SHADOWS FORM SPOTS WHERE RADIO CAN'T PENETRATE

BY PAUL F. GODLEY
America's Foremost Radio Authority

With electric waves, as with light waves, there are certain objects which cast shadows.

A radio receiving station which chances to be in one of these shadows will no more receive the radio signals than will the eye of an observer if he is shadowed from a source of light.


GODLEY

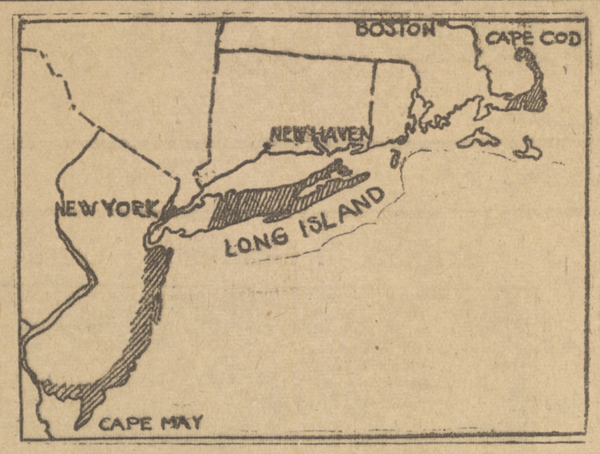
In some cases the cause of radio shadows has been traced. But in many instances, the causes are still unknown.

Ocean-going vessels carrying comparatively high power telegraphic transmitters find great difficulty in communicating 50 miles across certain portions of Long Island. No one knows why.

The broadcasting station at Newark, N. J., is seldom satisfactorily received in Atlantic City where clear signals are heard from the station at Pittsburg, several hundred miles away. Yet the power of the two stations is practically the same!

Steel Structures

In large cities, a group of steel passing through a deep cut, there buildings frequently casts radio shadows that make it difficult to receive signals of any character from points in the direction of these buildings. Sometimes mountains may have the same effect, although in many cases they have no effect at all.



Recently a series of tests were carried out on board a moving train of the Delaware, Lackawanna & Western Railroad. The operators in charge stated that in some cases, even when would be no noticeable effect whatever on the strength of the received signals, while at other times. even a small hill seemed to throw a decided shadow.

It is quite likely that the geological formations have something to do with these "dead spots." Their existence has been known for many years. But it is only of late that any definite effort has been made to explore them.

Forests

Forests, when in leaf, tend to absorb radio energy. Stations planted in the heart of a thick woods frequently find great difficulty in effecting a reception of radio signals from distant points.

Vessels plying up and down the Amazon River are seldom able to communicate with each other over distance greater than 25 or 30 miles, although their normal daytime range is 250 miles.

A large radio company recently undertook the exploration of the Atlantic coast in an effort to locate places which are shadowed in all directions except seaward. Several such points were located. Large stations for the communication with ships at sea will probably be erected there.

Such stations would be shielded from interfering effects produced in inland directions.

Some day we may be able to fully understand the causes of radio shadows and find out how to master them.

250,000 GUESTS "ATTEND" RADIO WEDDING!

Oakland, Cal., July 2—The largest wedding attendance in the west, and perhaps in the United States, is claimed by Leland Hodgson of Sausalito, and his bride who was Miss Vivian Kidd, Santa Rosa "rose queen."

Guests at their wedding ceremony, they say, amounted to 250,000.

How's that?

Why, the guests "attended" by radio!

The newlyweds were married at the Rockbridge broadcasting station here, by the Rev. H. A. Van Winkle.

The solemn notes of the wedding march came over the ether waves from a cathedral several miles away, where a sending outfit had been specially constructed. The ceremony took place between two giant microphones leading to the broadcasting apparatus.

At the same time the 250,000 guests "tuned in" and held radio wedding parties in their own homes.

RADIO PRIMER

L-TYPE AERIAL—A flat top aerial to which the lead-in wires are connected at one end. This forms an inverted L. from which the aerial gets its name.


Married By Radio. Left to Right, Miss Vivian Kidd, Rev. Van Winkle and Leland Hodgson.

Broke Maritime Broad Jump Record

"Phil" Macdonald, Charlottetown, Jumped Twenty-Two Feet One and One-Half Inches.

