March 25 Upload #7
First Commercial Trans-Atlantic Radio Broadcast
belfast history

Mon, May 27,
2019, 8:49 AM

Ron Brown
<ron@ronaldobrownconsulting.com
>

to libdesk

On March 14, 1925 an historic event by electrical engineers in the the United States and the United Kingdom took place -- the first live commercial trans-Atlantic radio broadcast. Originated by the BCC at The Savoy Hotel and broadcast live to listeners in New York City and Washington, DC, it was the mother and father of me being able to listen nightly to the BBC news here in the United States.

I am the History Chairman for the IEEE in Northeastern United States. As such I am working with the IEEE UK & Ireland Section to memorialize this pioneering broadcast. The truly wondrous part of the broadcast was the wireless link between 5XX in Chelmsford, England to XAO in Belfast, Maine which was a coordinated effort between all the UK and US participants -- something we now call systems engineering.

To be recognized as an historical event, I require significant supporting documentation. Do you have anything in your archives about this pioneering international event? Or could you put me in contact with someone who might -- say at the BBC or elsewhere.

We plan to recognize to memorialize the accomplishment in both Belfast and wherever the IEEE UK & Ireland Section deems appropriate in the UK. I have extensive documentation of the American participation but not from the UK side and I want to be sure that the contributions from both sides of the Atlantic are recognized.

The broadcast was a joint effort between the BBC in the UK and RCA in the US with support from many others. As a telecommunications systems engineer by trade, I look at this as great early example of systems engineering: To whit this trans-Atlantic feat required:

* BBC Station 2LO London to broadcast the program from the Savoy Hotel.
* The broadcast to be carried via landline from London to overseas broadcast station 5XX in Chelmsford, England.
* For the signal to be broadcast by 5XX to Belfast, Maine
* For signal from 5XX Chelmsford to be received by RCA's station XAO in Belfast, Maine using a specially designed Beverage wave antenna..
* For XAO Belfast to rebroadcast it via short wave to an experimental RCA receiver in Van Cortlandt Park, New York City.
* For Van Cortlandt Park to send it via Western Union landlines to Stations WJZ New York and WRC Washington, DC for broadcast to local listeners.

In accomplishing this, British and American engineers demonstrated what was then the holy grail of broadcast radio communications -- successful long distance audio communications -- something we now take for granted.

I thank you for any support or information you can provide and assure you that you and the IET Library will be appropriately recognized in the proposal that we prepare for the recognition of this event.

Regards,

Ron Brown

--
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Gage,Asha Wed, May 29, 2019, 11:41 AM

Der Ron, Many thanks for your email to the IET. It has been forwarded to me in the Archives department. I am initially replying to confirm receipt of your emai

Wed, Jun 19, 2019, 8:56 AM

Locker,Anne <alocker@theiet.org>

to archives, ron@ronaldobrownconsulting.com

Dear Dr Browne,

Apologies for the delay in responding to this, we have been tracking down some alternative sources in order to try to identify supporting documentation. I give a summary below - the technical details are thanks to John Liffen, Emeritus Curator of engineering at the Science Museum, who has been very helpful in this matter.

The transmission certainly took place in 1925, and John has passed us a copy of an early sound recording of the broadcast that was sent to him from the BBC. What we have not been able to find so far is any evidence that this was a planned experiment by the BBC and not a case where the signal was picked up by the US station and relayed. If it was an unplanned relay, there would not necessarily be any records either at the BBC or Marconi, but I would advise contacting those archives directly to discuss (details at the end of this email).

A summary of the findings from our secondary sources is given below.

1) The (long-wave) experimental transmitter at Chelmsford was designed for national coverage, not as an overseas transmitter. Experiments with 5XX from January 1925 showed that a national radio transmission was possible, and this led to the construction of the Daventry 5XX transmitter later that year. A formal international broadcasting service would not be set up until the early 1930s on short-wave ('Radio Radio', J Hill, 1996).

2) The dance music broadcast by the BBC was at the end of the evening, between 10:30 and midnight. Given the time of year, it would have been dark or dusk on both sides of the Atlantic, allowing the signal to be transmitted further than expected thanks to propagation.

3) There is a reference in Hibberd, 'This - Is London' (1950), a personal account from one of the early BBC broadcasters, to a BBC broadcast being picked up in Holland and then relayed (short-wave) to New Zealand in the 1920s (Hibberd, p. 31)

4) Hibberd also recalls the BBC picking up a US broadcast in 1928 which he used in a news bulletin. It's an interesting account so I've quoted it here:

"On Monday, 15th October, I was on night duty, and we were halfway through a programme ... when news came in via the control room from our experimental receiving station at Chelmsford that they were picking up an American broadcast of the landing of the Graf Zeppelin at Lakehurst, New Jersey, and could I use it ... It was a scoop for us, a fine piece of work by our engineers at Chelmsford, and the clearest relay from the United States heard in the country up to that time.' (Hibberd, pp. 40-41).

For more information, I suggest contacting the BBC here:
https://www.bbc.co.uk/informationandarchives/access_archives?lang=cy

and the Marconi Archives, which are held at the Bodleian:
http://www.bodley.ox.ac.uk/dept/scwmss/wmss/online/modern/marconi/marconi.html

It's certainly a very interesting topic, and if we can be of further help please let me know.

Kind regards,

Anne Locker

Library and Archives Manager

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Please Note: Details of enquiries will be kept for 2 years before deletion.
From: Ron Brown [mailto:ron@ronaldobrownconsulting.com]
Sent: Monday, May 27, 2019 1:49 PM
To: 4. Library Desk
Subject: First Commercial Trans-Atlantic Radio Broadcast

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[Message clipped] View entire message

Fri, Jun 21, 2019,
10:35 AM

Ron Brown
<ron@ronaldobrownconsulting.com>

to Anne

Dear Anne,

Thank you for your response and the bountiful information in it. I will pursue your suggestions.

My sources indicate that the broadcast was planned. I've attached 4 **New York Times** articles from the period indicating it was,

I have electronic copies of over 40 other documents about this and other early broadcast history -- most all US centric -- that I could forward to you if you would like. Let me know.

Regards,

Ron

www.ronaldobrownconsulting.com

4 Attachments