

10/08/2005

16:57

C.G.R. PARMA → 0862363615

NUM227

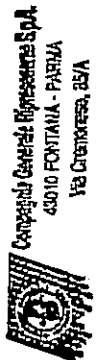
01

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC10

LENS TYPE : 15 UAG I

LENS NO. : 8025



CALIBRATION DATE : 29.01.82

WILD HEERBRUGG LTD

CAMERA CALIBRATION

CAMERA : RC10 LENS : 15 UAG I NO. : 6025

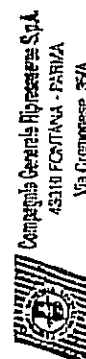
CALIBRATION DATE : 29.01.82

APERTURE : F / 5.6
 FILTER ON GONIOMETER : 450 NM
 FILTER ON CAMERA : --
 CALIBRATED FOCAL LENGTH : 153.26 MM

RADIAL DISTORTION (MICROMETERS) REFERRING TO PRINCIPAL POINT OF SYMMETRY

 (POSITIVE VALUES DENOTE IMAGE DISPLACEMENT AWAY FROM CENTER)

RADIUS MM	SEMI - DIAGONAL				MEAN
	1	3	2	4	
10	-0.9	-0.4	-1.9	-3.5	-1.8
20	-3.7	-2.5	-3.9	-3.3	-3.3
30	-4.5	-2.8	-3.6	-5.4	-4.0
40	-3.8	-3.8	-3.1	-5.3	-4.0
50	-1.6	-1.8	-2.1	-4.8	-2.5
60	-1.5	-1.1	-2.6	-5.0	-2.5
70	2.3	1.1	0.5	-1.8	0.5
80	3.7	1.6	2.8	-0.4	1.9
90	4.2	3.2	2.2	1.2	2.7
100	5.5	5.6	2.2	2.7	4.0
110	1.2	2.6	0.0	-0.3	0.8
120	2.8	3.3	-2.2	-0.6	0.8
130	0.5	-1.3	0.2	2.3	0.4
140	0.0	1.0	-4.1	-3.2	-1.5
148	1.6	2.3	0.0	-0.1	0.9



PHOTOGRAPHIC RESOLVING POWER (LINE PAIRS PER MILLIMETER)

INTERNATIONAL 3-LINE TEST-CHART, CONTRAST (LOG) : 2.0

APERTURE : 5.6

FILTER : 450 NM

FILM : AGFAPAN 25 PROFESSIONAL (ASA SPEED: 25)

DEVELOPER : AGFA-GEVAERT STUDIOINAL LIQUID 1:15 6 MIN

ANGLE: (DEGREES)	0	5	10	15	20	25	30	35	40	45
RAD.	119	119	117	81	55	53	73	78	26	10
TANG.	119	105	51	62	58	69	56	36	35	27

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 56

CAMERA CALIBRATION

CAMERA : RC10 LENS : 15 UAG I NO. : 6025 CALIBRATION DATE : 29.01.82

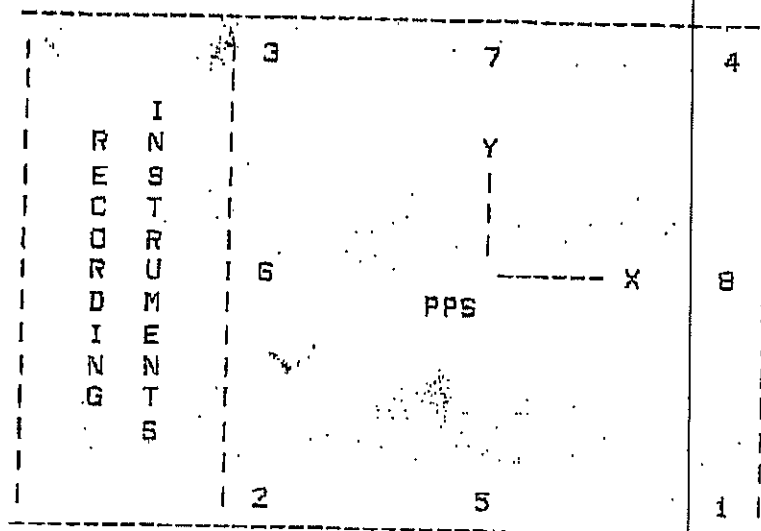
Principal Point of Autocollimation (PPA) and Fiducial Center (FC)

Referring to Principal Point of Symmetry (PPS), see Diagram

	X (mm)	Y (mm)
PPA	-0.004	-0.001
FC	0.000	-0.002

FIDUCIAL MARKS, REFERRING TO PPS

	X (mm)	Y (mm)
1	106.004	-106.011
2	-105.996	-106.002
3	-106.008	106.011
4	106.008	106.008



As seen on Focal Plane Frame.

