuned in ZRK, Capetown (just clear of YUA), for a band concert, and CR7BH, Lourenço Marques (25.6 m.) for accordion solos.

Yate, Glos.

F. J. R.

BROADCASTING IN ICELAND

News of the arrangements for broadcasting in Iceland made an interesting talk, as reported in the following contribution.

AT 19.40 B.S.T. on August 28, from Reykjavik, came an interesting account of broadcasting in Iceland. Established in 1930, the service is State-controlled and managed by a committee of eight members, three being elected by listeners, four by Parliament, with an independent chairman. At present there are only two transmitters in operation, the 100 kW long-wave on 1,442 m. and the short-wave on 24.52 m., from which this programme was heard. A medium-wave station is in course of construction which will have a power of 1 kW and will relay the long-wave programme.

On June 30 this year 14,780 licences had been issued, the annual cost being 13 kroner. The average number of broadcast hours each year is 2,400, and the programmes are modelled on usual Scandinavian lines. A permanent orchestra and choirs are a special feature of Icelandic programmes, and plays are broadcast once a week. Lessons in five languages are given, including English and Esperanto.

An old custom in Iceland was for the family to gather round in the evening to listen to literary reading by the head of the family; this has now been replaced by a programme called "Twilight Reading," broadcast one evening each week in the winter.

Weather forecasts are given in three languages, thereby being of great service to shipping round those dangerous coasts. Reception reports have been received from all over the world, but mostly from North America and Great Britain.

Having listened to many of these Sunday night talks in English, I feel that I am beginning to know quite a lot about this interesting northern country, and would recommend them to other listeners.

London, N.13.

H. W.

Below 100 Metres

By "METROPOLITAN"

(August 21-26)

VERY favourable short-wave conditions have prevailed during the above period, a distinct improvement having been noted on the higher frequencies. The 13 m. U.S. broadcasters have been well received from mid-day onwards and the 10 m. band is opening up too, U.S. amateurs having been heard as late as 20.00.

VK2ME was quite intelligible at 07.30 on Sunday. A fair amount of activity was noticed on 10 m. during the day. W3XAL (16.87 m.) provided a steady R7 signal throughout the afternoon and evening, when the number of U.S. channels were augmented by W2XAD, W8XK, and later, by W1XK and W2XAF.

Good results were obtained during the late evening on Monday, the 16 m. and 19 m. U.S. transmitters all being received very well. There was, however, a very rapid "flutter" noticeable on nearly all short-wave transmissions.

W2XE (13.94 m.) peaked to a good R8 around 12.40 on Thursday. There was an occasional deep fade but no programme was lost. W8XK (13.93 m.) was also heard, but at no time did it reach the strength of the former station. After midnight the 25, 31, and 49 m. bands afforded the best results. W8XK (25.26 m.) and W2XE (25.36 m.) were R7, and the 31 m. band was simply crowded with signals. W1XK, W2XAF, and W2XAD, and the Cuban and South Americans all came in at good volume. VE9HX (48.92 m.) at Halifax, Canada, was R7 at 02.00, and other stations heard in this band were W3XAL, COCD, HP5H, and YV5RD.

VUD2, Delhi, was R4 at 18.20 on Friday. A little later VQ7LO was heard, but this transmitter did not peak to more than R5. Good results were again obtained during the late evening period. W3XAL was R8 at 23.45 and the Americans in the 19 m. band were all good R7 signals and free from fading. The South Americans were even better than on the previous nights; LRX, HJ7ABD, and XEWW, together with others too numerous to mention, helped to fill the evening's log.

The Short-Wave Stations of Central and South America

(Continued from opposite page)

Venezuela (cont'd.)

	m.	Mc/s.	kW.
YV4RP, Valencia ..	60.85	4.93	2
YV4RQ, Puerto Cabello ..	59.76	5.02	2
YV4RX, Maracay ..	61.98	4.84	0.5
YV4RZ, Maracay ..	59.64	5.03	10
YV5RC, Caracas-Catia Radio Caracas	50.26	5.97	2.5
YV5RD, Caracas-Catia Radiodifusora Venezolana	48.72	6.158	2.5
YV5RF, Caracas ..	47.06	6.375	0.3
YV5RH, Caracas ..	46.88	6.4	0.5
YV5RJ, Caracas ..	48	6.25	1
YV5RM, Caracas ..	59.88	5.01	10
YV5RN, Caracas ..	59.52	5.04	10
YV5RO, Caracas ..	60.73	4.94	10
YV5RQ, Caracas ..	47.85	6.27	1
YV5RR, Caracas ..	62.11	4.83	5
YV5RS, Caracas ..	51.41	5.835	0.25
YV5RT, Caracas ..	60.24	4.98	10
YV5RU, Caracas ..	60.98	4.92	2
YV5RY, Caracas ..	62.83	4.79	5
YV6RB, Ciudad Bolivar Ecos del Orinoco	45.84	6.545	0.2
YV6RC, Ciudad Bolivar Radio Bolivar	46.73	6.42	0.2
YV6RE, Barcelona ..	62.76	4.78	0.5
YV6RQ, San Fernando	61.73	4.86	2
YV6RT, Ciudad Bolivar	61.22	4.9	2
YV6RU, Ciudad Bolivar	61.48	4.88	0.5

HUIZEN

(19.71 m.) For the Dutch Indies. 13.25-Anthem; Call; News. 13.50-Gala Performance at the Municipal Theatre, Amsterdam (Recordings).

MELBOURNE

(31.32 m.) 03.25-08.00-News and Music. 09.30-Watchman; Music; News. 11.00-Dance Band; Music.

MILLIS

(31.35 m.) 14.55-News.

MOSCOW

(25 m.) 12.00 and 18.15-Talks (Ger.). 21.30-Programme in German. 22.00-Talks, etc. (Eng., Ger.).

PARIS-MONDIAL

(19.68 m.) 12.00-News (Eng., Fr.); Music. 14.30 - "La Farce du Cuvier" (Dupont).

PITTSBURGH

(13.93 m.) 11.45-Farm Markets; Organ. 13.15-News; Variety. 14.00-Variety. 17.00-News; Harding's Wife.

PODEBRADY

For Europe. (25.34 m.; 25.51 m.) 19.55-Call; News; Light Music. 20.40-News (Ger.); Music.

ROME

(25.4 m.) 10.40-News, Music (Arabic); News (Fr.); Music; Talk (Fr.). 12.00-News (Eng.); "La Bohème" (Puccini); News.

SCHENECTADY

(13.95 m.) 13.00-Children's Stories; Variety. 14.30-Landt Trio. 14.40-News; Amanda. Snow (Songs).

TOKIO

For Europe. (19.79 m.; 25.42 m.) 20.30-Call; News (Eng.); Pfte. 21.05-News and Talk (Ger.).

WARSAW

(22 m.; 26.01 m.) 00.00-News (Pol., Eng.); Music. 01.00-Music; at 01.20-Talk (Fr.).

WAYNE

(13.94 m.) 12.30-Phil Cook's Almanac. 12.55-15.00-News; Songs. 18.00-Americans at Work.

ZEESEN

(19.85 m.; 25.49 m.) 16.40-Call (Ger., Eng.); Music. 17.45-Greetings; Concert. 18.15-Talk (Afrikaans); Echoes.

SATURDAY, Sept. 10

EMPIRE

Transmission 1 (GSE, GSI, GSO, GSD, GSB) 07.00-Big Ben; Kington Ewe Fair.*

13.50-Students' Songs.* 14.20-"London Log." 14.30-Big Ben; News. 14.50-15.00-Interlude.†

Transmission 3 (GSJ, GSH, GSG, GSG†, until 17.00, GSF) 15.00-Big Ben; Gibert Stacey's Sextet.

Transmission 4 (18.20-22.00 GSG, GSI, GSD, GSG‡, from 18.45; 19.30-22.00 GSB; 22.15-00.00 GSG, GSP, GSO, GSF, GSB) 18.20-"For Sailors."*

Transmission 5 (GSG, GSP, GSO, GSD, GSB) 00.20-Empire Variety Theatre.* 01.00-Yascha Krein's Gipsy Orchestra.

Transmission 6 (GSI, GSD, GSC, GSB) 03.20-"London Log."** 03.30-"Sing Song."**

Arabic Transmission (GSP) 18.20-19.15 Spanish and Portuguese News (GSO, GSB) 02.30-03.00

BOMBAY

(31.41 m.) 03.30-04.30-Indian Music. 08.30-Markets; European Music. 09.30-11.00-Indian Music; Talk.

BOSTON

(25.45 m.) 20.00-Baseball. 22.00-Saturday Variety. 23.00-Monitor views the News.

BOUND BROOK

(16.87 m.) 14.00-Breakfast Club; Music. 15.30-Talk; Music. 17.00-Call to Youth. 17.15-Programmes; Intermezzo.

BUDAPEST

(32.88 m.) 00.00-01.00 (Sun.)-Music; News; Cigány Band; Talk; Anthem.

CHICAGO

(49.18 m.) 21.00-Club Matinée. 06.05 (Sunday)-Dance Band.

HUIZEN

(19.71 m.) For the Dutch Indies. 13.25-Anthem; Call; News. 13.40-Dutch Royal Anniversary: Reports of the Festivities throughout Holland.

MELBOURNE

(31.32 m.) 03.25-Stocks; Music; News. 04.15-08.30-Music; Racing. 09.30-Markets; News; Music.

MILLIS

(31.35 m.) 14.00-Breakfast Club. 02.00 (Sun.)-Barn Dance.

MOSCOW

(25 m.) 12.00-Talks (Ger., Dutch). 18.15 and 21.30-Talks (Ger.). 22.00-Talks, etc. (Fr., Sp.).

PARIS-MONDIAL

(19.68 m.) 12.00-News (Eng.); Music. 13.30-News; Talks. 13.50-News; Talks. 14.30-16.00-Orchestra, Songs.

PITTSBURGH

(13.93 m.) 11.45-Farm Markets; Variety. 13.15-News; Variety. 14.00-Breakfast Club; News. 15.00-Sweethearts of the Air.

PODEBRADY

For Europe. (25.34 m.; 25.51 m.) 19.55-Call; News; Dance Music. 20.40-News (Ger.); Music.

ROME

(25.4 m.) 10.40-News and Music (Arabic). 11.00-News (Fr.); Songs; Talk (Fr.). 12.00-News (Eng., Fr.); Songs; Choir; News (It., Jap.).

SCHENECTADY

(13.95 m.) 13.00-For Children; Variety. 15.30-Concert for the Young. 16.00-Bailey Axton (Tenor).

16.30-Musical Tête à Tête. 16.45-17.00-Serving the Consumer. (19.57 m.)

17.15-Carl Weymann (Soprano). 17.30-Farm Programme. 18.00-Orchestra. 18.30-Your Host is Buffalo. 19.00-Campus Capers.

TOKIO

For Europe. (19.79 m.; 25.42 m.) 20.30-Call; News and Talk (Eng.). 21.05-News (Ger.); Guitar.

WARSAW

(22 m.; 26.01 m.) 00.00-News (Pol., Eng.); Songs. 00.50 (Sun.)-Talk (Eng.); Music.

WAYNE

(13.94 m.) 13.00-Bob Byron (Songs). 13.15-Edith Dick and Jack Shannon (Songs). 13.30-Ruth Brine (Commentator).

ZEESEN

(19.85 m.; 25.49 m.) 16.40-Call (Ger., Eng.); Music. 17.15-Carl Peters Anniversary. (19.85 m.; 25.49 m.; 49.83 m.)

What Would You

	SUNDAY, September 4	MONDAY, September 5	TUESDAY, September 6
Symphony Concerts Operas	2.40 Hilversum 1: Scheveningen. 5.15 Naples group: "Ernani" (rec.). 7.0 Leipzig: "Don Giovanni" (Salzburg records). 7.55 Hilversum 1: Residentie Orch., Goldberg (violin). 8.10 Munich: Festival concert. 8.15 Lille: "Carmen." 8.30 Radio-Paris, Brussels 1: Modern music. 9.0 Rome group: "The Master- singers."	5.30 Deutschlandsender, etc.: "The Mastersingers." 6.15 Brussels 1: Belgian music. 7.0 Hamburg: Wagner records. 8.10 Berlin: New German music. 8.10 Kalundborg, Oslo: Music of Finland. 8.15 Königsberg: Classics. 8.35 National: Promenade—Wagner. 8.45 Radio-Paris: Bruno Walter. 9.0 Hilversum 1: Classics. 9.30 Turin group: Venice Festival.	From all Dutch stations throughout the day: Queen Wilhelmina's Jubilee celebrations. 8.0 Brussels 1: "Le Déserteur" (Monsigny). 8.0 Regional: Promenade. 8.0 Sottens: Mendelssohn prog. 8.10 Kalundborg, Stockholm, 9.0 Oslo: Music of Sweden. 8.20 Radio Eireann: "Tannhäuser." 8.30 Eiffel Tower: National Orch. 9.10 Prague: Mozart, Vranicky.
Chamber Music Recitals	2.10 Hilversum 1: Schipper (tenor). 3.30 Vienna: Beethoven quartet. 6.20 Oslo: Song, violin, guitar. 6.30, 8.0 Eiffel Tower: Song, pfte. 6.50 National: Lener String Quartet. 7.0 Vienna: Violin, guitar. 7.10 Beromünster: Sonatas (Schu- bert). 7.30 Berlin: String quartet. 7.30 Breslau: Pfte. quartet (Mozart). 8.20 Radio Eireann: Organ. 8.50 Sottens: Pianoforte. 10.30 Stockholm: Vocal quartet.	4.0 Paris (PTT): Organ. 5.0 Deutschlandsender: Trio. 6.0 Radio-Paris: Pfte., song. 6.20 Munich: Quartet classics. 7.0 Vienna: Pianoforte. 7.15 Oslo: Norwegian music. 7.35 Radio Eireann: Schumann. 8.0 Eiffel Tower: Song, pfte. 8.30 Paris (PTT): Songs, trio. 9.5 Bucharest: Schumann songs. 9.30 Stockholm: Song, pianoforte. 10.20 Kalundborg: Fisher songs. 11.10 Hilversum 1: Cathedral Chimes.	5.0 Brussels 1: Vln., pfte. (Franck). 6.0 Regional: From Montevideo. 6.10 Warsaw: Pfte. (Paganini). 6.30 Deutschlandsender: Ballads. 7.0 Radio-Paris: Vln., pfte. (Ravel). 7.25 Bucharest: Russian songs. 8.0 Eiffel Tower: Song, pfte. 8.10 Poste Parisien: Love songs. 8.15 Beromünster: Berne Minster. 8.15 Radio-Paris: Vln., pfte., songs. 9.40 Turin group: Violin, pfte. 10.20 Kalundborg: Danish songs.
Plays and Feature Programmes	2.0 Paris (PTT): "Peg o' my heart." 8.0 Kalundborg: Youth Congress. 8.25 Beromünster: Dialect play. 8.30 Paris (PTT): "L'étourdi" (Molière). 8.30 Strasbourg: Alsatian play. 9.0 Turin group: "L'incrinatura."	2.5 Radio-Paris: "C'est mon mari." 8.10 Stuttgart: "Schmiedesell Adam Urbein." 8.30 Naples group: "Casa nostra." 9.0 Strasbourg: Three plays. 11.0 Paris (PTT): Esperanto play.	7.0 Brussels 2: Dutch Jubilee. 8.45 Sottens: "Nationale 6." 9.0 Poste Parisien: Play. 9.0 Turin group: "Bentornato." 9.5 Beromünster: Schnitzler comedy. 9.30 Radio-Paris: "La naissance de Tristan."
Bands Light Orchestral Operettas	4.0 Kalundborg: Band concert. 4.0 Saarbrücken, etc.: Light music. 4.30 Paris (PTT): Gras Orchestra. 5.0 Radio-Paris: Visciano Orch. 6.0 Berlin: Operetta music. 6.0 Brussels 1: Light orchestral. 7.0 Budapest: Cigány band. 7.15 Oslo: Station Orchestra. 8.0 Prague: "Polenblut" (Nedbal). 8.10 Berlin: Choir, orchestra. 8.10 Bucharest: Radio Orch., songs. 8.10 Cologne: Studio operetta. 8.10 Stuttgart: Pop. orchestral. 8.10 Vienna: Opera music. 8.15 Königsberg: Variety concert. 9.0 Kalundborg: West Jutland prog. 9.0 Stockholm: Opera music. 9.5 Regional: Victorian melodies. 9.10 Frankfurt: "Galatea" (Suppé). 9.15 Sottens: Lausanne concert. 10.20 Kalundborg: Preil Ensemble. 10.30-3.0 German stations: Dances, light music. 11.0 Budapest: Orchestra.	2.30 Kalundborg: Preil Ensemble. 4.0 Strasbourg: Viennese music. 5.0 Radio-Paris: Giardino Orch. 5.0 Swiss stations: Radio Orch. 5.30 Deutschlandsender: Band. 6.0 Hilversum 2: Salon orchestra. 6.20 Prague: Band. 7.0 Berlin: Hans Busch Band. 7.0 Stuttgart: Mannheim Orch. 7.30 Warsaw: Vocal, instrumental. 8.0 Brussels 1: Radio Orchestra. 8.0 Sottens: Orchestra, songs. 8.10 Hamburg: North German com- posers. 8.10 Stockholm: Navy Band. 8.15 Frankfurt: Popular orch. 8.30 Brussels 2: Band. 8.45 Budapest: Cigány band. 9.10 Rome group: "Don Gill" (operetta). 9.10 Warsaw: Variety concert. 9.20 Brno, Prague: Orchestral. 9.50 Budapest: Light classics. 10.15 Oslo: Stavanger Orch.	12.20 Radio-Paris: Bailly Orchestra. 3.0 Kalundborg: Julian Orchestra. 4.0 Cologne: Overtures. 4.0 Strasbourg: Light orchestral. 5.0 Königsberg: Orch., arias. 5.0 Radio-Paris: Derveaux Orch. 5.0 Swiss stations: Opera music. 6.20 Munich: Light music. 6.20 Prague: "Schrammel" music. 7.0 Breslau: Folk music. 7.0 Frankfurt: Variety concert. 7.15 Budapest: Station Band. 7.15 Oslo: Station Orchestra. 7.15 Radio Eireann: Orch., songs. 7.30, 9.10 Warsaw: Variety concerts. 8.0 Brussels 2: Radio Orchestra. 8.15 Stuttgart: Orch., vocal. 8.30 Strasbourg: Orchestra, songs, operetta (10 p.m.). 9.0 Rome group: Orchestra. 9.40 Beromünster: Folk songs, orch. 10.30-3.0 German stations: Orch. 10.45 Budapest: Military band.
Talks (including News in English) Commentaries	3.0 German stations, Stockholm (5.35): European Athletics. 6.45 Radio Eireann: "Yachting." 7.0 Hamburg: "Wesermünde." 8.40 Hilversum 2: "Queen Wil- helmina's Reign."	2.10 Hilversum 1: The Royal Party at Amsterdam. 8.10 Hilversum 2: Jubilee Service. 9.30 Swiss stations: Youth Festival. 10.10 Brussels 2: Dutch Jubilee. 11.0 Budapest: News (English).	At intervals German stations: Nürn- berg Party Congress. 6.30 Cologne: English Talk. 10.10 Budapest: "The Dutch Jubilee." 10.45 Bucharest: News in English. 11.0 Prague: News in English.
Variety Cabaret	7.0 Radio-Paris: Bilboquet. 8.0 Brussels 2: Musical variety. 8.30 Eiffel Tower: Rustic variety. 10.5 Poste Parisien: Cabaret. 10.35 Brno, Prague: Revue (rec.).	4.0 Radio-Paris: Revue. 8.10 Breslau: "Blue Monday." 8.30 Regional: Variety. 8.45 Brussels 1: Walloon Cabaret. 11.0 Kalundborg: Grinzing evening.	6.30 Berlin: Musical almanac. 7.30 Stockholm: Summer Cocktail. 7.45 National: "Band Waggon." 8.30 Naples group: Revue. 10.30 Poste Parisien: Cabaret.
Dance Music	10.0 Budapest; 10.15, Oslo; 10.40, Brussels 1; 11.0, Brussels 2, Paris (PTT), Radio-Paris, Strasbourg; 11.15, Kalund- borg, Turin group.	5.0 Warsaw; 10.15, Prague; 10.30, Naples group, Regional; 11.10, Budapest, National; 11.15, Rome group; 11.30, Turin group.	10.30 Naples group; 10.35, Regional; 11.5, Kalundborg: Old dance music; 11.15, National, Rome, Turin, groups.

Like To Hear ?

WEDNESDAY, Sept. 7	THURSDAY, Sept. 8	FRIDAY, September 9	SATURDAY, Sept. 10
<p>6.20 Munich: Symphony (David). 7.55 Hilversum 2: Jubilee concert. 8.0 Beromünster: "Der Wildschütz" (Lortzing). 8.0 Brussels 1: Recent French music. 8.0 National: Promenade, Bach. 6.32 Paris (PTT): Vichy concert. 8.30 Strasbourg: Classics. 8.30 Vienna: Beethoven. 8.55 Brno, Prague: Opera music. 9.0 Turin group: "The Master-singers."</p>	<p>7.0 Deutschlandsender: Italian and Hungarian Music. 7.0 Hamburg: Sibelius, etc. 8.0 Brussels 1: "La Bohème." 8.0 Regional: Sir Henry Wood. 8.10 Kalundborg, Oslo: Music of Norway. 9.0 Berlin: Modern music. 9.0 Brussels 2: Saint-Saëns, Glazunov, Ravel. 9.15 Sottens: Opienski programme. 9.30 Turin group: Venice Festival.</p>	<p>7.55 Hilversum 2: Jubilee concert. 8.10 Kalundborg, Oslo, Stockholm (9.15): Music of Denmark. 8.20 National: Promenade. 8.30 Lille: Vichy concert. 8.30 Paris (PTT): French music. 9.0 Rome group: Classics. 9.10 Prague: Dvořák. 9.15 Strasbourg: "Pagliacci." 10.0 Warsaw: Russian music. 11.0 Radio-Paris, Strasbourg: Bizet, Chausson, Wagenaar.</p>	<p>8.0 Brussels 1: Contemporary Belgian music. 8.0 Eiffel Tower: "Faust" (Gounod), from the Opéra. 8.0 Regional: Sir Henry Wood. 8.30 Sottens: Excerpts from Mascagni operas.</p>
<p>5.0 Brussels 1: Modern quartets. 5.0 Deutschlandsender: Motets. 5.40 Hilversum 1: Organ. 6.20 Königsberg: Wolf songs. 6.32 Radio-Paris: Harpsichord. 8.0 Eiffel Tower: 'Cello, pfte. (Brahms). 8.0 Oslo: 'Cello. 9.10 Warsaw: Chopin. 9.15 Cologne: Cantata (Kauffmann). 9.40 Naples group: Pfte., waltzes. 10.20 Kalundborg: Trio (Malling). 10.30 Prague: Thauvoye (harpsichord).</p>	<p>1.40 Hilversum 1: Soprano songs. 5.0 Deutschlandsender: Quartets. 6.20 Oslo: Norwegian music. 6.30 Paris (PTT): Organ. 7.0 Vienna: Wind instruments. 7.3 Brussels 2: Van Crombruggen. 7.30 Strasbourg: Pianoforte. 8.0 Beromünster: Swiss folk songs. 8.0 Eiffel Tower: Song, pfte. 9.0 Breslau: Trios. 10.0 Warsaw: Quartets. 10.20 Kalundborg: Songs. 10.30 Budapest: Violin.</p>	<p>5.0 Radio-Paris: Quartet, pfte., songs. 5.10 Hilversum 1: Organ. 5.50 Kalundborg: Operetta songs. 6.20 Königsberg: Choir, organ. 7.0 Warsaw: Modern songs. 7.40 Hilversum 1: Violin, pfte. 8.10 Stockholm: Pianoforte duets. 9.30 Melnik: Quartets. 9.30 Vienna: Pfte. classics. 9.45 Beromünster: Schoeck songs. 10.0 Hilversum 2: Pianoforte. 10.30 Prague: Violoncello.</p>	<p>5.40 Hilversum 1: Steyn (organ). 6.0 Deutschlandsender: Classics. 6.10 Warsaw: Pianoforte. 6.30 Brussels 1: Violin. 6.30 Eiffel Tower: Women composers. 6.45 National: Lance Dossor (pfte.). 7.0 Warsaw: 'Cello. 7.30 Beromünster: Pianoforte. 7.35 Bucharest: Opera arias. 8.40 Radio Eireann: Zither banjo. 9.40 Rome group: Pianoforte. 9.45 Budapest: Harpsichord.</p>
<p>7.45 Radio Eireann: Radio play. 8.30 Eiffel Tower: Aristophanes, Fauchois. 9.0 Rome group: "Anima allegra." 9.25 Kalundborg: "George Stephenson." 9.35 Regional: "Brigade Exchange."</p>	<p>5.0 Radio-Paris: Molière, de Vigny. 7.0 Stuttgart: Swabian sketches. 8.0 Budapest: "London to Balfalva." 8.30 Paris (PTT): "Musse" (Romains). 9.10 Strasbourg: "Der Besuch."</p>	<p>7.0 Breslau: "Goodbye to Summer." 7.55 Beromünster: "Freiberge—the Jura country." 8.30 Radio-Paris: "Le prix Martin." 8.45 Brussels 2: "Paris danse le cancan." 9.0 Sottens: "Un voyage à Biarritz."</p>	<p>8.0 Warsaw: For Poles abroad. 8.30 Radio-Paris: "Le pain de ménage." 8.45 Brussels 1: One-act play. 9.0 Rome group: "Malgrado tutto." 9.5 Beromünster: Burlesque play. 9.10, 11.0 Paris (PTT): Plays.</p>
<p>12.30 National: From Berlin. 2.30 Kalundborg: Radio Orchestra. 4.0 Cologne, Vienna: Orch., songs. 5.0 Berlin: Busch Band. 5.0 Radio-Paris: Cantrelle Orch. 6.20 Prague: Light orchestral. 7.5 Bucharest: Radio Orchestra. 7.30 Warsaw: Variety concert. 8.0 Brussels 2: Soldiers' prog. 8.0 Regional: "Virginia." 8.10 Stockholm: Popular orch. 8.30 Königsberg: Popular orchestral. 8.30 Lille: Musical comedy. 8.30 Naples group: Band concert. 8.55 Hilversum 1: VARA Orch., soprano. 9.10 Budapest: Light orchestral. 9.15 Brussels 1: Offenbach. 9.15 Sottens: Folklore programme. 10.30-3.0 German stations: Popular programmes. 11.10 Budapest: Cigány band.</p>	<p>12.10 Hilversum 1: AVRO Orch. 12.20 Radio-Paris: Giardino Orch. 2.30 Kalundborg: Preil Ensemble. 6.20 Prague: Salon orchestra. 7.10 Frankfurt: Variety concert. 7.30, 9.10 Warsaw: Light concerts. 7.45 Radio Eireann: Irish music. 7.55 Hilversum 2: "Wilhelm von Nassau." 8.0 National: "George Edwardes." 8.0 Stockholm: Operetta music. 8.5 Hilversum 1: Operetta excerpts. 8.10 Cologne: Choir, orchestra. 8.30 Naples group: "La romanza di Liszt." 8.30 Radio-Paris: "Le bon roi Dagobert." 8.30 Strasbourg: Folk music. 9.0 Rome group: Band concert. 9.5 Prague: Hüttel programme. 9.15 Beromünster: Orchestra. 9.20 Budapest: Popular classics. 10.20 Oslo: Billy Mayerl music. 10.30-3.0 German stations: Serenade.</p>	<p>3.0 Kalundborg: Julian Orch. 4.0 Strasbourg: French music. 5.0 Brussels 1: Russian music. 5.0 Swiss stations: Haydn; waltzes. 6.0 Munich: Orch., vocal. 6.20 Prague: Operetta music. 6.45 National: "Virginia." 7.0 Hamburg: Opera music, etc. 7.0 Leipzig: Marches, waltzes. 7.0 Vienna: Light orchestral. 7.30 Radio Eireann: Orch., songs. 9.10 Warsaw: Light music. 8.0 Brussels 1: Band concert. 8.0 Brussels 2: Light orchestra. 8.0 Sottens: Light music. 8.30 Budapest: Pop. orchestral. 8.30 Strasbourg: Orchestra. 8.40 Hilversum 1: Pop. orch. 9.0 Turin group: "Fanfan la Tulipe." 9.30 Cologne: Light-hearted music. 9.30 Leipzig: Band concert. 10.5 Budapest: Cigány band. 10.15 Stockholm: "Boccaccio" (exc.).</p>	<p>12.15 Radio-Paris: Bailly Orchestra. 2.10 Kalundborg: Radio Orchestra. 3.10 Hilversum 1: Popular orch. 6.0 Brussels 2: Radio Orch., songs. 6.0 Regional: "George Edwardes." 6.20 Prague: Salon orchestra. 7.15 Oslo: Norwegian music. 7.30, 9.10 Warsaw: Variety concerts. 7.50 Radio Eireann: "Summer Gardens." 7.55 Hilversum 1: VARA Orch. 8.10 Cologne, Leipzig: Light music. 8.15 Hilversum 2: Musical variety. 8.15 Königsberg: Light music. 8.15 Melnik: Variety concert. 8.30 Paris (PTT): Pop. orchestral. 8.30 Strasbourg: Orch.; 9.30, Dalcroze programme. 9.0 Turin group: Band concert. 10.5 Radio-Paris: French music. 10.10 Brussels 1: Salon orchestra. 10.30-3.0 German stations: Light music and classics. 11.10 Budapest: Cigány band.</p>
<p>At intervals German stations: Nürnberg Party Congress. 7.10 Lille: Talk in English. 9.20 Poste Parisien: "Romania." 11.0 Budapest: News (English, French).</p>	<p>2.25 Hilversum 1: Launching of the "Oranje." At intervals German stations: Nürnberg Congress. 9.0 Poste Parisien: "Paul Robeson." 11.0 Prague: News in English.</p>	<p>At intervals German stations: Nürnberg Congress. 6.0 Leipzig: "Saxony." 8.50 Stockholm: Eric Linklater. 10.20 Kalundborg: Gripenberg poems. 11.0 Budapest: English, French.</p>	<p>At intervals German stations: Nürnberg Congress. 4.40 Radio-Paris: "History books." 7.10 Lille: Talk in English. 7.50 Kalundborg: "Boccaccio's Italy."</p>
<p>7.0 Budapest: Radio fantasy. 8.30 Radio-Paris: Variety evening. 10.30 Poste Parisien: Cabaret.</p>	<p>9.40 Regional: Variety. 10.15 Moravská - Ostrava, Prague: Revue (records).</p>	<p>4.0 Paris (PTT): Variety. 8.10 Stuttgart: "September." 8.30 Eiffel Tower: Literary and musical variety.</p>	<p>4.0 Stuttgart: Variety programme. 8.10 Berlin, Naples group: Variety. 8.30 Brussels 2: Cabaret. 8.30 French stations: Soirée tournante.</p>
<p>5.0 Warsaw; 10.0, Budapest; 10.10, Brussels 1; 10.15, Stockholm; 10.25, Regional; 10.30, Naples group, Sottens; 10.45, Oslo; 10.55, Kalundborg; 11.0, National; 11.15, Rome group.</p>	<p>9.0 National; 10.25, Regional; 10.30, Brussels 2, Naples group, Sottens; 10.50, Hilversum 1; 10.55, Kalundborg; 11.10, Budapest; 11.15, Rome, Turin groups.</p>	<p>5.0 Warsaw; 7.0, Brussels 2; 7.15, Frankfurt; 10.30, Naples group, Regional; 10.50, Kalundborg; 11.0, National; 11.10, Budapest, Hilversum 1; 11.15, Rome, Turin groups.</p>	<p>9.35 Kalundborg; 10.7, Poste Parisien; 10.15, Oslo, Sottens, Stockholm; 10.20, Beromünster, Budapest; 10.30, Melnik, Naples, Prague, Regional; 10.40, Rome, Turin groups; 11.0, National, Radio-Paris, Strasbourg.</p>

1.10—Jetty Cantor's Ensemble.
1.40—The Dutch Royal Anniversary—Address by the Governor-General of the Dutch East Indies, Jhr. Mr. A. W. L. Tjarda van Starkenborgh Stachouwer.
2.10-5.10 — H.M. Queen Wilhelmina's State Visit to Amsterdam.
2.10—Arrival and Reception at the Haarlemmermeerstation of H.M. Queen Wilhelmina, accompanied by Their Royal Highnesses Princess Juliana and Prince Bernhard —The "Toonkunst" Choir sings. Conductor: Mengelberg.
2.25—State Drive through Amsterdam.
4.10—Arrival at the Palace: Military Parade and singing by the "Apollo" and "Valerius" Chords. Conductor: Roeske.
5.10—Acolian Orchestra.
6.10—Twilight Serenaders.
6.55—Records.
7.10 — Talk by Jhr. Jan Feith: Forty Royal Years.
7.40—News.
7.55—Records: Light Music.
8.40—National Poems recited by Paul Huf.
9.0—Mozart, Mendelssohn and Beethoven Symphony Concert. AVRO Orchestra. Conductor: van Raalte. Zoltan Szekely (Violin).
10.10—The Festivities in Amsterdam.
10.40—News.
10.50—Pierre Palla (Organ).
11.10—Talk on Tomorrow's Festivities; Chimes; Trumpet Music from the Cathedral, Bois le Duc.
11.40—National Anthem.

HILVERSUM (No. 2)

995 kc/s (301.5 m.); 10 kW until 5.40 p.m.; 60 kW from 5.40 p.m. Also on Jaarsveld, 722 kc/s (415.4 m.); 17 kW. NCRV Programme.
7.40 a.m. — Bible Reading and Meditation.
7.55—Records; at 9.10—Greetings.
10.10—Service; Bible Reading.
11.10—Records.
11.40—Police Messages; Weather.
11.55—Accordian Quartet; Records.
12.40 p.m.—Records.
12.55—Mme Pim Borkent-Kok (Soprano); Borkent (Tenor).
1.40—Records.
2.0—The Dutch Royal Anniversary —State Visit of H.M. Queen Wilhelmina to Amsterdam.
3.20—Records; Bible Reading.
4.25—Records.
4.55—For Children.
6.0—Amsterdam Salon Orchestra, Conductor: Kiekens. Overture, "Neerlandia" (Wesley). Serenade (Gounod). Ein Abend bei Suppe (arr. Thiele). Narcissus (Nevin). Loin du bal (Gillet). Musikalisches Allerlei (Grit).
6.40—Police Messages and Church Notes.
6.55 — Salon Orchestra (contd.). Puppenspiele (Ledever). Comedy Overture (Aelter). Titorotto (Kockert). Waldteuflein (arr. Kling).
7.25—Report.
7.40—News; Records.
8.10—The Dutch Royal Anniversary: Thanksgiving Service from the Westerkerk, Amsterdam.
9.10—To be announced.
9.40—Press Review.
9.45—Apollo Quintet. Volkslieder und Märschen (Kozak). Behüt dich Gott (Nessler). Die Uhr (Löwe). Hungarian Dance (Brahms). Wiener Blut (Strauss). Stephanie Gavotte (Czibulka). Wanderlied (Meisl). Was ich lang erträumte (Lehar). So schön, wie 's einmal war (Ziehrer).
10.25—Gym.
10.40—Apollo Quintet (contd.). Schlaf wohl, du süßer Engel, du (Abt). Waldandacht (Abt). Serenade (Heykens). Lied (Lange). Legend (Wienawski). Intermezzo (Armandola). Serenade (Pinozzi).
11.10—Records.
11.30-11.40—Bible Reading.

KALUNDBORG

240 kc/s (1,250 m.); 60 kW. Relays Copenhagen, 1,176 kc/s (255.1 m.).
Transmits at intervals from 7.0 a.m.
12.0 noon-2.0 p.m.—Wivex Orchestra.
2.30—Prel's Ensemble; at 3.15—For Housewives; Reading.
4.30—For Children; Radio Notes.
5.0—Talk: Verona, Padua, Ravenna.
5.25—Exchange; Markets; Records.
6.15—Discussion.
6.35—English Lessons.
7.0—Time; News.
7.30—The Women's World Congress in Edinburgh.
7.55 — "The Hansens" — Sketch (Locher).

8.10—Scandinavian Music Festival from the Oddfellows' Palace—Finland. Radio Symphony Orchestra. Conductor: Haapanen. Erik Cronvall (Violin). Yrjö Selin (Cello). Part I. Overture (Linna). Third Symphony (Sibelius). Part II. Concerto for Violin, Cello, and Orchestra (Raitio). Kalevala Suite (Klami). In the interval, Weather.
10.0—News.
10.20—Lecture-Recital: Fishermen's Songs.
11.0 p.m.-12.30 a.m. (Tuesday)—Grinzin Evening — Viennese Heurigen Festival from the Zigeunerhalle. Cigány Band. Conductor: Twork. The Radio Three, Palle, Alfelt, Christian Gottschalch, Kiss Gregers, etc.

