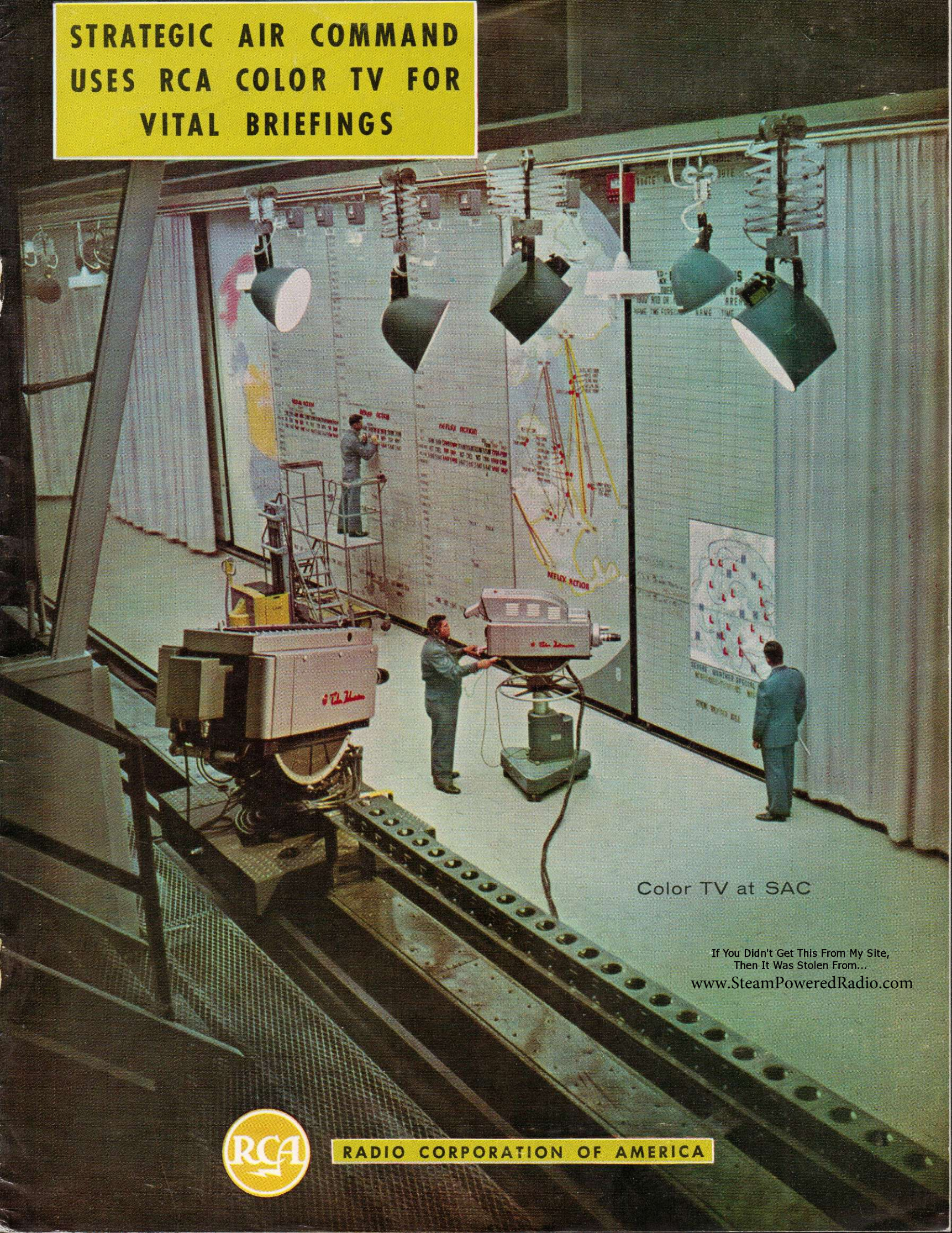


# STRATEGIC AIR COMMAND USES RCA COLOR TV FOR VITAL BRIEFINGS



Color TV at SAC

If You Didn't Get This From My Site,  
Then It Was Stolen From...  
[www.SteamPoweredRadio.com](http://www.SteamPoweredRadio.com)

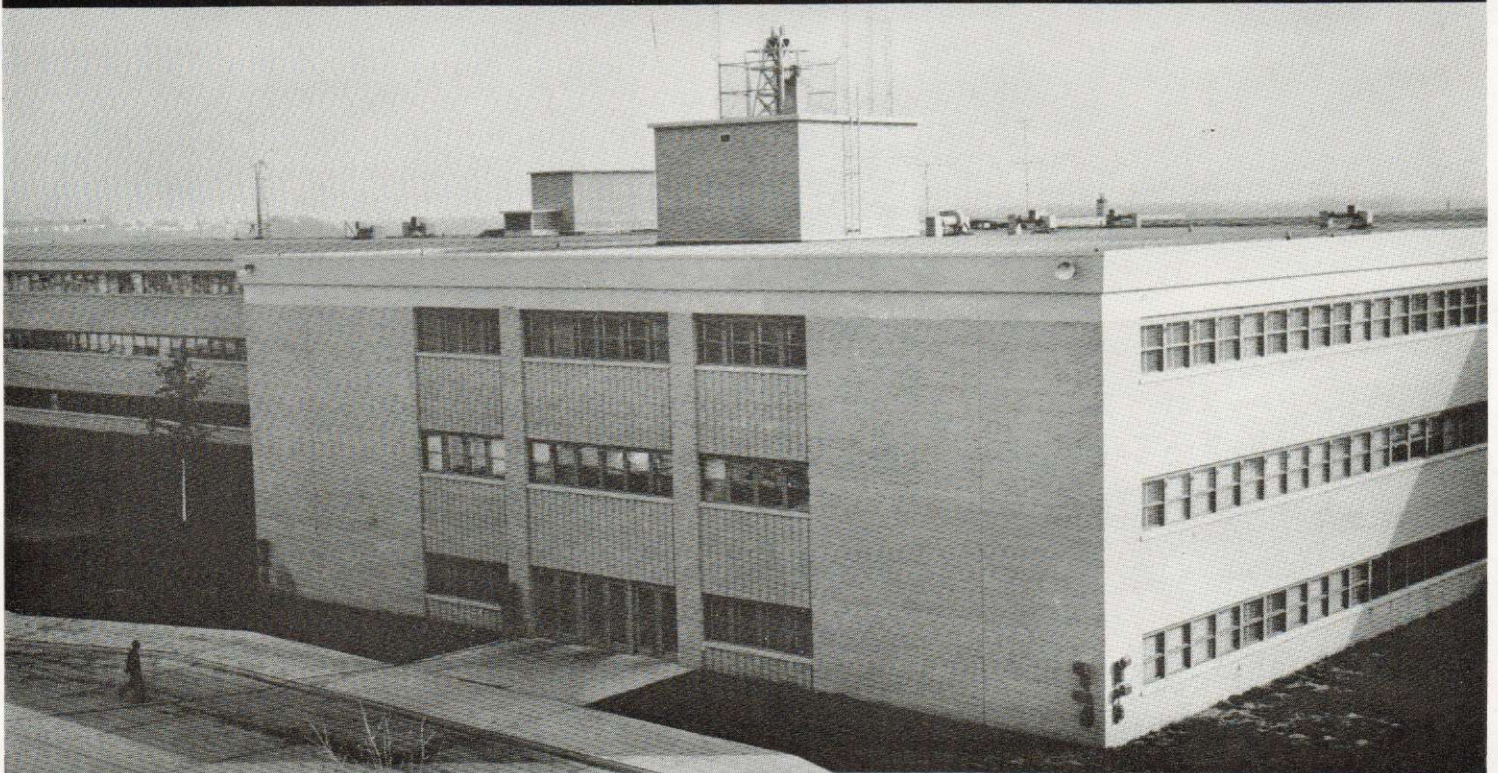


RADIO CORPORATION OF AMERICA



# STRATEGIC AIR COMMAND USES RCA COLOR TELEVISION TO EXPEDITE VITAL BRIEFINGS

Six Color TV Cameras Used in a 6-Channel Closed-Circuit System, with  
12 Program Sources, to Extend Weather Information and World-Wide  
Intelligence Data to 16 Key Locations at SAC Headquarters



Cover: Color Photography—Duane O. Nielsen, KMTV Photo Lab., Omaha, Nebraska

Offutt Air Force Base—ten miles south of Omaha, Nebraska—is the headquarters of the Strategic Air Command. The SAC mission—to preserve peace by maintaining a combat-ready force of poised strategic air power. Helping SAC in this mission is RCA color television.

