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TO GET QUICK SHOTS outside, NBC will use the "walkie-talkie-lookie."



OUTLET TO THE NATION will be the microwave tower on top of the Illinois Bell building in Chicago. From here, 30 hours of TV will be telecast from each convention.

ABC

LIBERTY & MUTUAL

POOL

CBS

NBC

CAMERAS ARE ARRANGED TO COVER EVERY INCH OF FLOOR

How TV Will Take You to Conventions

One out of two Americans will see a President nominated in Chicago

By Gardner Soule

SON the greatest town meetings of all time—the Republican and Democratic National Conventions—at Chicago next month. The country's leading TV networks, with 1,000 cameramen, reporters, lighting technicians, writers, editors, film librarians and big-shot commentators on hand, will flash the sights and sounds of the conventions to all but four of the 108 U.S. television stations. Network officials estimate that one out of every two people in the country will see the political conventions on television.

Millions of dollars' worth of new and improved equipment, including the "walkie-talkie-lookie"

that is to be unwrapped for the occasion, will make it possible for TV watchers to pursue a Presidential candidate or a delegate right up to the door of his bathroom, practically the only dependable refuge he'll have from the inquiring gaze of half the nation.

The walkie-talkie-lookie is a portable TV camera and sending station. The outfit, built by RCA, is light enough for one man to carry, though two-man teams may handle the three walkie-talkie-lookies that the National Broadcasting Co. plans to use at Chicago. The camera weighs 10 pounds and is connected by cable to a three-foot-long, 50-pound back pack. The back pack transmits TV images to a nearby station antenna and thence to the country's huge TV audience.

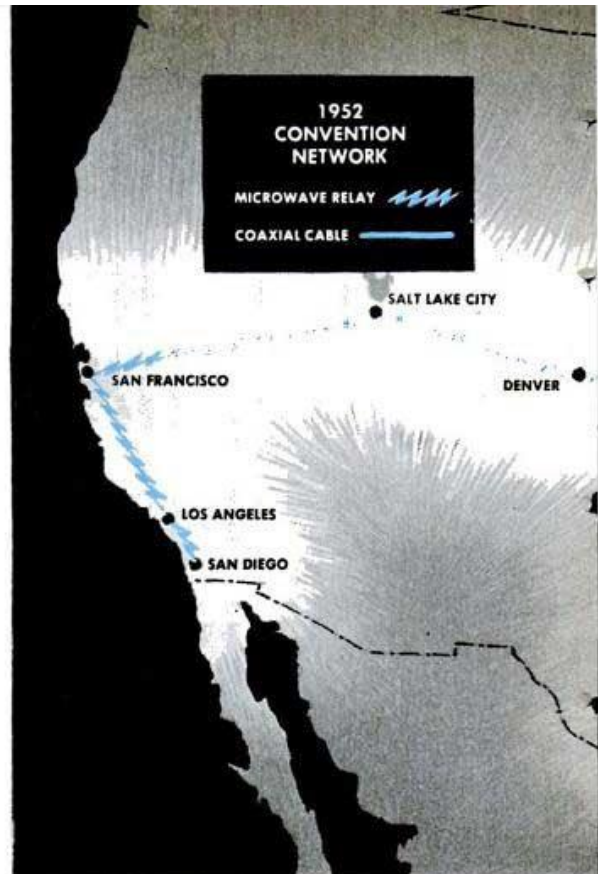
Walkie-Talkie-Lookie Goes Anywhere

The reporter who uses a walkie-talkie-lookie has a choice of three lenses for his camera: a normal, one-inch lens for most close-ups; a wide-angle, half-inch lens for groups and some close-ups; and a telephoto, three-inch lens for bringing distant faces nearer. The lenses are quickly interchangeable.

The walkie-talkie-lookie user can squint through an eyehole in the back of the camera to see what kind of picture he is getting. He picks up sound through a microphone on his wrist or around his neck. He gets instructions by radio and listens to them through a small earphone that looks like a hearing aid.

