

flt16.lst

pba2

```

iter 1 position corrections: -0.016869  0.025934  0.007824
iter 2 position corrections:  0.000041  0.000045  0.000100
iter 3 position corrections:  0.000000  0.000000 -0.000000
we have converged

```

observation residuals

photo ph16\_1

```

      240      0.000      0.000
16_1_1      0.000     -0.000
16_1_2      0.000      0.001
16_1_3     -0.000     -0.001
16_1_4      0.000      0.001
16_1_5      0.000      0.000
16_1_6     -0.000     -0.001
16_1_7     -0.000      0.001

```

photo ph16\_2

```

      240      0.001      0.002
16_1_1      0.000      0.000
16_1_2     -0.000     -0.001
16_1_3      0.000      0.001
16_1_4     -0.000     -0.001
16_1_5     -0.000     -0.000
16_1_6      0.000      0.001
16_1_7     -0.000     -0.001
      238     -0.002     -0.002
16_2_1     -0.000     -0.000
16_2_2     -0.000     -0.002
16_2_3      0.000      0.003
16_2_4      0.001     -0.001
16_2_5     -0.001     -0.002
16_3_1      0.000     -0.001
16_3_2     -0.000     0.002
16_3_3      0.000      0.001

```

photo ph16\_3

```

      240     -0.000     -0.002
      238      0.003      0.005
16_2_1      0.000      0.000
16_2_2      0.000      0.003
16_2_3      0.000     -0.003
16_2_4     -0.003      0.007
16_2_5      0.002      0.000
16_3_1     -0.001     -0.001
16_3_2      0.001      0.002
16_3_3      0.000     -0.001
      137      0.004     -0.016
      138      0.002     -0.005
16_3_4     -0.000     -0.004
16_3_5      0.000      0.009
16_4_3     -0.002      0.002
16_4_1      0.004      0.011
16_4_2     -0.009     -0.007

```

photo ph16\_4

```

      238     -0.001     -0.004
16_2_4      0.001     -0.006
16_2_5     -0.001      0.002
16_3_1      0.001      0.003
16_3_2     -0.001     -0.004
      137      0.030     -0.030
      137     -0.040      0.027
      138     -0.002      0.006
16_3_4      0.000      0.004
16_3_5     -0.000     -0.009
16_4_3      0.005      0.002
16_4_1     -0.007     -0.014
16_4_2      0.018      0.005
16_4_4      0.001      0.016
16_4_5      0.000      0.002
16_5_1     -0.007     -0.004
16_5_3      0.003      0.004

```

## photo ph16\_5

137	0.005	0.019
16_4_3	-0.002	-0.004
16_4_1	0.003	0.003
16_4_2	-0.008	0.002
16_4_4	-0.001	-0.016
16_4_5	-0.000	-0.002
16_5_1	0.014	0.010
16_5_3	-0.004	0.008
134	0.001	-0.005
236	-0.002	-0.004
16_5_4	-0.002	-0.034
16_5_5	-0.001	-0.013
16_6_1	0.003	0.031
16_6_2	-0.002	0.020
16_6_3	-0.000	-0.016

## photo ph16\_6

16_5_1	-0.007	-0.006
16_5_3	0.002	-0.011
134	-0.003	-0.002
236	0.002	-0.003
16_5_4	0.001	0.034
16_5_5	0.000	0.013
16_6_1	-0.002	-0.017
16_6_2	0.007	-0.020
16_6_3	-0.001	0.017
233	-0.003	0.002
16_6_4	-0.000	-0.012
16_6_5	0.000	0.011
16_7_1	0.003	0.006
16_7_2	0.001	-0.006
16_7_3	-0.001	-0.002

## photo ph16\_7

134	0.001	0.007
236	0.001	0.006
16_6_1	0.001	-0.014
16_6_2	-0.004	0.000
16_6_3	0.001	-0.001
233	0.007	-0.003
16_6_4	-0.000	0.011
16_6_5	-0.000	-0.011
16_7_1	-0.006	-0.008
16_7_2	-0.002	0.005
16_7_3	0.002	-0.001
16_7_4	-0.000	-0.002
16_7_5	0.000	0.004
16_8_1	-0.001	0.011
16_8_2	-0.002	-0.007
16_8_3	0.003	0.002