Installed three stories below the earth in SAC's bombproof operations center are five live color TV cameras and a complete color film system. Six separate program channels are available to send information to various receiving locations. TV is used to brief the staff on weather conditions, deployment of aircraft and other information vital to making necessary decisions. From these decisions one day could come the order—only after hostile enemy intent is known—which would send strike forces from bases all over the globe toward the destruction of enemy military targets.

#### Headquarters—SAC

Strategic Air Command headquarters is housed in a sprawling building rising three stories up into Nebraska sky—and three stories down into Nebraska earth. Above ground is a typical modern military headquarters—a land of activity—of efficient offices, bright hallways, sprightly WAFS. Underneath are three stories of closed-door offices in which the plans for global peace are made. Here in this modern-day catacomb—enveloped by 3-foot thick concrete walls—is the SAC Combat Control Center.

Heart of this control center is the vast Operations Map Room—two stories high, 140 feet long and 39 feet wide. Giant panels, each eight feet wide and 20 feet high, line the entire wall the length of the room. These panels are constantly being changed to reflect information needed to direct the global force in peace or war—world maps, weather maps, charts showing deployment of force, operational status of aircraft and missiles, and training exercises. Here, color television picks up the latest information for transmission to the offices of key commanders, conference rooms and briefing areas.

#### Map Room Television

Four TK-41 Color TV Cameras are located in the Operations Map Room.

Two cameras are installed on a 106-foot-long track, located opposite the map panels. These cameras are remotely controlled and



FIG. 2. General Thomas S. Power, SAC Commander in Chief, and his staff, are seated in the glassed-in balcony area overlooking the Operations Map Room. Each member of the staff is charged with a specific phase of SAC responsibility.

FIG. 3. The 140 by 39-foot expanse of the SAC Operations Map Room is shown here. Note, at left, the giant map panels each 20 feet high and 8 feet wide. Shown also is the map room lighting with its scoops and fluorescents. Note color TV cameras on floor and on elevated track at right.

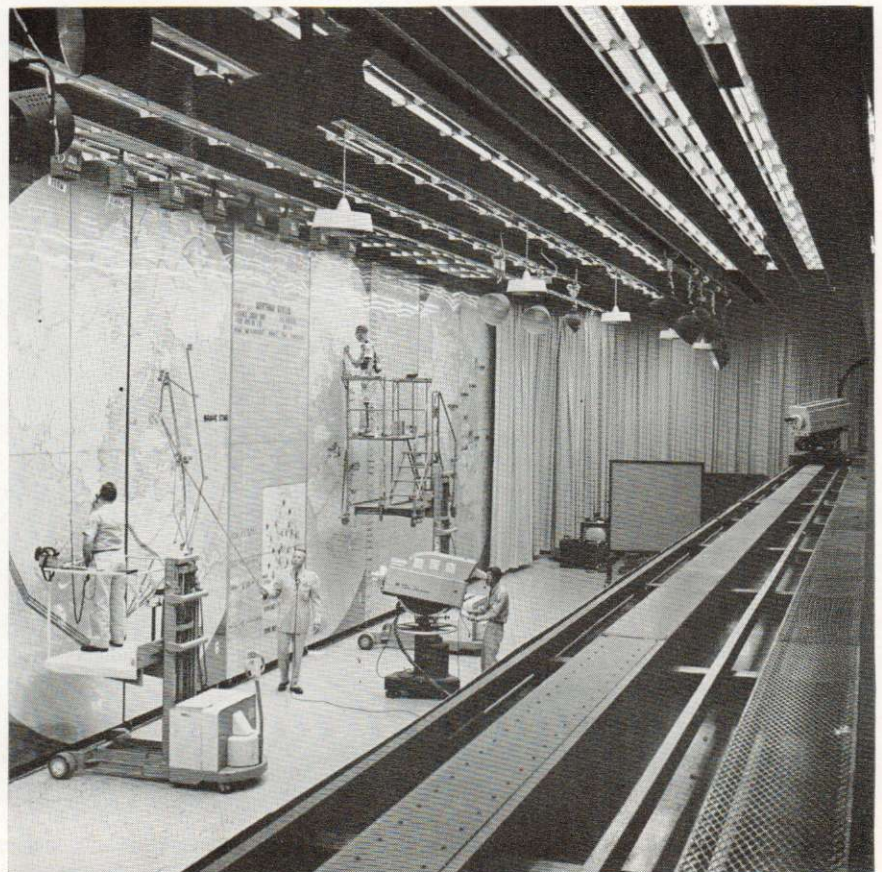


FIG. 1. View of SAC headquarters building, Offutt Air Force Base, Omaha, Nebraska. Below this, for three stories beneath the earth, is the heart of SAC command—an underground city which could seal itself from the world in case of enemy attack.

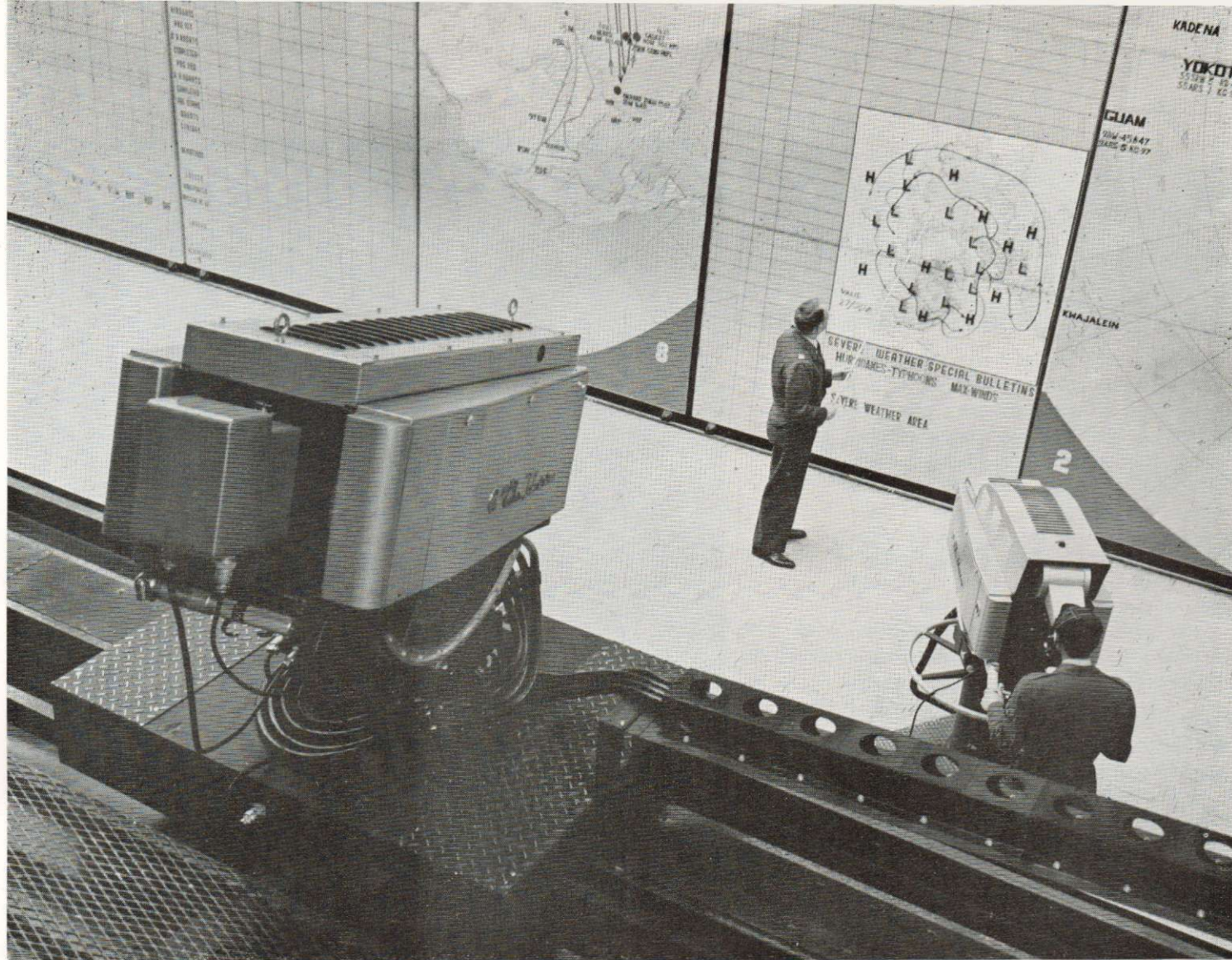


FIG. 4. Weather officer briefs SAC command and staff personnel via closed-circuit color television. Manually operated TK-41 Color Camera views the scene on the map room floor, while TK-41 Camera on track in foreground is operated remotely from control room.

can be moved up and down the track to scan the maps and charts on the panels. A catwalk along the track facilitates equipment maintenance. Remote pan-and-tilt operation of these two cameras enables viewers to see any part of the panel information desired, or to see officers making the briefings from the floor of the map room.