KÖNIGSBERG (Heilsberg)

1,031 kc/s (291 m.); 100 kW. Relayed by Danzig, 1,303 kc/s (230.2 m.).
Transmits at intervals from 5.0 a.m.
12.0 noon—See Hamburg.
2.0 p.m.—News; Talk; Music.
2.55-3.0—Exchange.
3.30—See Munich.
4.30—Light Music by the Station Dance Band.
6.0—Talk: Commercial Travellers.
6.20—The Adolf Hitler March — Reports; Talks.
6.50—Announcements; Records.
7.40—Topical Report; News.
8.15—Symphony Concert—Station Orchestra. Conductor: Brückner. Veidt (Violin). Second Symphony (Beethoven). Violin Concerto (Brahms). Serenade (Fiedler).
10.0—News; Weather; Sports.
10.20 — Report from Paris (Recorded): Finals of the European Light Athletics Championships.
10.45—Börschel Dance Band.
12.0 m't.-3.0 a.m. (Tuesday) — See Cologne.

LEIPZIG

785 kc/s (382.2 m.); 120 kW. Relayed by Dresden, 1,285 kc/s (233.5 m.).
Transmits at intervals from 5.50 a.m.
12.0 noon—Station Choir and Orchestra.
2.0 p.m.—News; Records.
3.0—For Parents.
3.30—See Munich.
4.30 (approx.)—Pfte. Records.
5.0—Time; Weather; Markets.
5.10—Orchestra from Vienna.
6.0—Talk: The Battle of Trafalgar.
6.20—Songs (Recorded).
6.45—Science and Progress.
7.0 — Pfte. Trio in A (Brahms) (Hamburg Station Recordings).
7.45—Topical Report; News.
8.10—See Breslau.
10.0—News; Weather; Sports.
10.20 — Report from Paris (Recorded): Finals of the Athletics Championships.
10.45 p.m.—Serenade.
12.0 m't.-3.0 a.m. (Tuesday) — See Cologne.

LILLE (Radio PTT Nord)

1,213 kc/s (247.3 m.); 60 kW. Transmits at intervals from 6.30 a.m.
7.0 p.m.—Records.
7.10—Talk in English; Record.
7.30—Radio Journal.
8.0 — Publications — Fantasy on Timal Songs (Héme) ; Music by Teddy Jura.
8.30—Station Orchestra. Conductor: Soret. Mlle Francyne and Danéry (Songs). Overture, "Ruy Blas" (Mendelssohn). Third Symphony —the Eroica (Beethoven). Songs —Prelude to Act 1, "Fervaal" (d'Indy). Le tombeau de Couperin (Ravel). Musiques intimes (Florent Schmitt). Songs. Suite bergamasque (Debussy). Excerpts, "The Golden Cockerel" (Rimsky-Korsakov). After the Concert, News.

MONTE CENERI

1,167 kc/s (257.1 m.); 15 kW. Transmits at intervals from 12.0 noon.
7.0 p.m.—Records.
7.30—Markets; News.
8.0—To be announced.
9.15-10.30—See Beromünster.

MOSCOW

172 kc/s (1,744 m.); 500 kW. and 300 kc/s (1,000 m.); 100 kW.
Transmits at intervals from 4.0 p.m.
6.0 p.m. — Concert or Opera (Records).
9.30—News; Kremlin Chimes.
10.0 (1,000 m. only)—Concert.
10.0 p.m. - 1.0 a.m. (Tuesday): 1,744 m. only.
10.0—Talks (English, Hungarian).
12.0 m't.—Spanish Programme.

MUNICH

740 kc/s (405.4 m.); 100 kW. Relayed by Nürnberg, 1,267 kc/s (236.8 m.).
Transmits at intervals from 6.0 a.m.
12.0 noon—Station Orchestra.
2.0 p.m.—News; Exchange.
2.15—See Berlin.
3.0—Gymnastics.
3.30 (from Nürnberg)—The Reich Party Congress. Reports and Chimes; Reception of the Führer in the Rathaus in the presence of Government and Party Officials.
4.30—Station Dance Band; at 5.0-5.10—Weather; Markets.
6.0—Monthly Political Review.
6.20—Stross Quartet. String Quartet in A (Haydn). String Quartet in F (Beethoven).
7.0—"Music to rejoice the Heart"—Station Choir and Orchestra. Conductor: Langefeld. Ella Nikolaus (Soprano), Carnuth (Tenor), Stuhlfauth (Violin), Kusche (Pfte.), Schmidmeier (Pfte. and Organ); at 8.0-8.15—News.
9.0—"The Mastersingers"—an historical sequence.
10.0—Time; News; Sports.
10.20 — Report from Paris (Recorded): The European Light Athletics Championships.
10.45—Serenade.
12.0 m't.-3.0 a.m. (Tuesday) — See Cologne.

NAPLES GROUP

Naples (No. 1), 1,104 kc/s (271.7 m.); 10 kW. Florence (No. 1), etc. See Sunday.
Transmits at intervals from 7.45 a.m.
7.0 p.m.—Light Music; Topical.
7.20—Orchestral Records.
8.0—See Rome Group.
8.30—"Casa nostra"—Three-Act Play (Silvani).
10.30—Dance Music.
11.0—News.
11.15-11.55—Dance Music.

OSLO

260 kc/s (1,153.8 m.); 60 kW. Fredrikstad, etc. See Sunday.
Transmits at intervals from 10.30 a.m.
5.5 p.m.—Records: Slav Dances (Dvorak).
5.40—Talk.
6.0—Variety Concert.
6.45—News.
7.15—Norwegian Music by Margot Arnulf (Songs) and Daniel Lövdal (Pfte.).
7.50—Theatre Notes.
8.10—Scandinavian Music Festival (for details, see Kalundborg).
8.50—Topical Talk.
9.10—Review of Foreign Affairs.
9.40—News; Topical Talk.
10.15-11.0—Stavanger Radio Orchestra.

PARIS (Eiffel Tower)

1,456 kc/s (206 m.); 7 kW. Transmits at intervals from 6.30 a.m.
7.30 p.m.—Radio Journal.
8.0—Paule Gilly (Songs) and Mille Sorel-Nitzberg (Pfte.).
8.30—To be announced.
10.30—Records.
11.0-11.15—News; Weather.

PARIS (Poste Parisien)

959 kc/s (312.8 m.); 60 kW. Transmits at intervals from 6.28 a.m.
6.0 p.m.—News; Exchange.
6.30—Poems (André Romaine).
6.58—Racing; Sports Notes
7.10—Amusement Guide.
7.12—Sonata in D minor (Mozart) by Wiener and Doucet (Pftes.) (Records).
7.25—Song Records.
7.45—Handel Records.
8.0—Topical; Records.
8.30—Music with Jean Sablon.
8.45 — "Portraits"—Programme with Jean Nohain.
9.0—Lucuona Cuban Boys.
9.25—"Faire le mur" (Diamant-Berger) with Fernandel, etc.
9.35—Records.
10.0—News; Records.
11.0—News.

PARIS (PTT)

695 kc/s (431.7 m.); 120 kW. Transmits at intervals from 6.30 a.m.
4.0 p.m.—Paul Marcellly (Organ) from the Schola Cantorum.
4.30—Reading (Gautier).
4.45—Nadia de Cléry (Songs).
5.0—Talk: Men and Books.
5.15—Francisco Alfonso (Guitar).
5.30 — The International Light Athletics Championships.
6.0—Talk: Free Trade.
6.15—Medical Talk.
6.30—Maria Cid (Songs).
6.45—Records.
7.0—Radio Journal.
8.0 — Records: Pictures from an Exhibition (Mussorgsky-Ravel).
8.30—Songs of Mountain and Plain sung by Suzanne Nivette.

MONDAY (September 5)

La Trimouzette (Grécourt). La belle de May (Hillier). Songs (Nerini). A l'ombre (Barenton-Marga). Les dix filles dans un pré (Archaimbaud). La rose blanche (Jacquin). Ces grandes montagnes (Blois).
9.0—Maillard-Verger Trio and Germaine Cernay (Songs). Trio in C (Haydn). Two Songs. Pfte.: (a) Two Sonatas (Scarlatti), (b) Rondo (Roussel). Folk Songs (Novak). Trio (Dobronic).
10.0—Russian Songs by the Bayan Singers. Conductor: Ardarov.
10.30—News; Weather; Records.
11.0—"La Krimo de la strato de Lourcine" (Le crime de la rue de Lourcine)—Play (Labiche; Esperanto trans. by Rollet de l'Isle).

PARIS (Radio-Paris)

182 kc/s (1,648 m.); 80 kW.
6.28 a.m.—Programme Notes.
6.30—Time; News; Records.
6.50—Gym and Records.
8.29—Time; News; Records.
9.0-9.7—News.
9.45—Programmes; Records.
10.45—Reading; Records.
11.45—Markets; Exchange.
12.0 noon—Talk: Harem Life in Morocco.
12.15 p.m.—Records.
1.0—Time; News; Exchange.
1.30—Le Marc' Hadour (Songs).
1.45—Records; Programmes.
2.5—"C'est mon mari"—One-Act Play (Soret).
2.30—Exchange; Markets.
2.45—Marie Simon (Songs).
3.0—Records: "Les songs" (Milhaud).
3.15 — Talk: Poets and their Muses.
3.30—Talk: Famous Contemporaries.
3.45—Exchange; Markets.
4.0—Revue (Cléroux) with the Author, Emile Rousseau, Adrien Lamy, Ketty Emlin, and Jane Montagne, from the Radio Exhibition.
5.0—Giardino Orchestra. Overture, "Les Dragons de Villars" (Maillart). Passetied, "La Basoche" (Messenger). Elegy, "La Reine Fiammette" (Leroux). Selection, "Die Fledermaus" (Strauss). Rocco Minuet (Cravino). Slav Dance in E Minor (Dvorak). Ballet, "Hamlet" (Thomas).
6.0 — Maggari (Pfte.). Preludes (Chopin, Liszt), Saint-François de Paule marchant sur les flots (Liszt).
6.15—Rosine Schor (Songs).
6.30—Racing; Art Review.
6.58—Programmes; Anniversaries.
7.10—Records; Book Review.
7.50—Review by Paul Reboux.
7.59—Time; Foreign Affairs.
8.8—Home Affairs.
8.15—Marthe Bailloux (Songs).
8.30—Records.
8.45 (also Bordeaux-Lafayette, Lyons (PTT), and Montpellier (PTT)—Symphony Concert from the Casino, Vichy. Conductor: Bruno Walter. Overture, "Oberon" (Weber). Symphony in D (Mozart). Death and Transfiguration (Richard Strauss).
9.45—News; Press Review; Review by Pierre Scize.
10.5—Concert (contd.). Third Symphony—the Eroica (Beethoven).
11.0—Programme Notes.

PRAGUE

638 kc/s (470.2 m.); 120 kW. Transmits at intervals from 6.0 a.m.
5.40 p.m. — Pfte. Sonata (Vrانا) played by the Composer.
6.5—For Farmers.
6.10—For Workers.
6.20—Police Band.
7.0—Time; News; Topical.
7.25—"Summer in Czechoslovakia"—Folklore.
8.15—Light Music from Moravská-Ostrava.
9.5—Talk: Yugoslavia's National Day.
9.20—See Brno.
9.55—Local News.
10.0—Time; News; Sports.
10.15-11.0—Dance Records from Moravská-Ostrava.

RADIO EIREANN

565 kc/s (531 m.); 100 kW. Dublin, etc. See Sunday.
1.30 p.m.—Records.
2.30-3.0—For Schools.
5.30—Among the Children.
6.0—Talk: Pickling and Botting.
6.15—Light Classical Music by Madame Van Aalst's Trio.
6.45—News.

7.0—Irish Radio Orchestra, Conductor: Lieut. D. P. O'Hara.
7.20—A Sailor's Log.
7.35—The Great Song Cycles; No. 1, "Dichterliebe" (Schumann) by Joseph O'Neill.
8.5—A Louis XIV Programme in Irish—Murt O'Dubhghail.
8.50—Pfte. Concerto in C minor (Beethoven) by Estelle Wine and the Irish Radio Orchestra, Conductor: Lieut. D. P. O'Hara.
9.20 — Nuacht an Lae—A Gaelic News Broadcast.
9.30—Variety.
10.30-11.0 — News; National Anthem.

RADIO-MEDITERRANÉE

1,276 kc/s (235.1 m.); 27 kW. Transmits at intervals from 12.15 p.m.
7.0 p.m.—Musette Ensemble.
7.15—Talk; Light Music.
7.45—Variety.
8.15—Talk.
8.20—News; Exchange.
8.30—Humorous Items.
9.5—Weather Report.
9.10—Request Programme.
10.0—Radio Journal.
10.15—Dance Music.

RADIO-NORMANDIE

1,411 kc/s (212.6 m.); 15 kW. 6.25 a.m.—Nous vieux pompiers (Dior).
6.30—Press Review.
6.40—Light Music.
7.0 — Swing Something in the Morning.
7.15—Time; Sparkling Melody.
7.45—Physical Exercises.
8.0—Music in the Morning.
8.15—Time; Tunes you might like to hear—Donald Watt.
8.30—News.
8.40—Your Message from the Stars.
8.45—Happy Families.
9.0—Time; The Open Road.
9.15—Play your Way to Happiness with Arthur Young (Pfte.).
9.30—Tunes of To-day.
9.45—Hutch—Romantic Singer.
10.0—Time; Light Music.
10.30—The Musical Mirror.
10.45—A Hill-Billy Round-Up.
11.0—Time; The Songs we know them by.
11.15—Radio Normandie Concert Hall.
11.30—Orchestra.
12.0 noon—Concert.
12.20 p.m.—News; Amusements.
12.45—Concert (contd.).
12.0—Miniature Matinée.
2.30—Sunshine Serenade.
2.45—Cinema Organ.
3.0—Time; Theatreland Memories.
3.30—Request Music.
4.0—Time; Pleasant Quarter-Hour.
4.15—A Hobby and some Harmony —For Stamp Collectors.
4.30—Advance Film News; Music.
4.45—Band Parade; at 5.0—Time.
5.15—For Boys and Girls.
5.30—Czechoslovak Picture Book.
5.45—Winners—Tunes to make you whistle and Songs to make you smile.
6.0—Markets.
6.5—Children's Corner.
6.45—Talk; Light Music.
7.30—News; Sound News.
8.0—Variety.
8.40—Records of Ray Ventura.
9.0 — Opera Music, Selection, "The Maid of the Black Forest" (Jessel), and "Rose Marie" (Friml). Offenbachiana (Conrad Daebnitz). Selection, "Au temps des merveilles" (Christiné-Richepin).
9.30—Dance Music.
10.30—Light Music.
11.0—Café Concert; at 11.30—Talk; Romania.
12.0 m't.—Melody at Midnight.
12.30-1.0 a.m. (Tuesday)—Time; Dance Music.

RENNES-BRETAGNE

1,040 kc/s (288.5 m.); 120 kW. Transmits at intervals from 6.30 a.m.
6.45 p.m.—News in English.
7.0—Radio Journal.
7.30—To be announced.
8.0—News; Records.
8.10—Shipping Review.
8.30—"Gal, marions-nous"—Play (Germaine Acremant). After the Play, News; Music.

REYKJAVIK

208 kc/s (1,442 m.); 100 kW. Transmits at intervals from 12.0 noon.
9.10 p.m. — Weather (Icelandic, German, English).
9.20—Marches.
9.40—News; Foreign Affairs.
10.15—Reading.

MONDAY (September 5)

10.40—Songs.
11.0—Popular Music by the Radio Orchestra.
11.30—Cello Recital.

ROME GROUP

Rome (No. 1), 713 kc/s (420.8 m.); 120 kW. Bari (No. 1), etc. See Sunday.
Transmits at intervals from 7.45 a.m.
5.0 p.m.—News.
5.15—Malanotte (Violin).
5.55-6.5—Poems.
7.0-7.20—Talk in French.
7.30—Light Orchestral.
8.0—Time; News; Music.
8.30 (Palermo and Naples No. 2 only)—Light Music.
9.0—Talk: The Italian Language.
9.10—"Don Gill dalle calze verdi" (Carabella).
11.0—News; Weather.
11.15-11.55—Dance Music.

SAARBRÜCKEN

1,249 kc/s (240.2 m.); 17 kW. Relayed by Kaiserslautern, 1,429 kc/s (209.9 m.).
Transmits at intervals from 6.0 a.m.
12.0 noon—See Hamburg.
2.0 p.m.—News.
2.15-3.0—See Berlin.
3.30-5.45—See Munich.
5.45—Book Review.
6.0—Music from Berlin.
7.0—Records: Light Music.
7.30—Topical Review; News.
8.10—Johann Strauss Music—Saarbrücken Municipal Theatre Chorus, Station Orchestra, etc.
10.0—Time; News; Topical.
10.20—Report from Paris (Recorded): Finals of the European Athletics Championships.
10.45—"Cello Sonata in E minor (Brahms).
11.15—Serenade.
12.0 m't.—3.0 a.m. (Tuesday)—See Cologne.

SOTTENS

677 kc/s (443.1 m.); 100 kW. Relayed by Geneva, 401 kc/s (748 m.).
12.30 p.m.-12.45 p.m.—News; Weather; Records.

5.0—See Beromünster.
6.0-9.15—From Geneva.
6.0—Records.
6.50-7.5—Music Talk.
7.15—Micro-Magazine.
7.50—News; Weather.
8.0—Light Music. Radio-Geneva Ensemble. Conductor: Pasche. Mime Blanc-Audra (Songs).
8.55—For Optimists.
9.15-10.30—See Beromünster.
10.30-11.0 (from Geneva)—League of Nations Report.

STOCKHOLM

704 kc/s (426.1 m.); 55 kW. Motala, etc. See Sunday.
Transmits at intervals from 7.45 a.m.
5.5 p.m.—Sahlberg (Songs) and Olle Johnny and Jack Gill (Accordions).
5.45—Reading (Ludvig Nordström).
6.0—Records.
6.30—Report from Paris: The European Light Athletics Championships.
7.0—News; Weather; Topical.
7.30—Talk: The Autumn Elections.
8.10—Navy Band from Skansen. Conductor: Widner. Polonaise (Stuart). Swedish Fantasia (Ek). Crescendo (Lasson). May Carnival in Stockholm (Peterson-Berger). Selection, "Der Obersteiger" (Zeller). London Suite (Coates). March (Widner).
9.10—Talk.
9.30—Stenhammar and Sjögren Music by Brundin (Songs) and Ebert (Pfte.). Theme and Variations (Sjögren). Four Stockholm Songs (Stenhammar). Excerpts, Pa vandrings (Sjögren).
10.0—News; Weather.
10.15-11.0 (from Göteborg)—Liseberg Orchestra. Conductor: Schwarz. Waltz (Eysler). Overture, Czokonyai (Kéler-Béla). Spring Suite (Nevin). Potpourri (Lindemann).

STRASBOURG

859 kc/s (349.2 m.); 100 kW.
Transmits at intervals from 6.30 a.m.
4.0 p.m.—Viennese Music—Station Orchestra. Conductor: Bour.

Overture, "Poet and Peasant" (Suppé). Waltz (Stolz). Selection, "White Horse Inn" (Stolz-Benatzky). Caprice viennois (Kreislér). Ballet, "Ritter Pasman" (Strauss).
5.0—Orchestra from Montpellier (PTT).
5.45—Talk: French Provinces.
6.0—Economic and Social Notes.
6.30-7.0—See Paris (PTT).
7.0—News; Records.
8.0—News (German, French).
8.30—Station Jazz Band.
9.0—One-Act Plays by Le Groupe d'Art Social: (a) "Au Pont Kerlo"—Idyll in Verse (Beaufils), (b) "Commission 10 per cent" (d'Hervilliez), (c) "Trois mariages" (de Mackiels).
10.30—News (French, German).

STUTT GART

574 kc/s (522.6 m.); 100 kW.
Transmits at intervals from 5.45 a.m.
12.0 noon-2.0 p.m.—See Leipzig.
2.0-3.0—Opera Records.
4.0—Baden Orchestra.
6.0—Records: Light Music.
6.30—Topical Review.
7.0—Mannheim Orchestra.
8.0—News.
8.10—"Schmiedgesell Adam Urbein"—Play (Pacyna-Elwenspoek).
9.0—Records.
10.0—Time; News; Sports.
10.30—Vivaldi Chamber Music (Ludwigsburg Castle Concert Recordings). Concerto in D for Viola d'amore, Harpsichord and Strings. Arias, "Der relicionische Musenlust."
10.50—Serenade.
12.0 m't.—See Frankfurt.
2.0-3.0 a.m. (Tuesday)—Serenade from Cologne.

LAST NEWS BULLETINS (daily, but subject to slight alterations)

9.30 Bucharest; 9.40, Oslo; 10.0 German stations, Prague, Stockholm; 10.25, Beromünster; 10.30, Brussels, Radio Eireann, Paris (PTT); 10.45, Radio-Paris; 11.0 Italian stations, Warsaw; 12.5, Budapest.

TOULOUSE (Radio-Toulouse)

913 kc/s (328.6 m.); 60 kW.
Transmits at intervals from 8.0 a.m.
6.0 p.m.—News.
6.15—Operetta Songs.
6.40—Musette Orchestra.
6.55—News; Sports.
7.0—Musical Comedy Music.
7.15—Bal Champêtre.
7.45—Tangos; News.
8.0—Variety; Talk.
8.45—Viennese Music; Talk.
9.15—Argentine Music.
9.30—Orchestra.
10.0—News; Records.
10.30—Request Programme.
11.0—Light Music.
12.0 m't.—News.

TURIN GROUP

Turin (No. 1), 1,140 kc/s (263.2 m.); 7 kW. Milan (No. 1), etc. See Sunday.
Transmits at intervals from 7.45 a.m.
5.0 p.m.—News.
5.15-5.50—Dance Music.
7.19 (Rome (No. 2) only)—News in English.
7.30-8.30—See Rome Group.
8.30—Records; at 8.36—Milan (No. 1), Rome (No. 2) and Bolzano)—News and Italian Lesson in German.
9.0—See Rome Group.
10.0—Modern Songs.
9.30—The International Festival of Contemporary Music at Venice: Symphony Concert. Conductor: Dimitri Mitropoulos; Antenore Reali (Baritone), Joseph Brinkman (Pfte.). Concerto grosso in C (Pilate). Bachiana brasileira (Villa Lobos). Baritone and Orchestra: 87th Psalm (Desderi). Pfte. Concerto (Sowerby). Sonata for Orchestra (Giuseppe Rosati).
11.15 (approx.)—News.
11.30-11.55—Dance Music.

VIENNA

592 kc/s (506.8 m.); 100 kW. Graz, etc. See Sunday.
Transmits at intervals from 6.0 a.m.
12.0 noon—See Hamburg.
2.0 p.m.—News; Records.
3.30—See Munich.
4.30—Station Orchestra. Conductor: Sandauer. Horak ("Cello").
6.0—See Munich.

6.20—Folk-Songs and Music by the Kothmühl and Wolfing Vocal Quartets, the Enns Choir, a Peasant Band and Hans Brandl (Dialect Stories).
7.0—Ilse Rodzinski (Pfte.). Variations on a Transylvanian Folk-Song (Richter). Adagio and Scherzo, in F minor (Camillo Horn). Intermezzo and Fughetta (Neugeboren).
7.30—Topical Reports; News.
8.10—Light Music—Station Orchestra. Conductor: Schönherr.
10.0—News.
10.20—Report from Paris (Recorded): Finals of the European Light Athletics Championships.
10.45—Serenade.
12.0 m't.—3.0 a.m. (Tuesday)—See Cologne.

WARSAW

224 kc/s (1,339 m.); 120 kW. Cracow, etc. See Sunday.
Transmits at intervals from 6.15 a.m.
4.0 p.m.—Italian Music—Wilno Station Orchestra. Conductor: Szczepanski. Dance (Billi). Goldoniani (Bossi). Suite, Dans la forêt enchantée (Poldini). In sogno (Catalani). Serenade and March (Florida). Madrigal for Nanette (Perelli). Amor amor (Visca).
4.45—Reading.
5.0—Dance Music by the Rynas Ensemble from the Radio Exhibition. In the interval, Programme Notes.
6.0—Sports Talk.
6.10—Light Music.
7.20—Topical Talk.
7.30 (from Lodz)—"Fairy Tales"—Orchestra. Conductor: Nagujewski; Vocal Quartet, etc. The Magic Book (Englemann). Vocal Quartet: Three Fairy Tales (arr. Lubowski). In a Fairy Realm (Ketelbey). Pfte. Pieces. In the Land of Make-Believe (Tapp). In the interval, Reading.
8.45—News; Topical Talk.
9.0—For Country Housewives.
9.10—Concert from the Radio Exhibition. Zielinska Guitar Trio, Demar-Mikuszewski and Kitajewicz (Songs) and Zynski and Rapacki (Pftes.).
9.50—Sports Notes.
10.0—Handel Records.
11.0-11.15—News; Weather.

TUESDAY Sept. 6

National For Time Signals, see Monday.
10.15 a.m. (D)—Service.
10.30 (D)—Weather Forecast.
10.45—"Substitutes for Holidays," by a Harley Street physician.
11.0—Chamber Music: Blech String Quartet. 12.0—Records.
12.15 p.m.—"Clothes and the Man." 12.45—The Five Microtones.
12.55—Serial Reading from "The Old Wives' Tale" by Arnold Bennett. 1.15—New records.
2.0—BBC Welsh Orchestra: Margaret Wilkinson (Soprano).
3.0—Records.
3.45—Troise and his Manodliers, with Don Carlos. 4.15—Records.
4.30—"The Day and the Tune." records. 5.0—Records.
5.30—The Alcor Trio.
6.0—The First News.
6.30—BBC Orchestra (Section C), conducted by Trevor Harvey.
7.20—Quentin Maclean (Cinema Organ).
7.45—Selections from "Band Waggon."
8.30—An Evening on the Isle of Man. 9.30—Records.
9.40—The Third News.
10.5—Radio album of recorded American folk song.
10.35—BBC Theatre Orchestra.
11.15—Joe Loss's Band.
11.30-12.0—Dance records.

London Regional

For Time Signals, see Monday.
10.15-10.45 a.m.—National.
10.45—Rothwell Temperance Band.
11.30—Tom Jenkins (Cinema Organ). 12.15 p.m.—Records.
12.55—Jack Hill's Music.
1.15—Robert Edwards (Pfte.).
2.0—Courtney Hope in character studies from life. 2.15—Records.
3.0—Torquay Municipal Orchestra, conducted by Haydn Wood and Ernest W. Goss; Mary Hamlin (Soprano).
4.0—"The Three Infernal Jokes," short story by Lord Dunsany.
4.30—Tommy Kinsman's Band.

5.0—The Children's Hour.
6.0—Music from Montevideo: Mischa Jessel (Pfte.); Oscar Chiolo and Enrique Sebastiani (Violin); Florencio Mora (Viola); Victor Guaglianone ("Cello").
6.30—BBC Military Band.
7.20—For Regional Farmers.
7.30—The Second News.
8.0—From the Promenade Concert at Queen's Hall, London: Jelly D'Aranyl (Violin); BBC Symphony Orchestra, conducted by Sir Henry Wood; Schumann—Overture, Manfred; Violin concerto in D minor.
8.50—"Homeless People."
9.30—Variety.
9.45—Promenade Concert, Part 2 (See 8.0). Maurice Cole (Pfte.); BBC Symphony Orchestra, conducted by Sir Henry Wood; Pfte. concerto in A minor (Schumann); Military March, in D (Schubert).
10.35—Joe Loss's Band.
11.30—Records.
11.50-12.0—Late News Summary.

Midland

10.15 a.m.-5.0 p.m.—Regional.
5.0—The Children's Hour.
6.0—Regional.
6.30—The Swadincote Glee Singers: Henry Bentley ("Cello"). 7.5—"Sweet Peas." J. W. Randall.
7.20—For Midland Farmers.
7.30—Regional.
9.45—Landmarks in English Music—Purcell, 1688; Marjorie Westbrook (Soprano); Webster Booth (Tenor); Margaret Ablethorpe (Pfte.); BBC Midland Singers and Orchestra, conducted by Leslie Heward.
10.35-12.0—Regional.

Northern

10.15 a.m.-4.0 p.m.—Regional.
4.0—Evensong from York Minster.
4.45—Regional.
5.0—The Children's Hour.
6.0—Regional.
6.30—Conrad W. Eden (Organ).
7.0—"Us." The Telephone Trio.

7.20—For Northern Farmers.
7.30—Regional.
9.30—"Scawfell." A. B. Hargreaves. 9.45-12.0—Regional.

Western

10.45 a.m.-5.0 p.m.—National.
5.0—The Children's Hour.
6.0—Peggy Weber (Cinema Organ).
6.30—Regional.
7.20—Western Announcements.
7.30—Regional.
9.45—Agricultural Bee: Devon v. Cornwall.
10.20-10.35—Maurice Hardy ("Cello").

Welsh

10.15 a.m.—Welsh Service.
10.30-5.0 p.m.—Regional.
5.0—The Children's Hour.
6.0—Regional.
6.30—Welsh Regional Trio.
7.0—Welsh News.
7.30—Regional.
8.50—Ivor Walters (Clarinet); T. D. Jones (Pfte.).
9.15—Programme by new artists.
9.45-12.0—Regional.

N. Ireland

10.15 a.m.-5.0 p.m.—Regional.
5.0—The Children's Hour.
6.0—Regional.
7.20—N. Ireland News.
7.30—Regional.
9.30—BBC N. Ireland Orchestra.
10.15—Hymn Recital.
10.35-12.0—Regional.

Scottish

10.15 a.m.-2.15 p.m.—Regional.
2.15—Herring Fishing Bulletin.
2.20-5.0—Regional.
5.0—The Children's Hour.
6.0—Regional.
6.30—Allan Kennedy (Cinema Organ).
6.45—"One Man in his Time," miscellany in Scots verse and song of the seven ages of man.
7.20—Scottish Announcements.
7.30—Regional.
8.50—Gaelic Concert: Margaret B. Macpherson (Soprano); Allan MacRitchie (Tenor); Edith Caunce (Clarsach).
9.20—"Out of the Blue," musical show. 9.45—Regional.
10.35—Scottish News Summary.
10.50-12.0—Regional.

Hours of Transmission in British Summer Time.

BERLIN

841 kc/s (356.7 m.); 100 kW.
Transmits at intervals from 6.0 a.m.
11.30 a.m.—See Munich.
1.30 p.m.—Records.
2.0—News.
2.15—Libiszowski Band.
3.15—Exchange; Markets.
3.30—Hans Busch Band and Paul Reich Accordion Duo.
5.0—See Königsberg.
6.30—"The Monthly Almanac" (Eich) Music by Knauer.
7.0—German Opera Records.
8.0—See Munich.
10.0—News; Sports.
10.30—See Hamburg.
12.0 m't.—3.0 a.m. (Wednesday)—See Vienna.

BEROMÜNSTER

556 kc/s (539.6 m.); 100 kW. Relayed by Basle and Berne, 1,375 kc/s (218.2 m.).
12.0 noon—Weather; Records.
12.29 p.m.—Time; News; Exchange.
12.30-1.45—Records.
4.30—Chinese Fairy Tales.
5.0-6.0—See Sottens.
6.0-7.25—From Berne.
6.0—Weather; Ravel Music.
6.30—Talk: Criminal Psychology; Records.
7.0—Time; Labour Exchange.
7.15—André Briquez (Songs), from Geneva.
7.25—League of Nations Report.
7.40 till Close—From Berne.
7.45—Announcements; News.
7.55—Music Talk.
8.15—Concert from Berne Minster.
9.5—"Stunde des Erkennens"—Play (Schmitzler).
9.40—Folk Songs.
10.0—Radio Orchestra.
10.25-10.30—To-morrow's Programme.

BRATISLAVA

1,004 kc/s (298.8 m.); 13.5 kW.
Transmits at intervals from 6.0 a.m.
6.0 p.m.—Hungarian Transmission: Talks; Pfte.
6.45—News in German.
7.0-10.15—See Prague.
10.15—News in Hungarian.
10.30-11.0—Records.

BRESLAU

950 kc/s (315.8 m.); 100 kW. Relayed by Gleiwitz and Görlitz, 1,231 kc/s (243.7 m.).
Transmits at intervals from 5.0 a.m.
11.30 a.m.—See Munich.
1.30 p.m.—Time; News; Records.
2.0—News; Exchange.
2.15-3.0—See Hamburg.
3.30—Songs of the Waterkant.
4.0—See Munich.
5.0—Records.
5.10—Music from Leipzig.
6.0—Talk: Spain's Great Poets.
6.20—Reading.
6.35—Talk: By Car through Further India.
6.55—Tomorrow's Programmes.
7.0—Folk Music, Choir, Mandoline Quartet and Accordion.
8.0—See Munich.
10.0—News.
10.30—See Hamburg.
12.0 m't.—3.0 a.m. (Wednesday)—See Vienna.

BRNO

922 kc/s (325.4 m.); 32 kW.
Transmits at intervals from 6.0 a.m.
6.0 p.m.—German Talks.
6.35—Tanoutroff (Guitar).
6.45—News in German.
7.0—See Prague.
7.25—Moravian Folk Songs (Novak) by M. Vojtková (Soprano).
7.40-11.0—See Prague.

BRUSSELS (No. 1)

620 kc/s (483.9 m.); 15 kW.
6.30-9.5 a.m.—Records; Gym; News.
12.0 noon—Records.
12.30 p.m.—Weather; Shipping.
12.35 (approx.)—Preludes and Overtures by the Radio Orchestra; at 1.0-1.10—News.
1.30—Records; Art Notes.
4.55—News.
5.0—Violin Sonata (Franck).
5.30—For Children.
6.5—Talk: The Spoiled Child.
6.15—Schubert Records.
6.30—Records for Invalids.
7.0—Roman Catholic Review; Film Notes.
7.15—"Anna Pavlova et la Mort du Cygne"—Sequence (Reynaldo Hahn), with Adam and Saint-Saëns Music.
7.30—News.
8.0—Reconstruction of a Première in the reign of Louis XV: "Le

Déserteur" (Messiaen) at the Théâtre des Italiens (1769). I.N.R. Orchestra and Choir. Conductor: Souris, Cast: Mmes De Gavre, Essler, Derval, MM. Alain, Letroye, Toutenel, Rubeau, Jonau, Mauville.

BRUSSELS (No. 2) 932 kc/s (321.9 m.); 15 kW. Programme in Flemish.

12.00 noon—Records. 12.30 p.m.—Radio Orchestra. 1.0—News; Shipping. 1.10—Ganne Music. 1.30-2.0—Records.

BUCHAREST 823 kc/s (364.5 m.); 12 kW. Relayed by Radio-Romania, 160 kc/s (1,875 m.).

6.0 p.m.—Time; Letter-box. 6.17—Handel Records. 7.25—Mme Eugenie Lizezaskaja (Russian Songs).

BUDAPEST 546 kc/s (549.5 m.); 120 kW. Transmits at intervals from 6.45 a.m.

12.40—News. 1.0—Records. 2.35—News. 4.10—For Housewives. 4.45—News. 5.0—Pál Rátz-Tarlosi Cigány Band.

COLOGNE 658 kc/s (455.9 m.); 100 kW. Transmits at intervals from 6.0 a.m.

2.0—News; Light Music; Talk. 3.15—Light Music and Riddles. 4.0—"Before the Curtain Rises"—Station Orchestra.

DEUTSCHLANDSENDER 191 kc/s (1,571 m.); 60 kW. Transmits at intervals from 5.0 a.m.

12.00 noon—Dobrinđt Orchestra; at 1.0 p.m.—Greetings. 1.45—News. 2.0—Jäger Band and Records.

FRANKFURT 1,195 kc/s (251 m.); 25 kW. Cassel, etc. See Sunday.

1.195 kc/s (251 m.); 25 kW. Cassel, etc. See Sunday. Transmits at intervals from 5.0 a.m.

HAMBURG 904 kc/s (331.9 m.); 100 kW. Bremen, etc. See Sunday.

904 kc/s (331.9 m.); 100 kW. Bremen, etc. See Sunday. Transmits at intervals from 5.45 a.m.

HILVERSUM (No. 1) 160 kc/s (1,875 m.); 10 kW. until 5.40 p.m.; 150 kW from 5.40 p.m.

160 kc/s (1,875 m.); 10 kW. until 5.40 p.m.; 150 kW from 5.40 p.m. The Dutch Royal Anniversary.

Amstelveen, from the Vondel Park, Amsterdam.

9.25—Service. 9.40—Sacred Music. "Excelsior" Royal-Choir and an Orchestra.

1.10—Folk Songs by a Children's Choir. Conductor: Hamel.

1.10—Folk Songs by a Children's Choir. Conductor: Hamel. 1.30—Marches and Dances—KRO Orchestra.

6.10—Concert. Conductor: Holzer. Johan Lammen (Bass). 6.40—"The King-Stattholder"—Historical Play (Gevversman) with Music.

7.50—"The Voice of South Africa." South African National Anthem; Addresses by the Prime Minister Dr. Colijn, and by the Minister for Foreign Affairs, Dr. Patijn.

HILVERSUM (No. 2) 995 kc/s (301.5 m.); 10 kW until 5.40 p.m.; 60 kW from 5.40 p.m.

KALUNDBORG 240 kc/s (1,250 m.); 60 kW. Relays Copenhagen 1,176 kc/s (255.1 m.).

2.40—Old English Songs (arr. Lane Wilson) by Inge Michélsen. Phyllis has such charming graces. The sweet little girl that I love.

8.10—Scandinavian Music Festival from the Oddfellows' Palace—Sweden. Radio Symphony Orchestra.

TUESDAY (September 6)

Prologue, "Marionettes" (Hilding Rosenberg) Partita (de Frumerie) Pfte. and Orchestra: Rhapsody (Liljefors). Passacaglia, "The Princess of Cyprus" (Lars-Erik Larsson).

