# RADIO UNIT PLAN

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<tr>
<th>Compelling Question</th>
<th>Standards and Practices</th>
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<tr>
<td>In what ways did 20\textsuperscript{th} century broadcasting change history?</td>
<td><strong>C3 Historical Thinking Standards</strong> – D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place as well as broader historical contexts.</td>
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<td><strong>C3 Historical Thinking Standards</strong> – D2.His.2.9-12. Analyze change and continuity in historical eras.</td>
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<td><strong>Common Core Content Standards</strong> – CCSS.ELA-LITERACY.WHST.9-10.1.B Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</td>
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<tr>
<td>Staging the Question</td>
<td>Discuss the concept of <em>innovation</em> through a series of photographs that depict the changes in radios and televisions in the environments where they were used or sold (1900-1970).</td>
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<td>How do you turn equations into a technology?</td>
<td>To what extent did David Sarnoff affect the course of broadcast history?</td>
<td>How did changes in broadcast technology affect the use of radio or TV in the early 20\textsuperscript{th} century?</td>
<td>How did radio or television broadcasting change countries or communities politically, economically, or socially?</td>
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<th>Formative Performance Task</th>
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<tr>
<td>Produce a PowerPoint or other slide program file showing three or more steps that demonstrate the international nature of innovation.</td>
<td>Provide three instances where David Sarnoff's contributions to broadcast innovations did or did not change the course of history in a significant way.</td>
<td>Write three paragraphs that detail with examples how innovation affects the use of broadcast technologies.</td>
<td>Develop a claim supported by evidence to show how one or several broadcasts affected a country.</td>
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<th>Featured Sources</th>
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3D. View 1920's Frequency “Tune-In” and In-Home Entertainment (04:27 min)

3E. View *A Pre-History of Radio (Part One)* (07:59 min)


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<tr>
<th>Summative Performance Task</th>
<th><strong>Argument</strong></th>
<th>Did broadcasting change societies during the 20th century? Construct an argument (through a detailed slide show, website, poster, or essay) among three individuals, two historic and one contemporary, that answers the question, using specific claims and evidence from historical sources while acknowledging competing views.</th>
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<td><strong>Extension</strong></td>
<td>Express these arguments in a perspective-taking exercise using the medium of Instagram.</td>
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<tr>
<td><strong>Taking Informed Action</strong></td>
<td><strong>UNDERSTAND:</strong> Investigate a current wireless medium used by a large group of people to try to effect political, economic, or social-cultural change or revolution. This could be a cellphone, smartphone, or tablet.</td>
<td><strong>ASSESS:</strong> Examine the extent to which the current attempt at change is successful and state your personal stance on the justification for the revolution or whether it is, in fact, a revolution.</td>
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<td><strong>ACTION:</strong> Medical research has shown recently that adolescents would be more alert in school if their bodies’ circadian rhythms were accommodated and they were the last group of children to start a school day instead of the first. Write and share an editorial for a social medium like Instagram calling for the restructuring of the school schedule to resolve this problem. Within the editorial, use a mixture of rational logic and emotional ideals to address the reasons for the need to change, your solution, its benefits, and the alternatives. You will be assessed according to the scale of responses from your classmates and the school system or administrators.</td>
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All REACH Instructional Units are intended to be “classroom ready.” Each unit begins with a Unit Plan in the form of a C3 Inquiry Design Model. The Unit Plan includes learning objectives, content standards, formative and summative tasks, links to primary and secondary resources, and a warm-up activity.

Units are organized around a Compelling Question designed to inspire curiosity and promote discussion among students. To that end, we have also included a brief student introduction to the topic entitled Staging the Question. Once students have been introduced to the topic, any number of Formative Performance Tasks may be completed using the included Document Excerpts (teachers may elect instead to utilize full-text documents linked within the Featured Sources section). Document Excerpts are print-ready in single-sheet format and keyed to the citations in the Featured Sources section of the Unit Plan. Teachers should select the Formative Performance Tasks and accompanying Sources that best suit their own instructional needs – content requirements, performance goals, student readiness, and time constraints. Upon the completion of each unit, students should be adequately prepared to complete the Summative Performance Task and Taking Informed Action sections of the Unit Plan.

To further assist the teacher, we have included a more thorough Background Information section. This document is intended to serve as professional reading prior to implementing the unit. Teachers may also wish to read the full-length primary and secondary sources from which the shorter excerpts were taken.
Analyze the following images depicting changes in radios and televisions (1900-1970) and discuss the concept of innovation.

