audio record

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Audio's French Associates Recent Arrivals In U. S.

Ravel and St. Hilaire Here; Old Acquaintances Renewed

Monsieur Lucien Ravel, managing director of "La Societe des Vernis Pyrolac," Audio Devices' associate in France,

Wm C. Speed greets Lucien Ravel upon his arrival from Paris.

and his partner, production manager and engineer, Monsieur Albert St. Hilaire arrived a few weeks ago in the United States from Paris.

Present at La Guardia Field to meet their French contemporaries were William C. Speed, Audio Devices' president, and other Audio representatives as well as members of the press.

Monsieur Ravel, who, during the latter part of the European war, sheltered eighteen American airmen in the woods on his estate in the little town of Porcheux, outside Paris, until they were liberated by advancing Allied forces, and Monsieur St. Hilaire, own controlling interest in La Societe des Vernis Pyrolac, a large paint and varnish company, located at 51, rue de L'Echat, Creteil (Seine), a suburb of Paris.

Albert St. Hilaire in the New York offices of Audio Devices.

Their connection with the recording industry dates back to 1929 when they

(Continued on Page 4)

Milton Berle, famous comic of stage, screen and radio recording another Cue-In broadcast. (Note earphones worn by Berle.)

Cue-In—Press Assn's New Recording Technique Localizes, Personalizes Transcribed Programs

After four years of experimental production, Press Association, Inc. radio subsidiary of the Associated Press, 50 Rockefeller Plaza, New York City, has introduced to radio a new recording technique that localizes and personalizes the transcribed broadcast.

Appropriately called "Cue-In", the new technique brings "big names" right into the smallest towns in America to talk with the communities' most popular announcer.

Only Replies Recorded

"Cue-In" works this way: In one of the four major recording studios used by the Press Assn. in New York, a famous personality in the news is interviewed by a Gotham announcer. The interviewed party stands alone in the studio before a microphone, with a pair of earphones draped over his or her ears, while in an adjoining glass enclosed control room, the announcer proceeds with his interview, which is heard by the noted guest through the earphones. The star answers each question and this reply is recorded. As only the replies are recorded, the disc naturally has a few skips or blank spots. These blanks, of course, represent the questions which,

(Continued on Page 4)

Incorrect Handling Fails to Alter Fidelity of '41 Discs

Upon his discharge from the Navy, after four years of service as a photographer's mate, Leo Kraus, recording enthusiast of New York City, learned that several of his prize Audiodisc recordings, that a friend had stored in a Manhattan warehouse, had been incorrectly and roughly stowed during his absence. He held little hope that such treatment did not materially damage the discs. However, to his amazement, when he played them back, they were as good as ever—the quality was indistinguishable from that of 1941, despite the fact that they had been stowed flat, under heavy weight, for more than four years.

WHOM Staff announcer Tom Murray assists Dolores Craeg during the recording of her daily broadcast "Highlight Special." Geo. Ellis, supervising engineer, is at the controls while Harold McCambridge, recording engineer, attentively watches his recording apparatus. Inset—Steve Hollis announces actual recorded broadcast of "Highlight Special."

WHOM--New York-Jersey City Finds Recording A Necessity For Successful Station Operation

Like other independent radio operators, Atlantic Broadcasting Company finds considerable and varied use for disc recording. In addition to the well-known commercial electrical transcription, Station WHOM—New York and Jersey City uses recording on a sustaining basis, employing the Standard Transcription Library to round out the musical portion of its shows, notably on the WHOM Caravan, daily from 2 p. m. to 6 p. m. and "Sunday Midnight Moods."

From a public service angle, recording serves a just purpose for relaying the currently urgent messages of the American Red Cross, United States Treasury Department, U. S. Army, March of Dimes and similar national agencies.

War Bride Interviews Recorded

With facilities in the studios at WHOM, recordings are made of special events on the scene and rebroadcast from the studios at a later time without interfering with the regular schedule. A case in point is a series of recordings made aboard the bridal ship "Argentina" when it arrived in New York. Interviews were conducted right on the ship on lines direct from the studios with brides of service men from the areas served by other Cowles Radio Stations, including WOL—Washington, WCOP — Boston, WNAX — Yanktown and KRNT Des Moines, as well as the New York and New Jersey areas served by

(Continued on Page 4)

U. of Neb. Radio Division Operates Recording Lab

Facilities Available To All Depts.

