(Continued from page 1.)

Havelock North, and I think his record of verifications is wonderful when one considers he has only a four-valve battery set. I desire to congratulate Record' held for radio enthusiasts. A short-wavers on the formation of a Short Wave Club, and hope they will initiate a similar competition for their members.

Mr. Colin W. Smith, who was pre-sent representing the "Radio Record," by those who were pres then addressed a few words to the Mr. Ellis was leaving I gathering. He briefly thanked the the very best of luck. society for having arranged the very pleasant function and congratulated unique honour will be held in the dis-Mr. Ellis upon his splendid perform- trict.

DX Cup Presentation ance. He remarked that the North Taranaki Radio Society was doing wonderful work and merited every support. "Mr. Ellis has had a long connection with DX work," remarked Mr. Smith, "On looking back through Mr. Smith. some old files of the 'Radio Record,' I notice many years ago Mr. Ellis won the first competition that the 'Radio prize was offered for the most improved results obtained by installing a certain earth system, and Mr. Ellis was the winner."

> That ended the official proceedings, but quite a pleasant hour was spent by those who were present, and when Mr. Ellis was leaving he was wished

Taranaki surely wishes that this



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Trans-Pacific Radio Telephone

Important Links

AS yet unconquered by the telephone. the Pacific Ocean will be brought within the world's network of radiotelephone channels in about one year. Receiving and sending short-wave stations similar to those in trans-Atlantic service are to be built shortly in Central California by the Trans-Pacific Communication Company Ltd., a subsidiary of the American Telephone and Telegraph Company.

The Trans-Pacific Company announced on November 11 the purchase of 640 acres of land at Dixon, near Sacramento, as the site of the sending station, and 540 acres at Point Reyes for the receiving station. Erection of the stations will begin early this year, and service between the United States and Hawaii is scheduled for January, 1932.

With the completion of these stations, Honolulu and possibly at least one other trans-Pacific city will be hooked up by regular service with any

DX COMPETITION.

Entries for second period close June 30. Certificates for winners in each district. ment with the erection of two new ex-Verifications are required for every station logged.

of the twenty million telephones in the United States. The Hawaiian the United States. The Hawa stations are to be constructed R.C.A. Communications, Inc., and will serve subscribers of the Mutual Telephone Company in Hawaii.

The swiftness of modern life is well illustrated in closing this trans-Pacific gap in the world radio telephone network, which will then have encircled the globe in less than five years.

World-wide Communication.

THE first inter-continental and transoceanic circuit was opened in 1927 by the American Telephone and Telegraph Company and the British Post Office between New York and London. In time world-wide communication will unquestionably be a fact. After the telephone was invented in 1875 by Alexander Graham Bell it was not until forty years later that San Francisco talked to New York.

Already there are a dozen network circuits operating in other parts of the world. The shortest is 3011 miles, New York to London, and the longest 9120 miles, London to Sydney. Three more are under construction and eight additional are projected, including the trans-Pacific. The complete circuit additional are projected, including the trans-Pacific. The complete circuit of the world by telephone from San Franciso through Sydney, London and New York, and back to San Francisco, is 21,475 miles.

This is the first step in the move of the Bell system to connect its United States network with Far Eastern countries in or bordering on the Pacific. The project contemplates eventual establishment of services *to Japan, Australia and Philippines, and Alaska. as well as to ships at sea.

The transmitting station at Dixon "Radio Record and Home Journal?" will have a 20-kilowatt transmitter, the transsimilar to those used in Atlantic telephone service,

operate on wavelengths between 14 and 44 metres.

In connection with radio telephone service it is of interest to know that a new record for the longest telephone call yet made over a commerciallyoperated circuit was set recently when the first call went through from Los Angeles to Sydney, Australia, over wire and radio circuits totalling twenty-one thousand miles, via the trans-Atlantic circuit.

The America-Australia service had been opened by the Bell system the latter part of October. The man at the telephone in Los Angeles was not aware that he was breaking a record. He had reason to talk with someone in Sydney, Australia, and did so, quite

casually and successfully.

In spite of its great length and the fact that it is composed of both wire and radio links, this circuit enabled individuals in Los Angeles and tydney to converse on the telephone as though they lived across the free from each other.

Research in Fading

American Efforts

SOME of the most baffling problems of radio, among them static and fading, will be tackled with new equipperimental stations for the use of the United States Bureau of Standards, A. Bill authorising the expenditure of £30,000 for their erection has just been passed by Congress and signed by President Hoover. Efforts are now being made to put through an appropriation at the current session.

The authorisation covers the pur-chase of additional land and equipment for the setting up of a special radio research laboratory and the erection of a transmitting and receiving station at some distance from each other.

Detailed study will be made of the variations which radio waves undergo between the transmitter and receiver, according to Dr. George K. Burgess, Director of the Bureau of Standards. The work will be under the direction of Dr. J. H. Dellinger, chief of the radio section ..

"The studies most urgently needed on radio waves have to do with fading, one of the most serious limitation on broadcasting; changes in direction great importance in navigation of ships and aircraft; and the behaviour of short waves or high frequencies," Dr. Burgess said.

Research will thus be conducted in both the communication and the broadcasting fields. Two additional transmitters will be made available by the fund, also for extending the standard frequency service, by which broad-casters may check their frequency sta-bility and prevent "wobbling," to make it continuous.

This service would do much to eliminate much of the present interference, according to Dr. Dellinger, and would serve to improve the technical opera-tion of broadcasting stations.

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