CAMERA CALIBRATION CERTIFICATE

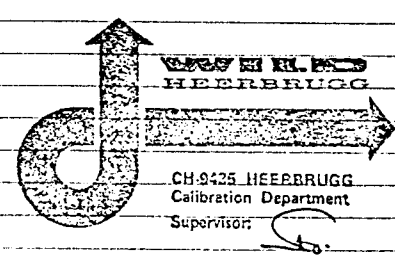
CAMERA TYPE : RC10

LENS TYPE : 21 NAG II

LENS NO. : 7101

CALIBRATION DATE : 19.12.84

WILD HEERBRUGG LTD



CAMERA CALIBRATION

CAMERA: RC10 LENS: 21 NAG II NO.: 7101 CALIBRATION DATE: 15.12.84

APERTURE : F / 4.0
FILTER ON GONIOMETER : 450 NM
FILTER ON CAMERA : --
PRINCIPAL DISTANCE FOR FOCUSSING DISTANCE 900 M : 214.00 MM

RADIAL DISTORTION (MICROMETERS)

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

RADIUS	SEMI - DIAGONALS				MEAN
MM	1	3	2	4	
10	0.7	-0.3	0.0	0.4	0.2
20	1.1	0.4	0.9	0.9	0.8
30	1.3	1.2	1.7	1.3	1.3
40	1.9	1.5	2.0	1.9	1.8
50	1.6	0.9	2.1	1.3	1.4
60	0.2	0.2	2.2	0.3	0.7
70	-1.0	-0.9	-0.2	-0.8	-0.7
80	-2.9	-1.5	-1.8	-1.4	-1.9
90	-2.0	-2.0	-2.1	-1.5	-1.9
100	-2.2	-2.1	-1.4	-1.7	-1.8
110	-1.6	-2.0	-0.7	-1.1	-1.3
120	-1.0	-0.9	-0.4	-0.3	-0.6
130	0.4	0.4	1.6	1.4	0.9
140	0.2	1.2	2.2	2.6	1.5
148	1.2	0.0	1.4	1.8	1.1

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 : AGFA-GEVAERT STUDIONAL LIQUID 1:15 6 MIN

ANGLE: (DEGREES)	0	5	10	15	20	25	30	35
RAD.	75	75	66	82	63	34	37	44
TANG.	75	75	65	79	53	55	40	51

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 54

CAMERA CALIBRATION

CAMERA: RC10 LENS: 21 NAG II NO.: 7101 CALIBRATION DATE: 19.12.84

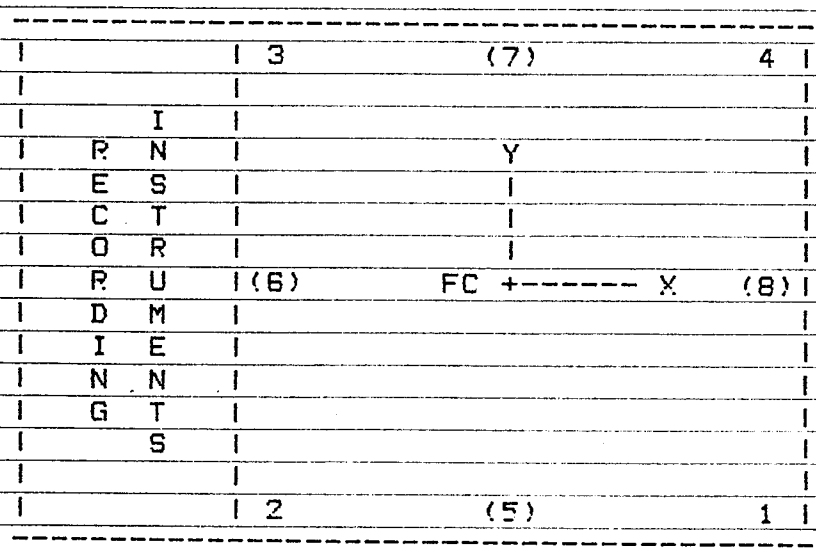
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND
PRINCIPAL POINT OF SYMMETRY (PPS)

REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
PPA	0.009	0.003
S	0.005	0.002