The cradle-type remote pan-and tilt head allows for 30-degree tilt up and down. It is driven by two constant-speed motors. Azimuth and tilt motions are provided with limit switches. The cradle and base are of cast aluminum with bronze worm gears, and shafts revolve on ball bearings. The head revolves and tilts at a speed of approximately 1 rpm.

Both cameras have remote control focus. The control motor is housed within the camera enclosure. Remote lens change is built into the cameras. Major components (motor to rotate lens turret, solenoid to release the turret-positioning detent and

switches to select lens position) are located at the rear of the camera.

A separate remote control unit is provided for each camera at the control position. This unit provides: (1) a "joystick" switch to control pan-and-tilt head motion, (2) a switch to control the lateral motion of the camera on the track, (3) remote focus control, (4) remote lens switches for selection of any one of four lenses on the turret, (5) main switch for disconnecting entire control system and (6) pilot lamp indicating system is on.

The other two TK-41 Cameras, with electronic viewfinders, are mounted on regular studio pedestals which can be moved to any position in the map room. They are used in picking up the briefing officers as they are presenting information on panels or charts. They are also used in daily intelligence summaries and newscasts which present world-wide and national news of vital import to SAC Commander in Chief, General Thomas S. Power, and his staff.

Each camera is equipped with a full complement of four lenses. (One camera is equipped with a Zoomar lens.) These cameras are each controlled by an operator, who focuses, pans, tilts, etc., while electronic control is performed in the control room.

#### Air Intelligence Room

Next to the Operations Map Room is the 39-by-60-foot Air Intelligence Room, restricted territory to all but the air intelligence staff and other key SAC officers. In this secret room current intelligence information on the status of possible enemy forces is kept. In the event of a national emergency or under actual wartime conditions, a TK-41 Camera from the Operations Map Room would be moved into this room for use in presenting Intelligence Briefings to General Power and his staff. A 17-inch monitor would also be moved into the Air Intelligence Room with the camera. Cable connections and lighting are permanently installed in the room ready for immediate use.



FIG. 5. Here's the battery of cameras the briefing officer faces each day as he presents operations intelligence to top SAC personnel. At top, two TK-41 Color TV Cameras can be remotely panned and tilted, moved along the 106-foot track. Third color TV camera is operated in normal manner. A fourth camera is available, and it can also be wheeled into adjacent Intelligence Room.

## HOW THE SAC COLOR TV SYSTEM WORKS

### PROGRAM SOURCES

### SUBSCRIBER LOCATIONS

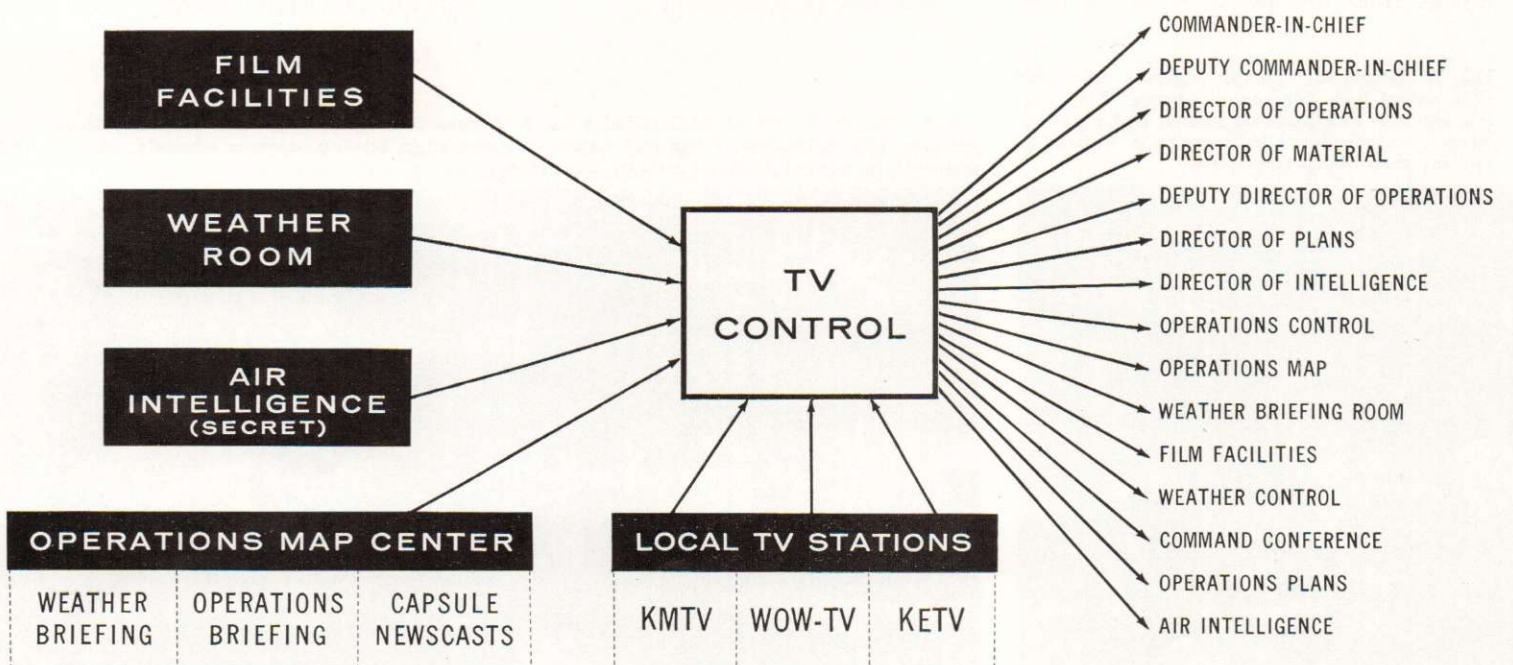




FIG. 6. This 3-vidicon TK-45 Color Camera is located in the Weather Briefing Room on the second floor of the control center. It views weather charts and other data for programming in the SAC color system when needed.

#### Weather Room

A single TK-45 3-Vidicon Color TV Camera is located in the Weather Briefing Room of the Control Center. This camera is mounted on a fixed frame suspended from the ceiling. It can be focused on the charts and maps used by the weather officers. From this room, weather data can be fed into the SAC TV system for integration with operations briefings. The 3-vidicon color camera which was designed primarily for closed-circuit applications such as this is used to view weather charts and other data. An officer standing next to the charts can make highly effective weather presentations from this point. Sound facilities

are also available here. The officer and the charts are lighted by scoops.

#### Film Room

Films and slides are an important adjunct of the constant briefing of top command personnel. A fully equipped film room located in the glassed-in balcony above the map room meets these needs. Provision has been made for showing 16mm film and 35mm slides for information supplemental to the briefing messages.

For this purpose a TP-6 Film Projector, TP-7 Slide Projector, together with a TP-15 Multiplexer and TK-26 Color Film Camera have been installed.

