

HEINL RADIO BUSINESS LETTER

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INDEX TO ISSUE OF AUGUST 26, 1938

Summer Static Doomed September 1st.....	2
Canadian Radio Sales Improve.....	3
More Than 20,000 Ships Now Have Radio.....	3
Police Are Slow In Applying For Permanent Licenses.....	4
Why Can't Congressional Debates Be Broadcast, Scribe Asks?...5	
Widening Of International Broadcast Bands Sept. 1, 1939.....	6
Radio Inventories Better Than A Year Ago.....	6
Germany To Supply 700,000 Radios To Needy At Low Cost.....	7
Predicts Excellent Fall And Winter S-W Reception.....	7
Farm Radios Increase To 62%.....	8
Russians Scramble For American Radio Sets.....	8
Navy Greatly Improves Radio Meteorograph System.....	9
Trade Notes.....	10
NBC Denies Independent ASCAP Move.....	11
Philco Launches Farm Advertising Campaign.....	11
Sees British Television Problem Easier Than Ours.....	12
Drake, Head Of Electric Research Products, Dies.....	12

No. 1153

SUMMER STATIC DOOMED SEPTEMBER 1ST

With the increase in power and perfecting of the transmitting apparatus, electrical disturbances caused by the changes in the highly charged Summer atmosphere, are occasioning the radio listener less and less annoyance. In the old days when it was necessary for so many communities to depend upon outside stations, Summer static practically limited the good listening period to about eight months in the year. Now, with practically every city having its local broadcasting station or stations, and with the development of the networks, static is no longer the factor it used to be.

Nevertheless, it is good news to the listener that September 1st will mark the beginning of the best listening season of the year. This will continue on through to March 1939.

According to J. H. Dellinger of the National Bureau of Standards in Washington, static is usually due to distant electrical disturbances in the atmosphere, especially thunderstorms. It is something entirely separate from man-made interference to radio reception caused by electrical devices such as X-Ray apparatus, and sparking contacts.

"The trouble from static, or 'atmospherics', as it is sometimes called, is generally less the higher the radio frequency; thus it is practically negligible at frequencies above 30,000 kilocycles per second. Atmospherics are more troublesome in Summer than in Winter, in low latitudes than in high latitudes, at night than in the daytime, and on land than on the ocean", Dr. Dellinger said.

"There are no known methods of completely eliminating radio interference caused by atmospherics. Their effects can be reduced by increasing the power used in the radio transmitting station.

"Methods are available for use in the receiving station which partly overcome the trouble. One method is the use of a very selective receiving set, e.g., the superheterodyne. Increasing the selectivity reduces the atmospherics by narrowing the band of frequencies admitted to the receiving set. Selectivity can be increased up to the point where the quality of the received signal is excessively marred; this process can be carried farther for CW than for radio telephone reception, and therefore CW can be received through atmospherics more

successfully than radio telephony. The effectiveness of numerous balancing schemes for the elimination of atmospherics is essentially dependent on increasing the selectivity of the receiving apparatus. A somewhat related scheme is the use of the limiting action of vacuum tubes or other circuit elements.

"Another method of mitigation, useful in some cases, is the use of a directional antenna. Such an antenna is oriented in such a direction as to eliminate the atmospherics from the direction in which they are the most troublesome. The simple coil or loop antenna is of some use in this connection. A specialized type, used in low-frequency radio telegraph reception, is the wave antenna, which is a very long, low antenna of special design."

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CANADIAN RADIO SALES IMPROVE

Radio sales to dealers in Canada during June numbered 10,385 units valued at \$763,812 as compared to 6,374 units with a list value of \$494,638 in May, according to a report from the office of the American Commercial Attache at Ottawa. Sales in all groups increased, with battery sets making the best advance.

Inventories of companies reporting to the Radio Manufacturers Association of Canada totaled 61,526 units as of June 30, 1938, compared with 53,305 units on hand at the end of May. Projected production during the period from July 1 to September 30 is scheduled at 75,872 units, including 60,629 alternating current chassis, 14,939 battery sets, and 304 automobile sets, the report states.

Total sales in the first six months of 1938 numbered 52,334 units with a list value of \$4,356,433 as compared with 67,782 units with a list value of \$5,273,658 in the corresponding period last year. The figures of one Canadian branch of a large United States manufacturer are not included in the above item, according to the report.