(Canadian Press)

Charlottetown, P. E. I., July 2—"Phil" MacDonald, Charlottetown, broke the Maritime broad jump record by three inches when he jumped twenty-two feet one and one half inches in yesterday's Dominion Day sports here. MacDonald won the "all round" cup offered for the events.

High Knob Beauty Comes To St. John

S. E. Rice Bought Chicago Importation of 1921 from H. C. Jewett of Fredericton.

(Canadian Press)

Fredericton, N. S., July 2—S. E. Rice, St. John, owner and driver of Leonora McKinney, winner of 2.23 trot here yesterday bought High Knob Beauty, 2.16¼ from H. C. Jewett, Fredericton, before the races. High Knob Beauty ran a victor in the 2.16 trot and pace.

High Knob Beauty was a Chicago importation in 1921, while Mary Gatewood, winner of the 2.25 pace yesterday came from the American city this season.

Power Boat Club At Crystal Beach

The most successful outing in the history of the Club was the concensus of opinion expressed in connection with the day of sports held at Crystal Beach on Saturday under the auspices of the St. John Power Boat Club, and one that for pure enjoyment will linger long in the minds of those who were privileged to be present. The weather was ideal, just breeze enough to enable people to keep fairly cool and yet warm enough to make all realize that it was July. The beach, with its crowds of gaily dressed ladies, formed a fine background to the beedecked boats, which were lined up in the cove above the wharf five or six tier deep, and viewed from the deck of one of the river steamers, it made a picture that will not soon be forgotten.

The officials of the day deserve special mention for the capable way in which they carried out their duties, every event being run off in quick time and without a hitch of any kind.

The water sports were the feature of the day and some very close finishes were seen. The dinghy race was very close, though owing to the light breeze the time was not fast. This was over a triangular course, once around. The speed boat races were over the same course, twice around and the cabin cruisers onc earound. The canoe race was most exciting, inces only separating the winners from the next pair at the finish. The course for this was inshore. with turn and back to the starting point.

Lord Allenby Makes Known British Plans In Soudan

High Commissioner in Speech at Khartoum Indicates British Purposes There.

Alexandria, Egypt, June 30—General Lord Allenby, British High Commissioner for Egypt, during a recent visit to Khartoum, delivered an address in which he indicated British purposes in the Sudan. He said in part:

"I notice some fears among the Sudanese peoples regarding a less intimate future association between Great Britain and the Sudan for the development of the country. Such intentions are not those of the British government, and as a confirmation of these words I cannot do better than mention to you the speech of the British Premier in the House of Commons Feb. 28, 1922, when the question of the independence of the Sudan was discussed. Here are his words:

"I must speak first of the Sudan which is very important for the British Empire. Sudan deserves our good attention. The combined efforts of England and Egypt have been necessary to preserve the country from devastation and ruin.

"For the last 20 years England and Egypt have worked both with men and money to re-establish peace and prosperity in a country which must and will be some day in the near future as fertile and as populous as it could ever possibly be. The British government will never allow the progress already realized and the great promises of the future to be put in danger, nor will it ever consent to any change in the by-laws of the country which would diminish the safety of the millions of British capital devoted to the development of the Sudan.

"On the other hand, Egypt has got the undeniable right of demanding full guarantees so that the development of the Sudan may not threaten the actual water distribution in coming years. The government is ready to give these guarantees, and there are no reasons why these should prevent or delay the progress of the Sudan.

"I think these words are sufficient to reassure you and I hope that, once back to your homes, you will tell your people that England is not abandoning this country."

French Selected U. S. Engineer For Irrigation Scheme

Cairo, July 1—French colonial authorities have selected an American engineer to report on a project of irrigation in the Niger Valley, in West Africa. He is Dr. Herbert H. Forbes, former dean of the College of Agriculture of Arizona, and lately agronomist of the Royal Agricultural Society of Cairo.

The work on the Niger contemplates an irrigation dam similar to the Assouan dam of the Nile, and it will be carried out under the direction of the Governor General of French Occidental Africa.

