



ANEJO Nº2. CALCULO DE LA AEROTRIANGULACION



INDICE

ANEJO N°2. CALCULO DE LA AEROTRIANGULACION..... 504

1. CÁLCULO DE LA AEROTRIANGULACIÓN.....	507
1.1 PASADA 1	507
1.1.1. Resultados de la orientación relativa.....	507
1.1.2. Resultados de la orientación externa	510
1.2 PASADA 2	513
1.2.1. Resultados de la orientación relativa.....	513
1.2.2. Resultados de la orientación externa	521
1.3 PASADA 3	526
1.3.1. Resultados de la orientación relativa.....	526
1.3.2. Resultados de la orientación externa	534
1.4 PASADA 5A.....	541
1.4.1. Resultados de la orientación relativa.....	541
1.4.2. Resultado de la orientación externa	550
1.5 PASADA 5B.....	556
1.5.1. Resultados de la orientación relativa.....	556
1.5.2. Resultado de la orientación externa	561
1.6 PASADAS 6	566
1.6.1. Resultados de la orientación relativa.....	566
1.6.2. Resultados de la orientación externa	571
1.7 PASADA 8	576
1.7.1. Resultados de la orientación relativa.....	576
1.7.2. Resultados de la orientación externa	583
1.8 PASADA 9	590
1.8.1. Resultados de la orientación relativa.....	590
1.8.2. Resultados de la orientación externa	593
1.9 PASADA 10	596
1.9.1. Resultados de la orientación relativa.....	596
1.9.2. Resultados de la orientación externa	600
1.10 PASADA 11	604
1.10.1. Resultado de la orientación relativa.....	604
1.10.2. Resultados de la orientación externa	611
1.11 PASADA 12	617
1.11.1. Resultados de la orientación relativa.....	617
1.11.2. Resultados de la orientación externa	618
1.12 PASADA 13	620
1.12.1. Resultados de la orientación relativa.....	620
1.12.2. Resultados de la orientación externa	625
1.13 PASADA 14	629
1.13.1. Resultados de la orientación relativa.....	629
1.13.2. Resultados de la orientación externa	645
1.14 PASADA 16	657
1.14.1. Resultados de la orientación relativa.....	657
1.14.2. Resultados de la orientación externa	659
1.15 PASADA 17	662
1.15.1. Resultados de la orientación relativa.....	662
1.15.2. Resultados de la orientación externa	675



1.16 PASADA 18	685
1.16.1. Resultados de la orientación relativa.....	685
1.16.2. Resultados de la orientación externa	687
1.17 PASADA 19	689
1.17.1. Resultados de la orientación relativa.....	689
1.17.2. Resultados de la orientación externa	690
1.18 PASADA 20	692
1.18.1. Resultados de la orientación relativa.....	692
1.18.2. Resultados de la orientación externa	696
1.19 PASADA 21	699
1.19.1. Resultados de la orientación relativa.....	699
1.19.2. Resultados de la orientación externa	705
1.20 PASADA 22	712
1.20.1. Resultados de la orientación relativa.....	712
1.20.2. Resultados de la orientación externa	721
1.21 PASADA 23	727
1.21.1. Resultados de la orientación relativa.....	727
1.21.2. Resultados de la orientación externa	731
1.22 PASADA 24	734
1.22.1. Resultados de la orientación relativa.....	734
1.22.2. Resultados de la orientación externa	734
1.23 PASADA 25	736
1.23.1. Resultados de la orientación relativa.....	736
1.23.2. Resultados de la orientación externa	755
1.24 PASADA 26	769
1.24.1. Resultados de la orientación relativa.....	769
1.24.2. Resultados de la orientación externa	771



1. CÁLCULO DE LA AEROTRIANGULACIÓN

1.1 Pasada 1

1.1.1.Resultados de la orientación relativa

Nombre del modelo: 3497-3498

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

215742.188 3195745.7981813.995

0.583666871994000 -0.8119162102120000.011182581649000

0.8119120048140000.5837479215730000.006104137739000

-0.0114838571750000.0055164893050000.999918841392000

216016.775 3195378.5881813.398

0.616793906732000 -0.7869195882460000.017967700278000

0.7871000359590000.616433208866000 -0.021991643866000

0.0062297681970000.0277066894700000.999596683341000

215742.188 3195745.798 0.000

Giros de la cámara izquierda:

Omega: -0.3512 gon Phi: -0.7311 gon Kappa:-60.3205 gon

Giros de la cámara derecha:

Omega: -1.7641 gon Phi:0.3966 gon Kappa:-57.6853 gon

Nombre del modelo: 3498-3499

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

216016.775 3195378.5881813.398

0.616793906732000 -0.7869195882460000.017967700278000



0.7871000359590000.616433208866000 -0.021991643866000

0.0062297681970000.0277066894700000.999596683341000

216307.012 3195005.3741816.324

0.634097649694000 -0.7729475762090000.021730510479000

0.7731693514000000.634191957446000 -0.003116916160000

-0.0113721021860000.0187777939040000.999759005835000

216016.775 3195378.588 0.000

Giros de la cámara izquierda:

Omega: -1.7641 gon Phi: 0.3966 gon Kappa: -57.6853 gon

Giros de la cámara derecha:

Omega: -1.1956 gon Phi: -0.7240 gon Kappa: -56.2710 gon

Nombre del modelo: 3499-3500

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

216307.012 3195005.3741816.324

0.634097649694000 -0.7729475762090000.021730510479000

0.7731693514000000.634191957446000 -0.003116916160000

-0.0113721021860000.0187777939040000.999759005835000

216593.088 3194641.7921819.490

0.609034014927000 -0.7925345120430000.031090446796000

0.7930285672070000.609146324703000 -0.006815181130000

-0.0135373651470000.0288062896020000.999493340360000

216307.012 3195005.374 0.000



Giros de la cámara izquierda:

Omega: -1.1956 gon Phi: -0.7240 gon Kappa:-56.2710 gon

Giros de la cámara derecha:

Omega: -1.8343 gon Phi: -0.8618 gon Kappa:-58.3070 gon

Nombre del modelo: 3500-3501

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

216593.088 3194641.7921819.490

0.609034014927000 -0.7925345120430000.031090446796000

0.7930285672070000.609146324703000 -0.006815181130000

-0.0135373651470000.0288062896020000.999493340360000

216881.640 3194265.1731828.125

0.597524224891000 -0.8012368430700000.031373905980000

0.8014139258900000.5980328180290000.009616025657000

-0.0264673394460000.0193976768850000.999461460024000

216593.088 3194641.792 0.000

Giros de la cámara izquierda:

Omega: -1.8343 gon Phi: -0.8618 gon Kappa:-58.3070 gon

Giros de la cámara derecha:

Omega: -1.2354 gon Phi: -1.6852 gon Kappa:-59.2136 gon

Nombre del modelo: 3501-3502



Focal: 305.581

Coordenadas P.P.: 0.010 0.012

216881.640 3194265.1731828.125

0.597524224891000 -0.8012368430700000.031373905980000

0.8014139258900000.5980328180290000.009616025657000

-0.0264673394460000.0193976768850000.999461460024000

217162.068 3193889.7621834.610

0.592257368309000 -0.8052419931020000.028575203050000

0.8053415002650000.5927131227680000.010780633034000

-0.0256179162650000.0166278875450000.999533509054000

216881.640 3194265.173 0.000

Giros de la cámara izquierda:

Omega: -1.2354 gon Phi: -1.6852 gon Kappa:-59.2136 gon

Giros de la cámara derecha:

Omega: -1.0590 gon Phi: -1.6311 gon Kappa:-59.6320 gon

1.1.2.Resultados de la orientación externa

Nombre del modelo: 3497-3498

IMAGEN IZQUIERDA

215742.188 3195745.7981813.995

0.583666871994000 -0.8119162102120000.011182581649000Omega: -0.3512

0.8119120048140000.5837479215730000.006104137739000Phi: -0.7311

-0.0114838571750000.0055164893050000.999918841392000Kappa:-60.3205

IMAGEN DERECHA

216016.775 3195378.5881813.398

0.616793906732000 -0.7869195882460000.017967700278000Omega: -1.7641



0.7871000359590000.616433208866000 -0.021991643866000Phi:0.3966

0.0062297681970000.0277066894700000.999596683341000Kappa:-57.6853

Nombre del modelo: 3498-3499

IMAGEN IZQUIERDA

216016.775 3195378.5881813.398

0.616793906732000 -0.7869195882460000.017967700278000Omega: -1.7641

0.7871000359590000.616433208866000 -0.021991643866000Phi:0.3966

0.0062297681970000.0277066894700000.999596683341000Kappa:-57.6853

IMAGEN DERECHA

216307.012 3195005.3741816.324

0.634097649694000 -0.7729475762090000.021730510479000Omega: -1.1956

0.7731693514000000.634191957446000 -0.003116916160000Phi: -0.7240

-0.0113721021860000.0187777939040000.999759005835000Kappa:-56.2710

Nombre del modelo: 3499-3500

IMAGEN IZQUIERDA

216307.012 3195005.3741816.324

0.634097649694000 -0.7729475762090000.021730510479000Omega: -1.1956

0.7731693514000000.634191957446000 -0.003116916160000Phi: -0.7240

-0.0113721021860000.0187777939040000.999759005835000Kappa:-56.2710

IMAGEN DERECHA

216593.088 3194641.7921819.490

0.609034014927000 -0.7925345120430000.031090446796000Omega: -1.8343

0.7930285672070000.609146324703000 -0.006815181130000Phi: -0.8618

-0.0135373651470000.0288062896020000.999493340360000Kappa:-58.3070



Nombre del modelo: 3500-3501

IMAGEN IZQUIERDA

216593.088 3194641.7921819.490

0.609034014927000 -0.7925345120430000.031090446796000Omega: -1.8343

0.7930285672070000.609146324703000 -0.006815181130000Phi: -0.8618

-0.0135373651470000.0288062896020000.999493340360000Kappa:-58.3070

IMAGEN DERECHA

216881.640 3194265.1731828.125

0.597524224891000 -0.8012368430700000.031373905980000Omega: -1.2354

0.8014139258900000.5980328180290000.009616025657000Phi: -1.6852

-0.0264673394460000.0193976768850000.999461460024000Kappa:-59.2136

Nombre del modelo: 3500-3501

IMAGEN IZQUIERDA

216881.640 3194265.1731828.125

0.597524224891000 -0.8012368430700000.031373905980000Omega: -1.2354

0.8014139258900000.5980328180290000.009616025657000Phi: -1.6852

-0.0264673394460000.0193976768850000.999461460024000Kappa:-59.2136

IMAGEN DERECHA

217162.068 3193889.7621834.610

0.592257368309000 -0.8052419931020000.028575203050000Omega: -1.0590

0.8053415002650000.5927131227680000.010780633034000Phi: -1.6311

-0.0256179162650000.0166278875450000.999533509054000Kappa:-59.6320



1.2 Pasada 2

1.2.1. Resultados de la orientación relativa

Nombre del modelo: 3504-3505

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

216686.386 3194041.758 1879.515

0.982432191712000 -0.186343184262000 0.010159053464000

0.186189789767000 0.982408322229000 0.014396200939000

-0.012662972593000 -0.012251779212000 0.999844759466000

217179.001 3193926.525 1874.952

0.981610080846000 -0.190873215437000 0.003010782470000

0.190847653787000 0.981592922924000 0.007246151400000

-0.004338458982000 -0.006538294491000 0.999969213766000

216686.386 3194041.758 0.000

Giros de la cámara izquierda:

Omega: 0.7801 gon Phi: -0.8062 gon Kappa: -11.9238 gon

Giros de la cámara derecha:

Omega: 0.4162 gon Phi: -0.2762 gon Kappa: -12.2248 gon

Nombre del modelo: 3505-3506

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

217179.001 3193926.525 1874.952

0.981610080846000 -0.190873215437000 0.003010782470000

0.190847653787000 0.981592922924000 0.007246151400000

-0.004338458982000 -0.006538294491000 0.999969213766000



217665.857 3193814.941 1870.169

0.973866067430000 -0.226937152296000 0.009187579472000

0.226980209303000 0.973891409062000 -0.003938012152000

-0.008054023454000 0.005920495120000 0.999950038974000

217179.001 3193926.525 0.000

Giros de la cámara izquierda:

Omega: 0.4162 gon Phi: -0.2762 gon Kappa: -12.2248 gon

Giros de la cámara derecha:

Omega: -0.3769 gon Phi: -0.5127 gon Kappa: -14.5775 gon

Nombre del modelo: 3506-3507

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

217665.857 3193814.941 1870.169

0.973866067430000 -0.226937152296000 0.009187579472000

0.226980209303000 0.973891409062000 -0.003938012152000

-0.008054023454000 0.005920495120000 0.999950038974000

218151.480 3193700.019 1874.463

0.961933798052000 -0.273049588610000 0.011282301448000

0.273196529314000 0.961847000753000 -0.014628858901000

-0.006857443904000 0.017154279402000 0.999829338518000

217665.857 3193814.941 0.000

Giros de la cámara izquierda:

Omega: -0.3769 gon Phi: -0.5127 gon Kappa: -14.5775 gon



Giros de la cámara derecha:

Omega: -1.0922 gon Phi: -0.4366 gon Kappa: -17.6166 gon

Nombre del modelo: 3507-3508

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

218151.480 3193700.019 1874.463

0.961933798052000 -0.273049588610000 0.011282301448000

0.273196529314000 0.961847000753000 -0.014628858901000

-0.006857443904000 0.017154279402000 0.999829338518000

218632.801 3193570.280 1876.861

0.965866825340000 -0.257983304222000 0.023364298638000

0.258182060771000 0.966078383548000 -0.005880504833000

-0.021054671794000 0.011712027305000 0.999709722476000

218151.480 3193700.019 0.000

Giros de la cámara izquierda:

Omega: -1.0922 gon Phi: -0.4366 gon Kappa: -17.6166 gon

Giros de la cámara derecha:

Omega: -0.7458 gon Phi: -1.3405 gon Kappa: -16.6285 gon

Nombre del modelo: 3508-3509

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

218632.801 3193570.280 1876.861

0.965866825340000 -0.257983304222000 0.023364298638000



0.258182060771000 0.966078383548000 -0.005880504833000
-0.021054671794000 0.011712027305000 0.999709722476000
219114.898 3193429.824 1883.704
0.963810096244000 -0.266584914362000 0.001606801683000
0.266586863966000 0.963810209529000 -0.001150638565000
-0.001241908983000 0.001537349288000 0.999998047108000
218632.801 3193570.280 0.000

Giros de la cámara izquierda:

Omega: -0.7458 gon Phi: -1.3405 gon Kappa: -16.6285 gon

Giros de la cámara derecha:

Omega: -0.0979 gon Phi: -0.0791 gon Kappa: -17.1792 gon

Nombre del modelo: 3509-3510

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

219114.898 3193429.824 1883.704
0.963810096244000 -0.266584914362000 0.001606801683000
0.266586863966000 0.963810209529000 -0.001150638565000
-0.001241908983000 0.001537349288000 0.999998047108000
219599.133 3193287.176 1880.696
0.966880718479000 -0.254949030011000 -0.011944384893000
0.254986948275000 0.966942926427000 0.001741620264000
0.011105514086000 -0.004729601305000 0.999927146560000
219114.898 3193429.824 0.000



Giros de la cámara izquierda:

Omega: -0.0979 gon Phi: -0.0791 gon Kappa: -17.1792 gon

Giros de la cámara derecha:

Omega: 0.3011 gon Phi: 0.7070 gon Kappa: -16.4153 gon

Nombre del modelo: 3510-3511

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

219599.133 3193287.176 1880.696

0.966880718479000 -0.254949030011000 -0.011944384893000

0.254986948275000 0.966942926427000 0.001741620264000

0.011105514086000 -0.004729601305000 0.999927146560000

220077.407 3193155.782 1875.080

0.981935112192000 -0.189153147592000 -0.004951989528000

0.188994707887000 0.981711562095000 -0.022878138921000

0.009188897362000 0.021528948094000 0.999725996741000

219599.133 3193287.176 0.000

Giros de la cámara izquierda:

Omega: 0.3011 gon Phi: 0.7070 gon Kappa: -16.4153 gon

Giros de la cámara derecha:

Omega: -1.3707 gon Phi: 0.5850 gon Kappa: -12.1051 gon

Nombre del modelo: 3511-3512

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

220077.407 3193155.782 1875.080



0.981935112192000 -0.189153147592000 -0.004951989528000

0.188994707887000 0.981711562095000 -0.022878138921000

0.009188897362000 0.021528948094000 0.999725996741000

220571.749 3193042.630 1875.483

0.982089193886000 -0.187999450079000 0.012530842819000

0.188225631197000 0.981915240512000 -0.020336474885000

-0.008480979445000 0.022330858026000 0.999714662175000

220077.407 3193155.782 0.000

Giros de la cámara izquierda:

Omega: -1.3707 gon Phi: 0.5850 gon Kappa: -12.1051 gon

Giros de la cámara derecha:

Omega: -1.4218 gon Phi: -0.5399 gon Kappa: -12.0552 gon

Nombre del modelo: 3512-3513

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

220571.749 3193042.630 1875.483

0.982089193886000 -0.187999450079000 0.012530842819000

0.188225631197000 0.981915240512000 -0.020336474885000

-0.008480979445000 0.022330858026000 0.999714662175000

221063.664 3192941.289 1881.605

0.968626534283000 -0.248311370780000 0.010202951775000

0.248115556805000 0.968575222069000 0.017340982237000

-0.014188289351000 -0.014265424465000 0.999797574567000

220571.749 3193042.630 0.000



Giros de la cámara izquierda:

Omega: -1.4218 gon Phi: -0.5399 gon Kappa: -12.0552 gon

Giros de la cámara derecha:

Omega: 0.9083 gon Phi: -0.9033 gon Kappa: -15.9639 gon

Nombre del modelo: 3513-3514

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

221063.664 3192941.289 1881.605

0.968626534283000 -0.248311370780000 0.010202951775000

0.248115556805000 0.968575222069000 0.017340982237000

-0.014188289351000 -0.014265424465000 0.999797574567000

221546.230 3192820.115 1882.303

0.955264040315000 -0.295731381439000 0.003682840535000

0.295548434876000 0.954989605511000 0.025416058091000

-0.011033400400000 -0.023190588585000 0.999670175946000

221063.664 3192941.289 0.000

Giros de la cámara izquierda:

Omega: 0.9083 gon Phi: -0.9033 gon Kappa: -15.9639 gon

Giros de la cámara derecha:

Omega: 1.4766 gon Phi: -0.7024 gon Kappa: -19.1017 gon

Nombre del modelo: 3514-3515



Focal: 305.581

Coordenadas P.P.: 0.010 0.012

221546.230 3192820.115 1882.303

0.955264040315000 -0.295731381439000 0.003682840535000

0.295548434876000 0.954989605511000 0.025416058091000

-0.011033400400000 -0.023190588585000 0.999670175946000

222028.467 3192682.089 1871.746

0.951403715530000 -0.307152338793000 -0.022100019201000

0.307556496388000 0.951359227764000 0.018017249435000

0.015491016899000 -0.023938682531000 0.999593401276000

221546.230 3192820.115 0.000

Giros de la cámara izquierda:

Omega: 1.4766 gon Phi: -0.7024 gon Kappa: -19.1017 gon

Giros de la cámara derecha:

Omega: 1.5243 gon Phi: 0.9862 gon Kappa: -19.9047 gon

Nombre del modelo: 3515-3516

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

222028.467 3192682.089 1871.746

0.951403715530000 -0.307152338793000 -0.022100019201000

0.307556496388000 0.951359227764000 0.018017249435000

0.015491016899000 -0.023938682531000 0.999593401276000

222509.327 3192536.218 1864.180

0.950039466575000 -0.312129624940000 0.000330429864000



0.311946765861000 0.949445579346000 -0.035246377519000
0.010687713422000 0.033588526225000 0.999378598774000
222028.467 3192682.089 0.000

Giros de la cámara izquierda:

Omega: 1.5243 gon Phi: 0.9862 gon Kappa: -19.9047 gon

Giros de la cámara derecha:

Omega: -2.1388 gon Phi: 0.6804 gon Kappa: -20.1974 gon

1.2.2. Resultados de la orientación externa

Nombre del modelo: 3504-3505

IMAGEN IZQUIERDA

216686.386 3194041.758 1879.515
0.982432191712000 -0.186343184262000 0.010159053464000 Omega: 0.7801
0.186189789767000 0.982408322229000 0.014396200939000 Phi: -0.8062
-0.012662972593000 -0.012251779212000 0.999844759466000 Kappa: -11.9238

IMAGEN DERECHA

217179.001 3193926.525 1874.952
0.981610080846000 -0.190873215437000 0.003010782470000 Omega: 0.4162
0.190847653787000 0.981592922924000 0.007246151400000 Phi: -0.2762
-0.004338458982000 -0.006538294491000 0.999969213766000 Kappa: -12.2248

Nombre del modelo: 3505-3506

IMAGEN IZQUIERDA

217179.001 3193926.525 1874.952
0.981610080846000 -0.190873215437000 0.003010782470000 Omega: 0.4162
0.190847653787000 0.981592922924000 0.007246151400000 Phi: -0.2762



-0.004338458982000 -0.006538294491000 0.999969213766000 Kappa: -12.2248

IMAGEN DERECHA

217665.857 3193814.941 1870.169

0.973866067430000 -0.226937152296000 0.009187579472000 Omega: -0.3769

0.226980209303000 0.973891409062000 -0.003938012152000 Phi: -0.5127

-0.008054023454000 0.005920495120000 0.999950038974000 Kappa: -14.5775

Nombre del modelo: 3506-3507

IMAGEN IZQUIERDA

217665.857 3193814.941 1870.169

0.973866067430000 -0.226937152296000 0.009187579472000 Omega: -0.3769

0.226980209303000 0.973891409062000 -0.003938012152000 Phi: -0.5127

-0.008054023454000 0.005920495120000 0.999950038974000 Kappa: -14.5775

IMAGEN DERECHA

218151.480 3193700.019 1874.463

0.961933798052000 -0.273049588610000 0.011282301448000 Omega: -1.0922

0.273196529314000 0.961847000753000 -0.014628858901000 Phi: -0.4366

-0.006857443904000 0.017154279402000 0.999829338518000 Kappa: -17.6166

Nombre del modelo: 3507-3508

IMAGEN IZQUIERDA

218151.480 3193700.019 1874.463

0.961933798052000 -0.273049588610000 0.011282301448000 Omega: -1.0922

0.273196529314000 0.961847000753000 -0.014628858901000 Phi: -0.4366

-0.006857443904000 0.017154279402000 0.999829338518000 Kappa: -17.6166

IMAGEN DERECHA



218632.801 3193570.280 1876.861

0.965866825340000 -0.257983304222000 0.023364298638000 Omega: -0.7458

0.258182060771000 0.966078383548000 -0.005880504833000 Phi: -1.3405

-0.021054671794000 0.011712027305000 0.999709722476000 Kappa: -16.6285

Nombre del modelo: 3508-3509

IMAGEN IZQUIERDA

218632.801 3193570.280 1876.861

0.965866825340000 -0.257983304222000 0.023364298638000 Omega: -0.7458

0.258182060771000 0.966078383548000 -0.005880504833000 Phi: -1.3405

-0.021054671794000 0.011712027305000 0.999709722476000 Kappa: -16.6285

IMAGEN DERECHA

219114.898 3193429.824 1883.704

0.963810096244000 -0.266584914362000 0.001606801683000 Omega: -0.0979

0.266586863966000 0.963810209529000 -0.001150638565000 Phi: -0.0791

-0.001241908983000 0.001537349288000 0.999998047108000 Kappa: -17.1792

Nombre del modelo: 3509-3510

IMAGEN IZQUIERDA

219114.898 3193429.824 1883.704

0.963810096244000 -0.266584914362000 0.001606801683000 Omega: -0.0979

0.266586863966000 0.963810209529000 -0.001150638565000 Phi: -0.0791

-0.001241908983000 0.001537349288000 0.999998047108000 Kappa: -17.1792

IMAGEN DERECHA

219599.133 3193287.176 1880.696

0.966880718479000 -0.254949030011000 -0.011944384893000 Omega: 0.3011



0.254986948275000 0.966942926427000 0.001741620264000 Phi: 0.7070

0.011105514086000 -0.004729601305000 0.999927146560000 Kappa: -16.4153

Nombre del modelo: 3510-3511

IMAGEN IZQUIERDA

219599.133 3193287.176 1880.696

0.966880718479000 -0.254949030011000 -0.011944384893000 Omega: 0.3011

0.254986948275000 0.966942926427000 0.001741620264000 Phi: 0.7070

0.011105514086000 -0.004729601305000 0.999927146560000 Kappa: -16.4153

IMAGEN DERECHA

220077.407 3193155.782 1875.080

0.981935112192000 -0.189153147592000 -0.004951989528000 Omega: -1.3707

0.188994707887000 0.981711562095000 -0.022878138921000 Phi: 0.5850

0.009188897362000 0.021528948094000 0.999725996741000 Kappa: -12.1051

Nombre del modelo: 3511-3512

IMAGEN IZQUIERDA

220077.407 3193155.782 1875.080

0.981935112192000 -0.189153147592000 -0.004951989528000 Omega: -1.3707

0.188994707887000 0.981711562095000 -0.022878138921000 Phi: 0.5850

0.009188897362000 0.021528948094000 0.999725996741000 Kappa: -12.1051

IMAGEN DERECHA

220571.749 3193042.630 1875.483

0.982089193886000 -0.187999450079000 0.012530842819000 Omega: -1.4218

0.188225631197000 0.981915240512000 -0.020336474885000 Phi: -0.5399

-0.008480979445000 0.022330858026000 0.999714662175000 Kappa: -12.0552



Nombre del modelo: 3512-3513

IMAGEN IZQUIERDA

220571.749 3193042.630 1875.483

0.982089193886000 -0.187999450079000 0.012530842819000 Omega: -1.4218

0.188225631197000 0.981915240512000 -0.020336474885000 Phi: -0.5399

-0.008480979445000 0.022330858026000 0.999714662175000 Kappa: -12.0552

IMAGEN DERECHA

221063.664 3192941.289 1881.605

0.968626534283000 -0.248311370780000 0.010202951775000 Omega: 0.9083

0.248115556805000 0.968575222069000 0.017340982237000 Phi: -0.9033

-0.014188289351000 -0.014265424465000 0.999797574567000 Kappa: -15.9639

Nombre del modelo: 3513-3514

IMAGEN IZQUIERDA

221063.664 3192941.289 1881.605

0.968626534283000 -0.248311370780000 0.010202951775000 Omega: 0.9083

0.248115556805000 0.968575222069000 0.017340982237000 Phi: -0.9033

-0.014188289351000 -0.014265424465000 0.999797574567000 Kappa: -15.9639

IMAGEN DERECHA

221546.230 3192820.115 1882.303

0.955264040315000 -0.295731381439000 0.003682840535000 Omega: 1.4766

0.295548434876000 0.954989605511000 0.025416058091000 Phi: -0.7024

-0.011033400400000 -0.023190588585000 0.999670175946000 Kappa: -19.1017

Nombre del modelo: 3514-3515



IMAGEN IZQUIERDA

221546.230 3192820.115 1882.303

0.955264040315000 -0.295731381439000 0.003682840535000 Omega: 1.4766

0.295548434876000 0.954989605511000 0.025416058091000 Phi: -0.7024

-0.011033400400000 -0.023190588585000 0.999670175946000 Kappa: -19.1017

IMAGEN DERECHA

222028.467 3192682.089 1871.746

0.951403715530000 -0.307152338793000 -0.022100019201000 Omega: 1.5243

0.307556496388000 0.951359227764000 0.018017249435000 Phi: 0.9862

0.015491016899000 -0.023938682531000 0.999593401276000 Kappa: -19.9047

1.3 Pasada 3

1.3.1.Resultados de la orientación relativa

Nombre del modelo: 4720-4719

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

222884.347 3192723.416 1149.897

-0.981777170150000 -0.190033537661000 -0.000918006401000

0.190035418860000 -0.981773064023000 -0.002861876691000

-0.000357421405000 -0.002984178930000 0.999995483453000

222401.261 3192631.044 1144.437

-0.982732418151000 -0.185028739625000 -0.001166116275000

0.185030053422000 -0.982732199188000 -0.001141932683000

-0.000934689646000 -0.001337980823000 0.999998668080000

222884.347 3192723.416 0.000

Giros de la cámara izquierda:

Omega: 0.1900 gon Phi: -0.0228 gon Kappa: -187.8279 gon



Giros de la cámara derecha:

Omega: 0.0852 gon Phi: -0.0595 gon Kappa: -188.1523 gon

Nombre del modelo: 4721-4720

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

223380.651 3192817.333 1152.845

-0.982772858974000 -0.184817476716000 0.000089246805000

0.184817172335000 -0.982771918140000 -0.001403468784000

0.000347094813000 -0.001362796687000 0.999999011155000

222884.347 3192723.416 1149.897

-0.981777170150000 -0.190033537661000 -0.000918006401000

0.190035418860000 -0.981773064023000 -0.002861876691000

-0.000357421405000 -0.002984178930000 0.999995483453000

223380.651 3192817.333 0.000

Giros de la cámara izquierda:

Omega: 0.0868 gon Phi: 0.0221 gon Kappa: -188.1661 gon

Giros de la cámara derecha:

Omega: 0.1900 gon Phi: -0.0228 gon Kappa: -187.8279 gon

Nombre del modelo: 4722-4721

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

223879.263 3192909.443 1144.395

-0.984916699393000 -0.173027145874000 -0.000837882288000



0.173027494442000 -0.984916927824000 -0.000362563390000
-0.000762511140000 -0.000502071411000 0.999999583250000
223380.651 3192817.333 1152.845
-0.982772858974000 -0.184817476716000 0.000089246805000
0.184817172335000 -0.982771918140000 -0.001403468784000
0.000347094813000 -0.001362796687000 0.999999011155000
223879.263 3192909.443 0.000

Giros de la cámara izquierda:

Omega: 0.0320 gon Phi: -0.0485 gon Kappa: -188.9290 gon

Giros de la cámara derecha:

Omega: 0.0868 gon Phi: 0.0221 gon Kappa: -188.1661 gon

Nombre del modelo: 4723-4722

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

224365.894 3192990.859 1143.209
-0.986306463435000 -0.164916466562000 0.001455762055000
0.164910605564000 -0.986302307311000 -0.003500109381000
0.002013047145000 -0.003212109903000 0.999992814970000
223879.263 3192909.443 1144.395
-0.984916699393000 -0.173027145874000 -0.000837882288000
0.173027494442000 -0.984916927824000 -0.000362563390000
-0.000762511140000 -0.000502071411000 0.999999583250000
224365.894 3192990.859 0.000



Giros de la cámara izquierda:

Omega: 0.2045 gon Phi: 0.1282 gon Kappa: -189.4533 gon

Giros de la cámara derecha:

Omega: 0.0320 gon Phi: -0.0485 gon Kappa: -188.9290 gon

Nombre del modelo: 4724-4723

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

224864.930 3193077.774 1145.509

-0.984367205149000 -0.176127887066000 -0.000415721321000

0.17612788886000 -0.984356170431000 -0.004679368597000

0.000414949456000 -0.004679437106000 0.999988965282000

224365.894 3192990.859 1143.209

-0.986306463435000 -0.164916466562000 0.001455762055000

0.164910605564000 -0.986302307311000 -0.003500109381000

0.002013047145000 -0.003212109903000 0.999992814970000

224864.930 3193077.774 0.000

Giros de la cámara izquierda:

Omega: 0.2979 gon Phi: 0.0264 gon Kappa: -188.7286 gon

Giros de la cámara derecha:

Omega: 0.2045 gon Phi: 0.1282 gon Kappa: -189.4533 gon

Nombre del modelo: 4725-4724

Focal: 153.440

Coordenadas P.P.: 0.005 0.004



225361.943 3193170.832 1143.738

-0.981971361996000 -0.189026397678000 -0.001124811457000

0.189029089235000 -0.981966239453000 -0.003210606997000

-0.000497637401000 -0.003365346211000 0.999994213384000

224864.930 3193077.774 1145.509

-0.984367205149000 -0.176127887066000 -0.000415721321000

0.176127888886000 -0.984356170431000 -0.004679368597000

0.000414949456000 -0.004679437106000 0.999988965282000

225361.943 3193170.832 0.000

Giros de la cámara izquierda:

Omega: 0.2142 gon Phi: -0.0317 gon Kappa: -187.8932 gon

Giros de la cámara derecha:

Omega: 0.2979 gon Phi: 0.0264 gon Kappa: -188.7286 gon

Nombre del modelo: 4726-4725

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

225843.396 3193262.992 1146.192

-0.982007009045000 -0.188839996926000 0.001299903238000

0.188839424881000 -0.982007824998000 -0.000550684227000

0.001380506359000 -0.000295302791000 0.999999003499000

225361.943 3193170.832 1143.738

-0.981971361996000 -0.189026397678000 -0.001124811457000

0.189029089235000 -0.981966239453000 -0.003210606997000

-0.000497637401000 -0.003365346211000 0.999994213384000



225843.396 3193262.992 0.000

Giros de la cámara izquierda:

Omega: 0.0188 gon Phi: 0.0879 gon Kappa: -187.9055 gon

Giros de la cámara derecha:

Omega: 0.2142 gon Phi: -0.0317 gon Kappa: -187.8932 gon

Nombre del modelo: 4727-4726

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

226340.945 3193355.519 1143.723

-0.984383268475000 -0.176037272813000 -0.000677736724000

0.176038249543000 -0.984381570396000 -0.001859721375000

-0.000339771262000 -0.001949986192000 0.999998041053000

225843.396 3193262.992 1146.192

-0.982007009045000 -0.188839996926000 0.001299903238000

0.188839424881000 -0.982007824998000 -0.000550684227000

0.001380506359000 -0.000295302791000 0.999999003499000

226340.945 3193355.519 0.000

Giros de la cámara izquierda:

Omega: 0.1241 gon Phi: -0.0216 gon Kappa: -188.7344 gon

Giros de la cámara derecha:

Omega: 0.0188 gon Phi: 0.0879 gon Kappa: -187.9055 gon

Nombre del modelo: 4728-4727



Focal: 153.440

Coordenadas P.P.: 0.005 0.004

226839.298 3193446.056 1143.086

-0.983561080975000 -0.180572687817000 -0.001050906693000

0.180574613674000 -0.983558866317000 -0.002182976545000

-0.000639442654000 -0.002336857840000 0.999997065100000

226340.945 3193355.519 1143.723

-0.984383268475000 -0.176037272813000 -0.000677736724000

0.176038249543000 -0.984381570396000 -0.001859721375000

-0.000339771262000 -0.001949986192000 0.999998041053000

226839.298 3193446.056 0.000

Giros de la cámara izquierda:

Omega: 0.1488 gon Phi: -0.0407 gon Kappa: -188.4409 gon

Giros de la cámara derecha:

Omega: 0.1241 gon Phi: -0.0216 gon Kappa: -188.7344 gon

Nombre del modelo: 4729-4728

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

227335.552 3193534.998 1144.762

-0.984999095591000 -0.172556841712000 -0.000958156160000

0.172557327734000 -0.984999373898000 -0.000449516336000

-0.000866216098000 -0.000608110051000 0.999999439936000

226839.298 3193446.056 1143.086



-0.983561080975000 -0.180572687817000 -0.001050906693000
0.180574613674000 -0.983558866317000 -0.002182976545000
-0.000639442654000 -0.002336857840000 0.999997065100000
227335.552 3193534.998 0.000

Giros de la cámara izquierda:

Omega: 0.0387 gon Phi: -0.0551 gon Kappa: -188.9594 gon

Giros de la cámara derecha:

Omega: 0.1488 gon Phi: -0.0407 gon Kappa: -188.4409 gon

Nombre del modelo: 4730-4729

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

227815.742 3193618.856 1143.960
-0.986042427418000 -0.166494122125000 -0.000196543610000
0.166494115000000 -0.986042446828000 0.000052188022000
-0.000202489341000 0.000018736249000 0.999999979324000
227335.552 3193534.998 1144.762
-0.984999095591000 -0.172556841712000 -0.000958156160000
0.172557327734000 -0.984999373898000 -0.000449516336000
-0.000866216098000 -0.000608110051000 0.999999439936000
227815.742 3193618.856 0.000

Giros de la cámara izquierda:

Omega: -0.0012 gon Phi: -0.0129 gon Kappa: -189.3511 gon

Giros de la cámara derecha:



Omega: 0.0387 gon Phi: -0.0551 gon Kappa: -188.9594 gon

Nombre del modelo: 4731-4730

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

228327.322 3193711.257 1143.135

-0.982342253329000 -0.187088130557000 0.001314811589000

0.187081747044000 -0.982336439350000 -0.003942061475000

0.002029100247000 -0.003626476303000 0.999991365674000

227815.742 3193618.856 1143.960

-0.986042427418000 -0.166494122125000 -0.000196543610000

0.166494115000000 -0.986042446828000 0.000052188022000

-0.000202489341000 0.000018736249000 0.99999979324000

228327.322 3193711.257 0.000

Giros de la cámara izquierda:

Omega: 0.2309 gon Phi: 0.1292 gon Kappa: -188.0194 gon

Giros de la cámara derecha:

Omega: -0.0012 gon Phi: -0.0129 gon Kappa: -189.3511 gon

1.3.2.Resultados de la orientación externa

Nombre del modelo: 4720-4719

IMAGEN IZQUIERDA

222884.347 3192723.416_1149.897

-0.981777170150000_-0.190033537661000_-0.000918006401000_Omega:_0.1900

0.190035418860000-0.981773064023000_-0.002861876691000_Phi:_-0.0228

_ -0.000357421405000_-0.002984178930000_0.999995483453000_Kappa: -187.8279



IMAGEN DERECHA

222401.261 3192631.044_1144.437

-0.982732418151000_-0.185028739625000_-0.001166116275000_Omega:_0.0852
0.185030053422000-0.982732199188000_-0.001141932683000_Phi:_-0.0595
-0.000934689646000-0.001337980823000_0.999998668080000_Kappa: -188.1523

Nombre del modelo: 4721-4720

IMAGEN IZQUIERDA

223380.651 3192817.333_1152.845

-0.982772858974000_-0.184817476716000_0.000089246805000_Omega:_0.0868
0.184817172335000-0.982771918140000_-0.001403468784000_Phi:_0.0221
-0.000347094813000-0.001362796687000_0.999999011155000_Kappa: -188.1661

IMAGEN DERECHA

222884.347 3192723.416_1149.897

-0.981777170150000_-0.190033537661000_-0.000918006401000_Omega:_0.1900
0.190035418860000-0.981773064023000_-0.002861876691000_Phi:_-0.0228
-0.000357421405000-0.002984178930000_0.999995483453000_Kappa: -187.8279

Nombre del modelo: 4722-4721

IMAGEN IZQUIERDA

223879.263 3192909.443_1144.395

-0.984916699393000_-0.173027145874000_-0.000837882288000_Omega:_0.0320
0.173027494442000-0.984916927824000_-0.000362563390000_Phi:_-0.0485
-0.000762511140000-0.000502071411000_0.999999583250000_Kappa: -188.9290

IMAGEN DERECHA

223380.651 3192817.333_1152.845



-0.982772858974000_-0.184817476716000_0.000089246805000_Omega:_0.0868
0.184817172335000-0.982771918140000_-0.001403468784000_Phi:_0.0221
0.000347094813000-0.001362796687000_0.999999011155000_Kappa: -188.1661

Nombre del modelo: 4723-4722

IMAGEN IZQUIERDA

224365.894 3192990.859_1143.209
0.986306463435000-0.164916466562000_0.001455762055000_Omega:_0.2045
0.164910605564000-0.986302307311000_-0.003500109381000_Phi:_0.1282
0.002013047145000-0.003212109903000_0.999992814970000_Kappa: -189.4533

IMAGEN DERECHA

223879.263 3192909.443_1144.395
0.984916699393000-0.173027145874000_-0.000837882288000_Omega:_0.0320
0.173027494442000-0.984916927824000_-0.000362563390000_Phi:_-0.0485
-0.000762511140000-0.000502071411000_0.999999583250000_Kappa: -188.9290