FIDUCIAL MARKS, REFERRED TO FC

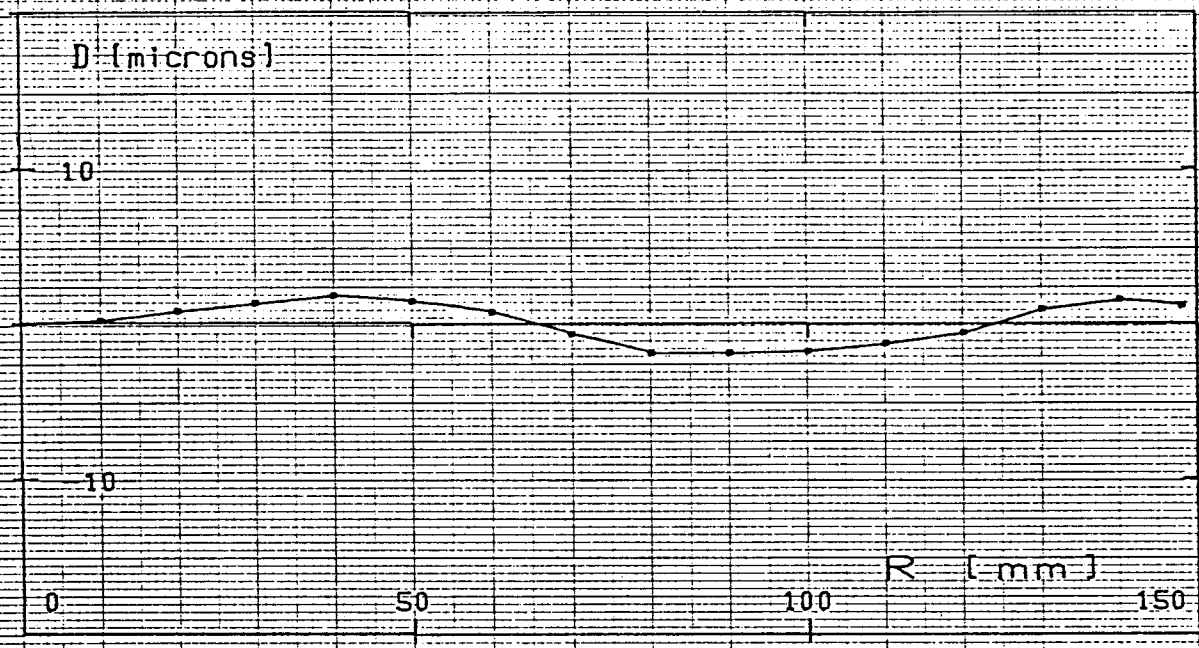
	X (MM)	Y (MM)
1	105.998	-105.997
2	-106.005	-106.004
3	-106.007	106.006
4	106.001	106.000



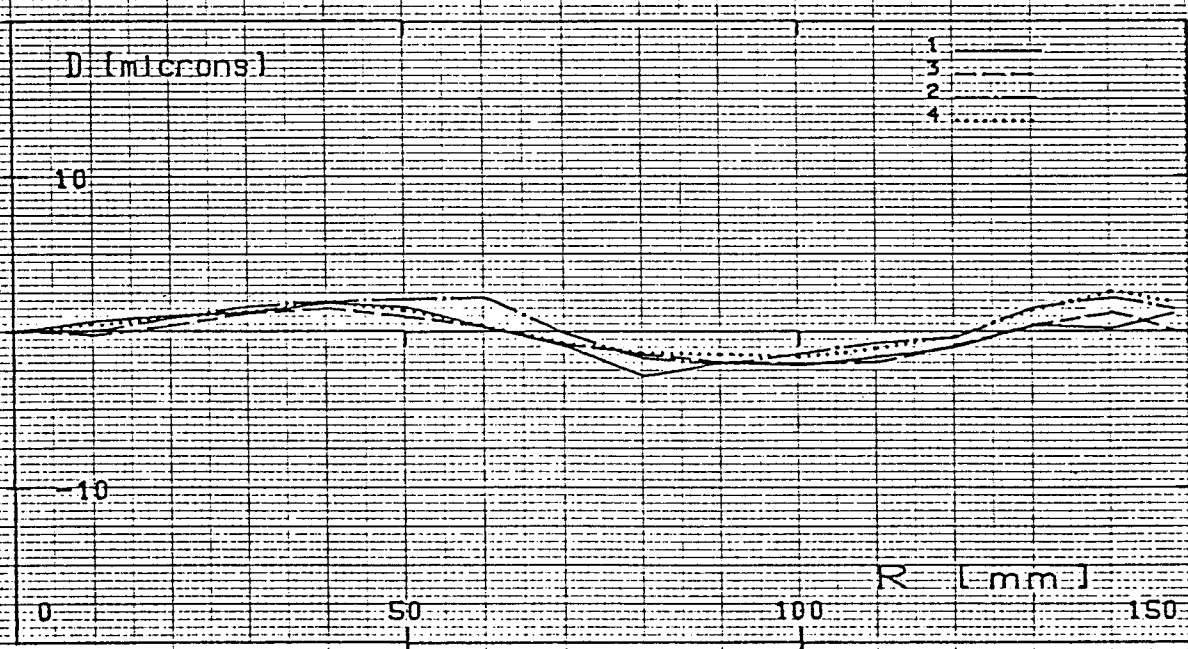
AS SEEN ON FOCAL PLANE FRAME

RC10 21 NAG II NO. 7101 19.12.84

APERTURE : F / 4.0
FILTER ON GONIOMETER : 450 NM
FILTER ON CAMERA : --
P.D. (900m) : 214.00 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS
REFERRED TO PPS