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MORE THAN 20,000 SHIPS NOW HAVE RADIO

The total number of ships throughout the world, both merchant and naval, equipped with radio is 21,483, according to a compilation made from the 10th edition (March 1938) of the "List of Coast Stations and Ship Stations", published by the Bureau of the International Telecommunications Union, Berne, Switzerland. This number compares with 19,566 ships so equipped in March, 1937, 18,129 in March 1935, and 18,032 in March 1934, according to the Transportation Division of the U.S. Commerce Dept.

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8/26/38

POLICE ARE SLOW IN APPLYING FOR PERMANENT LICENSES

Applications for permanent municipal police licenses replacing the present general experimental licenses, specifying the new frequencies available, have not been filed in sufficient numbers to assure all stations being relicensed before October 1st, the expiration date of the present licenses. Accordingly the Federal Communications Commission has notified all police licensees not already having filed applications to take immediate steps to do so.

Numerous applications for the new municipal police radio facilities have been returned due to errors in execution. Others have been placed in the Commission's pending file awaiting further information from the applicants. The most frequent error is the omission of statements covering the results of the applicants' arrangements for the proper choice and use of the new frequencies to minimize interference in the applicants' areas.

Before an application is submitted to the Commission each municipality must contact all licensees of police stations operating in the 30 to 40 megacycle band within a radius of approximately forty miles and cooperatively agree upon the selection of frequencies. A copy of all such agreements formulated must be filed with the application. Such documents may take the form of letters addressed to the Commission from the surrounding licensees stating that they have no objection to the applicant using the requested frequency. If as a result of the applicant's investigation, there are no other stations of this category within the area mentioned above, a statement to this effect must accompany the application.

Applications for license requesting the change from experimental to emergency service authorization must, if such is the case, include a statement to the effect that the equipment to be licensed is the same as the apparatus specified in the construction permit, or permits, previously granted. If this is not the case applications for construction permit specifying the equipment now in use must be submitted with the license applications.

In this connection it is pointed out that a single construction permit application is acceptable for all mobile units of identical construction. Only one license application is to be filed for the control station and all mobile units operating as a single coordinated municipal police radio system. Various applicants have filed unnecessary separate forms for each unit.

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8/26/38

WHY CAN'T CONGRESSIONAL DEBATES BE BROADCAST, SCRIBE ASKS?

As a Congressman twirls his radio dial these long Summer afternoons, and gets little but baseball broadcasts, he may be content (if he's a fan) to hear that the count is three and two on Gehrig. . . . But he's also apt to meditate: "If they can broadcast from Bangor to San Diego that Lefty Gomez has just hit a foul ball, why can't they broadcast the debates in Congress?", Harlan Miller writes in the Washington Post.

"As he thinks it over, the honorable gentleman is likely to be a little irritated that the House and Senate haven't been studded with microphones long, long ago, and that the patriots aren't as familiar with his voice as with Jack Benny's or Charlie McCarthy's.

"And, indeed, it is strange that in such a radio-conscious democracy, the radio chains - and the sponsors - haven't bestirred themselves to give the citizenry a ringside seat at the lily-gilding, eagle-screaming, nation-saving and baloney-slicing which goes on in Congress.

"Except when the Republic has the colic, there are no more than 100 daily sessions of the two Houses a year. Usually they meet at noon and adjourn around 4 o'clock, Monday through Friday. . . . If the radio audiences yawned the number and length of sessions could be trimmed. . . . Often they don't even meet on Mondays or Fridays.

"The three treat chains which inundate the land with words and music could split up the job, and two and one-half hours on each would be enough to send every precious word of every Senator and Representative roaring out across the waiting distances into every eager ear.

"There shouldn't be any trouble about sponsors So let's wire the House and Senate for sound; drape the microphones, one in front of every seat; soundproof the walls with cork; assign attendants to stage-whisper 'Quiet, please!' as Borah clears his throat; divide up the time so every member may tell the world at least once a fortnight what's keeping him awake nights. . . . Let the land listen in as the eagles of democracy sound off; and let every patriot take a long siesta each day to keep his finger on the pulse, or to get a nap. There might even be all-request programs."

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WIDENING OF INTERNATIONAL BROADCAST BANDS SEPT. 1, 1939

Beginning September 1, 1939, the widening of the international broadcast bands as agreed to at the recent Cairo convention (Article 7 of the Cairo General Radio Regulations) becomes effective as among nations which have ratified those new regulations by that time. The table of allocation contained in this article provides for certain additional frequencies ranging from 10 kilocycles to 200,000 kilocycles, to be allocated for long distance broadcasting service (termed International Broadcasting in the United States).