Nombre del modelo: 4724-4723

IMAGEN IZQUIERDA

224864.930 3193077.774_1145.509
0.984367205149000-0.176127887066000_-0.000415721321000_Omega:_0.2979
0.176127888886000-0.984356170431000_-0.004679368597000_Phi:_0.0264
0.000414949456000-0.004679437106000_0.999988965282000_Kappa: -188.7286

IMAGEN DERECHA

224365.894 3192990.859_1143.209
0.986306463435000-0.164916466562000_0.001455762055000_Omega:_0.2045
0.164910605564000-0.986302307311000_-0.003500109381000_Phi:_0.1282



0.002013047145000-0.003212109903000_0.999992814970000_Kappa: -189.4533

Fecha: 29/9/2004 11:55

Nombre del modelo: 4725-4724

IMAGEN IZQUIERDA

225361.943 3193170.832_1143.738

_ -0.981971361996000_-0.189026397678000_-0.001124811457000_Omega:_0.2142

_ 0.189029089235000_-0.981966239453000_-0.003210606997000_Phi:_-0.0317

_ -0.000497637401000_-0.003365346211000_0.999994213384000_Kappa: -187.8932

IMAGEN DERECHA

224864.930 3193077.774_1145.509

_ -0.984367205149000_-0.176127887066000_-0.000415721321000_Omega:_0.2979

_ 0.176127888886000_-0.984356170431000_-0.004679368597000_Phi:_0.0264

_ -0.000414949456000_-0.004679437106000_0.999988965282000_Kappa: -188.7286

IMAGEN IZQUIERDA

Nombre del modelo: 4726-4725

225843.396 3193262.992_1146.192

_ -0.982007009045000_-0.188839996926000_0.001299903238000_Omega:_0.0188

_ 0.188839424881000_-0.982007824998000_-0.000550684227000_Phi:_0.0879

_ -0.001380506359000_-0.000295302791000_0.999999003499000_Kappa: -187.9055

IMAGEN DERECHA

225361.943 3193170.832_1143.738

_ -0.981971361996000_-0.189026397678000_-0.001124811457000_Omega:_0.2142

_ 0.189029089235000_-0.981966239453000_-0.003210606997000_Phi:_-0.0317

_ -0.000497637401000_-0.003365346211000_0.999994213384000_Kappa: -187.8932



Nombre del modelo: 4727-4726

IMAGEN IZQUIERDA

226340.945 3193355.519_1143.723

_ -0.984383268475000_-0.176037272813000_-0.000677736724000_Omega:_0.1241

_ 0.176038249543000_-0.984381570396000_-0.001859721375000_Phi:_-0.0216

_ -0.000339771262000_-0.001949986192000_0.999998041053000_Kappa: -188.7344

IMAGEN DERECHA

225843.396 3193262.992_1146.192

_ -0.982007009045000_-0.188839996926000_0.001299903238000_Omega:_0.0188

_ 0.188839424881000_-0.982007824998000_-0.000550684227000_Phi:_0.0879

_ 0.001380506359000_-0.000295302791000_0.999999003499000_Kappa: -187.9055

Nombre del modelo: 4728-4727

IMAGEN IZQUIERDA

226839.298 3193446.056_1143.086

_ -0.983561080975000_-0.180572687817000_-0.001050906693000_Omega:_0.1488

_ 0.180574613674000_-0.983558866317000_-0.002182976545000_Phi:_-0.0407

_ -0.000639442654000_-0.002336857840000_0.999997065100000_Kappa: -188.4409

IMAGEN DERECHA

226340.945 3193355.519_1143.723

_ -0.984383268475000_-0.176037272813000_-0.000677736724000_Omega:_0.1241

_ 0.176038249543000_-0.984381570396000_-0.001859721375000_Phi:_-0.0216

_ -0.000339771262000_-0.001949986192000_0.999998041053000_Kappa: -188.7344

Nombre del modelo: 4729-4728



IMAGEN IZQUIERDA

227335.552 3193534.998_1144.762

_ -0.984999095591000_-0.172556841712000_-0.000958156160000_Omega:_0.0387

_ 0.172557327734000_-0.984999373898000_-0.000449516336000_Phi:_-0.0551

_ -0.000866216098000_-0.000608110051000_0.999999439936000_Kappa: -188.9594

IMAGEN DERECHA

226839.298 3193446.056_1143.086

_ -0.983561080975000_-0.180572687817000_-0.001050906693000_Omega:_0.1488

_ 0.180574613674000_-0.983558866317000_-0.002182976545000_Phi:_-0.0407

_ -0.000639442654000_-0.002336857840000_0.999997065100000_Kappa: -188.4409

Nombre del modelo: 4730-4729

IMAGEN IZQUIERDA

227815.742 3193618.856_1143.960

_ -0.986042427418000_-0.166494122125000_-0.000196543610000_Omega:_-0.0012

_ 0.166494115000000_-0.986042446828000_0.000052188022000_Phi:_-0.0129

_ -0.000202489341000_0.000018736249000_0.999999979324000_Kappa: -189.3511

IMAGEN DERECHA

227335.552 3193534.998_1144.762

_ -0.984999095591000_-0.172556841712000_-0.000958156160000_Omega:_0.0387

_ 0.172557327734000_-0.984999373898000_-0.000449516336000_Phi:_-0.0551

_ -0.000866216098000_-0.000608110051000_0.999999439936000_Kappa: -188.9594

Nombre del modelo: 4731-4730

IMAGEN IZQUIERDA

228327.322 3193711.257_1143.135



Omega:

-0.982336439350000

Phi:

-0.003626476303000



1.4 Pasada 5A

1.4.1.Resultados de la orientación relativa

Nombre del modelo: 4759-4758

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230769.392 3188466.750 994.920

0.399162538000000 -0.916879984000000 0.000602096000000

0.916874485000000 0.399157657000000 -0.003787254000000

0.003232126000000 0.002063777000000 0.999992647000000

230971.598 3188005.247 993.660

0.397170187000000 -0.917744972000000 0.000095392100000

0.917743918000000 0.397169570000000 -0.001559890000000

0.001393694000000 0.000707087000000 0.999998779000000

230769.392 3188466.750 0.000

Giros de la cámara izquierda:

Omega: -0.1314 gon Phi: 0.2058 gon Kappa: -73.8600 gon

Giros de la cámara derecha:

Omega: -0.0450 gon Phi: 0.0887 gon Kappa: -73.9984 gon

Nombre del modelo: 4760-4759

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230571.395 3188914.865 988.895

0.405383362000000 -0.914146774000000 0.000072852100000

0.914140324000000 0.405380200000000 -0.003789637000000

0.003434752000000 0.001602853000000 0.999992817000000



230769.392 3188466.750 994.920

0.399162538000000 -0.916879984000000 0.000602096000000

0.916874485000000 0.399157657000000 -0.003787254000000

0.003232126000000 0.002063777000000 0.999992647000000

230571.395 3188914.865 0.000

Giros de la cámara izquierda:

Omega: -0.1020 gon Phi: 0.2187 gon Kappa: -73.4274 gon

Giros de la cámara derecha:

Omega: -0.1314 gon Phi: 0.2058 gon Kappa: -73.8600 gon

Nombre del modelo: 4761-4760

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230376.506 3189371.682 978.381

0.386955825000000 -0.922098221000000 -0.000246941000000

0.922098097000000 0.386955901000000 -0.000479748000000

0.000537930000000 -0.000042062700000 0.999999854000000

230571.395 3188914.865 988.895

0.405383362000000 -0.914146774000000 0.000072852100000

0.914140324000000 0.405380200000000 -0.003789637000000

0.003434752000000 0.001602853000000 0.999992817000000

230376.506 3189371.682 0.000

Giros de la cámara izquierda:

Omega: 0.0027 gon Phi: 0.0342 gon Kappa: -74.7053 gon



Giros de la cámara derecha:

Omega: -0.1020 gon Phi: 0.2187 gon Kappa: -73.4274 gon

Nombre del modelo: 4762-4761

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230181.075 3189830.256 983.287

0.392908132000000 -0.919577725000000 -0.000088982100000

0.919577422000000 0.392907919000000 0.000855878000000

-0.000752084000000 -0.000418107000000 0.999999630000000

230376.506 3189371.682 978.381

0.386955825000000 -0.922098221000000 -0.000246941000000

0.922098097000000 0.386955901000000 -0.000479748000000

0.000537930000000 -0.000042062700000 0.999999854000000

230181.075 3189830.256 0.000

Giros de la cámara izquierda:

Omega: 0.0266 gon Phi: -0.0479 gon Kappa: -74.2938 gon

Giros de la cámara derecha:

Omega: 0.0027 gon Phi: 0.0342 gon Kappa: -74.7053 gon

Nombre del modelo: 4763-4762

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

229990.030 3190273.202 980.824



0.399582658000000 -0.916697086000000 -0.000389142000000
0.916697127000000 0.399582476000000 0.000470556000000
-0.000275864000000 -0.000544751000000 0.999999814000000
230181.075 3189830.256 983.287
0.392908132000000 -0.919577725000000 -0.000088982100000
0.919577422000000 0.392907919000000 0.000855878000000
-0.000752084000000 -0.000418107000000 0.999999630000000
229990.030 3190273.202 0.000

Giros de la cámara izquierda:

Omega: 0.0347 gon Phi: -0.0176 gon Kappa: -73.8310 gon

Giros de la cámara derecha:

Omega: 0.0266 gon Phi: -0.0479 gon Kappa: -74.2938 gon

Nombre del modelo: 4764-4763

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

229790.323 3190729.899 980.163

0.402234559000000 -0.915535531000000 -0.001432291000000

0.915536648000000 0.402233948000000 0.000704497000000

-0.000068876000000 -0.001594688000000 0.999998726000000

229990.030 3190273.202 980.824

0.399582658000000 -0.916697086000000 -0.000389142000000

0.916697127000000 0.399582476000000 0.000470556000000

-0.000275864000000 -0.000544751000000 0.999999814000000



229790.323 3190729.899 0.000

Giros de la cámara izquierda:

Omega: 0.1015 gon Phi: -0.0044 gon Kappa: -73.6467 gon

Giros de la cámara derecha:

Omega: 0.0347 gon Phi: -0.0176 gon Kappa: -73.8310 gon

Nombre del modelo: 4765-4764

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

229585.235 3191185.306 982.783

0.411033221000000 -0.911619764000000 0.001047247000000

0.911619319000000 0.411030737000000 -0.001987556000000

0.001381445000000 0.001771642000000 0.999997476000000

229790.323 3190729.899 980.163

0.402234559000000 -0.915535531000000 -0.001432291000000

0.915536648000000 0.402233948000000 0.000704497000000

-0.000068876000000 -0.001594688000000 0.999998726000000

229585.235 3191185.306 0.000

Giros de la cámara izquierda:

Omega: -0.1128 gon Phi: 0.0879 gon Kappa: -73.0336 gon

Giros de la cámara derecha:

Omega: 0.1015 gon Phi: -0.0044 gon Kappa: -73.6467 gon

Nombre del modelo: 4766-4765



Focal: 153.440

Coordenadas P.P.: 0.005 0.004

229379.775 3191638.296 984.796

0.415377452000000 -0.909649140000000 0.000121091000000

0.909646766000000 0.415376057000000 -0.002343687000000

0.002081634000000 0.001083665000000 0.999997246000000

229585.235 3191185.306 982.783

0.411033221000000 -0.911619764000000 0.001047247000000

0.911619319000000 0.411030737000000 -0.001987556000000

0.001381445000000 0.001771642000000 0.999997476000000

229379.775 3191638.296 0.000

Giros de la cámara izquierda:

Omega: -0.0690 gon Phi: 0.1325 gon Kappa: -72.7298 gon

Giros de la cámara derecha:

Omega: -0.1128 gon Phi: 0.0879 gon Kappa: -73.0336 gon

Nombre del modelo: 4767-4766

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

229173.861 3192093.944 980.655

0.405870082000000 -0.913930746000000 0.000260421000000

0.913928510000000 0.405869692000000 0.002114469000000

-0.002038176000000 -0.000620194000000 0.999997731000000

229379.775 3191638.296 984.796



0.415377452000000 -0.909649140000000 0.000121091000000
0.909646766000000 0.415376057000000 -0.002343687000000
0.002081634000000 0.001083665000000 0.999997246000000
229173.861 3192093.944 0.000

Giros de la cámara izquierda:

Omega: 0.0395 gon Phi: -0.1298 gon Kappa: -73.3936 gon

Giros de la cámara derecha:

Omega: -0.0690 gon Phi: 0.1325 gon Kappa: -72.7298 gon

Nombre del modelo: 4768-4767

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

228980.417 3192538.641 980.151

0.394891483000000 -0.918727726000000 -0.000286030000000

0.918719849000000 0.394889352000000 -0.004029661000000

0.003815111000000 0.001328498000000 0.999991840000000

229173.861 3192093.944 980.655

0.405870082000000 -0.913930746000000 0.000260421000000

0.913928510000000 0.405869692000000 0.002114469000000

-0.002038176000000 -0.000620194000000 0.999997731000000

228980.417 3192538.641 0.000

Giros de la cámara izquierda:

Omega: -0.0846 gon Phi: 0.2429 gon Kappa: -74.1562 gon

Giros de la cámara derecha:



Omega: 0.0395 gon Phi: -0.1298 gon Kappa: -73.3936 gon

Nombre del modelo: 4769-4768

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

228783.568 3192997.840 984.551

0.393809515000000 -0.919191854000000 -0.000634208000000

0.919189057000000 0.393809897000000 -0.002289733000000

0.002354462000000 0.000318762000000 0.999997177000000

228980.417 3192538.641 980.151

0.394891483000000 -0.918727726000000 -0.000286030000000

0.918719849000000 0.394889352000000 -0.004029661000000

0.003815111000000 0.001328498000000 0.999991840000000

228783.568 3192997.840 0.000

Giros de la cámara izquierda:

Omega: -0.0203 gon Phi: 0.1499 gon Kappa: -74.2313 gon

Giros de la cámara derecha:

Omega: -0.0846 gon Phi: 0.2429 gon Kappa: -74.1562 gon

Nombre del modelo: 4769-4768

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

228783.568 3192997.840 984.551

0.393809515000000 -0.919191854000000 -0.000634208000000

0.919189057000000 0.393809897000000 -0.002289733000000



0.002354462000000 0.000318762000000 0.999997177000000
228980.417 3192538.641 980.151
0.394891483000000 -0.918727726000000 -0.000286030000000
0.918719849000000 0.394889352000000 -0.004029661000000
0.003815111000000 0.001328498000000 0.999991840000000
228783.568 3192997.840 0.000

Giros de la cámara izquierda:

Omega: -0.0203 gon Phi: 0.1499 gon Kappa: -74.2313 gon

Giros de la cámara derecha:

Omega: -0.0846 gon Phi: 0.2429 gon Kappa: -74.1562 gon

Nombre del modelo: 4770-4769

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

228586.839 3193454.769 983.936

0.402361431000000 -0.915480818000000 -0.000388886000000

0.915475088000000 0.402360354000000 -0.003392385000000

0.003262135000000 0.001008949000000 0.999994170000000

228783.568 3192997.840 984.551

0.393809515000000 -0.919191854000000 -0.000634208000000

0.919189057000000 0.393809897000000 -0.002289733000000

0.002354462000000 0.000318762000000 0.999997177000000

228586.839 3193454.769 0.000

Giros de la cámara izquierda:



Omega: -0.0642 gon Phi: 0.2077 gon Kappa: -73.6378 gon

Giros de la cámara derecha:

Omega: -0.0203 gon Phi: 0.1499 gon Kappa: -74.2313 gon

1.4.2.Resultado de la orientación externa

Nombre del modelo: 4759-4758

IMAGEN IZQUIERDA

230769.392 3188466.750 994.920

0.399162538000000 -0.916879984000000 0.000602096000000 Omega: -0.1314

0.916874485000000 0.399157657000000 -0.003787254000000 Phi: 0.2058

0.003232126000000 0.002063777000000 0.999992647000000 Kappa: -73.8600

IMAGEN DERECHA

230971.598 3188005.247 993.660

0.397170187000000 -0.917744972000000 0.000095392100000 Omega: -0.0450

0.917743918000000 0.397169570000000 -0.001559890000000 Phi: 0.0887

0.001393694000000 0.000707087000000 0.999998779000000 Kappa: -73.9984

Nombre del modelo: 4760-4759

IMAGEN IZQUIERDA

230571.395 3188914.865 988.895

0.405383362000000 -0.914146774000000 0.000072852100000 Omega: -0.1020

0.914140324000000 0.405380200000000 -0.003789637000000 Phi: 0.2187

0.003434752000000 0.001602853000000 0.999992817000000 Kappa: -73.4274

IMAGEN DERECHA

230769.392 3188466.750 994.920

0.399162538000000 -0.916879984000000 0.000602096000000 Omega: -0.1314

0.916874485000000 0.399157657000000 -0.003787254000000 Phi: 0.2058



0.003232126000000 0.002063777000000 0.999992647000000 Kappa: -73.8600

Nombre del modelo: 4761-4760

IMAGEN IZQUIERDA

230376.506 3189371.682 978.381

0.386955825000000 -0.922098221000000 -0.000246941000000 Omega: 0.0027

0.922098097000000 0.386955901000000 -0.000479748000000 Phi: 0.0342

0.000537930000000 -0.000042062700000 0.999999854000000 Kappa: -74.7053

IMAGEN DERECHA

230571.395 3188914.865 988.895

0.405383362000000 -0.914146774000000 0.000072852100000 Omega: -0.1020

0.914140324000000 0.405380200000000 -0.003789637000000 Phi: 0.2187

0.003434752000000 0.001602853000000 0.999992817000000 Kappa: -73.4274

Nombre del modelo: 4762-4761

IMAGEN IZQUIERDA

230181.075 3189830.256 983.287

0.392908132000000 -0.919577725000000 -0.000088982100000 Omega: 0.0266

0.919577422000000 0.392907919000000 0.000855878000000 Phi: -0.0479

-0.000752084000000 -0.000418107000000 0.999999630000000 Kappa: -74.2938

IMAGEN DERECHA

230376.506 3189371.682 978.381

0.386955825000000 -0.922098221000000 -0.000246941000000 Omega: 0.0027

0.922098097000000 0.386955901000000 -0.000479748000000 Phi: 0.0342

0.000537930000000 -0.000042062700000 0.999999854000000 Kappa: -74.7053



Nombre del modelo: 4763-4762

IMAGEN IZQUIERDA

229990.030 3190273.202 980.824

0.399582658000000 -0.916697086000000 -0.000389142000000 Omega: 0.0347

0.916697127000000 0.399582476000000 0.000470556000000 Phi: -0.0176

-0.000275864000000 -0.000544751000000 0.999999814000000 Kappa: -73.8310

IMAGEN DERECHA

230181.075 3189830.256 983.287

0.392908132000000 -0.919577725000000 -0.000088982100000 Omega: 0.0266

0.919577422000000 0.392907919000000 0.000855878000000 Phi: -0.0479

-0.000752084000000 -0.000418107000000 0.999999630000000 Kappa: -74.2938

Nombre del modelo: 4764-4763

IMAGEN IZQUIERDA

229790.323 3190729.899 980.163

0.402234559000000 -0.915535531000000 -0.001432291000000 Omega: 0.1015

0.915536648000000 0.402233948000000 0.000704497000000 Phi: -0.0044

-0.000068876000000 -0.001594688000000 0.999998726000000 Kappa: -73.6467

IMAGEN DERECHA

229990.030 3190273.202 980.824

0.399582658000000 -0.916697086000000 -0.000389142000000 Omega: 0.0347

0.916697127000000 0.399582476000000 0.000470556000000 Phi: -0.0176

-0.000275864000000 -0.000544751000000 0.999999814000000 Kappa: -73.8310

Nombre del modelo: 4765-4764

IMAGEN IZQUIERDA



229585.235 3191185.306 982.783

0.411033221000000 -0.911619764000000 0.001047247000000 Omega: -0.1128

0.911619319000000 0.411030737000000 -0.001987556000000 Phi: 0.0879

0.001381445000000 0.001771642000000 0.999997476000000 Kappa: -73.0336

IMAGEN DERECHA

229790.323 3190729.899 980.163

0.402234559000000 -0.915535531000000 -0.001432291000000 Omega: 0.1015

0.915536648000000 0.402233948000000 0.000704497000000 Phi: -0.0044

-0.000068876000000 -0.001594688000000 0.999998726000000 Kappa: -73.6467

Nombre del modelo: 4766-4765

IMAGEN IZQUIERDA

229379.775 3191638.296 984.796

0.415377452000000 -0.909649140000000 0.000121091000000 Omega: -0.0690

0.909646766000000 0.415376057000000 -0.002343687000000 Phi: 0.1325

0.002081634000000 0.001083665000000 0.999997246000000 Kappa: -72.7298

IMAGEN DERECHA

229585.235 3191185.306 982.783

0.411033221000000 -0.911619764000000 0.001047247000000 Omega: -0.1128

0.911619319000000 0.411030737000000 -0.001987556000000 Phi: 0.0879

0.001381445000000 0.001771642000000 0.999997476000000 Kappa: -73.0336

Nombre del modelo: 4767-4766

IMAGEN IZQUIERDA

229173.861 3192093.944 980.655

0.405870082000000 -0.913930746000000 0.000260421000000 Omega: 0.0395



0.913928510000000 0.405869692000000 0.002114469000000 Phi: -0.1298
-0.002038176000000 -0.000620194000000 0.999997731000000 Kappa: -73.3936

IMAGEN DERECHA

229379.775 3191638.296 984.796
0.415377452000000 -0.909649140000000 0.000121091000000 Omega: -0.0690
0.909646766000000 0.415376057000000 -0.002343687000000 Phi: 0.1325
0.002081634000000 0.001083665000000 0.999997246000000 Kappa: -72.7298

Nombre del modelo: 4768-4767

IMAGEN IZQUIERDA

228980.417 3192538.641 980.151
0.394891483000000 -0.918727726000000 -0.000286030000000 Omega: -0.0846
0.918719849000000 0.394889352000000 -0.004029661000000 Phi: 0.2429
0.003815111000000 0.001328498000000 0.999991840000000 Kappa: -74.1562

IMAGEN DERECHA

229173.861 3192093.944 980.655
0.405870082000000 -0.913930746000000 0.000260421000000 Omega: 0.0395
0.913928510000000 0.405869692000000 0.002114469000000 Phi: -0.1298
-0.002038176000000 -0.000620194000000 0.999997731000000 Kappa: -73.3936

Nombre del modelo: 4769-4768

IMAGEN IZQUIERDA

228783.568 3192997.840 984.551
0.393809515000000 -0.919191854000000 -0.000634208000000 Omega: -0.0203
0.919189057000000 0.393809897000000 -0.002289733000000 Phi: 0.1499
0.002354462000000 0.000318762000000 0.999997177000000 Kappa: -74.2313



IMAGEN DERECHA

228980.417 3192538.641 980.151

0.394891483000000 -0.918727726000000 -0.000286030000000 Omega: -0.0846

0.918719849000000 0.394889352000000 -0.004029661000000 Phi: 0.2429

0.003815111000000 0.001328498000000 0.999991840000000 Kappa: -74.1562

Nombre del modelo: 4770-4769

IMAGEN IZQUIERDA

228586.839 3193454.769 983.936

0.402361431000000 -0.915480818000000 -0.000388886000000 Omega: -0.0642

0.915475088000000 0.402360354000000 -0.003392385000000 Phi: 0.2077

0.003262135000000 0.001008949000000 0.999994170000000 Kappa: -73.6378

IMAGEN DERECHA

228783.568 3192997.840 984.551

0.393809515000000 -0.919191854000000 -0.000634208000000 Omega: -0.0203

0.919189057000000 0.393809897000000 -0.002289733000000 Phi: 0.1499

0.002354462000000 0.000318762000000 0.999997177000000 Kappa: -74.2313



1.5 Pasada 5B

1.5.1.Resultados de la orientación relativa

Nombre del modelo: 4745-4744

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

233546.707 3182106.096 984.876

0.389566528000000 -0.920998199000000 0.000488411000000

0.920991877000000 0.389561760000000 -0.003949269000000

0.003447003000000 0.001988326000000 0.999992082000000

233740.691 3181658.443 981.631

0.396988813000000 -0.917823433000000 -0.000165630000000

0.917817433000000 0.396986859000000 -0.003548824000000

0.003322946000000 0.001256826000000 0.999993689000000

233546.707 3182106.096 0.000

Giros de la cámara izquierda:

Omega: -0.1266 gon Phi: 0.2194 gon Kappa: -74.5248 gon

Giros de la cámara derecha:

Omega: -0.0800 gon Phi: 0.2115 gon Kappa: -74.0109 gon

Nombre del modelo: 4746-4745

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

233347.541 3182570.431 984.734

0.397272251000000 -0.917700789000000 0.000142544000000

0.917697390000000 0.397270346000000 -0.002787915000000

0.002501843000000 0.001238374000000 0.999996104000000



233546.707 3182106.096 984.876

0.389566528000000 -0.920998199000000 0.000488411000000

0.920991877000000 0.389561760000000 -0.003949269000000

0.003447003000000 0.001988326000000 0.999992082000000

233347.541 3182570.431 0.000

Giros de la cámara izquierda:

Omega: -0.0788 gon Phi: 0.1593 gon Kappa: -73.9913 gon

Giros de la cámara derecha:

Omega: -0.1266 gon Phi: 0.2194 gon Kappa: -74.5248 gon

Nombre del modelo: 4747-4746

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

233156.889 3183024.077 984.996

0.385050480000000 -0.922895507000000 -0.000109413000000

0.922894957000000 0.385050375000000 -0.001051933000000

0.001012954000000 0.000304070000000 0.999999441000000

233347.541 3182570.431 984.734

0.397272251000000 -0.917700789000000 0.000142544000000

0.917697390000000 0.397270346000000 -0.002787915000000

0.002501843000000 0.001238374000000 0.999996104000000

233156.889 3183024.077 0.000

Giros de la cámara izquierda:

Omega: -0.0194 gon Phi: 0.0645 gon Kappa: -74.8368 gon



Giros de la cámara derecha:

Omega: -0.0788 gon Phi: 0.1593 gon Kappa: -73.9913 gon

Nombre del modelo: 4748-4747

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

232963.024 3183477.550 989.127

0.390137981000000 -0.920756347000000 -0.000322499000000

0.920745902000000 0.390135181000000 -0.004639520000000

0.004397685000000 0.001513113000000 0.999989185000000

233156.889 3183024.077 984.996

0.385050480000000 -0.922895507000000 -0.000109413000000

0.922894957000000 0.385050375000000 -0.001051933000000

0.001012954000000 0.000304070000000 0.999999441000000

232963.024 3183477.550 0.000

Giros de la cámara izquierda:

Omega: -0.0963 gon Phi: 0.2800 gon Kappa: -74.4852 gon

Giros de la cámara derecha:

Omega: -0.0194 gon Phi: 0.0645 gon Kappa: -74.8368 gon

Nombre del modelo: 4749-4748

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

232768.775 3183933.115 987.733

0.398640829000000 -0.917106435000000 -0.001129494000000



0.917099004000000 0.398642179000000 -0.003718986000000
0.003860970000000 0.000446682000000 0.999992447000000
232963.024 3183477.550 989.127
0.390137981000000 -0.920756347000000 -0.000322499000000
0.920745902000000 0.390135181000000 -0.004639520000000
0.004397685000000 0.001513113000000 0.999989185000000
232768.775 3183933.115 0.000

Giros de la cámara izquierda:

Omega: -0.0284 gon Phi: 0.2458 gon Kappa: -73.8962 gon

Giros de la cámara derecha:

Omega: -0.0963 gon Phi: 0.2800 gon Kappa: -74.4852 gon

Nombre del modelo: 4750-4749

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

232564.416 3184388.035 984.246
0.413432955000000 -0.910534562000000 0.000051202900000
0.910533892000000 0.413432582000000 -0.001237458000000
0.001105580000000 0.000558228000000 0.999999233000000
232768.775 3183933.115 987.733
0.398640829000000 -0.917106435000000 -0.001129494000000
0.917099004000000 0.398642179000000 -0.003718986000000
0.003860970000000 0.000446682000000 0.999992447000000
232564.416 3184388.035 0.000



Giros de la cámara izquierda:

Omega: -0.0355 gon Phi: 0.0704 gon Kappa: -72.8659 gon

Giros de la cámara derecha:

Omega: -0.0284 gon Phi: 0.2458 gon Kappa: -73.8962 gon

Nombre del modelo: 4751-4750

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

232359.039 3184844.729 986.297

0.400894037000000 -0.916123863000000 -0.001018967000000

0.916122982000000 0.400895133000000 -0.001332080000000

0.001628849000000 -0.000399476000000 0.999998594000000

232564.416 3184388.035 984.246

0.413432955000000 -0.910534562000000 0.000051202900000

0.910533892000000 0.413432582000000 -0.001237458000000

0.001105580000000 0.000558228000000 0.999999233000000

232359.039 3184844.729 0.000

Giros de la cámara izquierda:

Omega: 0.0254 gon Phi: 0.1037 gon Kappa: -73.7399 gon

Giros de la cámara derecha:

Omega: -0.0355 gon Phi: 0.0704 gon Kappa: -72.8659 gon

Nombre del modelo: 4752-4751

Focal: 153.440

Coordenadas P.P.: 0.005 0.004



232163.263 3185289.397 985.141

0.399536021000000 -0.916717213000000 0.000721197000000

0.916716796000000 0.399536564000000 0.000921949000000

-0.001133310000000 0.000292781000000 0.999999315000000

232359.039 3184844.729 986.297

0.400894037000000 -0.916123863000000 -0.001018967000000

0.916122982000000 0.400895133000000 -0.001332080000000

0.001628849000000 -0.000399476000000 0.999998594000000

232163.263 3185289.397 0.000

Giros de la cámara izquierda:

Omega: -0.0186 gon Phi: -0.0721 gon Kappa: -73.8342 gon

Giros de la cámara derecha:

Omega: 0.0254 gon Phi: 0.1037 gon Kappa: -73.7399 gon

1.5.2.Resultado de la orientación externa

Nombre del modelo: 4745-4744

IMAGEN IZQUIERDA

233546.707 3182106.096 984.876

0.389566528000000 -0.920998199000000 0.000488411000000 Omega: -0.1266

0.920991877000000 0.389561760000000 -0.003949269000000 Phi: 0.2194

0.003447003000000 0.001988326000000 0.999992082000000 Kappa: -74.5248

IMAGEN DERECHA

233740.691 3181658.443 981.631

0.396988813000000 -0.917823433000000 -0.000165630000000 Omega: -0.0800

0.917817433000000 0.396986859000000 -0.003548824000000 Phi: 0.2115

0.003322946000000 0.001256826000000 0.999993689000000 Kappa: -74.0109



Nombre del modelo: 4746-4745

IMAGEN IZQUIERDA

233347.541 3182570.431 984.734

0.397272251000000 -0.917700789000000 0.000142544000000 Omega: -0.0788

0.917697390000000 0.397270346000000 -0.002787915000000 Phi: 0.1593

0.002501843000000 0.001238374000000 0.999996104000000 Kappa: -73.9913

IMAGEN DERECHA

233546.707 3182106.096 984.876

0.389566528000000 -0.920998199000000 0.000488411000000 Omega: -0.1266

0.920991877000000 0.389561760000000 -0.003949269000000 Phi: 0.2194

0.003447003000000 0.001988326000000 0.999992082000000 Kappa: -74.5248

Nombre del modelo: 4747-4746

IMAGEN IZQUIERDA

233156.889 3183024.077 984.996

0.385050480000000 -0.922895507000000 -0.000109413000000 Omega: -0.0194

0.922894957000000 0.385050375000000 -0.001051933000000 Phi: 0.0645

0.001012954000000 0.000304070000000 0.999999441000000 Kappa: -74.8368

IMAGEN DERECHA

233347.541 3182570.431 984.734

0.397272251000000 -0.917700789000000 0.000142544000000 Omega: -0.0788

0.917697390000000 0.397270346000000 -0.002787915000000 Phi: 0.1593

0.002501843000000 0.001238374000000 0.999996104000000 Kappa: -73.9913

Nombre del modelo: 4748-4747

IMAGEN IZQUIERDA



232963.024 3183477.550 989.127

0.390137981000000 -0.920756347000000 -0.000322499000000 Omega: -0.0963

0.920745902000000 0.390135181000000 -0.004639520000000 Phi: 0.2800

0.004397685000000 0.001513113000000 0.999989185000000 Kappa: -74.4852

IMAGEN DERECHA

233156.889 3183024.077 984.996

0.385050480000000 -0.922895507000000 -0.000109413000000 Omega: -0.0194

0.922894957000000 0.385050375000000 -0.001051933000000 Phi: 0.0645

0.001012954000000 0.000304070000000 0.999999441000000 Kappa: -74.8368

Nombre del modelo: 4749-4748

IMAGEN IZQUIERDA

232768.775 3183933.115 987.733

0.398640829000000 -0.917106435000000 -0.001129494000000 Omega: -0.0284

0.917099004000000 0.398642179000000 -0.003718986000000 Phi: 0.2458

0.003860970000000 0.000446682000000 0.999992447000000 Kappa: -73.8962

IMAGEN DERECHA

232963.024 3183477.550 989.127

0.390137981000000 -0.920756347000000 -0.000322499000000 Omega: -0.0963

0.920745902000000 0.390135181000000 -0.004639520000000 Phi: 0.2800

0.004397685000000 0.001513113000000 0.999989185000000 Kappa: -74.4852

Nombre del modelo: 4750-4749

IMAGEN IZQUIERDA

232564.416 3184388.035 984.246

0.413432955000000 -0.910534562000000 0.000051202900000 Omega: -0.0355



0.910533892000000 0.413432582000000 -0.001237458000000 Phi: 0.0704

0.001105580000000 0.000558228000000 0.999999233000000 Kappa: -72.8659

IMAGEN DERECHA

232768.775 3183933.115 987.733

0.398640829000000 -0.917106435000000 -0.001129494000000 Omega: -0.0284

0.917099004000000 0.398642179000000 -0.003718986000000 Phi: 0.2458

0.003860970000000 0.000446682000000 0.999992447000000 Kappa: -73.8962

Nombre del modelo: 4751-4750

IMAGEN IZQUIERDA

232359.039 3184844.729 986.297

0.400894037000000 -0.916123863000000 -0.001018967000000 Omega: 0.0254

0.916122982000000 0.400895133000000 -0.001332080000000 Phi: 0.1037

0.001628849000000 -0.000399476000000 0.999998594000000 Kappa: -73.7399

IMAGEN DERECHA

232564.416 3184388.035 984.246

0.413432955000000 -0.910534562000000 0.000051202900000 Omega: -0.0355

0.910533892000000 0.413432582000000 -0.001237458000000 Phi: 0.0704

0.001105580000000 0.000558228000000 0.999999233000000 Kappa: -72.8659

Nombre del modelo: 4752-4751

IMAGEN IZQUIERDA

232163.263 3185289.397 985.141

0.399536021000000 -0.916717213000000 0.000721197000000 Omega: -0.0186

0.916716796000000 0.399536564000000 0.000921949000000 Phi: -0.0721

-0.001133310000000 0.000292781000000 0.999999315000000 Kappa: -73.8342



IMAGEN DERECHA

232359.039 3184844.729 986.297

0.400894037000000 -0.916123863000000 -0.001018967000000 Omega: 0.0254

0.916122982000000 0.400895133000000 -0.001332080000000 Phi: 0.1037

0.001628849000000 -0.000399476000000 0.999998594000000 Kappa: -73.7399



1.6 Pasadas 6

1.6.1.Resultados de la orientación relativa

Nombre del modelo: 4733-4732

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230149.792 3187692.247 1134.318

-0.399165032000000 0.916879036000000 0.000331373000000

-0.916878126000000 -0.399164058000000 -0.001598785000000

-0.001333620000000 -0.000942008000000 0.999998667000000

229952.935 3188143.009 1135.118

-0.391643180000000 0.920116673000000 0.000963291000000

-0.920117158000000 -0.391643173000000 -0.000202977000000

0.000190504000000 -0.000965835000000 0.999999515000000

230149.792 3187692.247 0.000

Giros de la cámara izquierda:

Omega: 0.0600 gon Phi: -0.0849 gon Kappa: 126.1400 gon

Giros de la cámara derecha:

Omega: 0.0615 gon Phi: 0.0121 gon Kappa: 125.6186 gon

Nombre del modelo: 4734-4733

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230348.639 3187241.280 1135.562

-0.409215470000000 0.912437735000000 0.000280127000000

-0.912431866000000 -0.409211694000000 -0.003725503000000

-0.003284658000000 -0.001780130000000 0.999993021000000



230149.792 3187692.247 1134.318

-0.399165032000000 0.916879036000000 0.000331373000000

-0.916878126000000 -0.399164058000000 -0.001598785000000

-0.001333620000000 -0.000942008000000 0.999998667000000

230348.639 3187241.280 0.000

Giros de la cámara izquierda:

Omega: 0.1133 gon Phi: -0.2091 gon Kappa: 126.8397 gon

Giros de la cámara derecha:

Omega: 0.0600 gon Phi: -0.0849 gon Kappa: 126.1400 gon

Nombre del modelo: 4735-4734

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230542.708 3186808.965 1136.854

-0.397608289000000 0.917555199000000 -0.000325244000000

-0.917555028000000 -0.397608415000000 -0.000564581000000

-0.000647354000000 0.000073947000000 0.999999788000000

230348.639 3187241.280 1135.562

-0.409215470000000 0.912437735000000 0.000280127000000

-0.912431866000000 -0.409211694000000 -0.003725503000000

-0.003284658000000 -0.001780130000000 0.999993021000000

230542.708 3186808.965 0.000

Giros de la cámara izquierda:

Omega: -0.0047 gon Phi: -0.0412 gon Kappa: 126.0319 gon

Giros de la cámara derecha:



Omega: 0.1133 gon Phi: -0.2091 gon Kappa: 126.8397 gon

Nombre del modelo: 4736-4735

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230739.938 3186339.906 1132.296

-0.390533272000000 0.920588813000000 -0.000037309500000

-0.920584658000000 -0.390531631000000 -0.002988773000000

-0.002766001000000 -0.001132869000000 0.999995533000000

230542.708 3186808.965 1136.854

-0.397608289000000 0.917555199000000 -0.000325244000000

-0.917555028000000 -0.397608415000000 -0.000564581000000

-0.000647354000000 0.000073947000000 0.999999788000000

230739.938 3186339.906 0.000

Giros de la cámara izquierda:

Omega: 0.0721 gon Phi: -0.1761 gon Kappa: 125.5420 gon

Giros de la cámara derecha:

Omega: -0.0047 gon Phi: -0.0412 gon Kappa: 126.0319 gon

Nombre del modelo: 4737-4736

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230934.003 3185904.441 1134.968

-0.413449092000000 0.910527149000000 0.000400072000000

-0.910524111000000 -0.413446481000000 -0.002802073000000

-0.002385955000000 -0.001522790000000 0.999995994000000



230739.938 3186339.906 1132.296

-0.390533272000000 0.920588813000000 -0.000037309500000

-0.920584658000000 -0.390531631000000 -0.002988773000000

-0.002766001000000 -0.001132869000000 0.999995533000000

230934.003 3185904.441 0.000

Giros de la cámara izquierda:

Omega: 0.0969 gon Phi: -0.1519 gon Kappa: 127.1353 gon

Giros de la cámara derecha:

Omega: 0.0721 gon Phi: -0.1761 gon Kappa: 125.5420 gon

Nombre del modelo: 4738-4737

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

231131.049 3185455.684 1140.734

-0.386517130000000 0.922282221000000 -0.000109269000000

-0.922279558000000 -0.386516294000000 -0.002360327000000

-0.002219122000000 -0.000811530000000 0.999997208000000

230934.003 3185904.441 1134.968

-0.413449092000000 0.910527149000000 0.000400072000000

-0.910524111000000 -0.413446481000000 -0.002802073000000

-0.002385955000000 -0.001522790000000 0.999995994000000

231131.049 3185455.684 0.000

Giros de la cámara izquierda:

Omega: 0.0517 gon Phi: -0.1413 gon Kappa: 125.2645 gon



Giros de la cámara derecha:

Omega: 0.0969 gon Phi: -0.1519 gon Kappa: 127.1353 gon

Nombre del modelo: 4739-4738

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

231325.813 3184986.642 1137.162

-0.388968059000000 0.921250893000000 0.000801349000000

-0.921247771000000 -0.388964059000000 -0.003082982000000

-0.002528504000000 -0.001937422000000 0.999994927000000

231131.049 3185455.684 1140.734

-0.386517130000000 0.922282221000000 -0.000109269000000

-0.922279558000000 -0.386516294000000 -0.002360327000000

-0.002219122000000 -0.000811530000000 0.999997208000000

231325.813 3184986.642 0.000

Giros de la cámara izquierda:

Omega: 0.1233 gon Phi: -0.1610 gon Kappa: 125.4338 gon

Giros de la cámara derecha:

Omega: 0.0517 gon Phi: -0.1413 gon Kappa: 125.2645 gon

Nombre del modelo: 4740-4739

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

231516.773 3184550.151 1136.014

-0.406421031000000 0.913685856000000 0.00031925500000

-0.913684074000000 -0.406419488000000 -0.002147726000000



-0.001832596000000 -0.001164579000000 0.999997643000000

231325.813 3184986.642 1137.162

-0.388968059000000 0.921250893000000 0.000801349000000

-0.921247771000000 -0.388964059000000 -0.003082982000000

-0.002528504000000 -0.001937422000000 0.999994927000000

231516.773 3184550.151 0.000

Giros de la cámara izquierda:

Omega: 0.0741 gon Phi: -0.1167 gon Kappa: 126.6447 gon

Giros de la cámara derecha:

Omega: 0.1233 gon Phi: -0.1610 gon Kappa: 125.4338 gon

1.6.2.Resultados de la orientación externa

Nombre del modelo: 4733-4732

IMAGEN IZQUIERDA

230149.792 3187692.247 1134.318

-0.399165032000000 0.916879036000000 0.000331373000000 Omega: 0.0600

-0.916878126000000 -0.399164058000000 -0.001598785000000 Phi: -0.084

-0.001333620000000 -0.000942008000000 0.999998667000000 Kappa: 126.1400

IMAGEN DERECHA

229952.935 3188143.009 1135.118

-0.391643180000000 0.920116673000000 0.000963291000000 Omega: 0.0615

-0.920117158000000 -0.391643173000000 -0.000202977000000 Phi: 0.0121

0.000190504000000 -0.000965835000000 0.999999515000000 Kappa: 125.6186

Nombre del modelo: 4734-4733

IMAGEN IZQUIERDA

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA



230348.639 3187241.280 1135.562

-0.409215470000000 0.912437735000000 0.000280127000000 Omega: 0.1133

-0.912431866000000 -0.409211694000000 -0.003725503000000 Phi: -0.2091

-0.003284658000000 -0.001780130000000 0.999993021000000 Kappa: 126.8397

IMAGEN DERECHA

230149.792 3187692.247 1134.318

-0.399165032000000 0.916879036000000 0.000331373000000 Omega: 0.0600

-0.916878126000000 -0.399164058000000 -0.001598785000000 Phi: -0.0849

-0.001333620000000 -0.000942008000000 0.999998667000000 Kappa: 126.1400

Nombre del modelo: 4735-4734

IMAGEN IZQUIERDA

230542.708 3186808.965 1136.854

-0.397608289000000 0.917555199000000 -0.000325244000000 Omega: -0.0047

-0.917555028000000 -0.397608415000000 -0.000564581000000 Phi: -0.0412

-0.000647354000000 0.000073947000000 0.999999788000000 Kappa: 126.0319

IMAGEN DERECHA

230348.639 3187241.280 1135.562

-0.409215470000000 0.912437735000000 0.000280127000000 Omega: 0.1133

-0.912431866000000 -0.409211694000000 -0.003725503000000 Phi: -0.2091

-0.003284658000000 -0.001780130000000 0.999993021000000 Kappa: 126.8397

Nombre del modelo: 4736-4735

IMAGEN IZQUIERDA

230739.938 3186339.906 1132.296

-0.390533272000000 0.920588813000000 -0.000037309500000 Omega: 0.0721



-0.920584658000000 -0.390531631000000 -0.002988773000000 Phi: -0.1761
-0.002766001000000 -0.001132869000000 0.999995533000000 Kappa: 125.5420

IMAGEN DERECHA

230542.708 3186808.965 1136.854
-0.397608289000000 0.917555199000000 -0.000325244000000 Omega: -0.0047
-0.917555028000000 -0.397608415000000 -0.000564581000000 Phi: -0.0412
-0.000647354000000 0.000073947000000 0.999999788000000 Kappa: 126.0319

Nombre del modelo: 4737-4736

IMAGEN IZQUIERDA

230934.003 3185904.441 1134.968
-0.413449092000000 0.910527149000000 0.000400072000000 Omega: 0.0969
-0.910524111000000 -0.413446481000000 -0.002802073000000 Phi: -0.1519
-0.002385955000000 -0.001522790000000 0.999995994000000 Kappa: 127.1353

IMAGEN DERECHA

230739.938 3186339.906 1132.296
-0.390533272000000 0.920588813000000 -0.000037309500000 Omega: 0.0721
-0.920584658000000 -0.390531631000000 -0.002988773000000 Phi: -0.1761
-0.002766001000000 -0.001132869000000 0.999995533000000 Kappa: 125.5420

Nombre del modelo: 4740-4739

IMAGEN IZQUIERDA

231516.773 3184550.151 1136.014
-0.406421031000000 0.913685856000000 0.000319255000000 Omega: 0.0741
-0.913684074000000 -0.406419488000000 -0.002147726000000 Phi: -0.1167
-0.001832596000000 -0.001164579000000 0.999997643000000 Kappa: 126.6447



IMAGEN DERECHA

231325.813 3184986.642 1137.162

-0.388968059000000 0.921250893000000 0.000801349000000 Omega: 0.1233

-0.921247771000000 -0.388964059000000 -0.003082982000000 Phi: -0.1610

-0.002528504000000 -0.001937422000000 0.999994927000000 Kappa: 125.4338

Nombre del modelo: 4738-4737

IMAGEN IZQUIERDA

231131.049 3185455.684 1140.734

-0.386517130000000 0.922282221000000 -0.000109269000000 Omega: 0.0517

-0.922279558000000 -0.386516294000000 -0.002360327000000 Phi: -0.1413

-0.002219122000000 -0.000811530000000 0.999997208000000 Kappa: 125.2645

IMAGEN DERECHA

230934.003 3185904.441 1134.968

-0.413449092000000 0.910527149000000 0.000400072000000 Omega: 0.0969

-0.910524111000000 -0.413446481000000 -0.002802073000000 Phi: -0.1519

-0.002385955000000 -0.001522790000000 0.999995994000000 Kappa: 127.1353

Nombre del modelo: 4739-4738

IMAGEN IZQUIERDA

231325.813 3184986.642 1137.162

-0.388968059000000 0.921250893000000 0.000801349000000 Omega: 0.1233

-0.921247771000000 -0.388964059000000 -0.003082982000000 Phi: -0.1610

-0.002528504000000 -0.001937422000000 0.999994927000000 Kappa: 125.4338

IMAGEN DERECHA

231131.049 3185455.684 1140.734

-0.386517130000000 0.922282221000000 -0.000109269000000 Omega: 0.0517



-0.922279558000000 -0.386516294000000 -0.002360327000000 Phi: -0.1413

-0.002219122000000 -0.000811530000000 0.999997208000000 Kappa: 125.2645



1.7 Pasada 8

1.7.1.Resultados de la orientación relativa

Nombre del modelo: 4698-4697

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

229949.815 3177756.115 983.949

-0.699193159243000 -0.714932439840000 0.000729747881000

0.714928457656000 -0.699192098800000 -0.002776572989000

0.002495296054000 -0.001419643313000 0.999995879047000

229598.812 3177400.659 979.043

-0.708385121736000 -0.705826082359000 -0.000246504383000

0.705824669806000 -0.708382908400000 -0.002278288153000

0.001433455710000 -0.001787894305000 0.999997374316000

229949.815 3177756.115 0.000

Giros de la cámara izquierda:

Omega: 0.0904 gon Phi: 0.1589 gon Kappa: -149.2916 gon

Giros de la cámara derecha:

Omega: 0.1138 gon Phi: 0.0913 gon Kappa: -150.1153 gon

Nombre del modelo: 4699-4698

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230300.839 3178108.878 981.258

-0.712484742855000 -0.701687356400000 0.000587424593000

0.701687123134000 -0.712484985000000 -0.000572170729000



0.000820016169000 0.000004525358000 0.999999663776000
229949.815 3177756.115 983.949
-0.699193159243000 -0.714932439840000 0.000729747881000
0.714928457656000 -0.699192098800000 -0.002776572989000
0.002495296054000 -0.001419643313000 0.999995879047000
230300.839 3178108.878 0.000

Giros de la cámara izquierda:

Omega: -0.0003 gon Phi: 0.0522 gon Kappa: -150.4861 gon

Giros de la cámara derecha:

Omega: 0.0904 gon Phi: 0.1589 gon Kappa: -149.2916 gon

Nombre del modelo: 4700-4699

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230652.169 3178463.828 978.984
-0.692811637720000 -0.721116547872000 0.001720181304000
0.721104259755000 -0.692810933200000 -0.004653753418000
0.004547659014000 -0.001983744462000 0.999987691702000
230300.839 3178108.878 981.258
-0.712484742855000 -0.701687356400000 0.000587424593000
0.701687123134000 -0.712484985000000 -0.000572170729000
0.000820016169000 0.000004525358000 0.999999663776000
230652.169 3178463.828 0.000

Giros de la cámara izquierda:



Omega: 0.1263 gon Phi: 0.2895 gon Kappa: -148.7263 gon

Giros de la cámara derecha:

Omega: -0.0003 gon Phi: 0.0522 gon Kappa: -150.4861 gon

Nombre del modelo: 4701-4700

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230996.505 3178816.256 986.778

-0.709512454674000 -0.704692641519000 0.000598039297000

0.704692891628000 -0.709512109100000 0.000703980178000

-0.000071773529000 0.000920916745000 0.999999573380000

230652.169 3178463.828 978.984

-0.692811637720000 -0.721116547872000 0.001720181304000

0.721104259755000 -0.692810933200000 -0.004653753418000

0.004547659014000 -0.001983744462000 0.999987691702000

230996.505 3178816.256 0.000

Giros de la cámara izquierda:

Omega: -0.0586 gon Phi: -0.0046 gon Kappa: -150.2170 gon

Giros de la cámara derecha:

Omega: 0.1263 gon Phi: 0.2895 gon Kappa: -148.7263 gon

Nombre del modelo: 4702-4701

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

231348.889 3179162.419 979.594



-0.713230416378000 -0.700928718653000 -0.001142156041000
0.700928279738000 -0.713224854900000 -0.003138962077000
0.001385574590000 -0.003039372698000 0.99999442118300
230996.505 3178816.256 986.778
-0.709512454674000 -0.704692641519000 0.000598039297000
0.704692891628000 -0.709512109100000 0.000703980178000
-0.000071773529000 0.000920916745000 0.999999573380000
231348.889 3179162.419 0.000

Giros de la cámara izquierda:

Omega: 0.1935 gon Phi: 0.0882 gon Kappa: -150.5538 gon

Giros de la cámara derecha:

Omega: -0.0586 gon Phi: -0.0046 gon Kappa: -150.2170 gon

Nombre del modelo: 4703-4702

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

231707.614 3179511.512 977.885

-0.715088067957000 -0.699033964036000 -0.000756432092000

0.699032741198000 -0.715083641300000 -0.002934727958000

0.001510562303000 -0.002627359744000 0.999995407581000

231348.889 3179162.419 979.594

-0.713230416378000 -0.700928718653000 -0.001142156041000

0.700928279738000 -0.713224854900000 -0.003138962077000

0.001385574590000 -0.003039372698000 0.999994421183000

231707.614 3179511.512 0.000



Giros de la cámara izquierda:

Omega: 0.1673 gon Phi: 0.0962 gon Kappa: -150.7228 gon

Giros de la cámara derecha:

Omega: 0.1935 gon Phi: 0.0882 gon Kappa: -150.5538 gon

Nombre del modelo: 4704-4703

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

232050.435 3179846.345 986.286

-0.712186962448000 -0.701989836360000 -0.000012864959000

0.701987230342000 -0.712184268400000 -0.002737933966000

0.001912839595000 -0.001958951912000 0.999996251769000

231707.614 3179511.512 977.885

-0.715088067957000 -0.699033964036000 -0.000756432092000

0.699032741198000 -0.715083641300000 -0.002934727958000

0.001510562303000 -0.002627359744000 0.999995407581000

232050.435 3179846.345 0.000

Giros de la cámara izquierda:

Omega: 0.1247 gon Phi: 0.1218 gon Kappa: -150.4592 gon

Giros de la cámara derecha:

Omega: 0.1673 gon Phi: 0.0962 gon Kappa: -150.7228 gon

Nombre del modelo: 4705-4704

Focal: 153.440



Coordenadas P.P.: 0.005 0.004

232413.312 3180206.010 983.124

-0.701872166379000 -0.712302925401000 0.000067280799000

0.712290914643000 -0.701860873800000 -0.005741663341000

0.004137025355000 -0.003981990186000 0.999983514252000

232050.435 3179846.345 986.286

-0.712186962448000 -0.701989836360000 -0.000012864959000

0.701987230342000 -0.712184268400000 -0.002737933966000

0.001912839595000 -0.001958951912000 0.999996251769000

232413.312 3180206.010 0.000

Giros de la cámara izquierda:

Omega: 0.2535 gon Phi: 0.2634 gon Kappa: -149.5310 gon

Giros de la cámara derecha:

Omega: 0.1247 gon Phi: 0.1218 gon Kappa: -150.4592 gon

Nombre del modelo: 4706-4705

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

232762.904 3180560.230 980.735

-0.705322081560000 -0.708886799480000 -0.000516514136000

0.708884814647000 -0.705317928200000 -0.002989948583000

0.001755228401000 -0.002475025786000 0.999995396700000

232413.312 3180206.010 983.124

-0.701872166379000 -0.712302925401000 0.000067280799000

0.712290914643000 -0.701860873800000 -0.005741663341000



0.004137025355000 -0.003981990186000 0.999983514252000

232762.904 3180560.230 0.000

Giros de la cámara izquierda:

Omega: 0.1576 gon Phi: 0.1117 gon Kappa: -149.8396 gon

Giros de la cámara derecha:

Omega: 0.2535 gon Phi: 0.2634 gon Kappa: -149.5310 gon

Nombre del modelo: 4707-4706

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

233103.632 3180899.296 983.592

-0.712732810944000 -0.701435466163000 -0.000476459131000

0.701434399072000 -0.712732669300000 0.001387760757000

-0.001313012601000 0.000654897801000 0.999998923553000

232762.904 3180560.230 980.735

-0.705322081560000 -0.708886799480000 -0.000516514136000

0.708884814647000 -0.705317928200000 -0.002989948583000

0.001755228401000 -0.002475025786000 0.999995396700000

233103.632 3180899.296 0.000

Giros de la cámara izquierda:

Omega: -0.0417 gon Phi: -0.0836 gon Kappa: -150.5086 gon

Giros de la cámara derecha:

Omega: 0.1576 gon Phi: 0.1117 gon Kappa: -149.8396 gon



Nombre del modelo: 4708-4707

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

233462.718 3181250.750 978.265

-0.710516239966000 -0.703680762030000 0.000240611502000

0.703675360420000 -0.710512047700000 -0.003690155985000

0.002767649147000 -0.002452603370000 0.999993162404000

233103.632 3180899.296 983.592

-0.712732810944000 -0.701435466163000 -0.000476459131000

0.701434399072000 -0.712732669300000 0.001387760757000

-0.001313012601000 0.000654897801000 0.999998923553000

233462.718 3181250.750 0.000

Giros de la cámara izquierda:

Omega: 0.1561 gon Phi: 0.1762 gon Kappa: -150.3080 gon

Giros de la cámara derecha:

Omega: -0.0417 gon Phi: -0.0836 gon Kappa: -150.5086 gon

1.7.2. Resultados de la orientación externa

Nombre del modelo: 4698-4697

IMAGEN IZQUIERDA

229949.815 3177756.115 983.949

-0.699193159243000 -0.714932439840000 0.000729747881000 Omega: 0.0904

0.714928457656000 -0.699192098800000 -0.002776572989000 Phi: 0.1589

0.002495296054000 -0.001419643313000 0.999995879047000 Kappa: -149.2916

IMAGEN DERECHA

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA





229598.812 3177400.659 979.043

-0.708385121736000 -0.705826082359000 -0.000246504383000 Omega: 0.1138

0.705824669806000 -0.708382908400000 -0.002278288153000 Phi: 0.0913

0.001433455710000 -0.001787894305000 0.999997374316000 Kappa: -150.1153

Nombre del modelo: 4699-4698

IMAGEN IZQUIERDA

230300.839 3178108.878 981.258

-0.712484742855000 -0.701687356400000 0.000587424593000 Omega: -0.0003

0.701687123134000 -0.712484985000000 -0.000572170729000 Phi: 0.0522

0.000820016169000 0.000004525358000 0.999999663776000 Kappa: -150.4861

IMAGEN DERECHA

229949.815 3177756.115 983.949

-0.699193159243000 -0.714932439840000 0.000729747881000 Omega: 0.0904

0.714928457656000 -0.699192098800000 -0.002776572989000 Phi: 0.1589

0.002495296054000 -0.001419643313000 0.999995879047000 Kappa: -149.2916

Nombre del modelo: 4700-4699

IMAGEN IZQUIERDA

230652.169 3178463.828 978.984

-0.692811637720000 -0.721116547872000 0.001720181304000 Omega: 0.1263

0.721104259755000 -0.692810933200000 -0.004653753418000 Phi: 0.2895

0.004547659014000 -0.001983744462000 0.999987691702000 Kappa: -148.7263

IMAGEN DERECHA

230300.839 3178108.878 981.258

-0.712484742855000 -0.701687356400000 0.000587424593000 Omega: -0.0003



0.701687123134000 -0.712484985000000 -0.000572170729000 Phi: 0.0522

0.000820016169000 0.000004525358000 0.999999663776000 Kappa: -150.4861

Nombre del modelo: 4701-4700

IMAGEN IZQUIERDA

230996.505 3178816.256 986.778

-0.709512454674000 -0.704692641519000 0.000598039297000 Omega: -0.0586

0.704692891628000 -0.709512109100000 0.000703980178000 Phi: -0.0046

-0.000071773529000 0.000920916745000 0.999999573380000 Kappa: -150.2170

IMAGEN DERECHA

230652.169 3178463.828 978.984

-0.692811637720000 -0.721116547872000 0.001720181304000 Omega: 0.1263

0.721104259755000 -0.692810933200000 -0.004653753418000 Phi: 0.2895

0.004547659014000 -0.001983744462000 0.999987691702000 Kappa: -148.7263

Nombre del modelo: 4702-4701

IMAGEN IZQUIERDA

231348.889 3179162.419 979.594

-0.713230416378000 -0.700928718653000 -0.001142156041000 Omega: 0.1935

0.700928279738000 -0.713224854900000 -0.003138962077000 Phi: 0.0882

0.001385574590000 -0.003039372698000 0.999994421183000 Kappa: -150.5538

IMAGEN DERECHA

230996.505 3178816.256 986.778

-0.709512454674000 -0.704692641519000 0.000598039297000 Omega: -0.0586

0.704692891628000 -0.709512109100000 0.000703980178000 Phi: -0.0046

-0.000071773529000 0.000920916745000 0.999999573380000 Kappa: -150.2170



Nombre del modelo: 4703-4702

IMAGEN IZQUIERDA

231707.614 3179511.512 977.885

-0.715088067957000 -0.699033964036000 -0.000756432092000 Omega: 0.1673

0.699032741198000 -0.715083641300000 -0.002934727958000 Phi: 0.0962

0.001510562303000 -0.002627359744000 0.999995407581000 Kappa: -150.7228

IMAGEN DERECHA

231348.889 3179162.419 979.594

-0.713230416378000 -0.700928718653000 -0.001142156041000 Omega: 0.1935

0.700928279738000 -0.713224854900000 -0.003138962077000 Phi: 0.0882

0.001385574590000 -0.003039372698000 0.999994421183000 Kappa: -150.5538

Nombre del modelo: 4704-4703

IMAGEN IZQUIERDA

232050.435 3179846.345 986.286

-0.712186962448000 -0.701989836360000 -0.000012864959000 Omega: 0.1247

0.701987230342000 -0.712184268400000 -0.002737933966000 Phi: 0.1218

0.001912839595000 -0.001958951912000 0.999996251769000 Kappa: -150.4592

IMAGEN DERECHA

231707.614 3179511.512 977.885

-0.715088067957000 -0.699033964036000 -0.000756432092000 Omega: 0.1673

0.699032741198000 -0.715083641300000 -0.002934727958000 Phi: 0.0962

0.001510562303000 -0.002627359744000 0.999995407581000 Kappa: -150.7228

Nombre del modelo: 4705-4704



IMAGEN IZQUIERDA

232413.312 3180206.010 983.124

-0.701872166379000 -0.712302925401000 0.000067280799000 Omega: 0.2535

0.712290914643000 -0.701860873800000 -0.005741663341000 Phi: 0.2634

0.004137025355000 -0.003981990186000 0.999983514252000 Kappa: -149.5310

IMAGEN DERECHA

232050.435 3179846.345 986.286

-0.712186962448000 -0.701989836360000 -0.000012864959000 Omega: 0.1247

0.701987230342000 -0.712184268400000 -0.002737933966000 Phi: 0.1218

0.001912839595000 -0.001958951912000 0.999996251769000 Kappa: -150.4592

Nombre del modelo: 4706-4705

IMAGEN IZQUIERDA

232762.904 3180560.230 980.735

-0.705322081560000 -0.708886799480000 -0.000516514136000 Omega: 0.1576

0.708884814647000 -0.705317928200000 -0.002989948583000 Phi: 0.1117

0.001755228401000 -0.002475025786000 0.999995396700000 Kappa: -149.8396

IMAGEN DERECHA

232413.312 3180206.010 983.124

-0.701872166379000 -0.712302925401000 0.000067280799000 Omega: 0.2535

0.712290914643000 -0.701860873800000 -0.005741663341000 Phi: 0.2634

0.004137025355000 -0.003981990186000 0.999983514252000 Kappa: -149.5310

Nombre del modelo: 4706-4705

IMAGEN IZQUIERDA

232762.904 3180560.230 980.735



-0.705322081560000 -0.708886799480000 -0.000516514136000 Omega: 0.1576

0.708884814647000 -0.705317928200000 -0.002989948583000 Phi: 0.1117

0.001755228401000 -0.002475025786000 0.999995396700000 Kappa: -149.8396

IMAGEN DERECHA

232413.312 3180206.010 983.124

-0.701872166379000 -0.712302925401000 0.000067280799000 Omega: 0.2535

0.712290914643000 -0.701860873800000 -0.005741663341000 Phi: 0.2634

0.004137025355000 -0.003981990186000 0.999983514252000 Kappa: -149.5310

Nombre del modelo: 4707-4706

IMAGEN IZQUIERDA

233103.632 3180899.296 983.592

-0.712732810944000 -0.701435466163000 -0.000476459131000 Omega: -0.0417

0.701434399072000 -0.712732669300000 0.001387760757000 Phi: -0.0836

-0.001313012601000 0.000654897801000 0.999998923553000 Kappa: -150.5086

IMAGEN DERECHA

232762.904 3180560.230 980.735

-0.705322081560000 -0.708886799480000 -0.000516514136000 Omega: 0.1576

0.708884814647000 -0.705317928200000 -0.002989948583000 Phi: 0.1117

0.001755228401000 -0.002475025786000 0.999995396700000 Kappa: -149.8396

Nombre del modelo: 4708-4707

IMAGEN IZQUIERDA

233462.718 3181250.750 978.265

-0.710516239966000 -0.703680762030000 0.000240611502000 Omega: 0.1561

0.703675360420000 -0.710512047700000 -0.003690155985000 Phi: 0.1762



0.002767649147000 -0.002452603370000 0.999993162404000 Kappa: -150.3080

IMAGEN DERECHA

233103.632 3180899.296 983.592

-0.712732810944000 -0.701435466163000 -0.000476459131000 Omega: -0.0417

0.701434399072000 -0.712732669300000 0.001387760757000 Phi: -0.0836

-0.001313012601000 0.000654897801000 0.999998923553000 Kappa: -150.5086



1.8 Pasada 9

1.8.1.Resultados de la orientación relativa

Nombre del modelo: 4684-4683

Focal: 153.440

Coord. P.P.: 0.005 0.004

229105.044 3175585.979 1000.999

-0.694027906097000 -0.719947886094000 -0.000553956525000

0.719947491380000 -0.694026114900000 -0.001833451616000

0.000935529321000 -0.001671286197000 0.999998165792000

228800.843 3175272.908 1002.137

-0.703292909400000 -0.710899197293000 0.001189485680000

0.710898505902000 -0.703293901100000 -0.001001486101000

0.001548513690000 0.000141265519000 0.999998791074000

229105.044 3175585.979 0.000

Giros de la cámara izquierda:

Omega: 0.1064 gon Phi: 0.0596 gon Kappa: -148.8331 gon

Giros de la cámara derecha:

Omega: -0.0090 gon Phi: 0.0986 gon Kappa: -149.6576 gon

Nombre del modelo: 4685-4684

Focal: 153.440

Coord. P.P.: 0.005 0.004

229409.287 3175903.901 996.397

-0.687227391245000 -0.726442210816000 -0.000476516330000

0.726442188326000 -0.687226614100000 -0.001152361613000

0.000509649414000 -0.001138096031000 0.999999222497000



229105.044 3175585.979 1000.999

-0.694027906097000 -0.719947886094000 -0.000553956525000

0.719947491380000 -0.694026114900000 -0.001833451616000

0.000935529321000 -0.001671286197000 0.999998165792000

229409.287 3175903.901 0.000

Giros de la cámara izquierda:

Omega: 0.0725 gon Phi: 0.0324 gon Kappa: -148.2345 gon

Giros de la cámara derecha:

Omega: 0.1064 gon Phi: 0.0596 gon Kappa: -148.8331 gon

Nombre del modelo: 4686-4685

Focal: 153.440

Coord. P.P.: 0.005 0.004

229700.097 3176216.563 995.196

-0.677671020569000 -0.735364964849000 0.000596952593000

0.735365185104000 -0.677670975700000 0.000305278431000

0.000180046384000 0.000645856500000 0.999999775226000

229409.287 3175903.901 996.397

-0.687227391245000 -0.726442210816000 -0.000476516330000

0.726442188326000 -0.687226614100000 -0.001152361613000

0.000509649414000 -0.001138096031000 0.999999222497000

229700.097 3176216.563 0.000

Giros de la cámara izquierda:

Omega: -0.0411 gon Phi: 0.0115 gon Kappa: -147.4021 gon



Giros de la cámara derecha:

Omega: 0.0725 gon Phi: 0.0324 gon Kappa: -148.2345 gon

Nombre del modelo: 4687-4686

Focal: 153.440

Coord. P.P.: 0.005 0.004

229999.248 3176541.150 997.336

-0.676285065440000 -0.736640009784000 0.000079042517000

0.736639560086000 -0.676284763900000 -0.001037594549000

0.000817788909000 -0.000643483852000 0.999999458575000

229700.097 3176216.563 995.196

-0.677671020569000 -0.735364964849000 0.000596952593000

0.735365185104000 -0.677670975700000 0.000305278431000

0.000180046384000 0.000645856500000 0.999999775226000

229999.248 3176541.150 0.000

Giros de la cámara izquierda:

Omega: 0.0410 gon Phi: 0.0521 gon Kappa: -147.2823 gon

Giros de la cámara derecha:

Omega: -0.0411 gon Phi: 0.0115 gon Kappa: -147.4021 gon

Nombre del modelo: 4688-4687

Focal: 153.440

Coord. P.P.: 0.005 0.004

230289.926 3176851.925 994.09

-0.692894160444000 -0.721039022401000 -0.000640779292000



0.721037972985000 -0.692894314300000 0.001307929234000
-0.001387060344000 0.000444230326000 0.999998939361000
229999.248 3176541.150 997.336
-0.676285065440000 -0.736640009784000 0.000079042517000
0.736639560086000 -0.676284763900000 -0.001037594549000
0.000817788909000 -0.000643483852000 0.999999458575000
230289.926 3176851.925 0.000

Giros de la cámara izquierda:

Omega: -0.0283 gon Phi: -0.0883 gon Kappa: -148.7330 gon

Giros de la cámara derecha:

Omega: 0.0410 gon Phi: 0.0521 gon Kappa: -147.2823 gon

1.8.2.Resultados de la orientación externa

Nombre del modelo: 4684-4683

IMAGEN IZQUIERDA

229105.044 3175585.979 1000.999
-0.694027906097000 -0.719947886094000 -0.000553956525000 Omega: 0.1064
0.719947491380000 -0.694026114900000 -0.001833451616000 Phi: 0.0596
0.000935529321000 -0.001671286197000 0.999998165792000 Kappa: -148.8331

IMAGEN DERECHA

228800.843 3175272.908 1002.137
-0.703292909400000 -0.710899197293000 0.001189485680000 Omega: -0.0090
0.710898505902000 -0.703293901100000 -0.001001486101000 Phi: 0.0986
0.001548513690000 0.000141265519000 0.999998791074000 Kappa: -149.6576



Nombre del modelo: 4685-4684

IMAGEN IZQUIERDA

229409.287 3175903.901 996.397

-0.687227391245000 -0.726442210816000 -0.000476516330000 Omega: 0.0725

0.726442188326000 -0.687226614100000 -0.001152361613000 Phi: 0.0324

0.000509649414000 -0.001138096031000 0.999999222497000 Kappa: -148.2345

IMAGEN DERECHA

229105.044 3175585.979 1000.999

-0.694027906097000 -0.719947886094000 -0.000553956525000 Omega: 0.1064

0.719947491380000 -0.694026114900000 -0.001833451616000 Phi: 0.0596

0.000935529321000 -0.001671286197000 0.999998165792000 Kappa: -148.8331

Nombre del modelo: 4686-4685

IMAGEN IZQUIERDA

229700.097 3176216.563 995.196

-0.677671020569000 -0.735364964849000 0.000596952593000 Omega: -0.0411

0.735365185104000 -0.677670975700000 0.000305278431000 Phi: 0.0115

0.000180046384000 0.000645856500000 0.999999775226000 Kappa: -147.4021

IMAGEN DERECHA

229409.287 3175903.901 996.397

-0.687227391245000 -0.726442210816000 -0.000476516330000 Omega: 0.0725

0.726442188326000 -0.687226614100000 -0.001152361613000 Phi: 0.0324

0.000509649414000 -0.001138096031000 0.999999222497000 Kappa: -148.2345

Nombre del modelo: 4687-4686

IMAGEN IZQUIERDA



229999.248 3176541.150 997.336

-0.676285065440000 -0.736640009784000 0.000079042517000 Omega: 0.0410

0.736639560086000 -0.676284763900000 -0.001037594549000 Phi: 0.0521

0.000817788909000 -0.000643483852000 0.999999458575000 Kappa: -147.282

IMAGEN DERECHA

229700.097 3176216.563 995.196

-0.677671020569000 -0.735364964849000 0.000596952593000 Omega: -0.0411

0.735365185104000 -0.677670975700000 0.000305278431000 Phi: 0.0115

0.000180046384000 0.000645856500000 0.999999775226000 Kappa: -147.4021

Nombre del modelo: 4688-4687

IMAGEN IZQUIERDA

230289.926 3176851.925 994.096

-0.692894160444000 -0.721039022401000 -0.000640779292000 Omega: -0.0283

0.721037972985000 -0.692894314300000 0.001307929234000 Phi: -0.0883

-0.001387060344000 0.000444230326000 0.999998939361000 Kappa: -148.7330

IMAGEN DERECHA

229999.248 3176541.150 997.336

-0.676285065440000 -0.736640009784000 0.000079042517000 Omega: 0.0410

0.736639560086000 -0.676284763900000 -0.001037594549000 Phi: 0.0521

0.000817788909000 -0.000643483852000 0.999999458575000 Kappa: -147.2823



1.9 Pasada 10

1.9.1.Resultados de la orientación relativa

Nombre del modelo: 4691-4690

Focal: 153.440

Coord. P.P.: 0.005 0.004

228854.952 3175196.735 1071.990

-0.106323254473000 0.994331574568000 0.000292191903000

-0.994328338554000 -0.106322144600000 -0.002599368195000

-0.002553567400000 -0.000566907975000 0.999996578949000

228800.345 3175692.911 1071.217

-0.117686198363000 0.993050139993000 -0.001173956531000

-0.993040598506000 -0.117690270500000 -0.004401130448000

-0.004508706469000 0.000647834185000 0.999989625885000

228854.952 3175196.735 0.000

Giros de la cámara izquierda:

Omega: 0.0361 gon Phi: -0.1626 gon Kappa: 106.7816 gon

Giros de la cámara derecha:

Omega: -0.0412 gon Phi: -0.2870 gon Kappa: 107.5096 gon

Nombre del modelo: 4692-4691

Focal: 153.440

Coord. P.P.: 0.005 0.004

228910.214 3174701.792 1074.577

-0.118362537341000 0.992968516132000 0.001958500449000

-0.992960402988000 -0.118352238300000 -0.004731363322000



-0.004466301906000 -0.002504729563000 0.999986889153000

228854.952 3175196.735 1071.990

-0.106323254473000 0.994331574568000 0.000292191903000

-0.994328338554000 -0.106322144600000 -0.002599368195000

-0.002553567400000 -0.000566907975000 0.999996578949000

228910.214 3174701.792 0.000

Giros de la cámara izquierda:

Omega: 0.1595 gon Phi: -0.2843 gon Kappa: 107.5530 gon

Giros de la cámara derecha:

Omega: 0.0361 gon Phi: -0.1626 gon Kappa: 106.7816 gon

Nombre del modelo: 4693-4692

Focal: 153.440

Coord. P.P.: 0.005 0.004

228970.708 3174224.674 1077.076

-0.123618396238000 0.992328277059000 -0.001755750987000

-0.992329439240000 -0.123619724800000 -0.000669069020000

-0.000880981562000 0.001659574154000 0.999998234841000

228910.214 3174701.792 1074.577

-0.118362537341000 0.992968516132000 0.001958500449000

-0.992960402988000 -0.118352238300000 -0.004731363322000

-0.004466301906000 -0.002504729563000 0.999986889153000

228970.708 3174224.674 0.000

Giros de la cámara izquierda:



Omega: -0.1057 gon Phi: -0.0561 gon Kappa: 107.8900 gon

Giros de la cámara derecha:

Omega: 0.1595 gon Phi: -0.2843 gon Kappa: 107.5530 gon

Nombre del modelo: 4694-4693

Focal: 153.440

Coord. P.P.: 0.005 0.004

229030.985 3173730.930 1078.180

-0.119646968029000 0.992816485419000 0.000171237650000

-0.992816321796000 -0.119647048100000 0.000578831845000

0.000595161878000 -0.000100752058000 0.999999817816000

228970.708 3174224.674 1077.076

-0.123618396238000 0.992328277059000 -0.001755750987000

-0.992329439240000 -0.123619724800000 -0.000669069020000

-0.000880981562000 0.001659574154000 0.999998234841000

229030.985 3173730.930 0.000

Giros de la cámara izquierda:

Omega: 0.0064 gon Phi: 0.0379 gon Kappa: 107.6353 gon

Giros de la cámara derecha:

Omega: -0.1057 gon Phi: -0.0561 gon Kappa: 107.8900 gon

Nombre del modelo: 4695-4694

Focal: 153.440

Coord. P.P.: 0.005 0.004

229092.785 3173234.870 1076.255



-0.120593741242000 0.992701876833000 0.000365109914000
-0.992698646013000 -0.120592384400000 -0.002622027746000
-0.002558862389000 -0.000678644253000 0.999996495826000
229030.985 3173730.930 1078.180
-0.119646968029000 0.992816485419000 0.000171237650000
-0.992816321796000 -0.119647048100000 0.000578831845000
0.000595161878000 -0.000100752058000 0.999999817816000
229092.785 3173234.870 0.000

Giros de la cámara izquierda:

Omega: 0.0432 gon Phi: -0.1629 gon Kappa: 107.6960 gon

Giros de la cámara derecha:

Omega: 0.0064 gon Phi: 0.0379 gon Kappa: 107.6353 gon

Nombre del modelo: 4696-4695

Focal: 153.440

Coord. P.P.: 0.005 0.004

229154.820 3172735.408 1072.598

-0.125628510452000 0.992077142397000 0.000648764473000
-0.992077203390000 -0.125628103500000 -0.000634136812000
-0.000547609586000 -0.000723290107000 0.999999588487000
229092.785 3173234.870 1076.255
-0.120593741242000 0.992701876833000 0.000365109914000
-0.992698646013000 -0.120592384400000 -0.002622027746000
-0.002558862389000 -0.000678644253000 0.999996495826000
229154.820 3172735.408 0.000



Giros de la cámara izquierda:

Omega: 0.0460 gon Phi: -0.0349 gon Kappa: 108.0189 gon

Giros de la cámara derecha:

Omega: 0.0432 gon Phi: -0.1629 gon Kappa: 107.6960 gon

1.9.2.Resultados de la orientación externa

Nombre del modelo: 4691-4690

IMAGEN IZQUIERDA

228854.952 3175196.735 1071.990

-0.106323254473000 0.994331574568000 0.000292191903000 Omega: 0.0361

-0.994328338554000 -0.106322144600000 -0.002599368195000 Phi: -0.1626

-0.002553567400000 -0.000566907975000 0.999996578949000 Kappa: 106.7816

IMAGEN DERECHA

228800.345 3175692.911 1071.217

-0.117686198363000 0.993050139993000 -0.001173956531000 Omega: -0.0412

-0.993040598506000 -0.117690270500000 -0.004401130448000 Phi: -0.2870

-0.004508706469000 0.000647834185000 0.999989625885000 Kappa: 107.5096

Nombre del modelo: 4692-4691

IMAGEN IZQUIERDA

228910.214 3174701.792 1074.577

-0.118362537341000 0.992968516132000 0.001958500449000 Omega: 0.1595

-0.992960402988000 -0.118352238300000 -0.004731363322000 Phi: -0.2843

-0.004466301906000 -0.002504729563000 0.999986889153000 Kappa: 107.5530

IMAGEN DERECHA



228854.952 3175196.735 1071.990

-0.106323254473000 0.994331574568000 0.000292191903000 Omega: 0.0361

-0.994328338554000 -0.106322144600000 -0.002599368195000 Phi: -0.1626

-0.002553567400000 -0.000566907975000 0.999996578949000 Kappa: 106.7816

Nombre del modelo: 4693-4692

IMAGEN IZQUIERDA

228970.708 3174224.674 1077.076

-0.123618396238000 0.992328277059000 -0.001755750987000 Omega: -0.1057

-0.992329439240000 -0.123619724800000 -0.000669069020000 Phi: -0.0561

-0.000880981562000 0.001659574154000 0.999998234841000 Kappa: 107.8900

IMAGEN DERECHA

228910.214 3174701.792 1074.577

-0.118362537341000 0.992968516132000 0.001958500449000 Omega: 0.1595

-0.992960402988000 -0.118352238300000 -0.004731363322000 Phi: -0.2843

-0.004466301906000 -0.002504729563000 0.999986889153000 Kappa: 107.5530

Nombre del modelo: 4693-4692

IMAGEN IZQUIERDA

228970.708 3174224.674 1077.076

-0.123618396238000 0.992328277059000 -0.001755750987000 Omega: -0.1057

-0.992329439240000 -0.123619724800000 -0.000669069020000 Phi: -0.0561

-0.000880981562000 0.001659574154000 0.999998234841000 Kappa: 107.8900

IMAGEN DERECHA

228910.214 3174701.792 1074.577

-0.118362537341000 0.992968516132000 0.001958500449000 Omega: 0.1595



-0.992960402988000 -0.118352238300000 -0.004731363322000 Phi: -0.2843
-0.004466301906000 -0.002504729563000 0.999986889153000 Kappa: 107.5530