## photo ph16\_8

233	-0.003	0.002
16_7_1	0.003	0.002
16_7_2	0.001	0.000
16_7_3	-0.001	0.003
16_7_4	0.000	0.002
16_7_5	-0.000	-0.004
16_8_1	0.002	-0.009
16_8_2	0.005	0.016
16_8_3	-0.006	0.004
16_9_1	-0.001	-0.011
16_9_2	-0.001	-0.011
16_9_3	-0.000	-0.013
16_8_4	0.001	0.008
16_8_5	0.000	0.011

## photo ph16\_9

16_8_1	-0.001	-0.001
16_8_2	-0.003	-0.010
16_8_3	0.004	-0.006
16_9_1	0.001	0.011
16_9_2	0.001	0.012

16_9_3	0.000	0.014
16_8_4	-0.000	-0.009
16_8_5	-0.000	-0.011

## post adjustment statistics &amp; error propagation

rms-x,rms-y =	0.005	0.010
total coord rms =	0.007953	
number of points =	51	
number of control points =	7	
number of observations =	254	
number of photos =	9	
redundancy =	68	
post-adj sigma-nought squared =	9.45	

## exterior orientation data for photos

## photo ph16\_1

w,p,k	0.015780	-0.021519	-0.362805
x,y,z	61502.058	504832.233	404.485

## photo ph16\_2

w,p,k	-0.021456	-0.017564	-0.342487
x,y,z	61416.429	504865.420	406.452

## photo ph16\_3

w,p,k	-0.004124	-0.049900	-0.342062
x,y,z	61323.296	504902.607	408.401

## photo ph16\_4

w,p,k	0.004780	-0.038447	-0.327594
x,y,z	61236.252	504937.441	406.836

## photo ph16\_5

w,p,k	0.009527	-0.020304	-0.309592
x,y,z	61142.041	504974.854	404.725

## photo ph16\_6

w,p,k	0.014455	-0.012722	-0.348102
x,y,z	61046.931	505012.777	402.808

## photo ph16\_7

w,p,k	0.016119	-0.002674	-0.379497
x,y,z	60956.690	505048.130	400.818

## photo ph16\_8

w,p,k	-0.019491	-0.009176	-0.336518
x,y,z	60862.031	505086.090	400.922

## photo ph16\_9

w,p,k	-0.031060	-0.026609	-0.345398
x,y,z	60772.745	505123.625	405.854

## point coordinates

240	61470.472	504918.489	233.683
16_1_1	61499.821	504732.078	234.048
16_1_2	61524.445	504825.928	239.424
16_1_3	61563.850	504889.312	236.117
16_1_4	61565.963	504926.102	234.371
16_1_5	61463.149	504880.669	233.426
16_1_6	61470.064	504845.408	233.384
16_1_7	61460.736	504786.057	233.610
238	61330.548	504840.263	232.087
16_2_1	61456.733	504967.321	234.457
16_2_2	61389.647	504857.526	238.133
16_2_3	61383.118	504756.470	238.186
16_2_4	61356.740	504957.253	233.231
16_2_5	61287.993	504804.682	236.569
16_3_1	61361.725	504957.262	233.301

flt16.lst

16_3_2	61347.734	504877.709	232.701
16_3_3	61291.518	504804.547	232.677
137	61243.074	504941.058	231.005
138	61355.680	505015.161	236.579
16_3_4	61268.428	505008.126	240.414
16_3_5	61207.904	504864.543	231.860
16_4_3	61198.017	504856.239	231.807
16_4_1	61278.482	505026.302	240.633
16_4_2	61245.026	504924.226	231.184
16_4_4	61182.247	505016.107	242.462
16_4_5	61179.442	504928.721	239.815
16_5_1	61189.393	505086.661	231.584
16_5_3	61114.686	504903.533	239.991
134	61010.700	504904.641	229.737
236	61052.261	505092.218	229.588
16_5_4	61087.114	505025.640	230.202
16_5_5	61059.404	504956.396	229.817
16_6_1	61041.237	504997.373	234.326
16_6_2	61027.645	504949.708	238.947
16_6_3	61002.263	504925.709	229.645
233	60958.236	504995.675	227.385
16_6_4	60970.008	505021.719	238.385
16_6_5	60964.528	504941.227	231.973
16_7_1	61010.789	505152.774	229.593
16_7_2	60962.416	505048.597	230.680
16_7_3	60964.587	504978.794	228.491
16_7_4	60928.028	505103.784	233.166
16_7_5	60888.043	505020.594	231.185
16_8_1	60886.100	505142.640	228.966
16_8_2	60897.399	505091.354	233.137
16_8_3	60823.513	504982.396	228.990
16_9_1	60858.575	505139.498	233.753
16_9_2	60762.897	505123.298	234.176
16_9_3	60776.374	505016.018	229.235
16_8_4	60762.897	505123.260	234.409
16_8_5	60747.907	505088.567	228.735