10.20—Thune Stephensen (Danish Songs). Songs, "Sulamith og Salomon" (Bartholdy). Three Songs (Lange-Müller).

KÖNIGSBERG (Heilsberg) 1,031 kc/s (291 m.); 100 kW. Relayed by Danzig, 1,303 kc/s (230.2 m.).

11.30 a.m.—First Solemn Session of the Reich Party Congress in the Kongresshalle—Reading of the Führer's Proclamation.

LEIPZIG 785 kc/s (382.2 m.); 120 kW. Relayed by Dresden, 1,285 kc/s (233.5 m.).

1.30 p.m.—Records. 2.0—Time; News; Exchange. 2.15 (approx.)—Records.

LILLE (Radio PTT Nord) 1,213 kc/s (247.3 m.); 60 kW. Transmits at intervals from 6.30 a.m.

MONTE CENERI 1,167 kc/s (257.1 m.); 15 kW. Transmits at intervals from 12.00 noon.

8.15—"September, 1838, in Retrospect"—Sequence (Trecroci). 8.35—"White Horse Inn"—Revue (Schwarz).

MOSCOW 172 kc/s (1,744 m.); 500 kW. and 300 kc/s (1,000 m.); 100 kW.

7.00—News; Kremlin Chimes. 10.0 p.m.—1.0 a.m. (Wednesday): 1,744 m. only.

MUNICH 740 kc/s (405.4 m.); 100 kW. Relayed by Nürnberg, 1,267 kc/s (236.8 m.).

11.30 a.m.—First Solemn Session of the Reich Party Congress in the Kongresshalle—Reading of the Führer's Proclamation.

2.0—News; Exchange. 2.15—See Hamburg. 3.0-3.30—For Children.

7.0—Station Orchestra. Conductor: Mihalovic. Overture, "Das Fest der Infantin" (Gebhardt). Minuet (Zanella). Excerpts, "Si j'étais roi" (Adam).

7.0—Station Orchestra. Conductor: Mihalovic. Overture, "Das Fest der Infantin" (Gebhardt). Minuet (Zanella). Excerpts, "Si j'étais roi" (Adam).

8.0—Reich Party Congress: National Culture Session in the Opera House. Award of Cultural Prizes.

NAPLES GROUP Naples (No. 1), 1,104 kc/s (271.7 m.); 10 kW. Florence (No. 1), etc. See Sunday.

9.15—Light Orchestra. The Forest Gnome (Pachernegg). Song (Chopin). Waltz (Lincke). Canta la bella isola (Fiaccone). Drinking Songs (Rhode). Serenade (Widor).

OSLO 260 kc/s (1,153.8 m.); 60 kW. Fredrikstad, etc. See Sunday.

8.35—For Farmers. 9.0—Part of the Scandinavian Music Festival from Kalundborg.

PARIS (Eiffel Tower) 1,456 kc/s (206 m.); 7 kW. Transmits at intervals from 6.30 a.m.

8.30 (also for Bordeaux-Lafayette and Montpelier (PTT))—National Orchestra. Conductor: Rosenthal. Hélène Pignani and Passani (Pftes.). Concerto for Two Pftes. and Orchestra.

TUESDAY (September 6)

PARIS (Poste Parisien)

959 kc/s (312.8 m.); 60 kW. Transmits at intervals from 6.28 a.m. 6.0 p.m.—News; Exchange. 6.10—Religious Programme. 6.20—Records (Saint-Saëns, Albeniz). 6.50—Talk; Racing; Sports. 7.10—Amusements; Records. 8.0—Topical. 8.10—"Love in Song" (Paul Reboux), with Germaine Lix and René Héreut. 8.43—Records. 9.0—"Les fous du logis"—Play (Méry-Moutou). 10.0—News; Records. 10.30—Cabaret. 11.0—News.

PARIS (PTT)

695 kc/s (431.7 m.); 120 kW. Transmits at intervals from 6.30 a.m. 5.0 p.m.—Records; at 5.15—Gilbert-Morin (Songs). 6.0—For Farmers; Talk. 6.30—Mme Clavius-Marius (Pfte.). Waltzes (Beethoven). Three Waltzes (Chopin). Waltz in C sharp (Brahms). 6.45—Leila Ben Sédira (Songs). (Purcell, Schubert, de la Presle, Poulenc). 7.0—Radio Journal; News. 8.0—Mlle Tant Mieux and M Tant Pis. 8.30—Concert from Marseilles (PTT). 10.30—Radio Journal; News. 10.45—Records.

PARIS (Radio-Paris)

182 kc/s (1,648 m.); 80 kW. 6.28 a.m.—Programme Notes. 6.30—Time; News; Records. 6.50—Gym and Records. 8.29-9.7—Time; News; Records. 9.45—Programmes; Records. 10.45—Reading; Records. 11.45—Exchange; Markets. 12.0 noon—Jewish Talk. 12.20 p.m.—Bailli Orchestra. 1.0—Time; News; Exchange. 1.30—Bailli Orchestra. 2.0—Programmes; Talks. 2.30—Exchange; Records. 3.45—Exchange; Markets. 4.0—Mme Piette (Songs); Records. 4.30—Reading; Talk. 4.50—Exchange; Markets. 5.0—Derveaux Orchestra. Overture, "William Tell" (Rossini). Waltz Suite (Métrá). Chant sans paroles (Tchaikovsky). Irish Folk Melodies (O'Donnell). Si j'étais jardiner (Chaminade). Ballet, "Le Cid" (Massenet). Selection, "The Drum Major's Daughter" (Offenbach). 6.0—Classical Records. 6.30—Racing; For Ex-Servicemen. 6.47—Dietetics; Programmes. 7.0—Sonata (Ravel), by Yvonne Astruc (Violin) and Doyen (Pfte.). 7.30—Talk; For Workers. 7.59—Time; Home Affairs. 8.8—Foreign Affairs. 8.15—André Pascal (Violin), Ida Perin (Pfte.), Chastenat (Songs). Violin Sonata (Franck). Songs (Rabey, Koechlin, Fauré, Thivars). Pfte.: (a) Sonata in G (Mozart), (b) Des vers luisants dans les cheveux de ma mie (William), (c) Third Improvment (Fauré), (d) The Flight of the Bumble Bee (Rimsky-Korsakov). 9.15—News; Press Review. 9.30—"La naissance de Tristan"—Play in Verse about Wagner (Delacquys); at 10.45—Time; News; Sports. 11.30—To-morrow's Programmes.

PRAGUE

638 kc/s (470.2 m.); 120 kW. Transmits at intervals from 6.0 a.m. 5.0 p.m.—Orchestra from Kosice. 5.40—Milka Pacovská (Violin). 6.0—Markets; Talk. 6.20—Schrammel Ensemble. 7.0—Time; News; Topical. 7.25—Yugoslav Composers—Conservatoire Male Voice Choir. 7.40—A Yugoslav Play. 9.10—Station Orchestra. Conductor: Parik; Schwarz (French Horn). French Horn Concerto (Mozart). Hunting Symphony (Vranicky). 10.0—Time; News. 10.15—Records. 11.0-11.15—News in English.

RADIO EIREANN

564 kc/s (531 m.); 100 kW. Dublin, etc. See Sunday. 1.30 p.m.—Records. 2.30-3.0—For Schools. 5.30—Talk; Renovating Furs.

5.45—One Theme—Two Composers. Danse macabre (Saint-Saëns). Totentanz (Liszt). 6.10—Discussion in Irish between Tomas O'Hoigain and Baire Ni Chonnaire; Ganntanas Grinn. 6.25—Irish Radio Orchestra. Conductor: Lieut. D. P. O'Hara. 6.45—News. 7.0—Northern Monologues by William the Weaver. 7.15—Irish Radio Orchestra. Conductor: Lieut. D. P. O'Hara, Margaret Roux (Soprano). 8.5—Tales from a Tailor's Shop—Philip Callan and Frank Cassery. 8.20—"Tannhäuser" (Wagner), from the Unitarian Church, Stephen's Green, Dublin. Compère: Rev. E. Savell Hicks. 9.20—Nuacht an Lae—A Gaelic News Broadcast. 9.30—Variety. 10.30—News; National Anthem.



Exclusive "World-Radio" Picture M. René Héreut, one of the Poste Parisien singers at 8.10 p.m.

RADIO-MÉDITERRANÉE

1,276 kc/s (235.1 m.); 27 kW. Transmits at intervals from 12.15 p.m. 7.0 p.m.—For Farmers. 7.15—Dance Music. 7.30—Moring Notes. 7.45—Request Programme. 8.0—Talk. 8.10—News; Exchange. 8.15—"Paris tout entier" (Zimmermann-Groffe). 8.30—Songs. 9.5—Weather Report. 9.10—Classical Concert from the Casino, Monte Carlo. Conductor: Marc César Scotto; at 10.0-10.15—Radio Journal.

RADIO-NORMANDIE

1,411 kc/s (212.6 m.); 15 kW. 6.25 a.m.—Nos vieux pommiers (Dior). 6.30—Press Review; Music. 7.0—Radio Reveille; at 7.15—Time; at 7.30—Time; Weather. 7.45—Physical Exercises. 8.0—Reminiscing with Charlie Kunz. Compère: Maurice Denham. 8.15—Time; Light Fare. 8.30—News. 8.40—Your Message from the Stars. 8.45—The Open Road. 9.0—Time; Normandie Playbill—Announcements; Music. 9.15—Oliver Kimball. 9.30—Ann French; Music. 9.45—Waltz Time—Billy Bisset's Orchestra, Robert Ashley, Esther Coleman and the Waltz-Timers. 10.0—Time; One Good Tune deserves another. 10.30—Radio Favourites. 10.45—Fascinating Rhythm. 11.0—Time; The Songs we know them by. 11.15—Something for Everybody. 11.30—Chansonnettes. 12.0 noon—Concert; at 12.20 p.m.—News. 2.0—Advance Film News; Music. 2.15—Doubling the Notes. 2.30—Music and Mystery. 2.45—Coon Songs. 3.0—Time; Concert Hall. 3.15—Radio Sweethearts. 3.30—Request Music. 4.0—Time; Pleasant Quarter-Hour. 4.15—What's on; Music. 4.30—Tunes and Tea-Cups. 5.0—Time; Gems of Strauss. 5.15—For Boys and Girls. 5.30—Paul Oliver and Olive Palmer. 6.0—Children's Corner. 6.45—Talk; News; Racing.

7.0—Light Music. 7.30—News; Light Music. 8.20—Variety Items. 8.40—Excerpts, "Un de la Musique" (Roger Dumas - C. François), with Georges Milton. 8.55—Five Minutes in Portugal. 9.0—Records: Symphony in G—The Military (Haydn) by the Vienna Philharmonic. Conductor: Bruno Walter. 9.30—Chansonnettes. 10.0—Tomas and his Merry Boys. 10.45—Songs, Dances and French Marches. 11.0—Café Concert. 12.0 m't.—Melody at Midnight. 12.30-1.0 a.m. (Wednesday)—Time; Dance Music.

RENNES-BRETAGNE

1,040 kc/s (288.5 m.); 120 kW. Transmits at intervals from 6.30 a.m. 6.0 p.m.—Economic and Social Notes. 6.30-7.0—See Paris (PTT). 7.0—Radio Journal; Weather. 7.30—Concert from Limoges (PTT). 8.0—News; Notes; Records. 8.15—Talk. 8.30—Variety. 10.30—News; Concert.

REYKJAVIK

208 kc/s (1,442 m.); 100 kW. Transmits at intervals from 12.0 noon. 9.10 p.m.—Weather (Icelandic, German, English). 9.20—Operetta and Film Songs. 9.40—News; Foreign Affairs. 10.15—Reading. 10.40—Fifth Symphony (Beethoven). Third Symphony (Brahms).

ROME GROUP

Rome (No. 1), 713 kc/s (420.8 m.); 120 kW. Bari (No. 1), etc. See Sunday. Transmits at intervals from 7.45 a.m. 5.0 p.m.—News. 5.15-5.50—Dance Music. 7.0-7.20—Talk in English. 7.30—Light Music. 8.0—Time; News; Music. 8.30 (Palermo and Naples No. 2 only)—Light Music. 9.0—Concert. Conductor: Ferro. Overture, "La scala di seta" (Rossini). Prelude for Strings, Harp and Organ (Bach-Zanddonai). Serenade in G (Mozart). Puppazzetti (Casella). Excerpts, "I quattro rusteghi" (Wolff-Ferrari). Largo (Mülè). Italian Aria for Cello and Orchestra (Ferro). In the interval, Film Notes. After the Concert, Dance Music. 11.0—News. 11.15-11.55—Dance Music.

SAARBRÜCKEN

1,249 kc/s (240.2 m.); 17 kW. Relayed by Kaiserslautern, 1,429 kc/s (209.9 m.). Transmits at intervals from 6.0 a.m. 11.30 a.m.—See Munich. 1.30 p.m.—To be announced. 2.0—News. 2.15—See Hamburg. 3.0-3.30—Fairy Tales. 4.0—See Leipzig; at 5.0—Reading. 5.40—Book Review. 6.0—Folk-Music from Mannheim. A Palatinat Peasants Band, and Lindner (Harmonica). 7.0—Comrade, where are you? 7.45—Topical Mirror. 8.0—See Munich. 10.0—Time; News; Topical. 10.30—See Hamburg. 12.0 m't.-3.0 a.m. (Wednesday)—See Vienna.

SOTTENS

677 kc/s (443.1 m.); 100 kW. Relayed by Geneva, 401 kc/s (748 m.). 12.29 p.m.—Time; News. 12.40-1.45—Records. 5.0—Opera Music—Radio Suisse romande Orchestra. Conductor: Haug. Overture, "Si j'étais Roi" (Adam). Waltz, "Eugene Onegin" (Tchaikovsky). Selection, "Samson and Delilah" (Saint-Saëns). Polovtsian Dances (Borodin). Selection, "Madam Butterfly" (Puccini). 6.0—For Invalids. 6.15—Radio Suisse romande Orchestra. Conductor: Appia. Overture, "La princesse Jaune" (Saint-Saëns). Ballet Suite (Mozzkowsky). Fantaisie concertante for Double Bass and Pfte. (Chapuis). Ange d'amour (Waldteufel). Scherzo (Lalou). 6.50—Talk; Bees. 7.0—Bob and Bobette; Records. 7.30—Talk; Book Review. 7.50—News.

8.0—Mendelssohn Music—Radio Suisse romande Orchestra. Conductor: Haug. Overture, "Ruy Blas." Third Symphony in A minor. 8.45—"Nationale 6"—Five-Act Play (Bernard), by the Compagnie des Deux Masques. 10.30-11.0—Records.

STOCKHOLM

704 kc/s (426.1 m.); 55 kW. Motala, etc. See Sunday. Transmits at intervals from 7.45 a.m. 5.5 p.m.—For Children. 5.30—Reading: "Conseils à un jeune français partant pour l'Angleterre" (André Maurois). 6.0—Waldimir Orchestra. Spanish Gipsy Dance (Marquina). Morgenblätter (Strauss). Barcarolle (de Curtis). Dancing Dainties (Fryor). Spanish Waltz (Métrica). Friml Potpourri. Potpourri of Sailor Songs (Waldimir). The Gladiators' Farewell (Blanckenburg). 7.0—News; Weather; Topical. 7.30—Summer Cocktail, with Sonia Estelle, Margit Rudcrantz and Henry Freeman. 7.55—Report: Country Life. 8.10—Scandinavian Music Festival (for details, see Kalundborg). 10.0—News; Weather. 10.15-11.0—Records.

STRASBOURG

859 kc/s (349.2 m.); 100 kW. Transmits at intervals from 6.30 a.m. 4.0 p.m.—Light Orchestral, Conductor: de Villers. 5.0—Dance Records. 5.45—Talk; For Workers. 6.30-7.0—See Paris (PTT). 7.0—News. 7.30—Concert from Limoges (PTT). 8.0—News (German, French). 8.30—Station Orchestra. Conductor: Bour. March, Tout Strasbourg (Schneider). Waltz, Légendes d'Alsace (Witz). Jolie Nicoise (Gross). Illusion bercée (Gross). Le peintre et son modèle (Arnaud-Wytstraëte). 9.15—Georges Chopier in Songs of Montmartre and Lorraine. 10.0—"Les deux consultations"—One-Act Operetta (Schwab). Conductor: de Villers. 10.30—News (French, German).

STUTTGART

574 kc/s (522.6 m.); 100 kW. Transmits at intervals from 5.45 a.m. 12.0 noon—Baden Orchestra. 2.0-3.0 p.m.—Records. 4.0—See Leipzig. 6.0—Talks; Topical Review. 7.0—Records: Light Music. 8.0—News. 8.15—Station Orchestras, Choir, and Solo Voices. Overture, "Donna Diana" (Reznicek). Romance, "Tsar and Carpenter" (Lortzing). Aragonese and Aria, "Carmen" (Bizet). Czardas, "Coppelia" (Delibes). Aria, "La Gioconda" (Ponchielli). Mock Morris (Grainger). Excerpts, "Madame Butterfly" (Puccini). Triumphant March, "Aida" (Verdi). Gänseliesel (Rust). Russische Nacht (Hippmann). Song, "Der Prinz von Trapezunt" (Justmann). Nanna Nanna (de Micheli). Song (Sattler). Humoresque (Bortz). Tango (Innocenzi). Polka (Ritter). Duet, "Der Rastebinder" (Lehar). Episode (Igelhoff). March (Michalski). 10.0—Time; News. 10.30—Light Classical Music—Station Orchestra, Military Band. 12.0 m't.—Serenade. Part I. Hannefriedl Grether (Soprano) and a Chamber Orchestra, Suite (Reutter). Suite for Harpsichord (Sterkel). Aria (Telemann). Violin Concerto in B flat (Riepel). Quartet (Stamitz), Aria (Sacchini). Allegro (Sterkel). Part II. Mozart—Beethoven. Overture, "Così fan tutte" (Mozart). German Dance (Beethoven). Minuet in D minor (Mozart). Folk-Song Variations (Beethoven). Minuet in E flat (Mozart). Romance in G (Beethoven). Septet in E flat (Beethoven). 2.0-3.0 a.m. (Wednesday)—Music from Vienna.

8.30—Talk; Music. 8.45—Argentine Music; Talk. 9.15—Operetta Songs. 9.30—Selection, "The Merry Widow" (Lehar). 10.0—News. 10.15—Request Programme. 10.45—Film Music. 11.0—Light Music; Chansonnettes. 11.55-12.0 m't.—News.

TOULOUSE (Radio-Toulouse)

913 kc/s (328.6 m.); 60 kW. Transmits at intervals from 8.0 a.m. 6.0 p.m.—News; Sea Shanties. 6.40—Operetta Music. 6.55—News; Sports. 7.0—Dance Songs. 7.15—Musette Orchestra. 7.45—Light Music. 8.0—News; Waltzes.

TURIN GROUP

Turin (No. 1), 1,140 kc/s (263.2 m.); 7 kW. Milan (No. 1), etc. See Sunday. Transmits at intervals from 7.45 a.m. 5.0 p.m.—News. 5.15-5.50—Maria Giovanna Bocchi (Pfte.). 7.19 (Rome (No. 2) only)—News in English. 7.30-8.30—See Rome Group. 8.30—Light Music and Dance Music; at 8.36 (Milan (No. 1), Rome (No. 2) and Bolzano)—News and Talk in German. 9.0—"Bentornato"—One-Act Play (Falconi). 9.40 (approx.)—Serato (Violin), Lorenzi (Pfte.). Sonata in G (Beethoven). Violin: (a) Melody (Gluck), (b) Largo (Veracini), (c) Madrigal (Simonetti), (d) Rondino (Beethoven - Kreisler). Sonata in C minor (Grieg). 10.30 (approx.)—Dance Music. 11.0—News; Weather. 11.15-11.55—Dance Music.

VIENNA

592 kc/s (506.8 m.); 100 kW. Graz, etc. See Sunday. Transmits at intervals from 6.0 a.m. 11.30 a.m.—See Munich. 1.30 p.m.—Station Orchestra; at 2.0-2.10—News. 3.0—News. 3.30—Records of Marches. 4.0—See Munich. 5.0—Records. 5.10—Music from Leipzig. 6.0—Bruckbauer (Violin) and Mimi Haselberger (Pfte.). La Follia (Corelli). Valse caprice (Zsolff). Nocturne and Tarantella (Szymanowski). 6.30—Topical. 7.0—Viennese Music by the Hans Faltl Quartet. 7.45-10.0—See Munich. 10.0—News. 10.30—See Hamburg. 12.0 m't.-3.0 a.m. (Wednesday)—Serenade. Part I. Tonkünstler Orchestra. Conductor: Pehm. Overture; Nordische Sennfahrt (Gade). Symphony in E flat (Mozart). Kleine Ballettmusik (Hawranek). Three Orchestral Pieces (Andrass): (a) Frohe Tage, (b) Abschied, (c) Kriegsmarsch. March, "Fidelio" (Beethoven). Suite (Dvořák). Part II. Folk Music by the Hubert Zanoskar Players. Part III. Tonkünstler Orchestra. Conductor: Pehm. March, Salzburg voran (Sompke). Wiener Impressionen (Belcarhol). Riowalzer (Tanferl). Marcarolle (Tchaikovsky). Waltz (Suppe). Tanzmusik aus Alt Wien (Schönherr).

WARSAW

224 kc/s (1,339 m.); 120 kW. Cracow, etc. See Sunday. Transmits at intervals from 6.15 a.m. 4.0 p.m.—Concert from Lwów. Station Orchestra. Conductor: Serebyński. Krupa and Krzemieński (Violin and Banjo), Niemiecki (Songs). Polonaise (Marzec). Intermezzo (Macho). Songs. Hungarian Romance (Szirmai). Intermezzo (Marzec). Jazz Music for Violin and Banjo. Songs. Polka and Mazurkas (Marzec). 4.45—Reading. 5.0—Light and Dance Music by the Winowski - Wroblewski Ensemble from the Radio Exhibition. In the interval—Programmes. 6.0 (from Wilno)—For Bee-keepers. 6.10—Paganini and the Pianoforte—Kedra (Pfte.). Variations on a Paganini Theme (Brahms). Etudes in E flat major and G sharp minor (Paganini-Liszt). 6.45 (from Poznan)—Reading. 7.0 (from Cracow)—Quartet in F (Mozart) by Mikuszewski (Violin), Nierychlio (Oboe), Zarzycki (Viola) and Makowicz (Cello). 7.20—Topical Talk. 7.30—Concert from the Radio Exhibition. Orchestra, etc. Conductor: Górzyski. In the intervals—Talk with a Young Pole; Reading. 8.45—News; Topical Talk. 9.0—Farmers' Letter-box. 9.10—Concert from the Radio Exhibition (contd.). 9.50—Sports Notes. 10.0—Records: Beautiful Voices. 11.0-11.5—News; Weather.

National

For Time Signals, see Monday.
 10.15 a.m. (D)—Service.
 10.30 (D)—Weather Forecast.
 10.45—"Under London—Sewers," F. L. Stevens and Jack O'Brien.
 11.0—Chamber Music: The Madam Yelrish Trio.
 11.30—Aston Hippodrome Orchestra.
 12.30 p.m.—Light Music from Berlin: Wilfried Krüger's Band; The Metropolitan Singers; Joe Alex (Bandonion).
 1.15—Philip Whiteway Ensemble.
 1.45—BBC Scottish Orchestra.
 2.30—Foden's Motor Works Band.
 3.5—The St. Leger.
 3.25—John MacArthur Quintet.
 4.0—Evensong from St. Paul's Cathedral.
 5.0—Records.
 5.20—Reg Pursglove's Orchestra.
 6.0—The First News.
 6.25—Erith British Legion Band.
 7.0—Records.
 7.30—"On Trek."
 8.0—Promenade Concert from Queen's Hall, London: Isobel Baillie (Soprano); Norman Walker (Baritone); Paul Beard (Violin); Gerald Jackson, Frank Almgill (Flutes); Reginald Paul (Pfte.); BBC Symphony Orchestra, conducted by Sir Henry Wood—Bach: Brandenburg Concerto No. 3, in G, for strings; Concerto No. 8, in A minor, for violin, flute, pte., and strings; Aria, "Hence all ye evil doers" (Church Cantata No. 135); in Brandenburg Concerto No. 4, in G, for violin, two flutes, and strings; Arias, "Stone beyond all jewels shining" (Church Cantata, No. 152); "My Heart ever Faithful" (Church Cantata, No. 68); Suite No. 3, in D.
 9.35—"I Protest."
 9.40—The Third News.
 10.5—"On this Side of the Water"; Raymond Gram Swing.
 10.20—BBC Military Band.
 11.0—Herman Darewski's New Melody Rhythm Band.
 11.25-12.0—Swing Records.

London Regional

For Time Signals, see Monday.
 10.15-10.45 a.m.—National.
 10.45—Donald Thorne (Cinema Organ).
 11.30—Records.
 12.30 p.m.—New records.
 1.0—Empire Exchange.
 1.15—G. D. Cunningham (Organ).
 2.0—Iris Loveridge (Pfte.).
 2.0—"Homeless People."
 3.0—BBC Empire Orchestra, conducted by Clifton Hellwell; Arnold Goldsbrough (Organ).
 4.0—"Jamaica Episode"; H. A. B. Robb.
 4.15—Royal Tank Corps Band.
 5.0—The Children's Hour.
 6.0—Jack Wilson's Versatile Five.
 6.25—Franz Reizenstein (Pfte.).
 7.0—"By Act of Parliament"; "Widows", "Orphans", and Old Age Contributory Pensions (Voluntary Contributors) Act, 1937; Lynn Ungood-Thomas.
 7.20—Regional Announcements.
 7.30—"The Second News."
 7.58—Chess: The BBC v. The Listeners.
 8.0—"Virginia": Musical Comedy by Herbert Clayton and Jack Waller, with Neil Tuson, Godfrey Baseley, Clarence Wright, Joan Carter, Denis Folwell, Cora Giffin, Warwick Vaughan, Hugh Morton, Lester Mudditt, Marjorie Westbury, Jim Collier, Stuart Vinden; Midland Revue Chorus and Orchestra.
 9.0—Mantovani's Tipica Orchestra.
 9.35—"Brigade-Exchange," by Ernst Johannsen, with Philip Wade, Francis de Wolff, Dennis Arundell, George Howe, Andrew Churchman, Bernard Clifton, Henry Caine, Ellis Irving, Donald Eccles, Clayton Greene, Kaye Seely, Robert Mawdesley, Ronald Kerr, Mary Leahy, Chloe Gibson.
 10.25—Herman Darewski's New Melody Rhythm Band.
 11.25—Records.
 11.50-12.0—Late News Summary.

Midland

10.15 a.m.—5.0 p.m.—Regional.
 5.0—The Children's Hour.
 6.0—Jack Wilson's Versatile Five.
 6.25—Alan Stephenson (Organ).
 7.5—The Nottingham Wireless Exhibition.
 7.20—Midland Announcements.
 7.30-12.0—Regional.

Northern

10.15 a.m.—5.0 p.m.—Regional.
 5.0—The Children's Hour.
 6.0—Records.

6.30—Rex Furness (Baritone); Charles Kelly (Pfte.).
 7.0—Regional.
 7.20—For Northern Farmers.
 7.30—Regional.
 9.0—Brass Band Concert. The Winning Band in the 86th Championship Contest held at Belle Vue, Manchester.
 9.45—"Flippant Fingers."
 10.0—Music at Twilight.
 10.25-12.0—Regional.

Western

10.45 a.m.—6.0 p.m.—National.
 6.0—Regional.
 7.20—Western Announcements.
 7.30—Regional.
 9.0—Winifred Davey (Pfte.): Sonata No. 6, Allegro from Sonata No. 7 (Arne); Rondo in C, Op. 51, No. 1 (Beethoven).
 9.15—"How to look at a river"; John Moore.
 9.30-10.25—The Southampton Singers: D. Cecil Williams (Organ).

Welsh

10.15 a.m.—Welsh Service.
 10.30-5.0 p.m.—Regional.
 5.0—The Children's Hour.
 6.0—Byd Merched.
 6.20—BBC Welsh Orchestra, conducted by Mansel Thomas.
 7.0—Welsh News.
 7.30—Regional.
 9.0—Megan Lloyd ('Cello); Mansel Thomas (Pfte.).
 9.35-12.0—Regional.

N. Ireland

10.15 a.m.—5.0 p.m.—Regional.
 5.0—The Children's Hour.
 6.0—Regional.
 6.25—Joseph Seal (Cinema Organ).
 6.50—"Ulster Weekly."
 7.20—N. Ireland News.
 7.30-12.0—Regional.

Scottish

10.15 a.m.—2.0 p.m.—Regional.
 2.0—Herring Bulletin.
 2.5-5.0—Regional.
 5.0—The Children's Hour.
 6.0—Regional.
 6.25—Rud De Na Thachair.
 6.40—BBC Scottish Orchestra, conducted by Ian Whyte.
 7.20—Scottish Announcements.
 7.30—Regional.
 10.25—Scottish Sports News.
 10.30—Evening Worship.
 10.45-12.0—Regional.

Hours of Transmission in British Summer Time.

BERLIN

841 kc/s (356.7 m.); 100 kW.
 Transmits at intervals from 6.0 a.m.
 10.0 a.m.—1.0 p.m.—See Munich.
 1.0 p.m.—Records.
 1.15—See Stuttgart.
 2.0—News; Weather; Water Level.
 2.15—Busch Band.
 3.15—Exchange; Markets.
 3.20—Station Orchestra.
 4.30—Max Dauthendey Readings.
 4.50—Book Talk.
 5.0—Busch Band.
 6.0—Songs and Music of the German Provinces—Records and Hitler Youth Ensemble.
 7.0—Overtures and Dances—Station Orchestra.
 8.0—Programme from Munich.
 9.30—The Trout Quintet (Schubert) by Theophil (Pfte.) and the State Opera Quartet.
 10.5—News; Sports Reports; Weather.
 10.30—See Breslau.
 12.0 m.t.—3.0 a.m. (Thursday)—See Munich.

BEROMÜNSTER

556 kc/s (539.6 m.); 100 kW.
 Relayed by Basle and Berne, 1,375 kc/s (218.2 m.).
 12.0 noon—Italian Opera Music; at 12.29 p.m.—Time; News.
 1.20-1.45—Records.
 4.30—For Women.
 5.0-6.30—From Berne.
 5.0—"Summer Evening"—Musical Sequence.
 5.35—French Music.
 6.0—For Children.
 6.30—Talk: Austrian Art.
 7.0—Time; Markets; Records.
 7.20—Talk: The Wildkirchli.
 7.45—Weather; News.
 8.0—"Der Wildschütz" (Lortzing) from the Municipal Theatre, Zurich.
 10.30 (approx.)—Tourist Notes.
 10.40-10.45—Announcements.

BRATISLAVA

1,004 kc/s (298.8 m.); 13.5 kW.
 Transmits at intervals from 6.0 a.m.
 6.0 p.m.—Hungarian Transmission; Talk; Violin Duets; Sports.
 6.45—News in German.
 7.0-7.25—See Prague.
 7.25—Military Band.

7.55-8.55—See Prague.
 8.55—See Brno.
 9.55-10.15—See Prague.
 10.15—News in Hungarian.
 10.30-11.0—Records.

BRESLAU

950 kc/s (315.8 m.); 100 kW.
 Relayed by Gleiwitz and Görlitz, 1,231 kc/s (243.7 m.).
 Transmits at intervals from 5.0 a.m.
 10.0 a.m.—1.0 p.m.—See Munich.
 1.0 p.m.—Time; News.
 1.15—See Stuttgart.
 2.0—News; Exchange.
 2.15-3.0—Records: Light Music.
 3.20—A Fairy Play (Grimm).
 4.0—Orchestras, Hattwig (Pfte.).
 6.0—Talks: Programmes.
 7.0-9.0 (from Görlitz)—Schreiberhau Municipal Orchestra. Conductor: Arndt Krause (Violin). Concert Polonaise (Weber). Overture, "Lodoiska" (Cherubini). Romance for Violin and Orchestra (Svendsen). Ländliche Humoreske (Krome). Suite, Regenbogen (Rust). Waltz, Dorfschwalben (Strauss). Canzonetta Italiana (Brauer). Farandole (Bizet). Hexentänze for Violin and Orchestra (Paganini). Excerpts, "Paganini" (Lehár). Tarantella, Aus dem Süden Italiens (Friedemann); at 8.0—Report.
 9.0—Light and Dance Music.
 10.0—News.
 10.30—Light and Dance Music (cont'd.).
 12.0 m.t.—3.0 a.m. (Thursday)—See Munich.

BRNO

922 kc/s (325.4 m.); 32 kW.
 Transmits at intervals from 6.0 a.m.
 6.0 p.m.—German Transmission: Schubert Songs; Talk.
 6.35—For Workers.
 6.45—News in German.
 7.0-7.25—See Prague.
 7.25—A Play (Jeřábek).
 7.55-8.55—See Prague.
 8.55—Opera Music—Station Choir and Orchestra. Conductor: Bakala. Zaludová (Soprano). Olšovský (Tenor). Bednář (Baritone) and Sima (Bass). Excerpts, "The Devil and Kate (Dvořák). Smugglers Chorus from "The Kiss" (Smetana). Prison Scene, "Dalibor" (Smetana). Overture, "The Kiss" (Smetana).
 9.55-11.0—See Prague.

BRUSSELS (No. 1)

620 kc/s (483.9 m.); 15 kW.
 6.30-9.5 a.m.—Records; Gym; News.
 12.0 noon—Brenders Jazz Band.
 12.30 p.m.—Shipping; Records.
 1.0—News.
 1.10—Brenders Jazz Band.
 1.30—Records; Art Notes.
 2.3 (approx.)—Programme from the Brussels Radio Exhibition.
 4.55—News.
 5.0—Van Hecke Quartet, Quartet Movements (Schönberg). Pieces for Quartet (Alban Berg). Quartet Movements (Haba).
 6.0—Records: Zimmermann Music to La Fontaine Fables.
 6.30—Protestant Address.
 6.45—Jeanne Deroubaix (Songs).
 7.0—Reviews: (a) Local Government. (b) Aviation; Interview.
 7.15—Records: Light Music.
 7.30—Journal Parlé; News.
 8.0—The Impressionists—I.N.R. Symphony Orchestra, Conductor: Franz André; De Clerck (Pfte.). Escapes (Ibert). Elogie (Rabaud). L'Ecran des Demeiselles (Roland-Manuel). Pfte. Pieces (de Sévérac). La Tragedie de Salomé (Florent Schmitt).
 9.15—"Le Violonneux" (Offenbach). Conductor: Souris.
 9.50—Records.
 10.0—News.
 10.10-11.0—Brenders Jazz Band.

BRUSSELS (No. 2)

932 kc/s (321.9 m.); 15 kW.
 Programme in Flemish.
 6.30-9.5 a.m.—Records; Gym; News.
 12.0 noon—Records.
 12.30 p.m.—Salon Orchestra; at 1.0—News.
 1.30-2.0—Records.
 4.40—News.
 4.45—Belgian League of Nations Union Talk.
 5.0—Minne Bolotine (Songs).
 5.30—Pfte. Records.
 5.45—For Children.
 6.30—Classical Records.
 6.45—Interview with the Director of Ghent Theatre on the 1938-9 season.
 7.0—Salon Orchestra.
 7.30—For Ex-Servicemen.
 8.0—Military Soirée for the Antwerp Garrison—Military Band, The Four Rhythm Aces, Jenny

Sept. 7 WEDNESDAY

and Johnny (Accordion Duo), Remes (Humorist).
 8.45—Anton Thiry.
 9.0—Military Soirée (cont'd.).
 10.0—News.
 10.10-11.0—Records. Overture, "Benvenuto Cellini" (Berlioz). Ballet, Aubade (Poulenc). "Songs" (Milhaud).



Mademoiselle Minne Bolotine, who gives a song recital for Brussels No. 2 listeners at 5 p.m.

BUCHAREST

823 kc/s (364.5 m.); 12 kW.
 Relayed by Radio-Romania, 160 kc/s (1,875 m.).
 Transmits at intervals from 5.30 a.m.
 6.0 p.m.—Time; Books; Records.
 7.5—Radio Orchestra. Conductor: Bobesco.
 8.5—Talk.
 8.20—Georges Manoliu (Violin) and Filionesco (Pfte.).
 8.50—Cabaret Records.
 9.30—News; Sports Notes.
 9.45—Restaurant Concert.
 10.45—News (German, French).

BUDAPEST

546 kc/s (549.5 m.); 120 kW.
 Transmits at intervals from 6.45 a.m.
 12.5 p.m.—Fehér (Violin).
 12.45—News.
 1.0—Band. Conductor: Müller.
 2.35—News.
 4.15—For Schools.
 4.45—News; Records.
 5.30—Talk: Japanese Dancing.
 6.0—György Sándor (Double Keyboard Pfte.).
 6.30—Talk: Broadcasting in Peace and War.
 7.0—"The Three Erkels"—Radio Fantasia, with Excerpts from the Works of Ferenc, Gyula, and Elek Erkel (arr. Zakál). Opera House Orchestra. Conductor: Roubal; the Budapest Concert Orchestra, the Elemér Sárai Cigány Band, Patkos (Taragata), Anna Gyenge, Koréh and Mälczky (Songs) (Recorded).
 8.50—News.
 9.10—Station Orchestra.
 10.0—Heinemann Jazz Band from the Hotel Britannia.
 10.35—Interview (Recorded) with Prof. Watson Kirkconnel, of Canada.
 11.0—News (English, French).
 11.10—Kurina Cigány Band.
 12.5 a.m. (Thursday)—News.