Nombre del modelo: 4694-4693

IMAGEN IZQUIERDA

229030.985 3173730.930 1078.180

-0.119646968029000 0.992816485419000 0.000171237650000 Omega: 0.0064
-0.992816321796000 -0.119647048100000 0.000578831845000 Phi: 0.0379
0.000595161878000 -0.000100752058000 0.999999817816000 Kappa: 107.6353

IMAGEN DERECHA

228970.708 3174224.674 1077.076

-0.123618396238000 0.992328277059000 -0.001755750987000 Omega: -0.1057
-0.992329439240000 -0.123619724800000 -0.000669069020000 Phi: -0.0561
-0.000880981562000 0.001659574154000 0.999998234841000 Kappa: 107.8900

Nombre del modelo: 4695-4694

IMAGEN IZQUIERDA

229092.785 3173234.870 1076.255

-0.120593741242000 0.992701876833000 0.000365109914000 Omega: 0.0432
-0.992698646013000 -0.120592384400000 -0.002622027746000 Phi: -0.1629
-0.002558862389000 -0.000678644253000 0.999996495826000 Kappa: 107.6960

IMAGEN DERECHA

229030.985 3173730.930 1078.180

-0.119646968029000 0.992816485419000 0.000171237650000 Omega: 0.0064
-0.992816321796000 -0.119647048100000 0.000578831845000 Phi: 0.0379
0.000595161878000 -0.000100752058000 0.999999817816000 Kappa: 107.6353



Nombre del modelo: 4696-4695

IMAGEN IZQUIERDA

229154.820 3172735.408 1072.598

-0.125628510452000 0.992077142397000 0.000648764473000 Omega: 0.0460

-0.992077203390000 -0.125628103500000 -0.000634136812000 Phi: -0.0349

-0.000547609586000 -0.000723290107000 0.999999588487000 Kappa: 108.0189

IMAGEN DERECHA

229092.785 3173234.870 1076.255

-0.120593741242000 0.992701876833000 0.000365109914000 Omega: 0.0432

-0.992698646013000 -0.120592384400000 -0.002622027746000 Phi: -0.1629

-0.002558862389000 -0.000678644253000 0.999996495826000 Kappa: 107.6960



1.10 Pasada 11

1.10.1.Resultado de la orientación relativa

Nombre del modelo: 4671-4670

Focal: 153.440

Coord. P.P.: 0.005 0.004

230029.240 3173255.706 899.253

-0.101048744869000 0.994880756384000 0.001196552455000

-0.994881475872000 -0.101048658200000 -0.000132835672000

-0.000011245633000 -0.001203850750000 0.999999275308000

229978.996 3173718.936 893.964

-0.119489264934000 0.992834777064000 0.001192064123000

-0.992834271925000 -0.119487149000000 -0.001711638519000

-0.001556937904000 -0.001388044544000 0.999997824636000

230029.240 3173255.706 0.000

Giros de la cámara izquierda:

Omega: 0.0766 gon Phi: -0.0007 gon Kappa: 106.4440 gon

Giros de la cámara derecha:

Omega: 0.0884 gon Phi: -0.0991 gon Kappa: 107.6252 gon

Nombre del modelo: 4672-4671

Focal: 153.440

Coord. P.P.: 0.005 0.004

230087.255 3172777.310 897.457

-0.128175595815000 0.991751158081000 0.000810605948000

-0.991743043679000 -0.128171088300000 -0.004231717804000

-0.004092914787000 -0.001346315761000 0.999990717698000



230029.240 3173255.706 899.253

-0.101048744869000 0.994880756384000 0.001196552455000

-0.994881475872000 -0.101048658200000 -0.000132835672000

-0.000011245633000 -0.001203850750000 0.999999275308000

230087.255 3172777.310 0.000

Giros de la cámara izquierda:

Omega: 0.0857 gon Phi: -0.2606 gon Kappa: 108.1825 gon

Giros de la cámara derecha:

Omega: 0.0766 gon Phi: -0.0007 gon Kappa: 106.4440 gon

Nombre del modelo: 4673-4672

Focal: 153.440

Coord. P.P.: 0.005 0.004

230153.123 3172280.549 894.974

-0.129112579143000 0.991629910830000 0.000248706151000

-0.991629172053000 -0.129112162300000 -0.001278547391000

-0.001235734846000 -0.000411700826000 0.999999151731000

230087.255 3172777.310 897.457

-0.128175595815000 0.991751158081000 0.000810605948000

-0.991743043679000 -0.128171088300000 -0.004231717804000

-0.004092914787000 -0.001346315761000 0.999990717698000

230153.123 3172280.549 0.000

Giros de la cámara izquierda:

Omega: 0.0262 gon Phi: -0.0787 gon Kappa: 108.2426 gon



Giros de la cámara derecha:

Omega: 0.0857 gon Phi: -0.2606 gon Kappa: 108.1825 gon

Nombre del modelo: 4674-4673

Focal: 153.440

Coord. P.P.: 0.005 0.004

230215.412 3171815.778 893.077

-0.140221297928000 0.990119831636000 0.000840599991000

-0.990115668995000 -0.140218042200000 -0.003140487166000

-0.002991591340000 -0.001272654409000 0.999994715352000

230153.123 3172280.549 894.974

-0.129112579143000 0.991629910830000 0.000248706151000

-0.991629172053000 -0.129112162300000 -0.001278547391000

-0.001235734846000 -0.000411700826000 0.999999151731000

230215.412 3171815.778 0.000

Giros de la cámara izquierda:

Omega: 0.0810 gon Phi: -0.1905 gon Kappa: 108.9563 gon

Giros de la cámara derecha:

Omega: 0.0262 gon Phi: -0.0787 gon Kappa: 108.2426 gon

Nombre del modelo: 4675-4674

Focal: 153.440

Coord. P.P.: 0.005 0.004

230283.927 3171334.221 890.582

-0.137431519433000 0.990511118758000 0.000548711092000



-0.990499687149000 -0.137427212000000 -0.004912346585000

-0.004790326076000 -0.001218609420000 0.999987783809000

230215.412 3171815.778 893.077

-0.140221297928000 0.990119831636000 0.000840599991000

-0.990115668995000 -0.140218042200000 -0.003140487166000

-0.002991591340000 -0.001272654409000 0.999994715352000

230283.927 3171334.221 0.000

Giros de la cámara izquierda:

Omega: 0.0776 gon Phi: -0.3050 gon Kappa: 108.7770 gon

Giros de la cámara derecha:

Omega: 0.0810 gon Phi: -0.1905 gon Kappa: 108.9563 gon

Nombre del modelo: 4676-4675

Focal: 153.440

Coord. P.P.: 0.005 0.004

230347.121 3170853.507 893.812

-0.123531396434000 0.992340481244000 0.000602809582000

-0.992339897229000 -0.123530522800000 -0.001318444899000

-0.001233880863000 -0.000761061338000 0.999998949161000

230283.927 3171334.221 890.582

-0.137431519433000 0.990511118758000 0.000548711092000

-0.990499687149000 -0.137427212000000 -0.004912346585000

-0.004790326076000 -0.001218609420000 0.999987783809000

230347.121 3170853.507 0.000



Giros de la cámara izquierda:

Omega: 0.0485 gon Phi: -0.0786 gon Kappa: 107.8844 gon

Giros de la cámara derecha:

Omega: 0.0776 gon Phi: -0.3050 gon Kappa: 108.7770 gon

Nombre del modelo: 4677-4676

Focal: 153.440

Coord. P.P.: 0.005 0.004

230405.442 3170374.298 894.782

-0.111294345675000 0.993787484357000 -0.000067504952000

-0.993787217960000 -0.111294365300000 -0.000727788952000

-0.000730780473000 -0.000013913237000 0.999999732883000

230347.121 3170853.507 893.812

-0.123531396434000 0.992340481244000 0.000602809582000

-0.992339897229000 -0.123530522800000 -0.001318444899000

-0.001233880863000 -0.000761061338000 0.999998949161000

230405.442 3170374.298 0.000

Giros de la cámara izquierda:

Omega: 0.0009 gon Phi: -0.0465 gon Kappa: 107.0999 gon

Giros de la cámara derecha:

Omega: 0.0485 gon Phi: -0.0786 gon Kappa: 107.8844 gon

Nombre del modelo: 4678-4677

Focal: 153.440

Coord. P.P.: 0.005 0.004



230454.051 3169895.793 895.873

-0.102484869194000 0.994734077308000 -0.000983375805000

-0.994734561686000 -0.102484761200000 0.000159700749000

0.000058078742000 0.000994564811000 0.999999503734000

230405.442 3170374.298 894.782

-0.111294345675000 0.993787484357000 -0.000067504952000

-0.993787217960000 -0.111294365300000 -0.000727788952000

-0.000730780473000 -0.000013913237000 0.999999732883000

230454.051 3169895.793 0.000

Giros de la cámara izquierda:

Omega: -0.0633 gon Phi: 0.0037 gon Kappa: 106.5359 gon

Giros de la cámara derecha:

Omega: 0.0009 gon Phi: -0.0465 gon Kappa: 107.0999 gon

Nombre del modelo: 4679-4678

Focal: 153.440

Coord. P.P.: 0.005 0.004

230507.467 3169420.235 895.747

-0.121886557909000 0.992543102499000 -0.001362601602000

-0.992536066254000 -0.121890966200000 -0.003840511935000

-0.003977962457000 0.000884324453000 0.999991696858000

230454.051 3169895.793 895.873

-0.102484869194000 0.994734077308000 -0.000983375805000

-0.994734561686000 -0.102484761200000 0.000159700749000

0.000058078742000 0.000994564811000 0.999999503734000



230507.467 3169420.235 0.000

Giros de la cámara izquierda:

Omega: -0.0563 gon Phi: -0.2532 gon Kappa: 107.7789 gon

Giros de la cámara derecha:

Omega: -0.0633 gon Phi: 0.0037 gon Kappa: 106.5359 gon

Nombre del modelo: 4680-4679

Focal: 153.440

Coord. P.P.: 0.005 0.004

230570.268 3168945.281 894.968

-0.139553884044000 0.990214478000000 0.000031754425000

-0.990213476356000 -0.139553697100000 -0.001427187853000

-0.001408790627000 -0.000230613267000 0.999998981063000

230507.467 3169420.235 895.747

-0.121886557909000 0.992543102499000 -0.001362601602000

-0.992536066254000 -0.121890966200000 -0.003840511935000

-0.003977962457000 0.000884324453000 0.999991696858000

230570.268 3168945.281 0.000

Giros de la cámara izquierda:

Omega: 0.0147 gon Phi: -0.0897 gon Kappa: 108.9134 gon

Giros de la cámara derecha:

Omega: -0.0563 gon Phi: -0.2532 gon Kappa: 107.7789 gon

Nombre del modelo: 4681-4680



Focal: 153.440

Coord. P.P.: 0.005 0.004

230638.355 3168470.993 891.226

-0.137795899032000 0.990460606833000 -0.000276626298000

-0.990459910960000 -0.137796131600000 -0.001179362676000

-0.001206230305000 0.000111475919000 0.999999266291000

230570.268 3168945.281 894.968

-0.139553884044000 0.990214478000000 0.000031754425000

-0.990213476356000 -0.139553697100000 -0.001427187853000

-0.001408790627000 -0.000230613267000 0.999998981063000

230638.355 3168470.993 0.000

Giros de la cámara izquierda:

Omega: -0.0071 gon Phi: -0.0768 gon Kappa: 108.8004 gon

Giros de la cámara derecha:

Omega: 0.0147 gon Phi: -0.0897 gon Kappa: 108.9134 gon

1.10.2.Resultados de la orientación externa

Nombre del modelo: 4671-4670

IMAGEN IZQUIERDA

230029.240 3173255.706 899.253

-0.101048744869000 0.994880756384000 0.001196552455000 Omega: 0.0766

-0.994881475872000 -0.101048658200000 -0.000132835672000 Phi: -0.0007

-0.000011245633000 -0.001203850750000 0.999999275308000 Kappa: 106.4440

IMAGEN DERECHA

229978.996 3173718.936 893.964

-0.119489264934000 0.992834777064000 0.001192064123000 Omega: 0.0884



-0.992834271925000 -0.119487149000000 -0.001711638519000 Phi: -0.0991
-0.001556937904000 -0.001388044544000 0.999997824636000 Kappa: 107.6252

Nombre del modelo: 4672-4671

IMAGEN IZQUIERDA

230087.255 3172777.310 897.457

-0.128175595815000 0.991751158081000 0.000810605948000 Omega: 0.0857
-0.991743043679000 -0.128171088300000 -0.004231717804000 Phi: -0.2606
-0.004092914787000 -0.001346315761000 0.999990717698000 Kappa: 108.1825

IMAGEN DERECHA

230029.240 3173255.706 899.253

-0.101048744869000 0.994880756384000 0.001196552455000 Omega: 0.0766
-0.994881475872000 -0.101048658200000 -0.000132835672000 Phi: -0.0007
-0.000011245633000 -0.001203850750000 0.999999275308000 Kappa: 106.4440

Nombre del modelo: 4673-4672

IMAGEN IZQUIERDA

230153.123 3172280.549 894.974

-0.129112579143000 0.991629910830000 0.000248706151000 Omega: 0.0262
-0.991629172053000 -0.129112162300000 -0.001278547391000 Phi: -0.0787
-0.001235734846000 -0.000411700826000 0.999999151731000 Kappa: 108.2426

IMAGEN DERECHA

230087.255 3172777.310 897.457

-0.128175595815000 0.991751158081000 0.000810605948000 Omega: 0.0857
-0.991743043679000 -0.128171088300000 -0.004231717804000 Phi: -0.2606
-0.004092914787000 -0.001346315761000 0.999990717698000 Kappa: 108.1825



Nombre del modelo: 4674-4673

IMAGEN IZQUIERDA

230215.412 3171815.778 893.077

-0.140221297928000 0.990119831636000 0.000840599991000 Omega: 0.0810

-0.990115668995000 -0.140218042200000 -0.003140487166000 Phi: -0.1905

-0.002991591340000 -0.001272654409000 0.999994715352000 Kappa: 108.9563

IMAGEN DERECHA

230153.123 3172280.549 894.974

-0.129112579143000 0.991629910830000 0.000248706151000 Omega: 0.0262

-0.991629172053000 -0.129112162300000 -0.001278547391000 Phi: -0.0787

-0.001235734846000 -0.000411700826000 0.999999151731000 Kappa: 108.2426

Nombre del modelo: 4675-4674

IMAGEN IZQUIERDA

230283.927 3171334.221 890.582

-0.137431519433000 0.990511118758000 0.000548711092000 Omega: 0.0776

-0.990499687149000 -0.137427212000000 -0.004912346585000 Phi: -0.3050

-0.004790326076000 -0.001218609420000 0.999987783809000 Kappa: 108.7770

IMAGEN DERECHA

230215.412 3171815.778 893.077

-0.140221297928000 0.990119831636000 0.000840599991000 Omega: 0.0810

-0.990115668995000 -0.140218042200000 -0.003140487166000 Phi: -0.1905

-0.002991591340000 -0.001272654409000 0.999994715352000 Kappa: 108.9563

Nombre del modelo: 4676-4675



IMAGEN IZQUIERDA

230347.121 3170853.507 893.812

-0.123531396434000 0.992340481244000 0.000602809582000 Omega: 0.0485

-0.992339897229000 -0.123530522800000 -0.001318444899000 Phi: -0.0786

-0.001233880863000 -0.000761061338000 0.999998949161000 Kappa: 107.8844

IMAGEN DERECHA

230283.927 3171334.221 890.582

-0.137431519433000 0.990511118758000 0.000548711092000 Omega: 0.0776

-0.990499687149000 -0.137427212000000 -0.004912346585000 Phi: -0.3050

-0.004790326076000 -0.001218609420000 0.999987783809000 Kappa: 108.7770

Nombre del modelo: 4677-4676

IMAGEN IZQUIERDA

230405.442 3170374.298 894.782

-0.111294345675000 0.993787484357000 -0.000067504952000 Omega: 0.0009

-0.993787217960000 -0.111294365300000 -0.000727788952000 Phi: -0.0465

-0.000730780473000 -0.000013913237000 0.999999732883000 Kappa: 107.0999

IMAGEN DERECHA

230347.121 3170853.507 893.812

-0.123531396434000 0.992340481244000 0.000602809582000 Omega: 0.0485

-0.992339897229000 -0.123530522800000 -0.001318444899000 Phi: -0.0786

-0.001233880863000 -0.000761061338000 0.999998949161000 Kappa: 107.8844

Nombre del modelo: 4678-4677

IMAGEN IZQUIERDA

230454.051 3169895.793 895.873



-0.102484869194000 0.994734077308000 -0.000983375805000 Omega: -0.0633

-0.994734561686000 -0.102484761200000 0.000159700749000 Phi: 0.0037

0.000058078742000 0.000994564811000 0.999999503734000 Kappa: 106.5359

IMAGEN DERECHA

230405.442 3170374.298 894.782

-0.111294345675000 0.993787484357000 -0.000067504952000 Omega: 0.0009

-0.993787217960000 -0.111294365300000 -0.000727788952000 Phi: -0.0465

-0.000730780473000 -0.000013913237000 0.999999732883000 Kappa: 107.0999

Nombre del modelo: 4679-4678

IMAGEN IZQUIERDA

230507.467 3169420.235 895.747

-0.121886557909000 0.992543102499000 -0.001362601602000 Omega: -0.0563

-0.992536066254000 -0.121890966200000 -0.003840511935000 Phi: -0.2532

-0.003977962457000 0.000884324453000 0.999991696858000 Kappa: 107.7789

IMAGEN DERECHA

230454.051 3169895.793 895.873

-0.102484869194000 0.994734077308000 -0.000983375805000 Omega: -0.0633

-0.994734561686000 -0.102484761200000 0.000159700749000 Phi: 0.0037

0.000058078742000 0.000994564811000 0.999999503734000 Kappa: 106.5359

Nombre del modelo: 4680-4679

IMAGEN IZQUIERDA

230570.268 3168945.281 894.968

-0.139553884044000 0.990214478000000 0.000031754425000 Omega: 0.0147

-0.990213476356000 -0.139553697100000 -0.001427187853000 Phi: -0.0897



-0.001408790627000 -0.000230613267000 0.999998981063000 Kappa: 108.9134

IMAGEN DERECHA

230507.467 3169420.235 895.747

-0.121886557909000 0.992543102499000 -0.001362601602000 Omega: -0.0563

-0.992536066254000 -0.121890966200000 -0.003840511935000 Phi: -0.2532

-0.003977962457000 0.000884324453000 0.999991696858000 Kappa: 107.7789

Nombre del modelo: 4681-4680

IMAGEN IZQUIERDA

230638.355 3168470.993 891.226

-0.137795899032000 0.990460606833000 -0.000276626298000 Omega: -0.0071

-0.990459910960000 -0.137796131600000 -0.001179362676000 Phi: -0.0768

-0.001206230305000 0.000111475919000 0.999999266291000 Kappa: 108.8004

IMAGEN DERECHA

230570.268 3168945.281 894.968

-0.139553884044000 0.990214478000000 0.000031754425000 Omega: 0.0147

-0.990213476356000 -0.139553697100000 -0.001427187853000 Phi: -0.0897

-0.001408790627000 -0.000230613267000 0.999998981063000 Kappa: 108.9134



1.11 Pasada 12

1.11.1.Resultados de la orientación relativa

Nombre del modelo: 4639-4640

Focal:153.440

Coord. P.P.: 0.005 0.004

229935.885 3163597.290 928.643

-0.137042124084000 -0.990563601192000 0.001791150315000

0.990564401285000 -0.137044112300000 -0.001038353887000

0.001274022170000 0.001631951517000 0.999997856799000

229998.903 3164070.844 928.088

-0.138610440080000 -0.990344250392000 -0.002326288093000

0.990346803850000 -0.138611443900000 0.000275190624000

-0.000594983604000 -0.002265687684000 0.999997256323000

229935.885 3163597.290 0.000

Giros de la cámara izquierda:

Omega: -0.1039 gon Phi: 0.0811 gon Kappa: -108.7519 gon

Giros de la cámara derecha:

Omega: 0.1442 gon Phi: -0.0379 gon Kappa: -108.8527 gon

Nombre del modelo: 4640-4641

Focal:153.440

Coord. P.P.: 0.005 0.004

229998.903 3164070.844 928.088

-0.138610440080000 -0.990344250392000 -0.002326288093000

0.990346803850000 -0.138611443900000 0.000275190624000

-0.000594983604000 -0.002265687684000 0.999997256323000



230071.636 3164546.882 928.911

-0.153352081842000 -0.988171305979000 0.000780406488000

0.988171588594000 -0.153352209600000 -0.000106278467000

0.000224698391000 0.000754877495000 0.999999689835000

229998.903 3164070.844 0.000

Giros de la cámara izquierda:

Omega: 0.1442 gon Phi: -0.0379 gon Kappa: -108.8527 gon

Giros de la cámara derecha:

Omega: -0.0481 gon Phi: 0.0143 gon Kappa: -109.8014 gon

1.11.2.Resultados de la orientación externa

Nombre del modelo: 4639-4640

IMAGEN IZQUIERDA

229935.885 3163597.290 928.643

-0.137042124084000 -0.990563601192000 0.001791150315000 Omega: -0.1039

0.990564401285000 -0.137044112300000 -0.001038353887000 Phi: 0.0811

0.001274022170000 0.001631951517000 0.999997856799000 Kappa: -108.7519

IMAGEN DERECHA

229998.903 3164070.844 928.088

-0.138610440080000 -0.990344250392000 -0.002326288093000 Omega: 0.1442

0.990346803850000 -0.138611443900000 0.000275190624000 Phi: -0.0379

-0.000594983604000 -0.002265687684000 0.999997256323000 Kappa: -108.8527

Nombre del modelo: 4640-4641

IMAGEN IZQUIERDA

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA





229998.903 3164070.844 928.088

-0.138610440080000 -0.990344250392000 -0.002326288093000 Omega: 0.1442

0.990346803850000 -0.138611443900000 0.000275190624000 Phi: -0.0379

-0.000594983604000 -0.002265687684000 0.999997256323000 Kappa: -108.8527

IMAGEN DERECHA

230071.636 3164546.882 928.911

-0.153352081842000 -0.988171305979000 0.000780406488000 Omega: -0.0481

0.988171588594000 -0.153352209600000 -0.000106278467000 Phi: 0.0143

0.000224698391000 0.000754877495000 0.999999689835000 Kappa: -109.8014



1.12 Pasada 13

1.12.1. Resultados de la orientación relativa

Nombre del modelo: 7024-7023

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

222884.347 3192723.416 1149.897

-0.981777170150000 -0.190033537661000 -0.000918006401000

0.190035418860000 -0.981773064023000 -0.002861876691000

-0.000357421405000 -0.002984178930000 0.999995483453000

222401.261 3192631.044 1144.437

-0.982732418151000 -0.185028739625000 -0.001166116275000

0.185030053422000 -0.982732199188000 -0.001141932683000

-0.000934689646000 -0.001337980823000 0.999998668080000

222884.347 3192723.416 0.000

Giros de la cámara izquierda:

Omega: 0.1900 gon Phi: -0.0228 gon Kappa: -187.8279 gon

Giros de la cámara derecha:

Omega: 0.0852 gon Phi: -0.0595 gon Kappa: -188.1523 gon

Nombre del modelo: 7023-7022

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

223380.651 3192817.333 1152.845

-0.982772858974000 -0.184817476716000 0.000089246805000

0.184817172335000 -0.982771918140000 -0.001403468784000

0.000347094813000 -0.001362796687000 0.999999011155000



222884.347 3192723.416 1149.897

-0.981777170150000 -0.190033537661000 -0.000918006401000

0.190035418860000 -0.981773064023000 -0.002861876691000

-0.000357421405000 -0.002984178930000 0.999995483453000

223380.651 3192817.333 0.000

Giros de la cámara izquierda:

Omega: 0.0868 gon Phi: 0.0221 gon Kappa: -188.1661 gon

Giros de la cámara derecha:

Omega: 0.1900 gon Phi: -0.0228 gon Kappa: -187.8279 gon

Nombre del modelo: 7022-7021

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

223879.263 3192909.443 1144.395

-0.984916699393000 -0.173027145874000 -0.000837882288000

0.173027494442000 -0.984916927824000 -0.000362563390000

-0.000762511140000 -0.000502071411000 0.999999583250000

223380.651 3192817.333 1152.845

-0.982772858974000 -0.184817476716000 0.000089246805000

0.184817172335000 -0.982771918140000 -0.001403468784000

0.000347094813000 -0.001362796687000 0.999999011155000

223879.263 3192909.443 0.000

Giros de la cámara izquierda:

Omega: 0.0320 gon Phi: -0.0485 gon Kappa: -188.9290 gon



Giros de la cámara derecha:

Omega: 0.0868 gon Phi: 0.0221 gon Kappa: -188.1661 gon

Nombre del modelo: 7021-7020

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

224365.894 3192990.859 1143.209

-0.986306463435000 -0.164916466562000 0.001455762055000

0.164910605564000 -0.986302307311000 -0.003500109381000

0.002013047145000 -0.003212109903000 0.999992814970000

223879.263 3192909.443 1144.395

-0.984916699393000 -0.173027145874000 -0.000837882288000

0.173027494442000 -0.984916927824000 -0.000362563390000

-0.000762511140000 -0.000502071411000 0.999999583250000

224365.894 3192990.859 0.000

Giros de la cámara izquierda:

Omega: 0.2045 gon Phi: 0.1282 gon Kappa: -189.4533 gon

Giros de la cámara derecha:

Omega: 0.0320 gon Phi: -0.0485 gon Kappa: -188.9290 gon

Nombre del modelo: 7020-7019

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

224864.930 3193077.774 1145.509

-0.984367205149000 -0.176127887066000 -0.000415721321000



0.176127888886000 -0.984356170431000 -0.004679368597000

0.000414949456000 -0.004679437106000 0.999988965282000

224365.894 3192990.859 1143.209

-0.986306463435000 -0.164916466562000 0.001455762055000

0.164910605564000 -0.986302307311000 -0.003500109381000

0.002013047145000 -0.003212109903000 0.999992814970000

224864.930 3193077.774 0.000

Giros de la cámara izquierda:

Omega: 0.2979 gon Phi: 0.0264 gon Kappa: -188.7286 gon

Giros de la cámara derecha:

Omega: 0.2045 gon Phi: 0.1282 gon Kappa: -189.4533 gon

Nombre del modelo: 7019-7018

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

225361.943 3193170.832 1143.738

-0.981971361996000 -0.189026397678000 -0.001124811457000

0.189029089235000 -0.981966239453000 -0.003210606997000

-0.000497637401000 -0.003365346211000 0.999994213384000

224864.930 3193077.774 1145.509

-0.984367205149000 -0.176127887066000 -0.000415721321000

0.17612788886000 -0.984356170431000 -0.004679368597000

0.000414949456000 -0.004679437106000 0.999988965282000

225361.943 3193170.832 0.000



Giros de la cámara izquierda:

Omega: 0.2142 gon Phi: -0.0317 gon Kappa: -187.8932 gon

Giros de la cámara derecha:

Omega: 0.2979 gon Phi: 0.0264 gon Kappa: -188.7286 gon

Nombre del modelo: 7018-7017

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

225843.396 3193262.992 1146.192

-0.982007009045000 -0.188839996926000 0.001299903238000

0.188839424881000 -0.982007824998000 -0.000550684227000

0.001380506359000 -0.000295302791000 0.999999003499000

225361.943 3193170.832 1143.738

-0.981971361996000 -0.189026397678000 -0.001124811457000

0.189029089235000 -0.981966239453000 -0.003210606997000

-0.000497637401000 -0.003365346211000 0.999994213384000

225843.396 3193262.992 0.000

Giros de la cámara izquierda:

Omega: 0.0188 gon Phi: 0.0879 gon Kappa: -187.9055 gon

Giros de la cámara derecha:

Omega: 0.2142 gon Phi: -0.0317 gon Kappa: -187.8932 gon

Nombre del modelo: 7017-7016

Focal: 153.440

Coordenadas P.P.: 0.005 0.004



226340.945 3193355.519 1143.723

-0.984383268475000 -0.176037272813000 -0.000677736724000

0.176038249543000 -0.984381570396000 -0.001859721375000

-0.000339771262000 -0.001949986192000 0.999998041053000

225843.396 3193262.992 1146.192

-0.982007009045000 -0.188839996926000 0.001299903238000

0.188839424881000 -0.982007824998000 -0.000550684227000

0.001380506359000 -0.000295302791000 0.999999003499000

226340.945 3193355.519 0.000

Giros de la cámara izquierda:

Omega: 0.1241 gon Phi: -0.0216 gon Kappa: -188.7344 gon

Giros de la cámara derecha:

Omega: 0.0188 gon Phi: 0.0879 gon Kappa: -187.9055 gon

1.12.2.Resultados de la orientación externa

Nombre del modelo: 7024-7023

IMAGEN IZQUIERDA

222884.347 3192723.416_1149.897

-0.981777170150000_-0.190033537661000_-0.000918006401000_Omega:_0.1900

0.190035418860000-0.981773064023000_-0.002861876691000_Phi:_-0.0228

_ -0.000357421405000_-0.002984178930000_0.999995483453000_Kappa: -187.8279

IMAGEN DERECHA

222401.261 3192631.044_1144.437

-0.982732418151000_-0.185028739625000_-0.001166116275000_Omega:_0.0852

0.185030053422000-0.982732199188000_-0.001141932683000_Phi:_-0.0595

_ -0.000934689646000_-0.001337980823000_0.999998668080000_Kappa: -188.1523



Nombre del modelo: 7023-7022

IMAGEN IZQUIERDA

223380.651 3192817.333_1152.845

_ -0.982772858974000_-0.184817476716000_0.000089246805000_Omega:_0.0868

_ -0.184817172335000_-0.982771918140000_-0.001403468784000_Phi:_0.0221

_ -0.000347094813000_-0.001362796687000_0.999999011155000_Kappa: -188.1661

IMAGEN DERECHA

222884.347 3192723.416_1149.897

_ -0.981777170150000_-0.190033537661000_-0.000918006401000_Omega:_0.1900

_ -0.190035418860000_-0.981773064023000_-0.002861876691000_Phi:_-0.0228

_ -0.000357421405000_-0.002984178930000_0.999995483453000_Kappa: -187.8279

Nombre del modelo: 7022-7021

IMAGEN IZQUIERDA

223879.263 3192909.443_1144.395

_ -0.984916699393000_-0.173027145874000_-0.000837882288000_Omega:_0.0320

_ -0.173027494442000_-0.984916927824000_-0.000362563390000_Phi:_-0.0485

_ -0.000762511140000_-0.000502071411000_0.999999583250000_Kappa: -188.9290

IMAGEN DERECHA

223380.651 3192817.333_1152.845

_ -0.982772858974000_-0.184817476716000_0.000089246805000_Omega:_0.0868

_ -0.184817172335000_-0.982771918140000_-0.001403468784000_Phi:_0.0221

_ -0.000347094813000_-0.001362796687000_0.999999011155000_Kappa: -188.1661

Nombre del modelo: 7021-7020



IMAGEN IZQUIERDA

224365.894 3192990.859_1143.209

_ -0.986306463435000_-0.164916466562000_0.001455762055000_Omega:_0.2045

_ 0.164910605564000_-0.986302307311000_-0.003500109381000_Phi:_0.1282

_ 0.002013047145000_-0.003212109903000_0.999992814970000_Kappa: -189.4533

IMAGEN DERECHA

223879.263 3192909.443_1144.395

_ -0.984916699393000_-0.173027145874000_-0.000837882288000_Omega:_0.0320

_ 0.173027494442000_-0.984916927824000_-0.000362563390000_Phi:_-0.0485

_ -0.000762511140000_-0.000502071411000_0.999999583250000_Kappa: -188.9290

Nombre del modelo: 7020-7019

IMAGEN IZQUIERDA

224864.930 3193077.774_1145.509

_ -0.984367205149000_-0.176127887066000_-0.000415721321000_Omega:_0.2979

_ 0.176127888886000_-0.984356170431000_-0.004679368597000_Phi:_0.0264

_ 0.000414949456000_-0.004679437106000_0.999988965282000_Kappa: -188.7286

IMAGEN DERECHA

224365.894 3192990.859_1143.209

_ -0.986306463435000_-0.164916466562000_0.001455762055000_Omega:_0.2045

_ 0.164910605564000_-0.986302307311000_-0.003500109381000_Phi:_0.1282

_ 0.002013047145000_-0.003212109903000_0.999992814970000_Kappa: -189.4533

Fecha: 29/9/2004 11:55

Nombre del modelo: 7019-7018

IMAGEN IZQUIERDA



225361.943 3193170.832_1143.738

_ -0.981971361996000_-0.189026397678000_-0.001124811457000_Omega:_0.2142

_ -0.189029089235000_-0.981966239453000_-0.003210606997000_Phi:_-0.0317

_ -0.000497637401000_-0.003365346211000_0.999994213384000_Kappa: -187.8932

IMAGEN DERECHA

224864.930 3193077.774_1145.509

_ -0.984367205149000_-0.176127887066000_-0.000415721321000_Omega:_0.2979

_ -0.176127888886000_-0.984356170431000_-0.004679368597000_Phi:_0.0264

_ -0.000414949456000_-0.004679437106000_0.999988965282000_Kappa: -188.7286

IMAGEN IZQUIERDA

Nombre del modelo: 7018-7017

225843.396 3193262.992_1146.192

_ -0.982007009045000_-0.188839996926000_0.001299903238000_Omega:_0.0188

_ -0.188839424881000_-0.982007824998000_-0.000550684227000_Phi:_0.0879

_ -0.001380506359000_-0.000295302791000_0.999999003499000_Kappa: -187.9055

IMAGEN DERECHA

225361.943 3193170.832_1143.738

_ -0.981971361996000_-0.189026397678000_-0.001124811457000_Omega:_0.2142

_ -0.189029089235000_-0.981966239453000_-0.003210606997000_Phi:_-0.0317

_ -0.000497637401000_-0.003365346211000_0.999994213384000_Kappa: -187.8932

Nombre del modelo: 7017-7016

IMAGEN IZQUIERDA

226340.945 3193355.519_1143.723

_ -0.984383268475000_-0.176037272813000_-0.000677736724000_Omega:_0.1241



0.176038249543000-0.984381570396000_-0.001859721375000_Phi:_-0.0216
-0.000339771262000-0.001949986192000_0.999998041053000_Kappa: -188.7344

IMAGEN DERECHA

225843.396 3193262.992_1146.192
-0.982007009045000-0.188839996926000_0.001299903238000_Omega:_0.0188
-0.188839424881000-0.982007824998000_-0.000550684227000_Phi:_0.0879
-0.001380506359000-0.000295302791000_0.999999003499000_Kappa: -187.9055

1.13 Pasada 14

1.13.1. Resultados de la orientación relativa

Nombre del modelo: 7003-7002

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

216686.386 3194041.758 1879.515

0.982432191712000 -0.186343184262000 0.010159053464000

0.186189789767000 0.982408322229000 0.014396200939000

-0.012662972593000 -0.012251779212000 0.999844759466000

217179.001 3193926.525 1874.952

0.981610080846000 -0.190873215437000 0.003010782470000

0.190847653787000 0.981592922924000 0.007246151400000

-0.004338458982000 -0.006538294491000 0.999969213766000

216686.386 3194041.758 0.000

Giros de la cámara izquierda:

Omega: 0.7801 gon Phi: -0.8062 gon Kappa: -11.9238 gon

Giros de la cámara derecha:

Omega: 0.4162 gon Phi: -0.2762 gon Kappa: -12.2248 gon



Nombre del modelo: 7002-7001

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

217179.001 3193926.525 1874.952

0.981610080846000 -0.190873215437000 0.003010782470000

0.190847653787000 0.981592922924000 0.007246151400000

-0.004338458982000 -0.006538294491000 0.999969213766000

217665.857 3193814.941 1870.169

0.973866067430000 -0.226937152296000 0.009187579472000

0.226980209303000 0.973891409062000 -0.003938012152000

-0.008054023454000 0.005920495120000 0.999950038974000

217179.001 3193926.525 0.000

Giros de la cámara izquierda:

Omega: 0.4162 gon Phi: -0.2762 gon Kappa: -12.2248 gon

Giros de la cámara derecha:

Omega: -0.3769 gon Phi: -0.5127 gon Kappa: -14.5775 gon

Nombre del modelo: 7001-7000

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

217665.857 3193814.941 1870.169

0.973866067430000 -0.226937152296000 0.009187579472000

0.226980209303000 0.973891409062000 -0.003938012152000

-0.008054023454000 0.005920495120000 0.999950038974000

218151.480 3193700.019 1874.463



0.961933798052000 -0.273049588610000 0.011282301448000
0.273196529314000 0.961847000753000 -0.014628858901000
-0.006857443904000 0.017154279402000 0.999829338518000
217665.857 3193814.941 0.000

Giros de la cámara izquierda:

Omega: -0.3769 gon Phi: -0.5127 gon Kappa: -14.5775 gon

Giros de la cámara derecha:

Omega: -1.0922 gon Phi: -0.4366 gon Kappa: -17.6166 gon

Nombre del modelo: 7000-6999

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

218151.480 3193700.019 1874.463

0.961933798052000 -0.273049588610000 0.011282301448000

0.273196529314000 0.961847000753000 -0.014628858901000

-0.006857443904000 0.017154279402000 0.999829338518000

218632.801 3193570.280 1876.861

0.965866825340000 -0.257983304222000 0.023364298638000

0.258182060771000 0.966078383548000 -0.005880504833000

-0.021054671794000 0.011712027305000 0.999709722476000

218151.480 3193700.019 0.000

Giros de la cámara izquierda:

Omega: -1.0922 gon Phi: -0.4366 gon Kappa: -17.6166 gon

Giros de la cámara derecha:



Omega: -0.7458 gon Phi: -1.3405 gon Kappa: -16.6285 gon

Nombre del modelo: 6999-6998

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

218632.801 3193570.280 1876.861

0.965866825340000 -0.257983304222000 0.023364298638000

0.258182060771000 0.966078383548000 -0.005880504833000

-0.021054671794000 0.011712027305000 0.999709722476000

219114.898 3193429.824 1883.704

0.963810096244000 -0.266584914362000 0.001606801683000

0.266586863966000 0.963810209529000 -0.001150638565000

-0.001241908983000 0.001537349288000 0.999998047108000

218632.801 3193570.280 0.000

Giros de la cámara izquierda:

Omega: -0.7458 gon Phi: -1.3405 gon Kappa: -16.6285 gon

Giros de la cámara derecha:

Omega: -0.0979 gon Phi: -0.0791 gon Kappa: -17.1792 gon

Nombre del modelo: 6998-6997

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

219114.898 3193429.824 1883.704

0.963810096244000 -0.266584914362000 0.001606801683000

0.266586863966000 0.963810209529000 -0.001150638565000



-0.001241908983000 0.001537349288000 0.999998047108000

219599.133 3193287.176 1880.696

0.966880718479000 -0.254949030011000 -0.011944384893000

0.254986948275000 0.966942926427000 0.001741620264000

0.011105514086000 -0.004729601305000 0.999927146560000

219114.898 3193429.824 0.000

Giros de la cámara izquierda:

Omega: -0.0979 gon Phi: -0.0791 gon Kappa: -17.1792 gon

Giros de la cámara derecha:

Omega: 0.3011 gon Phi: 0.7070 gon Kappa: -16.4153 gon

Nombre del modelo: 6997-6996

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

219599.133 3193287.176 1880.696

0.966880718479000 -0.254949030011000 -0.011944384893000

0.254986948275000 0.966942926427000 0.001741620264000

0.011105514086000 -0.004729601305000 0.999927146560000

220077.407 3193155.782 1875.080

0.981935112192000 -0.189153147592000 -0.004951989528000

0.188994707887000 0.981711562095000 -0.022878138921000

0.009188897362000 0.021528948094000 0.999725996741000

219599.133 3193287.176 0.000

Giros de la cámara izquierda:

Omega: 0.3011 gon Phi: 0.7070 gon Kappa: -16.4153 gon



Giros de la cámara derecha:

Omega: -1.3707 gon Phi: 0.5850 gon Kappa: -12.1051 gon

Nombre del modelo: 6996-6995

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

220077.407 3193155.782 1875.080

0.981935112192000 -0.189153147592000 -0.004951989528000

0.188994707887000 0.981711562095000 -0.022878138921000

0.009188897362000 0.021528948094000 0.999725996741000

220571.749 3193042.630 1875.483

0.982089193886000 -0.187999450079000 0.012530842819000

0.188225631197000 0.981915240512000 -0.020336474885000

-0.008480979445000 0.022330858026000 0.999714662175000

220077.407 3193155.782 0.000

Giros de la cámara izquierda:

Omega: -1.3707 gon Phi: 0.5850 gon Kappa: -12.1051 gon

Giros de la cámara derecha:

Omega: -1.4218 gon Phi: -0.5399 gon Kappa: -12.0552 gon

Nombre del modelo: 6995-6994

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

220571.749 3193042.630 1875.483

0.982089193886000 -0.187999450079000 0.012530842819000



0.188225631197000 0.981915240512000 -0.020336474885000
-0.008480979445000 0.022330858026000 0.999714662175000
221063.664 3192941.289 1881.605
0.968626534283000 -0.248311370780000 0.010202951775000
0.248115556805000 0.968575222069000 0.017340982237000
-0.014188289351000 -0.014265424465000 0.999797574567000
220571.749 3193042.630 0.000

Giros de la cámara izquierda:

Omega: -1.4218 gon Phi: -0.5399 gon Kappa: -12.0552 gon

Giros de la cámara derecha:

Omega: 0.9083 gon Phi: -0.9033 gon Kappa: -15.9639 gon

Nombre del modelo: 6994-6993

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

221063.664 3192941.289 1881.605
0.968626534283000 -0.248311370780000 0.010202951775000
0.248115556805000 0.968575222069000 0.017340982237000
-0.014188289351000 -0.014265424465000 0.999797574567000

221546.230 3192820.115 1882.303

0.955264040315000 -0.295731381439000 0.003682840535000
0.295548434876000 0.954989605511000 0.025416058091000
-0.011033400400000 -0.023190588585000 0.999670175946000
221063.664 3192941.289 0.000



Giros de la cámara izquierda:

Omega: 0.9083 gon Phi: -0.9033 gon Kappa: -15.9639 gon

Giros de la cámara derecha:

Omega: 1.4766 gon Phi: -0.7024 gon Kappa: -19.1017 gon

Nombre del modelo: 6993-6992

Focal: 305.581

Coordenadas P.P.: 0.010 0.012

221546.230 3192820.115 1882.303

0.955264040315000 -0.295731381439000 0.003682840535000

0.295548434876000 0.954989605511000 0.025416058091000

-0.011033400400000 -0.023190588585000 0.999670175946000

222028.467 3192682.089 1871.746

0.951403715530000 -0.307152338793000 -0.022100019201000

0.307556496388000 0.951359227764000 0.018017249435000

0.015491016899000 -0.023938682531000 0.999593401276000

221546.230 3192820.115 0.000

Giros de la cámara izquierda:

Omega: 1.4766 gon Phi: -0.7024 gon Kappa: -19.1017 gon

Giros de la cámara derecha:

Omega: 1.5243 gon Phi: 0.9862 gon Kappa: -19.9047 gon

Nombre del modelo: 6992-6991

Focal: 305.581



Coordenadas P.P.: 0.010 0.012

222028.467 3192682.089 1871.746

0.951403715530000 -0.307152338793000 -0.022100019201000

0.307556496388000 0.951359227764000 0.018017249435000

0.015491016899000 -0.023938682531000 0.999593401276000

222509.327 3192536.218 1864.180

0.950039466575000 -0.312129624940000 0.000330429864000

0.311946765861000 0.949445579346000 -0.035246377519000

0.010687713422000 0.033588526225000 0.999378598774000

222028.467 3192682.089 0.000

Giros de la cámara izquierda:

Omega: 1.5243 gon Phi: 0.9862 gon Kappa: -19.9047 gon

Giros de la cámara derecha:

Omega: -2.1388 gon Phi: 0.6804 gon Kappa: -20.1974 gon

Nombre del modelo: 6991-6990

Focal: 305.581

Coord. P.P.; 0.010 0.012

219221.386 3154845.390 1904.744

-0.110179125687000 0.993738068086000 0.018579889661000

-0.993882025432000 -0.110012012300000 -0.009791663381000

-0.007686337601000 -0.019545055279000 0.999779431189000

219154.369 3155328.007 1907.472

-0.111898792121000 0.993717292355000 0.002145506035000

-0.993661474163000 -0.111868631200000 -0.011058215215000



-0.010748724858000 -0.003369307615000 0.999936554327000

219221.386 3154845.390 0.000

Giros de la cámara izquierda:

Omega: 1.2444 gon Phi: -0.4893 gon Kappa: 107.0287 gon

Giros de la cámara derecha:

Omega: 0.2145 gon Phi: -0.6843 gon Kappa: 107.1391 gon

Nombre del modelo: 6990-6989

Focal: 305.581

Coord. P.P.; 0.010 0.012

219154.369 3155328.007 1907.472

-0.111898792121000 0.993717292355000 0.002145506035000

-0.993661474163000 -0.111868631200000 -0.011058215215000

-0.010748724858000 -0.003369307615000 0.999936554327000

219088.820 3155813.765 1908.438

-0.107373355038000 0.994218076456000 -0.001174340949000

-0.994177570415000 -0.107358077700000 0.009230473052000

0.009051028176000 0.002158610291000 0.999956708708000

219154.369 3155328.007 0.000

Giros de la cámara izquierda:

Omega: 0.2145 gon Phi: -0.6843 gon Kappa: 107.1391 gon

Giros de la cámara derecha:

Omega: -0.1374 gon Phi: 0.5762 gon Kappa: 106.8491 gon



Nombre del modelo: 6989-6988

Focal: 305.581

Coord. P.P.; 0.010 0.012

80.460 1.158 -0.045

0.999999354184443 -0.001066275412039 0.000393303244105

0.001069378687643 0.999967616812451 -0.007976324695648

-0.000384785548791 0.007976740134520 0.999968111270008

4.180 -1.747 -306.084

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -0.5078 gon Phi: -0.0245 gon Kappa: -0.0681 gon

Nombre del modelo: 6988-6987

Focal: 305.581

Coord. P.P.; 0.010 0.012

83.009 2.250 0.427

0.999505127808818 0.031087438537804 0.004803191547031

-0.030652423025292 0.996840472189613 -0.073276885628875

-0.007066006407989 0.073093393476750 0.997300068877715

7.722 -1.189 -311.996

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:



Omega: -4.6575 gon Phi: -0.4498 gon Kappa: 1.9517 gon

Nombre del modelo: 6987-6986

Focal: 305.581

Coord. P.P.; 0.010 0.012

218963.809 3156781.410 1909.445

-0.137253557398000 0.990532522471000 0.002604401624000

-0.987972009061000 -0.136708756500000 -0.072263581396000

-0.071223383056000 -0.012491509521000 0.997382169430000

218877.814 3157254.400 1915.593

-0.110938223157000 0.993694295949000 0.016259054125000

-0.991486945965000 -0.109540069000000 -0.070388985388000

-0.068164115367000 -0.023929468887000 0.997387103333000

218963.809 3156781.410 0.000

Giros de la cámara izquierda:

Omega: 0.7973 gon Phi: -4.5381 gon Kappa: 108.7880 gon

Giros de la cámara derecha:

Omega: 1.5271 gon Phi: -4.3428 gon Kappa: 107.0937 gon

Nombre del modelo: 6986-6985

Focal: 305.581

Coord. P.P.; 0.010 0.012

218877.814 3157254.400 1915.593

-0.110938223157000 0.993694295949000 0.016259054125000

-0.991486945965000 -0.109540069000000 -0.070388985388000



-0.068164115367000 -0.023929468887000 0.997387103333000

218782.426 3157730.795 1916.569

-0.097663823690000 0.995182255706000 0.008605548851000

-0.995197951346000 -0.097601210500000 -0.007418985705000

-0.006543330944000 -0.009288791099000 0.999935449507000

218877.814 3157254.400 0.000

Giros de la cámara izquierda:

Omega: 1.5271 gon Phi: -4.3428 gon Kappa: 107.0937 gon

Giros de la cámara derecha:

Omega: 0.5914 gon Phi: -0.4166 gon Kappa: 106.2275 gon

Nombre del modelo: 6985-6984

Focal: 305.581

Coord. P.P.; 0.010 0.012

82.612 6.927 -0.956

0.999143953027473 -0.041139051604278 0.004351960677261

0.041245519077252 0.998752624361329 -0.028142538751978

-0.003188774793538 0.028297946294018 0.999594446738705

-4.277 -1.601 -310.160

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -1.8018 gon Phi: -0.2030 gon Kappa: -2.6265 gon



Nombre del modelo: 6984-6983

Focal: 305.581

74.618 8.409 -1.607

0.994305244886876 0.104930596294998 -0.018618537848741

-0.104752803301680 0.994445124664821 0.010283201389095

0.019594136645647 -0.008274297042371 0.999773777320433

-0.376 3.345 -284.671

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: 0.5269 gon Phi: 1.2475 gon Kappa: 6.6823 gon

Nombre del modelo: 6983-6982

Focal: 305.581

Coord. P.P.; 0.010 0.012

218610.639 3158693.968 1910.492

-0.160597659829000 0.986986075328000 -0.008177943918000

-0.986630244686000 -0.160761548000000 -0.026767236311000

-0.027733588438000 0.003769851297000 0.999608241409000

218531.430 3159169.559 1898.118

-0.168856526853000 0.985377697604000 -0.022765465152000

-0.985515172077000 -0.169158517000000 -0.012051627581000

-0.015726377362000 0.020400715330000 0.999668190886000

218610.639 3158693.968 0.000



Giros de la cámara izquierda:

Omega: -0.2401 gon Phi: -1.7658 gon Kappa: 110.2724 gon

Giros de la cámara derecha:

Omega: -1.2990 gon Phi: -1.0012 gon Kappa: 110.8028 gon

Nombre del modelo: 6982-6981

Focal: 305.581

Coord. P.P.; 0.010 0.012

218531.430 3159169.559 1898.118

-0.168856526853000 0.985377697604000 -0.022765465152000

-0.985515172077000 -0.169158517000000 -0.012051627581000

-0.015726377362000 0.020400715330000 0.999668190886000

218455.595 3159646.620 1879.966

-0.113561762535000 0.993080071888000 -0.029928195885000

-0.992490340837000 -0.114769663800000 -0.042318407499000

-0.045460416141000 0.024897692391000 0.998655824335000

218531.430 3159169.559 0.000

Giros de la cámara izquierda:

Omega: -1.2990 gon Phi: -1.0012 gon Kappa: 110.8028 gon

Giros de la cámara derecha:

Omega: -1.5868 gon Phi: -2.8951 gon Kappa: 107.2527 gon

Nombre del modelo: 6981-6980

Focal: 305.581

Coord. P.P.; 0.010 0.012



218455.595 3159646.620 1879.966

-0.113561762535000 0.993080071888000 -0.029928195885000

-0.992490340837000 -0.114769663800000 -0.042318407499000

-0.045460416141000 0.024897692391000 0.998655824335000

218389.529 3160134.657 1865.496

-0.126943355497000 0.991875391870000 0.008281998416000

-0.991720745058000 -0.126751632200000 -0.020590958400000

-0.019373908116000 -0.010827314991000 0.999753680130000

218455.595 3159646.620 0.000

Giros de la cámara izquierda:

Omega: -1.5868 gon Phi: -2.8951 gon Kappa: 107.2527 gon

Giros de la cámara derecha:

Omega: 0.6894 gon Phi: -1.2335 gon Kappa: 108.1049 gon

Nombre del modelo: 6980-6979

Focal: 305.581

Coord. P.P.; 0.010 0.012

218389.529 3160134.657 1865.496

-0.126943355497000 0.991875391870000 0.008281998416000

-0.991720745058000 -0.126751632200000 -0.020590958400000

-0.019373908116000 -0.010827314991000 0.999753680130000

218325.033 3160616.696 1861.967

-0.135425825822000 0.990739561110000 -0.009745139913000

-0.990756320042000 -0.135493030500000 -0.006599468280000

-0.007858752847000 0.008761320517000 0.999930737235000



218389.529 3160134.657 0.000

Giros de la cámara izquierda:

Omega: 0.6894 gon Phi: -1.2335 gon Kappa: 108.1049 gon

Giros de la cámara derecha:

Omega: -0.5578 gon Phi: -0.5003 gon Kappa: 108.6483 gon

1.13.2.Resultados de la orientación externa

Nombre del modelo: 7003-7002

IMAGEN IZQUIERDA

216686.386 3194041.758 1879.515

0.982432191712000 -0.186343184262000 0.010159053464000 Omega: 0.7801

0.186189789767000 0.982408322229000 0.014396200939000 Phi: -0.8062

-0.012662972593000 -0.012251779212000 0.999844759466000 Kappa: -11.9238

IMAGEN DERECHA

217179.001 3193926.525 1874.952

0.981610080846000 -0.190873215437000 0.003010782470000 Omega: 0.4162

0.190847653787000 0.981592922924000 0.007246151400000 Phi: -0.2762

-0.004338458982000 -0.006538294491000 0.999969213766000 Kappa: -12.2248

Nombre del modelo: 7002-7001

IMAGEN IZQUIERDA

217179.001 3193926.525 1874.952

0.981610080846000 -0.190873215437000 0.003010782470000 Omega: 0.4162

0.190847653787000 0.981592922924000 0.007246151400000 Phi: -0.2762

-0.004338458982000 -0.006538294491000 0.999969213766000 Kappa: -12.2248

IMAGEN DERECHA



217665.857 3193814.941 1870.169

0.973866067430000 -0.226937152296000 0.009187579472000 Omega: -0.3769

0.226980209303000 0.973891409062000 -0.003938012152000 Phi: -0.5127

-0.008054023454000 0.005920495120000 0.999950038974000 Kappa: -14.5775

Nombre del modelo: 7001-7000

IMAGEN IZQUIERDA

217665.857 3193814.941 1870.169

0.973866067430000 -0.226937152296000 0.009187579472000 Omega: -0.3769

0.226980209303000 0.973891409062000 -0.003938012152000 Phi: -0.5127

-0.008054023454000 0.005920495120000 0.999950038974000 Kappa: -14.5775

IMAGEN DERECHA

218151.480 3193700.019 1874.463

0.961933798052000 -0.273049588610000 0.011282301448000 Omega: -1.0922

0.273196529314000 0.961847000753000 -0.014628858901000 Phi: -0.4366

-0.006857443904000 0.017154279402000 0.999829338518000 Kappa: -17.6166

Nombre del modelo: 7000-6999

IMAGEN IZQUIERDA

218151.480 3193700.019 1874.463

0.961933798052000 -0.273049588610000 0.011282301448000 Omega: -1.0922

0.273196529314000 0.961847000753000 -0.014628858901000 Phi: -0.4366

-0.006857443904000 0.017154279402000 0.999829338518000 Kappa: -17.6166

IMAGEN DERECHA

218632.801 3193570.280 1876.861

0.965866825340000 -0.257983304222000 0.023364298638000 Omega: -0.7458



0.258182060771000 0.966078383548000 -0.005880504833000 Phi: -1.3405
-0.021054671794000 0.011712027305000 0.999709722476000 Kappa: -16.6285

Nombre del modelo: 6999-6998

IMAGEN IZQUIERDA

218632.801 3193570.280 1876.861
0.965866825340000 -0.257983304222000 0.023364298638000 Omega: -0.7458
0.258182060771000 0.966078383548000 -0.005880504833000 Phi: -1.3405
-0.021054671794000 0.011712027305000 0.999709722476000 Kappa: -16.6285

IMAGEN DERECHA

219114.898 3193429.824 1883.704
0.963810096244000 -0.266584914362000 0.001606801683000 Omega: -0.0979
0.266586863966000 0.963810209529000 -0.001150638565000 Phi: -0.0791
-0.001241908983000 0.001537349288000 0.999998047108000 Kappa: -17.1792

Nombre del modelo: 6998-6997

IMAGEN IZQUIERDA

219114.898 3193429.824 1883.704
0.963810096244000 -0.266584914362000 0.001606801683000 Omega: -0.0979
0.266586863966000 0.963810209529000 -0.001150638565000 Phi: -0.0791
-0.001241908983000 0.001537349288000 0.999998047108000 Kappa: -17.1792

IMAGEN DERECHA

219599.133 3193287.176 1880.696
0.966880718479000 -0.254949030011000 -0.011944384893000 Omega: 0.3011
0.254986948275000 0.966942926427000 0.001741620264000 Phi: 0.7070
0.011105514086000 -0.004729601305000 0.999927146560000 Kappa: -16.4153



Nombre del modelo: 6997-6996

IMAGEN IZQUIERDA

219599.133 3193287.176 1880.696

0.966880718479000 -0.254949030011000 -0.011944384893000 Omega: 0.3011

0.254986948275000 0.966942926427000 0.001741620264000 Phi: 0.7070

0.011105514086000 -0.004729601305000 0.999927146560000 Kappa: -16.4153

IMAGEN DERECHA

220077.407 3193155.782 1875.080

0.981935112192000 -0.189153147592000 -0.004951989528000 Omega: -1.3707

0.188994707887000 0.981711562095000 -0.022878138921000 Phi: 0.5850

0.009188897362000 0.021528948094000 0.999725996741000 Kappa: -12.1051

Nombre del modelo: 6996-6995

IMAGEN IZQUIERDA

220077.407 3193155.782 1875.080

0.981935112192000 -0.189153147592000 -0.004951989528000 Omega: -1.3707

0.188994707887000 0.981711562095000 -0.022878138921000 Phi: 0.5850

0.009188897362000 0.021528948094000 0.999725996741000 Kappa: -12.1051

IMAGEN DERECHA

220571.749 3193042.630 1875.483

0.982089193886000 -0.187999450079000 0.012530842819000 Omega: -1.4218

0.188225631197000 0.981915240512000 -0.020336474885000 Phi: -0.5399

-0.008480979445000 0.022330858026000 0.999714662175000 Kappa: -12.0552

Nombre del modelo: 6995-6994



IMAGEN IZQUIERDA

220571.749 3193042.630 1875.483

0.982089193886000 -0.187999450079000 0.012530842819000 Omega: -1.4218

0.188225631197000 0.981915240512000 -0.020336474885000 Phi: -0.5399

-0.008480979445000 0.022330858026000 0.999714662175000 Kappa: -12.0552

IMAGEN DERECHA

221063.664 3192941.289 1881.605

0.968626534283000 -0.248311370780000 0.010202951775000 Omega: 0.9083

0.248115556805000 0.968575222069000 0.017340982237000 Phi: -0.9033

-0.014188289351000 -0.014265424465000 0.999797574567000 Kappa: -15.9639

Nombre del modelo: 6994-6993

IMAGEN IZQUIERDA

221063.664 3192941.289 1881.605

0.968626534283000 -0.248311370780000 0.010202951775000 Omega: 0.9083

0.248115556805000 0.968575222069000 0.017340982237000 Phi: -0.9033

-0.014188289351000 -0.014265424465000 0.999797574567000 Kappa: -15.9639

IMAGEN DERECHA

221546.230 3192820.115 1882.303

0.955264040315000 -0.295731381439000 0.003682840535000 Omega: 1.4766

0.295548434876000 0.954989605511000 0.025416058091000 Phi: -0.7024

-0.011033400400000 -0.023190588585000 0.999670175946000 Kappa: -19.1017

Nombre del modelo: 6993-6992

IMAGEN IZQUIERDA

221546.230 3192820.115 1882.303



0.955264040315000 -0.295731381439000 0.003682840535000 Omega: 1.4766

0.295548434876000 0.954989605511000 0.025416058091000 Phi: -0.7024

-0.011033400400000 -0.023190588585000 0.999670175946000 Kappa: -19.1017

IMAGEN DERECHA

222028.467 3192682.089 1871.746

0.951403715530000 -0.307152338793000 -0.022100019201000 Omega: 1.5243

0.307556496388000 0.951359227764000 0.018017249435000 Phi: 0.9862

0.015491016899000 -0.023938682531000 0.999593401276000 Kappa: -19.9047

Nombre del modelo: 6992-6991

IMAGEN IZQUIERDA

219551.017 3152928.326 1868.580

-0.174209782938000 0.984698328291000 0.004489297289000 Omega: 0.4873

-0.984553183267000 -0.174099498000000 -0.018557858884000 Phi: -1.1137

-0.017492308215000 -0.007652912505000 0.999817709427000 Kappa: 111.1491

IMAGEN DERECHA

219471.786 3153412.062 1874.867

-0.170731144459000 0.985239695418000 0.012394308551000 Omega: 0.9408

-0.985235978783000 -0.170541526500000 -0.015021778798000 Phi: -0.8077

-0.012686308467000 -0.014776004203000 0.999810345654000 Kappa: 110.9235

Nombre del modelo: 6991-6990

IMAGEN IZQUIERDA

219471.786 3153412.062 1874.867

-0.170731144459000 0.985239695418000 0.012394308551000 Omega: 0.9408

-0.985235978783000 -0.170541526500000 -0.015021778798000 Phi: -0.8077



-0.012686308467000 -0.014776004203000 0.999810345654000 Kappa: 110.9235

IMAGEN DERECHA

219384.454 3153890.453 1883.568

-0.179523574383000 0.983560695572000 0.019484464763000 Omega: 1.2421

-0.983752334356000 -0.179520770900000 -0.001907217875000 Phi: 0.1033

0.001622001594000 -0.019510278265000 0.999808340710000 Kappa: 111.4911

Nombre del modelo: 6990-6989

IMAGEN IZQUIERDA

219384.454 3153890.453 1883.568

-0.179523574383000 0.983560695572000 0.019484464763000 Omega: 1.2421

-0.983752334356000 -0.179520770900000 -0.001907217875000 Phi: 0.1033

0.001622001594000 -0.019510278265000 0.999808340710000 Kappa: 111.4911

IMAGEN DERECHA

219301.120 3154371.116 1895.280

-0.137355939227000 0.990228118158000 0.024116798468000 Omega: 1.6019

-0.990504440177000 -0.137168861500000 -0.009255129672000 Phi: -0.3728

-0.005856615850000 -0.025159042994000 0.999666305627000 Kappa: 108.7722

Nombre del modelo: 6989-6988

IMAGEN IZQUIERDA

219301.120 3154371.116 1895.280

-0.137355939227000 0.990228118158000 0.024116798468000 Omega: 1.6019

-0.990504440177000 -0.137168861500000 -0.009255129672000 Phi: -0.3728

-0.005856615850000 -0.025159042994000 0.999666305627000 Kappa: 108.7722

IMAGEN DERECHA



219221.386 3154845.390 1904.744

-0.110179125687000 0.993738068086000 0.018579889661000 Omega: 1.2444

-0.993882025432000 -0.110012012300000 -0.009791663381000 Phi: -0.4893

-0.007686337601000 -0.019545055279000 0.999779431189000 Kappa: 107.0287

Nombre del modelo: 6988-6987

IMAGEN IZQUIERDA

219221.386 3154845.390 1904.744

-0.110179125687000 0.993738068086000 0.018579889661000 Omega: 1.2444

-0.993882025432000 -0.110012012300000 -0.009791663381000 Phi: -0.4893

-0.007686337601000 -0.019545055279000 0.999779431189000 Kappa: 107.0287

IMAGEN DERECHA

219154.369 3155328.007 1907.472

-0.111898792121000 0.993717292355000 0.002145506035000 Omega: 0.2145

-0.993661474163000 -0.111868631200000 -0.011058215215000 Phi: -0.6843

-0.010748724858000 -0.003369307615000 0.999936554327000 Kappa: 107.1391

Nombre del modelo: 6987-6986

IMAGEN IZQUIERDA

219154.369 3155328.007 1907.472

-0.111898792121000 0.993717292355000 0.002145506035000 Omega: 0.2145

-0.993661474163000 -0.111868631200000 -0.011058215215000 Phi: -0.6843

-0.010748724858000 -0.003369307615000 0.999936554327000 Kappa: 107.1391

IMAGEN DERECHA

219088.820 3155813.765 1908.438

-0.107373355038000 0.994218076456000 -0.001174340949000 Omega: -0.1374



-0.994177570415000 -0.107358077700000 0.009230473052000 Phi: 0.5762

0.009051028176000 0.002158610291000 0.999956708708000 Kappa: 106.8491

Nombre del modelo: 6986-6985

IMAGEN IZQUIERDA

219090.419 3155814.037 1908.213

-0.107411955257765 0.994213917732735 -0.001165184204378 Omega: -0.1427

-0.994165245336507 -0.107394871799359 0.010089919533996 Phi: 0.6307

0.009906403621250 0.002242163625947 0.999948416604360 Kappa: 106.8516

IMAGEN DERECHA

219031.420 3156295.171 1907.448

-0.106347935712166 0.994328670015327 -0.000782659128804 Omega: -0.0638

-0.994326931844512 -0.106346087061604 0.002112433517348 Phi: 0.1284

0.002017220473950 0.001002871994123 0.999997462531442 Kappa: 106.7832

Nombre del modelo: 6985-6984

IMAGEN IZQUIERDA

219030.518 3156297.549 1907.508

-0.106370319021877 0.994324327591967 -0.002118204420439 Omega: -0.1461

-0.994325391317469 -0.106366650857356 0.001775321591026 Phi: 0.0980

0.001539939137224 0.002295025963248 0.999996180714347 Kappa: 106.7846

IMAGEN DERECHA

218965.460 3156781.397 1909.006

-0.137221312175538 0.990536620861532 0.002741207223140 Omega: 0.7985



-0.988036126519068 -0.136677204734587 -0.071441965252481 Phi: -4.4850
-0.070391222308042 -0.012511771983082 0.997440991429480 Kappa: 108.7854

Nombre del modelo: 6984-6983

IMAGEN IZQUIERDA

218963.809 3156781.410 1909.445

-0.137253557398000 0.990532522471000 0.002604401624000 Omega: 0.7973
-0.987972009061000 -0.136708756500000 -0.072263581396000 Phi: -4.5381
-0.071223383056000 -0.012491509521000 0.997382169430000 Kappa: 108.7880

IMAGEN DERECHA

218877.814 3157254.400 1915.593

-0.110938223157000 0.993694295949000 0.016259054125000 Omega: 1.5271
-0.991486945965000 -0.109540069000000 -0.070388985388000 Phi: -4.3428
-0.068164115367000 -0.023929468887000 0.997387103333000 Kappa: 107.0937

Nombre del modelo: 6983-6982

IMAGEN IZQUIERDA

218877.814 3157254.400 1915.593

-0.110938223157000 0.993694295949000 0.016259054125000 Omega: 1.5271
-0.991486945965000 -0.109540069000000 -0.070388985388000 Phi: -4.3428
-0.068164115367000 -0.023929468887000 0.997387103333000 Kappa: 107.0937

IMAGEN DERECHA

218782.426 3157730.795 1916.569

-0.097663823690000 0.995182255706000 0.008605548851000 Omega: 0.5914
-0.995197951346000 -0.097601210500000 -0.007418985705000 Phi: -0.4166
-0.006543330944000 -0.009288791099000 0.999935449507000 Kappa: 106.2275



Nombre del modelo: 6982-6981

IMAGEN IZQUIERDA

218781.396 3157729.025 1916.373

-0.097724663401965 0.995168024071962 0.009512834891821 Omega: 0.6529

-0.995188149424591 -0.097649499837091 -0.008069846740982 Phi: -0.4521

-0.007101929866567 -0.010255683608241 0.999922188745653 Kappa: 106.2314

IMAGEN DERECHA

218692.446 3158213.883 1915.029

-0.056730817184086 0.998288688978948 0.014188299345569 Omega: 1.0312

-0.997777614103285 -0.056192851534561 -0.035807767743477 Phi: -2.2254

-0.034949208517245 -0.016188171394830 0.999257972663171 Kappa: 103.6157

Nombre del modelo: 6981-6980

IMAGEN IZQUIERDA

218692.007 3158214.063 1915.826

-0.056700352908044 0.998290485186004 0.014183693707786 Omega: 1.0315

-0.997773185876248 -0.056159730143678 -0.035982693847914 Phi: -2.2366

-0.035124628488663 -0.016192340698069 0.999251754352351 Kappa: 103.6138

IMAGEN DERECHA

218610.526 3158694.232 1910.313

-0.160420424419621 0.987014069077512 -0.008277371085072 Omega: -0.2443

-0.986652352929074 -0.160588005776860 -0.026993089118016 Phi: -1.7810

-0.027971805242972 0.003836644844444 0.999601349672852 Kappa: 110.2611



Nombre del modelo: 6980-6979

IMAGEN IZQUIERDA

218610.639 3158693.968 1910.492

-0.160597659829000 0.986986075328000 -0.008177943918000 Omega: -0.2401

-0.986630244686000 -0.160761548000000 -0.026767236311000 Phi: -1.7658

-0.027733588438000 0.003769851297000 0.999608241409000 Kappa: 110.2724

IMAGEN DERECHA

218531.430 3159169.559 1898.118

-0.168856526853000 0.985377697604000 -0.022765465152000 Omega: -1.2990

-0.985515172077000 -0.169158517000000 -0.012051627581000 Phi: -1.0012

-0.015726377362000 0.020400715330000 0.999668190886000 Kappa: 110.8028



1.14 Pasada 16

1.14.1.Resultados de la orientación relativa

Nombre del modelo: 3302-3303

Focal:305.581

Coord. P.P.: 0.010 0.012

221643.859 3151138.296 1731.500

-0.924957772810000 0.379282485130000 0.024452300356000

0.379385590383000 -0.925238545900000 0.000454939399000

0.022796761371000 -0.008856050674000 0.999700894287000

221201.501 3151358.333 1742.440

0.918056019846000 0.395807994263000 0.022564930803000

Giros de la cámara izquierda:

Giros de la cámara derecha:

Omega: 0.3200 gon Phi: 1.4265 gon Kappa: 174.0854 gon

Nombre del modelo: 3303-3304

Focal:305.581

Coord. P.P.: 0.010 0.012

221201.501 3151358.333 1742.440

-0.918056019846000 0.395807994263000 0.022564930803000

-0.395817015278000 -0.918319542500000 0.004255389223000

0.022406134004000 -0.005024897867000 0.999736323017000

220760.202 3151577.050 1749.358

-0.916941545393000 0.398430154083000 0.021716690599000

-0.398239124460000 -0.917193799400000 0.012693858991000

0.024976030155000 0.002991090830000 0.999683575584000



221201.501 3151358.333 0.000

Giros de la cámara izquierda:

Omega: 0.3200 gon Phi: 1.4265 gon Kappa: 174.0854 gon

Giros de la cámara derecha:

Omega: -0.1905 gon Phi: 1.5902 gon Kappa: 173.9157 gon

Nombre del modelo: 3304-3305

Focal:305.581

Coord. P.P.: 0.010 0.012

220760.202 3151577.050 1749.358

-0.916941545393000 0.398430154083000 0.021716690599000

-0.398239124460000 -0.917193799400000 0.012693858991000

0.024976030155000 0.002991090830000 0.999683575584000

220323.489 3151798.883 1756.316

-0.915899601850000 0.400636815995000 0.024860832657000

-0.401001755049000 -0.916001184600000 -0.011807719612000

0.018041944975000 -0.020783923219000 0.999621186629000

220760.202 3151577.050 0.000

Giros de la cámara izquierda:

Omega: -0.1905 gon Phi: 1.5902 gon Kappa: 173.9157 gon

Giros de la cámara derecha:

Omega: 1.3235 gon Phi: 1.1486 gon Kappa: 173.7279 gon

Nombre del modelo: 3305-3306



Focal:305.581

Coord. P.P.: 0.010 0.012

220323.489 3151798.883 1756.316

-0.915899601850000 0.400636815995000 0.024860832657000

-0.401001755049000 -0.916001184600000 -0.011807719612000

0.018041944975000 -0.020783923219000 0.999621186629000

219881.088 3152021.577 1763.665

-0.916743817090000 0.399445961147000 0.004868054143000

-0.399443477751000 -0.916447388300000 -0.023855661667000

-0.005067732198000 -0.023814042812000 0.999703560790000

220323.489 3151798.883 0.000

Giros de la cámara izquierda:

Omega: 1.3235 gon Phi: 1.1486 gon Kappa: 173.7279 gon

Giros de la cámara derecha:

Omega: 1.5162 gon Phi: -0.3226 gon Kappa: 173.8403 gon

1.14.2.Resultados de la orientación externa

Nombre del modelo: 3302-3303

IMAGEN IZQUIERDA

221643.859 3151138.296 1731.500

-0.924957772810000 0.379282485130000 0.024452300356000 Omega: 0.5639

-0.379385590383000 -0.925238545900000 0.000454939399000 Phi: 1.4514

0.022796761371000 -0.008856050674000 0.999700894287000 Kappa: 175.2203

IMAGEN DERECHA

221201.501 3151358.333 1742.440

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA



-0.918056019846000 0.395807994263000 0.022564930803000 Omega: 0.3200
-0.395817015278000 -0.918319542500000 0.004255389223000 Phi: 1.4265
0.022406134004000 -0.005024897867000 0.999736323017000 Kappa: 174.0854

Nombre del modelo: 3303-3304

IMAGEN IZQUIERDA

221201.501 3151358.333 1742.440
-0.918056019846000 0.395807994263000 0.022564930803000 Omega: 0.3200
-0.395817015278000 -0.918319542500000 0.004255389223000 Phi: 1.426
0.022406134004000 -0.005024897867000 0.999736323017000 Kappa: 174.0854

IMAGEN DERECHA

220760.202 3151577.050 1749.358
-0.916941545393000 0.398430154083000 0.021716690599000 Omega: -0.1905
-0.398239124460000 -0.917193799400000 0.012693858991000 Phi: 1.5902
0.024976030155000 0.002991090830000 0.999683575584000 Kappa: 173.9157

Nombre del modelo: 3304-3305

IMAGEN IZQUIERDA

220760.202 3151577.050 1749.358
-0.916941545393000 0.398430154083000 0.021716690599000 Omega: -0.1905
-0.398239124460000 -0.917193799400000 0.012693858991000 Phi: 1.5902
0.024976030155000 0.002991090830000 0.999683575584000 Kappa: 173.9157

IMAGEN DERECHA

220323.489 3151798.883 1756.316
-0.915899601850000 0.400636815995000 0.024860832657000 Omega: 1.3235
-0.401001755049000 -0.916001184600000 -0.011807719612000 Phi: 1.1486



0.018041944975000 -0.020783923219000 0.999621186629000 Kappa: 173.7279

Nombre del modelo: 3305-3306

IMAGEN IZQUIERDA

220323.489 3151798.883 1756.316

-0.915899601850000 0.400636815995000 0.024860832657000 Omega: 1.3235

-0.401001755049000 -0.916001184600000 -0.011807719612000 Phi: 1.1486

0.018041944975000 -0.020783923219000 0.999621186629000 Kappa: 173.7279

IMAGEN DERECHA

219881.088 3152021.577 1763.665

-0.916743817090000 0.399445961147000 0.004868054143000 Omega: 1.5162

-0.399443477751000 -0.916447388300000 -0.023855661667000 Phi: -0.3226

-0.005067732198000 -0.023814042812000 0.999703560790000 Kappa: 173.8403



1.15 Pasada 17

1.15.1.Resultados de la orientación relativa

Nombre del modelo: 3309-3310

Focal: 305.581

Coord. P.P.; 0.010 0.012

219682.434 3151963.777 1864.785

-0.161015911934000 0.986951805722000 0.000096359579000

-0.986839451305000 -0.160996107200000 -0.015104662127000

-0.014892060044000 -0.002527182381000 0.999885913441000

219615.791 3152451.458 1865.365

-0.168475277003000 0.985701688650000 -0.002874374933000

-0.985675259097000 -0.168492311900000 -0.007390835064000

-0.007769468681000 0.001588027272000 0.999968556269000

219682.434 3151963.777 0.000

Giros de la cámara izquierda:

Omega: 0.1609 gon Phi: -0.9481 gon Kappa: 110.2966 gon

Giros de la cámara derecha:

Omega: -0.1011 gon Phi: -0.4946 gon Kappa: 110.7772 gon

Nombre del modelo: 3310-3311

Focal: 305.581

Coord. P.P.; 0.010 0.012

219615.791 3152451.458 1865.365

-0.168475277003000 0.985701688650000 -0.002874374933000

-0.985675259097000 -0.168492311900000 -0.007390835064000

-0.007769468681000 0.001588027272000 0.999968556269000



219551.017 3152928.326 1868.580

-0.174209782938000 0.984698328291000 0.004489297289000

-0.984553183267000 -0.174099498000000 -0.018557858884000

-0.017492308215000 -0.007652912505000 0.999817709427000

219615.791 3152451.458 0.000

Giros de la cámara izquierda:

Omega: -0.1011 gon Phi: -0.4946 gon Kappa: 110.7772 gon

Giros de la cámara derecha:

Omega: 0.4873 gon Phi: -1.1137 gon Kappa: 111.1491 gon

Nombre del modelo: 3311-3312

Focal: 305.581

Coord. P.P.; 0.010 0.012

219551.017 3152928.326 1868.580

-0.174209782938000 0.984698328291000 0.004489297289000

-0.984553183267000 -0.174099498000000 -0.018557858884000

-0.017492308215000 -0.007652912505000 0.999817709427000

219471.786 3153412.062 1874.867

-0.170731144459000 0.985239695418000 0.012394308551000

-0.985235978783000 -0.170541526500000 -0.015021778798000

-0.012686308467000 -0.014776004203000 0.999810345654000

219551.017 3152928.326 0.000

Giros de la cámara izquierda:

Omega: 0.4873 gon Phi: -1.1137 gon Kappa: 111.1491 gon



Giros de la cámara derecha:

Omega: 0.9408 gon Phi: -0.8077 gon Kappa: 110.9235 gon

Nombre del modelo: 3312-3313

Focal: 305.581

Coord. P.P.; 0.010 0.012

219471.786 3153412.062 1874.867

-0.170731144459000 0.985239695418000 0.012394308551000

-0.985235978783000 -0.170541526500000 -0.015021778798000

-0.012686308467000 -0.014776004203000 0.999810345654000

219384.454 3153890.453 1883.568

-0.179523574383000 0.983560695572000 0.019484464763000

-0.983752334356000 -0.179520770900000 -0.001907217875000

0.001622001594000 -0.019510278265000 0.999808340710000

219471.786 3153412.062 0.000

Giros de la cámara izquierda:

Omega: 0.9408 gon Phi: -0.8077 gon Kappa: 110.9235 gon

Giros de la cámara derecha:

Omega: 1.2421 gon Phi: 0.1033 gon Kappa: 111.4911 gon

Nombre del modelo: 3313-3314

Focal: 305.581

Coord. P.P.; 0.010 0.012

219384.454 3153890.453 1883.568

-0.179523574383000 0.983560695572000 0.019484464763000

-0.983752334356000 -0.179520770900000 -0.001907217875000



0.001622001594000 -0.019510278265000 0.999808340710000
219301.120 3154371.116 1895.280
-0.137355939227000 0.990228118158000 0.024116798468000
-0.990504440177000 -0.137168861500000 -0.009255129672000
-0.005856615850000 -0.025159042994000 0.999666305627000
219384.454 3153890.453 0.000

Giros de la cámara izquierda:

Omega: 1.2421 gon Phi: 0.1033 gon Kappa: 111.4911 gon

Giros de la cámara derecha:

Omega: 1.6019 gon Phi: -0.3728 gon Kappa: 108.7722 gon

Nombre del modelo: 3314-3315

Focal: 305.581

Coord. P.P.; 0.010 0.012

219301.120 3154371.116 1895.280
-0.137355939227000 0.990228118158000 0.024116798468000
-0.990504440177000 -0.137168861500000 -0.009255129672000
-0.005856615850000 -0.025159042994000 0.999666305627000
219221.386 3154845.390 1904.744
-0.110179125687000 0.993738068086000 0.018579889661000
-0.993882025432000 -0.110012012300000 -0.009791663381000
-0.007686337601000 -0.019545055279000 0.999779431189000
219301.120 3154371.116 0.000

Giros de la cámara izquierda:



Omega: 1.6019 gon Phi: -0.3728 gon Kappa: 108.7722 gon

Giros de la cámara derecha:

Omega: 1.2444 gon Phi: -0.4893 gon Kappa: 107.0287 gon

Nombre del modelo: 3315-3316

Focal: 305.581

Coord. P.P.; 0.010 0.012

219221.386 3154845.390 1904.744

-0.110179125687000 0.993738068086000 0.018579889661000

-0.993882025432000 -0.110012012300000 -0.009791663381000

-0.007686337601000 -0.019545055279000 0.999779431189000

219154.369 3155328.007 1907.472

-0.111898792121000 0.993717292355000 0.002145506035000

-0.993661474163000 -0.111868631200000 -0.011058215215000

-0.010748724858000 -0.003369307615000 0.999936554327000

219221.386 3154845.390 0.000

Giros de la cámara izquierda:

Omega: 1.2444 gon Phi: -0.4893 gon Kappa: 107.0287 gon

Giros de la cámara derecha:

Omega: 0.2145 gon Phi: -0.6843 gon Kappa: 107.1391 gon

Nombre del modelo: 3316-3317

Focal: 305.581

Coord. P.P.; 0.010 0.012

219154.369 3155328.007 1907.472



-0.111898792121000 0.993717292355000 0.002145506035000
-0.993661474163000 -0.111868631200000 -0.011058215215000
-0.010748724858000 -0.003369307615000 0.999936554327000
219088.820 3155813.765 1908.438
-0.107373355038000 0.994218076456000 -0.001174340949000
-0.994177570415000 -0.107358077700000 0.009230473052000
0.009051028176000 0.002158610291000 0.999956708708000
219154.369 3155328.007 0.000

Giros de la cámara izquierda:

Omega: 0.2145 gon Phi: -0.6843 gon Kappa: 107.1391 gon

Giros de la cámara derecha:

Omega: -0.1374 gon Phi: 0.5762 gon Kappa: 106.8491 gon

Nombre del modelo: 3317-3318

Focal: 305.581

Coord. P.P.; 0.010 0.012

80.460 1.158 -0.045

0.999999354184443 -0.001066275412039 0.000393303244105

0.001069378687643 0.999967616812451 -0.007976324695648

-0.000384785548791 0.007976740134520 0.999968111270008

4.180 -1.747 -306.084

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:



Omega: -0.5078 gon Phi: -0.0245 gon Kappa: -0.0681 gon

Nombre del modelo: 3318-3319

Focal: 305.581

Coord. P.P.; 0.010 0.012

83.009 2.250 0.427

0.999505127808818 0.031087438537804 0.004803191547031

-0.030652423025292 0.996840472189613 -0.073276885628875

-0.007066006407989 0.073093393476750 0.997300068877715

7.722 -1.189 -311.996

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -4.6575 gon Phi: -0.4498 gon Kappa: 1.9517 gon

Nombre del modelo: 3319-3320

Focal: 305.581

Coord. P.P.; 0.010 0.012

218963.809 3156781.410 1909.445

-0.137253557398000 0.990532522471000 0.002604401624000

-0.987972009061000 -0.136708756500000 -0.072263581396000

-0.071223383056000 -0.012491509521000 0.997382169430000

218877.814 3157254.400 1915.593

-0.110938223157000 0.993694295949000 0.016259054125000

-0.991486945965000 -0.109540069000000 -0.070388985388000



-0.068164115367000 -0.023929468887000 0.997387103333000

218963.809 3156781.410 0.000

Giros de la cámara izquierda:

Omega: 0.7973 gon Phi: -4.5381 gon Kappa: 108.7880 gon

Giros de la cámara derecha:

Omega: 1.5271 gon Phi: -4.3428 gon Kappa: 107.0937 gon

Nombre del modelo: 3320-3321

Focal: 305.581

Coord. P.P.; 0.010 0.012

218877.814 3157254.400 1915.593

-0.110938223157000 0.993694295949000 0.016259054125000

-0.991486945965000 -0.109540069000000 -0.070388985388000

-0.068164115367000 -0.023929468887000 0.997387103333000

218782.426 3157730.795 1916.569

-0.097663823690000 0.995182255706000 0.008605548851000

-0.995197951346000 -0.097601210500000 -0.007418985705000

-0.006543330944000 -0.009288791099000 0.999935449507000

218877.814 3157254.400 0.000

Giros de la cámara izquierda:

Omega: 1.5271 gon Phi: -4.3428 gon Kappa: 107.0937 gon

Giros de la cámara derecha:

Omega: 0.5914 gon Phi: -0.4166 gon Kappa: 106.2275 gon



Nombre del modelo: 3321-3322

Focal: 305.581

Coord. P.P.; 0.010 0.012

82.612 6.927 -0.956

0.999143953027473 -0.041139051604278 0.004351960677261

0.041245519077252 0.998752624361329 -0.028142538751978

-0.003188774793538 0.028297946294018 0.999594446738705

-4.277 -1.601 -310.160

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -1.8018 gon Phi: -0.2030 gon Kappa: -2.6265 gon

Nombre del modelo: 3322-3323

Focal: 305.581

74.618 8.409 -1.607

0.994305244886876 0.104930596294998 -0.018618537848741

-0.104752803301680 0.994445124664821 0.010283201389095

0.019594136645647 -0.008274297042371 0.999773777320433

-0.376 3.345 -284.671

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: 0.5269 gon Phi: 1.2475 gon Kappa: 6.6823 gon



Nombre del modelo: 3323-3324

Focal: 305.581

Coord. P.P.; 0.010 0.012

218610.639 3158693.968 1910.492

-0.160597659829000 0.986986075328000 -0.008177943918000

-0.986630244686000 -0.160761548000000 -0.026767236311000

-0.027733588438000 0.003769851297000 0.999608241409000

218531.430 3159169.559 1898.118

-0.168856526853000 0.985377697604000 -0.022765465152000

-0.985515172077000 -0.169158517000000 -0.012051627581000

-0.015726377362000 0.020400715330000 0.999668190886000

218610.639 3158693.968 0.000

Giros de la cámara izquierda:

Omega: -0.2401 gon Phi: -1.7658 gon Kappa: 110.2724 gon

Giros de la cámara derecha:

Omega: -1.2990 gon Phi: -1.0012 gon Kappa: 110.8028 gon

Nombre del modelo: 3324-3325

Focal: 305.581

Coord. P.P.; 0.010 0.012

218531.430 3159169.559 1898.118

-0.168856526853000 0.985377697604000 -0.022765465152000

-0.985515172077000 -0.169158517000000 -0.012051627581000

-0.015726377362000 0.020400715330000 0.999668190886000



218455.595 3159646.620 1879.966

-0.113561762535000 0.993080071888000 -0.029928195885000

-0.992490340837000 -0.114769663800000 -0.042318407499000

-0.045460416141000 0.024897692391000 0.998655824335000

218531.430 3159169.559 0.000

Giros de la cámara izquierda:

Omega: -1.2990 gon Phi: -1.0012 gon Kappa: 110.8028 gon

Giros de la cámara derecha:

Omega: -1.5868 gon Phi: -2.8951 gon Kappa: 107.2527 gon

Nombre del modelo: 3325-3326

Focal: 305.581

Coord. P.P.; 0.010 0.012

218455.595 3159646.620 1879.966

-0.113561762535000 0.993080071888000 -0.029928195885000

-0.992490340837000 -0.114769663800000 -0.042318407499000

-0.045460416141000 0.024897692391000 0.998655824335000

218389.529 3160134.657 1865.496

-0.126943355497000 0.991875391870000 0.008281998416000

-0.991720745058000 -0.126751632200000 -0.020590958400000

-0.019373908116000 -0.010827314991000 0.999753680130000

218455.595 3159646.620 0.000

Giros de la cámara izquierda:

Omega: -1.5868 gon Phi: -2.8951 gon Kappa: 107.2527 gon



Giros de la cámara derecha:

Omega: 0.6894 gon Phi: -1.2335 gon Kappa: 108.1049 gon

Nombre del modelo: 3326-3327

Focal: 305.581

Coord. P.P.; 0.010 0.012

218389.529 3160134.657 1865.496

-0.126943355497000 0.991875391870000 0.008281998416000

-0.991720745058000 -0.126751632200000 -0.020590958400000

-0.019373908116000 -0.010827314991000 0.999753680130000

218325.033 3160616.696 1861.967

-0.135425825822000 0.990739561110000 -0.009745139913000

-0.990756320042000 -0.135493030500000 -0.006599468280000

-0.007858752847000 0.008761320517000 0.999930737235000

218389.529 3160134.657 0.000

Giros de la cámara izquierda:

Omega: 0.6894 gon Phi: -1.2335 gon Kappa: 108.1049 gon

Giros de la cámara derecha:

Omega: -0.5578 gon Phi: -0.5003 gon Kappa: 108.6483 gon

Nombre del modelo: 3327-3328

Focal: 305.581

Coord. P.P.; 0.010 0.012

218325.033 3160616.696 1861.967

-0.135425825822000 0.990739561110000 -0.009745139913000



-0.990756320042000 -0.135493030500000 -0.006599468280000
-0.007858752847000 0.008761320517000 0.999930737235000
218260.741 3161101.185 1848.145
-0.101279680876000 0.994702028299000 -0.017615366593000
-0.994531549769000 -0.101684133900000 -0.023818762195000
-0.025483774362000 0.015106681203000 0.999561086391000
218325.033 3160616.696 0.000

Giros de la cámara izquierda:

Omega: -0.5578 gon Phi: -0.5003 gon Kappa: 108.6483 gon

Giros de la cámara derecha:

Omega: -0.9621 gon Phi: -1.6225 gon Kappa: 106.4608 gon

Nombre del modelo: 3328-3329

Focal: 305.581

Coord. P.P.; 0.010 0.012

218260.741 3161101.185 1848.145
-0.101279680876000 0.994702028299000 -0.017615366593000
-0.994531549769000 -0.101684133900000 -0.023818762195000
-0.025483774362000 0.015106681203000 0.999561086391000
218196.961 3161581.005 1841.504
-0.069973014354000 0.997521142437000 -0.007439600308000
-0.996587663815000 -0.070230963800000 -0.043366347120000
-0.043781338422000 0.004379739861000 0.999031537182000
218260.741 3161101.185 0.000



Giros de la cámara izquierda:

Omega: -0.9621 gon Phi: -1.6225 gon Kappa: 106.4608 gon

Giros de la cámara derecha:

Omega: -0.2791 gon Phi: -2.7881 gon Kappa: 104.4625 gon

1.15.2.Resultados de la orientación externa

Nombre del modelo: 3309-3310

IMAGEN IZQUIERDA

219682.434 3151963.777 1864.785

-0.161015911934000 0.986951805722000 0.000096359579000 Omega: 0.1609

-0.986839451305000 -0.160996107200000 -0.015104662127000 Phi: -0.9481

-0.014892060044000 -0.002527182381000 0.999885913441000 Kappa: 110.2966

IMAGEN DERECHA

219615.791 3152451.458 1865.365

-0.168475277003000 0.985701688650000 -0.002874374933000 Omega: -0.1011

-0.985675259097000 -0.168492311900000 -0.007390835064000 Phi: -0.4946

-0.007769468681000 0.001588027272000 0.999968556269000 Kappa: 110.7772

Nombre del modelo: 3310-3311

IMAGEN IZQUIERDA

219615.791 3152451.458 1865.365

-0.168475277003000 0.985701688650000 -0.002874374933000 Omega: -0.1011

-0.985675259097000 -0.168492311900000 -0.007390835064000 Phi: -0.4946

-0.007769468681000 0.001588027272000 0.999968556269000 Kappa: 110.7772

IMAGEN DERECHA

219551.017 3152928.326 1868.580

-0.174209782938000 0.984698328291000 0.004489297289000 Omega: 0.4873



-0.984553183267000 -0.174099498000000 -0.018557858884000 Phi: -1.1137
-0.017492308215000 -0.007652912505000 0.999817709427000 Kappa: 111.1491

Nombre del modelo: 3311-3312

IMAGEN IZQUIERDA

219551.017 3152928.326 1868.580

-0.174209782938000 0.984698328291000 0.004489297289000 Omega: 0.4873
-0.984553183267000 -0.174099498000000 -0.018557858884000 Phi: -1.1137
-0.017492308215000 -0.007652912505000 0.999817709427000 Kappa: 111.1491

IMAGEN DERECHA

219471.786 3153412.062 1874.867

-0.170731144459000 0.985239695418000 0.012394308551000 Omega: 0.9408
-0.985235978783000 -0.170541526500000 -0.015021778798000 Phi: -0.8077
-0.012686308467000 -0.014776004203000 0.999810345654000 Kappa: 110.9235

Nombre del modelo: 3312-3313

IMAGEN IZQUIERDA

219471.786 3153412.062 1874.867

-0.170731144459000 0.985239695418000 0.012394308551000 Omega: 0.9408
-0.985235978783000 -0.170541526500000 -0.015021778798000 Phi: -0.8077
-0.012686308467000 -0.014776004203000 0.999810345654000 Kappa: 110.9235

IMAGEN DERECHA

219384.454 3153890.453 1883.568

-0.179523574383000 0.983560695572000 0.019484464763000 Omega: 1.2421
-0.983752334356000 -0.179520770900000 -0.001907217875000 Phi: 0.1033
0.001622001594000 -0.019510278265000 0.999808340710000 Kappa: 111.4911



Nombre del modelo: 3313-3314

IMAGEN IZQUIERDA

219384.454 3153890.453 1883.568

-0.179523574383000 0.983560695572000 0.019484464763000 Omega: 1.2421

-0.983752334356000 -0.179520770900000 -0.001907217875000 Phi: 0.1033

0.001622001594000 -0.019510278265000 0.999808340710000 Kappa: 111.4911

IMAGEN DERECHA

219301.120 3154371.116 1895.280

-0.137355939227000 0.990228118158000 0.024116798468000 Omega: 1.6019

-0.990504440177000 -0.137168861500000 -0.009255129672000 Phi: -0.3728

-0.005856615850000 -0.025159042994000 0.999666305627000 Kappa: 108.7722

Nombre del modelo: 3314-3315

IMAGEN IZQUIERDA

219301.120 3154371.116 1895.280

-0.137355939227000 0.990228118158000 0.024116798468000 Omega: 1.6019

-0.990504440177000 -0.137168861500000 -0.009255129672000 Phi: -0.3728

-0.005856615850000 -0.025159042994000 0.999666305627000 Kappa: 108.7722

IMAGEN DERECHA

219221.386 3154845.390 1904.744

-0.110179125687000 0.993738068086000 0.018579889661000 Omega: 1.2444

-0.993882025432000 -0.110012012300000 -0.009791663381000 Phi: -0.4893

-0.007686337601000 -0.019545055279000 0.999779431189000 Kappa: 107.0287

Nombre del modelo: 3315-3316



IMAGEN IZQUIERDA

219221.386 3154845.390 1904.744

-0.110179125687000 0.993738068086000 0.018579889661000 Omega: 1.2444

-0.993882025432000 -0.110012012300000 -0.009791663381000 Phi: -0.4893

-0.007686337601000 -0.019545055279000 0.999779431189000 Kappa: 107.0287

IMAGEN DERECHA

219154.369 3155328.007 1907.472

-0.111898792121000 0.993717292355000 0.002145506035000 Omega: 0.2145

-0.993661474163000 -0.111868631200000 -0.011058215215000 Phi: -0.6843

-0.010748724858000 -0.003369307615000 0.999936554327000 Kappa: 107.1391

Nombre del modelo: 3316-3317

IMAGEN IZQUIERDA

219154.369 3155328.007 1907.472

-0.111898792121000 0.993717292355000 0.002145506035000 Omega: 0.2145

-0.993661474163000 -0.111868631200000 -0.011058215215000 Phi: -0.6843

-0.010748724858000 -0.003369307615000 0.999936554327000 Kappa: 107.1391

IMAGEN DERECHA

219088.820 3155813.765 1908.438

-0.107373355038000 0.994218076456000 -0.001174340949000 Omega: -0.1374

-0.994177570415000 -0.107358077700000 0.009230473052000 Phi: 0.5762

0.009051028176000 0.002158610291000 0.999956708708000 Kappa: 106.8491

Nombre del modelo: 3317-3318

IMAGEN IZQUIERDA

219090.419 3155814.037 1908.213



-0.107411955257765 0.994213917732735 -0.001165184204378 Omega: -0.1427
-0.994165245336507 -0.107394871799359 0.010089919533996 Phi: 0.6307
0.009906403621250 0.002242163625947 0.999948416604360 Kappa: 106.8516

IMAGEN DERECHA

219031.420 3156295.171 1907.448
-0.106347935712166 0.994328670015327 -0.000782659128804 Omega: -0.0638
-0.994326931844512 -0.106346087061604 0.002112433517348 Phi: 0.1284
0.002017220473950 0.001002871994123 0.999997462531442 Kappa: 106.7832

Nombre del modelo: 3318-3319

IMAGEN IZQUIERDA

219030.518 3156297.549 1907.508
-0.106370319021877 0.994324327591967 -0.002118204420439 Omega: -0.1461
-0.994325391317469 -0.106366650857356 0.001775321591026 Phi: 0.0980
0.001539939137224 0.002295025963248 0.999996180714347 Kappa: 106.7846

IMAGEN DERECHA

218965.460 3156781.397 1909.006
-0.137221312175538 0.990536620861532 0.002741207223140 Omega: 0.7985
-0.988036126519068 -0.136677204734587 -0.071441965252481 Phi: -4.4850
-0.070391222308042 -0.012511771983082 0.997440991429480 Kappa: 108.7854

Nombre del modelo: 3319-3320

IMAGEN IZQUIERDA

218963.809 3156781.410 1909.445



-0.137253557398000 0.990532522471000 0.002604401624000 Omega: 0.7973

-0.987972009061000 -0.136708756500000 -0.072263581396000 Phi: -4.5381

-0.071223383056000 -0.012491509521000 0.997382169430000 Kappa: 108.7880

IMAGEN DERECHA

218877.814 3157254.400 1915.593

-0.110938223157000 0.993694295949000 0.016259054125000 Omega: 1.5271

-0.991486945965000 -0.109540069000000 -0.070388985388000 Phi: -4.3428

-0.068164115367000 -0.023929468887000 0.997387103333000 Kappa: 107.0937

Nombre del modelo: 3320-3321

IMAGEN IZQUIERDA

218877.814 3157254.400 1915.593

-0.110938223157000 0.993694295949000 0.016259054125000 Omega: 1.5271

-0.991486945965000 -0.109540069000000 -0.070388985388000 Phi: -4.3428

-0.068164115367000 -0.023929468887000 0.997387103333000 Kappa: 107.0937

IMAGEN DERECHA

218782.426 3157730.795 1916.569

-0.097663823690000 0.995182255706000 0.008605548851000 Omega: 0.5914

-0.995197951346000 -0.097601210500000 -0.007418985705000 Phi: -0.4166

-0.006543330944000 -0.009288791099000 0.999935449507000 Kappa: 106.2275

Nombre del modelo: 3321-3322

IMAGEN IZQUIERDA

218781.396 3157729.025 1916.373

-0.097724663401965 0.995168024071962 0.009512834891821 Omega: 0.6529

-0.995188149424591 -0.097649499837091 -0.008069846740982 Phi: -0.4521



-0.007101929866567 -0.010255683608241 0.999922188745653 Kappa: 106.2314

IMAGEN DERECHA

218692.446 3158213.883 1915.029

-0.056730817184086 0.998288688978948 0.014188299345569 Omega: 1.0312

-0.997777614103285 -0.056192851534561 -0.035807767743477 Phi: -2.2254

-0.034949208517245 -0.016188171394830 0.999257972663171 Kappa: 103.6157

Nombre del modelo: 3322-3323

IMAGEN IZQUIERDA

218692.007 3158214.063 1915.826

-0.056700352908044 0.998290485186004 0.014183693707786 Omega: 1.0315

-0.997773185876248 -0.056159730143678 -0.035982693847914 Phi: -2.2366

-0.035124628488663 -0.016192340698069 0.999251754352351 Kappa: 103.6138

IMAGEN DERECHA

218610.526 3158694.232 1910.313

-0.160420424419621 0.987014069077512 -0.008277371085072 Omega: -0.2443

-0.986652352929074 -0.160588005776860 -0.026993089118016 Phi: -1.7810

-0.027971805242972 0.003836644844444 0.999601349672852 Kappa: 110.2611

Nombre del modelo: 3323-3324

IMAGEN IZQUIERDA

218610.639 3158693.968 1910.492



-0.160597659829000 0.986986075328000 -0.008177943918000 Omega: -0.2401

-0.986630244686000 -0.160761548000000 -0.026767236311000 Phi: -1.7658

-0.027733588438000 0.003769851297000 0.999608241409000 Kappa: 110.2724

IMAGEN DERECHA

218531.430 3159169.559 1898.118

-0.168856526853000 0.985377697604000 -0.022765465152000 Omega: -1.2990

-0.985515172077000 -0.169158517000000 -0.012051627581000 Phi: -1.0012

-0.015726377362000 0.020400715330000 0.999668190886000 Kappa: 110.8028

Nombre del modelo: 3324-3325

IMAGEN IZQUIERDA

218531.430 3159169.559 1898.118

-0.168856526853000 0.985377697604000 -0.022765465152000 Omega: -1.2990

-0.985515172077000 -0.169158517000000 -0.012051627581000 Phi: -1.0012

-0.015726377362000 0.020400715330000 0.999668190886000 Kappa: 110.8028

IMAGEN DERECHA

218455.595 3159646.620 1879.966

-0.113561762535000 0.993080071888000 -0.029928195885000 Omega: -1.5868

-0.992490340837000 -0.114769663800000 -0.042318407499000 Phi: -2.8951

-0.045460416141000 0.024897692391000 0.998655824335000 Kappa: 107.2527

Nombre del modelo: 3325-3326

IMAGEN IZQUIERDA

218455.595 3159646.620 1879.966

-0.113561762535000 0.993080071888000 -0.029928195885000 Omega: -1.5868

-0.992490340837000 -0.114769663800000 -0.042318407499000 Phi: -2.8951



-0.045460416141000 0.024897692391000 0.998655824335000 Kappa: 107.2527

IMAGEN DERECHA

218389.529 3160134.657 1865.496

-0.126943355497000 0.991875391870000 0.008281998416000 Omega: 0.6894

-0.991720745058000 -0.126751632200000 -0.020590958400000 Phi: -1.2335

-0.019373908116000 -0.010827314991000 0.999753680130000 Kappa: 108.1049

Nombre del modelo: 3326-3327

IMAGEN IZQUIERDA

218389.529 3160134.657 1865.496

-0.126943355497000 0.991875391870000 0.008281998416000 Omega: 0.6894

-0.991720745058000 -0.126751632200000 -0.020590958400000 Phi: -1.2335

-0.019373908116000 -0.010827314991000 0.999753680130000 Kappa: 108.1049

IMAGEN DERECHA

218325.033 3160616.696 1861.967

-0.135425825822000 0.990739561110000 -0.009745139913000 Omega: -0.5578

-0.990756320042000 -0.135493030500000 -0.006599468280000 Phi: -0.5003

-0.007858752847000 0.008761320517000 0.999930737235000 Kappa: 108.6483

Nombre del modelo: 3327-3328

IMAGEN IZQUIERDA

218325.033 3160616.696 1861.967

-0.135425825822000 0.990739561110000 -0.009745139913000 Omega: -0.5578

-0.990756320042000 -0.135493030500000 -0.006599468280000 Phi: -0.5003

-0.007858752847000 0.008761320517000 0.999930737235000 Kappa: 108.6483

IMAGEN DERECHA



218260.741 3161101.185 1848.145

-0.101279680876000 0.994702028299000 -0.017615366593000 Omega: -0.9621

-0.994531549769000 -0.101684133900000 -0.023818762195000 Phi: -1.6225

-0.025483774362000 0.015106681203000 0.999561086391000 Kappa: 106.4608

Nombre del modelo: 3328-3329

IMAGEN IZQUIERDA

218260.741 3161101.185 1848.145

-0.101279680876000 0.994702028299000 -0.017615366593000 Omega: -0.9621

-0.994531549769000 -0.101684133900000 -0.023818762195000 Phi: -1.6225

-0.025483774362000 0.015106681203000 0.999561086391000 Kappa: 106.4608

IMAGEN DERECHA

218196.961 3161581.005 1841.504

-0.069973014354000 0.997521142437000 -0.007439600308000 Omega: -0.2791

-0.996587663815000 -0.070230963800000 -0.043366347120000 Phi: -2.7881

-0.043781338422000 0.004379739861000 0.999031537182000 Kappa: 104.4625



1.16 Pasada 18

1.16.1.Resultados de la orientación relativa

Nombre del modelo: 3332-3333

Focal: 305.581

Coord. P.P.: 0.010 0.012

80.275 -1.288 -0.012

0.999951959995091 -0.006522864040139 0.007316416246384

0.006628372128476 0.999873038402950 -0.014490402264250

-0.007220968418636 0.014538202074782 0.999868240467478

5.146 1.609 -315.010

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -0.9256 gon Phi: -0.4597 gon Kappa: -0.4220 gon

Nombre del modelo: 3333-3334

Focal: 305.581

Coord. P.P.: 0.010 0.012

79.560 -1.022 0.384

0.999958687183103 -0.002477335557275 0.008745669533105

0.002429885547744 0.999982294325116 0.005432006305472

-0.008758971587491 -0.005410530917986 0.999947001881557

8.908 8.733 -316.484

Giros de la cámara izquierda:

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA



Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: 0.3445 gon Phi: -0.5576 gon Kappa: -0.1547 gon

Nombre del modelo: 3334-3335

Focal: 305.581

Coord. P.P.: 0.010 0.012

72.587 -0.252 0.544

0.999805872228824 0.016989729994502 -0.009978323079302

-0.017110358850056 0.999780015836462 -0.012130768898376

0.009770029518037 0.012299146667856 0.999876631147293

-3.920 6.106 -291.550

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -0.7830 gon Phi: 0.6220 gon Kappa: 1.0894 gon

Nombre del modelo: 3335-3336

Focal: 305.581

Coord. P.P.: 0.010 0.012

76.823 -0.856 0.290

0.999905780704661 -0.012861007384695 -0.004798354139962

0.012908159026409 0.999867392431708 0.009928594178690

0.004670026118836 -0.009989596631846 0.999939197559123

4.185 1.867 -299.371



Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: 0.6360 gon Phi: 0.2973 gon Kappa: -0.8218 gon

Nombre del modelo: 3336-3337

Focal: 305.581

Coord. P.P.: 0.010 0.012

0.000 0.000 0.000

1.000000000000000 0.000000000000000 0.000000000000000

0.000000000000000 1.000000000000000 0.000000000000000

0.000000000000000 0.000000000000000 1.000000000000000

77.956 -0.545 -0.239

0.998651175223601 0.051403683843768 0.007313789155419

-0.051447003834045 0.998658512806041 0.005863496953693

-0.007002572457301 -0.006231860662446 0.999956062980601

5.800 -0.482 -314.912

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: 0.3967 gon Phi: -0.4458 gon Kappa: 3.2767 gon

1.16.2.Resultados de la orientación externa

Nombre del modelo: 3333-3334

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA



IMAGEN IZQUIERDA

218612.995 3155368.890 1819.275

-0.149865603942763 0.988661381059974 0.009432621875960 Omega: 0.8776

-0.988309931207551 -0.149528550123718 -0.029743782113646 Phi: -1.7825

-0.027996082429446 -0.013779923747340 0.999513047973923 Kappa: 109.5806

IMAGEN DERECHA

218550.725 3155818.103 1825.914

-0.147655881723469 0.988870454408129 0.018247328328424 Omega: 1.3774

-0.988808663674634 -0.147198421251058 -0.024290974109340 Phi: -1.3583

-0.021334648683526 -0.021629821540097 0.999538385248758 Kappa: 109.4367

Nombre del modelo: 3335-3336

IMAGEN IZQUIERDA

218489.056 3156263.605 1840.621

-0.164196054971160 0.986393551698906 0.008210767243460 Omega: 0.8809

-0.985872138120433 -0.163818561071756 -0.034922862514760 Phi: -2.1078

-0.033102610316308 -0.013828962911143 0.999356281300643 Kappa: 110.5064

IMAGEN DERECHA

218418.038 3156721.278 1846.351

-0.151342437638576 0.988473842378668 0.003863871473777 Omega: 0.4830

-0.988189535186713 -0.151201614823434 -0.024890042632618 Phi: -1.5292

-0.024018932471728 -0.007585157080641 0.999682727806668 Kappa: 109.6747



1.17 Pasada 19

1.17.1.Resultados de la orientación relativa

Nombre del modelo: 3357-3358

Focal: 305.581

Coord. P.P.: 0.010 0.012

218043.020 3161291.426 1807.284

-0.586789173445000 0.809708582185000 -0.007104777506000

-0.807951574336000 -0.586053598800000 -0.061281587104000

-0.053784007433000 -0.030219055673000 0.998095230536000

217762.560 3161702.338 1802.909

-0.560317366306000 0.828211227301000 0.010517223437000

-0.828243720987000 -0.560133480200000 -0.016211815767000

-0.007535758867000 -0.017794586187000 0.999813265085000

218043.020 3161291.426 0.000

Giros de la cámara izquierda:

Omega: 1.9269 gon Phi: -3.4256 gon Kappa: 139.9885 gon

Giros de la cámara derecha:

Omega: 1.1329 gon Phi: -0.4797 gon Kappa: 137.8654 gon

Nombre del modelo: 3358-3359

Focal: 305.581

Coord. P.P.: 0.010 0.012

217762.560 3161702.338 1802.909

-0.560317366306000 0.828211227301000 0.010517223437000

-0.828243720987000 -0.560133480200000 -0.016211815767000



-0.007535758867000 -0.017794586187000 0.999813265085000

217487.817 3162112.018 1801.905

-0.580697927882000 0.814118899513000 0.000577935262000

-0.813950579995000 -0.580563132200000 -0.020758199017000

-0.016564114234000 -0.012524653897000 0.999784358332000

217762.560 3161702.338 10.000

Giros de la cámara izquierda:

Omega: 1.1329 gon Phi: -0.4797 gon Kappa: 137.8654 gon

Giros de la cámara derecha:

Omega: 0.7975 gon Phi: -1.0546 gon Kappa: 139.4503 gon

1.17.2.Resultados de la orientación externa

Nombre del modelo: 3357-3358

IMAGEN IZQUIERDA

218043.020 3161291.426 1807.284

-0.586789173445000 0.809708582185000 -0.007104777506000 Omega: 1.9269

-0.807951574336000 -0.586053598800000 -0.061281587104000 Phi: -3.4256

-0.053784007433000 -0.030219055673000 0.998095230536000 Kappa: 139.9885

IMAGEN DERECHA

217762.560 3161702.338 1802.909

-0.560317366306000 0.828211227301000 0.010517223437000 Omega: 1.1329

-0.828243720987000 -0.560133480200000 -0.016211815767000 Phi: -0.4797

-0.007535758867000 -0.017794586187000 0.999813265085000 Kappa: 137.8654



Nombre del modelo: 3358-3359

IMAGEN IZQUIERDA

217762.560 3161702.338 1802.909

-0.560317366306000 0.828211227301000 0.010517223437000 Omega: 1.1329

-0.828243720987000 -0.560133480200000 -0.016211815767000 Phi: -0.4797

-0.007535758867000 -0.017794586187000 0.999813265085000 Kappa: 137.8654

IMAGEN DERECHA

217487.817 3162112.018 1801.905

-0.580697927882000 0.814118899513000 0.000577935262000 Omega: 0.7975

-0.813950579995000 -0.580563132200000 -0.020758199017000 Phi: -1.0546

-0.016564114234000 -0.012524653897000 0.999784358332000 Kappa: 139.4503



1.18 Pasada 20

1.18.1.Resultados de la orientación relativa

Nombre del modelo: 3374-3375

Focal: 305.581

Coord. P.P.: 0.010 0.012

214323.053 3166180.595 1829.736

-0.022799387555000 0.999614999009000 0.015812706417000

-0.998038101710000 -0.021835197400000 -0.058678545379000

-0.058310680514000 -0.017119518392000 0.998151685180000

214325.415 3166681.976 1831.206

-0.008285369382000 0.999843037570000 0.015660551589000

-0.999808118829000 -0.008005047200000 -0.017878611334000

-0.017750441610000 -0.015805677523000 0.999717511290000

214323.053 3166180.595 0.000

Giros de la cámara izquierda:

Omega: 1.0918 gon Phi: -3.7143 gon Kappa: 101.4541 gon

Giros de la cámara derecha:

Omega: 1.0064 gon Phi: -1.1301 gon Kappa: 100.5276 gon

Nombre del modelo: 3375-3376

Focal: 305.581

Coord. P.P.: 0.010 0.012

214325.415 3166681.976 1831.206

-0.008285369382000 0.999843037570000 0.015660551589000

-0.999808118829000 -0.008005047200000 -0.017878611334000



-0.017750441610000 -0.015805677523000 0.999717511290000

214323.181 3167184.514 1833.299

-0.007850898332000 0.999874079530000 0.013790883916000

-0.999830776297000 -0.007619615200000 -0.016743961101000

-0.016636771464000 -0.013920005308000 0.999764697960000

214325.415 3166681.976 0.000

Giros de la cámara izquierda:

Omega: 1.0064 gon Phi: -1.1301 gon Kappa: 100.5276 gon

Giros de la cámara derecha:

Omega: 0.8863 gon Phi: -1.0592 gon Kappa: 100.4999 gon

Nombre del modelo: 3376-3377

Focal: 305.581

Coord. P.P.: 0.010 0.012

214323.181 3167184.514 1833.299

-0.007850898332000 0.999874079530000 0.013790883916000

-0.999830776297000 -0.007619615200000 -0.016743961101000

-0.016636771464000 -0.013920005308000 0.999764697960000

214316.066 3167685.148 1835.679

-0.017434665954000 0.999780989924000 0.011576036026000

-0.999189569183000 -0.017001910700000 -0.036484789540000

-0.036279984272000 -0.012202754568000 0.999267159233000

214323.181 3167184.514 0.000

Giros de la cámara izquierda:

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA





Omega: 0.8863 gon Phi: -1.0592 gon Kappa: 100.4999 gon

Giros de la cámara derecha:

Omega: 0.7774 gon Phi: -2.3102 gon Kappa: 101.1107 gon

Nombre del modelo: 3377-3378

Focal: 305.581

Coord. P.P.: 0.010 0.012

214316.066 3167685.148 1835.679

-0.017434665954000 0.999780989924000 0.011576036026000

-0.999189569183000 -0.017001910700000 -0.036484789540000

-0.036279984272000 -0.012202754568000 0.999267159233000

214308.922 3168183.113 1835.884

0.012561193254000 0.999420818895000 0.031626621421000

-0.99985410372000 0.012821710200000 -0.008047973229000

-0.008448819368000 -0.031521905192000 0.999467351615000

214316.066 3167685.148 0.000

Giros de la cámara izquierda:

Omega: 0.7774 gon Phi: -2.3102 gon Kappa: 101.1107 gon

Giros de la cámara derecha:

Omega: 2.0072 gon Phi: -0.5379 gon Kappa: 99.2003 gon

Nombre del modelo: 3378-3379

Focal: 305.581

Coord. P.P.: 0.010 0.012

214308.922 3168183.113 1835.884



0.012561193254000 0.999420818895000 0.031626621421000
-0.999885410372000 0.012821710200000 -0.008047973229000
-0.008448819368000 -0.031521905192000 0.999467351615000
214308.857 3168678.362 1843.898
0.012153721292000 0.999583543675000 0.026173006588000
-0.999883067612000 0.012391983100000 -0.008960460891000
-0.009281064704000 -0.026061043172000 0.999617268692000
214308.922 3168183.113 0.000

Giros de la cámara izquierda:

Omega: 2.0072 gon Phi: -0.5379 gon Kappa: 99.2003 gon

Giros de la cámara derecha:

Omega: 1.6594 gon Phi: -0.5909 gon Kappa: 99.2262 gon

Nombre del modelo: 3379-3380

Focal: 305.581

Coord. P.P.: 0.010 0.012

214308.857 3168678.362 1843.898

0.012153721292000 0.999583543675000 0.026173006588000

-0.999883067612000 0.012391983100000 -0.008960460891000

-0.009281064704000 -0.026061043172000 0.999617268692000

214316.591 3169181.193 1846.654

0.005981841514000 0.999661228695000 0.025330720811000

-0.999925677301000 0.006248693600000 -0.010468701070000

-0.010623438487000 -0.025266216053000 0.999624309869000

214308.857 3168678.362 0.000



Giros de la cámara izquierda:

Omega: 1.6594 gon Phi: -0.5909 gon Kappa: 99.2262 gon

Giros de la cámara derecha:

Omega: 1.6088 gon Phi: -0.6763 gon Kappa: 99.6192 gon

1.18.2.Resultados de la orientación externa

Nombre del modelo: 3374-3375

IMAGEN IZQUIERDA

214323.053 3166180.595 1829.736

-0.022799387555000 0.999614999009000 0.015812706417000 Omega: 1.0918

-0.998038101710000 -0.021835197400000 -0.058678545379000 Phi: -3.7143

-0.058310680514000 -0.017119518392000 0.998151685180000 Kappa: 101.4541

IMAGEN DERECHA

214325.415 3166681.976 1831.206

-0.008285369382000 0.999843037570000 0.015660551589000 Omega: 1.0064

-0.999808118829000 -0.008005047200000 -0.017878611334000 Phi: -1.1301

-0.017750441610000 -0.015805677523000 0.999717511290000 Kappa: 100.5276

Nombre del modelo: 3375-3376

IMAGEN IZQUIERDA

214325.415 3166681.976 1831.206

-0.008285369382000 0.999843037570000 0.015660551589000 Omega: 1.0064

-0.999808118829000 -0.008005047200000 -0.017878611334000 Phi: -1.1301

-0.017750441610000 -0.015805677523000 0.999717511290000 Kappa: 100.5276

IMAGEN DERECHA



214323.181 3167184.514 1833.299

-0.007850898332000 0.999874079530000 0.013790883916000 Omega: 0.8863

-0.999830776297000 -0.007619615200000 -0.016743961101000 Phi: -1.0592

-0.016636771464000 -0.013920005308000 0.999764697960000 Kappa: 100.4999

Nombre del modelo: 3376-3377

IMAGEN IZQUIERDA

214323.181 3167184.514 1833.299

-0.007850898332000 0.999874079530000 0.013790883916000 Omega: 0.8863

-0.999830776297000 -0.007619615200000 -0.016743961101000 Phi: -1.0592

-0.016636771464000 -0.013920005308000 0.999764697960000 Kappa: 100.4999

IMAGEN DERECHA

214316.066 3167685.148 1835.679

-0.017434665954000 0.999780989924000 0.011576036026000 Omega: 0.7774

-0.999189569183000 -0.017001910700000 -0.036484789540000 Phi: -2.3102

-0.036279984272000 -0.012202754568000 0.999267159233000 Kappa: 101.1107

Nombre del modelo: 3377-3378

IMAGEN IZQUIERDA

214316.066 3167685.148 1835.679

-0.017434665954000 0.999780989924000 0.011576036026000 Omega: 0.7774

-0.999189569183000 -0.017001910700000 -0.036484789540000 Phi: -2.3102

-0.036279984272000 -0.012202754568000 0.999267159233000 Kappa: 101.1107

IMAGEN DERECHA

214308.922 3168183.113 1835.884

0.012561193254000 0.999420818895000 0.031626621421000 Omega: 2.0072



-0.999885410372000 0.012821710200000 -0.008047973229000 Phi: -0.5379

-0.008448819368000 -0.031521905192000 0.999467351615000 Kappa: 99.2003

Nombre del modelo: 3378-3379

IMAGEN IZQUIERDA

214308.922 3168183.113 1835.884

0.012561193254000 0.999420818895000 0.031626621421000 Omega: 2.0072

-0.999885410372000 0.012821710200000 -0.008047973229000 Phi: -0.5379

-0.008448819368000 -0.031521905192000 0.999467351615000 Kappa: 99.2003

IMAGEN DERECHA

214308.857 3168678.362 1843.898

0.012153721292000 0.999583543675000 0.026173006588000 Omega: 1.6594

-0.999883067612000 0.012391983100000 -0.008960460891000 Phi: -0.5909

-0.009281064704000 -0.026061043172000 0.999617268692000 Kappa: 99.2262

Nombre del modelo: 3379-3380

IMAGEN IZQUIERDA

214308.857 3168678.362 1843.898

0.012153721292000 0.999583543675000 0.026173006588000 Omega: 1.6594

-0.999883067612000 0.012391983100000 -0.008960460891000 Phi: -0.5909

-0.009281064704000 -0.026061043172000 0.999617268692000 Kappa: 99.2262

IMAGEN DERECHA

214316.591 3169181.193 1846.654

0.005981841514000 0.999661228695000 0.025330720811000 Omega: 1.6088

-0.999925677301000 0.006248693600000 -0.010468701070000 Phi: -0.6763

-0.010623438487000 -0.025266216053000 0.999624309869000 Kappa: 99.6192



1.19 Pasada 21

1.19.1.Resultados de la orientación relativa

Nombre del modelo: 8282-8283

bx: 84.33779 [mm] Omega: -2.49435 [gon]

by: 1.03203 [mm] Phi : 0.29972 [gon]

bz: -0.10591 [mm] Kappa: 2.19749 [gon]