Radio Enters the Home

How to enjoy popular
Radio Broadcasting
Complete instructions and
description of apparatus

For those who desire to be entertained
with concerts, lectures, dance music—
as well as for the Radio amateur

Radio Corporation
of America

Radio Enters the Home, RCA instruction book and catalog, 1922, David Sarnoff Library
Magnavox...a lasting investment in gracious living.

Today, in the relaxed comfort of your home, you can give a symphony concert. You can re-create the world’s great music, precisely as the composer meant it to be played and as famous symphony orchestras interpret it. For the new Magnavox radio-phonograph reproduces the trueness of tone of the living performance. This superb instrument is one of the better things in life you can give your family.

Designed to hold its place over the years.

Combining the wonders of radio science, F.M. and automatic record changing with the best in furniture craft, Magnavox is built to grace your home over the years. Authentic designs are made with all the skill of the cabinetmaker’s art. Look for Magnavox in fine stores. Compare it with all other radio-phonographs. Once you hear Magnavox you won’t be satisfied until you own one. Your choice of furniture models starting at $200. Regency Symphony shown, approximately $400.

Magnavox... a lasting investment in gracious living.
Diamond Televisor ad, Argentina, 1950, David Sarnoff Library

"I’m looking for my Valentine." Card, 1925. Jerry and Marsha Simkin Collection, courtesy Marsha Simkin.
“Television is very fine when you’re the star My Valentine” Card, c. 1950
Jerry and Marsha Simkin Collection, courtesy Marsha Simkin.

President Franklin Roosevelt preparing for broadcast “Fireside Chat,” c. 1934. Library of Congress.

Berlin children listen to Luftwaffe [Air Force] Day broadcast, 1 March 1939; Bildarchiv, Austria
Your family’s first Color TV set. They’ll never let you wait till Christmas to try it for the first time! For the very special excitement of Color TV is heightened even more with push-button remote control.

Imagine your family enjoying Color TV so sure, so dependable, you can tune from across the room by push button.

Any RCA Victor Mark Series Color set is a very special gift. With it, you enjoy color programs and outstanding black-and-white reception every day. The sound system is special, too. Serves as a second speaker for stereo hi-fi.

Add it all up, including the pride of owning Color TV. Then make your family-gift selection. Color sets priced from $495. Models with “Wireless Wizard” electronic remote control included, from $750.

Now! Tune by push button and see the difference Color TV makes

Add it all up, including the pride of owning Color TV. Then make your family-gift selection. Color sets priced from $495. Models with “Wireless Wizard” electronic remote control included, from $750.

The Washington, All tuning by push buttons both of the set and with across-the-room “Wireless Wizard” electronic remote control.

For expert service and installation, RCA Factory Service is available in most TV areas. Manufacturer’s early ads show the priced shown, optioned at dealer. Slightly Higher for Wood, South. UHF optional, extra. Prices, specifications subject to change.

RCA Victor Color TV and remote control advertisement, c. 1961
Document 1A

James Clerk Maxwell began his first serious work on electromagnetism when he was a Fellow at Cambridge University, 1854 – 1856. From 1860 – 1865 he was a Professor at King’s College London, where he did some key experiments at the College and at his residence in Kensington. He began to spend his summers at Glenlair, Scotland, where he also conducted experiments. During his tenure at King’s College, he published his two most important papers on electromagnetic theory: “On Physical Lines of Force” (1861), which added a critical correction to Ampère’s circuital law; and “A Dynamical Theory of the Electromagnetic Field” (1865), which proposed light as an electromagnetic wave. In both cases he pioneered the use of mathematics in describing the behavior of light. From 1865 – 1871, Maxwell lived full-time at Glenlair as an independent scholar, during which time he wrote his magnum opus, Treatise on Electricity and Magnetism (published in 1873), which summarized the known theory of electromagnetism, including his own contributions.

Maxwell deduced that light was an electromagnetic wave, thus revolutionizing the fields of electrical science and electrical engineering. He pioneered the use of calculus in electromagnetic science and independently derived three of the four modern equations that now bear his name. These are Gauss’s Law, Gauss’s Law for Magnetism, and Ampère’s Law with Maxwell’s correction ... he also derived a full-time-derivative version of Faraday’s Law ... which is a more general version of the fourth modern Maxwell equation ... [and] includes a term for the Lorentz Force, predating the work of Lorentz....