PROT 15 URG 1 NO 5025

29.01.82

OPERATE 24500
FUEL 24500
FUEL 24500
FUEL 24500

3.7m/one

100

100

PROT RADIO DISTORTION PERU

3.7m/one

100

100

PROT RADIO DISTORTION PERU
PROT RADIO DISTORTION PERU

08/2005

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C.G.R. PARMA → 0862363615

NUM227

P05

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : REDO

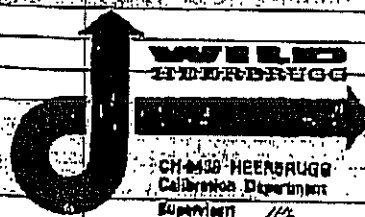
LENS TYPE : IS DAG I

LENS NO : 16025

Comptex Camera Reparaties S.A.
Avenue de l'Industria - Parma
Via Garibaldi, 15/A

CALIBRATION DATE : 19.12.85

WILD HEERBRUGG LTD



08/2005

16:57

C.G.R. PARMA → 0862363615

NUM227

P06

CAMERA CALIBRATION

CAMERA: RC10 LENS: 15 DAG I NO.: 6025 CALIBRATION DATE: 18.12.95

APERTURE : F / 5.6
 FILTER ON GONIOMETER : 450 NM
 FILTER ON CAMERA : --
 CALIBRATED FOCAL LENGTH : 153.26 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	2	3	4	
10	-1.7	-2.9	-1.7	-2.2	-2.0
20	-3.3	-4.3	-3.1	-4.1	-3.7
30	-5.0	-5.7	-4.0	-5.8	-5.1
40	-4.9	-5.9	-4.3	-6.0	-5.2
50	-4.0	-6.1	-3.7	-5.3	-4.8
60	-3.5	-4.3	-1.8	-4.2	-3.4
70	-0.8	-2.1	-0.1	-1.4	-1.1
80	1.7	-1.1	2.5	1.7	1.7
90	4.8	3.5	4.7	4.1	4.2
100	5.4	4.4	6.3	4.9	5.2
110	4.1	3.5	5.2	4.9	4.4
120	1.8	2.7	2.9	4.0	3.7
130	-1.3	0.7	0.9	2.4	0.5
140	-1.4	-0.7	0.8	1.0	0.0
145	-1.3	-1.5	0.3	0.6	-0.4

Overgato Camera Systems S.p.A.
 40019 FONTANA - PARMA
 Via Cavour, 15/A



PHOTOGRAPHIC RESOLUTION (LINE PAIRS PER MILLIMETER)

INTERNATIONAL 3-LINE TEST CHART CONTRAST (LOG) : 2.0
 APERTURE : 5.6
 FILTER : 450 NM
 FILM : AGFAPAN 25 PROFESSIONAL (ASA SPEED: 25)
 DEVELOPER : AGFA-GEVAERT STUDIOAL LIQUID 1:15 6 MIN

ANGLE:	0	5	10	15	20	25	30	35	40	45
(DEGREES)										
RAD.	119	119	117	81	55	53	73	78	26	10
TANG.	119	105	51	62	58	69	56	36	35	27

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 56

ME

08/2005

16:57

C.G.R. PARMA → 0862363615

NUM227

D07

CAMERA CALIBRATION

CAMERA: RCTO LENS: IS UAG 1 NO.: 6025 CALIBRATION DATE: 18.12.85

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

REFERRED TO FC, SEE DIAGRAM

X (MM) Y (MM)

PPA 0.001 0.001

S -0.004 -0.008

FIDUCIAL MARKS, REFERRED TO FC

X (MM) Y (MM)