ST. ROSE'S BLANKED

The St. Rose's white-washed the Cathedral team in the House League game on St. Peter's Park Friday evening, the Fairville aggregation scoring nine runs and playing an errorless game. Murphy fanned eight men in the eight innings played and was only found for three hits.

WORLD FIGHT AGAINST LIQUOR GAINS STRENGTH CONSTANTLY

London Gathers Evidence That People Now Realize as Never Before Evils of Traffic in Drink.

London, June 29—From all directions comes evidence of the growth of the movement against alcohol. Everywhere people, realizing more and more that the liquor traffic is an evil, show an increasing determination to end it.

From Shetland comes a warning interpretation of the real significance of the licensing bill for Scotland, introduced into Parliament by Mr. Kidd, member for Linlithgow. "This plausible and specious measure," writes the Rev. J. E. Matthews, of Lerwick, "is obviously aimed at the Scottish Temperance Act of 1913, several clauses of which it expressly repeals. It seeks to establish the public house on a new footing of popularity and respectability by introducing entertainments and non-intoxicants. In short, by making the public house the workingman's club, it is sought to give it a new lease of life and to make it more popular than ever."

France to Be Told Truth

The Methodist Times, which will be satisfied with nothing less than the "total annihilation" of the liquor traffic, calls attention to the remarkable fact that there is no country in Europe concerning which less is heard of a national temperance movement than France. It therefore views as a hopeful sign the appearance of a small monthly journal, Fraternite, one of its objects being to tell the people of France the truth about prohibition. It states that enormous sums have been raised to combat any interference with the present privileges of the liquor traffic, and that steps have been taken to bribe medical men in some cases to assert that alcohol is indispensable to, the human body, while the press generally refuses to publish articles refuting such statements.

Something in the nature of a strike against liquor has been taking place in South Africa. At the commencement of the Rand strike, Jan. 7, the authorities, knowing the dangerous effects of alcoholic drink upon excitable men, decided to stop its sale at every bar and club.

The law was so stringent that those diving in Johannesburg could not get liquor nearer than Pretoria. The Johannesburg Sunday Times wrote, "There is no knowing when the ban will be lifted, and after all, driving 70 miles to Pretoria and back to get a drink is rather an expensive business. Just at present, the Rand is one of the soberest spots on earth. Most of the women folks like it. Some of them say that if the Government would only close the race courses as well, they'd be living in their own houses in a year or two."

The Indian Government has published its resolution on the report of the mixed committee appointed last year to inquire into certain matters connected with the excise administration in the United Provinces. The Government defines its future excise policy as "the subordination of considerations of revenue to the promotion of temperance." The resolution lays much stress upon efforts to raise the status of the backward classes, with a view to the successful application of drastic temperance legislation.

License Auctions Abolished

The government has agreed to the immediate abolition of the annual sale of licenses by public auction, and the introduction of a system of surcharge or graduated fees. Licensing boards representing the various sections of the community will be intrusted with real powers, and will be able to close drink and drug shops, and to select licensees. Such boards will be set up in 16 large municipalities, including Lucknow, Benares and Fyzabad.

The government also has agreed to drastic restriction of the hours of sale. The country liquor shops must not open until noon; in the villages, they will close at sunset; in the towns, at 7 in winter and at 8 in summer. Theatre bars will not be permitted to sell after midnight. All excise shops will be removed from fairs and festivals, and will be closed on the day following the burning of the Holi—festival day for the Hindus. In the future, no excise cases will be tried by district excise officers, therefore, not subject to challenge.

Denying this the British have chosen to challenge it. They pretend that the Sultan is in Tangier under an international regime. He must take the advice and receive the authorization of the diplomatic corps. France points out that the international status was defined by no signed convention and is precisely a matter to be determined. The Sultan, however, in a contract with a French firm will put in clauses enabling the powers to readjust concessions in accordance with subsequent findings.

The French suggestion is that France and England should first meet and agree before calling in Spain.

MEXICAN REBEL DEMANDING 15,000 PESOS FOR 40 AMERICANS

Oil Company's Employees and Property Held for Ransom —State Department Urges Mexico to Act.

Washington, June 29—Forty American employees of the Cortez Oil Company near Tampico and destructible property valued at $250,000 are being held by a rebel general until ransom of 15,000 pesos is paid, according to a message today from the American consul at Tampico to the State Department.