COLOGNE

658 kc/s (455.9 m.); 100 kW.
 Transmits at intervals from 6.0 a.m.
 10.0 a.m.—1.0 p.m.—See Munich.
 1.0—News; Greetings.
 1.15—"Die drei Musikanten."
 2.0—News.
 2.10—Light Music.
 3.0—For Children.
 3.30—Genealogy.
 3.50—Records.
 4.0—Station Orchestra, Melitta Wittenbecher (Soprano) and Engels (Tenor); at 5.0-5.10—Reading.
 6.0—Topical; Light Music.
 7.0—Station Orchestra, Conductor: Hagestedt; at 8.0—News.
 9.15—"Wir haben einen Tag gebracht"—Secular Cantata (Kauffmann). Clemens Kaiser-Breme (Baritone), Station Chamber Choir and Orchestra. Conductor: The Composer.
 10.0—News.
 10.15—Records.
 10.30—See Vienna.
 12.0 m.t.—3.0 a.m. (Thursday)—See Munich.

DEUTSCHLANDSENDER

191 kc/s (1,571 m.); 60 kW.
 Transmits at intervals from 5.0 a.m.
 12.0 noon—Hippmann Band.
 12.55 p.m.—Time; Greetings.
 1.15—Opera Records.
 1.45—News.
 2.0—Jäger Band and Records.
 3.0—Weather; Markets; Exchange.
 3.15—Records; Programmes.
 4.0—See Leipzig.
 5.0—Hans Chemin-Petit Motets—Station Chamber Choir.
 5.30—Elfriede Harder (Harp), Zeller (Pfte.) and Ignatjoff (Balalaika).
 6.0—Talk by Paul Eipper.
 6.15—Sonata in F sharp minor (Pfitzner) by Steiner ('Cello) and John (Pfte.).
 6.45—Literary Talk.
 7.0—Records and Poems (Krug).
 8.0—Motto; News.
 8.15-10.0—Programme from Munich.
 10.0—News.
 10.20—Wind Quartet of the Berlin State Opera. Quartet in F (Stamitz); Quartet (Rossini).
 11.0—"North—South"—A Musical Journey (Recorded). Station Choir and Orchestras. Conductors: Weigel and Willy Steiner. Singers: Melitta Harder, Freya Felsmann, Elizabeth Schwarzkopf, Denis O'Neil, Cornelius Bronsgeest and Sachse-Steuernagel, etc.
 12.50 a.m. (Thursday)—Records.
 1.6-2.0—Music from Frankfurt.

FRANKFURT

1,195 kc/s (251 m.); 25 kW.
 Cassel, etc. See Sunday.
 Transmits at intervals from 5.0 a.m.
 10.0 a.m.—1.0 p.m.—See Munich.
 1.0 p.m.—Time; News.
 1.15—See Stuttgart.
 2.0—Time; News.
 3.0—Weekly Review; Talk.
 4.0—Station Choir and Orchestra. Grete Zoll (Soprano), Bartholmes (Baritone), Schröter (Pfte.). In the interval, The Roving Microphone.
 6.0—Records: Light Music.
 7.0-10.0—See Munich.
 10.0—Time; News.
 10.30—See Vienna.
 12.0 m.t.—Records. Romance for Orchestra (Moritz). Der Alkazar (Rochlitzer). Three German Forest Idylls (Holtzgart). Karneval in Nizza (Heumann). Klingende Wochenschau (Fischer). Regenbogen-Suite (Rust). Concert Waltz (Döhler). Musikanten-Suite (Dasch). Excerpt from The Fairy-tale Suite (Lobertz). Löns Lieder-Suite (arr. Künneke). Comedy Overture (Strecke).
 2.0-3.0 a.m. (Thursday)—Music from Munich.

HAMBURG

904 kc/s (331.9 m.); 100 kW.
 Bremen, etc. See Sunday.
 Transmits at intervals from 5.45 a.m.
 10.0 a.m.—1.0 p.m.—See Munich.
 1.0 p.m.—Weather; Topical Talk.
 1.15—See Stuttgart.
 2.0—News.
 2.15—Music.
 3.0—Shipping; Markets.
 3.25—Weber Concert from Kiel.
 4.0—Orchestra. Conductor: v. Sosen. Talks in the intervals.
 6.0—Talk; Records.
 6.45—Weather; Shipping.
 7.0-10.0—See Munich.
 10.0—News.
 10.30—See Vienna.
 12.0 m.t.—3.0 a.m. (Thursday)—See Munich.

HILVERSUM (No. 1)

160 kc/s (1,875 m.); 10 kW until 5.40 p.m.; 150 kW from 5.40 p.m.
 VARA Programme.
 7.40 a.m.—Records.
 9.10—Dietetics.
 9.40—VPRO Service.
 10.0—Records; Recitations; "The Four Blue Stars."
 11.20—For the Unemployed.
 12.10-12.25 p.m.—Esmeralda Septet; Jong (Organ).
 1.40—Dressmaking Lesson; Records.
 2.40—For Children.
 5.10—Records.
 5.40—Steyn (Organ); Records.
 6.25—Talk: The Annual Fair at Utrecht.
 6.40—Greetings; Choir.
 7.10—VPRO Talk.
 7.40—SOS Messages; News.
 7.55—Fantasia Ensemble.

WEDNESDAY (September 7)

8.40—Recitations.
8.55—VARA Orchestra. Conductor: Hoizer; Nelly Lunoff (Soprano).
9.40—News; Records.
9.55—VARA Orchestra. Conductor: Holzer.
10.25—Records.
10.40—Medical Talk.
11.10-11.40—Records.

HILVERSUM (No. 2)
995 kc/s (301.5 m.); 10 kW until 5.40 p.m.; 60 kW from 5.40 p.m. Also on Jaarsveld, 722 kc/s (415.4 m.); 17 kW. NCRV Programme.
7.40 a.m.—Bible Reading; Meditation.
7.55—Records; at 9.10—Greetings.
10.10—Service; Records.
10.55—Mme Georgien Sluitergantzert (Violin), Heins (Pfte.); Records.
11.40—Police Messages; Records.
12.40 p.m.—v.d. Kerckhoff (Organ).
1.40—Records.
2.10—The Dutch Royal Anniversary: Serenade at the "Dam", Amsterdam, with twelve thousand Singers and six Bands. Conductor: Roeske.
2.55—Records.
3.10—The Amsterdam Quartet. Records in the intervals.
4.25—Greetings.
4.40—For Young People.
5.25—Records.
6.10—Navigation Lesson.
6.40—Police Messages; Church Notes.
6.55—Talk in Frisian Dialect.
7.25—Report.
7.40—News; SOS Messages.
7.55—The Dutch Royal Anniversary: The Nation's Broadcast, with Address by a number of Notabilities, and Music by the NCRV Mixed Choir and Orchestra. Conductor: Piet v.d. Hurk.

9.40—News.
9.45—Haarlem Motet and Madrigal Choir. Conductor: Sem Dresden. Two Psalms (Sweetlick). God is my Light (Clemens non Papa). Psalm (von Hessen). Saep docens (von Hessen). Nos qui sumus (di Lasso). Folk Songs. In the intervals, Records.
10.25—Gym; Records.
11.30-11.40—Bible Reading.

KALUNDBORG
240 kc/s (1,250 m.); 60 kW. Relays Copenhagen, 1,176 kc/s (255.1 m.).
Transmits at intervals from 7.0 a.m.
12.0 noon-2.0 p.m.—Preil's Ensemble.
2.30—Radio Orchestra. Conductor: Tuxen. Dall (Songs).
4.30—For Boys; Notes.
5.0—For Farmers.
5.25—Weather; Exchange; Markets.
5.50—Records.
6.15—Henrik Bendz talks about Food.
6.35—French Lessons.
7.0—Time; News.
7.30—Chamber Music.
8.20—"The Snakkestrup Bus"—Sketch.
8.35—Excerpts, "Miss America."
8.55—Impressions of the International School Congress.
9.25—"George Stephenson"—Play (Bonnellycke).
10.0—News; Weather.
10.20—Pfte. Trio in A (Malling).
10.55 p.m.-12.30 a.m. (Thursday)—Dance Music; at 12.0 m.t.—Chimes.

LILLE (Radio PTT Nord)
1,213 kc/s (247.3 m.); 60 kW. Transmits at intervals from 6.30 a.m.
5.45 p.m.—Brasserie Concert.
6.30—Educational.
7.0—For Gardeners.
7.10—Talk in English; Records.
7.30—News.
8.0—Alice Noguez (Songs).
8.15—Mme Devos (Harp).
8.30 (also Toulouse (PTT) and Limoges (PTT))—Raugel Choir and National Orchestra, Conductor: Rosenthal. Claudine Verneuil, Yvonne Fardoch, Marguerite Pitteau, Germaine Cernay, Laurence, Lovano, Cathelat, etc. Part I: "Sous les Scelles" (Blech). Part II: "Pierrot Peintre"—Ballet (Emmanuel). After the Programme, News.

MONTE CENERI
1,167 kc/s (257.1 m.); 15 kW. Transmits at intervals from 12.0 noon.
7.30 p.m.—The East in French Music. Radio Orchestra. Conductor: Nussio.
7.50—News.
8.0—Slav Music—Radio Orchestra. Conductor: Nussio.
8.15—Old English Songs by Eva Cattaneo. Have you seen but a white lily grow? (XV Century). Pack clouds away (Handel). XVI Century Songs: (a) Fain would I change that note, (b) Faire, sweet cruel. It was a Lover and his Lass (Morley). Song (Purcell).
8.30—Literature and Art.
8.45—Contemporary English Songs by Eva Cattaneo. Queen of Heaven (Dunhill). The Song of the Palaquin-Bearers (Martin Shaw). I was not sorrowful (Ireland). In an Arbour Green (Warlock). Twilight Fancies (Delius). The Buckle (Bliss). Love's Philosophy (Quilter).
9.0-10.15—To be announced.

MOSCOW
172 kc/s (1,744 m.); 500 kW. and 300 kc/s (1,000 m.); 100 kW. Transmits at intervals from 4.0 p.m.
6.0 p.m.—Concert or Opera (Records); at 6.30—Politics; at 7.0—Literature.
9.30—News; Kremlin Chimes.
10.0 (on 1,000 m. only)—Concert.
10.0 p.m.-1.0 a.m. (Thursday): 1.744 only.
10.4—Talks (French, German).
12.0 m.t.—Spanish Programme.

MUNICH
740 kc/s (405.4 m.); 100 kW. Relayed by Nürnberg, 1,267 kc/s (236.8 m.).
Transmits at intervals from 6.0 a.m.
10.0 a.m.-1.0 p.m.—Reich Party Congress Gala Concert. In the intervals, Reports of the Grand Review of the Labour Service on the Zeppelin-Wiese.
1.0—Time; News.
1.15—Concert on Records.
2.0—News; Exchange.
2.15-3.0—Music from Cologne.
3.0—Schneider Band, etc., at 5.0—Markets.
6.0—Talk: Wachau.
6.20—Symphony in A minor (David) by the Station Orchestra, Conductor: Winter.
7.0-10.0—Reich Party Congress.
10.0—Time; News.

10.0—News; Weather; Sports.
10.20—"The Mounted SA at Work"—Report.
10.35—Records: Light and Dance Music.
12.0 m.t.-3.0 a.m.—See Munich.

LEIPZIG
785 kc/s (382.2 m.); 120 kW. Relayed by Dresden, 1,285 kc/s (233.5 m.).
Transmits at intervals from 5.50 a.m.
10.0 a.m.-1.0 p.m.—See Munich.
1.0—Time; News.
1.15—See Stuttgart.
2.0—News; Exchange; Records.
3.40—Talk: Early Mail Steamships.
4.0—Leipzig Symphony Orchestra; Radelow (Violin), Conductor: Kretschmar; at 5.0-5.10—Markets.
6.0—Talk: Sudeten German Schools.
6.20—Music; Reading (Mörrike).
7.0-10.0—See Munich.
10.0—News.
10.30—See Vienna.
12.0 m.t.-3.0 a.m. (Thursday)—See Munich.

NAPLES GROUP
Naples (No. 1) 1,104 kc/s (271.7 m.); 10 kW. Florence (No. 1), etc. See Sunday.
Transmits at intervals from 7.45 a.m.
7.0 p.m.—Light Music; Topical.
7.20—Italo Ferrari Puppets.
8.0—Time; News.
8.30—Band. Conductor: Arlandi. Tuppe tuppe et telephone (Ascolese). Gallop, Acrobats (Sala). Midnight Chimes (Carlini). Gallop, The Clock (Gomez). Neapolitan Song, A biciletta (Mezzone). The Electric Railway (Becucci). Fantasia on the dance, "Sport" (Marenco). In the interval, Talk.
9.20—Sketch.
9.40—Waltzes by Magda Longari (Pfte.).
10.30 (approx.)—Dance Music.
11.0—News.
11.15-11.55—Dance Music.

OSLO
260 kc/s (1,153.8 m.); 60 kW. Fredrikstad, etc. See Sunday.
Transmits at intervals from 10.30 a.m.
5.5 p.m.—Variety Concert.
5.50—Report.
6.20—For Girls.
6.45—News; For Farmers.
7.25—Records; Reading.
8.0—Störseth ('Cello). Sonata (Porphora). Adagio (Haydn). French Suite (Bazelaire). Tarantella (Nepomuceno).
8.30—Talk from the University.
8.55—Station Orchestra. Conductor: Kramm. Concerto grosso in F minor for Harpsichord and String Orchestra (Scarlatti). Baroque Suite for Chamber Orchestra (Aterberg). Four Episodes (Bloch).
9.40—News; Topical Talk.
10.15—Station Orchestra. Nights on the Volga (Medvedev). Selection, "The Three Bears" (Eric Coates). Perpetuum mobile (Schönherr).
10.45-11.30—Dance Records.

PARIS (Eiffel Tower)
1,456 kc/s (206 m.); 7 kW. Transmits at intervals from 6.30 a.m.
8.0 p.m.—Sonata (Brahms) by Fournier ('Cello) and Doyen (Pfte.).
8.30—Dramatic Programme (arr. Paul Castan). Part I: "The Wasps"—Play (Aristophanes-Perret). Part II: "Caramel"—One-Act Play (Fauchois).
10.30—Records.
11.0-11.15—News.

PARIS (Poste Parisien)
959 kc/s (312.8 m.); 60 kW. Transmits at intervals from 6.28 a.m.
6.0 p.m.—News; Exchange.
6.10—Jewish Programme.
6.20—Classical Records.
6.58—Racing; Sports Notes.
7.10—Amusement Guide.
7.12—Lecocq Operetta Records.
7.45—Records; Sonata (Beethoven) by Paderewski (Pfte.).
8.0—Topicille and Jean Nohain.
8.15—"En correctionnelle" (Maurice Diamant-Berger).
8.45—Poème (Chausson) by Jehudi Menuhin (Violin) and Yehudi Gonder (Cello) (Records).
9.5—Coco Aslan and his Pals.
9.20—"Romania"—Sequence (Morand).
10.0—News; Records.
10.30—Shéhérazade Cabaret.
11.0—News.

PARIS (PTT)
695 kc/s (431.7 m.); 120 kW. Transmits at intervals from 6.30 a.m.
2.30 p.m.—Concert for the Blind. Orchestra, etc. Conductor: Guillou. In the interval, Scene, "Deirdre of the Sorrows" (Synge); Records.
4.30—Mme Vildy (Songs); Records.
4.50—Science Talk.
5.0—Maggiar (Pfte.) (Chopin, Liszt); Records.
5.45—Talk; Educational.
6.30—Pascal (Violin), Ida Perrin (Pfte.).
7.0—Radio Journal; Records.
8.30 (also Alpes-Grenoble and Marseille (PTT))—Concert from Vichy Casino. Conductor: Brun. Benedetti ('Cello). Overture, "Figaro" (Mozart). Unfinished Symphony (Schubert). 'Cello Concerto (Saint-Saëns).

10.20—Records. Fanfare from "Fredegundis" (Schmidt). Clarinet Concerto in A (Mozart). Pfte. Rondo in D (Mozart). Symphony in B flat (Schubert). Leonora Overture (Beethoven).
12.0 m.t.-3.0 a.m. (Thursday)—Concert on Records.

PARIS (Radio-Paris)
182 kc/s (1,648 m.); 80 kW. 6.28 a.m.—Programme Notes.
6.30—Time; News; Records.
6.50—Gym and Records.
6.29-9.7—Time; News; Records.
9.45—Programmes; Talks; Records.
10.45—Reading; Records.
11.45—Markets; Water Level.
12.0 noon—Talk; Records.
1.0 p.m.—Time; News.
1.30—Mlle Cernay (Songs); Records.
2.0—Programmes; Music Review by Wanda Landowska; Talk.
2.30—Exchange; Records.
3.0—Mlle Huber (Songs); Talks.
3.45—Exchange; Markets.
4.0—Maryse de Pommerol (Songs).
4.15—Gisèle Kuhn (Pfte.).
4.30—Books; Markets.
5.0—Cantrelle Orchestra.
6.0—Gillet (Songs); Records.
6.30—Racing.
6.32—Lecture-Recital by Pauline Aubert (Harpichord): The Transition from Harpsichord to Pfte.; Programmes.
7.0—Odette Lebon (Songs).
7.15—Talks and Reading.
7.50—Time; Home Affairs.
8.8—Foreign Affairs.
8.15—For Young People.
8.30—Variety Programme, presented by Louis Merlin; at 9.30—News; Review by Divoire.
10.30—Roger Quilter Records.
10.45—Time; News.
11.0—Tomorrow's Programmes.

PRAGUE
638 kc/s (470.2 m.); 120 kW. Transmits at intervals from 6.0 a.m.
5.40 p.m.—Maudr Bagpipe Quartet, Roubal and Kohout (Songs).
6.5—For Farmers; Talk.
6.20—FOC Orchestra. Conductor: Pekárek. Alla marcia (Smatek). Selection, "Tiefand" (d'Albert). Les Vendredis (Sokolov-Lyadov-Glazunov). Waltz, Die Nachtschwärmer (Ziehrer). La Czarine (Ganne). March (Nicholls).
7.0—Time; News; Weather.
7.15—Political Talk.
7.25—See Bratislava.
7.55—Dance Music from Kosice.
8.25—Talk.
8.55—See Brno.
9.55—Local News.
10.0—News; Sports; Records.
10.30—Rachel Thauvoye (Harpichord). Variations (Sweetlick). Gigue (Loeillet). Chaconne and Allemande (de Chambonnières). Six Pieces (Couperin). Fugue in A minor (Bach).
11.0-11.15—News in French.

RADIO EIREANN
565 kc/s (531 m.); 100 kW. Dublin, etc. See Sunday.
1.30 p.m.—Records.
2.30-3.0—For Schools.
5.30—Records for Children.
6.0—Debate in Irish between Eibhlin Ní Charthigh and Poinnias MacCasarlaigh: Na Tigh the Nua agus na Sean Tighthe.
6.15—Mairín Fenning's Ladies' Vocal Trio.
6.45—News.
7.0—Variety with Ken O'Dea and Norman O'Connell Redmond.
7.15—St. George's Brass Band.
7.45—Captain Jordan's Hand—New Radio Play (E. R. Downes), produced by J. J. Henry.
8.30—Irish Radio Orchestra. Conductor: Lieut. D. P. O'Hara, T. E. Attwooll (Baritone).
9.20—Nuacht an Lac—A Gaelic News Broadcast.
9.30—Variety.
10.30—News; National Anthem.

RADIO-MÉDITERRANÉE
1,276 kc/s (235.1 m.); 27 kW. Transmits at intervals from 12.15 p.m.
7.0 p.m.—Dance Music.
7.15—Cycling Notes.
7.30—Request Programme.
8.0—Talk.
8.10—News; Exchange.
8.15—Leo Marjane.
8.30—Excerpts, "César" (Marcel Pagnol).
9.5—Weather Report.
9.10—Variety.
10.0—Radio Journal.
10.15—Dance Music.

RADIO-NORMANDIE
1,411 kc/s (212.6 m.); 15 kW. 6.25 a.m.—Nos vieux pommiers (Dior).
6.30—Press Review; Music.

Andante for Strings (Tchaikovsky). Les violons de M. de Comy (Wormser). Petite suite (Debussy).
10.0—Records: Light Music.
10.30—Radio Journal.
10.45—U.S.A. Bulletin.
11.0—Records: Light Music.

7.0—Radio-Reveille; at 7.15—Time; and at 7.30—Time; Weather.
7.45—Physical Exercises.
8.0—Music in the Morning.
8.15—Time; Prosperity Programme —Careers for Girls.
8.30—News.
8.40—Your Message from the Stars.
8.45—Happy Families.
9.0—Time; Hot Scotch.
9.15—These names make music—Cole Porter.
9.30—Military Band.
9.45—Popular Music; at 10.0—Time.
10.30—Musical Melange.
11.0—Time; Light Music.
11.15—Radio-Normandie Concert Hall.
11.30—Excerpts, "Rosamunde" (Schubert) by the Hallé Orchestra, Conductor: Sir Hamilton Harty.
12.0 noon—Concert; at 12.20 p.m.—News.
2.0—Musical Mirror.
2.15—Cinema Organ.
2.30—The Songs we know them by.
2.45—Music you might have heard.
3.0—Time; I've brought my music—Harry Jacobsen (Songs and Pfte.).
3.15—Gracie Fields in New Songs and Old Favourites.
3.30—Songs you can never forget—Fred Hartley and his Orchestra, with Brian Lawrance and John Stevens.
3.45—George Formby and Beryl.
4.0—Time; Pleasant Quarter Hour.
4.15—From Stage and Screen.
4.45—Fingering the Frets.
5.0—Time; Czechoslovak Picture Book.
5.15—For Boys and Girls.
5.30—Variety.
6.0—Children's Corner.
6.45—Report; News; Racing.
7.0—Chansonettes.
7.30—News; Light Music.
8.0—Variety Items.
8.20—Revue from the Salle Pleyel, with Roméo Carles and Pierre Ferrary.
9.0—Variety Concert.
10.0—Livschakoff Dance Band.
10.45—Chansonettes.
11.0—Café Concert.
12.0 m.t.—Melody at Midnight.
12.30-1.0 a.m. (Thursday)—Time; Dance Music.

RENNES-BRETAGNE
1,040 kc/s (288.5 m.); 120 kW. Transmits at intervals from 6.30 a.m.
6.45 p.m.—News in English.
7.0—News.
7.30—Kaul (Violin), 'Nathalie Radisse (Pfte.).
8.0—News; Amusements; Records.
8.30—Concert, Conductor: Martin. Overture, "Fingal's Cave" (Mendelssohn). Symphony in A (Mendelssohn). German Dances (Schubert). Erlkönig (Schubert). Divertissement à la hongroise (Schubert). Album für die Jugend (Schumann). Songs (Duparc). Caligula (Fauré). Autonne (Fauré). Divertissement (Rabaud). After the Programme, News, Music.

REYKJAVIK
208 kc/s (1,442 m.); 100 kW. Transmits at intervals from 12.0 noon.
9.10 p.m.—Weather (Icelandic, German, English).
9.20—Classical Dances.
9.40—News; Foreign Affairs.
10.15—Reading.
10.30—Icelandic Programme.

ROME GROUP
Rome (No. 1) 713 kc/s (420.8 m.); 120 kW. Bari (No. 1) etc. See Sunday.
Transmits at intervals from 7.45 a.m.
5.15—Third Concert by the Students of the Accademia Chigiana, Siena. Orchestra, Conductor: Alfredo Casella; Nunzio Montanari (Pfte.); Teresa Brambilla (Harp); Marcella Conforto (Violin); and Haydee Spagnoli (Soprano). Pfte. Concerto in D minor (Bach). Harp and Strings: Variations on an Old Carol (Rousseau). Soprano: (a) Aria, "The Secret Marriage" (Cimarosa), (b) San Giovanni (De Plaissant). Violin Concerto in C minor (Vivaldi-Casella). Soprano: (a) The Nightingale and the Rose (Saint-Saëns), (b) Aria, "Dinorah" (Meyerbeer).
5.50—Aviation Notes; Weather.
5.55-6.5—For Motorists.
6.40-6.50—Government Notes.
7.0-7.20—Talk in German.
7.30—Orchestra.
8.0—Time; News; Music.
8.30 (Palermo and Naples (No. 2) only)—Light Music.
9.0—"Anima allegra"—Play (Alvarez Quintero Brothers).

WEDNESDAY (September 7)

10.30 (approx)—Dance Music.
11.0—News.
11.15-11.55—Dance Music.

SAARBRÜCKEN
 1,249 kc/s (240.2 m.); 17 kW.
 Relayed by Kaiserslautern, 1,429 kc/s (209.9 m.).
 Transmits at intervals from 6.0 a.m.
10.0 a.m.-1.0 p.m.—See Munich.
1.0—Time; News; Weather.
1.15—See Stuttgart.
2.0—News.
2.15—See Berlin.
3.0-3.15—For Gardeners.
3.30—Chamber Music. Three Songs (Wolf). Cello and Pfte.: Sonata in G minor (Eccles). Four Songs (Wolf). Adagio (Tessarini).
4.0—See Leipzig; at 5.0—Books.
6.0—Variety Records.
6.30—Readings (Lina Staab).
7.0—Programme from Munich.
8.30—Operetta and Dance Music— Orchestra, Maria Corbé (Soprano) and Robert Kiefer (Tenor).
10.0—Time; News.
10.30—See Vienna.
12.0 m't.-3.0 a.m. (Thursday) — See Munich.

SOTTENS
 677 kc/s (443.1 m.); 100 kW.
 Relayed by Geneva, 401 kc/s (748 m.).
12.29 p.m.—Time; News.
12.40-1.45—Records.
5.0-6.0—See Beromünster.
6.0—For Young People; Records.
7.15—Micro-Magazine.
7.50—Weather; News.
8.0 till Close—From Geneva.
8.0—Engel Orchestra.
8.30—Artists of the Casino Theatre, Geneva.
9.15—Folklore Programme. Mandolinata Orchestra, Conductor: Panosetti; The "Amis Chanteurs," Conductor: Pileur; Boliger Musette Orchestra; Harry-Marc (Monologues).
10.30-11.0—Hot Jazz Records.

STOCKHOLM
 704 kc/s (426.1 m.); 55 kW.
 Motala, etc. See Sunday.
 Transmits at intervals from 7.45 a.m.
5.5 p.m.—Jämtland Tales and Folk Music.
5.35 — "The Shoemaker of Pratapa"—Play.

National
For Time Signals, see Monday.
10.15 a.m. (D)—Service.
10.30 (D)—Weather Forecast.
10.45—"At Home Today."
11.5—Records illustrating the history of sonata form.
11.55—Phil Park (Cinema Organ).
12.30 p.m.—Records.
1.30—Norris Stanley Sextet.
2.0—Eunice Gardiner (Pfte.).
2.30—Ernest Leggett and the Continental Players.
3.15—Bournemouth Municipal Orchestra: Gordon Bryan (Pfte.).
4.45—Records.
5.0—Gladys Palmer (Contralto).
5.20—The Westminster Players.
6.0—The First News.
6.25—Florence Hooton ("Cello"); Kendall Taylor (Pfte.); Sonata in D, Op. 102, No. 2 (Beethoven); Sonata (Debussy).
7.0—Fred Hartley's Sextet.
7.30—Students' Songs: BBC Men's Chorus; Arthur Cranmer (Baritone).
8.0—"George Edwardes" illustrated biography, with Huntley Wright, Bertram Wallis, Joe Coyne, Gracie Leigh, Horace Percival, Betty Huntley-Wright, Tessa Deane, Arnold Matters.
9.0—Jack Payne's Band.
9.40—The Third News.
10.5—Mid-Week Service.
10.25—BBC Orchestra (Section C), conducted by Leslie Heward: Overture, The Ruler of the Spirits (Weber); Concerto grosso, Op. 17 (Filip Lazar); Symphony No. 3, in A minor (Borodin); Concert Overture, No. 2 (Lars-Erik Larsson).
11.15—Maurice Winnick's Orchestra.
11.30-12.0—Dance records.

London Regional
For Time Signals, see Monday.
10.15-10.45 a.m.—National.
10.45—BBC N. Ireland Orchestra.
11.45—BBC West of England Singers.
12.15 p.m.—Records.
12.30—Harry Engleman's Quintet.
1.0—"How to look at a river:" John Moore.
1.15—Philip Martell's Orchestra.
2.15—Eric Shrimpton (Electric and Spanish Guitar).
2.30—Dorothy Canbera (Soprano); The Bronkhurst Trio.

6.0—Records.
7.0—News; Weather; Topical.
7.30—Election Address by the Minister of Agriculture, A. Pebrson-Bramstorp.
8.10—Radio Orchestra, Conductor: Hillman. Gino Balma (Songs). Sinfonietta on Russian Folk Songs (Rimsky-Korsakov). Arias (Puccini): (a) "Tosca," (b) "The Girl of the Golden West," (c) "Madame Butterfly." Old King Cole (Vaughan Williams). Arias, (a) "Rigoletto" (Verdi), (b) "I Pagliacci" (Leoncavallo). Persian March (Strauss).
9.15—Literary Review.
9.45—Records of Hans Bund's Pfte. Duo.
10.0—News; Weather.
10.15-11.0 (from Göteborg)—Fagerlund Dance Band.

STRASBOURG
 859 kc/s (349.2 m.); 100 kW.
 Transmits at intervals from 6.30 a.m.
5.0 p.m.—Concert from Alps-Grenoble (PTT).
5.45—Talk: Surrealism in French Literature.
6.0—Economic and Social Notes.
6.30—See Paris (PTT).
7.0—News.
7.30—Waltz Records.
7.45—Report: The Alsace Walking Race.
8.0—News (German, French).
8.30—Station Orchestra, Conductor: de Villers. Excerpts, "Prometheus" (Beethoven).
9.0—Schirle (Organ). Toccata and Fugue in B minor (Bach). Choral (Schirle). Adagio (Rieger). Movement from the Symphonie Romane (Widor).
9.20—Station Orchestra. Conductor: de Villers; Cholé (Pfte.) and Suzanne Hillmeyer (Soprano). Pieces for Orchestra (Purcell). Two Arias, "Dido and Aeneas" (Purcell). Fantasia for Pfte. and Orchestra (Schubert-Liszt). Three Songs (Schirle). Symphonic Poem, Orpheus (Liszt).
10.30—News (French, German).

STUTTGART
 574 kc/s (522.6 m.); 100 kW.
 Transmits at intervals from 5.45 a.m.
12.0 noon—Orchestra, Violin.
1.0 p.m.—Time; News; Weather.

1.15—Orchestra, Baritone.
2.0-3.0—Mannheim Orchestra.
4.0—Wildbad Spa Orchestra.
6.0—Records: South American Music.
6.30—Political Press Review.
7.0—Records: Boulanger Band.
7.15—"German Aviation"—Sequence.
7.45—Records: Old Dances.
8.0—News.
8.10—"Behind the Footlights"—Variety.
10.0—Time; News; Sports.
10.30—See Vienna.
12.0 m't.—See Frankfurt.
2.0-3.0 a.m. (Thursday) — Music from Munich.

TOULOUSE (Radio-Toulouse)
 913 kc/s (328.6 m.); 60 kW.
 Transmits at intervals from 8.0 a.m.
6.0 p.m.—News; Chansonnettes.
6.40—Opera Arias.
6.55—News; Sports.
7.0—Musical Comedy Music.
7.15—Light Orchestral.
8.0—News; Talk.
8.20—Revue.
8.55—Talk; Variety.
9.30—Dance Songs.
10.0—News; Request Programme.
10.45—Operetta Songs.
11.0—Marches and Soldier Songs.
11.15—Light Music.
11.55-12.0 m't.—News.

TURIN GROUP
 Turin (No. 1) 1,140 kc/s (263.2 m.); 7 kW. Milan (No. 1), etc. See Sunday.
 Transmits at intervals from 7.45 a.m.
5.0 p.m.—News.
5.15—Dance Music.
5.50—Aviation; Weather.
5.5-6.5—For Motorists.
7.19 (Rome (No. 2) only)—News in English.
7.30—Orchestra.
8.0—Time; News.
8.30—Chamber Orchestra; at 8.36 (Milan (No. 1), Rome (No. 2) and Bolzano)—News and Italian Lesson in German.
9.0—"The Mastersingers" (Wagner). Conductor: Giuseppe del Campo. Chorus Master: Costantini. Cast: Tancredi Passero, Luciano Neroni, Aldo Ferracuti.

Mario Bianchi, Afro Poli, Gregorio Pasetti, Mario Borgato, Mario Giusti, Nino Mazziotti, Luigi Bernardi, Bruno Spalchiero, Gino Conti, Aurelio Marcato, Gino Del Signore, Sara Scuderi, Edmea Limberti. In the intervals, Talk; News.

VIENNA
 592 kc/s, (506.8 m.); 100 kW.
 Graz, etc. See Sunday.
 Transmits at intervals from 6.0 a.m.
10.0 a.m.-1.0 p.m.—See Munich.
1.0—News.
1.15—See Stuttgart.
2.0—News.
2.10—Italian Opera Records.
3.0-3.15—News.
3.30—Strauss Operetta Records.
3.45—For Women.
4.0—See Cologne; at 5.0-5.15 — Reading "Das Schatzkästlein" (Hebel).
6.0 — The Königsberg Teachers' Choir.
6.30—Records: Light Music.
7.0-8.30—Programme from Munich.
8.30—Beethoven Concert. Part I: Vienna Symphony Orchestra, Conductor: Knappertsbusch; Luise Helletsgruber (Soprano). Overture, Die Weihe des Hauses. Arias, "Egmont." Symphony No. 3 in E flat—the Eroica. Part II: Records. Adagio from the Pathetic Sonata. Andante from the Pfte. Concerto in G. Turkish March, "The Ruins of Athens." Contredanses.

10.0—News.
10.30—Viennese Music. Station Orchestra, Conductor: Schönherr; Liesl Andergast (Soprano), Petroff (Tenor). March (Ertl). Overture, Wenzel Müller (Girnatiss). Du liebes süsches Wienerlied (Schindlauer). Das goldene Kandlerl (Fiebrich). Waltz, Hoch Wien! (Kratzl). Mei Wagerl und i (Weiner-Dilmann). Im Paradiesgarten (Lilienau). Wienerstadt, Wienerstadt (Feigl). Am Rand vom Kahlenberg (Föderl). Weinbeisser in Nutzdorf (Lilienau). I hab' a Rutsch'n auf Wean (Schima). Overture, Wiener Luft (Recktenwald). Verträumtes

Alt-Wien (Berger). Das is a Wein (Engel-Berger). Im Prater (Pachernegg). Song, "Rosen im Schnee" (Löwe-Jascha). Mei Mutter und i (Stilp). Waltz, Hofballtänze (Lanner). Du mein Kanari (Kreuzberger). Ja, i glaub, in dem Wein muss was drinn gewesen sein (Strecker). Komischer Zapfenstreich (Fahrbach).
12.0 m't.-3.0 a.m. (Thursday) — See Munich.

WARSAW
 224 kc/s (1,339 m.); 120 kW.
 Cracow, etc. See Sunday.
 Transmits at intervals from 6.15 a.m.
4.0 p.m.—Rynas Ensemble.
4.45—For Soldiers.
5.0—Dance Music from the Radio Exhibition.
6.0 (from Poznan)—Talk.
6.10—Dubiska (Violin) and Szamotulska (Pfte.). Two Sonatas (Weber). Andante and Presto (Campagnoli-Bonelli). Canto (Pizzetti). Recitative and Scherzo (Kreiser). Berceuse (Zarebski). Tarantella (Wieniawski).
6.45 (from Wilno)—Recitation.
7.0—Karnicka (Songs). Part I. French Songs. Aria, "Médée" (Lully). Chant de Venus (Lully). Triste un rêve (Fauré). Chanson triste (Duparc). Part II. Polish Songs. Sophie (Moniuszko). Ne crois pas (Karłowicz). Zuleyka (Szymanowski).
7.20—Topical Talk.
7.30 (from Cracow) — "Wine, Woman and Song" — Variety Concert; in the interval, "A Woman's Heart" — Sketch (Waksztrak).
8.45—News; Topical Talk.
9.0 (from Lwów)—For Farmers.
9.10—Chopin Music by Drzewiecki from the Radio Exhibition. Polonaise in C sharp minor. Nocturnes in F sharp major and E minor. Six Preludes. Waltz in E minor. Three Etudes.
9.50—Sports Notes.
10.0—Haydn and Ravel Records.
10.55—Press Review.
11.0-11.15—News; Topical Talk in French.

3.15—King's Royal Rifle Corps Band.
3.55—"Professional Pride" short story by J. D. Beresford.
4.15—"Steamboat" variety, music, and drama.
5.0—The Children's Hour.
6.0—Records.
6.30—Sandy Macpherson (BBC Theatre Organ).
7.0—"The Dog's Chance:" J. Wentworth Day.
7.30—The Second News.
8.0—From the Promenade Concert at Queen's Hall, London: Jean Pougnet (Violin); BBC Symphony Orchestra, conducted by Sir Henry Wood: Overture, Euryanthe (Weber); Violin Concerto in B minor (Elgar).
9.5—"Jane Austen in the West."
9.40—Variety from the Hippodrome, Bristol.
10.25—Maurice Winnick's Orchestra.
11.30—Records.
11.50-12.0—Late News Summary.