"The Recording Laboratory operated by the University of Nebraska Radio Division of the Department of Speech and Dramatic Art records the voices and instruments of university students, and faculty, and operates on a non-profit basis," writes Paul L. Bogen, Director of Radio at the university.

"Upon entering speech courses at the University," Mr. Bogen explains, "each student pays a fee for a disc to be used in his speech work. During the first six weeks of his course, in the middle and at the end of the semester, his voice is recorded. The student then has a permanent record of his speech improvement.

"Our Recording Laboratory is also used by other departments of the school which desire its services. Recordings are made for School of Music students to evaluate progress made in vocal or instrumental lessons. The Extension Divi-

(Continued on Page 4)

disc-data for the Recordist

By E. Franck, Research Engineer

FM and Recording

The prospective increase in number of FM stations, with their goal of 15 kc channel width, invites us to consider the technical problem involved in getting a signal of this wide range into the listener's homes.

Every element of the broadcast system will have to be considered, starting with the acoustical treatment at the studio and following through the microphone, amplifier equipment, telephone lines, transmitters, receivers and loud speakers.

When this improved range is realized, recording equipment will be called on to do as well or better. Let's take a brief stock of present day disc recording equipment and consider what needs to be done to extend the range to 15 kc.

Cutting heads which can handle 12 kc or higher are available and we have no doubt that this range can be extended easily. Loud speakers going this high are already available. Telephone lines can be made to handle it, but we think distortion will need to be reduced more. Receivers capable of this range, we are sure, will soon be available.

This leaves for discussion the cutting and playback styli, the lacquer disc and the pickup. Present day cutting styli are already doing a good job at 10,000 cycles and there should be no particular trouble in going higher, although some reduction in tip dimension may be required. Several experimenters have reported to us no trouble in putting 15 kc on a lacquer disc, as determined by optical pattern but none is too happy about what he has been able to take off.

Pickups almost get to 15 kc and there have been recent improvements, particularly in the direction of greater stylus freedom. More can be made, we are certain.

There will be some temptation to go to higher pitch, particularly if the styli's tip dimensions are reduced. By putting the grooves closer together, the inside diameter could be increased. An increase in the inner diameter from 7" to 9" at 33-1/3 r.p.m. would mean going from 1,000 wave lengths per groove inch at 12,000 cycles to 775 wave length per groove inch at 9" diameter. The unfavorable feature of increasing the pitch to get larger minimum diameter is the greater danger of tracking failures and some slight increase in noise level.

On the whole, the problem is not very difficult and our own belief is that in a relatively short time disc recording of 15 kc quality will become commonplace.

Recording "Vital" To Success of Foreign Language Students

Red Label Audiodiscs Used by Vermont French School

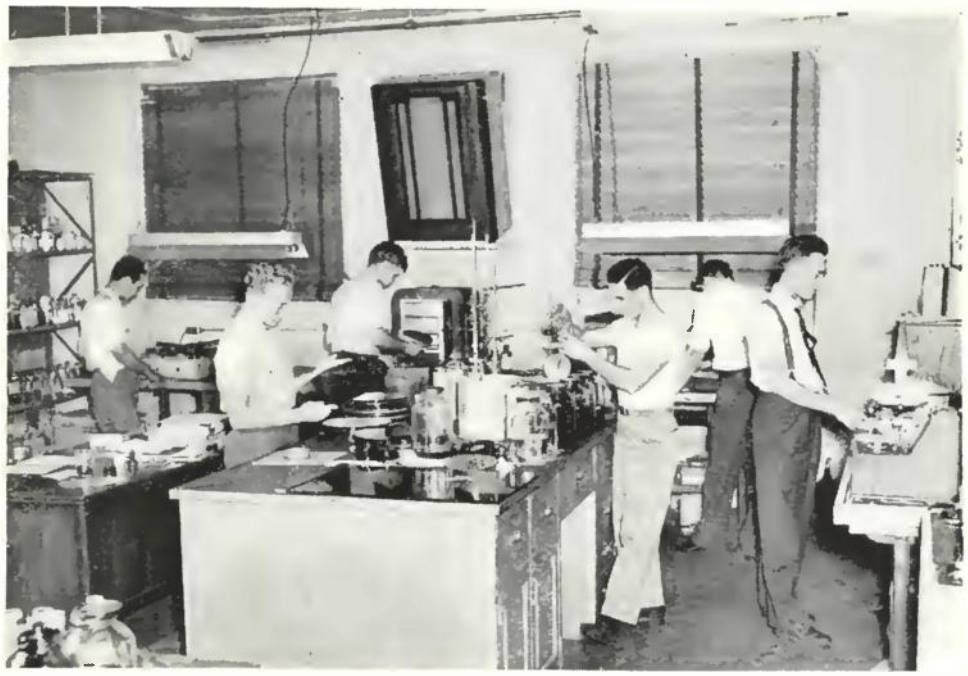
"One of the greatest difficulties in teaching the correct pronunciation and intonation of a foreign language to American Students, lies in the fact that they do not hear themselves speak," says Mr. Stephen A. Freeman, Vice President of Middlebury College, Middlebury, Vermont. Mr. Freeman, who has just recently returned to the Middlebury French School after 8 months service in the U. S. Army in France, as Chief of the Liberal Arts section of Biarritz-American University, advises the best way to help students make rapid progress is to let them hear recordings of their own speech in the foreign language studied.