The consul's message contained few details. It said in substance that the Cortez Oil Company's Aguada camp was in the hands of the rebel General Gorozave, with 240 well-armed men; that Gorozave had demanded payment of 15,000 pesos within 48 hours from yesterday morning, and that he was holding a quarter of a million dollars worth of destructible property and 40 American citizens as security.

The message added that there were no Mexican forces in the vicinity and that the company had asked for protection for its American employees and property. As the message was dated yesterday the time for payment of the 15,000 pesos fixed by the rebel leader probably was due to expire some time today.

The State Department sent the following message to the Embassy at Mexico City, similar instructions going to the Consul at Tampico at the same time:

"Urge the appropriate authorities to adopt vigorous measures to extend adequate protection to the life and property of American citizens, reported held by the rebel General Gorozave and to punish the perpetrators of this outrage."

Meanwhile the department was still awaiting advices from Mexico as to action taken by the Mexican Government to obtain the release of A. Bruce Bielaski, captured by bandits and held for ransom not far from Mexico City near Cuernavaca. The Embassy has communicated no additional details of Bielaski's capture since it received the department's instructions to press the Mexican authorities for prompt action in the case.

RANSOM FOR MR. BIELASKI TO BE PAID MEXICAN BANDITS

Mexico City, June 30—(By The Associated Press)—Manuel Barcena, Mexican lawyer who was kidnaped with A. Bruce Bielaski near Cuernavaca on Sunday, has been released and news is momentarily expected of Mr. Bielaski's freedom. Late advices from Cuernavaca said Mr. Bielaski was safe and that negotiations with the bandits were under way.

Mr. Bielaski, former chief of the American Department of Justice's investigation bureau, and Senor Barcena were seized while motoring with their wives.

The negotiations for his release have been made by friends and the ransom is being paid on the order of Richmond Levering & Co., New York, of which Mr. Bielaski is president.

Travelers returning from Cuernavaca said an unsuccessful attempt was made to obtain Mr. Bielaski's liberation by the payment of $1000 in cash, camouflaged to represent 10 times that amount. The effort was thwarted, however, when spectators in automobiles approached too closely and the bandits became suspicious.

Movements of The Gentleman Farmer Are Closely Watched

Mexico City, July 2—Despite his repeated assurances that he is no longer a bandit but a gentleman farmer of the State of Durango, the movements of Francisco Villa are being closely watched in official circles here. To some observers it is difficult to believe that this former guerrilla has accustomed himself to the routine of ranch life and is now finding in his growing crops and lowing herds the contentment that a man of his tremendous nervous energy derived in the past from daring deeds of warfare.

Is Villa the staunch friend of the Obregon administration that his friends claim for him? Will Villa stay out of politics and play no part in the forthcoming congressional elections? In the event of a serious threat against Obregon's power would Villa rally his 4,000 ranchers in behalf of the president or would he lead his men in a new revolution? These are the frequent questions of the street here and the answers are as varied as those who make reply.

The pacification of Villa is proclaimed by the friends of Provisional President de la Huerta as the one big achievement of his short administration in 1920. To secure the peace pact with the famous bandit it was necessary for the Mexican Government to grant him an extensive tract of land on which his faithful followers, numbering some 4,000, might work and prosper. There was also a transfer of considerable cash which Villa said he needed to develop his new ranches. It is also understood that one of the stipulations of the agreement was that Villa was to stay out of politics.

Villa settled in the State of Durango and the few persons who have visited his hacienda report that he is an enthusiastic farmer. Of late, however, stories have been creeping out of the north to the effect that furrowed fields and blooded dairy stock are commencing to pall and that to relieve the monotony, the captor of Columbus is mixing just a trifle in the state politics of Durango. Some reports are that he has been asked to run for governor and has consented, but persons close to the man deny the rumor. No matter what the facts, the uncertainty of Villa's action is causing considerable comment in the capital which within the past two months has been put on the qui vive several times by "authentic" statements that the Durango rancher was on his way to Mexico City to consult with his president. He has never arrived and there is small possibility that he will come.