Midland
10.15 a.m.-5.0 p.m.—Regional.
5.0—The Children's Hour.
6.0—BBC Midland Orchestra: Harry Porter (Tenor).
7.0—Regional.
7.20—Midland Announcements.
7.30—Regional.
9.40—The Cinderford Male Voice Choir: Reginald New (Organ); Chick Fowler (Gloucestershire George) from the Town Hall, Cheltenham.
10.25-12.0—Regional.

Northern
10.15 a.m.-5.0 p.m.—Regional.
5.0—The Children's Hour.
6.0—John Brennan (Pfte.); Margaret Ward (Violin).
6.30—Regional.
7.20—A.R.P. News in the North; For Northern Farmers.
7.30—Regional.
9.40—Cleveland Harmonic Male Voice Choir: Andrew Bevan (Violin).
10.25-12.0—Regional.

Western
10.45 a.m.-5.0 p.m.—National.
5.0—The Children's Hour.
6.0—Records.
6.20—"Chess Masters at Plymouth."

6.30—Regional.
7.20—"Week-end away — Cornwall:" Jack Mannell.
7.30—Regional.
9.40-10.25 — Variety from the Hippodrome, Bristol.

Welsh
10.15 a.m.—Welsh Service.
10.30-5.0 p.m.—Regional.
5.0—The Children's Hour.
6.0—Regional.
7.0—Welsh News.
7.20—Welsh Amateur Golf Championships, from the Rhyl Golf Club.
7.30—Regional.
9.5—Welsh light programme.
9.40—Sam a Simon.
10.0—General knowledge competition in Welsh between Y Garreg and Lanbedr in Merionethshire.
10.25-12.0—Regional.

N. Ireland
10.15 a.m.-5.0 p.m.—Regional.
5.0—The Children's Hour.
6.0—Frank Rea's Orchestra.
6.30—Regional.
7.20—N. Ireland News.
7.30—Regional.
9.5—Ulster Radio Drama Festival.
9.25—"Counting the Stars:" Bart J. Bok, Professor of Astronomy at Harvard University.
9.40-12.0—Regional.

Scottish
10.15 a.m.-2.10 p.m.—Regional.
2.10—Herring Fishing Bulletin.
2.15-3.15—Regional.
3.30—Mid-Week Service from the Church of Scotland, Empire Exhibition (Scotland).
4.15—Regional.
5.0—The Children's Hour.
6.0—Regional.
7.0—"Moving in Circles:" Willa Muir.
7.20—Scottish Announcements.
7.30—Regional.
9.40—Scottish Dance Music.
10.5—The Three College Boys in "Star Spangle:" a foolish fantasy of Film Folk, with Pearl Colquhoun, Edmond Fraser, Jean Horn, W. H. D. Joss, Barbara Laing, Grace McChlerly, C. Archer Mitchell, Ian Sadler.
10.30—Scottish News Summary.
10.45-12.0—Regional.

Sept. 8 THURSDAY

Hours of Transmission in British Summer Time.

BERLIN
 841 kc/s (356.7 m.); 100 kW.
 Transmits at intervals from 6.0 a.m.
12.0 noon—See Munich.
2.0 p.m.—News; Water Level.
2.15—Libiszowski Band.
3.0-6.0—See Munich.
6.0—Light Music—Station Orchestra, Conductor: Willy Steiner, and the Hans Busch Band.
7.45—Evening Echoes.
8.0—News.
8.10—"Du, du liegst mir im Herzen"—Love-Songs and Dances by the Station Orchestra, Choir, etc.
9.0—Station Orchestra. Conductor: Heinrich Steiner. Masurat (Violin) and Schrader ("Cello"). Comedy Overture (Busoni). Duo (Pfitzner). Country Dances (Paulsen). Variations on Gestern Abend war Vetter Michel da (Schumann).
10.0—News; Sports.
10.30—See Stuttgart.
12.0 m't.-3.0 a.m. (Friday)—See Königsberg.

BEROMÜNSTER
 556 kc/s (439.6 m.); 100 kW.
 Relayed by Basle and Berne, 1,375 kc/s (218.2 m.).
12.0 noon—Tauber Records.
12.29 p.m.—Time; News; Exchange.
12.40-1.45—Folk Music.
4.30—For Invalids.
5.0-6.0—See Sottens.
6.0—Weather; Records.
6.30—Talk: Health Insurance.
7.0—Road Report; Records.
7.20—Talk: Valais.
7.45—Weather; News.
8.0—Swiss Folk-Songs.
8.50—Report: The Swiss Postage Stamp Exhibition at Aarau.
9.15—Zürich Radio Orchestra.
10.25-10.30—Announcements.

BORDEAUX-LAFAYETTE
 1,077 kc/s (278.6 m.); 60 kW.
 Transmits at intervals from 6.30 a.m.
8.30 p.m.—The French Provinces—Concert by the Station Orchestra. Conductor: Gayral, and the Station Dramatic Troupe. After the Programme—News.

BRATISLAVA
 1,004 kc/s (298.8 m.); 13.5 kW.
 Transmits at intervals from 6.0 a.m.
6.0 p.m.—Hungarian Transmission: Talks; Hungarian Songs.
6.45—News (German).
7.0—See Prague.
7.25—Operetta Music—Station Orchestra and Blaho (Tenor).
7.55—Talk.
8.5—Moyzes Music—Station Orchestra. Conductor: Dyk, Zita Feresová (Soprano), Blaho (Tenor), and Flögl (Bass). Slovak Folk-Songs. Overture, "Ludevít Stur."
8.35—Reading.
8.45—Liza Fuchsová (Pfte.).
9.5—See Brno.
9.55—See Prague.
10.15—News (Hungarian).
10.30-11.0—Records.

BRESLAU
 950 kc/s (315.8 m.); 100 kW.
 Relayed by Gleiwitz and Görlitz, 1,231 kc/s (243.7 m.).
 Transmits at intervals from 5.0 a.m.
12.0 noon — Station Orchestras. Conductors: Weisshaupt and Topitz; at 1.0-1.15 p.m.—Time; News.
2.0—News; Exchange.
2.15—See Berlin.
3.0-6.0—See Munich.
6.0—Opera Melodies (Records).
6.35 — Talk: Famous Battles — Palestine, 1916-1918.
6.55—Programmes.
7.0 (from Gleiwitz) — Hindenburg Madrigal Choir, a Lute Trio and the Beuthen Chamber Music Ensemble.
8.0—News.
8.10—"Musical Kaleidoscope"—Records.

THURSDAY (September 8)

9.0—Hattwig Trio, Trio in B flat (Mozart), Trio (Rachmaninoff).
10.0—News; Topical.
10.30—See Stuttgart.
12.0 m't.-3.0 a.m. (Friday)—See Königsberg.

BRNO

922 kc/s (325.4 m.); 32 kW. Transmits at intervals from 6.0 a.m. 6.0 p.m.—German Transmission: For Workers; Talks; Records. 6.35—Merkuriëff (Balalaika). 6.45—News (German). 7.0—See Prague. 7.25—8.35—See Bratislava. 8.35—See Prague. 9.5—Brno Salon Orchestra; "Allo" Vocal Trio. 9.55—See Prague. 10.15—11.0—Revue (Records) from Moravská-Ostrava.

BRUSSELS (No. 1)

620 kc/s (483.9 m.); 15 kW. 6.30-9.5 a.m.—Records; Gym; News. 12.0 noon—Records. 12.30 p.m.—Weather; Shipping. 12.35—Light Orchestral; at 1.0—News. 1.30—Records; Art Notes. 2.3 (approx.)—Programme from the Radio Exhibition, Brussels. 4.55—News; Records. 5.30—For Children. 6.0—For Women. 6.15—Light Orchestral. 7.0—For Workers; Records. 7.30—News. 8.0-11.0—Programme from Théâtre Royal de la Monnaie. "La Bohème" (Puccini). Orchestra, Conductor: Bastin. Cast: De Guyse, Toutenel, Wilkin, Resnik, Yvonne Ysaye, Mme Derval, etc.; Spanish Caprice (Rimsky-Korsakov). Orchestra, Conductor: Defossz. In the intervals at 9.10—Talk; Records; at 10.30—News; Records.

BRUSSELS (No. 2)

932 kc/s (321.9 m.); 15 kW. Programme in Flemish. 6.30-9.5 a.m.—Records; Gym; News. 12.0 noon—Records. 12.30 p.m.—Cabaret. 12.40—Brenders Jazz Band. 1.0—News; Salon Orchestra. 1.30-2.0—Cabaret; Records. 4.55—News. 5.0—Salon Orchestra; Records. 5.45—For Children; Records. 6.45—Talk; Film Notes. 7.3—Paul Van Crombruggen Music. Treza Van Aerden (Soprano), Alice Peeters (Pfte.). In memoriam. Children's Songs. Emmanuel. Pfte.; Parabola. Two Carols. Sinte Lutgardis. 7.30—Amateur Photography. 8.0—Records. 8.45—Talk: Thans, Priest-Poet. 9.0—Symphony Orchestra. Conductor: Dejoncker. Rosane Van Neste (Pfte.). Pfte. Concerto in C minor (Saint-Saëns). Ballet. "Raymonda" (Glazunov). 9.50—Hymn (Davies). 10.0—News. 10.10—Symphony Orchestra (cont'd). Bolero (Ravel). 10.30-11.0—Brenders Jazz Band.

BUCHAREST

823 kc/s (364.5 m.); 12 kW. Relayed by Radio-Romania, 160 kc/s (1,875 m.). Transmits at intervals from 7.30 a.m. 6.0 p.m.—Dance Records. 7.0—Talk. 7.15—Constantin Stroeescu (Songs). 7.40—Mme Maria Tanase (Romanian Folk Songs). 8.5—Art Notes. 8.20—Radio Orchestra. Conductor: Rogalski. 9.30—News; Sports Notes. 9.45—Restaurant Concert. 10.45—News in German.

BUDAPEST

546 kc/s (549.5 m.); 120 kW. Transmits at intervals from 9.30 a.m. 12.30 p.m.—Orchestra; at 1.5—Weekly Review. 2.0—Records. 3.0—Reading. 3.30—Station Band. 4.40—Reading. 5.10—Records. 6.15—Talk: The Two Wesselényi. 6.45—Pertis Cigány Band; at 7.15—News (Slovak). 7.50—Sports Report. 8.0—"From London to Bánfalva" —Play (A. and M. Simor). 9.0—News.

9.20—Budapest Concert Orchestra. Conductor: Rajter. Overture, "Der Freischütz" (Weber). Symphonic Poem, Don Juan (Strauss). Romantic Symphony (Count Eszterházy). 10.30—Sándor Végh (Violin). Sonata in A (Corelli). Romance in G (Beethoven). Scherzo (Dohnányi). La campanella (Paganini). 11.0—News (German, Italian). 11.10—Weidinger Jazz Band. 12.5 a.m. (Friday)—News.

COLOGNE

658 kc/s (455.9 m.); 100 kW. Transmits at intervals from 6.0 a.m. 12.0 noon—See Munich. 2.0 p.m.—News; Cologne Melodies. 3.0-6.0—See Munich. 6.0—Records. 6.10—Trio in F (Schumann), by the Ottersbach Trio. 6.35—Songs and Legends of Düren. 7.0—Orchestra. Conductor: Kühn (Recorded). Napoli (R. Strauss). Perpetuum mobile (Paganini). Excerpt, Symphonie fantastique (Berlioz). Finale from the Fourth Symphony (Tchaikovsky). 7.35—Records: Richard Strauss Songs by Schlusnus (Baritone). 8.0—News. 8.10—Station Choir and Orchestra. Conductor: Adams, Kunze (Bassoon). Male Voice Choir: Das Erdenlied (Haletski). Bassoon Concerto in B flat (Mozart). Glückwunschkantate (Lang). German Folk-Songs for Strings (Kässinger). Overture in D (Haydn). 9.0-10.0—See Munich. 10.0—News; Records. 10.30—See Hamburg. 12.0 m't.-3.0 a.m. (Friday)—See Königsberg.

DEUTSCHLANDSENDER

191 kc/s (1,571 m.); 60 kW. Transmits at intervals from 5.0 a.m. 12.0 noon—See Breslau. 1.45 p.m.—News. 2.0—Jäger Band and Records. 3.0—Weather; Markets; Exchange. 3.15—German Folk-Songs by the Berlin Hitler Youth Mozart Choir. 3.45—Records: Famous Choirs. 3.55—Programmes. 4.0—Dobrinth Band, Oskar Sala (Trautonium) and Walter Thiele (Pfte.). 5.0—Quartets (Reznicek, Beethoven) by the Kniestadt String Quartet. 6.0—Talk: The Styrian Iron and Steel Industry. 6.30—"Musikalische Spielsachen" (Kusche). The Composer and Schmidmeier (Pftes.) and Speakers (Recorded). 7.0—Italian and Hungarian Music—Orchestra. Conductor: List. Ruralia Hungarica (Dohnányi). Ballet Music, "La Boutique fantaisique" (Rossini-Respighi). In moto perpetuo (Paganini). Pester Carneval (Liszt). 8.0-10.20—Programme from Munich. 10.20—Serenade—Pfte. Trio in E (Mozart) by Riebensahm (Pfte.). Masurat (Violin) and Schrader (Cello). 10.45—Weather. 11.0—Hamburg Station Orchestra. Conductor: Müller-Lampertz (Recorded). Bridal Procession (Rimsky-Korsakov). Prelude à l'après-midi d'un faune (Debussy). Comedy Overture (Fiedler). Klehe Theater Suite (Lothar). Miniature Suite (Coates). Overture, Treffpunkt Wien (Fischer). 12.0 m't.-2.0 a.m. (Friday)—See Stuttgart; at 12.55—Time.

FRANKFURT

1,195 kc/s (251 m.); 25 kW. Cassel, etc. See Sunday. Transmits at intervals from 5.0 a.m. 12.0 noon—See Munich. 2.0 p.m.—Time; News. 2.15—See Hamburg. 3.0-6.0—See Munich. 6.0—Records: Schütz Dance Band. 7.0—Sports. 7.10 (from Cassel)—Variety Concert—Mandoline Band, Accordion Ensemble and Weidinger (Guitar). 8.0—Time; News. 8.15—Operetta Music—Station Choir and Orchestra. Conductor: Lobertz; Maria Madlen Madsen (Soprano) and Herrmann (Tenor). Excerpts, "Wiener Frauen" (Lehár), "La Mascotte" (Audran), "Die Käzchen" (Hugo Felix), "Die drei alten Schachteln" (Kollo), "Fanny Elssler" (Strauss), "Diplomatic

und Liebe" (Lobertz), "Mädi" (Stolz), "Prinz Eugen" (Pflugmacher), "The Tango Queen" (Lehár), "Glückliche Reise" (Künneke), "Abenteuer der Liebe" (Vetterling), "The Student Prince" (Romberg), "Die grosse Sünderin" (Künneke), "The Veil of Pierrette" (Dohnányi), "Die Kaiserin Katharina" (Kattnigg) and "Tatjana" (Lehár). In the interval, Schütz Dance Band. 10.0—Time; News; Sports. 10.20—Talk. 10.30-2.0 a.m. (Friday)—See Stuttgart. 2.0-3.0—Serenade from Königsberg.

HAMBURG

904 kc/s (331.9 m.); 100 kW. Bremen, etc. See Sunday. Transmits at intervals from 5.45 a.m. 12.0 noon—Kiel Orchestra. Conductor: Döring. 1.0 p.m.—Weather; Topical. 1.15—Music from Munich. 2.0—News. 2.15—Music. 3.0-6.0—See Munich. 6.0—German Youth from outside the Reich at the Microphone (Recorded). 6.30—Records. 6.45—Weather; Shipping. 7.0—Station Orchestra. Conductor: Manikowsky, Hermanns (Pfte.). Suite, Rakastava (Sibelius). Pfte. Concerto in F minor (Hermanns). Overture, Julius Caesar (Schumann). 7.45—Topical. 8.0—News. 8.10—Station Orchestra. Conductor: Manikowsky. Symphonic Poem, Les Préludes (Liszt). Overture, "Peter Schmolz" (Weber). German Dances (Schubert). Fröhliche Musik (Lürman). 9.0-10.0—See Munich. 10.0—News. 10.30 (from Hanover)—Orchestra. 12.0 m't.-3.0 a.m. (Friday)—See Königsberg.

HILVERSUM (No. 1)

160 kc/s (1,875 m.); 10 kW until 5.40 p.m.; 150 kW from 5.40 p.m. AVRO Programme: 7.40 a.m.—Time; Records. 9.40—Service; Records. 10.10—AVRO Orchestra (Recorded); at 10.40-11.10—Reading. 11.55—Weather; Records. 12.10 p.m.—AVRO Orchestra. Conductor: Treep. 1.40—Netty Nij-Smits (Soprano). 2.20—Records. 2.25—The Dutch Royal Anniversary: Launching by H.M. Queen Wilhelmina of the m.s. "Oranje" on the "Y," Amsterdam, followed by Review of Merchant Shipping. 4.10—For Invalids. 4.40—Stories for Children. 5.10—The Palladians. Ballet Music, "La Boutique fantaisique" (Rossini-Respighi). 6.10—Sports Talk. 6.40—Elsa Wolters (Pfte.). 7.10—The Dutch Royal Anniversary: Festivities in Amsterdam. 7.40—News. 7.55—Records: Music of Forty Years Ago. 8.5—"Forty Years of Operetta" (arr. Samehnti)—Choir and Orchestra. Conductor: Max Tak. Weynschenk-Hogenbrink (Soprano), Bep Ogerop (Contralto), Henk Viskil (Tenor), and Theo Bayle (Baritone). 9.5—"Forty Years of Cabaret" (arr. Alex de Haas). 9.40—Records. 10.10—The Dutch Royal Anniversary: Festivities in Amsterdam. 10.40—News; Harry Calling's Dance Band from the Carlton Hotel, Amsterdam. 11.40—National Anthem.

HILVERSUM (No. 2)

995 kc/s (301.5 m.); 10 kW until 5.40 p.m.; 60 kW from 5.40 p.m. Also on Jaarsveld, 722 kc/s (415.4 m.); 17 kW. 7.40-8.55 a.m.—KRO Programme: Records. 9.40-10.40—NCRV Programme: 9.40—Records. 9.55—Service; Records. 10.40 a.m.—1.40 p.m.—KRO Programme. 10.40—Records. 11.10—Religious Address. 11.40—Police Messages; Records. 12.10—Coleridge-Taylor Music—KRO Orchestra. Conductor: van 't Woud. Scenes from an Imaginary Ballet, African Suite. Excerpts, "Hiawatha." 12.40—Records. 1.0—KRO Orchestra. Conductor: van 't Woud.

1.40 till Close—NCRV Programme. 1.40—For Women. 2.10—The Dutch Royal Anniversary: Launching by H.M. Queen Wilhelmina of the m.s. "Oranje" on the "Y," Amsterdam, followed by Review of Merchant Shipping. 3.0—Records; Bible Reading. 4.25—Records. 4.40—For Children. 5.10—Quintolia Ensemble; Records. 6.25—Talk; Police Messages. 6.55—Weekly Press Review; Report. 7.40—News; S O S Messages. 7.55—"Wilhelmus van Nassauë;" Anthem of a Free Holland—Historical Scenes by a Verse-Speaking Choir, The Hague Singers and the NCRV Orchestra. Conductor: v.d. Hurk. 9.25—NCRV Orchestra. Conductor: v.d. Hurk, and Records. Een Nederlandsch Volksfeest (v.d. Roovert). Jubilee March (v.d. Mee). Holland in Song and Dance (Oomes). Records. Overture, "Rose Marie" (Vlesing). Potpourri of Dutch Songs (Jakma). Enfant de troupe (Barbe); at 9.40—Press Review. 10.25—Gym; Records. 11.30-11.40—Bible Reading.

KALUNDBORG

240 kc/s (1,250 m.); 60 kW. Relays Copenhagen, 1,176 kc/s (255.1 m.). Transmits at intervals from 7.0 a.m. 12.0 noon-2.0 p.m.—Julian Orchestra. 2.30—Preil's Ensemble; at 3.20—Reading (Herdal). 4.30—For Children; Notes; Reading. 5.25—Weather; Exchange; Markets. 5.50—Records. 6.15—Talk: Japan. 6.35—English Lesson. 7.0—Time; News. 7.30—Ernest Hemingway—Talk with Readings. 8.10—Scandinavian Music Festival from the Odd Fellows Palace—Norway. Radio Symphony Orchestra. Conductor: Grüner-Hegge, Erling Krogh (Songs). Part I. Theme with Variations (Ludvig Jensen). Excerpt, "The Bridegroom" (Grovén). Lucretia Suite (Sæverud). Part II. Excerpt, "Baldur's Dreams" (Tveit), conducted by the Composer. Rondo infinito (Sinding). 10.0—News; Weather. 10.20—Norway in Song—Nordraak and Grieg Songs by Alette Garde. 10.40—Excerpts, "Mad about Music." 10.55 p.m.—12.30 a.m. (Friday)—Preil's Dance Band; at 12.00 m't.—Chimes.

KÖNIGSBERG (Heilsberg)

1,031 kc/s (291 m.); 100 kW. Relayed by Danzig, 1,303 kc/s (230.2 m.). Transmits at intervals from 5.0 a.m. 12.0 noon—See Munich. 2.0 p.m.—News; Anniversaries; Records. 2.55—Exchange. 3.0-6.0—See Munich. 6.0—Records. 6.30—Talk: East Prussian Folk Customs. 6.50—Announcements. 7.0—Kranke (Violin) and Winkler (Pfte.). Eremitage (Niemann). Suite (Sinding). Pfte. Pieces (Tchaikovsky). 7.40—Topical Report. 8.0—News. 8.15—Musical Hints by Hans Hellholl, Peter Arco and the Station Dance Band. Conductor: Börschel. 10.0—News; Sports; Reading. 10.35—Orchestra. Conductor: Wilcken. 12.0 m't.-3.0 a.m. (Friday)—Serenade from Danzig—Orchestra. Conductor: Koschnick (Pfte.) and Böker (Tenor).

LEIPZIG

785 kc/s (382.2 m.); 120 kW. Relayed by Dresden, 1,285 kc/s (233.5 m.). Transmits at intervals from 5.50 a.m. 12.0 noon—See Munich. 2.0 p.m.—News; Exchange; Records. 3.0-6.0—See Munich. 6.0—Talk. 6.20—Opera Records. Excerpts, "The Barber of Seville" (Rossini), "Tsar and Carpenter" (Lortzing), "The Bartered Bride" (Smetana) and "Figaro" (Mozart). 6.45—Poems (Droste-Hülshoff). 7.0—Records: Folk-Music. 7.45—Topical.

8.0—News; Records. 9.0—See Berlin. 10.0—News; Sports. 10.30—See Stuttgart. 12.0 m't.-3.0 a.m. (Friday)—See Königsberg.

LILLE (Radio PTT Nord)

1,213 kc/s (247.3 m.); 60 kW. Transmits at intervals from 6.30 a.m. 7.0 p.m.—Station Orchestra. Conductor: Soret. Tendres reproches (Tchaikovsky). A Festival in Aranjuetz (Demerseman). Ballet, "Faust" (Gounod). 7.30—Radio Journal; Weather. 8.0—Thursday Night Variety. 9.15—Station Orchestra. Overture, "Die Jagd nach dem Glück" (Suppé). Cortège camavalesque (Razigade). Ma blonde amie (Volpatti). Selection, "The Three Musketeers" (Friml). Kermesse (Durand). Selection, "Fleur de thé" (Lecocq). Canzonetta (Filippucci). Waltz, Künstlerleben (Strauss). Dolce Minuetto (Drdla). Selection, "Manon" (Massenet). After the Programme—News.

MONTE CENERI

1,167 kc/s (257.1 m.); 15 kW. Transmits at intervals from 12.0 noon 7.50 p.m.—News. 8.0—Orchestra. Conductor: Nussio. Overture, "Der Freischütz" (Weber). The Unfinished Symphony (Schubert). The Moldau (Smetana). 8.45—"Un soggetto per novella"—Sketch (Frigerio). 9.0-10.15—Records: "Don Pasquale" (Donizetti).

MOSCOW

172 kc/s (1,744 m.); 500 kW. and 300 kc/s (1,000 m.); 100 kW. Transmits at intervals from 4.0 p.m. 6.0 p.m.—Literature; Concert or Opera (Records); at 6.30—Politics. 9.30—News; Kremlin Chimes. 10.0 p.m.—1.0 a.m. (Friday)—1,744 m. only. 10.0—Talks (French, Spanish).

MUNICH

740 kc/s (405.4 m.); 100 kW. Relayed by Nürnberg, 1,267 kc/s (236.8 m.). Transmits at intervals from 6.0 a.m. 12.0 noon—Station Dance Band and Ranftl Preissler and his Soloists. 2.0 p.m.—News; Exchange. 2.15—See Hamburg. 3.0-6.0 (from Nürnberg)—The Reich Party Congress—Gala Concert. In the intervals, Reports of the Athletic Contests. 6.0—Symphony Concert—Radio Orchestra. Conductor: Winter (Recorded). Overture, "Iphigenia in Aulis" (Glück). Symphony in C (Schubert). 7.0—Station Orchestra. Conductor: Mihalöver Kunig (Tenor) and Kühberger (Accordion); at 8.0—Time; News. 9.0-10.0 (from Nürnberg)—Reich Party Congress—Gala Radio Concert. In the intervals, Description of the Torchlight Procession of Political Leaders. 10.0—Time; News; Sports. 10.20—To be announced. 10.30—See Stuttgart. 12.0 m't.-3.0 a.m. (Friday)—See Königsberg.

NAPLES GROUP

Naples (No. 1), 1,104 kc/s (271.7 m.); 10 kW. Florence (No. 1), etc. See Sunday. Transmits at intervals from 7.45 a.m. 7.0 p.m.—Light Music; Topical. 7.20—Nineteenth Century Music. 8.0—Time; News. 8.30—"La romanza di Liszt" (Konyati). In the interval, Talks. 10.30 (approx.)—Dance Music. 11.0-11.55—News; Dance Music.

OSLO

260 kc/s (1,153.8 m.); 60 kW. Fredrikstad, etc. See Sunday. Transmits at intervals from 10.30 a.m. 5.5 p.m.—Records. 5.55—Service. 6.20—Concert. Part I: Norwegian Songs (Sinding) by Jenny Jahren. Part II: Norwegian Dances by Nils Borge (Violin). 6.45—News; Reading. 7.30—Ekeland (Accordion). 7.45—Records; Talk. 8.10—Scandinavian Music Festival (for details, see Kalundborg). 9.45—News; Topical Talk. 10.20-11.0—Billy Mayerl Music by the Bergen Radio Orchestra and Berge (Pfte.).

THURSDAY (September 8)

PARIS (Eiffel Tower)
1,456 kc/s (206 m.); 7 kW.
Transmits at intervals from 6.30 a.m.

PARIS (Poste Parisien)
959 kc/s (312.8 m.); 60 kW.
Transmits at intervals from 6.28 a.m.

PARIS (PTT)
695 kc/s (431.7 m.); 120 kW.
Transmits at intervals from 6.30 a.m.

PARIS (Radio-Paris)
182 kc/s (1,648 m.); 80 kW.
6.28 a.m.—Programmes.

PRAGUE
638 kc/s (470.2 m.); 120 kW.
Transmits at intervals from 6.0 a.m.

7.0—Time; News; Topical.
7.25-8.35—See Bratislava.
8.35—"The Music Cure"—One-Act Play (G. B. Shaw, trans. Tetauer).

RADIO EIREANN
565 kc/s (531 m.); 100 kW.
Dublin, etc. See Sunday.
1.30 p.m.—Records.
2.30-3.0—For Schools.



Exclusive "World-Radio" Picture
Madame Jeanne Andral, who sings Bourbon songs at Paris (PTT) at 4.45 p.m.

RADIO-NORMANDIE
1,411 kc/s (212.6 m.); 15 kW.
6.25 a.m.—Nos vieux pommiers (Dior).

5.15—For Boys and Girls.
5.45—Comedyland.
6.0—Markets.
6.5—Orchestra, Puccini Potpourri.

RENNES-BRETAGNE
1,040 kc/s (288.5 m.); 120 kW.
Transmits at intervals from 6.30 a.m.

ROME GROUP
Rome (No. 1), 713 kc/s (420.8 m.); 120 kW. Bari (No. 1), etc. See Sunday.

SAARBRÜCKEN
1,249 kc/s (240.2 m.); 17 kW.
Relayed by Kaiserslautern, 1,429 kc/s (209.9 m.).

SOTTENS
677 kc/s (443.1 m.); 100 kW.
Relayed by Geneva, 401 kc/s (748 m.).

STOCKHOLM
704 kc/s (426.1 m.); 55 kW.
Motala, etc. See Sunday.

5.45—Talk: Venison.
6.0—Records.
7.0—News; Weather; Topical.
7.30—Reading (Norhild).

STRASBOURG
859 kc/s (349.2 m.); 100 kW.
Transmits at intervals from 6.30 a.m.

STUTTGART
574 kc/s (522.6 m.); 100 kW.
Transmits at intervals from 5.45 a.m.

TOULOUSE (Radio-Toulouse)
913 kc/s (328.6 m.); 60 kW.
Transmits at intervals from 8.0 a.m.

TURIN GROUP
Turin (No. 1), 1,140 kc/s (263.2 m.); 7 kW. Milan (No. 1), etc. See Sunday.

(No. 1), Rome (No. 2), and Bolzano)—News and Talk in German.
9.0—Opera Records.
9.30—The International Festival of Contemporary Music at Venice: Symphony Concert.

VIENNA
592 kc/s (506.8 m.); 100 kW.
Graz, etc. See Sunday.
Transmits at intervals from 6.0 a.m.

3.0-6.0—See Munich.
6.0—Orchestra. Conductor: Kattning. Overture to an Opera. Ballet Suite (Lully).

WARSAW
224 kc/s (1,339 m.); 120 kW.
Cracow, etc. See Sunday.
Transmits at intervals from 6.15 a.m.

7.0 (from Lodz)—Violin Sonata (Grieg) by Nietsch and Heintze.
7.20—Topical Talk.
7.30 (from Katowice)—Salon Orchestra. Conductor: Leszczynski.

FRIDAY Sept. 9

National

For Time Signals, see Monday.
 10.15 a.m. (D)—Service.
 10.30 (D)—Weather Forecast.
 10.45—"African Shades and Side-lights;" Major G. Stuart-Reid.
 11.0—Harry Fryer's Orchestra.
 11.50—Norman Andrew (Organ).
 12.20 p.m.—Ben Oakley's Orchestra.
 12.55—Serial Reading from "The Old Wives' Tale," by Arnold Bennett.
 1.15—BBC Scottish Orchestra.
 2.15—Records.
 3.0—Geiger's Orchestra.
 3.30—George von Harten (Pfte.).
 4.0—Records.
 4.35—"Man from Outside," by L. Charles Douthwaite.
 5.0—Isidore Schwiller's String Sextet; The Cecilian Trio.
 6.0—The First News.
 6.30—"Laying a garden path;" W. P. Matthew.
 6.45—"Virginia;" Musical Comedy by Herbert Clayton and Jack Waller.
 7.45—Alvin Saxon's Dance Band.
 8.20—From the Promenade Concert at Queen's Hall, London: The Glinka Trio; BBC Symphony Orchestra, conducted by Sir Henry Wood—Beethoven.
 9.40—The Third News.
 10.5—"Lost in the Sahara;" A. E. Filby.
 10.20—"The Israelis in the Desert;" BBC Chorus and Orchestra, conducted by Reginald Jacques.
 11.0—George Elrick's Music Makers. 11.30-12.0—Dance Records.

London Regional

For Time Signals, see Monday.
 10.15-10.45 a.m.—National.
 10.45—Felton Rapley (Cinema Organ). 11.15—Eric Briens (Violin).
 11.45—Variety Orchestra of P.T.T. from Paris.
 12.30 p.m.—The Wessex Players.
 12.55—The Gerard Singers.
 1.15—Records.
 1.45—Eric Smith (BBC Theatre Organ). 2.15—Bufts Band.
 2.55—"Where to have your baby;" discussion between a doctor and a mother.
 3.15—Herman Darewski's Orchestra. 3.45—Orchestra.
 5.0—The Children's Hour.
 6.0—Bernard Crook Quintet.
 6.45—Ernest Frank (Baritone).
 7.0—The Story of Flodden: Colonel G. F. T. Leather.
 7.20—For Farmers.
 7.30—The Second News.
 7.58—Chess: BBC v. Listeners.
 8.0—"The Snake—Charmers of Egypt;" K. R. McPherson.
 8.20—Excerpt from "Paradise on Parade;" from Lowestoft.
 8.50—Walford Hyden's Café Colette Orchestra.
 9.30—Tobermory Treasure.
 10.30—George Elrick's Music Makers. 11.30—Records.
 11.50-12.0—Late News Summary.

Midland

10.15 a.m.—5.0 p.m.—Regional.
 5.0—The Children's Hour.
 6.0—Regional.
 6.45—William Chambers (Baritone).
 7.10—"The Road to Progress;" evening classes in the Midlands.
 7.20—Midland Announcements.
 7.30—Regional.
 8.0—See Nat. 10.45 a.m.
 8.20—Regional.
 8.50—Vincent Ladbroke's Orchestra. 9.30-12.0—Regional.

Northern

10.15 a.m.—5.0 a.m.—Regional.
 5.0—The Children's Hour.
 6.0—Bernard Crook Quintet.
 6.45—Regional.
 7.20—Brief Chronicle.
 7.30—Regional.
 8.0—"The New Brighton Folies—Pleasure on Parade."
 8.45—Gladys Ripley (Contralto).
 9.15—"My Week-end out of Doors;" William Aspden.
 9.30-12.0—Regional.

Western

10.45 a.m.—6.0 p.m.—National.
 6.0—Regional.
 7.0—"Soccer Coaching;" by F. N. S. Creek.
 7.20—Western Announcements.
 7.30—Regional.
 8.20—Variety from the Bristol Radio Exhibition. 8.50—Regional.

9.30—Swindon G.W.R. Male Voice Choir: Geoffrey Philippe (Pfte.).
 10.15-10.30—"The Wild Deer of England;" Hon. James Best.

Welsh

10.15 a.m.—Welsh Service.
 10.30-5.0 p.m.—Regional.
 5.0—The Children's Hour.
 6.0—BBC Welsh Orchestra: Brenda Harris (Soprano).
 6.50—Welsh Amateur Golf Championships. 7.0—Regional.
 7.20—Welsh Announcements.
 7.30—Regional.
 8.0—Baled a Sgwrs. 8.20—Regional.
 8.50—Tabernacle (Skewen) Male Voice Party: Emlyn Burns (Tenor). 9.30-12.0—Regional.

N. Ireland

10.15 a.m.—5.0 p.m.—Regional.
 5.0—The Children's Hour.
 6.0—Records.
 6.25—Rehearsal for "Army Day."
 6.45—Regional.
 7.0—"The Week-end out of Doors;" 7.20—N. Ireland News.
 7.30—Regional.
 8.0—Irish Open Amateur Golf Championships.
 8.10—Country Concert from Omagh, County Tyrone.
 8.35—"Coastal Ride, 1883;" Lloyd Campbell.
 8.50-12.0—Regional.

Scottish

10.15 a.m.—2.10 p.m.—Regional.
 2.10—Herring Fishing Bulletin.
 2.15-5.0—Regional.
 5.0—The Children's Hour.
 6.0—Military Band.
 6.30—"Next Week You'll Hear."
 6.40—"The Week-end out of Doors;" and "Saturday Sport."
 6.50—Nicholas Coia (Accordion).
 7.0—Regional.
 7.20—Scottish Announcements.
 7.30—Regional.
 8.0—Gaiety Whirl, 1938: variety.
 8.30—Visitors' Book.
 8.50—Regional.
 10.30—Scottish Sports News.
 10.35-12.0—Regional.

Hours of Transmission in British Summer Time.

BERLIN

841 kc/s (356.7 m.); 100 kW. Transmits at intervals from 6.0 a.m.
 12.0 noon—See Saarbrücken.
 2.0 p.m.—News; Records.
 2.30—See Munich.
 6.0—Light Music—Libiszowski Orchestra and Records.
 8.0—See Munich.
 9.30—"Rhythm"—Records.
 10.0—News; Sports Reports.
 10.30—See Leipzig.
 12.0 m't.—3.0 a.m. (Saturday)—See Königsberg.



Othmar Schoeck, to whose music Beromünster devotes its programme at 9.45 p.m.

BEROMÜNSTER

556 kc/s (539.6 m.); 100 kW. Relayed by Basle and Berne, 1,375 kc/s (218.2 m.).
 12.0 noon (from Berne)—Preludes.
 12.29 p.m.—Time; News; Exchange.
 12.40 (from Berne)—Concert.
 4.30—Fashion Talk.
 5.0—Zürich Radio Orchestra. Con-

ductor: Hofmann. Part I: Haydn Music. Part II: Three Famous Waltzes.

6.0—Weather; Records.
 6.30—For Children; Records.
 7.0—Time; Markets; Sports.
 7.10—Psychology and Crime.
 7.35—Records.
 7.45—News.
 7.55—"Freiberger-Juraland"—Folk Programme.
 9.45—Wandsbecker Liederbuch (Schoeck).
 10.25-10.30—Announcements.

