

7.4-2

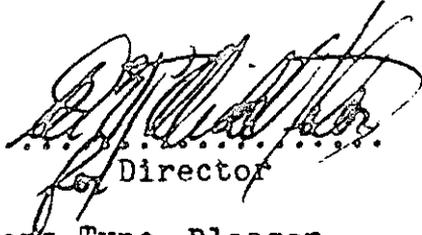
Date 27 Jun, 1960

Report No. APIO-43

TEST OF AIR SURVEY CAMERA  
TO  
SPECIFICATION FOR AIR SURVEY PHOTOGRAPHY, 1959  
for

CAPITAL AIR SURVEYS LIMITED

Author H. Brown

Approved   
Director

Manufacturer Zoiss  
Nominal Focal Length 6 inches  
Optical Unit No. 2133  
Date of Calibration 22 Jun. '60

Camera Type RMK 15/23 Lens Type Pleagon  
Maximum Aperture f/5.6 Body No. 2133  
Lens No. 9848  
Calibration Aperture f/5.6

FILM PLANE (Section 1.1.1.5):

Defined by film plane frame Deviation from flatness  $\pm 0.008$  mm.

FILTER (Section 1.1.3):

Number 2133B Type B, minus blue, anti-vignetting  
Maximum deviation 1 seconds.  
Maximum change of deviation 1 second  
Maximum departure from parallelism 2 seconds. 'A'

FOCUS (Section 1.2.2.1):

Focus setting satisfactory

IMAGE ILLUMINATION (Section 1.2.4):

Minimum 49 % at 45° off axis.

FOCAL LENGTH (Section 1.2.2.3):

Calibrated focal length 152.80 mm.  
Equivalent focal length 152.79 mm.

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RADIAL DISTORTION (Section 1.2.2.4):

Angle		7.5°	15.0°	22.5°	30.0°	35.0°	40.0°	45.0°
Distortion at Semi-diagonal Nos. 1,2,3,4	1	0.000	-0.003	-0.001	-0.002	+0.005	+0.011	+0.018
	2	-0.004	-0.013	-0.012	-0.010	+0.002	+0.001	+0.001
	3	0.00	-0.003	-0.002	0.000	-0.005	+0.003	-0.009
	4	0.000	-0.015	-0.006	-0.004	+0.001	+0.007	+0.012
Average		-0.001	-0.006	-0.005	-0.004	+0.001	+0.006	+0.006
Reference								

Maximum departure of average from reference 0.006 mm mm

TANGENTIAL DISTORTION (Section 1.2.2.7):

Maximum tangential distortion  $\pm$  0.005mm

ASYMMETRIC DISTORTION (Section 1.2.2.5):

Maximum asymmetry 0.015 mm

ASYMMETRIC DISTORTION ABOUT CENTRE OF BEST SYMMETRY (Section 1.2.2.6):

Maximum asymmetry  $\pm$  0.005 mm

CAMERA SHUTTER (Section 1.3.3.4):

Operation  
Speeds

Mark	Total Time seconds	Effective Time seconds
200	1/200	1/240
400	1/400	1/500
600	1/620	1/780
1000	1/980	1/1200

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