1 105.999 -106.002

2 -105.995 -105.999

3 -106.004 -106.008

4 106.002 106.005

Coordinata Geografica Roma 42° 43' 16" N
43° 16' 10" E
Via Clementina 157

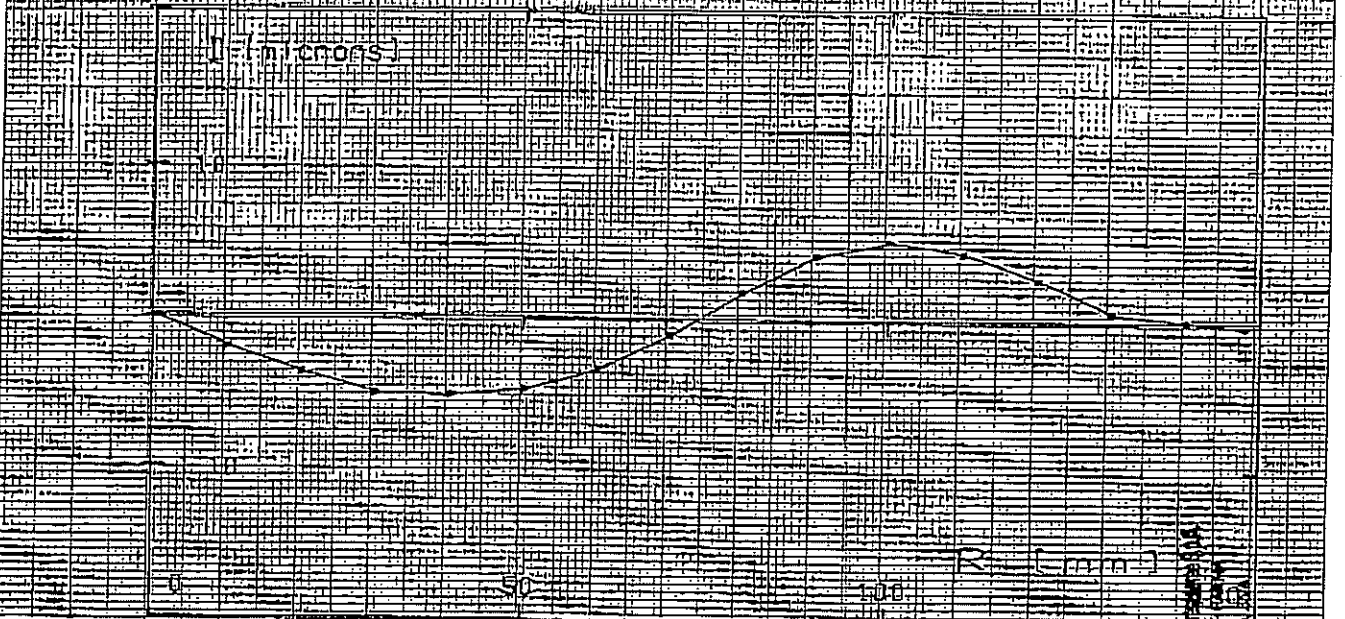


AS SEEN ON FOCAL PLANE FRAME

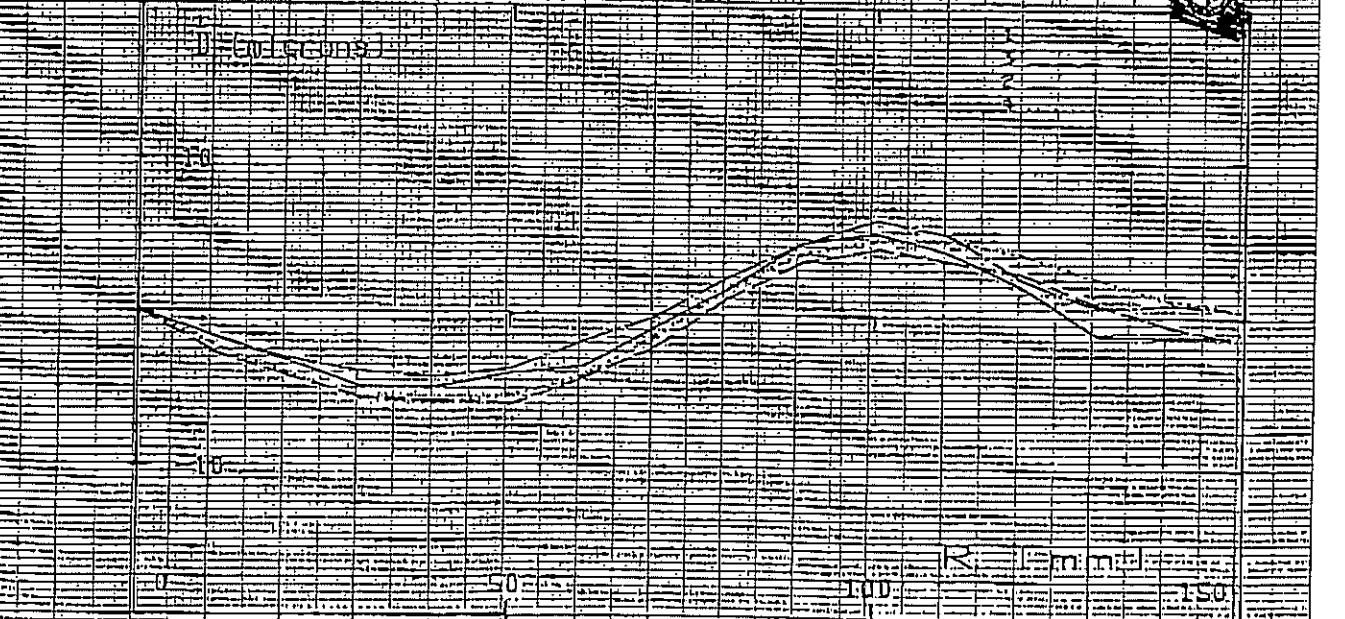
100

RCI 0015 UP6 NO. 6025 18.12.85

CONTOUR LOMETER 1450 2110
CAMERA 1450 2110



MEAN RADIAL DISTORTION CURVE



MEAN RADIAL DISTORTION CURVE