The Federal Communications Commission has made an engineering study of the present and proposed allocations in the new international broadcasting bands, and as a consequence has notified the Bureau of the International Telecommunication Union, Berne, Switzerland, the following ten additional frequencies for use by stations of the United States in the new bands: 6170, 6190, 9650, 9670, 17830, 21570, 21590, 21610, 21630 and 21650 kc.

Pending ratification of the Cairo Radio Regulations, and until at least September 1st, 1939, applications for the frequencies listed above will be considered by the Federal Communications Commission on the basis of Paragraph 1 of Article 7 of the Madrid Radio Regulations for the type of service known under the Rules and Regulations of the Commission as "International Broadcast", and to be operated on a temporary basis in accordance with all the rules governing that service until a more permanent policy is adopted.

Because of the existing congestion in all of the bands allocated for international high frequency broadcasting, applications for frequencies other than those listed above, or other than those now allocated to stations of the United States will not be in order.

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RADIO INVENTORIES BETTER THAN A YEAR AGO

Radio goes into its Fall season with stocks in very excellent shape compared with a year ago, according to Radio Today. At present there is no congested situation. Manufacturers' inventories are largely liquidated, and no threat overhangs the market. Jobbers and dealers are moving their stocks satisfactorily, clearing the way for new purchases. No disquieting factors are present in the 1938 Fall picture, and the stage seems all set for healthy recovery.

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GERMANY TO SUPPLY 700,000 RADIOS TO NEEDY AT LOW COST

Seven hundred thousand wireless receivers, costing only thirty-five shillings each, are to be provided for "needy" listeners in Germany before the end of the year. This announcement was made by Dr. Goebbels, Minister of Propaganda, when he opened the German Radio Exhibition.

The set, which is an all-mains, two-tube receiver, can be obtained by those for whom it is designed for five marks deposit and fifteen monthly installments, World Radio of London reports. They will also pay only one mark, instead of two, for the annual license.

An annual award of two thousand marks is to be made for the best work in the field of radio, Dr. Goebbels announced.

He added that there was to be a change in German program policy. In future Deutschlandsender would devote more time to operas, dramas, and the great German symphonies.

One large hall at the German Radio Exhibition is devoted entirely to television, and the biggest attraction is the hour-and-a-half television revue, which the crowds seem to prefer to see in the heat of the lights, rather than watch the transmission on the receivers in the dark, cool corridor. The good reception on the largest projection screen is good, but on the smaller ones it is less pleasing. The largest television hall, equipped with Fernseh A.-G. apparatus gives a bright image on a screen 10 ft. by 12 ft.

The Fernseh A.-G.'s table-top set gives a full-plate-size image, and has set tuning for vision and sound, for the local station, and for the long-wave National Transmitter. This set will cost in the neighborhood of forty pounds. Telefunken have produced an even less expensive adaptor set. This consists of an ultra-short-wave receiver for sound and vision. The sound is passed out to the ordinary radio receiver, whereas vision is handled in the television "adaptor".

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PREDICTS EXCELLENT FALL AND WINTER S-W RECEPTION

Although during the past Summer in spite of the unusual heat, short-wave stations in England, Germany and Italy were heard exceptionally well, a Government radio expert, who asks that his name not be used, reports and he has predicted even better short-wave listening conditions during the forthcoming Fall and Winter. He said that in conjunction with the building of more powerful short-wave stations abroad, and more effective use of antenna in beaming, or directional broadcasting, also with listeners equipping themselves with modern receiving sets instead of depending upon those two or three years and maybe much older, the forthcoming Winter should offer the best short-wave programs to the United States thus far received.

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FARM RADIOS INCREASE TO 62%

Material increase in farm radios is detailed in two recent government reports. The Bureau of Census has issued two farm radio reports (T-5 and Special T-5A), while another has been issued by the Division of Home Economics of the Department of Agriculture.

There are ten times as many farm radios in 1938 as in 1925, according to the Census Bureau report, only 6 percent of farms having radios in 1925 with 62 percent of radio ownership on farms reported on January 1, 1938. Southern states showed the greatest gain in rural radio.

The Department of Agriculture report stated that far more farmers owned receiving sets than ever possessed pianos or phonographs, the proportion being below 70 percent in the southeast and ranging as high as 93.7 percent on California farms, as against 44.2 percent for pianos.

