

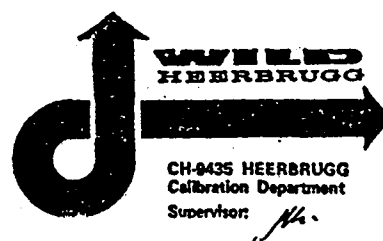
16.3.88

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC20
LENS TYPE : 15/4 UAGA-F
LENS NO. : 13126

CALIBRATION DATE : 16.03.88

WILD HEERBRUGG LTD



CAMERA CALIBRATION

CAMERA: RC20 LENS: 15/4 UAGA-F NO.: 13126 CALIBRATION DATE: 16.03.88

APERTURE : F / 4.0
 FILTER ON GONIOMETER : VIS (400 - 700 NM)
 FILTER ON CAMERA : --
 CALIBRATED FOCAL LENGTH : 152.92 MM

RADIAL DISTORTION (MICROMETERS)

 REFERRED TO PRINCIPAL POINT OF SYMMETRY (PPS)
 (POSITIVE VALUES DENOTE IMAGE DISPLACEMENT AWAY FROM CENTER)

RADIUS MM	SEMI - DIAGONALS				MEAN
	1	3	2	4	
10	0.5	-0.2	0.1	0.0	0.1
20	0.7	0.1	0.5	0.3	0.4
30	0.0	0.4	0.3	0.0	0.1
40	-0.3	0.5	-0.2	0.2	0.0
50	-0.3	-0.1	-0.2	-0.2	-0.2
60	-1.0	-0.1	0.1	-0.7	-0.4
70	-0.7	-0.2	-0.5	-0.5	-0.5
80	-0.9	0.2	-0.2	-0.3	-0.2
90	0.3	0.4	-0.1	-0.2	0.1
100	0.0	0.0	0.5	-0.3	0.0
110	0.3	-0.4	0.5	0.1	0.1
120	0.4	-0.5	0.0	-0.1	0.0
130	-0.1	-0.8	0.3	-0.1	-0.2
140	-0.7	0.1	0.1	0.7	0.0
148	0.0	0.1	0.8	1.8	0.7

PHOTOGRAPHIC RESOLUTION (LINE PAIRS PER MILLIMETER)

 INTERNATIONAL 3-LINE TEST-CHART, CONTRAST (LOG) : 2.0
 APERTURE : 4.0
 FILTER : 450 NM
 FILM : AGFAPAN 25 PROFESSIONAL (ASA SPEED: 25)
 DEVELOPER : KODAK HC110 PREPARATION 2 SOLUTION C

ANGLE: (DEGREES)	0	5	10	15	20	25	30	35	40	45
RAD.	106	115	104	81	56	54	73	69	57	42
TANG.	106	94	103	79	74	78	71	71	55	33

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 69

Mk.

AMERA CALIBRATION

AMERA: RC20 LENS: 15/4 UAGA-F NO.: 13126 CALIBRATION DATE: 16.03.88

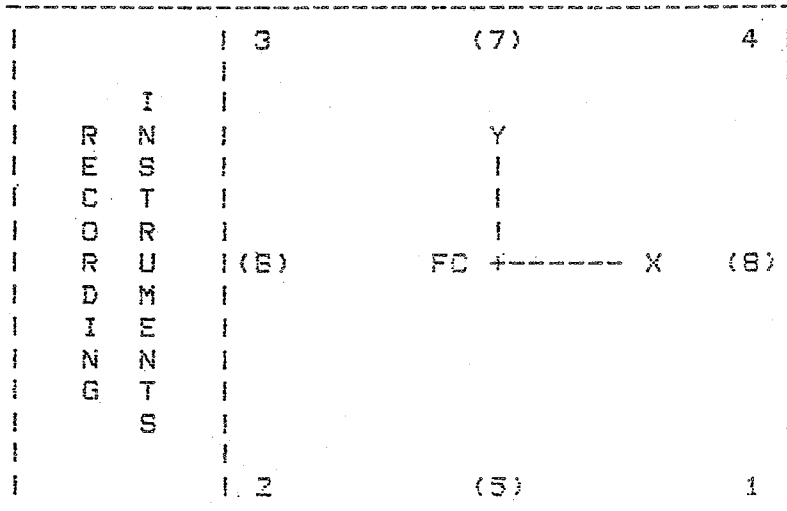
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND
PRINCIPAL POINT OF SYMMETRY (PPS)

REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
PA	0.000	0.008
	0.000	0.004

