

HISTORY OF RADIO

(Title)

Air Dates: 10/29-30

Time:

Program # 10

Participants

Script Deadline

Review Session 2 P.M.

Tape Date FRIDAY, 3:00 P.M., OCTOBER 14, 1960

Guest speaker: Herbert D. Werwath, Instructor
Dept. of Electrical Engineering
Milwaukee School of Engineering
BRoadway 6-6006, Extension 58

Subject

Commentator: Tom Lambert, WISN Radio Director
Division 2-3000

Length: Five minutes (total)
:30 taped intro.
4:15 interview
:15 closing

Faculty Coordinator: Timothy E. Clements

Assistant Faculty Coordinator: Thomas Nedwek

Public Relations Contact: Jim Slawny
BRoadway 6-6006, Ext. 76

30 second taped introduction

LAMBERT:

(Introduces speaker, and informs listening audience that today we shall begin a series of programs on electronics.)

HERB, WHAT WILL YOU TALK ABOUT TODAY ?

WERWATH:

WELL, TOM, INASMUCH AS WE ARE STARTING A NEW SERIES OF DISCUSSIONS ON WIRELESS COMMUNICATION AND ELECTRONICS, I THINK IT WOULD BE FITTING TO BRING OUT A FEW FACTS ABOUT THE HISTORY AND DEVELOPMENT OF RADIO. EVERYONE KNOWS MARCONI DEVELOPED THE FIRST WIRELESS IN 1896. HOWEVER, THE BASIC THEORY BEHIND RADIO COMMUNICATION WAS PUBLISHED SHORTLY AFTER THE CIVIL WAR, WHEN AN AMERICAN MATHEMATICIAN NAMED MAXWELL TOLD OF HIS EXPERIMENTS WITH ELECTROMAGNETIC WAVES IN FREE SPACE. MAXWELL'S PUBLISHED FINDINGS PAVED THE WAY FOR OTHER SCIENTISTS WHO DEVELOPED DESIGN PRINCIPLES LEADING TO

WERWATH: (cont'd.)

...THE WIRELESS SYSTEM. MARCONI - WHOM WE ALL KNOW AS THE FATHER OF RADIO - PATENTED THE FIRST WIRELESS ON JUNE 2, 1896....AND ALMOST IMMEDIATELY PLACED RADIO TELEGRAPHY ON A COMMERCIAL BASIS. FIVE YEARS LATER - IN 1901 - MARCONI WAS SENDING AND RECEIVING SIGNALS ACROSS THE ATLANTIC OCEAN.

LAMBERT:

IS MARCONI RECOGNIZED THROUGHOUT THE WORLD AS THE FATHER OF RADIO?

WERWATH:

IN EVERY COUNTRY BUT RUSSIA. RUSSIA -- AS USUAL -- CLAIM THEY INVENTED THE RADIO. IT SEEMS A RUSSIAN SCIENTIST NAMED POPOV DID INVENT A DEVICE IN 1895 WHICH DETECTED AND RECORDED LIGHTNING. AND -- ACCORDING TO POPOV -- IT COULD ALSO BE USED FOR RECEIVING ELECTROMAGNETIC WAVES. RUSSIA CLAIMS THAT THOUGH POPOV COMPLETED HIS INVENTION BEFORE MARCONI, POPOV DID NOT RECEIVE PROPER RECOGNITION BECAUSE HE DID NOT PATENT IT.

LAMBERT:

HERB, IN YOUR OPINION, WHAT WAS THE MOST SIGNIFICANT DEVELOPMENT OF EARLY RADIO?

WERWATH:

ONE OF THE MOST SIGNIFICANT DEVELOPMENTS WAS THE VACUUM TUBE FOR SIGNAL AMPLIFICATION. IN 1904, SIR JOHN FLEMING OF ENGLAND DEVELOPED THE DIODE, A TWO ELEMENT TUBE IN WHICH A CURRENT FLOWED BETWEEN TWO ELEMENTS PLACED INSIDE AN EVACUATE BULB. TWO YEARS LATER, AN AMERICAN INVENTOR NAMED DEFOREST ADDED THE THIRD ELEMENT TO THE VACUUM TUBE, GIVING US THE TRIODE WHICH WOULD PERMIT

WERWATH: (cont'd.)

...AMPLIFICATION OF SIGNALS. CRYSTAL SETS WERE INTRODUCED IN 1920, AND IMMEDIATELY BECAME VERY POPULAR, WITH RADIO STATION KDKA OF PITTSBURGH BECOMING THE FIRST COMMISSIONED REGULAR SERVICE BROADCASTING STATION IN THE COUNTRY.

LAMBERT:

HOW LONG WAS IT BEFORE MILWAUKEE GOT INTO THE ACT, HERB ?

WERWATH:

ABOUT TWO YEARS LATER. IN FACT, THE FIRST MILWAUKEE RADIO STATION BEGAN BROADCASTING IN 1922....THAT WAS THE MILWAUKEE SCHOOL OF ENGINEERING'S OWN W-I-A-O. THREE YEARS LATER, THE STATION MERGED WITH THE WISCONSIN NEWS DAILY NEWSPAPER, AND THE CALL LETTERS WERE CHANGED TO W-I-S-N.

LAMBERT:

(AD LIB COMMENT)

WERWATH:

HOWEVER, THE AIR WAVES OF THE '20s WERE NOT FILLED WITH THE RICH, MELLOW TONES WE KNOW TODAY. FOR INSTANCE, THIS IS WHAT RADIO MUSIC SOUNDED LIKE SOME 35 YEARS AGO.

TAKE 10 SECONDS
MAGOO RECORDING

TAKE VOICE ON
CARBON MIKE.

AND THIS IS WHAT I WOULD HAVE SOUNDED LIKE IF YOU HAD
TUNED IN IN 1925. LISTEN NOW TO THAT SAME MUSIC AS YOU
HEAR IT IN 1960.

TAKE 10 SECONDS
MODERN MAGOO RECORDING

WERWATH:

AND THERE YOU HAVE A BRIEF SKETCH OF EARLY RADIO.

LAMBERT:

(Closing...mention next week we shall talk on the development and importance of amateur radio)