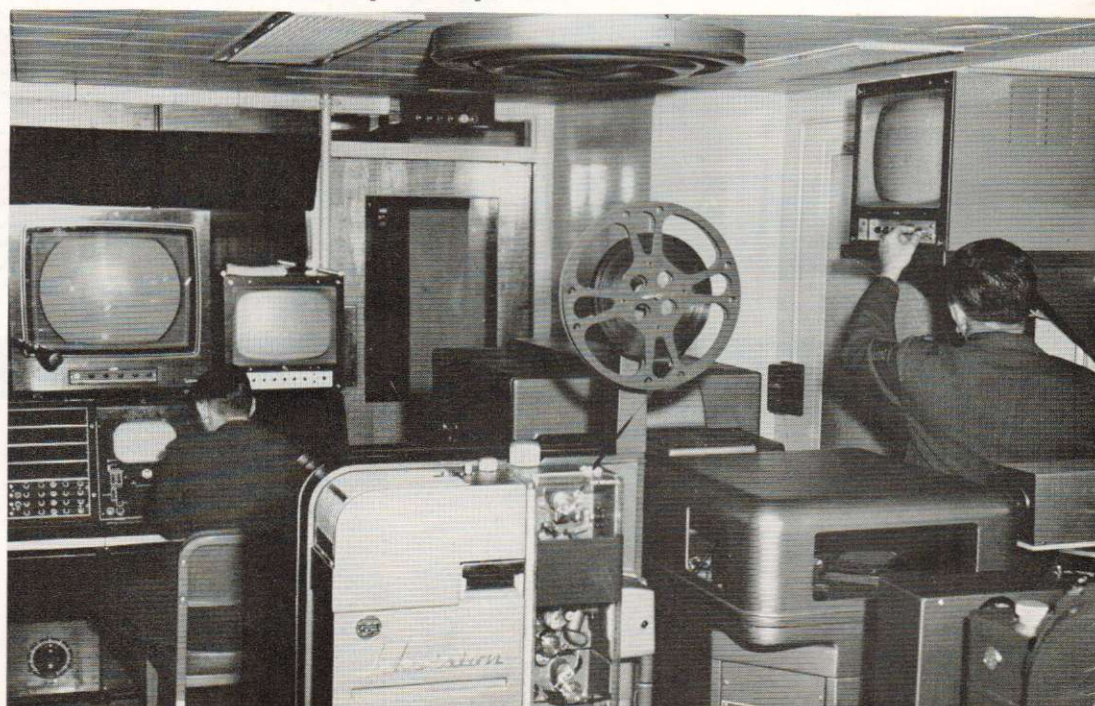
The output of the film camera feeds into the relay switching system where it can be switched to remote viewing locations as required. (This switching is done in the control room.) Control equipment for the TK-26 Film Camera is located in the film room. The control console houses a master monitor and processing amplifier. Film and slide projectors are started and stopped by the operator from this position. The operator, who also changes films, receives his directions from the TV control room where the programming director is located.

Also located in the film room is a 17-inch cue monitor and a 17-inch film preview monitor. A modified 21-inch RCA color

FIG. 7. Film-room operator controls film and slide output from this control console. Atop console are a 17-inch program monitor and a 21-inch on-air color monitor. Film room is in glassed-in balcony area above map room.



FIG. 8. The film room at SAC includes an RCA color film chain, 16mm film projector, 35mm slide projector and multiplexer. Films and slides, interspersed in briefing program schedule, educate SAC command in various fields of military knowledge.





TV receiver is used to observe output of film chain in color.

#### TV Control Room

Controls for cameras, switching, programming and subscriber selection are housed in an area alongside the Operations Map Room.

Along the far wall of the control room are six 17-inch monitors each showing one of the six channels on which briefings may take place. Although present peacetime briefings number only three a day, the system is set up so that five briefings can be made simultaneously. Switching the briefing channels to the command personnel is done in the control room. Channel

one is a preview channel. Channels two, three, four, five and six actually present the program material.

A TM-21 Color TV Monitor is used for line monitoring in the control room. Three modified 21-inch color TV receivers, used as monitors, are also located here to pick up the output of cameras.

Electronic (and in some cases remote) controls for each camera are located here. Number one and five positions control the TK-41 Cameras on the map room floor; numbers two and three are for the remote-track cameras, number four controls the TK-45 Camera located two floors above in the Weather Briefing Room.

FIG. 10. The SAC TV control room showing controls for three color TV cameras. Controls for remotely operated cameras are also located here.

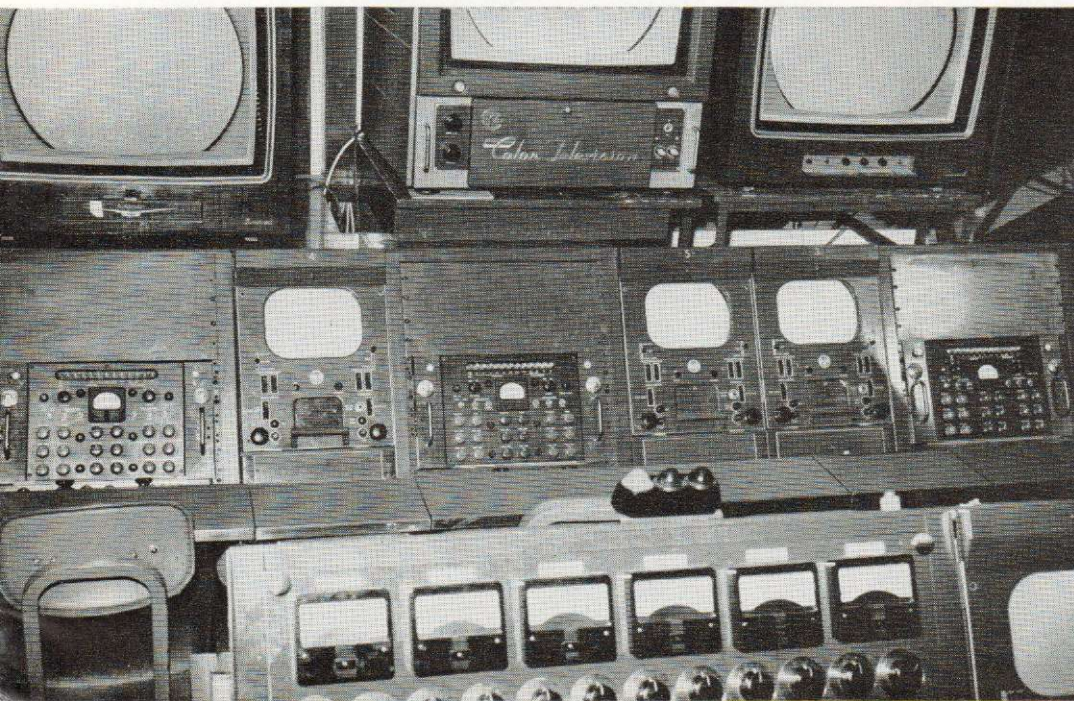


FIG. 9. Here is the well-equipped SAC TV control room. Personnel operating controls are of the Presentation Branch, Control Division, Directorate of Operations. They control cameras, and do the switching.

FIG. 11. Controls for Color TV Camera No. 1 are located in a separate corner of the control room. The operator can see the image in black and white on the master monitor as well as view the color presentation on the 21-inch modified color TV receiver positioned on top of the console.



**TABLE 1**

**12 INPUTS AVAILABLE FOR SWITCHING INTO 6 CHANNELS**

Input	Video	Audio
1.	Control Room—Camera No. 1	Audio Input
2.	Control Room—Camera No. 2	Audio Input
3.	Control Room—Camera No. 3	Audio Input
4.	Spare	No Audio Input
5.	Air Intelligence Room	Audio Input
6.	Weather Briefing Room	Audio Input
7.	Film Room	Audio Input
8.	Test Signal (Bar Dot Generator)	No Audio Input
9.	NORAD	Audio Input
10.	Channel 3—KMTV	Audio Input
11.	Channel 6—WOW-TV	Audio Input
12.	Channel 7—KETV	Audio Input

**Program Selection Switching**

Switching is done in the TV control room. Simultaneous switching of video, program audio, talk-back audio and tally information is permitted by the co-ordinated relay switching system.

For program selection switching a multi-button panel provides for switching of twelve inputs to the preview channel and five briefing channels. Five separate briefing sessions, weather forecasts, lectures, films, or training exercises might be carried on simultaneously over these channels.

One input is connected to a closed-circuit TV hookup with North American Air Defense Command Headquarters (NORAD) in Colorado Springs, Colorado. One spare input is provided for future expansion in the operations room. (See Table 1.)

Separate or combined operation of audio and video signals is available. By a push of a button, audio and video information from the same source can go over the lines or, if desired, voice from one channel and video from another may be switched into the system.

FIG. 12. The SAC closed-circuit color TV network consists of 6 channels which are fed by 12 program sources to be seen at the various subscriber locations (note that a total of 24 outputs are available for use). Below is the selection switching panel which provides for programming the channels, selecting the sources and switching desired programs to key SAC locations.