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RUSSIANS SCRAMBLE FOR AMERICAN RADIO SETS

The demand for radio sets is still far in excess of supply, dispatches from the American Embassy in Moscow set forth. According to the Moscow "Pravda", the "special radio store No. 7 in Moscow, which is one of the few large radio stores in the city, received during the first 3 months of the current year only 35 modern 6-tube all-wave sets of American design with American parts and metal tubes". The article states further that "hundreds of buyers must be refused daily, since the first shipment was sold out in 3 hours, and since the next shipment will not be received until some time during the second half of the year".

It appears that the quality of the sets in question is not satisfactory. Of the 35 sets mentioned above, 3 were condemned by the store and 14 were returned by the buyers 3 or 4 days after they were purchased.

The above set was placed on the market at the end of 1937. It is a 6-metal-tube table-model set, superheterodyne, copied on the basis of American designs. The price of this set in the Soviet Union is 966 rubles, or about \$193 at the official rate of exchange. The same set is also used for a combination radio-phonograph which sells for 2,200 rubles, or approximately \$450.

A limited number of 5-tube, superheterodyne sets are being installed in the best Soviet automobile, the Zis.

8/26/38

With respect to radio parts, it may be stated that the supply thereof is far from sufficient to satisfy the demand. Parts for the above sets are, according to the Soviet press, particularly scarce.

Since the production of individual sets is extremely limited, the Soviet authorities are concentrating their attention upon the development of a central receiver system. It is planned to install 950,000 additional outlets in 1938. The number of such outlets existing at the end of 1937 is estimated at about 3,000,000, according to the Moscow "Pravda".

An American company has completed the installation of a television broadcast station in Moscow. It is understood that only a small number of television receiving sets exist in Moscow, all of which were purchased in the United States.

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NAVY GREATLY IMPROVES RADIO METEOROGRAPH SYSTEM

There has been an outstanding development of the radio meteorograph system used by the aerological service of the United States Navy Department.

The radio meteorograph attached to a small unmanned balloon, sends down radio signals which give a measure of the variations in atmospheric pressure, air temperature, and air humidity as the balloon ascends. The decrease in barometric pressure as the balloon rises is utilized to operate a small switch arm which moves over a set of electrical insulating and conducting strips. The conducting strips are electrically interconnected with two resistors which control the modulating frequency or pitch of the radio signals. One of these resistors consists of a small capillary glass tube filled with an electrolyte which varies markedly in electrical resistance with the surrounding air temperature. The second resistor is mechanically varied by the expansion or contraction of a hair element and hence varies with the relative humidity. The temperature resistor is normally in circuit so that the modulating frequency or pitch is normally proportional to the temperature. At predetermined pressure levels, corresponding to approximately 500-foot increments in the height of the balloon, the switch-arm switches in the humidity resistor and the modulating frequency or pitch becomes a measure of the relative humidity. At the ground receiving station, an automatic graphical frequency recorder connected in the output of a receiving set converts the variations in pitch into a plot of temperature and humidity against pressure.

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8/26/38

::: TRADE NOTES :::

Paul S. Ellison, of Hygrade-Sylvania Corporation, has been named Chairman of the Sales Managers Clubs, Eastern group.

Shortwave station W3XAU, operated by the WCAU Broadcasting Company of Philadelphia, has been granted an additional frequency of 15,270 kc., in addition to the frequencies already granted to the station by the Federal Communications Commission for use in international Broadcasting.

Since the first of August, over \$8,690,000 in new and renewal business for the twelve months starting this Fall has been signed by the Columbia Broadcasting System, according to a CBS press release. These recent signatures will bring 17 programs to Columbia audiences, on behalf of 11 advertisers, it was said, in addition to programs previously scheduled for Fall and Winter.

Sparks-Withington Company and its subsidiary reports for the year ending June 30th, a net loss of \$60,581, compared with a net profit of \$466,067, or 49 cents a share on 900,674 common shares, after preferred dividend requirements, in the year to June 30, 1937.

The Radio Section of the National Bureau of Standards during the year assisted the Weather Bureau and the Geological Survey in forming a Committee on the Use of Radio in Flood Forecasting and Control.

The monthly index of radio advertising in Printer's Ink, shows for July a decline of 7.9 percent from the like month in 1937, the greatest drop from a year ago recorded so far this year. The decrease in the index indicates that the July decline was greater than seasonal.