Because of the complete mobility of his equipment, a reporter with a walkie-talkie-lookie can follow a subject anywhere that

WALKIE-TALKIE-LOOKIE'S 10-pound, three-lens camera owes its existence to Vidicon camera tube, only six inches long and one inch wide.

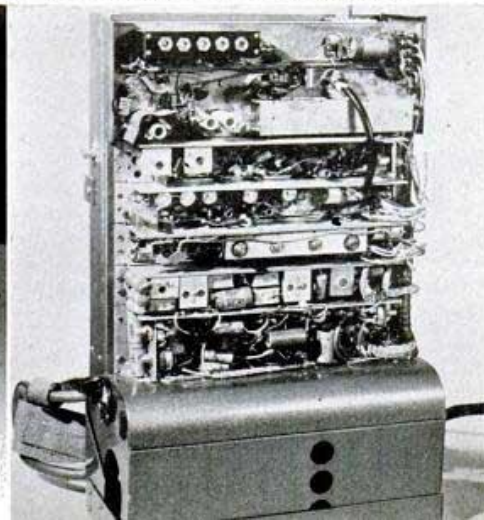


Microwave relays and coaxial cables will forge

the subject is able to go—a thought to chill almost anyone, let alone the average politician.

Another impressive item in the \$1,500,000 worth of equipment that NBC expects to

INSIDE THE 50-POUND PACK that the walkie-talkie-lookie cameraman wears is a tight maze of electronic devices for telecasting.





huge 1952 TV chain of 104 stations in 68 cities. For 1948 convention there were but six links.

have at the scene of the conventions is a new truck-mounted mobile unit. The crew of this truck will be able to take movies, develop the film, project the negative into the iconoscope tube of a TV camera (where the image will be turned into a positive) and have a newsreel of an outstanding event on your home screen within an hour of the time it occurred.

Both national political conventions—the Republicans starting on July 7, the Democrats on July 21—will be held in the Chicago International Amphitheatre. This is about the only building in the U.S. large enough to hold all those people and all that TV equipment at one time.

Plans for the TV coverage of the conventions began taking shape last November. By January, workmen were already busy in the Amphitheatre erecting new studios, newsrooms, control rooms, camera platforms. The platforms rise 12 to 20 feet above the floor and will hold the eight TV cameras permitted inside the convention hall. Because

the number of cameras inside the Amphitheatre is strictly limited, all networks will share those eight. Six of them will be running at all times during sessions, so as not to miss a thing of interest either on the floor or in the entrance hallway.

55 Mikes to Be Set Up

All eight cameras will be equipped with Zoomar lenses (PSM, Aug. '47, p. 126). The Zoomar is a 2½-foot-long adjustable lens that can be changed between wide angle and telephoto while a shot is being made. To the TV audience, the camera seems to zoom in for a close-up or back away for a long view, yet actually it never moves from its position. This lens will make it much easier to get close-ups in the convention hall, for cameras will not be permitted to move around on the crowded floor.

To make certain that no speeches and not many delegate confabs escape the ears of the 72,000,000 people expected to be watching the nation's 18,000,000 TV screens dur-



CONVENTION HALL, Chicago's famous International Amphitheatre, seats 12,000 people,

but most of the TV staff of 1,000 and their equipment will occupy a space 150 by 250 feet.

ing the big July events, 55 microphones are being installed on the floor of the Amphitheatre. Wires from the bases of these mikes run under a false floor, installed for the occasion, to a push-button panel on the speaker's platform at the front of the hall. An engineer seated at this panel will be able to turn on any one of the floor mikes he chooses.