BRATISLAVA

1,004 kc/s (298.8 m.); 13.5 kW. Transmits at intervals from 6.0 a.m.
 6.0 p.m.—Hungarian Transmission: Topical; Report; Talk.
 6.45—News in German.
 7.0-8.25—See Prague.
 8.25—"Between Six and Seven"—Comedy (Kreische, trans. Rusko), from Kosice.
 9.10-10.15—See Prague.
 10.15—News in Hungarian.
 10.30-11.0—See Prague.

BRESLAU

950 kc/s (315.8 m.); 100 kW. Relayed by Gleiwitz and Görlitz, 1,231 kc/s (243.7 m.). Transmits at intervals from 5.0 a.m.
 12.0 noon—See Hamburg.
 2.0 p.m.—News; Records.
 2.30—See Munich.
 6.0—Records: Modern Marches.
 6.30—Reading (Ahlers).
 6.50—Programmes; Markets.
 7.0 (from Gleiwitz)—"Farewell to Summer"—Sequence (Hayduk) with the Station Orchestra and Dramatic Troupe.
 8.0—See Munich.
 9.30—Classical Records.
 10.0—News; Interlude.
 10.30—Serenade—Station Orchestra, Conductor: Günther; Elisabeth Sprung (Soprano).
 12.0 m't.—3.0 a.m. (Saturday)—See Königsberg.

BRNO

922 kc/s (325.4 m.); 32 kW. Transmits at intervals from 6.0 a.m.
 6.0 p.m.—German Transmission: Talks; Records.
 6.35—For Scouts.
 6.45—News in German.
 7.0-8.25—See Prague.
 8.25—"Cello Sonata in F (R. Strauss)."
 8.50-10.20—See Prague.
 10.20—News in Esperanto.
 10.30-11.0—See Prague.

BRUSSELS (No. 1)

620 kc/s (483.9 m.); 15 kW.
 6.30-9.5 a.m.—Records; Gym; News.
 12.0 noon—Records.
 12.30 p.m.—Weather; Shipping.
 12.35—Radio Orchestra; at 1.0-1.10—News.
 1.30—Records; Art Notes.
 2.5—Programme from the Brussels Radio Exhibition.
 4.55—Announcements.
 5.0—Russian Music. Radio Orchestra, Conductor: Gason; Russian Mixed Choir of Brussels. Selection, "Ruslan and Ludmila" (Glinka). Three Songs. Spanish Caprice (Rimsky-Korsakov).
 Choir: (a) Prayer (Archangelsky), (b) Folk Song (Rimsky-Korsakov), (c) Song of the Don Cossacks. Selection, "The Sleeping Beauty" (Tchaikovsky).
 6.0—For Soldiers.
 6.18—Mlle Essler (Songs).
 6.30—Arabesque and Etudes (Schumann) by Constant (Pfte.).
 6.50—Berlioz Records.
 7.0—For Women.
 7.15—A Competition.
 7.30—News.
 8.0—The Tenth Anniversary of the "Fraternelles des Régiments des Carabiniers." Record: Marche héroïque de la Tribune (Gilson). Address by Lt.-Gen. Biebuyck, Aide-de-Camp to H.M. King Leopold. Marches by the Band of the "Régiment de Carabiniers Prince Baudouin."
 9.0—Health Talk; Record.
 9.15—Records (Brahms, Joh. Strauss).
 10.0—News; Grieg Records.
 10.20—Talk; Handel Records.
 10.57-11.0—March (d'Haet).

BRUSSELS (No. 2)

932 kc/s (321.9 m.); 15 kW. Programme in Flemish.
 6.30-9.5 a.m.—Records; Gym; News.
 12.0 noon—Excerpts, "L'esir d'amore" (Donizetti) (La Scala, Milan, Recordings).
 12.31 p.m.—Brenders Dance Band; at 1.0—News; Shipping.
 1.30-2.0—Song Records.
 4.55—Announcements.
 5.0—The Flemish Quartet. Quartet (Schrey), Quartet (Smit-Sibinga). Quartet in D (Mozart).

6.0—New Records.

6.45—The Royal Flemish Opera Season, 1938-1939—Interview with M. Sterkens.
 7.0—Brenders Dance Band.
 7.30—I.N.R. Review.
 8.0—Light Orchestral. Conductor: Walpot.
 8.45—"Paris dances the Can-Can"—Radio Play (René Renquin and F. Hall).
 9.25—Light Orchestral (contd.).
 10.0—News.
 10.10-11.0—Records, Spanish Caprice (Rimsky-Korsakov) by the Lamoureux Orchestra. Conductor: Albert Wolff. Suite, Façade (Walton). Gli Uccelli (Respighi) by the Brussels Conservatoire Orchestra. Conductor: Defaw.

BUCHAREST

823 kc/s (364.5 m.); 12 kW. Relayed by Radio-Romania, 160 kc/s (1,875 m.). Transmits at intervals from 5.30 a.m.
 6.0 p.m.—Science Notes; Records.
 7.20—Talk.
 7.35—Sibiceano (Pfte. Jazz).
 8.5—Talk.
 8.25—"Lucia di Lammermoor" (Donizetti) (Recorded); at 9.5-9.15—News; and at 9.50-10.0—Sports Notes.
 10.45—News (French, German).

BUDAPEST

546 kc/s (549.5 m.); 120 kW. Transmits at intervals from 6.45 a.m.
 12.5 p.m.—Station Orchestra; at 12.30—News.
 1.30—Lajos Kiss-Cigány Band.
 2.35—News.
 4.15—For Schools.
 4.45—News.
 5.0—Talk: Air Defence.
 5.25—István Haydu ('Cello).
 6.0—Sports Reports.
 6.10—Records.
 7.0—Talk.
 7.30—János Christophides and Konstantin Liontas (Greek Songs).
 8.15—Foreign Affairs.
 8.30—Budapest Concert Orchestra. Conductor: Fridl. Overture, "Rienzi" (Wagner). Hungarian Rhapsody (Siklos). Caucasian Sketches (Ippolitov-Ivanov).
 "Ballet Scenes (Nagy). Waltz, Mein Lebenslauf ist Lieb' und Lust (Strauss).
 9.40—News.
 10.5—Lakatos Cigány Band, from the Ketter Restaurant.
 11.0—News in English and French.
 11.10—Géza Miletin Jazz Trio from the Hotel Bellevue.
 12.5 a.m. (Saturday)—News.

COLOGNE

658 kc/s (455.9 m.); 100 kW. Transmits at intervals from 6.0 a.m.
 12.0 noon—Dances—Station Orchestra. Conductor: Breuer.
 2.0 p.m.—News; Records.
 2.30—See Munich.
 6.0—Grünhorn (Recorder), Hildebrandt (Pfte. and Harpsichord).
 6.30—Street Singers and Musicians from a Dozen Villages.
 7.0—Operetta Records.
 7.45-9.30—Programme from Munich.
 9.30—Erich Rummel Trio. Scherzo (Gade). Pfte. Waltz (Chopin). Minuet (Bizet). Violin: (a) Arva-Walzer (Juan), (b) Hejre Kati (Hubay). Dance (Grieg). 'Cello: Le tambourin (Leclair). Spanish Dance (Arbos).
 10.0—News; Records.
 10.30—See Leipzig.
 12.0 m't.—3.0 a.m. (Saturday)—See Königsberg.

DEUTSCHLANDSENDER

191 kc/s (1,571 m.); 60 kW. Transmits at intervals from 5.0 a.m.
 12.0 noon—See Hamburg.
 1.45 p.m.—News.
 2.0—Jäger Band and Records.
 3.0—Weather; Markets; Exchange.
 3.15—Reinecke Songs—Emmi Goedel-Dreising Children's Choir.
 3.35—Reading; Programme Notes.
 4.0—Dobrinđ Band; Violin.
 5.0—Pfte. Sonata in B flat (Schubert) by Rosl Schmid.
 5.30—Franz, Jensen and Wolf Songs by Lilly Neitzer (Contralto).
 6.0—For Hitler Youth.
 6.30—Old Instruments—Programme by Joachim Altemark.
 7.0—Music from the East Mark—Berlin Station Orchestra. Conductor: Heinrich Steiner (Recorded).
 8.0-10.20—See Munich.
 10.20—Heitmann (Schneider Organ)—from the Eosander Chapel, Charlottenburg Castle (Recorded). Prelude in D minor (Pachelbel). Prelude and Fugue in E (Buxtehude). Fantasia and Fugue in G minor (Bach).

11.0—Vienna Symphony Orchestra. Conductor: Konrath (Recorded). Overture, "Preciosa" (Weber). Ballet, "Paris and Helen" (Glück). Suite, "Donna Diana" (von Reznicek). Lyric Suite (Grieg). Second Hungarian Rhapsody (Liszt). Wiener Jubel-Ouverture (Suppé). Charakteristischer Marsch (Schubert-Riedinger). Perlen der Liebe (Strauss). Lyrische Tanzmusik (Sieg). Overture, "Der Lustige Krieg" (Strauss).
 12.45 a.m. (Saturday)—Records.
 1.6-2.0—Concert from Frankfurt.

FRANKFURT

1,195 kc/s (251 m.); 25 kW. Cassel, etc. See Sunday.
 Transmits at intervals from 5.0 a.m.
 12.0 noon—See Saarbrücken.
 2.0 p.m.—Time; News.
 2.30—See Munich.
 6.0—Opera Records.
 7.0—Reading (Kramer).
 7.15—Old and New Dance Music—Schütz Band.
 8.0—See Munich.
 9.30—Concert on Records.
 10.0—Time; News.
 10.30—See Leipzig.
 12.0 m't.—Station Choir and Orchestra. Conductor: Frickhoefer. Hoehn (Pfte.), Cova Wackers (Soprano), Sabel (Tenor) (Recorded). Overture, "Prometheus" (Beethoven). Fantasia for Pfte., Choir and Orchestra (Beethoven). Huldigungsmarsch (Wagner). Five Songs for Orchestra (Stephan). Pfte. Concerto in B flat minor (Tchaikovsky). Three Songs (R. Strauss). Don Juan (R. Strauss). 2.0-3.0 a.m. (Saturday)—Serenade from Königsberg.

HAMBURG

904 kc/s (331.9 m.); 100 kW. Bremen, etc. See Sunday. Transmits at intervals from 5.45 a.m.
 12.0 noon—Bremen Stadtmusikanten and Fäcknitz (Baritone).
 2.0 p.m.—News.
 2.15—Light Music.
 3.0—Shipping; Markets.
 3.25—Beethoven Records. Pfte. Concerto in B flat, by Elly Ney and the Berlin Provincial Orchestra. Conductor: Zaun. Egmont Overture.
 4.0—Programme from Munich.
 5.30—Johann Strauss Records.
 6.0—For Children.
 6.10—Hoffmann (Violin).
 6.45—Weather; Shipping.
 7.0—Station Orchestra. Conductor: Secker. Overture, "The Black Domino" (Auber). Intermezzo (Granville Bantock). Lyric Suite (Grieg). Dance of the Nymphs and Satyrs (G. Schumann) Selection, "Tiefland" (d'Albert). Waltz, Wiener Blut (Strauss). Overture, "The Ace of Hearts" (Künneke).
 8.0—See Munich.
 9.30—Handel, Weber and Verdi Opera Records.
 10.0—News.
 10.30—See Leipzig.
 12.0 m't.—3.0 a.m. (Saturday)—See Königsberg.

HILVERSUM (No. 1)

160 kc/s (1,875 m.); 10 kW. until 5.40 p.m.; 150 kW from 5.40 p.m.
 7.40-9.40 a.m.—VARA Programme: Records.
 9.40—VPRO Service.
 10.0-11.40—VARA Programme.
 10.0—Records.
 10.40—Recitation.
 11.0—Steyn (Organ).
 11.40 a.m.—3.40 p.m.—AVRO Programme.
 11.40—Time; Records.
 12.10—Palla (Organ). Nina Dolce (Violin), van der Horst ('Cello), Scholte (Songs), Kuyper (Clarinet, Saxophone), van Oest (Pfte.) and van Cappelle (Accordion).
 1.40—Riek van Veen (Contralto) and Griesev (Pfte.).
 2.30—Records of the Concertgebouw Orchestra.
 3.0—The Dutch Royal Anniversary: Conferring of an Honorary Degree on H.M. Queen Wilhelmina by Amsterdam University.
 3.40-7.10—VARA Programme.
 3.40—Fantasia Ensemble; Records.
 4.45—For Children.
 5.10—Jonig (Organ).
 6.10—Lijerary Talk.
 6.30—Records; Talk.
 7.0—Press Review.
 7.10-8.40—VPRO Programme.
 7.10—Church Notes; Talk.
 7.40—Oilly Folge Fonden (Violin) and Flipse (Pfte.).
 8.10—Talk by Prof. Lindeboom.
 8.40-10.20—VARA Programme.
 8.40—VARA Orchestra. Conduc-

tor: de Groot. Overture, "Die Felsenmühle" (Reissiger). From the Minuet to the Waltz (Geisler). Kleine Wiener Musik (Pacher-negg). Fantasia on "Schenkl man sich Rosen in Tirol" (Zeller-Schmalstich). Klingende Miniaturen (Noack). Sempre avanti (Fucik).
 9.25—Recitations.
 9.40—Esmeralda Septet.
 10.10—Press Review.
 10.20—VPRO Religious Talk.
 10.40-11.40—VARA Programme.
 10.40—Records.
 11.10-11.40—Jazz Records.

HILVERSUM (No. 2)

995 kc/s (301.5 m.); 10 kW until 5.40 p.m.; 60 kW from 5.40 p.m. Also on Jaarsveld, 722 kc/s (415.4 m.); 17 kW.
 NCRV Programme.
 7.40 a.m.—Bible Reading; Meditation.
 7.55—Records; at 9.10—Greetings.
 10.10—Service; Records.
 10.55—Manny Lighthart (Soprano). Records in the interval.
 11.40—Police Messages; Records.
 12.10 p.m.—"All Round" Sextet. Records in the interval.
 1.40—Records.
 2.10—The Dutch Royal Anniversary: Conferring of an Honorary Degree on H.M. Queen Wilhelmina by Amsterdam University.
 2.55—v. d. Horst Ensemble. Canonetta (Friml). Poème (Fibich). Hollandse molen (Heykens). Romance (Svensden). Scènes montagnardes (Diffl). Torna a Surriento (de Curtis).
 3.25—The Dutch Royal Anniversary: Youth's Homage to H.M. Queen Wilhelmina, from the Olympic Stadium, Amsterdam.
 5.10—Gray (Organ).
 6.10—For Gardeners.
 6.40—Police Messages and Church Notes.
 6.55—Literary Programme.
 7.25—Report.
 7.40—News; SOS Messages.

7.55—Gala Concert for the Dutch Royal Anniversary. Utrecht Municipal Orchestra, the "Toonkunst" Choir, To van der Sluys (Soprano), Roos Boelsma (Contralto), Schipper (Tenor), Bogtman (Bass). Conductor: Mengelberg. Suite (Pezel). Overture to the Suite in D (Bach). Te Deum Laudamus (Purcell).
 8.50—Talk by Prof. Gerritson.
 9.20—Gala Concert (contd.). Te Deum Laudamus (Diepenbrock).
 9.55—Press Review.
 10.0—Lafosse (Pfte.). Rêves d'une jeune fille (Behr). Elfentanz (Grieg). Folk Song (Grieg). Records. Invitation to the Dance (Weber).
 10.25—Sports Notes.
 10.40—Lafosse (Pfte.). Humoresque (Gade). Novelette (Gade). Waldesrauschen (Braungard). Liebesständchen (Fliege). Minuet (Paderewski).
 11.0—Records.
 11.30-11.40—Bible Reading.

KALUNDBORG
 240 kc/s (1,250 m.); 60 kW. Relays Copenhagen, 1,176 kc/s (255.1 m.).
 Transmits at intervals from 7.0 a.m.
 11.15 a.m.—The Law Society's Third Centenary Celebrations from the University Hall. Students' Choral Society; Address; Greetings.
 12.0 noon-2.0 p.m.—Wivex Orchestra.
 2.30—Talk for Women: The American Housewife.
 3.0—Julian Orchestra.
 4.30—For Children; Notes.
 5.0—Talk: The Press.
 5.25—Weather; Exchange; Markets.
 5.50—Songs. "The Cinema Star" (Gilbert) by Kay Abrahamsen.
 6.15—Talk: Bird Migration.
 6.35—German Lessons.
 7.0—Time; News.
 7.30—Talk: Bishop Grundtvig.
 8.0—Songs. "The Manservant" (Stentoft) by Osvald Helmhuth.
 8.10—Scandinavian Music Festival from the Oddfellows Palace—Denmark. Radio Symphony Orchestra. Conductors: Hoeborg, Grendahl, and Tuxen. Holger Gilbert-Jespersen (Flute), Edith Oldrup Pedersen (Soprano), Ingeborg Steffensen (Songs). Part I. Overture, The Norsmen (Borresen). Flute Concertino (Tarp). Symphony in C minor (Gram). Part II. Un cantus firmus (Hamerik). Slaraffenland (Riisager). "Five Swans," for Soloists, Choir and Orchestra (Hoffding).
 10.0—News.

LEIPZIG
 785 kc/s (382.2 m.); 120 kW. Relayed by Dresden, 1,285 kc/s (235.5 m.).
 Transmits at intervals from 5.50 a.m.
 12.0 noon—See Saarbrücken.
 2.0 p.m.—News; Records.
 2.30—See Munich.
 6.0—Talk: Saxony and German Culture.
 6.20—Records.
 7.0—Marches and Waltzes—Station Choir and Orchestra. Conductor: Kretzschmar.
 7.40—Evening Review.
 8.0—See Munich.
 9.30—Military Band. Conductor: Bammel.
 10.0—News; Sports Notes.
 10.30—Dance and Light Music—Fricke Band, Else Wolf (Soprano), Brendel (Xylophone), Thomas Steiner (Songs to the Harp).
 12.0 m't.-3.0 a.m. (Saturday)—See Königsberg.

LILLE (Radio PTT Nord)
 1,213 kc/s (247.3 m.); 60 kW. Transmits at intervals from 6.30 a.m.
 7.30 p.m.—News; Weather.
 8.0—Dialect Programme.
 8.30—Symphony Concert from Vichy. After the Programme, News.

MELNIK
 1,113 kc/s (269.5 m.); 100 kW. Transmits at intervals from 6.0 a.m. Programme in German.
 8.0 p.m.—Station Orchestra and Choir.
 9.30—Prague String Quartet. String Quartet in D minor (Smetana). String Quartet in D (Mozart).
 10.15—News; Sports Notes.
 10.30-11.0—Contemporary Music—Chamber Orchestra, Conductor: Behr. Olga Forrai (Soprano). "Serenades"—Cantata for Soprano, Oboe, Viola and 'Cello (Hindemith). The Chinese Flute (Tsch.).

MONTE CENERI
 1,167 kc/s (257.1 m.); 15 kW. Transmits at intervals from 12.0 noon.
 7.0 p.m.—Records.
 7.50—News; Records.
 8.20—Talk: Great Campaigns of the Swiss Armies.
 8.40-10.15—See Sottens.

MOSCOW
 172 kc/s (1,744 m.); 500 kW and 300 kc/s (1,000 m.); 100 kW. Transmits at intervals from 4.0 p.m.
 6.0 p.m.—Concert or Opera (Records). at 6.30—Politics.
 9.30—News; Kremlin Chimes.
 10.0 (on 1,000 m. only)—Concert.
 10.0 p.m.-1.0 a.m. (Saturday): 1,744 m. only.
 10.0—Talks (English, German).
 12.0 m't.—Spanish Programme.

MUNICH
 740 kc/s (405.4 m.); 100 kW. Relayed by Nürnberg, 1,267 kc/s (236.8 m.).
 Transmits at intervals from 6.0 a.m.
 12.0 noon—See Saarbrücken.
 1.0 p.m.—Time; News; Topical.
 1.15—Station Orchestra.
 2.0—News; Records.
 2.30 (from Nürnberg). The Reich Party Congress—Festival Concert, with Reports on the Nazi Light Athletics Contests.

NAPLES GROUP
 Naples (No. 1), 1,104 kc/s (271.7 m.); 10 kW. Florence (No. 1), etc. See Sunday.
 Transmits at intervals from 7.45 a.m.
 7.0 p.m.—Light Music.
 7.20—Guido Monaco Choir of Prato.
 8.0—Time; News.
 8.30—Song Potpourri by the Radio Orchestra.
 9.15—"Una storia di Gatti"—Sketch (Metz).
 9.30—Concert.
 10.30 (approx.)—Dance Music.
 11.0—News.
 11.15-11.55—Dance Music.

OSLO
 260 kc/s (1,153.8 m.); 60 kW. Fredrikstad, etc. See Sunday.
 Transmits at intervals from 10.30 a.m.
 5.5 p.m.—Café Concert.
 5.45—Talk.
 6.5—Amalie Christie (Pfte.). Impromptu (Schubert). Theme with Variations (Schubert). Kinderspiel (Brustad).
 6.25—Shakespeare Songs (Castelnuovo-Tedesco).
 6.45—News.
 7.15—Concert.
 7.45—Report.
 8.10—Scandinavian Music Festival (for details, see Kalundborg).
 9.10—A Play.
 9.40—News; Topical Talk.
 10.15—Variety Programme.

PARIS (Eiffel Tower)
 1,456 kc/s (206 m.); 7 kW. Transmits at intervals from 6.30 a.m.
 3.30 p.m.—Dramatic Programme by the Art et Liberté Players: (a) "L'eau qui dort"—Three-Act Play (Roger-Marx). (b) "Beethoven et le Jazz"—One-Act Fantasy (Delamare).
 5.0—Concert from Bordeaux-Lafayette.
 5.45—Concert from Lyons (PTT); Talks.
 7.0—Mme Darvys (Songs), Mme Haas-Hamburger (Pfte.).
 7.30—News; Weather; Time.
 8.0—Lucy Rosen (Songs), Maillard-Verger (Pfte.).
 8.30—Literary and Musical Programme. Part I: Great Musical and Literary Epochs, presented by René Dumesnil, with Paul Castan. Conductor: Raugel. "La gageure imprévue"—Play (Sedaine, 1768). Part II: "La quinzaine sonore"; Radio Fantasy (P. and R. Constantin-Brive).
 10.30—Records.
 11.0-11.15—News; Weather.

PARIS (Poste Parisien)
 959 kc/s (312.8 m.); 60 kW. Transmits at intervals from 6.28 a.m.
 6.0 p.m.—News; Exchange.
 6.10—Quartet (Lekeu), by the Lancker Quartet (Records).
 6.35—Music; Talk.
 6.58—Racing; Sports Notes.
 7.10—Amusement Guide.
 7.12—Weekly Review.
 7.17—Waltz Records.
 7.45—Records: Fauré Songs.
 8.0—Topical.
 8.10—Adison Jazz Band.
 8.25—Fifteen Minutes' Recreation presented by Robert Desnos.
 9.0—To be announced.
 12.0 m't.—News.

PARIS (PTT)
 695 kc/s (431.7 m.); 120 kW. Transmits at intervals from 6.30 a.m.
 2.30 p.m.—"La farce du Cuvier" (Dupont).

PARIS (Radio-Paris)
 182 kc/s (1,648 m.); 80 kW.
 6.28 a.m.—Programme Notes.
 6.30—Time; News; Records.
 6.50—Gym and Records.
 8.30-9.7—Time; News; Records.
 9.45—Programmes; Records.
 10.45—Reading; Records.
 11.45—Markets; Water Level.
 12.0 noon—Economics; Records.
 1.0 p.m.—Time; News.
 1.30—Charles Paul (Songs).
 2.0—Programmes; Talks.
 2.30—Exchange; Records.
 3.15—Anecdotes; Talk.
 3.45—Exchange; Talk.
 4.15—Jane Andral (Songs).
 4.30—Reading; Records.
 4.50—Markets; Exchange.
 5.0—Loewenguth Quartet: Marcelle Gerar (Songs); Jean Hubeau (Pfte.).
 6.0—Classical Records.
 6.30—Racing; Talk; Reading.
 6.58—Programme Notes.
 7.0—Jamet (Harp). Variations on a Minor Theme (Hansen). La fille aux cheveux de lin (Debussy). Impromptu (Fauré).
 7.15—Records; Reading; Talk.
 7.59—Time; Home Affairs.
 8.8—Foreign Affairs.
 8.15—Piercé, Chausson and Ravel Songs by Mlle Pérugia.
 8.30—"Le Prix Martin"—Three-Act Play (Labiche-Augier), with Introductory Talk, at 9.30 (approx.)—News; Press Review; For Ex-Servicemen.
 10.30—Records: Light Music.
 10.45—Time; News; Weather.
 11.0—Concert. Conductor: Rhéné-Baton. Cathelat (Songs). Symphony (Bizet). Voice and Orchestra: Poème de l'amour et de la mer (Chausson). Overture, "Cyrano de Bergerac" (Wagenaar).
 12.30 a.m. (Saturday) — Programmes.

PRAGUE
 638 kc/s (470.2 m.); 120 kW. Transmits at intervals from 6.0 a.m.
 6.20 p.m.—Operetta Music—FOC Orchestra. Conductor: Pekárek. Selection, "Eva" (Lehár). Overture, "The Vintage's Bride" (Nedbal). Excerpts, "Firefly" (Friml).
 7.0—News; Topical; Record.
 7.30—Talk: Masaryk.
 8.0—Prague Teachers' Choir. Conductor: Doležil (Recorded).
 8.25—String Quartet in B (Mechura) by the Ondříček Quartet.
 8.50—One-Act Play with Music by Dvořák.
 9.10—Symphony in B flat (Dvořák) by the Station Orchestra. Conductor: Jeremiás.
 10.0—Time; News; Sports Notes.
 10.15—Horse Racing Report.
 10.20—See Brno.
 10.30-11.0—Bartsch ('Cello). Sonata (Galeotti - Register). Tocata (Frescobaldi - Cassado). Elegiac Song (F. Schmitt). Slezciak (Piercé). Pièce en forme de habañera (Ravel). Nocturne (Fauré). Papillon (Fauré).

RADIO EIREANN
 565 kc/s (531 m.); 100 kW. Dublin, etc. See Sunday.
 1.30 p.m.—Records.
 2.30-3.0—For Schools.
 5.30—A. L. Molloy's Ceilidhe Trio.
 5.50—Home Dressmaking, No. 4.
 6.5—Records: Trio (Beethoven) by Cortot (Pfte.). Thibaud (Violin), Pau Casals ('Cello).
 6.45—News.

RADIO-MÉDITERANÉE
 1,276 kc/s (235.1 m.); 27 kW. Transmits at intervals from 12.15 p.m.
 7.0 p.m.—Dance Music.
 7.15—Talk.
 7.30—Sports Notes.
 7.45—Request Programme.
 8.0—Talk.
 8.10—News; Exchange.
 8.15—Excerpts, "Yana" (Riche-pin-Christine).
 8.30—Variety.
 9.5—Weather Report.
 9.10—Variety.
 10.0—Radio Journal.
 10.15—Programme from the Sporting Club, Monte Carlo.

RADIO-NORMANDIE
 1,411 kc/s (212.6 m.); 15 kW.
 6.25 a.m.—Nos vieux pommiers (Dior).
 6.30—Press Review; Music.
 7.0—Swing Something in the Morning—Teddy Foster and Betty Kent (Songs).
 7.15—Music; Weather.
 7.30—Time; Bill on Parade.
 7.45—Physical Exercises.
 8.0—Music in the Morning.
 8.15—Time; Browning and Starr.
 8.30—News.
 8.40—Your Message from the Stars.
 8.45—Smiles, Songs, and Stories.
 9.0—Time; Round the World.
 9.15—The Songs we used to sing.
 9.30—Radio Favourites.
 9.45—Popular Music and Talk.
 10.0—Time; A Refreshing Programme.
 10.15—Dream Waltzes.
 10.30—Songs and Music from Stage and Screen.
 10.45—Light Music.
 11.0—Time; Donald Peers, Cavalier of Song, with Arthur Young.
 11.15—Something for Everybody.
 11.30—Orchestra.
 12.0 noon—Concert.
 12.20 p.m.—News.
 12.40—Talk by M. de Chappeldelaine.
 1.0—Concert.
 2.0—Miniature Matinée.
 2.30—The Songs we know them by.
 2.45—Hill-Billy Songs.
 3.0—Time; Radio-Normandie Concert Hall.
 3.15—Normandie Playbill—Announcements; Music.
 3.30—The Musical Mirror.
 3.45—The Pleasant Quarter-Hour.
 4.0—Time; What's in a Name—Frank.
 4.15—What's On.
 4.30—Russian Music.
 4.45—The Musical Magazine; at 5.0—Time.
 5.15—For Boys and Girls.
 5.30—Request Music.
 6.0—Children's Corner.
 6.45—Talk; News; Racing.
 7.0—Light Music.
 7.30—News; Talk.
 7.50—Records of Albert Préjean.
 8.0—Variety.
 8.45—"The Pearl Fishers" (Bizet) from the Casino, Fécamp.
 11.0—Café Concert.
 12.0 m't.—Melody at Midnight. Guest Artist: Michael Carr.
 12.30 a.m. (Saturday) — Time; Swing Something in the Morning.
 12.45-2.0—Time; Dance Music; at 1.45 and 1.30—Time.

RENNES-BRETAGNE
 1,040 kc/s (288.5 m.); 120 kW. Transmits at intervals from 6.30 a.m.
 8.0 p.m.—News; Records.
 8.15—Talk.
 8.30—Concert. Conductor: Bilew-ski. Overture, "A Midsummer Night's Dream" (Mendelssohn). Dolly (Fauré). Songs. La flûte de Pan (Mouquet). Danse macabre (Saint-Saëns). Songs. Un dimanche basque (Laparra). Danse of the Sylphs, "The Damnation of Faust" (Berlioz). Danse persane (Giraud). After the Programme, News and Concert from Paris.

FRIDAY (September 9)

4.0—Variety Concert with Cabaret from the Radio Exhibition.
5.0—Derveaux Orchestra. Overture, "Fra Diavolo" (Auber). Lyric Suite (Grieg). Simplicité (Gabrieli-Marie). Selection, "Marietta" (O. Strauss). Descriptive Piece (Turina). Ballet, "Lakmé" (Delibes). La Féria (Lacôme).
6.0—Educational.
6.30—Renée Sénac (Songs).
6.45—Jeanne-Marie Darré (Pfte.). (Schubert - Liszt, Mendelssohn, Thieret, Prokofiev).
7.0—Radio Journal; News.
8.0—Talk: Müllöcker.
8.30 (also Marseilles (PTT) and Alpes-Grenoble)—French Music—National Orchestra. Conductor: Bigot. Overture, Patrie (Bizet). Symphony (Franck). Pfte. Concerto (Saint-Saëns). Shylock (Fauré). España (Chabrier).
10.30—News; Weather.
10.45—Records: Light Music.

8.0 (from Nürnberg)—The Reich Party Congress—Festival Concert, with Reports on the Parade of Political Leaders on the Zeppelinwiese.
9.30—Records.
10.0—Time; News; Interlude.
10.30—See Leipzig.
12.0 m't.-3.0 a.m. (Saturday)—See Königsberg.

7.0—Tom Browne and Herbert Leeming (Flute Duets).
7.15—Maire Ni Ghuaírn—Ciarán Naomhtha.
7.30—Irish Radio Orchestra. Conductor: Lieut. D. P. O'Hara; Nan Shaw (Contralto).
8.30—Farming Discussion between Mr. Shortt and T. G. Rice: Beet Growing.
8.50—Philip Dore (Organ), from Mullingar Cathedral.
9.20—Nuacht an Lae—A Gaelic News Broadcast.
9.30—Variety.
10.30—News; National Anthem.

8.0—Variety Concert with Cabaret from the Radio Exhibition.
5.0—Derveaux Orchestra. Overture, "Fra Diavolo" (Auber). Lyric Suite (Grieg). Simplicité (Gabrieli-Marie). Selection, "Marietta" (O. Strauss). Descriptive Piece (Turina). Ballet, "Lakmé" (Delibes). La Féria (Lacôme).
6.0—Educational.
6.30—Renée Sénac (Songs).
6.45—Jeanne-Marie Darré (Pfte.). (Schubert - Liszt, Mendelssohn, Thieret, Prokofiev).
7.0—Radio Journal; News.
8.0—Talk: Müllöcker.
8.30 (also Marseilles (PTT) and Alpes-Grenoble)—French Music—National Orchestra. Conductor: Bigot. Overture, Patrie (Bizet). Symphony (Franck). Pfte. Concerto (Saint-Saëns). Shylock (Fauré). España (Chabrier).
10.30—News; Weather.
10.45—Records: Light Music.

8.0—Variety Concert with Cabaret from the Radio Exhibition.
5.0—Derveaux Orchestra. Overture, "Fra Diavolo" (Auber). Lyric Suite (Grieg). Simplicité (Gabrieli-Marie). Selection, "Marietta" (O. Strauss). Descriptive Piece (Turina). Ballet, "Lakmé" (Delibes). La Féria (Lacôme).
6.0—Educational.
6.30—Renée Sénac (Songs).
6.45—Jeanne-Marie Darré (Pfte.). (Schubert - Liszt, Mendelssohn, Thieret, Prokofiev).
7.0—Radio Journal; News.
8.0—Talk: Müllöcker.
8.30 (also Marseilles (PTT) and Alpes-Grenoble)—French Music—National Orchestra. Conductor: Bigot. Overture, Patrie (Bizet). Symphony (Franck). Pfte. Concerto (Saint-Saëns). Shylock (Fauré). España (Chabrier).
10.30—News; Weather.
10.45—Records: Light Music.

FRIDAY (September 9)

REYKJAVIK

208 kc/s (1,442 m.); 100 kW. Transmits at intervals from 12.00 noon 9.10 p.m. — Weather (Icelandic, German, English). 9.20—Scandinavian Songs. 9.40—News; Foreign Affairs. 10.15—Reading. 10.40—Sonatas. 'Cello Sonata in G (Bach). Sonata in C (Mozart). Sonata in B minor (Liszt). 11.40—Accordion.

ROME GROUP

Rome (No. 1), 713 kc/s (420.8 m.); 120 kW. Bari (No. 1), etc. See Sunday. Transmits at intervals from 7.45 a.m. 5.0 p.m.—News. 5.15—Dance Music. 5.50—Aviation; Weather. 7.0-7.20—Talk in Dutch. 7.30—Chamber Orchestra. 8.0—Time; News; Music. 8.30 (Palermo and Naples (No. 2) only)—Light Music. 9.0—Symphony Concert from the Accademia Chigiana, Siena. Conductor: Gelbrun and Winzheimer. Lucia Artopoulos (Violin); Guglielmo La Volpe ('Cello); Liliana Vallazza (Pfte.); Antonietta Eremie (Soprano). Overture, "Figaro" (Mozart). Concerto for 'Cello and Orchestra (Haydn). Arias, "Lucia di Lammermoor" (Donizetti) and "Rigoletto" (Verdi). Pfte. Concerto in C minor (Beethoven). Violin and Orchestra; Tzigane (Ravel). In the interval, Talk. 11.0—News. 11.15-11.55—Dance Music.

SAARBRÜCKEN

1,249 kc/s (240.2 m.); 17 kW. Relayed by Kaiserslautern, 1,429 kc/s (209.9 m.). Transmits at intervals from 6.0 a.m. 12.0 noon—Station Orchestra. 2.0 p.m.—News; Records. 2.30—See Munich. 6.0—See Berlin. 6.40—Holiday Hints. 7.0—"Dorf an der Grenze"—Play after Rothacker (Rinke).

7.30—Topical Talks; News. 8.0—See Munich. 9.30—Wagner Records. Overture, Rienzi. Aria and Overture, "The Mastersingers." 10.0—Time; News. 10.15—The Scourge of Mankind. 10.30—See Leipzig. 12.0 m't.-3.0 a.m. (Saturday)—See Königsberg.

SOTTENS

677 kc/s (443.1 m.); 100 kW. Relayed by Geneva, 401 kc/s (748 m.). 12.30 p.m.—News; Records. 1.0—Engel Band. 1.30—Records. 5.0-6.0—See Beromünster. 6.0—Records; Talk; Sports. 6.40—For Alpinists. 6.50—Parliamentary Notes. 7.5—Football Notes. 7.15—Micro-Magazine. 7.50—News. 8.0—Light Music—Radio-Genève Ensemble. Conductor: Pasche. 8.20—Weekly Financial Review. 8.40—Light Music (contd.). 9.0—"Un voyage à Biarritz"—Play (Sarment) by the Chariot Company. 9.50—League of Nations Report. 10.10-11.0—Records.

STOCKHOLM

704 kc/s (426.1 m.); 55 kW. Motala, etc. See Sunday. Transmits at intervals from 7.45 a.m. 5.5 p.m.—Folk Songs by Lisa Kerstad. 5.20—Talk: Infantile Paralysis. 5.45-6.45—Septiman Orchestra. 7.0—News; Weather; Topical. 7.30—Election Address by the Prime Minister, Per Albin Hansson. 8.10—Anderberg and Ebersson (Pftes.) from Malmö. Andante and Allegro molto from the Sonata in D (Mozart). Variations on the Volga Boat Song (Knorr). March (Anderberg). 8.50—Talk and Reading: Eric Linklater. 9.15—Part II, Scandinavian Music Festival (for details see 8.10, Kalundborg).