It was Oliver Heaviside who subsequently introduced the fourth modern Maxwell equation as a partial-time-derivative version of Faraday’s Law, and recast the equations derived by Maxwell in their well-known vector calculus form, but he acknowledged that it was Maxwell who did the original work. Albert Einstein specifically acknowledged the importance of Maxwell in his development of special relativity. It was apparently Einstein who originally referred to them as “Maxwell’s Equations,” and this is the way they are known to the broader public.

\[
\nabla \cdot \mathbf{D} = \rho \quad \nabla \cdot \mathbf{B} = 0 \quad \nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t} \quad \nabla \times \mathbf{H} = \frac{\partial \mathbf{D}}{\partial t} + \mathbf{J}
\]

Maxwell’s Equations

Maxwell built on the earlier work of many giants, including Ampere, Gauss and Faraday, but he himself was a giant who revolutionized the field of electrical and optical physics, and laid the groundwork for electrical, radio and photonic engineering, with his experiments, theories and publications. The unification of the theories of electricity, magnetism and light, which comes directly from Maxwell’s equations, clearly sets Maxwell’s work apart from similar achievements of the time.

It was 150 years ago that the English scientist Michael Faraday discovered that he could generate electricity with magnets - the phenomenon we call electromagnetic induction. In the same year that Faraday made this discovery, there was born in Scotland the man whose brilliant mathematical interpretation of Faraday's ideas was to become the foundation of our modern concepts of electricity, magnetism and light, James Clerk Maxwell.

There were strong philosophical currents in the 18th and 19th centuries that led many experimenters to believe that all the forces of nature - light, electricity, magnetism, gravity - were all but forms of one basic source. Hans Christian Oersted, a Danish chemist was one of those who believed this. Therefore, in 1820, when he observed a compass needle moving under the influence of the electric current in a nearby wire, he was not surprised. He did, however, understand the importance of his discovery, and in a matter of months he sent out to scientists all over Europe his announcement of the magnetic effects of electricity. Written in Latin, the announcement caused a storm of excitement as others rushed to duplicate the simple experiment.

One of the many scientists who hastened to study the phenomenon discovered by Oersted was Andre Marie Ampere, Professor of Mechanics at the Ecole Polytechnique in Paris. Ampere extended the investigation of the magnetic effects of electricity to include the interaction between two current-carrying wires, which he showed to be the same as that between a wire and a magnet. Through an extraordinary series of careful experiments, Ampere established the foundations of the science of electrodynamics - the study of the relationship between electric, magnetic, and mechanical phenomena, earning himself the title, "the Newton of electricity."

The first years of the 19th century were an exciting period in the history of electricity largely due to the discovery of Alessandro Volta, an Italian physicist. In 1800, Volta announced that he had found a new source of electricity - what we call the battery. Before that time, the only important means of generating electricity was by friction, as in the creation of static electricity by rubbing fur or hair. Volta showed how to construct a "pile" of discs, alternating silver and zinc, separated by pieces of moistened cloth, to create a source of electric current. The Voltaic pile caused a sensation and quickly became an indispensable tool for a vast number of new experiments.

No one made better use of Volta's pile than Humphry Davy at the Royal Institution. There Davy constructed a giant "battery" of piles which he then used in a variety of dazzling experiments. Since Davy was convinced that the source of Voltaic electricity was a chemical reaction, he proceeded to show how it, in turn, could cause other reactions. His most important results were the discovery, by electrolysis, of hitherto unknown chemical elements, including sodium, potassium, calcium, and magnesium. Learning from Davy, Faraday himself became skilled at electrolysis, and, much later (in 1834), discovered the laws that describe the relationship between the amount of a substance decomposed and the quantity of electricity used.

Assisted by the Voltaic cell, and spurred on by Oersted's discovery of electromagnetism, in the 1820's scientists throughout Europe and in America explored the nature of electricity and its relationship with other forces. In France, Francois Arago discovered the magnetic effect of a rotating copper disc, a mysterious phenomenon explained years later by Faraday. In England, Charles Babbage, famous as the
pioneer of the digital computer, attempted to explain Arago's effect in terms of Ampere's electrodynamics. And in Germany, Georg Simon Ohm performed the experiments that led to the statement of his law, relating the current in a wire to the electromotive force (voltage) and the resistance in the circuit.

The excitement over electromagnetism was not confined to Europe, but it stirred up interest in the small scientific community of the United States. Unquestionably the most important American experimenter was Joseph Henry, who in the late 1820's was a teacher of mathematics and science in Albany, N.Y. Henry learned how to greatly increase the power of electromagnets, and was one of the first to seek practical uses for them. In 1831, he devised the first electromagnetic telegraph and carried out experiments that led him to the independent discovery of electromagnetic induction. Due to his failure to publish his discovery, he never received the same recognition as Faraday.