refined camera parameters

x0 0.000  
y0 0.000  
foc 153.743  
k1 5.0661532e-009  
k2 1.7852852e-008  
k3 2.0388574e-008  
cond(N) before Wts 1.8242628e+020  
cond(N) after Wts 9.3314248e+010

diary off

cp.dat

134	61010.633	504904.709	229.728
	0.05	0.05	0.05
137	61242.967	504941.132	230.960
	0.05	0.05	0.05
138	61355.695	505015.223	236.510
	0.05	0.05	0.05
233	60958.307	504995.702	227.342
	0.05	0.05	0.05
236	61052.270	505092.047	229.676
	0.05	0.05	0.05
238	61330.519	504840.214	232.139
	0.05	0.05	0.05
240	61470.580	504918.478	233.709
	0.05	0.05	0.05

ph16\_1.txt  
ph16\_2.txt  
ph16\_3.txt  
ph16\_4.txt  
ph16\_5.txt  
ph16\_6.txt  
ph16\_7.txt  
ph16\_8.txt  
ph16\_9.txt

phofiles.dat

ph16\_5.txt

134	-95.452	-98.136
137	90.851	-3.579
236	-109.450	72.078
16_4_1	102.498	80.910
16_4_2	97.159	-17.118
16_4_3	77.034	-87.637
16_4_4	21.679	46.167
16_4_5	43.714	-32.628
16_5_1	7.152	103.814
16_5_3	-6.594	-74.096
16_5_4	-62.482	25.656
16_5_5	-67.482	-40.348
16_6_1	-96.393	-10.850
16_6_2	-97.982	-57.799
16_6_3	-108.327	-82.395

pho.dat

```
ph16_1
0.0150988 -0.0214481 -0.3627027
 1.0e+10 1.0e+10 1.0e+10
 61502.236 504832.251 404.764
 1.0e+10 1.0e+10 1.0e+10
ph16_2
-0.0219317 -0.0178389 -0.3426201
 1.0e+10 1.0e+10 1.0e+10
 61416.425 504865.438 406.681
 1.0e+10 1.0e+10 1.0e+10
ph16_3
-0.0050384 -0.0501320 -0.3422511
 1.0e+10 1.0e+10 1.0e+10
 61323.221 504902.754 408.570
 1.0e+10 1.0e+10 1.0e+10
ph16_4
0.0043061 -0.0387861 -0.3277275
 1.0e+10 1.0e+10 1.0e+10
 61236.099 504937.539 406.938
 1.0e+10 1.0e+10 1.0e+10
ph16_5
0.0089008 -0.0215040 -0.3095679
 1.0e+10 1.0e+10 1.0e+10
 61141.680 504974.987 404.694
 1.0e+10 1.0e+10 1.0e+10
ph16_6
0.0142966 -0.0135026 -0.3487602
 1.0e+10 1.0e+10 1.0e+10
 61046.771 505012.751 402.635
 1.0e+10 1.0e+10 1.0e+10
ph16_7
0.0162311 -0.0027619 -0.3802587
 1.0e+10 1.0e+10 1.0e+10
 60956.790 505048.085 400.644
 1.0e+10 1.0e+10 1.0e+10
ph16_8
-0.0189132 -0.0091165 -0.3372140
 1.0e+10 1.0e+10 1.0e+10
 60862.278 505085.991 400.766
 1.0e+10 1.0e+10 1.0e+10
ph16_9
-0.0303801 -0.0258037 -0.3458909
 1.0e+10 1.0e+10 1.0e+10
 60773.210 505123.523 405.817
 1.0e+10 1.0e+10 1.0e+10
```



delta.dat

0.001  
0.001  
0.001  
0.001  
0.001  
0.001  
0.001  
0.001  
0.0000001  
0.0000001  
0.0000001  
0.001  
0.001  
0.001  
0.001  
0.001  
0.001

0.005  
1.0e+06

sig.dat

cam.dat

0.0	1.0e-04
0.0	1.0e-04
153.743	1.0e-04
0.0	1.0e-06
0.0	1.0e-06
0.0	1.0e-06
1	
000	
000	