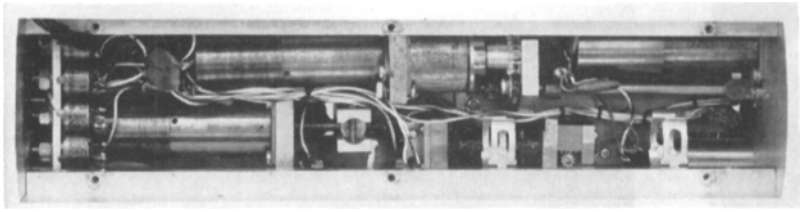

Fig. 15. Mounting facilities for remote focus, remote iris, remote turret and remote douser units.

sembly is then mounted firmly to the ball-bearing slide unit to provide optical focusing of the vidicon. Figure 16 is a photograph of the four-lens turret. Also shown are the iris adapter rings used for remote iris control.

Performance Tests

With the completion of the basic design of the camera, it was necessary to determine whether or not the design criteria with regard to ruggedization had been met. With this in mind, the unit was taken to a rocket test station in upstate New York, where it was used to observe the static test of a medium thrust rocket engine during a 250-sec test operation. The camera for this test was located approximately 25 ft from the rear end of the rocket at the maximum noise angle. The camera was operated continuously during the test and provided a clear picture of all parts of the rocket and of the rocket flame during the test.

A second camera was then tested at several West Coast facilities. Tests were run in close proximity to several missile engines. In each case the camera performed continuously with excellent picture quality and withstood the shock and noise without a protective housing. In one test, the camera was mounted on a bracket 8 ft from the rocket engine. The ambient noise level was estimated to be over 180 db.

Joint quality control and engineering tests have been and will continue to be run on production units to determine any degrading of performance or component failure and to ensure reliable performance in the field. These tests consist of the following variety of environments: (1) temperature, −22 C to +50 C; (2) humidity, 95%; (3) altitude, 70,000 ft; (4) vibration, 0.060 in total excursion 5–55 cycles; and (5) shock, 50 g. All vibration and shock tests are made without benefit of vibration mounts or protective housing.

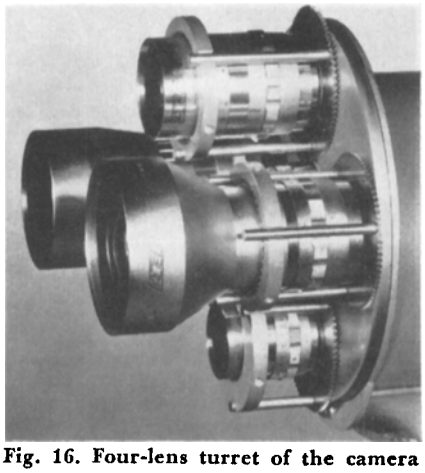

Fig. 16. Four-lens turret of the camera and adapter rings used for remote iris control.

Tests under controlled laboratory high-noise ambients have been conducted at the General Electric Company's Missile and Space Vehicle Department, test facilities at Philadelphia. Tests have been run up to 150-db noise levels over a wide range of frequencies.

Errata

March 1960

"Methods of Appraising Photographic Systems: Part I—Historical Review," by Fred H. Perrin, p. 151–156:

On p. 152, Eq. (1),
For: 0.61
Read: 1.22

On p. 152, 6 lines below Eq. (1),
For: of 0.50 instead of 0.61
Read: of 1.00 instead of 1.22

On p. 154, 5 lines above Eq. (5),
For: lefthand end of x_0
Read: lefthand end to x_0

April 1960

"Methods of Appraising Photographic Systems: Part II—Manipulation and Significance of the Sine-Wave Response Function," by Fred H. Perrin, pp. 237–249:

On p. 240, col. 1, par. 3, line 14,
For: Much above
Read: much below

On p. 243, col. 2, line 5,
For: respresentative of practice
Read: representative of practice

On p. 243, col. 2, 7 lines from bottom,
For: first paragraph
Read: second paragraph

On p. 247, col. 3, par. 2, line 8,
For: Eq. (27)
Read: Eq. (26)

On p. 248, col. 1, line 7,
For: value of ξ
Read: value of ϕ

On p. 248, Eq. 27,
For: tan ξ
Read: tan ϕ

August 1960

"The Problem of the Unrestored Television Receiver," by Robert J. Nissen, pp. 521–527:

On p. 527, par. 5,
For: Don McClosky
Read: Don McCroskey

October

Education, Industry News, "George Lewin . . ."

On p. 756, col. 2, line 9,
For: Patent No. 2,295,971
Read: Patent No. 2,950,971