Most 19th century physicists rejected Michael Faraday's concept of lines of magnetic force. The idea seemed too fuzzy and crude to mathematically trained men, who felt comfortable only with motions and forces that could be precisely measured. Maxwell, however, after reading the work of William Thomson and of Faraday himself, believed that the lines of force did indeed represent something real. He then set out to show how Faraday's intuitive concept could be put into mathematical form. Beginning in 1856, with his paper "Faraday's Lines of Force", Maxwell produced a long series of articles which were to revolutionize ideas about electricity, magnetism, and light. In these papers he carefully explored the implications of Faraday's ideas, developed analogies and models to show how these ideas related to more familiar concepts, and finally formulated the mathematical expressions that made up his famous equations ... These equations were mathematical interpretations of Faraday's concepts, transforming the ideas about lines of force into precise formulas. Out of this transformation emerged a new picture of the relationship between electricity and magnetism. And from Maxwell's propositions about how electricity and magnetism were propagated through space came a startling new theory of electromagnetic waves, seen in their most familiar form as light.

THE most obvious mechanical phenomenon in electrical and magnetical experiments is the mutual action by which bodies in certain states set each other in motion while still at a sensible distance from each other. The first step, therefore, in reducing these phenomena into scientific form, is to ascertain the magnitude and direction of the force acting between the bodies, and when it is found that this force depends in a certain way upon the relative position of the bodies and on their electric or magnetic condition, it seems at first sight natural to explain the facts by assuming the existence of something either at rest or in motion in each body, constituting its electric or magnetic state, and capable of acting at a distance according to mathematical laws. In this way mathematical theories of statical electricity, of magnetism, of the mechanical action between conductors carrying currents, and of the induction of currents have been formed. In these theories the force acting between the two bodies is treated with reference only to the condition of the bodies and their relative position, and without any express consideration of the surrounding medium. These theories assume, more or less explicitly, the existence of substances the particles of which have the property of acting on one another at a distance by attraction or repulsion.

The mechanical difficulties, however, which are involved in the assumption of particles acting at a distance with forces which depend on their velocities are such as to prevent me from considering this theory as an ultimate one, though it may have been, and may yet be useful in leading to the coordination of phenomena. I have therefore preferred to seek an explanation of the fact in another direction, by supposing them to be produced by actions which go on in the surrounding medium as well as in the excited bodies, and endeavouring to explain the action between distant bodies without assuming the existence of forces capable of acting directly at sensible distances.

The theory I propose may therefore be called a theory of the Electromagnetic Field, because it has to do with the space in the neighbourhood of the electric or magnetic bodies, and it may be called a Dynamical Theory, because it assumes that in that space there is matter in motion, by which the observed electromagnetic phenomena are produced.

The electromagnetic field is that part of space which contains and surrounds bodies in electric or magnetic conditions. It may be filled with any kind of matter, or we may endeavour to render it empty of all gross matter, as in the case of GEISSLER’S tubes and other so-called vacua.... We have therefore some reason to believe, from the phenomena of light and heat, that there is an aethereal medium filling space and permeating bodies, capable of being set in motion and of transmitting that motion from one part to another, and of communicating that motion to gross matter so as to heat it and affect it in various

David Sarnoff (1891-1971) was the iconic, even legendary, leader of the Radio Corporation of America (RCA) for most of the company’s history. For many years the only Jewish executive in the communications field, Sarnoff was highly influential in the development of radio and television.

Sarnoff joined the Marconi Wireless Telegraph Company of America as an office boy in September 1906. In December, he met the Italian inventor Guglielmo Marconi and with astonishing rapidity gained his confidence and support. Sarnoff was soon promoted to a wireless operator and served in various roles at shore stations in Massachusetts and New York and aboard ships. In late 1912, Sarnoff was promoted to radio inspector for the New York District and became an instructor at the Marconi Institute. Within a year he was made chief radio inspector and assistant chief engineer for the entire company. The experienced cable executive Edward J. Nally became the Marconi Company’s general manager in 1914. Unfamiliar with the wireless side of operations, he relied heavily on the expertise of his energetic and ambitious deputy. Before the year was out, Sarnoff had added the title of contract manager to his position. In 1915, Sarnoff wrote his famous “Radio Music Box” memo to Nally, which represented a revolutionary shift in the conception of radio. Rather than seeing wireless as a means for one-to-one communication, he imagined it as one-to-many. However, it would not be until the early 1920s that Sarnoff was in a position to implement his ideas.

When the Marconi Company established a Commercial Department in 1917, Sarnoff was appointed as its manager. He was still in that position when the Marconi Company became part of the new Radio Corporation of America (RCA) in 1919. Sarnoff became a promoter of having RCA expand into the domestic field in opposition to President Nally and others who wanted to stick to international communications. Chairman Owen D. Young sided with Sarnoff and subsequently made him lead the negotiations with AT&T, Westinghouse, and the United Fruit Company to create the RCA patent pool. This success, as well as Sarnoff’s increasingly close relationship with Young, resulted in his appointment as general manager in 1921. Barely two months later, he signaled his view of RCA’s future by orchestrating the famous broadcast of the Dempsey-Carpentier fight.