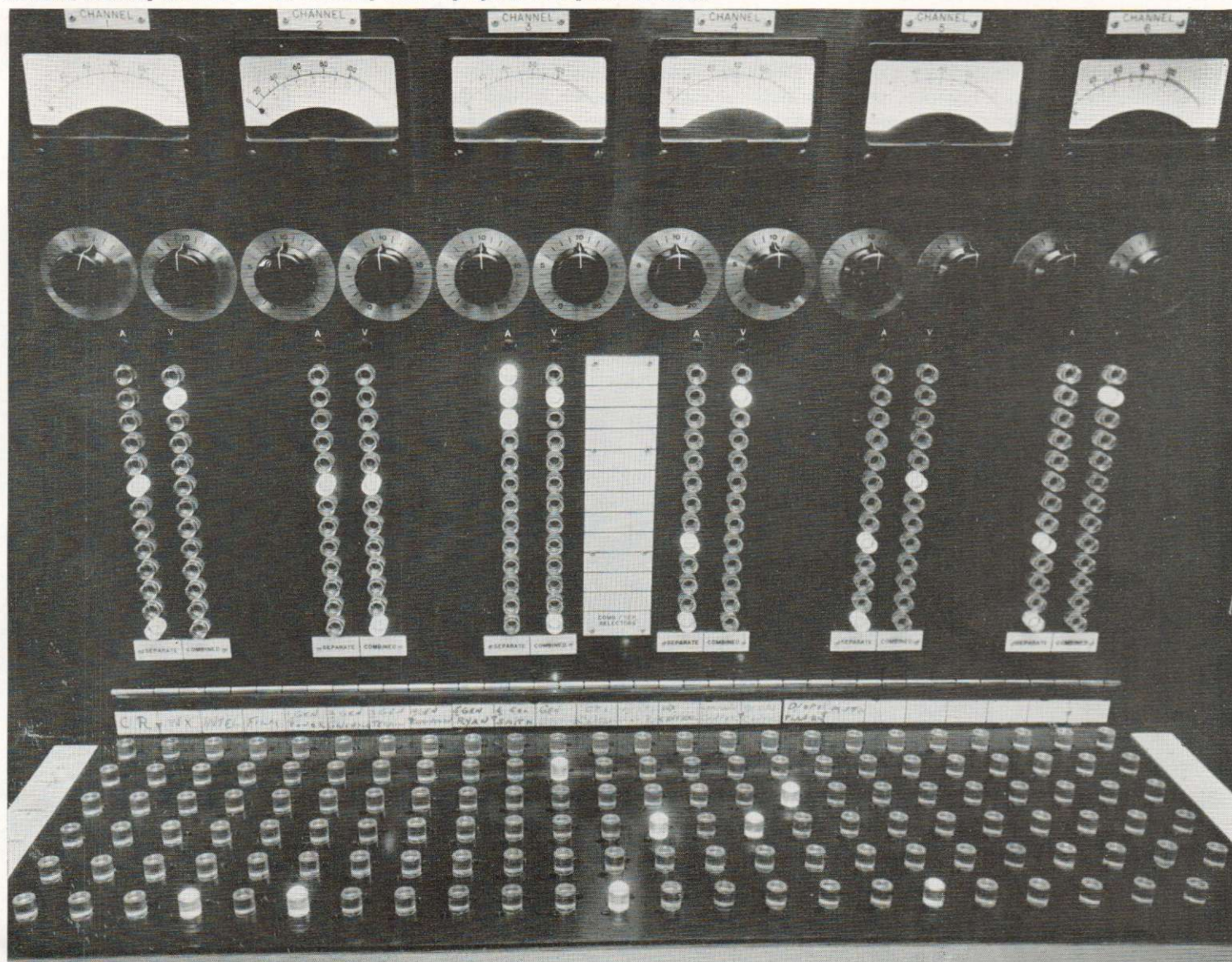






FIG. 13. View of the Operations Control Room, one of the locations receiving briefings via color television. Note RCA color TV monitor. Controller, foreground, can be put into immediate touch with SAC bases all over the world to sound the alert in case of enemy approach.

### Output Selection Switching

A "subscriber" panel enables the control-room operator to select any program from the twelve inputs for switching to each subscriber location. Six push buttons are provided for each subscriber, representing the six channels available to each.

Presently, there are 17 subscribers but the panel is designed for future expansion up to a total of 24 as required.

Following are the 17 subscriber locations now receiving information via the SAC TV system:

1. Control Room
2. Weather Briefing Room
3. Film Room
4. General Power,  
Commander in Chief
5. General Griswold,  
Deputy Commander in Chief
6. Maj. Gen. Edmundson,  
Director of Operations
7. Maj. Gen. Ryan,  
Director of Material

8. Maj. Gen. Westover,  
Director of Plans
9. Brig. Gen. Compton,  
Deputy Director of Operations
10. Brig. Gen. Wade,  
Director of Personnel
11. Col. Smith, Director of Intelligence
12. Operations Control Room
13. Operations Map Room
14. Weather Control
15. Command Conference
16. Operations Plans Room
17. Air Intelligence Room

Subscribers cannot make their own choice of channels simply by selection at their sets. All programming control is established at the TV control room so that no one can tap into the system to see a secret briefing or other material he is not supposed to see. Each subscriber must make a request for a channel choice by means of the talk-back facilities located at his receiver location.

Each subscriber location is furnished with one modified 21-inch color receiver

(Type 21-CD-7895) one BK-6B Microphone with push-to-talk button, and a tally light box atop the receiver, which is actuated when any one of the top six officers are talking back to control. Also, a program amplifier to provide line level audio from the talk-back microphone and a monitor amplifier furnish program information through the loudspeaker system. By this means each subscriber has complete two-way communication and facilities for CC-TV briefings.

### Interphone System

The TV director and other personnel communicate with each other throughout equipment locations by means of an interphone system. By this means, duplex communications are maintained from (1) camera controls to camera operator, (2) camera controls to equipment controller (man at switching location), (3) camera operators to equipment controller, (4) equipment controller to lighting personnel and (5) equipment controller to racks.

FIG. 14. A briefing emanates from the Operations Map Room. The floor camera (TK-41) is focused on the briefer. One track camera (right) is trained on a small chart supplementing the main briefing. Banks of fluorescents provide much of the lighting required for televised briefings.



### Map Room Lighting

Lighting for the Operations Map Room consists of eight scoops of 1500 watts each, three 1000-watt Fresnels, four 2000-watt Fresnels, one 2000 watt Leko, three 750-watt reflector spots and eight 1500-watt scoops. Fluorescent lighting covers the entire ceiling area of the map room. There are six banks of lights, 18 units deep, and containing two, three and five lights in each bank, furnishing approximately 350-foot candles of lighting.

Fluorescents are used since the plastic covering over most of the map panels in the room make use of scoops and spot lighting nearly impossible because of high reflectance. Scoops are now used only in briefings and in the newscast where the briefer sits at a desk, behind which a drape is hung or nonreflecting charts and maps are used.

### Briefings

One operational briefing is scheduled early each morning giving deployment of aircraft, weather information, training mission details and other information. Air

intelligence briefing on enemy aircraft movement and other classified material is given once daily. A member of the Presentation Branch staff, a former radio announcer, gives a 2:30 newscast featuring world and national news daily during the week. Films (security motivation) are shown on a nonscheduled basis.

### Personnel

The TV personnel are assigned as a part of the Presentation Branch, Control Division, Directorate of Operations. The Presentation Branch is responsible for the

production of all graphic, visual, photographic, and television aids required in the support of the mission of the underground Control Center. Projects accomplished by this branch include preparation of all map panels, display area, art and illustrative briefing aids, flip-cards used in TV programming, and special effects for TV production.

The Presentation Branch is divided into an art section, photo section, TV maintenance section, TV production section and administrative section. Those we will

FIG. 15. Daily newscast is presented by non-commissioned officer. This newscast features world and national news each afternoon to keep SAC personnel up to date on important events.



FIG. 16. A typical subscriber location at SAC. Here, Maj. Gen. Edmundson, SAC Director of Operations, watches a briefing in his office. Note microphone in his right hand, provided for conversing with control personnel.



mainly concern ourselves with are the TV maintenance and TV production sections.

The Chief of the Presentation Branch is assisted in the TV maintenance area by a Warrant Officer. This officer and the personnel that he supervises are assigned to the 30th Communications Squadron-Command for administration, and are assigned to the Directorate of Operations for duty under the supervision of the Chief of the Presentation Branch. There are twenty-three airmen in the TV maintenance section: one Master Sergeant, who is the noncommissioned officer in charge; five Technical Sergeants; two Staff Sergeants; six Airmen First Class; seven Airmen Second Class; and two Airmen Third Class. These airmen are charged with the operation and maintenance of the cameras and associated equipment.