Middlebury Recording Procedure Outlined

"For several years," Mr. Freeman relates, "we at Middlebury have employed the following procedure with excellent results: The student studies an assigned paragraph of French aided by the suggestions and advice of his teacher. He also listens to that same paragraph spoken by a native French person and recorded either commercially or at the school. The student listens to this recording over and over again, imitating it as closely as possible. When he feels that his imitation is perfect, he goes to the recording machine and makes a disc of his own rendition of this paragraph.

(Continued on Page 4)

One of the war's most carefully guarded secrets, a night-sight device that made it possible for U. S. Infantrymen and Marines to find and kill the enemy in total darkness by means of infra-red radiation was released from the Army's secret list recently and demonstrated at the 17th Regiment Armory in New York City. Present with portable equipment to obtain an Audiodisc-recorded report and interview for their Saturday afternoon radio program, "Around the Town," were John Cooper (second from left), reporter and commentator and Harold F. Schneider, recording engineer of NBC's Special Events Department.



A section view of the new Audio Devices research laboratory in Stamford, Conn.

New Research Laboratory In Stamford Conn., Equipped To Solve Many Recording Problems

Opening of a new research laboratory, believed to be the only one in the world devoted exclusively to sound recording and research in which product developments may be placed immediately in pilot production, then within a matter of a few hours subjected to rigorous performance tests, was recently announced by William C. Speed, Audio Devices' president.

Most Modern Equipment Available

The new laboratory, located at Stamford, Conn., is equipped with every known modern piece of electrical, electronic and other scientific apparatus as well as numerous specially designed instruments for the study of recording. It will permit measurements of tone distortion, record surface noise, wearing qualities and other features with a precision never before even attempted.

Exhaustive Tests Scheduled

Available facilities include provisions for exhaustive tests of discs and recordings under varying temperatures and humidity, as well as conditions of usage with various cutting and playback equipment.

"In the company's continuing studies of untried lacquers and other composition materials," Mr. Speed explained, "the laboratory is expected to develop findings which will further improve recording fidelity and broaden the field of sound reproduction."

Glossary of Disc-Recording Terms

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(Continued from Page 3 of the May issue of Audio Record)

Hot plate: A heated table used for (a) softening the biscuits of record material prior to placing them in the press or (b) making flowed waxes.

Instantaneous recording: A recording which may be used without further processing.

Label: The identification markings on paper or similar material, at the center of the record.

Lacquer discs: Discs, usually of metal, glass, or paper, which are coated with a lacquer compound (often containing cellulose nitrate) and used either for "instantaneous" recordings or lacquer masters.

Lacquer master: A term improperly applied to a "lacquer original" (which see).

Lacquer original: An original recording on a lacquer disc which is intended to be used for the making of a metal master.

(Continued on Page 4)

AMA Transcribes New Series

A new recorded series of thirteen fifteen-minute programs, entitled "The Melody of Life," are being cut for the American Medical Association by the NBC Chicago radio recording division, it has been announced by Frank Chizzini, manager of the division. The series, produced under the direction of Harriet Hester, will feature Dr. W. W. Bauer and Dr. William Boulton of the AMA as narrators on various medical subjects.

"Cue-In" New Recording Technique

(Continued from Page 1)

when the show arrives at its destination, will be supplied by the station's local announcer. Following the interview, a recorded dramatization featuring highlights in the star's life is presented. Then, the disc is packed, along with the program continuity, and sent to any of the many radio stations throughout the country.