As RCA’s fortunes, and stock price, soared upwards in the mid to late 1920s, Sarnoff proved his adroitness as a negotiator. In 1926, after a complex dispute between AT&T and RCA over radio broadcasting, he successfully negotiated a deal resulting in the creation of NBC in 1926. Two years later, Sarnoff proposed the takeover of the Victor Talking Machine Company. This deal, which turned RCA into a manufacturing power in its own right, was delayed as Sarnoff spent five months in Europe as Young’s assistant on the Committee of Experts, which had been formed to address the German war reparations crisis that was crippling the German economy. He played a key, although then unnoticed, role in the protracted negotiations that resulted in the celebrated “Young Plan.”

The 1929 stock market crash ruined RCA’s stock price and the assets of Chairman Young. Likely as a result, Young stepped down as chair in favor of President Harbord. Sarnoff, who had gotten out of the stock market before the crash, was elected as RCA’s third president on January 3, 1930. Now possessing the title to match his control of RCA, Sarnoff was faced with the daunting task of guiding RCA through the Great Depression.

Although RCA recorded its first ever losses in 1932 and 1933, Sarnoff was unfazed. He correctly judged that the market for radio remained strong and he also had another technology in mind. In 1929, Vladimir
K. Zworykin, then at Westinghouse, had approached Sarnoff with his ideas on television development. Although mechanical television systems had been successfully demonstrated in the 1920s, Zworykin argued that only an electronic system could solve the technical obstacles to widespread introduction. Sarnoff eagerly backed Zworykin’s research and became a frequent visitor to his laboratory at RCA Camden.

Two years before Zworykin and Sarnoff met, Utah inventor Philo T. Farnsworth had patented an electronic pickup tube that functioned on different principles. In 1932, he successfully filed an action with the Patent Office against RCA on the grounds that its system was subject to his patent. After RCA’s appeal was rejected in 1936, Sarnoff attempted to buy Farnsworth out, but the latter wisely refused and demanded that RCA license the patents from him. Unwilling to jeopardize the introduction of television with lengthy legal proceedings, Sarnoff agreed. The result was a system that Sarnoff believed would create an entire new industry.

Despite these successes, the widespread introduction of television would not happen for another decade. Until 1941, a complex and extremely bitter dispute over national technical standards for broadcast and reception roiled the industry. Although Sarnoff dramatically inaugurated NBC’s television service at the 1939 World’s Fair in New York, declaring “Now we add radio sight to sound,” he was unable to convince the public to buy television sets that might not meet a future national standard. The settlement of the standards dispute in RCA’s favor two years later would have lasting implications, but the entrance of the United States into the Second World War again delayed television’s arrival.

Sarnoff had entered the U. S. Army Signal Corps reserve as a lieutenant colonel in 1924 and been promoted to colonel in 1931. During the war, he was called up three times for active service. The first two occasions were relatively brief periods in 1942 in Washington and Philadelphia. In March 1944, he was assigned to the Supreme Headquarters, Allied Expeditionary Forces (SHAEF) in England and tasked with overseeing press communications and broadcasting for the invasion of France. Widely praised for his leadership, Sarnoff also established a close friendship with the Supreme Allied Commander, Dwight Eisenhower.

His most notable additional service after the invasion was the reestablishment of Paris’s communications links with London and New York. Sarnoff was rewarded with a promotion to Brigadier General in November 1944 and was subsequently invariably referred to as “The General” by RCA staff.

When RCA started mass producing color televisions in 1954, it ran into an unexpected obstacle. Nobody wanted to buy them. This was the second controversy, which pitted a grimly determined Sarnoff against waves of criticism from the media, industry, and government. For six years, RCA was alone in manufacturing color televisions and each year it lost money on them. However, the corner was turned in 1960, when RCA, just barely, made a net profit on color. The next half decade was perhaps Sarnoff’s finest hour, as RCA made massive profits over a runaway demand for color televisions and competitors belatedly attempted to jump into the field.

Between the creativity and advocacy of inventors and the realization of need or want by consumers, there exists a wide gulf. How does it happen that an idea, a proof of principle, meets the succession of markets that results in the addition of new technology to society? An inventor, after all, must persuade other technically competent people to join in making an invention practical, and a series of lawyers, investors, manufacturers, and marketers to join in agreeing that it is worthy of bringing to a market of ultimate consumers.

This applies not just to basic inventions, but to their further innovation and application in other markets. The company pushing its diffusion in the market with which it is most familiar may be less interested in bringing the technology to other markets, other consumers, who see its utility for quite different purposes. In that case, it is up to individuals within the company, or at other firms, or among the consumers, to advocate the broader application and try to bridge the space between the push or flow in one direction and the pull or pool of consumers in another.