TRUCIAL MARKS, REFERRED TO FC

	X (MM)	Y (MM)
1	105.994	-105.994
2	-106.004	-106.003
3	-106.002	106.001
4	106.000	105.999

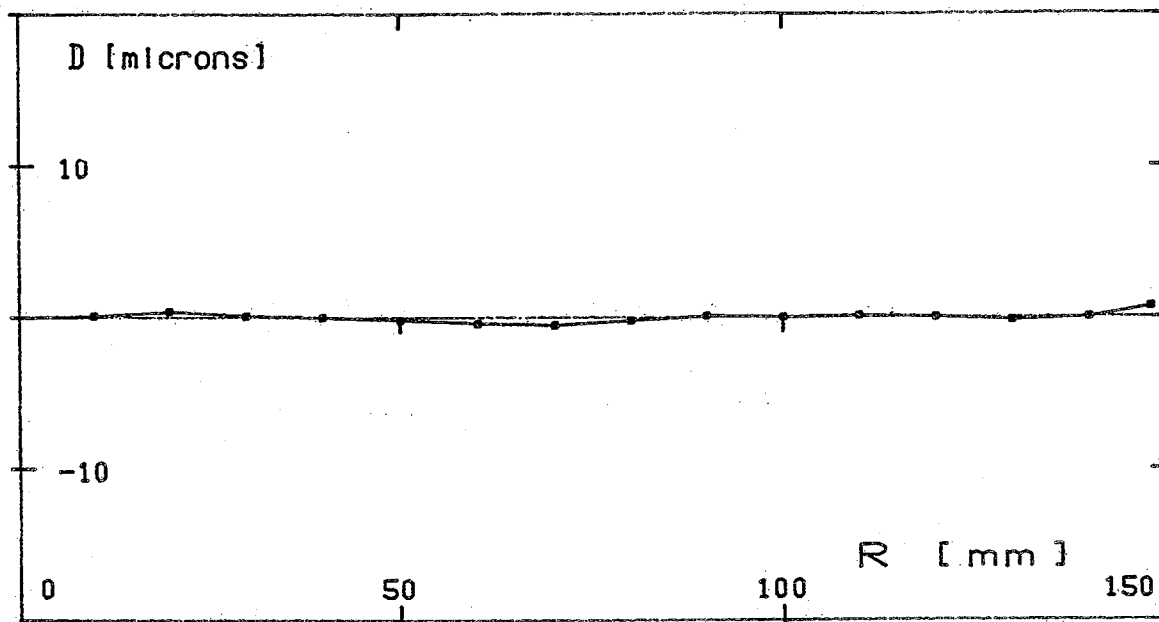


AS SEEN ON FOCAL PLANE FRAME

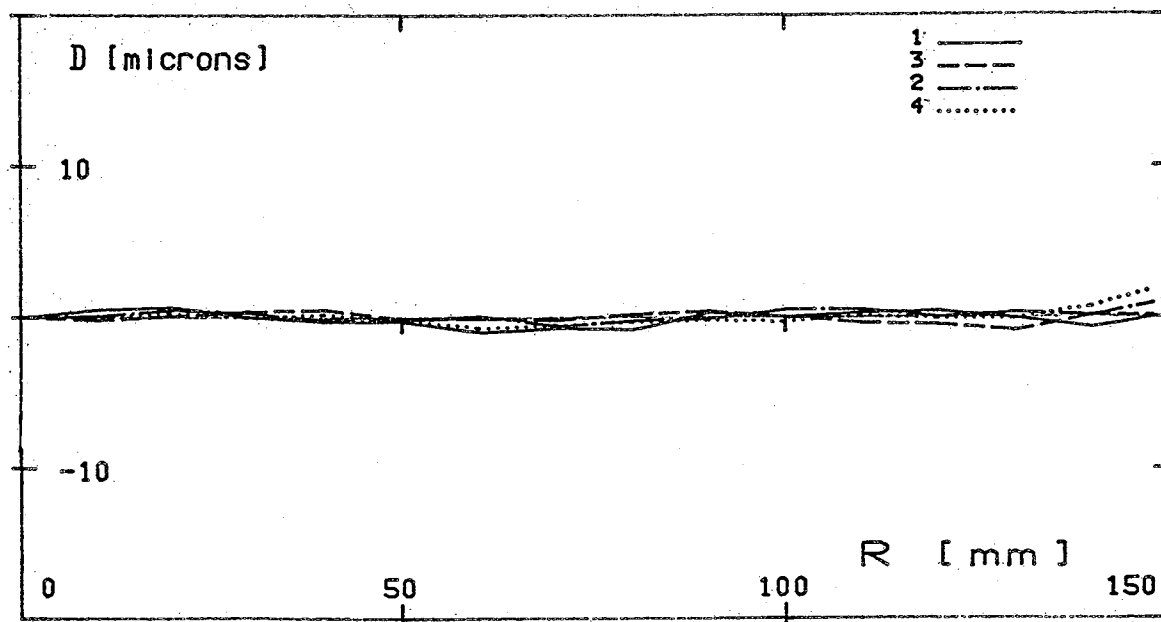
Me.

RC20 15/4 JAGA-F NO. 13126 16.03.88

APERTURE : F / 4.0
FILTER ON GONIOMETER : UIS (400 - 700 NM)
FILTER ON CAMERA : --
C.F.L : 152.92 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS REFERRED TO PPS

Me.