Four Shows Now Available

"Cue-In" is not limited to interviews only. It may be used in dramatic skits with two or more persons, representing local talent, participating. At present, Press Assn. has made available to radio stations four "Cue-In" shows—STAR TIME, SPECIAL ASSIGNMENT, THE CLIFF EDWARDS SHOW and SPORTS STAR SPECIAL. These shows may be obtained either individually or as a package of four.

The "Cue-In" idea was created by Paul Girard, former program director of WBAL — Baltimore. The shows are under the direction of Alexander Leftwich, Jr. and are written by such well known scripters as Louis Hayward, Margaret Miller, Rafael Hayes, and James Beach.

Recording "Vital" To Success of Foreign Language Students

(Continued from Page 3)

The professor examines the recording, makes further corrections and comments, and then the student goes back to the listening booth where he listens to the original record and his own recording, alternately, to study the difference between the two. In this way he holds up a mirror to his own pronunciation and he is able, objectively, to eliminate his mistakes which, otherwise, he would never know he made."

Mr. Freeman further related that Middlebury College uses Audio Red Label Discs exclusively.

W. S. Morgan, Director of Radio (now on leave of absence) in the U. of Neb. recording lab.

Neb. Has Recording Lab

(Continued from Page 2)

sion of the University finds this service most valuable in sending discs to students and teachers for work in their courses.

"Recordings made by radio students at Nebraska," Mr. Bogen continues, "have proved to be of great value as a teaching aid. Various types of radio scripts and radio techniques are recorded for demonstration purposes. Students record the best newscasts and dramatic show of the semester and these are used for demonstration in radio classes the following year.

"In the Speech Improvement Clinic, recordings are made at the beginning of corrective lessons so comparison may be made of the progress in overcoming or correcting speech difficulties. The Clinic serves not only our students, but also people from the entire state and cooperates with the public schools of Nebraska in any speech correction work."

French Associates Arrive

(Continued from Page 1)

were approached by a customer who asked whether they could put a lacquer coating on a flat disc and thereby make a recording blank. Being keenly interested in various types of varnish and lacquer, they were immediately intrigued by such a project and in a short time, Mr. St. Hilaire developed a precision-machine method of coating which greatly accelerated quality production and Mr. Chadapaux, partner and chemist, developed special lacquer formulas.

This method was later patented and in 1938 Audio Devices made a contract with the French firm by which they were given exclusive rights to manufacture recording discs under the Pyrolac patent. And, so today, Audiodiscs are still manufactured under these same patents.

Glossary of Disc-Recording Terms

(Continued from Page 3)

Laminated record: A disc composed of several layers of material. Normally used with one thin facer on each side of a core.

Land: The record surface between two grooves.

Lateral compliance: The ability of a reproducing stylus to move laterally with respect to the record groove while in the reproducing position in a record.

Lateral recording: A recording in which the groove modulation is in the plane of the record and along a radius.

Lead screw: The threaded rod which leads the cutter or reproducer across the surface of the disc.

Lead-in spiral: A blank, spiral groove at the beginning of a record, generally having a pitch that is much greater than that of the recorded grooves.

Locked groove: A concentric, blank groove at the end of modulated grooves whose function is to prevent further travel of the reproducer.

Magnetic pickup: A reproducer employing an armature placed in a magnetic field and coupled mechanically to the reproducing stylus. An electric potential is generated in a coil placed in this field when the stylus is actuated by the modulated groove of a record.

Mother: A positive produced directly from the metal master or negative.

(Glossary of Disc-Recording Terms will be continued in the July issue of Audio Record.)

WHOM—Recording a Necessity

(Continued from Page 2)

WHOM. Immediately upon completion, the discs were air expressed to the radio stations in those other cities, bringing their listeners first-hand conversational information about the people they know and want to hear about.

As WHOM is a foreign language station, it is sometimes necessary to make recordings for spot-checking certain foreign language programs where there might be some doubt as to the content of the actual broadcast. Here again disc recording comes into it own and gives a true reproduction of what actually took place.

Recordings, whether supplied by a transcription company or cut in the studios, form an integral part of the broadcasting conducted by an independent station, and especially is that true of WHOM, broadcasting in Polish, Italian, Jewish, Russian and Greek as well as in English and thus reaching a more diversified audience of listeners than an all-English radio station.