10.0—News; Weather. 10.15-11.0—Excerpts, "Boccaccio" (Suppé).

STRASBOURG

859 kc/s (349.2 m.); 100 kW. Transmits at intervals from 6.30 a.m. 2.30 p.m.—"La Farce du Cuvier" (Dupont). 4.0—French Music—Station Orchestra. Conductor: Bour. Overture, "Orpheus in the Underworld" (Offenbach). Ballet, "Isoline" (Messenger). Entr'acte, "Mignon" (Thomas). Waltz, Barcarolle (Waldteufel). Au bon vieux temps (Mouton). 5.0—Concert from Bordeaux-Lafayette. 5.45—History Talk in German. 6.0—Economic and Social Notes. 6.30—Records: Hawaiian Music. 6.45—Report: The Fourth Walking Tour of Alsace—the Arrival at Sarrebourg. 7.0—News. 7.30—Concert from Limoges (PTT). 8.0—News (German, French). 8.30—Station Orchestra. Conductor: de Villers. Overture and Ballet, "Les Saltimbanques" (Ganne). Musiques foraines (Fl. Schmitt). 9.15—"I Pagliacci" (Leoncavallo). Cast: MM. Le Breton, Gillig, Hastin, Dahler and Jeanne Wild. 10.30—News (French, German). 11.0—See Paris (Radio-Paris).

STUTTGA RT

574 kc/s (522.6 m.); 100 kW. Transmits at intervals from 5.45 a.m. 12.0 noon—See Saarbrücken. 2.0-3.0 p.m.—Operetta Records. 4.0—Orchestra; at 5.0-5.15—Interlude. 6.0—Records; Topical Talks. 7.0—Orchestra. 8.0—News. 8.10—"Through Woods and Meadows"—September Almanac. 9.15—Ottmar Gerster Music. Minnholtz Quartet, Emma Mayer (Contralto) and Traute Zarges (Pfte.). Pfte.: Divertimento, Five Songs. String Quartet. 10.0—Time; News; Sports. 10.30—Light and Dance Music. 12.0 m't.—See Frankfurt. 2.0-3.0 a.m. (Saturday)—Serenade from Königsberg.

TOULOUSE (Radio-Toulouse)

913 kc/s (328.6 m.); 60 kW. Transmits at intervals from 8.0 a.m. 6.0 p.m.—News. 6.15—Musical Comedy Music. 6.40—Opera Music. Excerpts, "Cavalleria rusticana" (Mascagni). "Tales of Hoffmann" (Offenbach). "Boris Godunov" (Mussorgsky). "The Prophet" (Meyerbeer). 6.55—News; Sports. 7.0—Songs of Marseilles. 7.15—Light Music. 8.0—News; Talk. 8.45—Orchestra; Talk. 9.15—Light Music. 9.30—Dance Songs. 10.0—News; Request Programme. 10.45—Musette Refrains; Waltzes. 11.15—Light Music. 11.55-12.0 m't.—News.

TURIN GROUP

Turin (No. 1), 1,140 kc/s (263.2 m.); 7 kW. Milan (No. 1), etc. See Sunday. Transmits at intervals from 7.45 a.m. 5.0 p.m.—News. 5.15—Luigi Gasparini ('Cello). 5.50—Aviation; Weather. 7.19 (Rome (No. 2) only)—News in English. 7.30—See Rome Group. 8.0—Time; News. 8.30—Cetra Orchestra; at 8.36 (Milan (No. 1), Rome (No. 2) and Bolzano)—News and Italian Lesson in German. 9.0—"Fanfan la Tulipe" (Varney). Conductor: Gallino. In the intervals, Talk and Announcements. 11.0—News. 11.15-11.55—Dance Music.

VIENNA

592 kc/s (506.8 m.); 100 kW. Graz, etc. See Sunday. Transmits at intervals from 6.0 a.m. 12.0 noon—See Saarbrücken. 2.0 p.m.—News. 2.10—Wagner Opera Music (Bayreuth Festival Recordings). 2.30—See Munich. 5.30—Records. Wiener Rhapsodie (Fl. Schmitt). Scherzo in D minor (Brückner). Ländler (Schubert). March in D (Mozart).

5.50—Talk: Karl Peters. 6.0—Songs and Music by Hitler Youth. 6.30—Topical Report. 7.0—Station Orchestra. Conductor: Schönherr. March, Kameradentree (Bähre). Overture, "Der Schatzmeister" (Ziehrer). Bäuerliche Festmusik (Jentsch). Humoresque (Kick-Kletzky). Steirische Hochlandsklänge (Rudolf Wagner). Intermezzo, Kleine Freuden (Krüger-Hanschmann). Ländlerische Humoresque (Krome). Grenadiers' March (Scherzinger). 8.0—See Munich. 9.30—Raupenstrauch (Pfte.). Thirty-Two Variations in C minor (Beethoven). Allegro (Schumann). Scherzo in E flat minor (Brahms). 10.0—News. 10.30—See Leipzig. 12.0 m't.-3.0 a.m. (Saturday)—See Königsberg.

WARSAW

224 kc/s (1,339 m.); 120 kW. Cracow, etc. See Sunday. Transmits at intervals from 6.15 a.m. 4.0 p.m. (from Wilno)—Abraham Operetta Music by the Wilno Station Orchestra. Conductor: Szczepanski. Excerpts, "The Flower of Hawaii," "Viktoria and her Hussar" and "Ball at the Savoy". 4.45—Talk. 5.0—Dance Music from the Radio Exhibition. 6.0—Talk: Technics. 6.10—Schubert Pfte. Records. 6.45—Literary Review. 7.0—Derwies (Songs). Two Songs (Rachmaninoff). Three Songs, "Don Quichotte à Dulcinée" (Ravel). Songs (Szymanowski). 7.20—Topical Talk. 7.30—Variety Concert from the Radio Exhibition. In the interval, Talks. 8.45—News; Topical Talk. 9.0—Farmers' Letter-box. 9.10—Variety Concert (contd.). 9.50—Sports Notes. 10.0—Station Orchestra. Conductors: Fitelberg, Scheherazade (Rimsky-Korsakov). Excerpts from the Suite, Les nuits d'Égypte (Prokofiev). 10.55—Press Review. 11.0-11.15—News; Talk in English.

SATURDAY Sept. 10

National

For Time Signals, see Monday. 10.15 a.m. (D)—Service. 10.30 (D)—Weather Forecast. 10.45 — "Country Pleasures." Elizabeth MacPherson. 11.0—John Palmer (Pfte.). 11.30—BBC Welsh Orchestra, conducted by Mansel Thomas: Ceinwen Rowlands (Soprano). 12.30 p.m.—Song and dance records. 1.0—New Hippodrome Orchestra. 2.0—Records. 2.30—H. Robinson Cleaver (Cinema Organ). 3.0—Gilbert Stacey's Sextet. 3.40—Amateur Cycling. 4.0—Hazell's (Aylesbury) Printing Works Band: Constance Stocker (Mezzo-Soprano). 5.0—Henry Hall's Orchestra. 6.0—The First News. 6.30—Saturday talk on Sport. 6.45—Lance Dossier (Pfte.). 7.20—Royal Artillery (Mounted) Band. 8.0—"Money! Money! Money!"—play. 8.30—Sing Song, with Rupert Hazell, Elsie Day, Fred Duprez, Bertha Willmott, Vine, More, and Nevard, Turner Layton, The Vagabond Lover, Bertha Ricardo, Ernest Butcher, Murgatroyd and Winterbottom, Charles Smart, Percival Mackey's Orchestra. 9.40—The Third News. 10.5—Orchestra Raymonde. 10.45—Bedside Anthology of Diaries and Letters, by John C. Maude. 11.0-12.0—Lew Stone's Band.

London Regional

For Time Signals, see Monday. 10.15-10.45 a.m.—National. 10.45—Regional King's Orchestra. 11.30—Sydney Gustard (Cinema Organ). 12.15 p.m.—Records. 12.45—"Doing a Woman's Work," by a man. 1.0—Sonata Recital. 1.40—Chamber Concert: The English Ensemble.

2.45—"Science of Shaving," by "Scientist". 3.0—BBC Orchestra (Section C), conducted by Joseph Lewis. 4.0—Records. 4.40—"The Pleasure of Poetry:" Philip Wayne. 5.0—The Children's Hour. 6.0—"George Edwardes." 7.0—Welbeck Light Quartet. 7.20—For Farmers. 7.30—The Second News. 8.0—Promenade Concert from Queen's Hall, London: Stiles-Allen (Soprano); Keith Falkner (Bass-Baritone); Cyril Smith (Pfte.); BBC Symphony Orchestra, conducted by Sir Henry Wood: Overture, Ruy Blas (Mendelssohn); Recit. and Aria, Ella giammai m'amo—Don Carlos (Verdi); Dance Rhapsody, No. 1, in D minor (Rachmaninoff). 9.35—"The Promenade Ticket:" reading. 9.50—Promenade Concert, Part 2: Keith Falkner (Bass-Baritone); BBC Symphony Orchestra, conducted by Sir Henry Wood: Façade—Second Suite (Walton); Songs—And yet I love her and Love is a bable (Parry); Trumpet Voluntary (Purcell). 10.20—Dance Records. 10.30—Eddie de Lange's Orchestra from America. 11.0—Lew Stone's Band. 11.50-12.0—Late News Summary.

Midland

10.15 a.m.—5.0 p.m.—Regional. 5.0—The Children's Hour. 6.0—Jan Berenska's Orchestra. 6.45—"Sport in the Midlands." 7.0—Regional. 7.20—Midland Announcements. 7.30-12.0—Regional.

Northern

10.15 a.m.—5.0 p.m.—Regional. 5.0—The Children's Hour. 6.0—Regional. 7.0—The Tom Katz Saxophone Six.

7.20—For Northern Farmers. 7.30—Regional. 10.20—Northern Summer Sports Bulletin. 10.30-12.0—Regional.

Western

10.45 a.m.—6.0 p.m.—National. 6.0—Regional. 7.20—Western Announcements. 7.30—Regional. 9.50—"Sports Special." 10.10-10.30—BBC West of England Singers.

Welsh

10.15 a.m.—Welsh Service. 10.30-4.0 p.m.—Regional. 4.0—London-Cardiff Air Race. 4.30—Regional. 4.30—The Children's Hour. 6.0—Powys Paradywys Cymru: J. Lloyd Thomas. 6.15—Ballad Concert: Margaret Francis (Soprano); Fred Porter (Tenor). 6.45—"Autumn Sport." 7.0—Welsh News. 7.30—Regional. 9.35—"Around and About." 9.50-12.0—Regional.

N. Ireland

10.15 a.m.—4.0 p.m.—Regional. 4.0—Ulster Amateur Flute Band: Robena McKay (Mezzo-Soprano). 4.40—Regional. 5.0—The Children's Hour. 6.0—Regional. 7.0—Association Football: Linfield v. Portadown. 7.10—Records. 7.20—N. Ireland News. 7.30—Regional. 9.50—Northern Ireland Singers. 10.20-12.0—Regional.

Scottish

10.15 a.m.—5.0 p.m.—Regional. 5.0—The Children's Hour. 6.0—The First News. 6.15 app.—Piping. 6.30—Scottish Sports News. 6.40—Bon Accord Variety. 7.20—Scottish Announcements. 7.30—Regional. 9.35—"The Week in Scotland." George Rowntree Harvey. 9.50—Regional. 11.0—Scottish Sports News. 11.15-12.0—Regional.

Hours of Transmission in British Summer Time.

BERLIN

841 kc/s (356.7 m.); 100 kW. 6.0 a.m.—Call; Weather; Gym. 6.30—Schneidewind Band; at 7.0-7.10—News. 8.0—Gym; Records. 8.30—Orchestra from Danzig. 9.30—See Munich. 10.30-10.45—Weather; Markets. 11.30—See Munich. 1.0 p.m.—Records of the Regensburg Cathedral Choirboys. 1.15—See Vienna. 2.0—News; Water Level. 2.15—"A Jolly Week-end"—Records. 2.30-6.30—See Munich. 6.30—Busch Band. Overture, "Der Schauspielfeldirktor" (Mozart). Dynamiden-Walzer (Strauss). Puzstamärchen (Schulenberg). Max and Moritz (Boulanger). My Heart (Pata). Luerma (Schmidt). Three Hungarian Dances (Köpp). Ballerina (Feldkötter). 7.15—Records of Furtwängler conducting. 7.45—Evening Echoes. 8.0—News; Announcements. 8.10—"Flowers and Love"—A Melodious Garland. Libiszowski Orchestra, Busch Band, Lotte Luckwald, Hanns Ruzitsca and Felix Schröder, Liebesgut (Heuberger). Moss Rose (Bosc). Volga Song (Lehár). Hand in Hand (Busch). Flower Waltz (Tchaikovsky). Mädel ich bin Dir so gut (Enders). Blumenwunder (Künneke). Weisse Blume (Mateo). I give my Heart, "The Dubarry" (Millöcker). Mackeben). "Flowers and Love." Song Potpourri, with Lotte Luckwald and Hanns Ruzitsca. 10.0—News; Sports. 10.30—Small Station Orchestra, Conductor: Willy Steiner; Busch Band. 2.9-3.0 a.m. (Sunday)—Music from Breslau.

BEROMÜNSTER

556 kc/s (539.6 m.); 100 kW. Relayed by Basle and Berne, 1,375 kc/s (218.2 m.). 12.0 noon—Weather; Records; Symphony Excerpts.

12.29 p.m.—Time; News; Exchange. 12.40-2.30—From Berne. 12.40—Weather; Light Music. 1.30—The Week's Sound News. 1.45—Berne Mandoline Band. 2.5-2.30—Books. 4.30 (from Berne)—Accordion. 5.0-6.0—See Monte Ceneri. 6.0-7.0—From Berne. 6.0—Weather; An Industrial Worker talks about his Work. 6.10—A Farm Labourer talks about his Work. 6.20—Talk. 6.30—Wind Band Music. 6.55—Time; Markets. 7.0—Zürich Chimes. 7.15-7.55—From Berne. 7.15—Weekly Parliamentary Review. 7.30—Oskar Adler (Pfte.). 7.45—Weather; News. 7.55—Commentary on the Opening of All Saints Museum in Schaffhausen. 8.20 till Close—From Berne. 8.20—Folklore Programme. 9.5—"Wer ist Trac?"—Burlesque (Garai). 10.20—Dance Records. 10.55-11.0—News.

BRATISLAVA

1,004 kc/s (298.8 m.); 13.5 kW. Transmits at intervals from 6.0 a.m. 6.0 p.m.—Hungarian Transmission: "Fábul Vaskarika"—Play (Maria Girsik); Incidental Music by Varady. 6.45—News in German. 7.0-7.50—See Prague. 7.50—Programme for the Seventh Centenary of Trnava, Slovakia. 8.10—Symphony Concert from Trnava. Bratislava Symphony Orchestra, Conductor: Holubeck; Kubát (Violin); Helena Bartosová (Soprano). Overture, Hermania in the Cave of Venus (Bella). Violin Concerto in E minor (Mendelssohn). Suite, Váh (Mozys). Soprano Songs (Schneider-Trnavsky). Violin and Orchestra: Burlesque (Suchon). Overture (Holubeck). 9.55-10.15—See Prague. 10.15-News (Hungarian). 10.30-11.30—See Prague.

BRESLAU
 950 kc/s (315.8 m.); 100 kW.
 Relayed by Gleiwitz and Górlitz,
 1,231 kc/s (243.7 m.).

5.0 a.m.—Fierke Quintet.
 6.0—Weather; Gym.
 6.30 (from Gleiwitz)—Upper
 Silesian Theatre Orchestra, Con-
 ductor: Erich Peter; at 7.0-7.10
 —News.
 8.0-8.20—Motto; Weather; For
 Farmers.
 8.30 (from Gleiwitz)—Theatre Or-
 chestra, Conductor: Erich Peter.
 9.30-10.30—See Munich.
 11.30—See Munich.
 1.0 p.m.—Time; News.
 1.15—See Vienna.
 2.0—News; Exchange; Records.
 2.30-6.30—See Munich.
 6.30—Classical Records; Pro-
 grammes.
 7.0—“Eastern Germany” — a
 Sequence: (a) German Colonists
 in the Middle Ages, (b) Old
 Music, (c) Songs of Eastern
 Germany.
 8.0—News.
 8.10—Station Orchestras: Conduc-
 tors: Weisshaupt and Topitz,
 Mai (Oboe) (Saxophone),
 Krams (Violin). Overture, “The
 Nuremberg Doll” (Adam). Selection,
 “Carmen” (Bizet). Oboe
 and Orchestra: Pastorale
 (Schlemm). Momento capriccioso
 (Weber). Ständchen (Strauss).
 Saxophone: Liebesaugen (Klein).
 Das Unikum (Murzilli). Eine
 lustige Ouverture (Sczuka).
 Romance in D minor (Strauss).
 Waltz, Marienklänge (Strauss).
 Hungarian Fantasia (Lehár).
 Eastern Dance (Mascagni). Cam-
 panella (Handel). Overture, “The
 Secret Marriage” (Cimarosa).
 Suite, “Fidelio” (Beethoven).
 10.0—News: Interlude.
 10.30—See Berlin.
 12.0 m’t.-3.0 a.m. (Sunday)—
 Serenade, Station Orchestras,
 Conductors: Rischka and Topitz,
 Fierke Quintet and Giannino
 Carpi (Violin).



Walter Féron and the Salon Orchestra provide the Brussels No. 1 programmes at 5.15 and 10.10 p.m.

BRNO
 922 kc/s (325.4 m.); 32 kW.
 Transmits at intervals from 6.0 a.m.

4.10 p.m.—Week-end Variety —
 Schrammel Band, Salon Trio,
 and Humorous Sketch.
 5.35—Records.
 5.55—News.
 6.0—German Transmission: “Love
 Song” — Play with Songs
 (Mantler); Recitations.
 6.35—Records.
 6.45—News in German.
 7.0-7.50—See Prague.
 7.50—Variety from Moravská-
 Ostrava.
 8.55—Talk: Making Life easy.
 9.10—Concert from Bratislava.
 9.55-11.30—See Prague.

BRUSSELS (No. 1)
 620 kc/s (483.9 m.); 15 kW.
 5.0-5.10 a.m.—Homing-Pigeon
 Notes.
 6.30-9.5—Records; Gym; News.
 12.0 noon—Records: Light Music.
 12.30 p.m.—Weather; Shipping.
 12.35—Salon Orchestra. Conductor:
 Féron (Violin).
 1.0—News.
 1.10—Cigány Music—Salon Orches-
 tra. Conductor: Féron.
 1.30—Records; Art Notes.
 2.5—Mme De Reyghere-Coppens
 (Songs). Aria, “Scipione”
 (Handel). Dein blaues Auge
 (Brahms). Nanny (Chausson).
 Tout gai (Ravel).
 2.15—Records: Rio Grande (Lam-
 bert).
 2.30—Belgian Music by Duquen-
 nois (Pfte.). Campador (Jon-
 gen). Nocturnale (Schoemaker).
 Six Pieces (Poot).
 2.50—Poems.
 3.0—Records: Negro Spirituals.
 3.15—Deridoux (Accordion).

3.30—Records.
 4.0—Music-Hall.
 4.55—Announcements; Health
 Talk.
 5.15—Salon Orchestra. Conductor:
 Féron.
 5.30—Talk.
 5.40—Salon Orchestra (contd.).
 Féron (Violin).
 6.0—Talk: The Mons Polytechnic.
 6.15—Records: Folie d’Espagne
 (Ponce).
 6.30—Francisco Costa (Violin).
 Soneti de la Rosada (Toldrá). Les
 Birbadores (Toldrá). Montañesa
 (Nin). Tonada Murciana (Nin).
 Nana (Falla). Divertimento (Pitta-
 luga). Danza de la Gitana
 (Halfter).
 6.50—Records: Segovia (Guitar).
 7.0—Reviews: (a) Sports, (b)
 Hygiene; Interview.
 7.15—Records: Popular Songs.
 7.30—News.
 8.0—Belgian Contemporary Music
 —I.N.R. Symphony Orchestra.
 Conductor: Dejoncker, Zélina
 de Herve (Pfte.). Musical Im-
 pression on “Jean Christophe”
 (Mawet). Pfte. and Orchestra:
 Fantasia (Soudant). — One-Act
 Play (d’Hervilliez).
 9.10—Belgian Contemporary Music
 (contd.). Mouvements symphoniques
 (de Guide). Fairy Dances
 “A Midsummer Night’s Dream”
 (Vreuls). Symphonic Variations
 (Gilson).
 10.0—News.
 10.10—Salon Orchestra. Conductor:
 Féron. Germaine Marville
 (Songs). Waltz, “The Rose of
 Stamboul” (Fall). Extase
 (Ganne). Songs. Hungarian
 Dance (Sztokanowitz). Tyrolean
 Intermezzo (Königshofer). Songs.
 A.B.C. Potpourri (Kozák).
 Songs (Delmet). Gipsy Song
 (Dury).
 11.0-12.0 m’t.—Records. Sym-
 phonic Study, Falstaff (Elgar).
 Au bord d’une source (Liszt).
 La procession nocturne (Rabaud).
 Hungarian March (Berlioz).

BRUSSELS (No. 2)
 932 kc/s (321.9 m.); 15 kW.
 Programme in Flemish.

6.30-9.5 a.m.—Records; Gym;
 News.
 12.0 noon — Records. Arias from
 “Der Wildschütz” (Lortzing),
 “Figaro” (Mozart) and “The
 Huguenots” (Meyerbeer). Uocchi
 celesti (di Crescenzo). Arias,
 “L’Etoile du Nord” (Meyer-
 beer) and “Rigoletto” (Verdi).
 Song of the Flea (Musorgsky).
 Aria, “The Barber of Seville”
 (Rossini).
 12.31 p.m.—Radio Orchestra. Con-
 ductor: Douliez, Bethume
 (Violin). Japanese Parade (Voll-
 stedt). In a Nuremberg Doll
 Shop (Wendel). Tarantella
 (Liszt) Megalomania (Waltham).
 Violin: Aragon (Gebhardt). Two
 little soldiers Heykens. Petite
 suite (Eraly). Manhattan Moon-
 light (Alter); at 1.0-1.10—News;
 Shipping.
 1.30—Xylophone and Saxophone
 Records.
 2.0—Lecture-Recital: The Opera
 and Oratorio—Weber, Rossini
 and Berlioz.
 3.0—Sylvain Hamy and Georges
 Martin (Pftes.).
 3.30—Yvonne Hudsyn (Songs).
 4.0—Messenger Records.
 4.15—Germaine - Buysse - Rolin
 (Violin). Concerto in C (Haydn).
 Two Hungarian Dances
 (Brahms).
 4.40—Announcements.
 4.45—Richard Minne reads.
 5.0—Hurdy-Gurdy Records.
 5.15—For Women.
 6.0—Week-end Concert — Radio
 Orchestra. Conductor: Douliez,
 Francine Bruylants (Songs).
 Overture, “William Tell” (Ros-

COLOGNE
 658 kc/s (455.9 m.); 100 kW.
 6.0 a.m.—Hymn; Weather; For
 Farmers.
 6.10—Gym; Records.
 6.55—Hymn; Motto.
 7.0—News.
 7.10—Station Orchestra.
 8.0 — Weather; Water Level;
 Calendar.
 8.10—Gymnastics.
 8.30—Station Orchestra.
 9.30-10.30—See Munich.
 11.30—See Munich.
 1.0 p.m.—News; Greetings.
 1.15—See Vienna.
 2.0—News; Records.
 2.30-6.30—See Munich.
 6.30—Station Orchestra. Conduc-
 tor: Kühn, August Kreuter
 (Violin). Overture, “The Merry
 Wives of Windsor” (Nicoli).
 Violin and Orchestra: Rondo
 capriccioso (Ariès). Ballet, “Les
 millions d’Arlequin” (Drigo).
 Wedding Waltz, “The Veil
 of Pierrette” (Dohnanyi). Hu-
 moresque on a Viennese Melody
 (Reinl).
 8.0—News.
 8.10—Light Music. Station Orches-
 tra. Conductor: Hagedstedt.
 Willi Schneider (Bass-Baritone),
 Edith Heimlich (Soprano),
 Franz Neugebauer (Trumpet).
 Hans Flamm (Accordion).
 10.0—News; Records.
 10.30—See Berlin.
 12.0 m’t.-3.0 a.m. (Sunday)—See
 Breslau.

sini). Songs. The Whistler and
 his Dog (Pryor). Waltz, “Faust”
 (Gounod). Songs. Anita’s Dance
 (Grieg). Selection, “The Land
 of Smiles” (Lehár). In the
 intervals, Tauber and Gigli Re-
 cords.
 7.30—News; Interview.
 8.0—Records. Leonora Overture
 No. 1 (Beethoven). Symphonic
 Suite, Le Printemps (Debussy).
 Pastorale d’été (Honegger).
 8.30—“In den spijigen Duivel”
 —Radio Cabaret. I.N.R. Jazz
 Band, Renaat Grassin, Emmy
 Daelman, Bergers and Steurs
 (Accordion).
 10.0—News.
 10.10—Records. Pastoral Symphony
 in F (Beethoven) by the BBC
 Symphony Orchestra. Conductor:
 Toscanini. Overture, “Gwendol-
 ine” (Chabrier). Conductor:
 Pierné.
 11.0-12.0 m’t.—Brasserie Concert
 from the Oud-België, Antwerp.

BUCHAREST
 823 kc/s (364.5 m.); 12 kW.
 Relayed by Radio-Romania, 160
 kc/s (1,875 m.).
 Transmits at intervals from 5.30 a.m.

12.15 p.m.—News; Sports.
 12.25—Records; at 1.15—News.
 2.20—Announcements; Talk.
 6.2—Radio Orchestra. Conductor:
 Bobesco.
 7.20—Talk.
 7.35—Mme Valentine Cretzoiu-
 Tassian (Opera Arias).
 8.0—Letter-box.
 8.15—Ghinda Dance Band.
 9.30—News; Sports Notes.
 9.45—Restaurant Concert.
 10.45—News in English.
 11.0-12.0 m’t.—Records.

BUDAPEST
 546 kc/s (549.5 m.); 120 kW.
 Transmits at intervals from 6.45 a.m.

12.5 p.m.—Station Orchestra.
 1.30—Records.
 2.35—News.
 4.15—Reading.
 4.45—News.
 5.0—Hungarian Songs by Paul
 Kálmár and the Béla Farkas
 Cigány Band.
 6.0—Reading.
 6.30—Gyula Kerékjártó (Violin).
 7.0—János Lavotta Commemoration
 Concert. Ervin Major and Ernő
 Ketter (Pfte.). Introductory Talk
 by Árpád Balázs.
 8.0—Talk.
 8.15—“Lustiges Allerlei”—Variety
 from Berlin. Zeesen Station
 Orchestra, Schuricke Trio, Her-
 bert Ernst Groh (Tenor), Lillie
 Claus (Soprano), Pörschmann
 (Harmonica).
 9.20—News.
 9.45—Rachel Thauvoe (Harpsi-
 chord). English Suite in F
 (Bach). Leggiere and Minuetto
 (Fiocco). Fête (Couperin). Toc-
 cata (Hermann).
 10.20—Ilinczy Dance Band from
 the Hotel Gellért.
 11.0—News (German. Italian).
 11.10—Pertis Cigány Band from the
 Hotel Vadászúrt.
 12.5 a.m. (Sunday)—News for
 Hungarians abroad.

COLOGNE
 658 kc/s (455.9 m.); 100 kW.
 6.0 a.m.—Hymn; Weather; For
 Farmers.
 6.10—Gym; Records.
 6.55—Hymn; Motto.
 7.0—News.
 7.10—Station Orchestra.
 8.0 — Weather; Water Level;
 Calendar.
 8.10—Gymnastics.
 8.30—Station Orchestra.
 9.30-10.30—See Munich.
 11.30—See Munich.
 1.0 p.m.—News; Greetings.
 1.15—See Vienna.
 2.0—News; Records.
 2.30-6.30—See Munich.
 6.30—Station Orchestra. Conduc-
 tor: Kühn, August Kreuter
 (Violin). Overture, “The Merry
 Wives of Windsor” (Nicoli).
 Violin and Orchestra: Rondo
 capriccioso (Ariès). Ballet, “Les
 millions d’Arlequin” (Drigo).
 Wedding Waltz, “The Veil
 of Pierrette” (Dohnanyi). Hu-
 moresque on a Viennese Melody
 (Reinl).
 8.0—News.
 8.10—Light Music. Station Orches-
 tra. Conductor: Hagedstedt.
 Willi Schneider (Bass-Baritone),
 Edith Heimlich (Soprano),
 Franz Neugebauer (Trumpet).
 Hans Flamm (Accordion).
 10.0—News; Records.
 10.30—See Berlin.
 12.0 m’t.-3.0 a.m. (Sunday)—See
 Breslau.

DEUTSCHLANDSENDER

191 kc/s (1,571 m.); 60 kW.
 5.0 a.m.—Chimes; Weather.
 5.5—Music from Breslau.
 6.0—Call; News; Records.
 6.30-8.0—See Breslau; at 7.0 —
 News.
 9.0-9.40—To be announced.
 10.30-11.0—For Children.
 11.15-11.30—Weather; Shipping.
 11.55—Weather.
 12.0 noon—Krüger Band; at 12.55
 p.m.—Time; Greetings.
 1.45—News.
 2.0—Jäger Band and Records.
 3.0—Weather; Markets; Exchange.
 3.15—Records; Programmes.
 4.0—Station Orchestra. Conductor:
 List, Anna Antoniadis (Pfte.) and
 Ruth Herell (Songs). Scherzo
 and March, “Love for Three
 Oranges” (Prokofiev). Fugue in
 G for Strings (Mozart). Pfte.
 Concertino (Françaix). Romance
 from the Symphony in D minor
 (Schumann). Bell Aria, “Lakmé”
 (Delibes). Rondo all’ongarese
 (Haydn-Karl List). Aria, “Zaide”
 (Mozart). Tambourin (Rameau).
 Intermezzo, “Il campiello”
 (Ferrari). March, “The Bartered
 Bride” (Smetana). Prelude,
 “Carmen” (Bizet). Polka,
 “Viennese Impressions” (Melii-
 char). Aria, “Der Schauspieler-
 direktor” (Mozart). Terzen-
 Intermezzo (Juon). Minute Waltz
 (Chopin). Comedy Overture
 (Scheinflug). The Clock is play-
 ing (Blaauw-Seidler-Winkler).
 Delirium-Walzer (Strauss). Per-
 sian March (Strauss); at 5.0-5.15
 —“Mentioned in Dispatches”—
 Reminiscences.
 6.0—Hermann Diener and his
 Collegium musicum.
 7.0—Soft Strains of Music — Ram-
 bour Band. Bruno Sänger (Vio-
 lin), Georg Gut (Tenor) and
 Georg Haentzschel (Pfte.).
 8.0-10.20—See Munich.
 10.20 — Serenade. Emil Seiler
 (Viola). Artur Schulz (Flute) and
 Hans Theopold (Pfte.). Adagio
 for Viola and Pfte. (Glinka).
 Miniature Suite for Flute, Viola
 and Pfte. (Fuchs).
 10.45—Weather.
 11.0—Berlin Station Orchestra.
 Conductor: Heinrich Steiner;
 Masurat (Violin); Schrader
 (Cello) (Recorded). Comedy
 Overture (Busoni). Double Con-
 certo (Pfitzner). Country Dances
 (Pausen). Variations on a Folk-
 Song (Georg Schumann).
 12.0 m’t.-2.0 a.m. (Sunday) —
 See Stuttgart; at 12.55—Time.

FRANKFURT

1,195 kc/s (251 m.); 25 kW.
 Cassel, etc. See Sunday.
 5.0 a.m.—See Breslau.
 5.45—Back to the Land.
 6.0—Hymn; Motto; Gym.
 6.30-8.0—See Berlin.
 8.0-8.10—Time; Water Level; Weather;
 Gym.
 8.30—Schlangenbad Spa Orchestra.
 9.30-10.30—See Munich.
 11.30—See Munich.
 1.0 p.m.—Time; News.
 1.15—See Vienna.
 2.0—Time; News; Music.
 2.30-6.30—See Munich.
 6.30—Records: Light Music.
 7.0—Sports Review.
 7.10—Gerhard Winkler Music (Re-
 corded). Deine Augen. Dir
 allein. Der Geige Liebeslied.
 Strassensänger von Neapel.
 Musik hat mich verliebt gemacht.
 Overture, “Donna Chiquita.”
 Ein Lieb ohne Ende. Japanese
 Teahouse. Puppenparade. Mein
 Hawaii. Wenn du lachst, schöne
 Frau. Senkt sich die Nacht übers
 Tal. Neapolitan Serenade. Don
 Pedro.
 8.0—Time; News; Weather for
 Farmers.
 8.15—A Jolly Week-end—Concert
 Part I. Station Choir and Orches-
 tra. Conductors: Bruckhaus and
 Moritz. Overture, “William Tell”
 (Rossini). Chorus, “Fra Diavolo”
 (Auber). Slav Impressions (Uray).
 Chorus, “Carmen” (Bizet).
 Romantic Suite (Armandola).
 Suite, “Boccaccio” (Supplé).
 Part II. Hans Schütz and his
 Orchestra. Lindenmarsch (Kollo).
 Waltz, Siren Magic (Lehár). Tip
 top (Kletsch). Song, “Frühlings-
 luft” (Strauss). Träumen von
 Liebe (Schütz). Torea fino (Luc-
 chesi). Valse musette (Schütz).
 Seemannsbummel (Wehowski).
 Klänge vom Oktoberfest (Schütz).
 March, Schneidig (Vollstedt).

10.0—Time; News; Sports.
 10.30—Music from Munich
 12.0 m’t.—See Stuttgart.
 2.0-3.0 a.m. (Sunday) — Music
 from Breslau.

HAMBURG

904 kc/s (331.9 m.); 100 kW.
 Bremen, etc. See Sunday.
 5.45 a.m.—Motto; Weather.
 5.50—From Farm and Field.
 6.0—Gymnastics.
 6.10—Records: Light Music.
 6.30—See Berlin; at 7.0-7.10 —
 News.
 8.0-8.20 — Weather; For House-
 wives.
 9.30—See Munich.
 10.30—NSKK Band. Conductor:
 Schulze. Talk in the interval.
 11.30—See Munich.
 1.0 p.m.—Shipping; Weather.
 1.15—See Vienna.
 2.0—News; Records.
 2.30-6.30—See Munich.
 6.30—Records. Ein Schütz bin ich,
 “Das Nachtlager in Granada”
 (Kreutzer), by Willi Domgraf-
 Fassbaender. Folk-Song, Wo die
 Alpenrosen blüh’n, by the Buch-
 bergers. Ach du klarblauer
 Himmel (Silcher), by the Berlin
 Teachers’ Choir. Der Vugelbeer-
 baam (Vogel), by Helmuth
 Stammf. Alle Birken grünen
 (Licht) by Karl Schmitt-Walter.
 Folk-Song, Wildgänse rauschen
 durch die Nacht, by a Soldiers’
 Chorus and Military Band.
 6.50—Weather Report.
 7.0—A Young Girl goes to the Ball
 ... Scandinavian Songs and
 Dances sung and played by a
 Hitler Youth Ensemble. Conductors:
 Wirth and Stapelberg.
 7.45—Things we seldom notice.
 8.0-10.20—See Munich.
 10.20—Report: The German Light
 Athletics Championships.
 10.30—Light Music — Hamburg
 Orchestra. Conductor: Heinrich
 Rudolph. Station Choir. Conduc-
 tor: Gregor. Women’s Vocal
 Trio and Male Voice Quartet.
 12.0 m’t.-3.0 a.m. (Sunday) —
 See Breslau.

HILVERSUM (No. 1)

160 kc/s (1,875 m.); 10 kW
 until 5.40 p.m.; 150 kW from
 5.40 p.m.

VARA Programme.
 7.40 a.m.—Records.
 9.40—VPRO Service.
 10.0—M. J. Jong (Organ), A Play
 and Records.
 11.40 a.m.-1.25 p.m.—Records.
 1.40—Film Talk.
 1.55—Fantasia Ensemble.
 2.40—Report.
 3.10—VARA Orchestra. Conductor:
 de Groot. Overture, “Ceneren-
 tola” (Rossini). Valse fantastique
 (Glazunov). Herzwunden (Grieg).
 Letzter Frühling (Grieg). Excerpt,
 “Izeyl” (Pierné). Fantasy on
 Catalan Themes (Beekhuis).
 Scènes gitanes (Infante).
 4.10—Talk with Records: Czecho-
 slovakia.
 4.45—Records.
 5.10—A Film.
 5.40—Steyn (Organ).
 6.10—VARA Children’s Choir.
 6.50—Political Review.
 7.10—VPRO Talk.
 7.40—S O S Messages; News.
 7.55—VARA Orchestra. Conductor:
 Holzer. Overture, “Flotte
 Bursche” (Supplé). Zigeuner-
 weisen (Sarastate). Waltz, Española
 (Waldeufel). Tanz auf der
 Glaskugel (Rust). Loin du bal
 (Gillel). Slav Dance (Hofmann).
 8.40—Records.
 9.10—Talk with Records.
 9.25—Variety Programme — Esme-
 ralda Septet, etc.
 10.40—News.
 10.50—Steyn Accordion Band.
 11.10-11.40—Records.