This was David Sarnoff’s role early in his career. During his twenties, between 1911 and 1921, he acted as advocate and medium for the expanded use of what we call radio: for wireless telegraphy, wireless telephony, and for broadcasting—from ships, trains, and overland....

...AT&T demonstrated voice programs transmitted from Arlington, Virginia and received in Paris, San Francisco, and Hawaii. These took place in September and October 1915, and it would hardly be surprising for Sarnoff to propose a home receiver as another business opportunity to his superior, E. J. Nally.... The original memo on Sarnoff’s “radio music box” does not exist—at least not in his papers, where there is reference to it in 1922 and evidence of a search in 1925....

...A broader, less technologically oriented population would need content, however, and in the summer of 1921, Sarnoff acted as patron for an event that helped accelerate interest in broadcasting as a mass medium. In a thorough history of the Dempsey-Carpentier boxing match broadcast, Thomas White credits Sarnoff with “the ability to spot good ideas.” Sarnoff and the broadcast, however, had more effect than he gives them credit for. J. Andrew White, who oversaw the development of the broadcast program by acting as intermediary with the National Amateur Wireless Association and RCA, submitted a twenty-three page report on the event to Sarnoff, who promptly circulated it among management sympathizers and superiors at RCA and GE. Recently promoted to general manager, Sarnoff made available $1,500 for organizational expenses, a high-power GE transmitter, and the Lackawanna Railroad terminal antenna in Hoboken.

The eight pages of listener responses indicated the positive word-of-mouth that broadcasting received as a result, notwithstanding the long wavelength and lack of support from the American Radio Relay League. Whether or not 300,000 people in the region between Pennsylvania and Massachusetts heard the fight, the fact remains that tube and component sales continued to build in the fall of 1921, when Sarnoff also helped open RCA’s station WJY in Roselle Park, New Jersey.

The Commission Chairman Points With Pride
By MAJ. GEN. CHARLES McE. SALTZMAN
Chairman, Federal Radio Commission
AS TOLD TO SOL TAISHOFF

Calling Our Broadcasting Best in World, "The General" Urges Programs Improve Apace with the Technical Art

The United States is today the foremost radio country in the world. In considering the list of its radio achievements, its people can well be proud of the status of its broadcasting. The United States is the birthplace of broadcasting. In our technical research laboratories, our scientists have brought forth remarkable creations for voice transmission. Our factories are producing the best radio equipment of the world. With this background and with a great wealth of program talent available, the progressive broadcasters of our country have made our broadcasting the best in the world.

The past year has witnessed a remarkable improvement in reception in many parts of the nation due to the modernization of equipment. The hearty cooperation of progressive, far-seeing broadcasters in complying with the provisions of General Order No. 111 (regarding frequency deviations) even though it does not officially become effective until next year. Due to these two regulations, 1932 will find reception conditions in this country infinitely improved over previous years.

MORE IMPROVEMENTS

This technical development of the last five years are only the beginning. Our research technicians are still at work in the laboratory and will continue to bring forth devices and circuits for the further improvement of voice transmission. In the realm of mathematics, the fundamental principles and natural laws are not only fixed but definitely known. Mathematical problems can accordingly be definitely solved. In the field of radio, the principles and natural laws are as fixed and immutable as those of mathematics but some of these laws are yet not definitely known to us because the art is very young. At the months and years roll by, these principles and laws are becoming better understood by the scientists who are studying the art. So, although the United States today stands far out in front in broadcasting, we must be on the qui vive for constant improvements and must live with the realization that the splendid transmitting devices and accessories of 1931, now regarded as the last word in radio equipment, may in a few years be looked back upon as haywire.

Just as improvements are made in technical operation with better signals laid down in the service area, just so must programs improve in order to bring better entertainment to the homes of the listening public. In this regard, the broadcaster often times finds himself sorely tried. In a metropolitan service area, for example, there is a class that desires nothing but the music of Philharmonic concerts, while another class clamors for jazz dance music. There is a class that wants high grade educational programs to the exclusion of all others, while another class wants nothing of that sort. The broadcaster cannot please all. It is difficult for him to please the majority.

A time will undoubtedly come when certain stations will specialize on certain types of programs, but that time not having arrived, the average broadcaster, like the storekeeper, is left to wrangle with the problem of endeavoring to offer to his customers a stock of programs to meet the demands of a varied audience. However, whatever the nature of the program selected, the broadcaster must constantly strive to improve its quality. Improvements in program quality should keep pace with improvements in technical operation.