For its own network, the Columbia Broadcasting System plans to improve upon even this broad coverage of convention sounds by sending men with walkie-talkie radios onto the floor to pick up whatever seems interesting to them. The walkie-talkies will

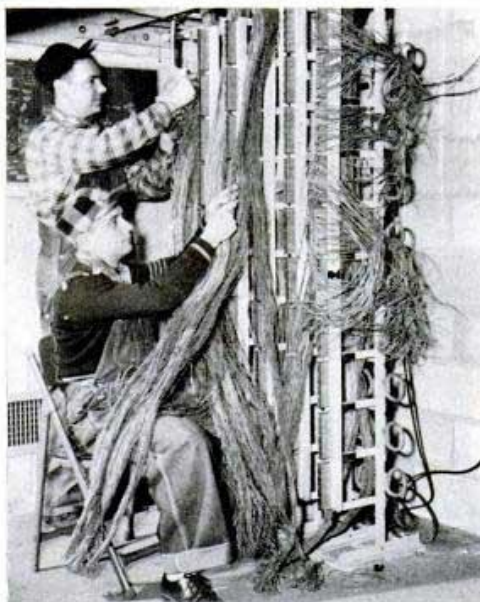
broadcast it to a receiver off the floor, from where it may be sent out to the entire CBS network. Sound obtained in this way can be used for both radio and TV.

Out on the streets, in hotel lobbies, at railroad stations and airports, even in the traditional smoke-filled conference rooms where the most vital decisions have at times been made, the TV networks and independent stations will have other staff men at work. They have assigned dozens of cameramen to take movies on both 35-mm. and 16-mm. film. Some of these films will be telecast promptly over the networks. Others will go by plane or fast train to the four



TALLEST TOWER in the cross-country microwave-relay system that will carry TV convention programs to the audience west of Chicago is this lofty structure in Des Moines.

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TELEPHONES enough for two small cities are being installed in Convention Hall for the use of TV, radio and newspaper men. Cable splicers are shown preparing for July's traffic.

U.S. stations—Newark, N. J., Albuquerque, Phoenix and Seattle—not on networks and to TV stations in foreign countries.

Some TV stations are planning to take special movies of the delegations from their own localities and bring them home by plane or train each night for telecasting.

Mobile Units Coming

Another photographic innovation—the Polaroid Land camera, which takes a picture and develops a positive in a minute or two—may see convention use. NBC counts on shooting still pictures with it in the smoke-filled rooms, provided the photographers are allowed to enter.

Twelve mobile TV units, including trucks from New York, Washington and the West Coast, are also rolling toward Chicago this month, like fire engines converging on a five-alarm fire.

Altogether this enormous mobilization of TV technicians and equipment, which is to be tested July 4 or 5, will provide a total of 60 hours of television programs—30 during each convention.

Westinghouse, Philco and Admiral are footing the bill, which is known to total several million dollars—not unreasonable considering the size of the audience.

"I don't think the politicians realize that they're playing with dynamite," said William McAndrew, who is in charge of NBC's TV convention coverage. "But that's just what they're doing!"

McAndrew had a vivid demonstration of how seriously the TV audience takes its political programs. He once cut Senator Kefauver off the air, at the senator's request, in Washington. "The reaction would scare you," said McAndrew. "We got 350 phone calls within five minutes."

Will TV Help Self-Government?

If, as many experts predict, this intimate acquaintanceship of a concerned audience with the candidates results in more thoughtful voting and better selection of public men, television may prove to be one of the greatest aids to self-government ever developed.

"TV," McAndrew said, "has a peculiar knack of showing up a politician's bad qualities as well as his good ones. TV will, in short, show the candidates as they really are."

"The viewer will either think a party in convention is businesslike and efficient or he will think it is a bunch of clowns and he'll vote the other way."

END



Sun's Heat Cooks Meals

INDIA's plentiful supply of sunshine has been put to work in the home by a scientist of the National Physics Laboratory at New Delhi. He now cooks with it, having devised a solar heater (above). The heater is a four-foot polished metal reflector that concentrates the sun's heat on the base of a pressure cooker. He hopes to mass-produce the solar-heating apparatus for about \$10.



Bike Rack Speeds Deliveries

TIRED of wrestling with the problem of carrying freshly cleaned and pressed clothes over one arm, Luis Cosmo Gonzales, Puerto Rican delivery boy, has rigged up a rack for the rear of his bicycle. It carries eight or 10 garments, individually wrapped, without wrinkling. It works best in a tail wind.