One of the major problems has been providing training for inexperienced personnel. The maintenance section is mainly manned with personnel who have come from Radar Groups, Radio Teletype Schools and Communications Schools. This inadequacy has been offset by setting up an on-base school using contract RCA Engineers to teach the operation and maintenance of the installed color equipment.

#### TV Operations

One cameraman is used to operate each camera located on the map room floor.

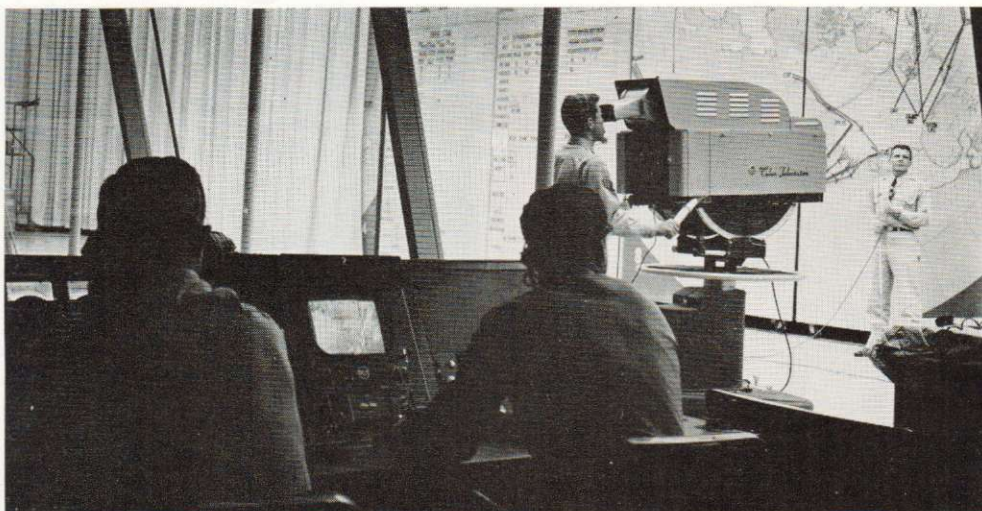


FIG. 17. SAC personnel operate and maintain the color TV cameras and associated equipment. Whether they work in the control room as cameramen or in the maintenance areas, their job is to keep SAC on the alert via TV briefings whenever needed.

The two cameras on the overhead track are remotely operated. The remote operator can: (1) focus, (2) change lens, (3) pan, (4) tilt, and (5) move the cameras on the 106-foot-long track. Electronic controls for five of the cameras are in the control room; for the sixth, in the film room. Six video operators are employed for handling the electronic controls.

A single operator acting as noncommissioned officer in charge is utilized at the program switcher. He (1) switches programs, (2) selects subscribers to receive

programs, and (3) rides audio gain. Although this man may not be the senior man present on duty, as program NCOIC he technically controls the briefing program from the standpoint of who gets the program and what program they receive.

The TV production section provides a daily program for the maintenance section to follow. Each day's program is different; however, is in line with the programming desired by the directorate and subscribers. A typical daily program for the SAC system appears in Table 2.

TABLE 2  
TYPICAL DAILY MINIMUM PROGRAM

TIME		PROGRAM	Video	SOURCE	Audio
On	Off				
7:00 A.M.	7:25	Today, NBC	KMTV	KMTV	KMTV
7:25	7:30	Today in Omaha	KMTV	KMTV	KMTV
7:30	7:55	Today	KMTV	KMTV	KMTV
7:55	8:00	Today in Omaha	KMTV	KMTV	KMTV
8:00	8:25	Today	KMTV	KMTV	KMTV
8:25	8:29:30	Today in Omaha	KMTV	KMTV	KMTV
8:29:30	8:30	Station ID	SAC Shield	Silent	Silent
8:30	End	Operations Briefing	Studio	Studio	Studio
End for 30 sec.		Station ID	SAC Slide	Silent	Silent
10:55	11:00	Station ID	SAC Slide	Silent	Silent
11:00	End	Intelligence Briefing	Studio	Studio	Studio
End for 30 sec.		Station ID	SAC Slide	Silent	Silent
11:55	12:00	Station ID	SAC Slide	Silent	Silent
12:00 Noon	12:18:30	Noon Edition	KMTV	KMTV	KMTV
12:18:30	12:19	Station ID	SAC Slide	Silent	Silent
2:25	2:30	Station ID	SAC Slide	Silent	Silent
2:30	2:44:30	AP News	Studio	Studio	Studio
2:44:30	2:45	Station ID	SAC Slide	Silent	Silent



FIG. 18. Maintenance, performed on schedule, keeps SAC TV equipment in top-operating condition. Here Warrant Officer T. G. Ball inspects the hoist, used to convey heavy camera equipment to and from first floor level when major repairs are necessary.

### TV Maintenance

Maintenance of equipment is also directed by the Warrant Officer in charge. Also, an engineer of the RCA Service Company, a division of RCA, is on duty along with the enlisted personnel. This engineer is, in fact, the only one of the group who had any working knowledge of the RCA color TV equipment before joining the group. His job is the supervision of all major maintenance problems.

Routine maintenance is performed on all equipment at least once a month on a certain date specified. Card files are kept on all equipment: parts, adjustments and other changes noted. Once a month a tube check is made on all equipment using the Type WT-110A Tube Tester. Maintenance schedules are carried out during regular duty hours, although major maintenance must oftentimes be performed on a nighttime schedule.

Colorplexers, sync generators, distribution amplifiers, frequency standards and

other critical equipment are adjusted on a day-to-day basis. This equipment along with control units, video patch panels, color signal analyzers, linearity checkers, relay chassis and power supplies are housed in three rows of racks—26 racks total—on the floor of the Operations Map Room.

If repairs must be made, tubes changed or other maintenance performed, work orders are made out with diagnosis of trouble and actual repairs being noted.

### Rack Equipment

Located on the floor of the Operations Map Room and within easy access of the TV control room are three rows of racks containing equipment related to the operation and control of the color television systems at SAC. The system is a complex one. SAC personnel, although inexperienced with color TV, have thus far been up to the task of maintaining the system. The first row of ten racks contain colorplexers, utility control units for the TK-45 Camera

chain in the Weather Room, video jack panels, distribution amplifiers, stabilizing amplifiers, video patch panels for breaking in on subscribers, color signal analyzers, a color bar generator, linearity checker, pulse distribution amplifiers, sync generators, burst flag generators, sync generator switch and frequency standard.

The second row of ten racks contains video distribution amplifiers, a basic relay chassis, video distribution relays, 24-volt regulated power supplies, basic relay chassis, audio signal generator, distribution analyzer, audio amplifiers, program amplifiers, audio patch panels for checking trouble, six 6-way nets, two 3-way nets and one 4-way net. Here, too, are audio relays for subscribers, five 26-way nets for subscribers' talk-back to the control room, audio patch panel and audio programming relays.

A third row of six racks contains power-supply units providing d-c voltages for the system.

## TV Guardian

In addition to the color TV equipment installed at SAC headquarters, RCA industrial-type TV equipment has been put to use as a guardian at the entrance to the map room and control area.

The equipment consists of an RCA Type ITV-6 Camera mounted on a pedestal near the door leading in this area. The camera can be panned and tilted remotely to obtain a full view of the visitor. The pan-and-tilt mechanism is operated from the nearby operations control room.

An ITV-6 Monitor is also located in the operations control room. When the controller identifies the visitor seen on the monitor screen, he pushes a button which automatically opens the door to the map room, allowing the visitor to enter the area.

The ITV-6 equipment at SAC headquarters has been giving excellent 24-hour-a-day, 7-day-a-week performance since its installation. This is necessary since no standby equipment is available at SAC. The equipment has eliminated the need for four or five guards formerly required to man this location. One guard is still on duty in the heavy-duty-traffic hours during the daytime.