In the case of a new facility like radio reaching into the very homes of our nation, it is inevitable that complaints will arise. When Alexander Graham Bell's first crude telephone was installed in telephone systems, the novelty of the wonderful invention soon wore off and many complaints were received as to the service rendered. The telephone company of today with its wonderful equipment still receives complaints. The telephone company is constantly endeavoring to correct the practices which cause these complaints. The broadcaster, if he is wise, will do the same.

ABOUT SALES TALKS

One great source of complaint is in regard to advertising. So long as our country favors the competitive broadcasting of today as distinguished from monopolistic broadcasting, advertising must probably pay the bill and we shall listen to "sponsored programs." But there are sponsored programs and sponsored programs—programs in which the advertising is palatable, even interesting, and programs in which the sales talk is suggestive. I have in mind a program advertising a certain commodity in which the sales talk carried on by several actors is objectionable but positively interesting. No one can object to it. Broadcasters, if they listen to the trend of public opinion, will commence to take steps to make these sales talks more palatable. The problem is not that of not any official board's, and they should hasten to solve it. The complaints received by the broadcaster from his listeners are often times merely perplexing. In

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October 15, 1931 • BROADCASTING

Only three weeks ago I stood in this place to read the Führer’s proclamation on the 10th anniversary of the seizure of power, and to speak to you and to the German people. The crisis we now face on the Eastern Front was at its height....

It was a moving experience for me, and probably also for all of you, to be bound by radio with the last heroic fighters in Stalingrad during our powerful meeting here in the Sport Palace. They radioed to us that they had heard the Führer’s proclamation, and perhaps for the last time in their lives joined us in raising their hands to sing the national anthems. What an example German soldiers have set in this great age! And what an obligation it puts on us all, particularly the entire German homeland! Stalingrad was and is fate’s great alarm call to the German nation! A nation that has the strength to survive and overcome such a disaster, even to draw from it additional strength, is unbeatable. In my speech to you and the German people, I shall remember the heroes of Stalingrad, who put me and all of us under a deep obligation.

I do not know how many millions of people are listening to me over the radio tonight, at home and at the front. I want to speak to all of you from the depths of my heart to the depths of yours.... The blows and misfortunes of the war only give us additional strength, firm resolve, and a spiritual and fighting will to overcome all difficulties and obstacles with revolutionary élan.

Now is not the time to ask how it all happened. That can wait until later, when the German people and the whole world will learn the full truth about the misfortune of the past weeks, and its deep and fateful significance.... When I jump over the past to look ahead, I do it intentionally. The time is short! There is no time for fruitless debates. We must act, immediately, thoroughly, and decisively, as has always been the National Socialist way....

It is understandable that, as a result of broad concealment and misleading actions by the Bolshevist government, we did not properly evaluate the Soviet Union’s war potential. Only now do we see its true scale. That is why the battle our soldiers face in the East exceeds in its hardness, dangers and difficulties all human imagining. It demands our full national strength. This is a threat to the Reich and to the European continent that casts all previous dangers into the shadows. If we fail, we will have failed our historic mission. Everything we have built and done in the past pales in the face of this gigantic task that the German army directly and the German people less directly face.

I speak first to the world, and proclaim three theses regarding our fight against the Bolshevist danger in the East.

This first thesis: Were the German army not in a position to break the danger from the East, the Reich would fall to Bolshevism, and all Europe shortly afterwards.

Second: The German army, the German people and their allies alone have the strength to save Europe from this threat.

Third: Danger faces us. We must act quickly and decisively, or it will be too late.
I turn to the first thesis. Bolshevism has always proclaimed its goal openly: to bring revolution not only to Europe, but to the entire world, and plunge it into Bolshevist chaos....

The goal of Bolshevism is Jewish world revolution. They want to bring chaos to the Reich and Europe, using the resulting hopelessness and desperation to establish their international, Bolshevist-concealed capitalist tyranny....

That is a direct threat to the existence of every European power. No one should believe that Bolshevism would stop at the borders of the Reich, were it to be victorious. The goal of its aggressive policies and wars is the Bolshevization of every land and people in the world. In the face of such undeniable intentions, we are not impressed by paper declarations from the Kremlin or guarantees from London or Washington. We know that we are dealing in the East with an infernal political devilishness that does not recognize the norms governing relations between people and nations.... The West is in danger. It makes no difference whether their governments and intellectuals realize it or not....

We also know our historic responsibility. Two thousand years of Western civilization are in danger. One cannot overestimate the danger. It is indicative that when one names it as it is, International Jewry throughout the world protests loudly. Things have gone so far in Europe that one cannot call a danger a danger when it is caused by the Jews....