Gen. James G. Harbord, Chairman of the Board of the Radio Corporation of America, recently returned from a trip to the Antipodes and the Far East, will describe interesting highlights of the extended cruise on Tuesday, August 30th, over the NBC-Blue Network at 6:30 P.M., EST. The subject of the General's informal talk is "Some Observations Around the Pacific".

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NBC DENIES INDEPENDENT ASCAP MOVE

There was an immediate denial from the National Broadcasting Company of a story printed in Variety that Judge A. L. Ashby, NBC General Counsel, had approached the American Society of Composers for a new licensing agreement. The Variety story read, in part, as follows:

"American Society of Composers, Authors and Publishers will not enter into negotiations with NBC or Columbia for a new licensing agreement unless it has gone over the subject first with representatives of the broadcasting industry as a whole. Disclosure of this policy was made after A. L. Ashby, NBC v.p. and general counsel, had approached the Society about starting preliminary discussions for a separate contract with the networks.

"Present licensing contract between ASCAP and the broadcasting industry does not expire until Dec. 31, 1940, and it is doubtful whether the performing rights combine will join in serious talk with any faction in radio until after the ASCAP board of directors meets Sept. 29."

The denial of NBC was as follows:

"It is the policy of the National Broadcasting Company in any discussion of licensing arrangements with the American Society of Composers, Authors and Publishers, to make no move independently, but to work in the closest cooperation at every step with its affiliated stations, the Independent Radio Network Affiliates and the National Association of Broadcasters.

"A printed statement that A. L. Ashby, NBC Vice-President and General Counsel, had approached ASCAP regarding preliminary discussions for a separate contract with the networks is untrue and without the slightest foundation in fact."

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PHILCO LAUNCHES FARM ADVERTISING CAMPAIGN

The biggest farm radio campaign in Philco history was launched this week according to Ernest B. Lovemen, Advertising Manager of the Philco Radio and Television Corporation.

Included among the media being used in the campaign are: Farm & Ranch, The Farmer-Stockman, Western Farm-Life, Missouri Ruralist, Capper's Weekly, K.C. Weekly Star, Capper's Farmer, Successful Farming, Kentucky Farmers Home Journal, Wallace's Farmer & Iowa Homestead, Progressive Farmer, Southern Agriculturist, Southern Planter, Western Farm Life, The Farmer, Nebraska Farmer, Prairie Farmer, Wisconsin Agriculturist & Farmer, and Rural Progress.

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SEES BRITISH TELEVISION PROBLEM EASIER THAN OURS

Television program methods in England reveal a marked difference from those followed in American experimental studios, said Thomas H. Hutchinson, television program director of the National Broadcasting Company, on his return from a six weeks' inspection tour of European television projects.

Much of the difference in English and American program methods, Hutchinson pointed out, is due to the fact that in England television must maintain a daily schedule for the public, while in the United States it still is in an experimental stage. This, the NBC director feels, makes for greater freedom and eventually more satisfactory results in the American studios.

"The British service, operated by a government monopoly and financed out of license fees levied on every radio receiver in England, Wales, Scotland and Northern Ireland, consists of two and one-half hours of entertainment a day", Mr. Hutchinson said. "The single English television station at Alexandra Palace gives excellent service within a range of about twenty-five miles. A few remarkable records of reception over greater distances have been made, but to all practical purposes English television is limited to the metropolitan area of London."

"To my mind, television will have fulfilled only a small part of its promise when it serves the minority of Americans gathered in a few of the very largest cities. The promise of television is entertainment, and entertainment for the mass of Americans. That means the building and operation of many transmitters, the cost of which will probably mount into tens of millions of dollars. It also means television networks. Sound broadcasting has available 70,000 miles of special telephone radio conductors to link stations together into networks. Only a special type of cable, called coaxial cable, will carry the television signal. It is very expensive to install. Briefly, Great Britain's problem is to extend television to an area a little smaller than our own State of Oregon. The American problem is to spread it over an immense area of 3,026,789 square miles."

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DRAKE, HEAD OF ELECTRIC RESEARCH PRODUCTS, DIES

Whitford Drake, President of Electric Research Products, Inc., died last Wednesday at his Summer home in Chatham, Mass., after a long illness.

Mr. Drake was Assistant Operating Manager of the Kearny Works of the Western Electric Company from 1924 until the formation of Electrical Research Products, Inc., in 1927, when he was appointed General Manager of the Acoustics Department of the new organization.

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