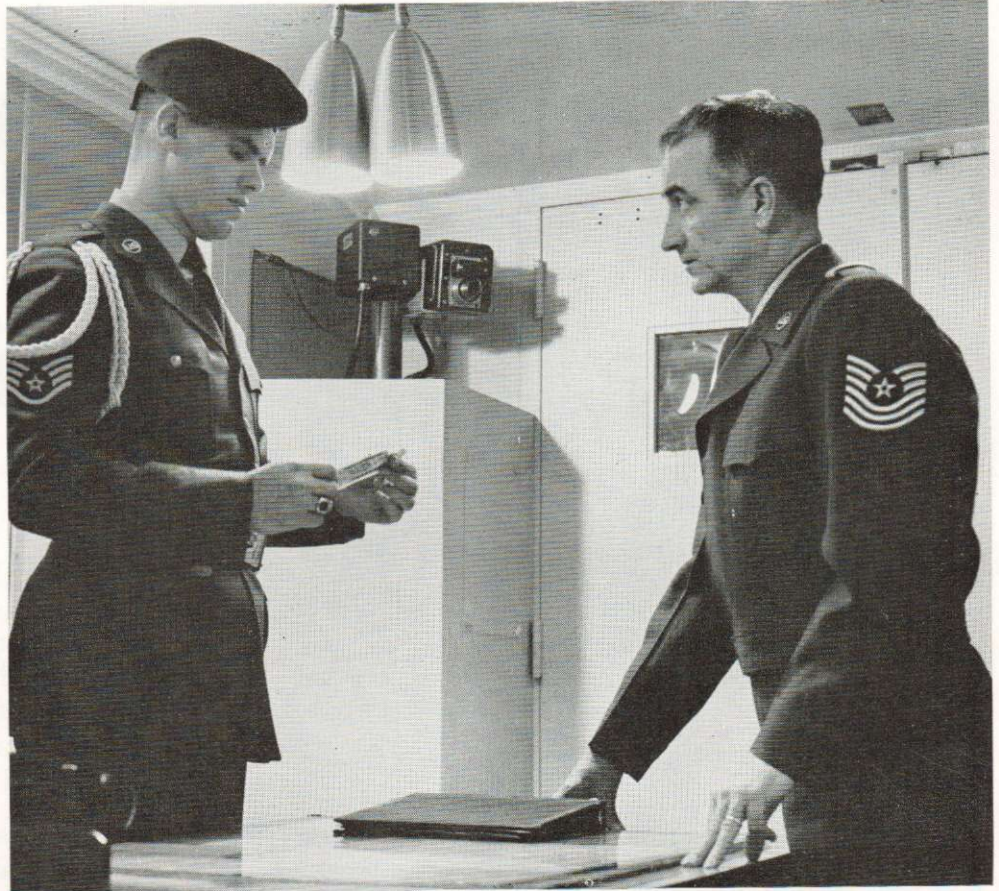


FIG. 19. RCA industrial-type TV camera acts as watchdog for SAC operations area. When the guard is off-duty, the TV camera shows control personnel inside area those desiring admittance.

## Future Plans

Sometime in the future, two TV studios will be built in or near the present operations map area. One will be like a TV broadcast studio with announce booth and control room. This will measure about 15 by 20 feet, the second studio about 20 by 20 feet. Here, it is planned, sets will be installed for special briefings and other presentations.

Two buildings near the SAC administration building may be acquired in the future for use as production workshops, TV maintenance area and storage facilities.

The TV system has been expanded to connect SAC with the North American Air Defense Command in Colorado Springs, and in the not-too-distant future will be connected with USAF Headquarters at Washington, D.C. After that is envisioned a closed-circuit television ring to permit immediate TV contact with all SAC bases the world over. The immediate transmission of combat information by television will permit complete and instant co-ordination of the nation's aerial offensive and defensive forces.

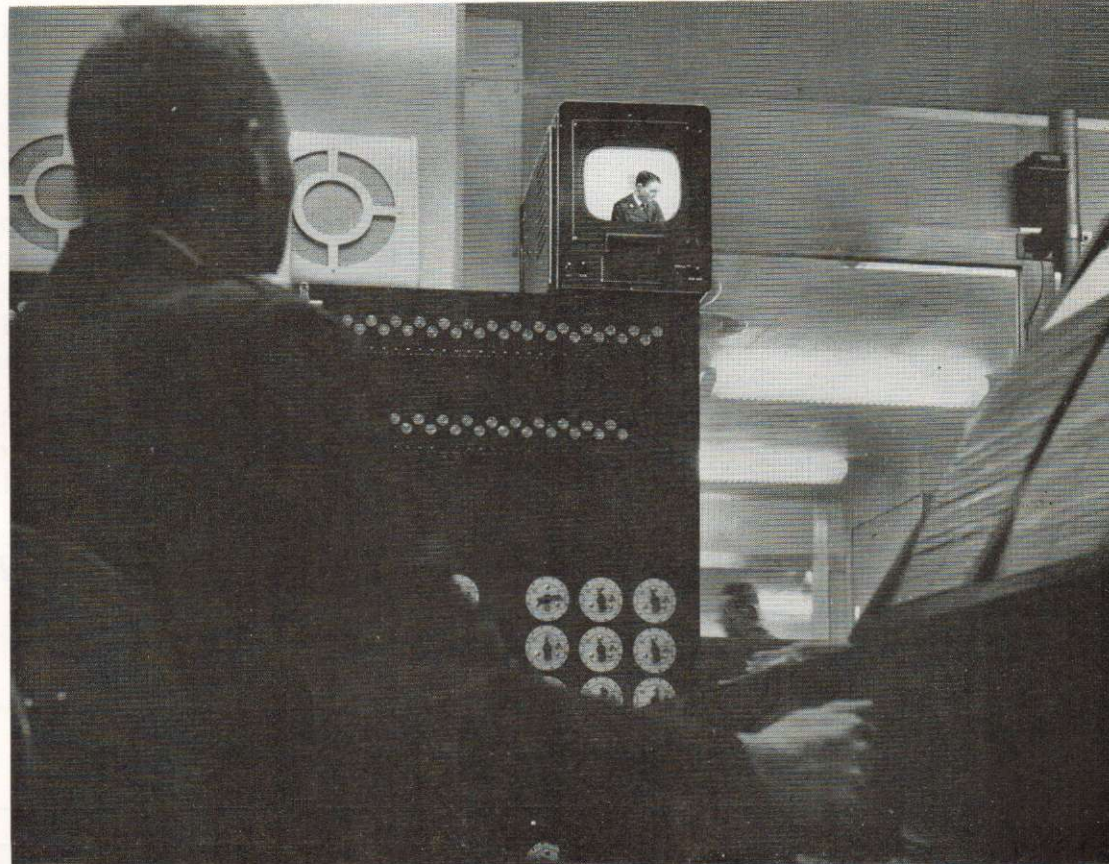
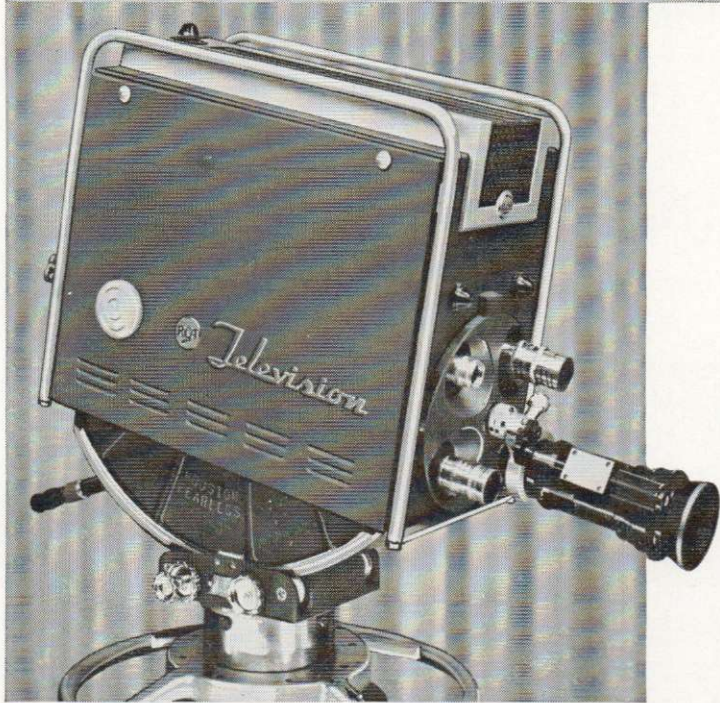


FIG. 20. SAC operations control room personnel identify visitors outside area via this TV control monitor. When positive identification is made, the operator allows the visitor to enter by pushing a button, automatically opening the door to the area.

# Here's your "wise buy"



View of the TK-15 Vidicon Camera as seen from the front. Note 9-inch 4 lens turret, which can accommodate zoom lens and 3 standard lenses.



Rear view showing large 7-inch viewfinder and controls.