HILVERSUM (No. 2)

995 kc/s (301.5 m.); 10 kW
 until 5.40 p.m.; 60 kW from
 5.40 p.m. Also on Jaarsveld,
 722 kc/s (415.4 m.); 17 kW.
 KRO Programme.
 7.40-8.55 a.m.—Records.
 9.40—Records.
 11.10—Religious Address.
 11.40—Police Notes; Weather.
 11.55—KRO Orchestra. Conductor:
 van ’t Woud. March, The
 Crusader (Souza). Overture,
 Princess Golden Shoes (Rust).
 Kisses in the Gondola (Masserini).
 Silhouettes (Hadley). Selection,
 “The Dollar Princess” (Fall).
 12.40 p.m.—Records; at 12.55—
 Homing-Pigeon Notes.

SATURDAY (September 10)

1.0-KRO Orchestra. Conductor: van 't Woud. Selection, "The Merry Wives of Windsor" (Nicola) and "Callirhoe" (Chaminade). Teerose (Küster). Bolero (Billi). Potpourri (Tchailkovsky).

1.40-For Children. 2.10-KRO Orchestra. Conductor: van 't Woud. König Karnaval (Rosey). Dividenden (Morena). Mirandolina (Dostal). Valse dorée (Popy). The Gladiators' Farewell (Blankenburg).

KALUNDBORG

240 kc/s (1,250 m.); 60 kW. Relays Copenhagen, 1,176 kc/s (255.1 m.).

7.0 a.m.—Time; Gym; Weather. 8.30—Service from Copenhagen Cathedral. 8.55—Weather; Fish Markets.

12.0 noon-2.0 p.m.—Julian Orchestra. 2.10—Radio Orchestra. Conductor: Grøndahl. Inger Bolvig (Songs). Diplomats' March (Souza). Fingal's Cave (Mendelssohn). Selection, "Les Brigands" (Offenbach).

6.0—Weather; Exchange; Markets. 6.25—Records. 6.35—French Lesson.

7.0—Time; News. 7.25—Talk: Danish Industry. 7.50—"Boccaccio's Italy"—Cultural Pictures (Neiendam) with Gerhard Jessen, August Liebman, Christen Möller, Poul Juhl and Aksel Schiøtz.

8.35—"The Co-Optimist Revues"—Talk by Ludvig Brandstrup, with Viktor Fischer (Pfte.).

9.15—Pictures of Daily Life—A Day at Sea. 9.35—Preil's Dance Band.

10.0—News; Weather Band. 10.20—Preil's Dance Band. 12.0 m't.—Chimes; Olesen Dance Band from the Valencia.

KÖNIGSBERG (Heilsberg)

1,031 kc/s (291 m.); 100 kW. Relayed by Danzig, 1,303 kc/s (230.2 m.).

5.0 a.m.—See Breslau. 6.0—Gym; Records. 6.30—See Berlin. 8.0—Prayers. 8.15—Gymnastics. 8.30—Orchestra from Danzig. 9.30-10.30—See Munich. 10.45-10.50—Weather Report.

1.0 p.m.—Time; News; Programmes. 1.15—Station Orchestra. Conductor: Schluger. Börschel (Pfte.) and Wilken (Violin). Overture, "Carnival in Rome" (Strauss). Pfte. and Orchestra: Straussiana (Börschel). Romantic Overture (Künneke). Violin and Orchestra: Hungarian Potpourri, Magyar dalok (Lehár). Waltz, Mein Lebenslauf ist Lieb und Lust (Strauss). Spanish Dance, "Frasquita" (Lehár). Overture, "Fatinitza" (Suppé).

2.0—News; Anniversaries. 2.30-6.30—See Munich. 6.30—Sports; Announcements. 7.0—Records: Light Classical Music. 7.40—Topical Report; News. 8.15—Light Music—Station Orchestra, etc., Conductor: Wilken; Station Dance Band; Hans Hellhoff and Peter Arco.

10.0—News; Sports. 10.40—Music from Berlin. 12.0 m't.-3.0 a.m. (Sunday) — See Breslau.

LEIPZIG

785 kc/s (382.2 m.); 120 kW. Relayed by Dresden, 1,285 kc/s (233.5 m.).

5.50 a.m.—News; Weather. 6.0-8.20—See Berlin. 8.20—Kurt Jacobi (Flute) and Hans Polack (Pfte.).

8.30—Orchestra from Danzig. 9.30-10.30—See Munich. 10.30—Weather; Programmes. 10.45—Anniversaries. 10.50—Talk: Supply and Demand. 11.30—See Munich. 1.0 p.m.—Time; News. 1.15—See Vienna.

2.0—Time; News; Records. 2.30-6.30—See Munich. 6.30—"Beautiful Homeland"—Records. 8.0—News. 8.10—See Cologne. 10.0—News; Sports. 10.30—See Berlin. 2.30-3.0 a.m. (Sunday) — Music from Breslau.

LILLE (Radio PTT Nord)

1,213 kc/s (247.3 m.); 60 kW. Transmits at intervals from 6.30 a.m.

4.0 p.m.—Milé Dupuis (Pfte.). Nocturne in C sharp minor (Chopin). Fantaisie impromptu (Chopin). Etude in A minor (Chopin). Waldesrauschen (Liszt). Gnomenszenen (Liszt). El vito (Infante).

4.30—One-Act Plays: (a) "Mariage d'amour" (de Lorde-Marsèle), (b) "Dudule a gagné le gros lot" (Miric).

5.0—Amateurs' Hour. 6.0—Photography; Records. 6.20—For Housewives. 6.30—Records of Germaine Féraldy (Songs).

6.35—Sports. 6.45—Economic and Social Notes. 7.0—Records of Villabella (Tenor). 7.10—Talk in English; Record. 7.30—Radio Journal. 8.0—"La maison claire". 8.30—Cressus—Play (Rolain). After the Programme—News.

MELNIK

1,113 kc/s (269.5 m.); 100 kW. Transmits at intervals from 6.0 a.m. Programme in German. 12.30 p.m.—News. 12.45—Station Orchestra. Conductor: Mandé. Overture, "Rosamunde" (Schubert). Selection, "Martha" (Flotow). Suite der Freude (Scheinpflug). I love thee (Grieg). Wedding Day on Troldhaugen (Grieg). Intermezzo, "Cavalleria rusticana" (Mascagni). Hofballtanz (Lanner).

1.45—Records. 2.0—For Children. 2.30-3.0—Orchestra. Conductor: Binder. Lehár Music, etc. 6.0—Station Orchestra. Overture, "The Lovely Galatea" (Suppé). Radio Waves (Morena). Waltz, "Eva" (Lehár). Apollo March (Lincke). Quadrille, "Der Schatzmeister" (Ziehrer). "Der Schatzmeister" (Ziehrer). "Medium"—Thriller (Lindt).

7.15—News. 7.30—Review of the Week. 8.15—"Merry Week-end"—Variety Orchestra; Popper and Rudolph Schubert (Pfte. Duo). 10.15—News; Sports. 10.30-11.30—Dance Music from the Corso Hotel, Marienbad.

MÖNTE CENERI

1,167 kc/s (257.1 m.); 15 kW. 12.0 noon—Records. 12.29 p.m.—Time; News. 12.40-1.30—Orchestra. Conductor: Casella. 4.59—Time. 5.0—Radio Orchestra. Conductor: Casella. Overture, "The Daughter of the Regiment" (Donizetti). Potpourri, "Von Wien durch die Welt" (Hruby). Prelude (Rachmaninov). Selection, "Norma" (Bellini).

5.40—Records: Famous Melodies. 6.0—For Children. 6.15—Martinelli-Pizzagalli (Mandoline and Guitar).

6.30—Talk: Interior Decoration. 6.45—Tourist Talk; Records. 7.50—News. 8.0—Talk: Contemporary Italian Authors—Aldo Palazzeschi.

8.20-10.30—French Soirée. Part I: Marguerite de Reding (Old French Songs). Part II: The French Romantics—Poem (Chausson), by Jeanne Gautier (Violin), Nino Herschel (Pfte.). Part III: "Una colazione di innamorati" (Le déjeuner des amants)—One-Act Play (Birabeau). Part IV: Modern French Music—by Jeanne Gautier (Violin) and Herschel (Pfte.). La plus que lente (Debussy). Tzigane (Ravel). Part V: Marguerite de Reding (Film Songs). Part VI: Records of French Dance Music.

6.30—Talk: Interior Decoration. 6.45—Tourist Talk; Records. 7.50—News. 8.0—Talk: Contemporary Italian Authors—Aldo Palazzeschi.

8.20-10.30—French Soirée. Part I: Marguerite de Reding (Old French Songs). Part II: The French Romantics—Poem (Chausson), by Jeanne Gautier (Violin), Nino Herschel (Pfte.). Part III: "Una colazione di innamorati" (Le déjeuner des amants)—One-Act Play (Birabeau). Part IV: Modern French Music—by Jeanne Gautier (Violin) and Herschel (Pfte.). La plus que lente (Debussy). Tzigane (Ravel). Part V: Marguerite de Reding (Film Songs). Part VI: Records of French Dance Music.

MOSCOW

172 kc/s (1,744 m.); 500 kW and 300 kc/s (1,000 m.); 100 kW. Transmits at intervals from 4.0 p.m.

6.0 p.m.—Concert or Opera (Records); at 6.30—Politics; at 7.0—Literature. 9.30—News; Kremlin Chimes. 10.0 (on 1,000 m. only)—Television. 10.0 p.m.—1.0 a.m. (Sunday)—1,744 m. only.

10.0—Talks (French, Spanish).

MÜNICH

740 kc/s (405.4 m.); 100 kW. Relayed by Nürnberg, 1,267 kc/s (236.8 m.). 6.0 a.m.—Motto; Weather. 6.30—See Berlin; at 7.0—News. 8.0—Motto; Gym. 8.30—Records. 9.30-10.30 (from Nürnberg)—The Reich Party Congress—Parade of the Hitler Youth in the Stadium.

11.0—Markets; Talk. 11.30 (from Nürnberg)—The Reich Party Congress—Sixth Annual Congress of the German Labour Front in the Congress Hall. 1.0 p.m.—Time; News; Topical. 1.15—Station Orchestra, Trumpet. 2.0—News; Exchange; Sports. 2.30 (from Nürnberg)—The Reich Party Congress—Festival Concert, with Reports on the Finals of the Nazi Light Athletics Contests in the Stadium; at 4.0—Reports on the KdF Folk Festival.

6.30—"In Marching Time"—Records. 7.0—Station Orchestra. Conductor: Mihalovic. Overture, "Der Opernball" (Heuberger). Excerpts, Dance Suite (Pottgiesser). Mazurka brilliant (Liszt). Movements, Pastoral Trio (Weber). Waltz, Abendsterne (Lanner). Gipsy Patrol (Ranzato). Salut d'amour (Elgar). Oriental Serenade (Riedel). Overture, "Ein Fest im Elysium" (Noack). 8.0—The Reich Party Congress. 2.5—News; Records. 10.0—Time; News; Sports. 10.20—"Dancing into Sunday"—Station Dance Band. Conductor: Ranft. Munich Schrammel Ensemble. Ery Ebeling (Soprano). 12.0 m't.-3.0 a.m. (Sunday)—See Breslau.

6.30—"In Marching Time"—Records. 7.0—Station Orchestra. Conductor: Mihalovic. Overture, "Der Opernball" (Heuberger). Excerpts, Dance Suite (Pottgiesser). Mazurka brilliant (Liszt). Movements, Pastoral Trio (Weber). Waltz, Abendsterne (Lanner). Gipsy Patrol (Ranzato). Salut d'amour (Elgar). Oriental Serenade (Riedel). Overture, "Ein Fest im Elysium" (Noack). 8.0—The Reich Party Congress. 2.5—News; Records. 10.0—Time; News; Sports. 10.20—"Dancing into Sunday"—Station Dance Band. Conductor: Ranft. Munich Schrammel Ensemble. Ery Ebeling (Soprano). 12.0 m't.-3.0 a.m. (Sunday)—See Breslau.

6.30—"In Marching Time"—Records. 7.0—Station Orchestra. Conductor: Mihalovic. Overture, "Der Opernball" (Heuberger). Excerpts, Dance Suite (Pottgiesser). Mazurka brilliant (Liszt). Movements, Pastoral Trio (Weber). Waltz, Abendsterne (Lanner). Gipsy Patrol (Ranzato). Salut d'amour (Elgar). Oriental Serenade (Riedel). Overture, "Ein Fest im Elysium" (Noack). 8.0—The Reich Party Congress. 2.5—News; Records. 10.0—Time; News; Sports. 10.20—"Dancing into Sunday"—Station Dance Band. Conductor: Ranft. Munich Schrammel Ensemble. Ery Ebeling (Soprano). 12.0 m't.-3.0 a.m. (Sunday)—See Breslau.

6.30—"In Marching Time"—Records. 7.0—Station Orchestra. Conductor: Mihalovic. Overture, "Der Opernball" (Heuberger). Excerpts, Dance Suite (Pottgiesser). Mazurka brilliant (Liszt). Movements, Pastoral Trio (Weber). Waltz, Abendsterne (Lanner). Gipsy Patrol (Ranzato). Salut d'amour (Elgar). Oriental Serenade (Riedel). Overture, "Ein Fest im Elysium" (Noack). 8.0—The Reich Party Congress. 2.5—News; Records. 10.0—Time; News; Sports. 10.20—"Dancing into Sunday"—Station Dance Band. Conductor: Ranft. Munich Schrammel Ensemble. Ery Ebeling (Soprano). 12.0 m't.-3.0 a.m. (Sunday)—See Breslau.

6.30—"In Marching Time"—Records. 7.0—Station Orchestra. Conductor: Mihalovic. Overture, "Der Opernball" (Heuberger). Excerpts, Dance Suite (Pottgiesser). Mazurka brilliant (Liszt). Movements, Pastoral Trio (Weber). Waltz, Abendsterne (Lanner). Gipsy Patrol (Ranzato). Salut d'amour (Elgar). Oriental Serenade (Riedel). Overture, "Ein Fest im Elysium" (Noack). 8.0—The Reich Party Congress. 2.5—News; Records. 10.0—Time; News; Sports. 10.20—"Dancing into Sunday"—Station Dance Band. Conductor: Ranft. Munich Schrammel Ensemble. Ery Ebeling (Soprano). 12.0 m't.-3.0 a.m. (Sunday)—See Breslau.

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India (Elgar). Caprice viennois (Kreisler). Hebrew Melody (Achron). Molly on the Shore (Grainger).

6.45—News. 7.15—Norwegian Music by the Station Orchestra. Conductor: Kramm. 7.50—Talk. 8.15—"Lustiges Allerlei"—Variety Concert from Berlin. Zeesen Orchestra. Schuricke Trio, Herbert Ernst Groh (Tenor), Lilli Claus (Soprano), Pörschmann (Harmonica). 9.15—Talk. 9.40—News; Topical Talk. 10.15-11.15—Dance Music.

6.45—News. 7.15—Norwegian Music by the Station Orchestra. Conductor: Kramm. 7.50—Talk. 8.15—"Lustiges Allerlei"—Variety Concert from Berlin. Zeesen Orchestra. Schuricke Trio, Herbert Ernst Groh (Tenor), Lilli Claus (Soprano), Pörschmann (Harmonica). 9.15—Talk. 9.40—News; Topical Talk. 10.15-11.15—Dance Music.

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PALERMO

565 kc/s (531 m.); 3 kW. Transmits at intervals from 7.45 a.m.

8.30 p.m.—Light Music. 9.0—"Paggio Fernando"—Two-Act Play (Mura). 10.0—Light Music. Girandola (Allegria). Waltz, Spring in Heidelberg (Bruckner). Spensierata giovinezza (Savino) Excerpt, "Le due gemelle" (Ponchielli). Festa di bimbi (Delle Cese). Serenata dei fiori (Leonardi). Overture (Fetras). Saltarello, "La Tilda" (Cilea).

11.0 p.m.-12.30 a.m. (Sunday)—See Rome group.

PARIS (Eiffel Tower)

1,456 kc/s (206 m.); 7 kW. Transmits at intervals from 6.30 a.m.

6.30 p.m.—Women Composers. Mme Gabrielle Parodi (Songs) and Mme Le Conte-Segers (Pfte.). Songs (Elsa Barraine). Pfte.: (a) Notations d'été (Alice Sauvrezis), (b) Prelude (Marguerite Canal), (c) Valse mélancolique (Marguerite Canal), (d) Sicilienne (Germaine Tailleferre), (e) Pastorale (Germaine Tailleferre). Songs: Clairière dans le ciel (Lili Boulanger).

7.0—Songs from Nice Côte d'Azur. 7.30—Radio Journal; Time. 7.55—Talk on the following Programme.

8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

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8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

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8.0 (also Lyons (PTT), Bordeaux-Lafayette, and Montpellier (PTT))—"Faust" (Gounod) from the Opéra. Conductor: Fourestier. 11.50—News.

Scenes (Huguet and Tagell). Records. Habanera (Chabrier). Wedding Day on Troldhaugen (Grieg). Valse triste (Sibelius). Romanian Rhapsody Maricara (Nea). Scene and Waltz, "Gretchen Green" (Guiraud). Records. Selection, "Tosca" (Puccini). Neapolitan Serenade (d'Ambrosio). Jugos (Turina). March of the Ten Soldiers (Turina).

6.30—Records. 6.45—Claude Dorane (Songs). 7.0—Radio Journal; News. 8.0—Sound News; Records. 8.20—Opereetta Music. Selection, "The Grand Duchess of Gêrolstein" (Offenbach), "François les bas bleus" (Messager). 8.30-10.30—Soirée tournante. 8.30—Orchestra. Conductor: Cebron. Gabrielle Ristori (Songs). Overture, "Genoveva" (Schumann). Songs (Chabrier). Excerpts, "Don Juan de Mañara" (Tomasi). 9.10—"Plaisir de rompre"—One-Act Play (Renard), with Béatrice Bretty and Roger Montaux.

9.50—Variety. La voix des quatre, Rose Cornaz and her Hawaiian Guitar Ensemble, and Jean Marsac. 10.30—Weather; News. 10.45—Records: Light Music. 11.0—"Le gréluçon délicat"—Three-Act Play (Natanson).

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8.55—Talk: Books and Men.
9.10—Concert from Bratislava.
9.55—Local News.
10.0—Time; News; Records.
10.30-11.30—Dance Music by Dvorsky and his Melody Boys from the Cafe Lucerna.

RADIO EIREANN

565 kc/s (531 m.); 100 kW. Dublin, etc. See Sunday.
1.30-3.0 p.m.—Records.
5.30—Tea-Time Music—Kathleen Pollaky's Trio, and Alex Rogers.
6.15—Adolphe Gebler's Wind Quintet.
6.45—News.
7.0—Louis Lee's Accordion Band.
7.40—Reading: "Mary Queen of Scots" (Hamilton Bell).
7.50—"Summer Gardens"—Irish Radio Orchestra. Conductor: Lieut. D. P. O'Hara, Edna Chambers (Pfte.), and Mabel Home (Contralto).
8.40—Jan Wien (Zither Banjo).
9.10—Irish Greyhound Park National from Shelbourne Grand, Dublin. Commentator: Michael Byrne.
9.20—Nuacht an Lae—A Gaelic News Broadcast.
9.30—Variety.
10.30—News; National Anthem.

RADIO-MEDITERRANÉE

1,276 kc/s (235.1 m.); 27 kW. Transmits at intervals from 12.15 p.m.
7.0 p.m.—Variety.
7.15—Talk: Provence.
7.30—Request Programme.
8.0—Talk.
8.10—News; Exchange.
8.15—Lajos Kiss Cigany Band.
8.25—Light Music.
8.40—Humorous Items.
9.5—Weather Report.
9.10—Classical Concert from Monte Carlo.
10.0—Radio Journal.
10.15—Dance Music.

RADIO-NORMANDIE

1,411 kc/s (212.6 m.); 15 kW.
6.25 a.m.—Nos vieux pommiers (Dior).
6.30—Press Review; Music.
7.0—Swing Something in the Morning.
7.15—Time; Sparkling Melody; at 7.30—Time; Weather.
7.45—Physical Exercises.
8.0—Music in the Morning.
8.15—Time; Happy Days.
8.30—News.
8.40—Your Message from the Stars.
8.45—Programme for Children.
9.0—Time; Smiles; Songs and Stories.
9.15—These Names make Music—Romberg and Young.
9.30—Harry Davidson and his Commodore Grand Orchestra.
9.45—Light Music.
10.0—Time; Carroll Gibbons and his Boys, Anne Lenner, George Melachrinio, Morton Fraser, Robert Erwin.
10.30—Radio Favourites.
10.45—Rhythm on Pianos.
11.0—Time; The Musical Mirror.
11.15—The Songs we know them by.
11.30—Chansonnettes.
12.0 noon—Light Music.
12.20 p.m.—News; Light Music.
2.0—Military Moments.
2.15—Join in the Chorus.
2.30—The Nimble Needle.
2.45—The Whirl of the World.
3.0—Time; Radio-Normandie Concert Hall.
3.15—The Call of Cuba.
3.30—Dance Music.
4.0—Time; Pleasant Quarter Hour.
4.15—Swing Music.
4.30—Old Friends.
5.0—Time; Request Music.
5.30—Football Results; Music.
6.0—For Children.
6.45—Talk; News; Racing.
7.0—Light Music.
7.30—News; Talk.
7.50—Records of Carlo Cotti.
8.0—Operetta Music.
8.40—Le Paradis d'Amitabha (Vel-jones).
9.0—Variety.
10.0—Dance Music.
11.0—Café Concert.
12.0 m't.—Melody at Midnight.
12.30 a.m.—(Sunday)—Swing Something in the Morning.
12.45-2.0—Dance Music; at 1.0 and 1.30—Time.

RENNES-BRETAGNE

1,040 kc/s (288.5 m.); 120 kW. Transmits at intervals from 6.30 a.m.
6.45 p.m.—News in English.
7.0—Radio Journal.
7.30—Light Music. Conductor: Louis Martin. Selection, "Ciboulette" (Hahn). Chants de martelets (de Sève). Carnival Seren-

nade (Erlanger). Moorish Reverie (Nerini). Les roses (Metra). Selection, "Boccaccio" (Suppe).
8.0—News; Amusements; Records.
8.30—Concert. Conductor: Bilewski. The Italian Symphony (Mendelssohn). Masques et Bergamasques (Fauré). Excerpts, "Les Perses" (Leroux). Songs. Pastels chantants (Flament). Suite provençale (Jongen). Songs. Les maisons d'été (Bloch). Scherzo (Lalou). Izely (Piermé). Evolution (L'Enfant). After the Programme—News, Concert.

REYKJAVIK

208 kc/s (1,442 m.); 100 kW. Transmits at intervals from 12.0 noon.
9.10 p.m.—Weather (Icelandic, German, English).
9.20—Choral Music.
9.40—News; Foreign Affairs.
10.15—Reading or Play.
11.30—Radio Quartet.
12.0 m't.—2.0 a.m. (Sunday)—Dance Music.

ROME GROUP

Rome (No. 1), 713 kc/s (420.8 m.); 120 kW. Bari (No. 1), etc. See Sunday.
7.45 a.m.—Gym.
8.0-8.20—Time; News; Markets.
11.30—Muzazzi Orchestra.
12.30 p.m.—Sports; Records.
1.0—Time; News.
1.15—Radio Orchestra. Fantasia on Old Themes (Filippini). Non ho più chitarra (Poussigne). Chinchillita (Fiorini). Carezze (Masccheroni). Occhi di zingara (Filippini). Per te vivo (Zecunda). Waltz (Roland). Castiglia innamorata (Gnacco).
2.0-2.15—News.
5.0—News; Lotteries.
5.15—Paola Novikova (Soprano).
5.50—Aviation Notes; Weather.
5.55—For Workers.
6.10-6.50—For Farmers.
7.0—News in Esperanto.
7.20—Dopolavoro Notes.
7.30—Orchestra.
7.50—Talk.
8.0—Time; News; Music.
8.30 (Naples (No. 2) only)—Light Music.
9.0—"Malgrado tutto"—One-Act Play (Silvestri).
9.40 (approx.)—Rodolfo Schmidt (Pfte.). Sonata in A (Parodisi). Carnival (Schumann).
10.30—Topical Talk.
10.40 (approx.)—Dance Music.
11.0—News.
11.15-11.55—Dance Music.

SAARBRÜCKEN

1,249 kc/s (240.2 m.); 17 kW. Relayed by Kaiserslautern, 1,429 kc/s (209.9 m.).
6.0 a.m.—Hymn; Motto; Gym.
6.30—See Berlin.
7.10—Records: Light Music.
8.0—Time; Weather; Programmes.
8.10—Gymnastics.
8.30—Orchestra from Danzig.
9.30-10.30—See Munich.
11.0—For Town and Country.
11.30—See Munich.
1.0 p.m.—Time; News.
1.15—See Vienna.
2.0—News; Records.
2.30-6.30—See Munich.
6.30—Engels (Tenor); Fougner (Pfte.).
7.0—"This and That"—Records.
7.30—Topical Review.
8.0-12.0 m't.—See Munich.
8.0-12.0 m't.—a.m. (Sunday)—See Breslau.

SOTTENS

677 kc/s (443.1 m.); 100 kW. Relayed by Geneva, 401 kc/s (748 m.).
12.29 p.m.—Time; News; Records.
1.10—Records of French Opera Music.
1.30—Records of Fritz Kreisler (Violin). Chanson Louis XIII (Couperin). Lav précieuse (Couperin). Dance of the Marionettes (Winttermitz). Sérénade de Polichinelle (Kreisler). Caprice viennois (Kreisler). Tambourin chinois (Kreisler).
1.50—Dance Records.
2.0—Records. Symphony in A (Mozart), by the London Philharmonic. Conductor: Sir Thomas Beecham. Concerto in D minor for Two Violins (Bach), by Szigeti and Flesch, with Orchestra. Totentanz (Liszt), by Kilenyi (Pfte.) and Orchestra.
3.0—"Lucia di Lammermoor" (Donizetti) (Scala, Milan, Recordings).
4.40—Dance Records.
5.0—See Monte Ceneri.
6.0—For Children.
6.30—Records of Dance Music and Songs.
6.50—Legal Talk.

7.0—Records.
7.30—Talk: Maurice Barrès.
7.40—Talk: School Magazines.
7.50—News.
8.0—"Le Hérisson"—One-Act Play (Duvernois), by the Gay Companions.
8.30—Mascagni Concert. Radio Suisse romande Orchestra. Conductor: Haug, Mme Bereny (Soprano), Mme E. de Carli (Mezzo-Soprano), Campagnano (Baritone), Marini (Tenor). Selections, "L'Amico Fritz," "Cavalleria rusticana." Three Arias, "Iris."
10.15-11.0—Adison Dance Band from the Splendid.



M. Jacque-Dalroze, inventor of Eurhythmics. Strasbourg gives a programme of his music, beginning at 9.30 p.m.

STOCKHOLM

704 kc/s (426.1 m.); 55 kW. Motala, etc. See Sunday. Transmits at intervals from 7.45 a.m.
12.5 p.m.—Records.
12.30—News; Weather.
12.50—Exchange; Time.
1.0—Sundsvall Women's Folk-Song Choir and Quintet, Edlén (Flute). Excerpts, Once upon a time (Lange-Müller). Choir: (a) Violin (Norman), (b) Landet Vitaval (Wikander). Flute: (a) Fantasia on Swedish Folk Melodies (Andersen), (b) Suite (de Frumerie), Ballet Music, "Cinderella" (Hannikainen), Dance (Backer-Gröndahl), Choir: Songs (Hult).
2.0—September Day—Report.
2.30—Ely Fischer Kjerulf (Songs), Cruce (Violin) from Malmö.
3.0—Talk.
3.30—Band. Conductor: Kallin. Festival Polonaise (Yngve Sköld). Overture, "Morning, Noon and Night" (Suppé). Tales from the Vienna Woods (Strauss). Von Wien durch die Welt (Hruby). Berceuse (Olausson). Saturday Night in Djurgarden (Kahrmann).
4.30—Reading (Barthel).
5.5—Mikael's Domra Ensemble.
5.35—For Children.
6.0—Talk with Records: A Late Summer Evening in Helsinki.
6.30 (from Göteborg)—Sonata in F minor (Schumann) by Kurt Appelbaum.
7.0—News; Weather; Topical.
7.30—"The Optimist and the Pessimist"—Dialogue (Härmeman).
7.45—Old Dances by Ager's Band.
8.15—"Lustiges Allerlei"—Variety from Berlin. Zeesen Station Orchestra. Schuricke Trio, Lilli Claus (Soprano), Groh (Tenor), Porschmann (Harmonica).
9.15—A Radio Rhapsody.
10.0—News; Weather.
10.15-11.0—Von Eichwald Dance Band.

STRASBOURG

859 kc/s (349.2 m.); 100 kW. Transmits at intervals from 6.30 a.m.
12.0 noon—Orchestra. Conductor: de Villers. Overture, "Fra Diavolo" (Auber). Hungarian Divertissement (Michiels). Selection, "Samson and Delilah" (Saint-Saëns). Divertissement on Russian Songs (Rabaud).
12.45 p.m.—News.
1.15—Music from Paris (PTT).
1.45—Economic and Social Notes.
2.0—Exchange.
2.30—Light Music.
4.0—Dance Music. Conductor: Laumet; at 4.10—Report from the Strasbourg Fair: The Walking Tour of Alsace.
5.0—Music from Alpes-Grenoble.
5.45—Music from Toulouse (PTT).
6.30—For Farmers.

SATURDAY (September 10)

6.45—Legal Talk (German).
7.0—News.
7.30—See Rennes-Bretagne.
8.0—News (German, French).
8.30—Station Orchestra. Conductor: Bour. Overture, "The Merry Wives of Windsor" (Nicolaï). Norwegian Dances (Grieg). The Moldau (Smetana).
9.30—Jacque-Dalroze Music. Conductor: de Villers. March, La Champenoise. Chanson à la Lune. La chère maison.
9.45—"Le bonhomme jadis" (Jacque-Dalroze).
10.30—News (French, German).
11.0—See Paris (Radio-Paris).

STUTT GART

574 kc/s (522.6 m.); 100 kW.
5.45 a.m.—Hymn; Weather; For Farmers; Gym.
6.15—News.
6.30—See Berlin; at 7.0—News.
8.0—Water Level; Weather; Markets; Gym.
8.30—Records.
9.30-10.30—See Munich.
11.30—Folk Music; Peasant Calendar; Weather.
12.0 noon—To be announced.
1.0 p.m.—Time—News.
1.15—To be announced.
2.0—Folk-Music.
3.0—Records.
4.0—"As you like it"—Stuttgart Station Sketch Book presents Saturday Afternoon Variety.
6.0—Topical.
7.0—"Merry Week-end"—Records.
8.0—News.
8.10—Light Music, Station Orchestras, Conductors: Görlich and Butz-Bara; Airmen's Band, Conductor: Kupfer; "Odeon" Mandoline Orchestra, Conductor: Becher. In the interval, "Das Wunderkind" (The Wonder Child)—Sketch (Hartung).
10.0—Time; News; Sports.
10.30—Music from Munich.
12.0 m't.—Serenade. Station Orchestra and Choir. Conductor: Zimmermann. Emma Mayer (Contralto) and Karl Erb (Tenor). Part I. Schubert. Music to "Rosamunde." Three Tenor Songs. Part II. "Der Rose Pilgerfahrt" (Schumann). Cast: Inge Camphausen, Elisa Keller, Emma Mayer, Anton Knoll, Hermann Zenzelmann and Heinrich Lampe.
2.0-3.0 a.m. (Sunday)—Music from Breslau.

TOULOUSE (Radio-Toulouse)

913 kc/s (328.6 m.); 60 kW. Transmits at intervals from 8.0 a.m.
12.0 noon—Dance, La bourrasque (Péguri).
12.5 p.m.—Musette Refrains.
12.20—News; Military Band.
12.45—Light Music.
1.15—Orchestra.
1.30—Request Programme.
1.55-2.10—News; Press Review.
6.0—News; Chansonnettes.
6.40—Orchestra. Selection, "Il Trovatore" (Verdi) and "Coppelia" (Delibes). Morgenblätter (Strauss).
6.55—News; Sports.
7.0—Operetta Music. Excerpts, "The Song of Happiness" (Lehár), "A Night in Venice" (Strauss), "White Horse Inn" (Stolz-Benatzky), "The Duchess of Chicago" (Kálmán).
7.15—Musical Comedy Music.
7.45—Light Music.
8.0—News; Salon Orchestra.
8.30—Talk; Bal Champêtre.
8.45—Selection, "Au Soleil de Marseille" (Selliers).
9.10—Talk.
9.15—"Matinée d'Été"—Fantasy.
9.30—Dance Music.
10.0—News.
10.15—Request Programme.
10.45—Marches and Soldier Songs.
11.0—Operetta Music. Excerpts, "The Gipsy Baron" (Strauss), "Parade du Monde" (Scotto), and "Countess Maritza" (Kálmán).
11.15—Light Music.
11.55-12.0 m't.—News.

TURIN GROUP

Turin (No. 1), 1,140 kc/s (263.2 m.); 7 kW. Milan (No. 1), etc. See Sunday.
7.45 a.m.-2.15 p.m.—See Rome Group.
5.0—News; Lotteries.
5.15—Dance Music.
5.50-6.50—See Rome Group.
7.19 (Rome (No. 2) only)—News in English.

7.20-8.30—See Rome Group.
8.30—Records; at 8.36 (Milan (No. 1), Rome (No. 2), and Bolzano)—News and Talk (German).
9.0—Band. Conductor: Arlandi. Neghelli (Leoni). Old Dances (Catalano). Venetian Carnival (Bourgmann). First Kiss (Goletta). Rustic Scenes (Carbonaro). Military March (Musso).
9.50—Talk.
10.0—Song Potpourri. Cetra Orchestra.
10.40 (approx.)—Dance Music.
11.0—News.
11.15-12.30 a.m. (Sunday)—Dance Music.

VIENNA

592 kc/s (506.8 m.); 100 kW. Graz, etc. See Sunday.
6.0 a.m.—Motto; Weather; For Farmers; Gym.
6.30—See Berlin; at 7.0-7.10—News.
8.0—Markets.
8.30-10.30—See Munich.
10.30—Light Music. Station Orchestra. Conductor: Sandauer. Overture, "Undine" (Lortzing). Waltz, Hofballtänze (Lanner). Kleine Wiener Musik (Pachernegg). Lieber, guter Stephans-turm (Gundacker). Moorish March (Mohr). Selection, "Eva" (Lehár). Bolero (Sandauer). Waltz, "The Gipsy Baron" (Strauss). March, Hoch Heidecksburg (Herzer).
11.30—See Munich.
1.0 p.m.—News.
1.15—Station Orchestra. Conductor: Sandauer. Overture, "Der lustige Krieg" (Strauss). Waltz, Träume an der Donau (Stolz). Two Old Viennese Dances (Schmutzer). Allerhand vom Donaustrand (Schönherr-Kemetter). Volk im Lied (Robrecht).
2.0—News.
2.10—Potpourri, From the Rhine to the Danube (Rhode)—Station Orchestra. Conductor: Sandauer.
2.30-6.30—See Munich.
6.30—Station Orchestra. Conductor: Schönherr. March, Pampasreiter (Fischer). Overture, "Eva" (Lehár). Tanzminia-turen (Dressel). Melody (Ketelbey). Waltz, Münchner Leben (Löhr-Huber). Hokuspokus (Mosheimer). Selection, "Annen von Tharau" (Strecker). Polka, Knalleffekt (Kröger). Gaukler im Orient (Lindemann). Verliebt (Ziehrer). Kreuder Potpourri (Rixner). Ballet, "Die Tartarin" (Stauch). Zwanzente (Lehár). March, Schützer des Friedens (Lutz).
8.0—See Munich.
10.0—News.
10.30—See Berlin.
12.0 m't.—3.0 a.m. (Sunday)—See Breslau.

WARSAW

224 kc/s (1,339 m.); 120 kW. Cracow, etc. See Sunday. Transmits at intervals from 6.15 a.m.
4.0 p.m.—Hejnal Mandoline Band from Lwów. March, "Faust" (Gounod). Suite (Poppy). Naples (Mezzacapo). Neapolitan Sérénade (Rivelli). March, Caramba (Maciocio).
4.45—Reading.
5.0—Dance Music from the Radio Exhibition. In the interval, Programme Announcements.
6.0—Programme Notes.
6.10—Smidowicz (Pfte.). Sarabande and Courante (Lully). Caprice (Dandrieu). Tambourin (Rameau-Godowski). Sonata in E (Beethoven).
6.45—Poems.
7.0 (from Poznan)—Danczowski ('Cello). Suite (Falla). Midnight on Maundy Thursday in Seville (Turina). Malagueña (Albeniz).
7.20—Topical Talk.
7.30—Concert from the Radio Exhibition. England Orchestra. Lisowski Trio. Paluli (Xylophone). Luczaj (Bass).
8.0—For Poles Abroad. Part I. From Poznan: For Children. Part II. From Torun: "The Lakes of Pomerania"—Sequence (Bukowski).
8.45—News; Topical Talk.
9.0—For Farmers.
9.10—Polish Songs and Dances. Station Salon Orchestra, Poznań Quintet, Gruszczynski (Tenor) and Sliwinka (Soprano).
9.50—Sports.
10.0—Concert.
11.0-11.5—News; Weather.



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