My second thesis: Only the German Reich and its allies are in the position to resist this danger.... If the strongest military force in the world is not able to break the threat of Bolshevism, who else could do it? (The crowd in the Sportpalast shouts “No one!”)....

My third thesis is that the danger is immediate. The paralysis of the Western European democracies before their deadliest threat is frightening. International Jewry is doing all it can to encourage such paralysis. During our struggle for power in Germany, Jewish newspapers tried to conceal the danger, until National Socialism awakened the people....

The tragic battle of Stalingrad is a symbol of heroic, manly resistance to the revolt of the steppes. It has not only a military, but also an intellectual and spiritual significance for the German people.... A merciless war is raging in the East. The Führer was right when he said that in the end there will not be winners and losers, but the living and the dead....

Total war is the demand of the hour. We must put an end to the bourgeois attitude that we have also seen in this war: Wash my back, but don’t get me wet! (Every sentence is met with growing applause and agreement.) The danger facing us is enormous. The efforts we take to meet it must be just as enormous. The time has come to remove the kid gloves and use our fists. (A cry of elemental agreement rises. Chants from the galleries and seats testify to the full approval of the crowd.)....

Now, people rise up and let the storm break loose! (The minister’s final words were lost in unending stormy applause)

“...Kigali, the time is 8:14 in the studios of the private radio R.T.L.M. broadcasting from here Kigali....

As to other news, like you heard it, yesterday Inkotanyi committed again atrocities in Kinihira sous prefecture. They killed there without any reason five innocent persons....

The family of Nzarora Josaphate living in Gashyari, Mwendo commune informs friends and relatives that Nyirinkwaya Nathanael, who was the head of COOPTHE Cyohoha-Rukeri and his wife, died on March 15th, 1994. They were victims of criminals who killed them at their place of work in Kinihira. The funerals will be held in Gashyari, Mwendo commune on March 17th around 11 after the prayers which will take place at his house.

The P.L. President, Mr. Justin MUGENZI has the deep sorrow to inform the P.L. militants, the sorrow caused by the death of Safari Emile who was killed by torture on March 15th. There’s no doubt that Emile is the victim of the fact that P.L. had chosen him to represent it within the transitional national assembly. P.L. President requests of its militants living in the town of Kigali to meet at the main office of the party tomorrow 9:00 AM in order to accompany the corpse which will be buried in Mugenda, Tumba commune at 1:00.

The family of Defroy Bonaventure, who was the COOPTHE Cyohoha-Rukeri worker, has the sorrow to inform friends and relatives that Defroy Bonaventure died yesterday Tuesday. He was shot dead on his way back from work in Kinihira....

You are still tuned to the private radio R.T.L.M., this was urgent news, I was communicating to you, dealing with atrocities committed by Inkotanyi, because there are no other people who have guns and grenades living in that no man’s land. We kept saying since a long time that Inkotanyi never left, that they botch the accords on purpose, people keep pretending not to hear, so look at the outcome because nothing happens without us having said it. Furthermore, about Inkotanyi.... Here are the conclusions they have drawn after the meetings they have been holding:

- Killing two important political figures in Sake because they don’t share the same opinions with Inkotanyi.
- Dominating all the rest of the population of Sake commune since they will no longer have a leader to lean on.
- Terrorizing those who are not willing comply with it using many weapons which have been already introduced in Sake commune.

These are their main aims and they wish to achieve them within the end of March 1994.... They shouldn’t start running away of them, one should follow this closer. This is the way it is, in a moment you will be listening to the French edition and other ideas in French. Let me remind you that your advertisements and propaganda in Kinyarwanda are due after nine.”

CLASSROOM ACTIVITY – ORIGINAL RADIO PROGRAM

Listen to the following 1937 broadcast of The Lone Ranger. Programs like this one were a regular staple of the early days of commercial radio. The story in this particular episode takes place outdoors, but the entire show was produced and performed inside a small studio and all the sounds were created artificially. Watch the following video recording of Guy Noir Private Eye, a radio drama performed in the style of the 1930s programs. Pay attention to the sound effects artist on the left side of the stage and watch how he creates various sounds using everyday items. Finally, take a look at an actual script from Sherlock Holmes and note how the dialogue and sound effects are intermingled so that each effect is perfectly timed to make the show seem more realistic.

Your task is to create an original radio program using the same techniques utilized in early radio studio productions. You will need to write and perform a scripted dialogue that includes at least 5 sounds that must be created “artificially” in the studio. Practice recording each sound until you achieve the effect you wanted.

Use the space below to plan your episode.

Original Radio Program

TITLE _____________________________________________________________

CHARACTERS _____________________________________________________

__________________________ __________________________________________

SOUND EFFECTS CHART

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Outline your script on the back of this page.