All of which has merely served to revive the months' old questioning—Will Villa stand fast no matter what turmoil might arise in Mexico City? If one is to believe stories of Villa's heavy investments in oil drilling outfits and his rumored plans to rebuild a stockyard and packing house at Ciudad Juarez which his men destroyed several years ago, there is reason to think that the Canutillo farmer is just that and nothing more. On the other hand, visitors at the ranch say that the Canuillo arsenal is well supplied with arms and ammunition. But, as they say, Villa must arm himself to protect his ranch from bandits.

Hard Times Ahead For Rubber Industry In British Colonies

London, June 30—The rubber industry in British colonies and protectorates has hard times ahead of it. That is the opinion expressed by the committee appointed by the Colonial Secretary to investigate the situation.

The committee has just made its report. It says the total world stocks of crude rubber at the beginning of the year were estimated at 310,000 tons. That was much more than the world required. Therefore it advised Winston Churchill, the Colonial Secretary, to "contemplate with grave concern the position of the industry in British colonies and protectorates unless steps are taken to reduce stocks and further to prevent over-production of rubber so long as the potential normal production continues to be substantially in excess of consumption. The committee adds it is of the opinion that consumption is not likely to overtake production for some years.

"There is no doubt," the committee goes on to say, "that much can be done in the direction of stimulating new and extended uses of rubber." But that may not help much for the committee takes care to add: "This cannot in itself provide an immediate solution of the problem, since much time must necessarily elapse before any new and extended uses of rubber can become sufficiently operative to bring about materially increases consumption. Further, it should be realized that improved methods of manufacturing rubber products, such as tires, undoubtedly prolong the life of the article and consequently curtail the demand for raw rubber."

In the matter of the compulsory restriction of the production of raw rubber, the committee says the Dutch Government, whose lands also produce much rubber, will have to be consulted.

SEAPLANE LEAVES PORT

The seaplane which arrived in port on June 24th from Bar Harbor piloted by Captain E. K. Jaquith, accompanied by W. T. Struth, started on its return flight on Friday evening. Before leaving for their destination, the airmen instituted a search, with their machine, for H. G. Marr, but were unsuccessful in locating anything that would point to his whereabouts. During their stay here, the visiting aviators made a number of friends and their craft which was moored at No. 5 berth, attracted considerable favorable attention.

The facts are quite clear. In 1917 the British Government gave an express pledge to Canada that the embargo should be removed. No agitation should have been necessary after that promise, but, most unfortunately, the pledge has not been kept. There is not only good faith to Canada, that loyal Dominion of whose services to the Empire in the war we all were so proud, to be kept in mind. There are also the interests of the British people, which equally demand the removal of the empargo.—London Daily Mail.

Died

FAIRWEATHER—Entered into rest at Rothesay on Sunday evening, July 2, 1922, Louisa Adelaide Fairweather. Service at St. Paul's Church, Rothesay, on Tuesday, at 2.30 p.m.

PERSONALS

Mrs. Paul R. Hanson and family of Westmount, expect to leave for Lake Champlain, on July 7th, to spend a month.

Miss Beatrice Hanson will be the guest of Mrs. F. W. Thompson, at St. Andrews, leaving Montreal early this month.

Miss Catherine Jones of Petitcodiac, will be a leading character, in the play that is being presented here this week, called "Ann." She will be a stately mother, while Miss Hazel Stevens will be the "nervy" Ann Anning. A. Selwyn Coster, of West St. John, and Gerald Teed of this city will be along, Gerald taking the part of the humorous boy "Billy," his friend acting the part of an aspiring young novelist very cleverly, so the papers report all along the line where the Varsity Troupe have played. They will be accompanied by a wonder in musical circles, (William Avery, a boy violinist, who has won the hearts of all who have heard his artistic performance. The Troupe are planning to give a day of voluntary entertainment at some of the hospitals in the city. This in itself should be a great appeal to those who realize what such an act must mean to young people, who are working night after night. There are several others with the company, but those mentioned are of particular interest to St. John friends, who know how successful the accomplishment of any endeavor must be that emanates from King's College, Windsor, N. S.

Messrs. Lawton Scovil and Donald Davidson were visiting Hubert S. V. Gibbon, at his summer home at Riverside, for the week-end.

THE GUMPS—IN THE GOOD OLD SUMMER TIME