## *Expandable*

**WITH RCA**

This is a high quality vidicon camera which meets professional standards in many ways yet is available at a price consistent with educational budgets. The TK-15 is dependable, easy to operate and maintain, and built to endure rough usage—it is the finest quality vidicon camera yet developed for educational needs.

TK-15 features include the following: feedback circuits for constant high-quality pictures... built-in test signals for maintenance of peak performance... a 7-inch viewfinder for easier focusing and framing of pictures... a four lens turret large enough to permit simultaneous mounting of zoom and standard lenses... sturdy camera construction. These features result in the reliability and performance required by effective educational programming.

Educational TV systems may begin with a single TK-15 camera as a nucleus, and then be expanded to include film and slide facilities, as well as additional live cameras—all without rendering obsolete original equipment.

Your requirements for educational television can be met to best advantage with this efficient, expandable new RCA equipment.

**Dependable!**

**Easy to Operate!**

**Easy to Maintain!**

Please send new brochure "TK-15 Camera"

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### **NEW BROCHURE**

also complete list of  
TK-15 users available on request.  
Mail coupon, RCA, Dept. S-10  
Building 15-1, Camden, N. J.  
In Canada: RCA VICTOR Company  
Ltd., Montreal.

# for Educational Television

## *RCA Vidicon Camera System*

### TYPE TK-15 VIDICON CAMERA

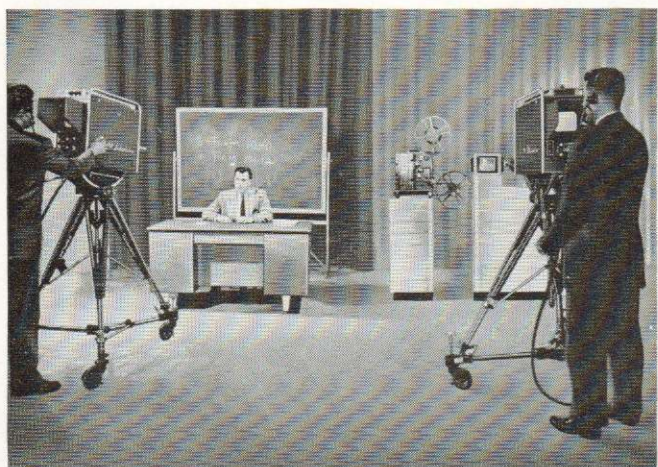
4 Steps in Expansion  
with TK-15 System



1. Start with one-camera system. The TK-15 is the heart of a basic television system.



2. Expand to include film and slide accessories using the same camera.



3. Expand to a two-camera system with film and slide accessories.



4. Expand to a system with two live cameras and full film and slide facilities incorporating vidicon film camera.



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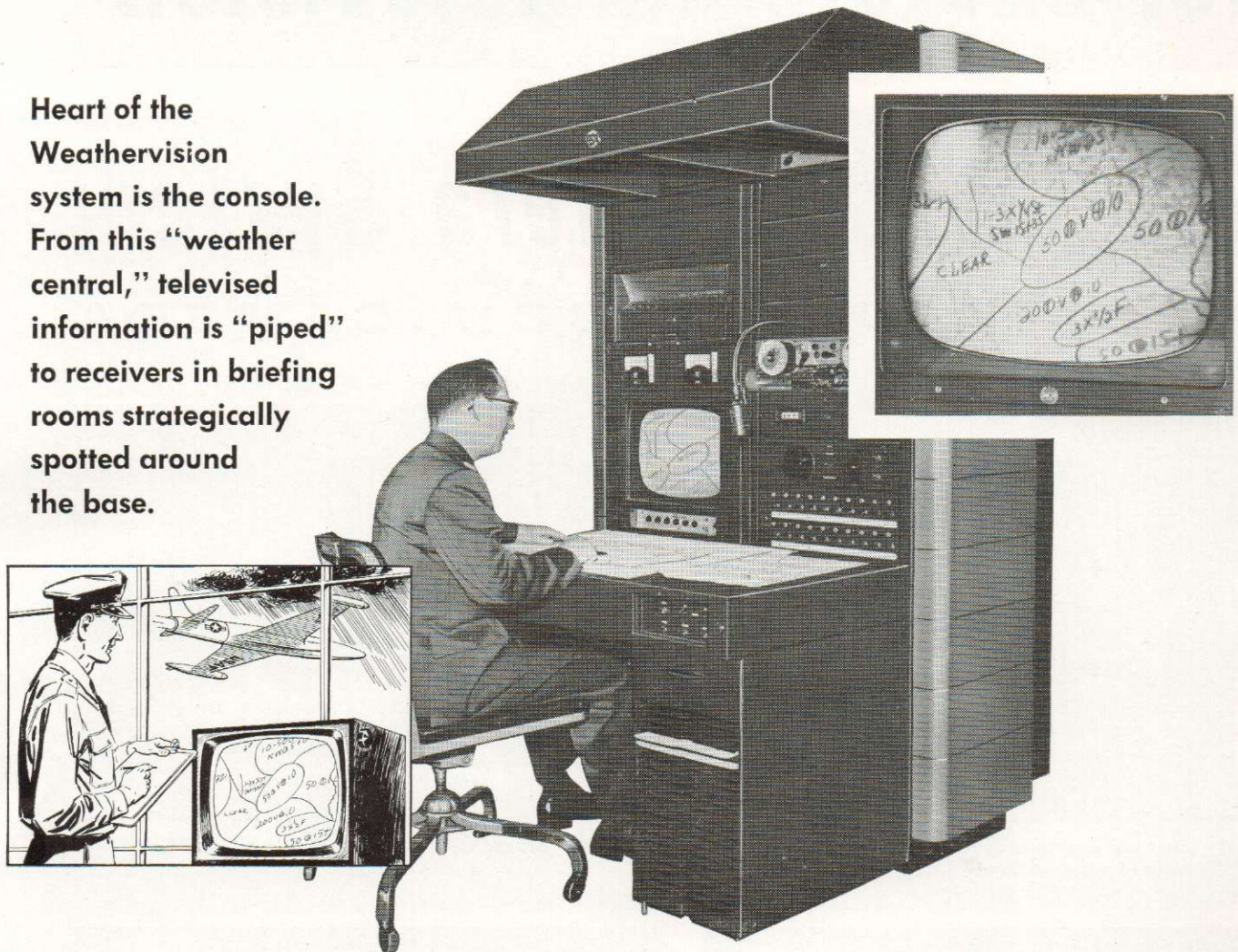
**RADIO CORPORATION of AMERICA**

BROADCAST AND TELEVISION EQUIPMENT

CAMDEN, N. J.

# RCA Weathervision sends the weather briefer to every flight point at the same time!

Heart of the Weathervision system is the console. From this "weather central," televised information is "piped" to receivers in briefing rooms strategically spotted around the base.



RCA Weathervision is closed circuit television, designed to provide accurate, up-to-the-minute forecasts to pilots and other base personnel concerned with flight conditions. It saves time and manpower, provides additional hours for the weathercaster to study conditions and prepare his

briefings. With RCA Weathervision only one forecaster is needed to brief all locations simultaneously. Flying and administrative personnel can consult with forecaster at all times. All voice transmissions are taped for future reference.

## RCA WEATHERVISION...A COMPLETE PACKAGE FOR WEATHER BRIEFING

The RCA system consists of the console, or originating location; the distribution system; and the receiving system. RCA can supply the complete package, providing all equipment plus installation supervision and nation-wide service where needed—assuring maximum convenience, dependable performance.

**Console**—The Weathervision console contains a TV camera focused on a data table on which are weather charts, other data. Viewing monitor above table shows picture seen at receiving locations. Microphone, speaker and amplifiers provide for communication between weathercaster, receiving personnel.

**Zoom Lens**—An innovation in weathercasting, providing continuous coverage of display area as focal length of lens is varied. Permits uninterrupted viewing, eliminates blackouts caused by turret turning. Provides smooth transition from wide angle to close-up views.

**Ease of Operation**—Only one adjustment—light level control—required at beginning of briefing. During briefing, only the zoom lens control is operated.

**Receiving Locations**—High quality TV monitors or receivers are used. Facilities allow pilot and administrative personnel to ask questions, receive answers.

Complete brochure on RCA Weathervision will be mailed on request. Write to RCA, Dept. S-10, Building 15-1, Camden, N. J. In Canada: RCA VICTOR Company Ltd., Montreal.



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