Rotation Matrix: Right Image System to Model System

0.999393 0.034300 -0.006053

-0.034511 0.998644 -0.038985

0.004708 0.039171 0.999221

Nombre del modelo: 8283-8284

bx: 81.39924 [mm] Omega: 3.68551 [gon]

by: 3.03957 [mm] Phi : -1.00655 [gon]

bz: -0.60169 [mm] Kappa: -7.78320 [gon]

Rotation Matrix: Right Image System to Model System

0.992412 -0.122657 0.008610

0.121939 0.990761 0.059352

-0.015810 -0.057852 0.998200



Nombre del modelo: 8284-8285

bx: 81.39177 [mm] Omega: -1.04306 [gon]

by: -6.59740 [mm] Phi : 0.74226 [gon]

bz: 0.05576 [mm] Kappa: 2.36005 [gon]

Rotation Matrix: Right Image System to Model System

0.999245 0.036867 -0.012257

-0.037061 0.999186 -0.015940

0.011659 0.016383 0.999798

Nombre del modelo: 8285-8286

bx: 85.75788 [mm] Omega: 0.69874 [gon]

by: -0.85639 [mm] Phi : -0.70393 [gon]

bz: -1.34197 [mm] Kappa: -2.87984 [gon]

Rotation Matrix: Right Image System to Model System

0.998916 -0.045340 0.010549

0.045218 0.998911 0.011464

-0.011057 -0.010975 0.999879

Nombre del modelo: 8286-8287

bx: 82.46358 [mm] Omega: -1.46029 [gon]

by: -1.42924 [mm] Phi : -0.30833 [gon]

bz: -1.38959 [mm] Kappa: -1.22964 [gon]



Rotation Matrix: Right Image System to Model System

0.999802 -0.019198 0.005284

0.019314 0.999553 -0.022838

-0.004843 0.022936 0.999725

Nombre del modelo: 8287-8288

bx: 81.09794 [mm] Omega: -0.18751 [gon]

by: -2.48888 [mm] Phi : 0.62038 [gon]

bz: -0.65688 [mm] Kappa: 2.58388 [gon]

Rotation Matrix: Right Image System to Model System

0.999129 0.040548 -0.009856

-0.040574 0.999173 -0.002548

0.009745 0.002945 0.999948

Nombre del modelo: 8288-8289

bx: 82.49319 [mm] Omega: -0.30490 [gon]

by: -0.53740 [mm] Phi : 0.37933 [gon]

bz: -0.35874 [mm] Kappa: 0.21053 [gon]

Rotation Matrix: Right Image System to Model System

0.999977 0.003278 -0.005974

-0.003307 0.999983 -0.004770

0.005958 0.004789 0.999971

Nombre del modelo: 8289-8290



bx: 82.92163 [mm] Omega: 1.55299 [gon]

by: -1.11884 [mm] Phi : 0.33526 [gon]

bz: 0.24988 [mm] Kappa: -0.04256 [gon]

Rotation Matrix: Right Image System to Model System

0.999986 -0.000540 -0.005281

0.000668 0.999702 0.024388

0.005266 -0.024392 0.999689

Nombre del modelo: 8290-8291

bx: 81.34128 [mm] Omega: -2.55616 [gon]

by: -1.16032 [mm] Phi : 0.32853 [gon]

bz: -0.14364 [mm] Kappa: -0.46057 [gon]

Rotation Matrix: Right Image System to Model System

0.999961 -0.007436 -0.004866

0.007234 0.999166 -0.040178

0.005161 0.040141 0.999181

Nombre del modelo: 8291-8292

bx: 83.20786 [mm] Omega: 1.62386 [gon]

by: -2.60053 [mm] Phi : 0.03220 [gon]

bz: -0.32578 [mm] Kappa: -0.75082 [gon]

Rotation Matrix: Right Image System to Model System

0.999930 -0.011777 -0.000806



0.011794 0.999605 0.025497

0.000506 -0.025505 0.999675

Nombre del modelo: 8292-8293

bx: 76.70990 [mm] Omega: -2.04939 [gon]

by: -3.77984 [mm] Phi : 0.26387 [gon]

bz: -0.70747 [mm] Kappa: 1.27642 [gon]

Rotation Matrix: Right Image System to Model System

0.999790 0.019905 -0.004787

-0.020048 0.999284 -0.032097

0.004145 0.032186 0.999473

Nombre del modelo: 8293-8294

bx: 81.24818 [mm] Omega: 3.24904 [gon]

by: -2.00384 [mm] Phi : -0.43297 [gon]

bz: -1.47027 [mm] Kappa: -0.31348 [gon]

Rotation Matrix: Right Image System to Model System

0.999965 -0.005265 0.006541

0.004924 0.998684 0.051046

-0.006801 -0.051012 0.998675

Nombre del modelo: 8294-8295

bx: 80.54141 [mm] Omega: -2.03394 [gon]

by: -0.21791 [mm] Phi : 0.03224 [gon]



bx: -0.92163 [mm] Kappa: -1.05664 [gon]

Rotation Matrix: Right Image System to Model System

0.999862 -0.016605 0.000024

0.016597 0.999352 -0.031948

0.000506 0.031944 0.999490

Nombre del modelo: 8295-8296

bx: 81.79052 [mm] Omega: 1.45290 [gon]

by: -1.19170 [mm] Phi : -0.34193 [gon]

bz: -1.12370 [mm] Kappa: -0.59146 [gon]

Rotation Matrix: Right Image System to Model System

0.999942 -0.009411 0.005157

0.009290 0.999695 0.022869

-0.005371 -0.022820 0.999725

Nombre del modelo: 8296-8297

bx: 80.79618 [mm] Omega: -0.85674 [gon]

by: -1.22789 [mm] Phi : -0.65261 [gon]

bz: -1.99442 [mm] Kappa: -0.13502 [gon]

Rotation Matrix: Right Image System to Model System

0.999945 -0.001983 0.010279

0.002121 0.999907 -0.013435

-0.010251 0.013456 0.999857



1.19.2.Resultados de la orientación externa

Nombre del modelo: 8282-8283

Rotations [gon]

OMEGA PHI KAPPA

Left : -0.6535 -0.4545 129.2478

Right : 1.8569 -0.7765 127.0533

Projection Center Coordinates

X Y Z

Left : 214215.976 3168930.000 1815.354

Right : 213997.669 3169358.021 1818.121

Nombre del modelo: 8283-8284

Rotations [gon]

OMEGA PHI KAPPA

Left : 1.8440 -0.7245 127.0444

Right : -1.9438 0.0622 134.8527

Projection Center Coordinates

X Y Z

Left : 213996.753 3169359.160 1818.344

Right : 213780.141 3169793.811 1820.807

Nombre del modelo: 8284-8285

Rotations [gon]

OMEGA PHI KAPPA



Left : -1.9389 -0.1195 134.8575

Right : -0.8903 -0.9332 132.5211

Projection Center Coordinates

X Y Z

Left : 213782.751 3169789.684 1821.162

Right : 213567.195 3170217.507 1823.564

Nombre del modelo: 8285-8286

Rotations [gon]

OMEGA PHI KAPPA

Left : -1.0070 -0.9011 132.5257

Right : -1.7454 -0.1508 135.3939

Projection Center Coordinates

X Y Z

Left : 213563.895 3170216.622 1823.355

Right : 213329.828 3170644.386 1822.706

Nombre del modelo: 8286-8287

Rotations [gon]

OMEGA PHI KAPPA

Left : -1.7135 -0.1985 135.3925

Right : -0.2567 0.1428 136.6134

Projection Center Coordinates



X Y Z

Left : 213331.329 3170643.741 1823.305

Right : 213085.188 3171056.077 1816.939

Nombre del modelo: 8287-8288

Rotations [gon]

OMEGA PHI KAPPA

Left : -0.2735 0.1237 136.5995

Right : -0.0908 -0.5079 134.0183

Projection Center Coordinates

X Y Z

Left : 213085.145 3171055.424 1817.067

Right : 212835.537 3171467.905 1812.290

Nombre del modelo: 8288-8289

Rotations [gon]

OMEGA PHI KAPPA

Left : -0.1051 -0.5357 134.0132

Right : 0.2016 -0.9154 133.8033

Projection Center Coordinates

X Y Z

Left : 212835.625 3171467.115 1811.751

Right : 212592.685 3171883.888 1813.718



Nombre del modelo: 8289-8290

Rotations [gon]

OMEGA PHI KAPPA

Left : 0.1096 -0.8241 133.7831

Right : -1.4440 -1.1594 133.8251

Projection Center Coordinates

X Y Z

Left : 212589.133 3171884.845 1812.647

Right : 212349.789 3172305.629 1820.361

Nombre del modelo: 8290-8291

Rotations [gon]

OMEGA PHI KAPPA

Left : -1.4565 -1.2127 133.8224

Right : 1.0908 -1.5305 134.2905

Projection Center Coordinates

X Y Z

Left : 212350.234 3172304.108 1819.919

Right : 212113.426 3172720.614 1828.356

Nombre del modelo: 8291-8292

Rotations [gon]

OMEGA PHI KAPPA

Left : 1.1520 -1.4722 134.2880



Right : -0.4893 -1.5179 135.0383

Projection Center Coordinates

X Y Z

Left : 212114.117 3172723.014 1828.131

Right : 211877.051 3173149.409 1837.224

Nombre del modelo: 8292-8293

Rotations [gon]

OMEGA PHI KAPPA

Left : -0.4882 -1.2820 135.0233

Right : 1.5870 -1.5553 133.7486

Projection Center Coordinates

X Y Z

Left : 211873.591 3173155.076 1836.432

Right : 211648.023 3173567.152 1841.731

Nombre del modelo: 8293-8294

Rotations [gon]

OMEGA PHI KAPPA

Left : 1.4669 -1.6927 133.7598

Right : -1.7907 -1.2670 134.0833

Projection Center Coordinates

X Y Z

Left : 211647.144 3173562.521 1842.923



Right : 211413.963 3173983.269 1846.737

Nombre del modelo: 8294-8295

Rotations [gon]

OMEGA PHI KAPPA

Left : -1.7093 -1.5239 134.0982

Right : 0.2996 -1.5275 135.1557

Projection Center Coordinates

X Y Z

Left : 211418.996 3173978.809 1846.884

Right : 211175.573 3174391.797 1852.911

Nombre del modelo: 8295-8296

Rotations [gon]

OMEGA PHI KAPPA

Left : 0.2869 -1.3837 135.1360

Right : -1.1789 -1.0444 135.7290

Projection Center Coordinates

X Y Z

Left : 211173.517 3174394.625 1853.172

Right : 210925.337 3174811.095 1857.017

Nombre del modelo: 8296-8297

Rotations [gon]

OMEGA PHI KAPPA



Left : -1.1651 -1.1287 135.7300

Right : -0.3107 -0.4737 135.8531

Projection Center Coordinates

X Y Z

Left : 210926.774 3174809.450 1857.314

Right : 210676.437 3175221.817 1854.097



1.20 Pasada 22

1.20.1.Resultados de la orientación relativa

Nombre del modelo: 3349-3450

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

222884.347 3192723.416 1149.897

-0.981777170150000 -0.190033537661000 -0.000918006401000

0.190035418860000 -0.981773064023000 -0.002861876691000

-0.000357421405000 -0.002984178930000 0.999995483453000

222401.261 3192631.044 1144.437

-0.982732418151000 -0.185028739625000 -0.001166116275000

0.185030053422000 -0.982732199188000 -0.001141932683000

-0.000934689646000 -0.001337980823000 0.999998668080000

222884.347 3192723.416 0.000

Giros de la cámara izquierda:

Omega: 0.1900 gon Phi: -0.0228 gon Kappa: -187.8279 gon

Giros de la cámara derecha:

Omega: 0.0852 gon Phi: -0.0595 gon Kappa: -188.1523 gon

Nombre del modelo: 3450-3451

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

223380.651 3192817.333 1152.845

-0.982772858974000 -0.184817476716000 0.000089246805000

0.184817172335000 -0.982771918140000 -0.001403468784000



0.000347094813000 -0.001362796687000 0.999999011155000
222884.347 3192723.416 1149.897
-0.981777170150000 -0.190033537661000 -0.000918006401000
0.190035418860000 -0.981773064023000 -0.002861876691000
-0.000357421405000 -0.002984178930000 0.999995483453000
223380.651 3192817.333 0.000

Giros de la cámara izquierda:

Omega: 0.0868 gon Phi: 0.0221 gon Kappa: -188.1661 gon

Giros de la cámara derecha:

Omega: 0.1900 gon Phi: -0.0228 gon Kappa: -187.8279 gon

Nombre del modelo: 3451-3452

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

223879.263 3192909.443 1144.395
-0.984916699393000 -0.173027145874000 -0.000837882288000
0.173027494442000 -0.984916927824000 -0.000362563390000
-0.000762511140000 -0.000502071411000 0.999999583250000
223380.651 3192817.333 1152.845
-0.982772858974000 -0.184817476716000 0.000089246805000
0.184817172335000 -0.982771918140000 -0.001403468784000
0.000347094813000 -0.001362796687000 0.999999011155000
223879.263 3192909.443 0.000

Giros de la cámara izquierda:



Omega: 0.0320 gon Phi: -0.0485 gon Kappa: -188.9290 gon

Giros de la cámara derecha:

Omega: 0.0868 gon Phi: 0.0221 gon Kappa: -188.1661 gon

Nombre del modelo: 3452-3453

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

224365.894 3192990.859 1143.209

-0.986306463435000 -0.164916466562000 0.001455762055000

0.164910605564000 -0.986302307311000 -0.003500109381000

0.002013047145000 -0.003212109903000 0.999992814970000

223879.263 3192909.443 1144.395

-0.984916699393000 -0.173027145874000 -0.000837882288000

0.173027494442000 -0.984916927824000 -0.000362563390000

-0.000762511140000 -0.000502071411000 0.999999583250000

224365.894 3192990.859 0.000

Giros de la cámara izquierda:

Omega: 0.2045 gon Phi: 0.1282 gon Kappa: -189.4533 gon

Giros de la cámara derecha:

Omega: 0.0320 gon Phi: -0.0485 gon Kappa: -188.9290 gon

Nombre del modelo: 3453-3454

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

224864.930 3193077.774 1145.509



-0.984367205149000 -0.176127887066000 -0.000415721321000
0.176127888886000 -0.984356170431000 -0.004679368597000
0.000414949456000 -0.004679437106000 0.999988965282000
224365.894 3192990.859 1143.209
-0.986306463435000 -0.164916466562000 0.001455762055000
0.164910605564000 -0.986302307311000 -0.003500109381000
0.002013047145000 -0.003212109903000 0.999992814970000
224864.930 3193077.774 0.000

Giros de la cámara izquierda:

Omega: 0.2979 gon Phi: 0.0264 gon Kappa: -188.7286 gon

Giros de la cámara derecha:

Omega: 0.2045 gon Phi: 0.1282 gon Kappa: -189.4533 gon

Nombre del modelo: 3454-3455

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

225361.943 3193170.832 1143.738

-0.981971361996000 -0.189026397678000 -0.001124811457000

0.189029089235000 -0.981966239453000 -0.003210606997000

-0.000497637401000 -0.003365346211000 0.999994213384000

224864.930 3193077.774 1145.509

-0.984367205149000 -0.176127887066000 -0.000415721321000

0.176127888886000 -0.984356170431000 -0.004679368597000

0.000414949456000 -0.004679437106000 0.999988965282000

225361.943 3193170.832 0.000



Giros de la cámara izquierda:

Omega: 0.2142 gon Phi: -0.0317 gon Kappa: -187.8932 gon

Giros de la cámara derecha:

Omega: 0.2979 gon Phi: 0.0264 gon Kappa: -188.7286 gon

Nombre del modelo: 3456-3457

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

225843.396 3193262.992 1146.192

-0.982007009045000 -0.188839996926000 0.001299903238000

0.188839424881000 -0.982007824998000 -0.000550684227000

0.001380506359000 -0.000295302791000 0.999999003499000

225361.943 3193170.832 1143.738

-0.981971361996000 -0.189026397678000 -0.001124811457000

0.189029089235000 -0.981966239453000 -0.003210606997000

-0.000497637401000 -0.003365346211000 0.999994213384000

225843.396 3193262.992 0.000

Giros de la cámara izquierda:

Omega: 0.0188 gon Phi: 0.0879 gon Kappa: -187.9055 gon

Giros de la cámara derecha:

Omega: 0.2142 gon Phi: -0.0317 gon Kappa: -187.8932 gon



Nombre del modelo: 3457-3458

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

226340.945 3193355.519 1143.723

-0.984383268475000 -0.176037272813000 -0.000677736724000

0.176038249543000 -0.984381570396000 -0.001859721375000

-0.000339771262000 -0.001949986192000 0.999998041053000

225843.396 3193262.992 1146.192

-0.982007009045000 -0.188839996926000 0.001299903238000

0.188839424881000 -0.982007824998000 -0.000550684227000

0.001380506359000 -0.000295302791000 0.999999003499000

226340.945 3193355.519 0.000

Giros de la cámara izquierda:

Omega: 0.1241 gon Phi: -0.0216 gon Kappa: -188.7344 gon

Giros de la cámara derecha:

Omega: 0.0188 gon Phi: 0.0879 gon Kappa: -187.9055 gon

Nombre del modelo: 3458-3459

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

222884.347 3192723.416 1149.897

-0.981777170150000 -0.190033537661000 -0.000918006401000

0.190035418860000 -0.981773064023000 -0.002861876691000

-0.000357421405000 -0.002984178930000 0.999995483453000

222401.261 3192631.044 1144.437



-0.982732418151000 -0.185028739625000 -0.001166116275000
0.185030053422000 -0.982732199188000 -0.001141932683000
-0.000934689646000 -0.001337980823000 0.999998668080000
222884.347 3192723.416 0.000

Giros de la cámara izquierda:

Omega: 0.1900 gon Phi: -0.0228 gon Kappa: -187.8279 gon

Giros de la cámara derecha:

Omega: 0.0852 gon Phi: -0.0595 gon Kappa: -188.1523 gon

Nombre del modelo: 3459-3460

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

223380.651 3192817.333 1152.845
-0.982772858974000 -0.184817476716000 0.000089246805000
0.184817172335000 -0.982771918140000 -0.001403468784000
0.000347094813000 -0.001362796687000 0.999999011155000
222884.347 3192723.416 1149.897
-0.981777170150000 -0.190033537661000 -0.000918006401000
0.190035418860000 -0.981773064023000 -0.002861876691000
-0.000357421405000 -0.002984178930000 0.999995483453000
223380.651 3192817.333 0.000

Giros de la cámara izquierda:

Omega: 0.0868 gon Phi: 0.0221 gon Kappa: -188.1661 gon

Giros de la cámara derecha:



Omega: 0.1900 gon Phi: -0.0228 gon Kappa: -187.8279 gon

Nombre del modelo: 3461-3462

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

223879.263 3192909.443 1144.395

-0.984916699393000 -0.173027145874000 -0.000837882288000

0.173027494442000 -0.984916927824000 -0.000362563390000

-0.000762511140000 -0.000502071411000 0.999999583250000

223380.651 3192817.333 1152.845

-0.982772858974000 -0.184817476716000 0.000089246805000

0.184817172335000 -0.982771918140000 -0.001403468784000

0.000347094813000 -0.001362796687000 0.999999011155000

223879.263 3192909.443 0.000

Giros de la cámara izquierda:

Omega: 0.0320 gon Phi: -0.0485 gon Kappa: -188.9290 gon

Giros de la cámara derecha:

Omega: 0.0868 gon Phi: 0.0221 gon Kappa: -188.1661 gon

Nombre del modelo: 3462-3463

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

224365.894 3192990.859 1143.209

-0.986306463435000 -0.164916466562000 0.001455762055000

0.164910605564000 -0.986302307311000 -0.003500109381000



0.002013047145000 -0.003212109903000 0.999992814970000
223879.263 3192909.443 1144.395
-0.984916699393000 -0.173027145874000 -0.000837882288000
0.173027494442000 -0.984916927824000 -0.000362563390000
-0.000762511140000 -0.000502071411000 0.999999583250000
224365.894 3192990.859 0.000

Giros de la cámara izquierda:

Omega: 0.2045 gon Phi: 0.1282 gon Kappa: -189.4533 gon

Giros de la cámara derecha:

Omega: 0.0320 gon Phi: -0.0485 gon Kappa: -188.9290 gon

Nombre del modelo: 3463-3464

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

224864.930 3193077.774 1145.509
-0.984367205149000 -0.176127887066000 -0.000415721321000
0.176127888886000 -0.984356170431000 -0.004679368597000
0.000414949456000 -0.004679437106000 0.999988965282000
224365.894 3192990.859 1143.209
-0.986306463435000 -0.164916466562000 0.001455762055000
0.164910605564000 -0.986302307311000 -0.003500109381000
0.002013047145000 -0.003212109903000 0.999992814970000
224864.930 3193077.774 0.000

Giros de la cámara izquierda:



Omega: 0.2979 gon Phi: 0.0264 gon Kappa: -188.7286 gon

Giros de la cámara derecha:

Omega: 0.2045 gon Phi: 0.1282 gon Kappa: -189.4533 gon

1.20.2.Resultados de la orientación externa

Nombre del modelo: 3449-3450

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 98.90 97.60

PHI 99.71 99.35

OMEGA 101.495 101.58

by 0.00 0.00

bz 99.12 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 149.993

Nombre del modelo: 3450-3451

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 99.10 98.10

PHI 99.35 100.505

OMEGA 101.58 100.58

by 0.00 0.00

bz 99.17 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 150.000

Nombre del modelo: 3451-3452

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 98.30 99.90



PHI 100.39 100.035

OMEGA 100.445 100.28

by 0.00 0.00

bz 99.695 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 150.008

Nombre del modelo: 3452-3453

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 99.40 99.40

PHI 100.215 99.80

OMEGA 100.35 101.42

by 0.00 0.00

bz 99.39 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 149.994

Nombre del modelo: 3453-3454

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 99.90 98.95

PHI 99.74 98.88

OMEGA 101.41 101.36

by 0.00 0.00

bz 98.66 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 150.000

Nombre del modelo: 3454-3455



CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 98.80 105.50

PHI 101.78 100.24

OMEGA 101.21 99.64

by 0.00 0.00

bz 99.02 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 149.994

Nombre del modelo: 3455-3456

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 101.20 100.60

PHI 100.46 100.62

OMEGA 99.65 98.63

by 0.00 0.00

bz 100.87 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 149.994

Nombre del modelo: 3456-3457

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 100.40 99.80

PHI 100.67 100.68

OMEGA 98.53 100.82

by 0.00 0.00

bz 100.83 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 150.000



Nombre del modelo: 3457-3458

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 105.55 98.60

PHI 100.78 100.27

OMEGA 100.905 10.255

by 0.00 0.00

bz 100.28 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 150.002

Nombre del modelo: 3458-3459

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 99.70 99.75

PHI 100.13 99.62

OMEGA 100.26 102.595

by 0.00 0.00

bz 99.91 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 150.007

Nombre del modelo: 3459-3460

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 101.00 100.00

PHI 99.705 99.05

OMEGA 102.545 101.485

by 0.00 0.00

bz 99.90 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.0 BASE 149.997



Nombre del modelo: 3460-3461

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 100.40 103.20

PHI 99.05 100.38

OMEGA 101.39 100.50

by 0.00 0.00

bz 99.75 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 150.006

Nombre del modelo: 3461-3462

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 101.20 100.60

PHI 100.38 101.465

OMEGA 100.50 100.99

by 0.0 0.00

bz 101.42 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 149.998

Nombre del modelo: 3462-3463

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 100.30 99.50

PHI 101.63 100.94

OMEGA 101.03 100.92

by 0.00 0.00

bz 100.52 0.00



PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 149.992

Nombre del modelo: 3463-3464

CAMARA IZQUIERDA CAMARA DERECHA

CAPPA 100.10 99.80

PHI 100.94 100.72

OMEGA 100.93 100.36

by 0.00 0.00

bz 99.59 0.00

PHI GENERAL 0.00 OMEGA GENERAL 0.00 BASE 149.996



1.21 Pasada 23

1.21.1.Resultados de la orientación relativa

Nombre del modelo: 3420-3421

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230348.639 3187241.280 1135.562

-0.409215470000000 0.912437735000000 0.000280127000000

-0.912431866000000 -0.409211694000000 -0.003725503000000

-0.003284658000000 -0.001780130000000 0.999993021000000

230149.792 3187692.247 1134.318

-0.399165032000000 0.916879036000000 0.000331373000000

-0.916878126000000 -0.399164058000000 -0.001598785000000

-0.001333620000000 -0.000942008000000 0.999998667000000

230348.639 3187241.280 0.000

Giros de la cámara izquierda:

Omega: 0.1133 gon Phi: -0.2091 gon Kappa: 126.8397 gon

Giros de la cámara derecha:

Omega: 0.0600 gon Phi: -0.0849 gon Kappa: 126.1400 gon

Nombre del modelo: 3421-3422

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230542.708 3186808.965 1136.854

-0.397608289000000 0.917555199000000 -0.000325244000000

-0.917555028000000 -0.397608415000000 -0.000564581000000



-0.000647354000000 0.000073947000000 0.999999788000000

230348.639 3187241.280 1135.562

-0.409215470000000 0.912437735000000 0.000280127000000

-0.912431866000000 -0.409211694000000 -0.003725503000000

-0.003284658000000 -0.001780130000000 0.999993021000000

230542.708 3186808.965 0.000

Giros de la cámara izquierda:

Omega: -0.0047 gon Phi: -0.0412 gon Kappa: 126.0319 gon

Giros de la cámara derecha:

Omega: 0.1133 gon Phi: -0.2091 gon Kappa: 126.8397 gon

Nombre del modelo: 3422-3423

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230739.938 3186339.906 1132.296

-0.390533272000000 0.920588813000000 -0.000037309500000

-0.920584658000000 -0.390531631000000 -0.002988773000000

-0.002766001000000 -0.001132869000000 0.999995533000000

230542.708 3186808.965 1136.854

-0.397608289000000 0.917555199000000 -0.000325244000000

-0.917555028000000 -0.397608415000000 -0.000564581000000

-0.000647354000000 0.000073947000000 0.999999788000000

230739.938 3186339.906 0.000

Giros de la cámara izquierda:

Omega: 0.0721 gon Phi: -0.1761 gon Kappa: 125.5420 gon



Giros de la cámara derecha:

Omega: -0.0047 gon Phi: -0.0412 gon Kappa: 126.0319 gon

Nombre del modelo: 3423-3424

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

230934.003 3185904.441 1134.968

-0.413449092000000 0.910527149000000 0.000400072000000

-0.910524111000000 -0.413446481000000 -0.002802073000000

-0.002385955000000 -0.001522790000000 0.999995994000000

230739.938 3186339.906 1132.296

-0.390533272000000 0.920588813000000 -0.000037309500000

-0.920584658000000 -0.390531631000000 -0.002988773000000

-0.002766001000000 -0.001132869000000 0.999995533000000

230934.003 3185904.441 0.000

Giros de la cámara izquierda:

Omega: 0.0969 gon Phi: -0.1519 gon Kappa: 127.1353 gon

Giros de la cámara derecha:

Omega: 0.0721 gon Phi: -0.1761 gon Kappa: 125.5420 gon

Nombre del modelo: 3427-3428

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

231131.049 3185455.684 1140.734

-0.386517130000000 0.922282221000000 -0.000109269000000

-0.922279558000000 -0.386516294000000 -0.002360327000000

-0.002219122000000 -0.000811530000000 0.999997208000000



230934.003 3185904.441 1134.968

-0.413449092000000 0.910527149000000 0.000400072000000

-0.910524111000000 -0.413446481000000 -0.002802073000000

-0.002385955000000 -0.001522790000000 0.999995994000000

231131.049 3185455.684 0.000

Giros de la cámara izquierda:

Omega: 0.0517 gon Phi: -0.1413 gon Kappa: 125.2645 gon

Giros de la cámara derecha:

Omega: 0.0969 gon Phi: -0.1519 gon Kappa: 127.1353 gon

Nombre del modelo: 3428-3429

Focal: 153.440

Coordenadas P.P.: 0.005 0.004

231325.813 3184986.642 1137.162

-0.388968059000000 0.921250893000000 0.000801349000000

-0.921247771000000 -0.388964059000000 -0.003082982000000

-0.002528504000000 -0.001937422000000 0.999994927000000

231131.049 3185455.684 1140.734

-0.386517130000000 0.922282221000000 -0.000109269000000

-0.922279558000000 -0.386516294000000 -0.002360327000000

-0.002219122000000 -0.000811530000000 0.999997208000000

231325.813 3184986.642 0.000

Giros de la cámara izquierda:

Omega: 0.1233 gon Phi: -0.1610 gon Kappa: 125.4338 gon

Giros de la cámara derecha:

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA





Omega: 0.0517 gon Phi: -0.1413 gon Kappa: 125.2645 gon

1.21.2.Resultados de la orientación externa

Nombre del modelo: 3420-3421

Omega : .2093 .5417 Base X [mm]: 91.285

Phi : -2.7643 .1458 Base Y [mm]: .080

Kappa : .0000 -1.0215 Base Z [mm]: .985

XO [mm]: -45.643 45.643

YO [mm]: .040 -.040 Desviacion Objetivo:0

ZO [mm]: .493 -.493 Curvatura Terrestre:1

AA: -2.96998000 XT: 209053.934 Long. FOCAL 1: 305.580

BB: -4.42488800 YT: 3181121.464 Long. FOCAL 2: 305.580

FS: 5.32920400 ZT: 1906.032 Escala Modelo: 5329.204

Nombre del modelo: 3421-3422

Omega : .2093 .5417 Base X [mm]: 91.285

Phi : -2.7643 .1458 Base Y [mm]: .080

Kappa : .0000 -1.0215 Base Z [mm]: .985

XO [mm]: -45.643 45.643

YO [mm]: .040 -.040 Desviacion Objetivo:0

ZO [mm]: .493 -.493 Curvatura Terrestre:1

AA: -2.96998000 XT: 209053.934 Long. FOCAL 1: 305.580

BB: -4.42488800 YT: 3181121.464 Long. FOCAL 2: 305.580

FS: 5.32920400 ZT: 1906.032 Escala Modelo: 5329.204



Nombre del modelo: 3422-3423

Omega : .9068 .7737 Base X [mm]: 89.615

Phi : .4582 -1.6766 Base Y [mm]: 2.970

Kappa : .0000 1.7724 Base Z [mm]: 1.309

XO [mm]: -44.807 44.807

YO [mm]: 1.485 -1.485 Desviacion Objetivo:0

ZO [mm]: .654 -.654 Curvatura Terrestre:1

AA: -3.07459800 XT: 208521.753 Long. FOCAL 1: 305.580

BB: -4.57772000 YT: 3181948.229 Long. FOCAL 2: 305.580

FS: 5.51440600 ZT: 1892.603 Escala Modelo: 5514.406

Nombre del modelo: 3423-3424

Omega : .6188 -.8203 Base X [mm]: 91.312

Phi : -1.6993 -1.6294 Base Y [mm]: 4.210

Kappa : .0000 .8508 Base Z [mm]: .500

XO [mm]: -45.656 45.656

YO [mm]: 2.105 -2.105 Desviacion Objetivo:0

ZO [mm]: -.250 .250 Curvatura Terrestre:1

AA: -3.12659500 XT: 208259.517 Long. FOCAL 1: 305.580

BB: -4.35312600 YT: 3182357.650 Long. FOCAL 2: 305.580

FS: 5.35959900 ZT: 1890.087 Escala Modelo: 5359.599



Nombre del modelo: 3427-3428

Omega : .2093 .5417 Base X [mm]: 91.285

Phi : -2.7643 .1458 Base Y [mm]: .080

Kappa : .0000 -1.0215 Base Z [mm]: .985

XO [mm]: -45.643 45.643

YO [mm]: .040 -.040 Desviacion Objetivo:0

ZO [mm]: .493 -.493 Curvatura Terrestre:1

AA: -2.96998000 XT: 209053.934 Long. FOCAL 1: 305.580

BB: -4.42488800 YT: 3181121.464 Long. FOCAL 2: 305.580

FS: 5.32920400 ZT: 1906.032 Escala Modelo: 5329.204

Nombre del modelo: 3428-3429

Omega : .6188 -.8203 Base X [mm]: 91.312

Phi : -1.6993 -1.6294 Base Y [mm]: 4.210

Kappa : .0000 .8508 Base Z [mm]: .500

XO [mm]: -45.656 45.656

YO [mm]: 2.105 -2.105 Desviacion Objetivo:0

ZO [mm]: -.250 .250 Curvatura Terrestre:1

AA: -3.12659500 XT: 208259.517 Long. FOCAL 1: 305.580

BB: -4.35312600 YT: 3182357.650 Long. FOCAL 2: 305.580

FS: 5.35959900 ZT: 1890.087 Escala Modelo: 5359.599



1.22 Pasada 24

1.22.1.Resultados de la orientación relativa

Nombre del modelo: 3439-3440

Focal: 305.581

Coord. P.P.: 0.010 0.012

82.223 4.872 -1.272

0.999465037651863 -0.020321534870749 -0.025625645983202

0.021472430225556 0.998735056114792 0.045466717800970

0.024669277487760 -0.045992639714212 0.998637123203594

4.418 -2.407 -278.533

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: 2.9299 gon Phi: 1.5707 gon Kappa: -1.3675 gon

1.22.2.Resultados de la orientación externa

Nombre del modelo: 3439-3440

IMAGEN IZQUIERDA

206898.029 3187406.415 1964.269

0.144352575878895 0.989164736042309 0.026748061751765 Omega: 1.3670

-0.988792611985166 0.145233584754374 -0.034588673622265 Phi: -2.4260

-0.038098613107062 -0.021455321711460 0.999043625098312 Kappa: 90.7713



IMAGEN DERECHA

206940.486 3187897.153 1968.813

0.165345437802271 0.986234007274066 0.001835509224446 Omega: 0.2358

-0.986174463094204 0.165314140138077 0.011452659571767 Phi: 0.6998

0.010991566714255 -0.003703777334817 0.999932731484783 Kappa: 89.4246



1.23 Pasada 25

1.23.1.Resultados de la orientación relativa

Nombre del modelo: 3443-3444

Focal: 305.581

Coord. P.P.: 0.010 0.012

206438.029 3186417.574 1950.572

0.651629258736000 0.758403700164000 0.014252604527000

-0.758158741627000 0.651782597749000 -0.019358919561000

-0.023971475830000 0.001809101691000 0.999711005990000

206757.450 3186781.581 1955.288

0.625933094288000 0.779866231882000 0.004052387572000

-0.779595483547000 0.625838437971000 -0.023603635147000

-0.020943817909000 0.011615073335000 0.999713182149000

206438.029 3186417.574 0.000

Giros de la cámara izquierda:

Omega: -0.1152 gon Phi: -1.5262 gon Kappa: 54.8014 gon

Giros de la cámara derecha:

Omega: -0.7396 gon Phi: -1.3334 gon Kappa: 56.9324 gon

Nombre del modelo: 3444-3445

Fecha: 4/5/2004 11:06

Focal: 305.581

Coord. P.P.: 0.010 0.012

206757.450 3186781.581 1955.288



0.625933094288000 0.779866231882000 0.004052387572000
-0.779595483547000 0.625838437971000 -0.023603635147000
-0.020943817909000 0.011615073335000 0.999713182149000
207064.583 3187147.981 1960.381
0.615486592471000 0.787913348493000 0.019204420213000
-0.787003946491000 0.615723237782000 -0.038854635034000
-0.042438693388000 0.008800552421000 0.999060312284000
206757.450 3186781.581 0.000

Giros de la cámara izquierda:

Omega: -0.7396 gon Phi: -1.3334 gon Kappa: 56.9324 gon

Giros de la cámara derecha:

Omega: -0.5608 gon Phi: -2.7025 gon Kappa: 57.7471 gon

Nombre del modelo: 3445-3446

Focal: 305.581

Coord. P.P.: 0.010 0.012

207064.583 3187147.981 1960.381

0.615486592471000 0.787913348493000 0.019204420213000
-0.787003946491000 0.615723237782000 -0.038854635034000
-0.042438693388000 0.008800552421000 0.999060312284000
207366.454 3187518.840 1971.724
0.632608571529000 0.774468873696000 -0.002087798780000
-0.774359523201000 0.632468775926000 -0.018723683050000
-0.013180442184000 0.013461469256000 0.999822516644000
207064.583 3187147.981 0.000



Giros de la cámara izquierda:

Omega: -0.5608 gon Phi: -2.7025 gon Kappa: 57.7471 gon

Giros de la cámara derecha:

Omega: -0.8571 gon Phi: -0.8391 gon Kappa: 56.3923 gon

Nombre del modelo: 3446-3447

Focal: 305.581

Coord. P.P.: 0.010 0.012

207366.454 3187518.840 1971.724

0.632608571529000 0.774468873696000 -0.002087798780000

-0.774359523201000 0.632468775926000 -0.018723683050000

-0.013180442184000 0.013461469256000 0.999822516644000

207676.828 3187881.843 1975.546

0.642348155928000 0.766386460004000 0.006374990080000

-0.766365005640000 0.642378793704000 -0.005844957741000

-0.008574654910000 -0.001131071482000 0.999962597286000

207366.454 3187518.840 0.000

Giros de la cámara izquierda:

Omega: -0.8571 gon Phi: -0.8391 gon Kappa: 56.3923 gon

Giros de la cámara derecha:

Omega: 0.0720 gon Phi: -0.5459 gon Kappa: 55.5901 gon

Nombre del modelo: 3447-3448

Focal: 305.581



Coord. P.P.: 0.010 0.012

207676.828 3187881.843 1975.546

0.642348155928000 0.766386460004000 0.006374990080000

-0.766365005640000 0.642378793704000 -0.005844957741000

-0.008574654910000 -0.001131071482000 0.999962597286000

208010.233 3188235.730 1982.757

0.640119639100000 0.768226105511000 0.008688984363000

-0.768161097992000 0.640178549513000 -0.009997613462000

-0.013242929060000 -0.000274871047000 0.999912270790000

207676.828 3187881.843 0.000

Giros de la cámara izquierda:

Omega: 0.0720 gon Phi: -0.5459 gon Kappa: 55.5901 gon

Giros de la cámara derecha:

Omega: 0.0175 gon Phi: -0.8431 gon Kappa: 55.7723 gon

Nombre del modelo: 3448-3449

Focal: 305.581

Coord. P.P.: 0.010 0.012

208010.233 3188235.730 1982.757

0.640119639100000 0.768226105511000 0.008688984363000

-0.768161097992000 0.640178549513000 -0.009997613462000

-0.013242929060000 -0.000274871047000 0.999912270790000

208338.143 3188585.343 1991.460

0.650050519830000 0.759870836362000 0.005534773296000

-0.759604222770000 0.649988049380000 -0.022736763470000



-0.020874539973000 0.010575807745000 0.999726165443000

208010.233 3188235.730 0.000

Giros de la cámara izquierda:

Omega: 0.0175 gon Phi: -0.8431 gon Kappa: 55.7723 gon

Giros de la cámara derecha:

Omega: -0.6734 gon Phi: -1.3290 gon Kappa: 54.9377 gon

Nombre del modelo: 3449-3450

Focal: 305.581

Coord. P.P.: 0.010 0.012

208338.143 3188585.343 1991.460

0.650050519830000 0.759870836362000 0.005534773296000

-0.759604222770000 0.649988049380000 -0.022736763470000

-0.020874539973000 0.010575807745000 0.999726165443000

208659.161 3188946.166 1995.769

0.634107943922000 0.773160776889000 0.011381060421000

-0.772820545398000 0.634178943656000 -0.023779655911000

-0.025603126114000 0.006283351396000 0.999652439315000

208338.143 3188585.343 0.000

Giros de la cámara izquierda:

Omega: -0.6734 gon Phi: -1.3290 gon Kappa: 54.9377 gon

Giros de la cámara derecha:

Omega: -0.4001 gon Phi: -1.6301 gon Kappa: 56.2564 gon



Nombre del modelo: 3450-3451

Focal: 305.581

Coord. P.P.: 0.010 0.012

208659.161 3188946.166 1995.769

0.634107943922000 0.773160776889000 0.011381060421000

-0.772820545398000 0.634178943656000 -0.023779655911000

-0.025603126114000 0.006283351396000 0.999652439315000

208970.578 3189312.718 1999.452

0.622064548783000 0.782928335845000 -0.007675811219000

-0.782965412215000 0.622022604287000 -0.007283064710000

-0.000927589649000 0.010540431057000 0.999944017878000

208659.161 3188946.166 0.000

Giros de la cámara izquierda:

Omega: -0.4001 gon Phi: -1.6301 gon Kappa: 56.2564 gon

Giros de la cámara derecha:

Omega: -0.6710 gon Phi: -0.0591 gon Kappa: 57.2588 gon

Nombre del modelo: 3451-3452

Focal: 305.581

Coord. P.P.: 0.010 0.012

208970.578 3189312.718 1999.452

0.622064548783000 0.782928335845000 -0.007675811219000

-0.782965412215000 0.622022604287000 -0.007283064710000

-0.000927589649000 0.010540431057000 0.999944017878000

209280.570 3189679.561 1997.151



0.641312205398000 0.767274160446000 -0.003002985071000
-0.767279645493000 0.641303012538000 -0.003520187692000
-0.000775125683000 0.004561668653000 0.999989295122000
208970.578 3189312.718 0.000

Giros de la cámara izquierda:

Omega: -0.6710 gon Phi: -0.0591 gon Kappa: 57.2588 gon

Giros de la cámara derecha:

Omega: -0.2904 gon Phi: -0.0493 gon Kappa: 55.6781 gon

Nombre del modelo: 3452-3453

Focal: 305.581

Coord. P.P.: 0.010 0.012

209280.570 3189679.561 1997.151

0.641312205398000 0.767274160446000 -0.003002985071000

-0.767279645493000 0.641303012538000 -0.003520187692000

-0.000775125683000 0.004561668653000 0.999989295122000

209593.043 3190047.962 1999.315

0.640999342740000 0.767534294626000 0.003308954404000

-0.767331328258000 0.640918790770000 -0.020633378602000

-0.017957596746000 0.010686917744000 0.999781633412000

209280.570 3189679.561 0.000

Giros de la cámara izquierda:

Omega: -0.2904 gon Phi: -0.0493 gon Kappa: 55.6781 gon

Giros de la cámara derecha:



Omega: -0.6805 gon Phi: -1.1433 gon Kappa: 55.6954 gon

Nombre del modelo: 3453-3454

Focal: 305.581

Coord. P.P.: 0.010 0.012

209593.043 3190047.962 1999.315

0.640999342740000 0.767534294626000 0.003308954404000

-0.767331328258000 0.640918790770000 -0.020633378602000

-0.017957596746000 0.010686917744000 0.999781633412000

209898.010 3190411.230 2005.093

0.629753997293000 0.776582394008000 0.018157318365000

-0.776345260387000 0.630012686935000 -0.019288622952000

-0.026418545920000 -0.001949260648000 0.999649068831000

209593.043 3190047.962 0.000

Giros de la cámara izquierda:

Omega: -0.6805 gon Phi: -1.1433 gon Kappa: 55.6954 gon

Giros de la cámara derecha:

Omega: 0.1241 gon Phi: -1.6821 gon Kappa: 56.6131 gon

Nombre del modelo: 3454-3455

Focal: 305.581

Coord. P.P.: 0.010 0.012

209898.010 3190411.230 2005.093

0.629753997293000 0.776582394008000 0.018157318365000

-0.776345260387000 0.630012686935000 -0.019288622952000



-0.026418545920000 -0.001949260648000 0.999649068831000

210211.997 3190784.090 2008.358

0.702897827927000 0.711263902723000 -0.006189037054000

-0.711244309594000 0.702924762981000 0.005320682140000

0.008134836548000 0.000662021467000 0.999966692526000

209898.010 3190411.230 0.000

Giros de la cámara izquierda:

Omega: 0.1241 gon Phi: -1.6821 gon Kappa: 56.6131 gon

Giros de la cámara derecha:

Omega: -0.0421 gon Phi: 0.5179 gon Kappa: 50.3757 gon

Nombre del modelo: 3455-3456

Focal: 305.581

Coord. P.P.: 0.010 0.012

210211.997 3190784.090 2008.358

0.702897827927000 0.711263902723000 -0.006189037054000

-0.711244309594000 0.702924762981000 0.005320682140000

0.008134836548000 0.000662021467000 0.999966692526000

210542.931 3191132.970 2001.617

0.695984193238000 0.717993439986000 -0.009561532313000

-0.717704814184000 0.695998119897000 0.022054858788000

0.022490052443000 -0.008487475329000 0.999711038402000

210211.997 3190784.090 0.000

Giros de la cámara izquierda:



Omega: -0.0421 gon Phi: 0.5179 gon Kappa: 50.3757 gon

Giros de la cámara derecha:

Omega: 0.5405 gon Phi: 1.4319 gon Kappa: 50.9781 gon

Nombre del modelo: 3456-3457

Focal: 305.581

Coord. P.P.: 0.010 0.012

210542.931 3191132.970 2001.617

0.695984193238000 0.717993439986000 -0.009561532313000

-0.717704814184000 0.695998119897000 0.022054858788000

0.022490052443000 -0.008487475329000 0.999711038402000

210875.318 3191476.107 1995.022

0.690056584098000 0.723679315738000 -0.010495652247000

-0.723752517660000 0.689940170628000 -0.012839553489000

-0.002050347181000 0.016456273160000 0.999862484120000

210542.931 3191132.970 0.000

Giros de la cámara izquierda:

Omega: 0.5405 gon Phi: 1.4319 gon Kappa: 50.9781 gon

Giros de la cámara derecha:

Omega: -1.0477 gon Phi: -0.1305 gon Kappa: 51.5170 gon

Nombre del modelo: 3457-3458

Focal: 305.581

Coord. P.P.: 0.010 0.012

210875.318 3191476.107 1995.022



0.690056584098000 0.723679315738000 -0.010495652247000
-0.723752517660000 0.689940170628000 -0.012839553489000
-0.002050347181000 0.016456273160000 0.999862484120000
211193.011 3191837.678 1991.909
0.645352796063000 0.763882893739000 -0.001641117404000
-0.763884587056000 0.645350331128000 -0.001813221185000
-0.000325992985000 0.002423791652000 0.999997009477000
210875.318 3191476.107 0.000

Giros de la cámara izquierda:

Omega: -1.0477 gon Phi: -0.1305 gon Kappa: 51.5170 gon

Giros de la cámara derecha:

Omega: -0.1543 gon Phi: -0.0208 gon Kappa: 55.3421 gon

Nombre del modelo: 3458-3459

Focal: 305.581

Coord. P.P.: 0.010 0.012

211193.011 3191837.678 1991.909

0.645352796063000 0.763882893739000 -0.001641117404000
-0.763884587056000 0.645350331128000 -0.001813221185000
-0.000325992985000 0.002423791652000 0.999997009477000
211505.540 3192204.924 1990.230
0.646170966550000 0.763168996061000 0.006013770816000
-0.762461419682000 0.645876643747000 -0.038677442504000
-0.033401579077000 0.020406972172000 0.999233651356000
211193.011 3191837.678 0.000



Giros de la cámara izquierda:

Omega: -0.1543 gon Phi: -0.0208 gon Kappa: 55.3421 gon

Giros de la cámara derecha:

Omega: -1.3000 gon Phi: -2.1268 gon Kappa: 55.2438 gon

Nombre del modelo: 3459-3460

Focal: 305.581

Coord. P.P.: 0.010 0.012

211505.540 3192204.924 1990.230

0.646170966550000 0.763168996061000 0.006013770816000

-0.762461419682000 0.645876643747000 -0.038677442504000

-0.033401579077000 0.020406972172000 0.999233651356000

211809.487 3192576.279 1989.565

0.634291574738000 0.772920998676000 0.016350168856000

-0.772627079001000 0.634501633288000 -0.021332467033000

-0.026862520567000 0.000898420903000 0.999638733658000

211505.540 3192204.924 0.000

Giros de la cámara izquierda:

Omega: -1.3000 gon Phi: -2.1268 gon Kappa: 55.2438 gon

Giros de la cámara derecha:

Omega: -0.0572 gon Phi: -1.7103 gon Kappa: 56.2395 gon

Nombre del modelo: 3460-3461

Focal: 305.581



Coord. P.P.: 0.010 0.012

211809.487 3192576.279 1989.565

0.634291574738000 0.772920998676000 0.016350168856000

-0.772627079001000 0.634501633288000 -0.021332467033000

-0.026862520567000 0.000898420903000 0.999638733658000

212113.282 3192952.694 1989.395

0.667057079415000 0.744991386697000 -0.004763039954000

-0.745002822699000 0.667019660747000 -0.007454283877000

-0.002376335988000 0.008520911043000 0.999960872786000

211809.487 3192576.279 0.000

Giros de la cámara izquierda:

Omega: -0.0572 gon Phi: -1.7103 gon Kappa: 56.2395 gon

Giros de la cámara derecha:

Omega: -0.5425 gon Phi: -0.1513 gon Kappa: 53.5106 gon

Nombre del modelo: 3461-3462

Focal: 305.581

Coord. P.P.: 0.010 0.012

212113.282 3192952.694 1989.395

0.667057079415000 0.744991386697000 -0.004763039954000

-0.745002822699000 0.667019660747000 -0.007454283877000

-0.002376335988000 0.008520911043000 0.999960872786000

212429.300 3193318.953 1978.587

0.659764768035000 0.751087197126000 -0.024051469262000

-0.751455128668000 0.659627453236000 -0.014380978237000



0.005063640779000 0.027561662700000 0.999607280031000

212113.282 3192952.694 0.000

Giros de la cámara izquierda:

Omega: -0.5425 gon Phi: -0.1513 gon Kappa: 53.5106 gon

Giros de la cámara derecha:

Omega: -1.7549 gon Phi: 0.3224 gon Kappa: 54.1305 gon

Nombre del modelo: 3462-3463

Focal: 305.581

Coord. P.P.: 0.010 0.012

212429.300 3193318.953 1978.587

0.659764768035000 0.751087197126000 -0.024051469262000

-0.751455128668000 0.659627453236000 -0.014380978237000

0.005063640779000 0.027561662700000 0.999607280031000

212742.772 3193680.046 1974.565

0.651719682326000 0.758349053634000 -0.012967980601000

-0.758459191313000 0.651600027687000 -0.012532319468000

-0.001053936090000 0.018003243342000 0.999837373000000

212429.300 3193318.953 0.000

Giros de la cámara izquierda:

Omega: -1.7549 gon Phi: 0.3224 gon Kappa: 54.1305 gon

Giros de la cámara derecha:

Omega: -1.1462 gon Phi: -0.0671 gon Kappa: 54.8095 gon



Nombre del modelo: 3463-3464

Focal: 305.581

Coord. P.P.: 0.010 0.012

212742.772 3193680.046 1974.565

0.651719682326000 0.758349053634000 -0.012967980601000

-0.758459191313000 0.651600027687000 -0.012532319468000

-0.001053936090000 0.018003243342000 0.999837373000000

213055.212 3194045.530 1976.083

0.649243436398000 0.760531584878000 -0.008641105148000

-0.760575729235000 0.649238277724000 -0.003770787174000

0.002742333479000 0.009020373672000 0.999955555245000

212742.772 3193680.046 0.000

Giros de la cámara izquierda:

Omega: -1.1462 gon Phi: -0.0671 gon Kappa: 54.8095 gon

Giros de la cámara derecha:

Omega: -0.5743 gon Phi: 0.1746 gon Kappa: 55.0169 gon

Nombre del modelo: 3487-3488

Focal: 305.581

Coord. P.P.: 0.010 0.012

213445.162 3193277.109 1841.429

0.641755300993000 0.766823481130000 0.011484007800000

-0.766656052664000 0.641856231813000 -0.016095794383000

-0.019713715052000 0.001525277280000 0.999804502374000

213745.445 3193628.572 1844.940



0.636428349388000 0.771325664336000 -0.003959246268000
-0.771326163173000 0.636386300163000 -0.008272059560000
-0.003860841752000 0.008318443445000 0.999957947816000
213445.162 3193277.109 0.000

Giros de la cámara izquierda:

Omega: -0.0971 gon Phi: -1.2551 gon Kappa: 55.6309 gon

Giros de la cámara derecha:

Omega: -0.5296 gon Phi: -0.2458 gon Kappa: 56.0818 gon

Nombre del modelo: 3488-3489

Focal: 305.581

Coord. P.P.:0.010 0.012

213745.445 3193628.572 1844.940

0.636428349388000 0.771325664336000 -0.003959246268000

-0.771326163173000 0.636386300163000 -0.008272059560000

-0.003860841752000 0.008318443445000 0.999957947816000

214040.638 3193980.328 1848.185

0.648119275178000 0.761513186098000 0.006250803289000

-0.761501515776000 0.648146942488000 -0.004580656422000

-0.007539669306000 -0.001791184459000 0.999969972072000

213745.445 3193628.572 0.000

Giros de la cámara izquierda:

Omega: -0.5296 gon Phi: -0.2458 gon Kappa: 56.0818 gon

Giros de la cámara derecha:



Omega: 0.1140 gon Phi: -0.4800 gon Kappa: 55.1096 gon

Nombre del modelo: 3489-3490

Focal: 305.581

Coord. P.P.:0.010 0.012

214040.638 3193980.328 1848.185

0.648119275178000 0.761513186098000 0.006250803289000

-0.761501515776000 0.648146942488000 -0.004580656422000

-0.007539669306000 -0.001791184459000 0.999969972072000

214336.689 3194333.635 1852.349

0.668885207752000 0.743298058836000 0.010028687898000

-0.743212601468000 0.668412779715000 0.029315267920000

0.015086678584000 -0.027061996295000 0.999519904997000

214040.638 3193980.328 0.000

Giros de la cámara izquierda:

Omega: 0.1140 gon Phi: -0.4800 gon Kappa: 55.1096 gon

Giros de la cámara derecha:

Omega: 1.7232 gon Phi: 0.9605 gon Kappa: 53.3478 gon

Nombre del modelo: 3490-3491

Focal: 305.581

Coord. P.P.:0.010 0.012

214336.689 3194333.635 1852.349

0.668885207752000 0.743298058836000 0.010028687898000

-0.743212601468000 0.668412779715000 0.029315267920000



0.015086678584000 -0.027061996295000 0.999519904997000

214639.644 3194671.464 1852.696

0.700196490540000 0.713934323122000 0.004759926925000

-0.713936571713000 0.700126392955000 0.010844604987000

0.004409785252000 -0.010991640264000 0.999929866360000

214336.689 3194333.635 0.000

Giros de la cámara izquierda:

Omega: 1.7232 gon Phi: 0.9605 gon Kappa: 53.3478 gon

Giros de la cámara derecha:

Omega: 0.6998 gon Phi: 0.2807 gon Kappa: 50.6185 gon

Nombre del modelo: 3491-3492

Focal: 305.581

Coord. P.P.:0.010 0.012

214639.644 3194671.464 1852.696

0.700196490540000 0.713934323122000 0.004759926925000

-0.713936571713000 0.700126392955000 0.010844604987000

0.004409785252000 -0.010991640264000 0.999929866360000

214955.303 3195006.201 1850.326

0.682462088863000 0.730912866406000 0.003446590557000

-0.730913203284000 0.682468998113000 -0.001398527956000

-0.003374393282000 -0.001564716235000 0.999993082543000

214639.644 3194671.464 0.000

Giros de la cámara izquierda:



Omega: 0.6998 gon Phi: 0.2807 gon Kappa: 50.6185 gon

Giros de la cámara derecha:

Omega: 0.0996 gon Phi: -0.2148 gon Kappa: 52.1815 gon

Nombre del modelo: 3492-3493

Focal: 305.581

Coord. P.P.:0.010 0.012

214955.303 3195006.201 1850.326

0.682462088863000 0.730912866406000 0.003446590557000

-0.730913203284000 0.682468998113000 -0.001398527956000

-0.003374393282000 -0.001564716235000 0.999993082543000

215269.640 3195341.888 1849.612

0.679137706905000 0.733952352620000 0.009269257960000

-0.733874723727000 0.679200808581000 -0.010684170424000

-0.014137359520000 0.000453548877000 0.999899959676000

214955.303 3195006.201 0.000

Giros de la cámara izquierda:

Omega: 0.0996 gon Phi: -0.2148 gon Kappa: 52.1815 gon

Giros de la cámara derecha:

Omega: -0.0289 gon Phi: -0.9000 gon Kappa: 52.4649 gon

Nombre del modelo: 3493-3494

Focal: 305.581

Coord. P.P.:0.010 0.012

215269.640 3195341.888 1849.612

0.679137706905000 0.733952352620000 0.009269257960000



-0.733874723727000 0.679200808581000 -0.010684170424000

-0.014137359520000 0.000453548877000 0.999899959676000

215581.302 3195676.663 1852.548

0.676728375579000 0.736011650301000 0.018043178965000

-0.735810548486000 0.676967015462000 -0.017277057409000

-0.024930752550000 -0.001584486416000 0.999687924795000

215269.640 3195341.888 0.000

Giros de la cámara izquierda:

Omega: -0.0289 gon Phi: -0.9000 gon Kappa: 52.4649 gon

Giros de la cámara derecha:

Omega: 0.1009 gon Phi: -1.5873 gon Kappa: 52.6612 gon

1.23.2.Resultados de la orientación externa

Nombre del modelo: 3443-3444

IMAGEN IZQUIERDA

206438.029 3186417.574 1950.572

0.651629258736000 0.758403700164000 0.014252604527000 Omega: -0.1152

-0.758158741627000 0.651782597749000 -0.019358919561000 Phi: -1.5262

-0.023971475830000 0.001809101691000 0.999711005990000 Kappa: 54.8014

IMAGEN DERECHA

206757.450 3186781.581 1955.288

0.625933094288000 0.779866231882000 0.004052387572000 Omega: -0.7396

-0.779595483547000 0.625838437971000 -0.023603635147000 Phi: -1.3334

-0.020943817909000 0.011615073335000 0.999713182149000 Kappa: 56.9324



Nombre del modelo: 3444-3445

IMAGEN IZQUIERDA

206757.450 3186781.581 1955.288

0.625933094288000 0.779866231882000 0.004052387572000 Omega: -0.7396

-0.779595483547000 0.625838437971000 -0.023603635147000 Phi: -1.3334

-0.020943817909000 0.011615073335000 0.999713182149000 Kappa: 56.9324

IMAGEN DERECHA

207064.583 3187147.981 1960.381

0.615486592471000 0.787913348493000 0.019204420213000 Omega: -0.5608

-0.787003946491000 0.615723237782000 -0.038854635034000 Phi: -2.7025

-0.042438693388000 0.008800552421000 0.999060312284000 Kappa: 57.7471

Nombre del modelo: 3445-3446

IMAGEN IZQUIERDA

207064.583 3187147.981 1960.381

0.615486592471000 0.787913348493000 0.019204420213000 Omega: -0.5608

-0.787003946491000 0.615723237782000 -0.038854635034000 Phi: -2.7025

-0.042438693388000 0.008800552421000 0.999060312284000 Kappa: 57.7471

IMAGEN DERECHA

207366.454 3187518.840 1971.724

0.632608571529000 0.774468873696000 -0.002087798780000 Omega: -0.8571

-0.774359523201000 0.632468775926000 -0.018723683050000 Phi: -0.8391

-0.013180442184000 0.013461469256000 0.999822516644000 Kappa: 56.3923

Nombre del modelo: 3446-3447

IMAGEN IZQUIERDA



207366.454 3187518.840 1971.724

0.632608571529000 0.774468873696000 -0.002087798780000 Omega: -0.8571

-0.774359523201000 0.632468775926000 -0.018723683050000 Phi: -0.8391

-0.013180442184000 0.013461469256000 0.999822516644000 Kappa: 56.3923

IMAGEN DERECHA

207676.828 3187881.843 1975.546

0.642348155928000 0.766386460004000 0.006374990080000 Omega: 0.0720

-0.766365005640000 0.642378793704000 -0.005844957741000 Phi: -0.5459

-0.008574654910000 -0.001131071482000 0.999962597286000 Kappa: 55.5901

Nombre del modelo: 3447-3448

IMAGEN IZQUIERDA

207676.828 3187881.843 1975.546

0.642348155928000 0.766386460004000 0.006374990080000 Omega: 0.0720

-0.766365005640000 0.642378793704000 -0.005844957741000 Phi: -0.5459

-0.008574654910000 -0.001131071482000 0.999962597286000 Kappa: 55.5901

IMAGEN DERECHA

208010.233 3188235.730 1982.757

0.640119639100000 0.768226105511000 0.008688984363000 Omega: 0.0175

-0.768161097992000 0.640178549513000 -0.009997613462000 Phi: -0.8431

-0.013242929060000 -0.000274871047000 0.999912270790000 Kappa: 55.7723

Nombre del modelo: 3448-3449

IMAGEN IZQUIERDA

208010.233 3188235.730 1982.757

0.640119639100000 0.768226105511000 0.008688984363000 Omega: 0.0175



-0.768161097992000 0.640178549513000 -0.009997613462000 Phi: -0.8431

-0.013242929060000 -0.000274871047000 0.999912270790000 Kappa: 55.7723

IMAGEN DERECHA

208338.143 3188585.343 1991.460

0.650050519830000 0.759870836362000 0.005534773296000 Omega: -0.6734

-0.759604222770000 0.649988049380000 -0.022736763470000 Phi: -1.3290

-0.020874539973000 0.010575807745000 0.999726165443000 Kappa: 54.9377

Nombre del modelo: 3449-3450

IMAGEN IZQUIERDA

208338.143 3188585.343 1991.460

0.650050519830000 0.759870836362000 0.005534773296000 Omega: -0.6734

-0.759604222770000 0.649988049380000 -0.022736763470000 Phi: -1.3290

-0.020874539973000 0.010575807745000 0.999726165443000 Kappa: 54.9377

IMAGEN DERECHA

208659.161 3188946.166 1995.769

0.634107943922000 0.773160776889000 0.011381060421000 Omega: -0.4001

-0.772820545398000 0.634178943656000 -0.023779655911000 Phi: -1.6301

-0.025603126114000 0.006283351396000 0.999652439315000 Kappa: 56.2564

Nombre del modelo: 3450-3451

IMAGEN IZQUIERDA

208659.161 3188946.166 1995.769

0.634107943922000 0.773160776889000 0.011381060421000 Omega: -0.4001



-0.772820545398000 0.634178943656000 -0.023779655911000 Phi: -1.6301

-0.025603126114000 0.006283351396000 0.999652439315000 Kappa: 56.2564

IMAGEN DERECHA

208970.578 3189312.718 1999.452

0.622064548783000 0.782928335845000 -0.007675811219000 Omega: -0.6710

-0.782965412215000 0.622022604287000 -0.007283064710000 Phi: -0.0591

-0.000927589649000 0.010540431057000 0.999944017878000 Kappa: 57.2588

Nombre del modelo: 3451-3452

IMAGEN IZQUIERDA

208970.578 3189312.718 1999.452

0.622064548783000 0.782928335845000 -0.007675811219000 Omega: -0.6710

-0.782965412215000 0.622022604287000 -0.007283064710000 Phi: -0.0591

-0.000927589649000 0.010540431057000 0.999944017878000 Kappa: 57.2588

IMAGEN DERECHA

209280.570 3189679.561 1997.151

0.641312205398000 0.767274160446000 -0.003002985071000 Omega: -0.2904

-0.767279645493000 0.641303012538000 -0.003520187692000 Phi: -0.0493

-0.000775125683000 0.004561668653000 0.999989295122000 Kappa: 55.6781

Nombre del modelo: 3452-3453

IMAGEN IZQUIERDA

209280.570 3189679.561 1997.151

0.641312205398000 0.767274160446000 -0.003002985071000 Omega: -0.2904

-0.767279645493000 0.641303012538000 -0.003520187692000 Phi: -0.0493

-0.000775125683000 0.004561668653000 0.999989295122000 Kappa: 55.6781



IMAGEN DERECHA

209593.043 3190047.962 1999.315

0.640999342740000 0.767534294626000 0.003308954404000 Omega: -0.6805

-0.767331328258000 0.640918790770000 -0.020633378602000 Phi: -1.1433

-0.017957596746000 0.010686917744000 0.999781633412000 Kappa: 55.6954

Nombre del modelo: 3453-3454

IMAGEN IZQUIERDA

209593.043 3190047.962 1999.315

0.640999342740000 0.767534294626000 0.003308954404000 Omega: -0.6805

-0.767331328258000 0.640918790770000 -0.020633378602000 Phi: -1.1433

-0.017957596746000 0.010686917744000 0.999781633412000 Kappa: 55.6954

IMAGEN DERECHA

209898.010 3190411.230 2005.093

0.629753997293000 0.776582394008000 0.018157318365000 Omega: 0.1241

-0.776345260387000 0.630012686935000 -0.019288622952000 Phi: -1.6821

-0.026418545920000 -0.001949260648000 0.999649068831000 Kappa: 56.6131

Nombre del modelo: 3454-3455

IMAGEN IZQUIERDA

209898.010 3190411.230 2005.093

0.629753997293000 0.776582394008000 0.018157318365000 Omega: 0.1241

-0.776345260387000 0.630012686935000 -0.019288622952000 Phi: -1.6821

-0.026418545920000 -0.001949260648000 0.999649068831000 Kappa: 56.6131

IMAGEN DERECHA

210211.997 3190784.090 2008.358



0.702897827927000 0.711263902723000 -0.006189037054000 Omega: -0.0421
-0.711244309594000 0.702924762981000 0.005320682140000 Phi: 0.5179
0.008134836548000 0.000662021467000 0.999966692526000 Kappa: 50.3757

Nombre del modelo: 3455-3456

IMAGEN IZQUIERDA

210211.997 3190784.090 2008.358
0.702897827927000 0.711263902723000 -0.006189037054000 Omega: -0.0421
-0.711244309594000 0.702924762981000 0.005320682140000 Phi: 0.5179
0.008134836548000 0.000662021467000 0.999966692526000 Kappa: 50.3757

IMAGEN DERECHA

210542.931 3191132.970 2001.617
0.695984193238000 0.717993439986000 -0.009561532313000 Omega: 0.5405
-0.717704814184000 0.695998119897000 0.022054858788000 Phi: 1.4319
0.022490052443000 -0.008487475329000 0.999711038402000 Kappa: 50.9781

Nombre del modelo: 3456-3457

IMAGEN IZQUIERDA

210542.931 3191132.970 2001.617
0.695984193238000 0.717993439986000 -0.009561532313000 Omega: 0.5405
-0.717704814184000 0.695998119897000 0.022054858788000 Phi: 1.4319
0.022490052443000 -0.008487475329000 0.999711038402000 Kappa: 50.9781

IMAGEN DERECHA

210875.318 3191476.107 1995.022
0.690056584098000 0.723679315738000 -0.010495652247000 Omega: -1.0477
-0.723752517660000 0.689940170628000 -0.012839553489000 Phi: -0.1305



-0.002050347181000 0.016456273160000 0.999862484120000 Kappa: 51.5170

Nombre del modelo: 3457-3458

IMAGEN IZQUIERDA

210875.318 3191476.107 1995.022

0.690056584098000 0.723679315738000 -0.010495652247000 Omega: -1.0477

-0.723752517660000 0.689940170628000 -0.012839553489000 Phi: -0.1305

-0.002050347181000 0.016456273160000 0.999862484120000 Kappa: 51.5170

IMAGEN DERECHA

211193.011 3191837.678 1991.909

0.645352796063000 0.763882893739000 -0.001641117404000 Omega: -0.1543

-0.763884587056000 0.645350331128000 -0.001813221185000 Phi: -0.0208

-0.000325992985000 0.002423791652000 0.999997009477000 Kappa: 55.3421

Nombre del modelo: 3458-3459

IMAGEN IZQUIERDA

211193.011 3191837.678 1991.909

0.645352796063000 0.763882893739000 -0.001641117404000 Omega: -0.1543

-0.763884587056000 0.645350331128000 -0.001813221185000 Phi: -0.0208

-0.000325992985000 0.002423791652000 0.999997009477000 Kappa: 55.3421

IMAGEN DERECHA

211505.540 3192204.924 1990.230

0.646170966550000 0.763168996061000 0.006013770816000 Omega: -1.3000

-0.762461419682000 0.645876643747000 -0.038677442504000 Phi: -2.1268

-0.033401579077000 0.020406972172000 0.999233651356000 Kappa: 55.2438



Nombre del modelo: 3459-3460

IMAGEN IZQUIERDA

211505.540 3192204.924 1990.230

0.646170966550000 0.763168996061000 0.006013770816000 Omega: -1.3000

-0.762461419682000 0.645876643747000 -0.038677442504000 Phi: -2.1268

-0.033401579077000 0.020406972172000 0.999233651356000 Kappa: 55.2438

IMAGEN DERECHA

211809.487 3192576.279 1989.565

0.634291574738000 0.772920998676000 0.016350168856000 Omega: -0.0572

-0.772627079001000 0.634501633288000 -0.021332467033000 Phi: -1.7103

-0.026862520567000 0.000898420903000 0.999638733658000 Kappa: 56.2395

Nombre del modelo: 3460-3461

IMAGEN IZQUIERDA

211809.487 3192576.279 1989.565

0.634291574738000 0.772920998676000 0.016350168856000 Omega: -0.0572

-0.772627079001000 0.634501633288000 -0.021332467033000 Phi: -1.7103

-0.026862520567000 0.000898420903000 0.999638733658000 Kappa: 56.2395

IMAGEN DERECHA

212113.282 3192952.694 1989.395

0.667057079415000 0.744991386697000 -0.004763039954000 Omega: -0.5425

-0.745002822699000 0.667019660747000 -0.007454283877000 Phi: -0.1513

-0.002376335988000 0.008520911043000 0.999960872786000 Kappa: 53.5106

Nombre del modelo: 3461-3462

IMAGEN IZQUIERDA



212113.282 3192952.694 1989.395

0.667057079415000 0.744991386697000 -0.004763039954000 Omega: -0.5425

-0.745002822699000 0.667019660747000 -0.007454283877000 Phi: -0.1513

-0.002376335988000 0.008520911043000 0.999960872786000 Kappa: 53.5106

IMAGEN DERECHA

212429.300 3193318.953 1978.587

0.659764768035000 0.751087197126000 -0.024051469262000 Omega: -1.7549

-0.751455128668000 0.659627453236000 -0.014380978237000 Phi: 0.3224

0.005063640779000 0.027561662700000 0.999607280031000 Kappa: 54.1305

Nombre del modelo: 3462-3463

IMAGEN IZQUIERDA

212429.300 3193318.953 1978.587

0.659764768035000 0.751087197126000 -0.024051469262000 Omega: -1.7549

-0.751455128668000 0.659627453236000 -0.014380978237000 Phi: 0.3224

0.005063640779000 0.027561662700000 0.999607280031000 Kappa: 54.1305

IMAGEN DERECHA

212742.772 3193680.046 1974.565

0.651719682326000 0.758349053634000 -0.012967980601000 Omega: -1.1462

-0.758459191313000 0.651600027687000 -0.012532319468000 Phi: -0.0671

-0.001053936090000 0.018003243342000 0.999837373000000 Kappa: 54.8095

Nombre del modelo: 3463-3464

IMAGEN IZQUIERDA

212742.772 3193680.046 1974.565

0.651719682326000 0.758349053634000 -0.012967980601000 Omega: -1.1462



-0.758459191313000 0.651600027687000 -0.012532319468000 Phi: -0.0671

-0.001053936090000 0.018003243342000 0.999837373000000 Kappa: 54.8095

IMAGEN DERECHA

213055.212 3194045.530 1976.083

0.649243436398000 0.760531584878000 -0.008641105148000 Omega: -0.5743

-0.760575729235000 0.649238277724000 -0.003770787174000 Phi: 0.1746

0.002742333479000 0.009020373672000 0.999955555245000 Kappa: 55.0169

Nombre del modelo: 3487-3488

IMAGEN IZQUIERDA

213445.162 3193277.109 1841.429

0.641755300993000 0.766823481130000 0.011484007800000 Omega: -0.0971

-0.766656052664000 0.641856231813000 -0.016095794383000 Phi: -1.2551

-0.019713715052000 0.001525277280000 0.999804502374000 Kappa: 55.6309

IMAGEN DERECHA

213745.445 3193628.572 1844.940

0.636428349388000 0.771325664336000 -0.003959246268000 Omega: -0.5296

-0.771326163173000 0.636386300163000 -0.008272059560000 Phi: -0.2458

-0.003860841752000 0.008318443445000 0.999957947816000 Kappa: 56.0818

Nombre del modelo: 3488-3489

IMAGEN IZQUIERDA

213745.445 3193628.572 1844.940

0.636428349388000 0.771325664336000 -0.003959246268000 Omega: -0.5296

-0.771326163173000 0.636386300163000 -0.008272059560000 Phi: -0.2458

-0.003860841752000 0.008318443445000 0.999957947816000 Kappa: 56.0818



IMAGEN DERECHA

214040.638 3193980.328 1848.185

0.648119275178000 0.761513186098000 0.006250803289000 Omega: 0.1140

-0.761501515776000 0.648146942488000 -0.004580656422000 Phi: -0.4800

-0.007539669306000 -0.001791184459000 0.999969972072000 Kappa: 55.1096

Nombre del modelo: 3489-3490

IMAGEN IZQUIERDA

214040.638 3193980.328 1848.185

0.648119275178000 0.761513186098000 0.006250803289000 Omega: 0.1140

-0.761501515776000 0.648146942488000 -0.004580656422000 Phi: -0.4800

-0.007539669306000 -0.001791184459000 0.999969972072000 Kappa: 55.1096

IMAGEN DERECHA

214336.689 3194333.635 1852.349

0.668885207752000 0.743298058836000 0.010028687898000 Omega: 1.7232

-0.743212601468000 0.668412779715000 0.029315267920000 Phi: 0.9605

0.015086678584000 -0.027061996295000 0.999519904997000 Kappa: 53.3478

Nombre del modelo: 3490-3491

IMAGEN IZQUIERDA

214336.689 3194333.635 1852.349

0.668885207752000 0.743298058836000 0.010028687898000 Omega: 1.7232

-0.743212601468000 0.668412779715000 0.029315267920000 Phi: 0.9605

0.015086678584000 -0.027061996295000 0.999519904997000 Kappa: 53.3478

IMAGEN DERECHA

214639.644 3194671.464 1852.696



0.700196490540000 0.713934323122000 0.004759926925000 Omega: 0.6998
-0.713936571713000 0.700126392955000 0.010844604987000 Phi: 0.2807
0.004409785252000 -0.010991640264000 0.999929866360000 Kappa: 50.6185

Nombre del modelo: 3491-3492

IMAGEN IZQUIERDA

214639.644 3194671.464 1852.696
0.700196490540000 0.713934323122000 0.004759926925000 Omega: 0.6998
-0.713936571713000 0.700126392955000 0.010844604987000 Phi: 0.2807
0.004409785252000 -0.010991640264000 0.999929866360000 Kappa: 50.6185

IMAGEN DERECHA

214955.303 3195006.201 1850.326
0.682462088863000 0.730912866406000 0.003446590557000 Omega: 0.0996
-0.730913203284000 0.682468998113000 -0.001398527956000 Phi: -0.2148
-0.003374393282000 -0.001564716235000 0.999993082543000 Kappa: 52.1815

Nombre del modelo: 3492-3493

IMAGEN IZQUIERDA

214955.303 3195006.201 1850.326
0.682462088863000 0.730912866406000 0.003446590557000 Omega: 0.0996
-0.730913203284000 0.682468998113000 -0.001398527956000 Phi: -0.2148
-0.003374393282000 -0.001564716235000 0.999993082543000 Kappa: 52.1815

IMAGEN DERECHA

215269.640 3195341.888 1849.612
0.679137706905000 0.733952352620000 0.009269257960000 Omega: -0.0289
-0.733874723727000 0.679200808581000 -0.010684170424000 Phi: -0.9000



-0.014137359520000 0.000453548877000 0.999899959676000 Kappa: 52.4649

Nombre del modelo: 3493-3494

IMAGEN IZQUIERDA

215269.640 3195341.888 1849.612

0.679137706905000 0.733952352620000 0.009269257960000 Omega: -0.0289

-0.733874723727000 0.679200808581000 -0.010684170424000 Phi: -0.9000

-0.014137359520000 0.000453548877000 0.999899959676000 Kappa: 52.4649

IMAGEN DERECHA

215581.302 3195676.663 1852.548

0.676728375579000 0.736011650301000 0.018043178965000 Omega: 0.1009

-0.735810548486000 0.676967015462000 -0.017277057409000 Phi: -1.5873

-0.024930752550000 -0.001584486416000 0.999687924795000 Kappa: 52.6612



1.24 Pasada 26

1.24.1.Resultados de la orientación relativa

Nombre del modelo: 3471-3470

Focal: 305.581

Coord. P.P.: -0.010 -0.012

94.312 -4.954 2.933

0.999692558794918 -0.014179577756857 0.020340291657369

0.014589056558272 0.999690997766289 -0.020126311479789

-0.020048623863226 0.020416869487735 0.999590518223093

0.706 -20.633 -325.156

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -1.3001 gon Phi: -1.2764 gon Kappa: -0.9290 gon

Nombre del modelo: 3472-3471

Focal: 305.581

Coord. P.P.: -0.010 -0.012

87.653 -0.518 0.009

0.999320677728109 0.033022164553438 -0.016362142684837

-0.031864689160105 0.997273407213567 0.066561196273609

0.018515524560843 -0.065994605179891 0.997648178185771

-7.788 -3.571 -288.281



Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: 4.2051 gon Phi: 1.1788 gon Kappa: 2.0293 gon

Nombre del modelo: 3473-3472

Focal: 305.581

Coord. P.P.: -0.010 -0.012

78.995 0.688 -0.109

0.999014409189012 0.040546789767621 -0.018060123816542

-0.041250220142704 0.998329794229422 -0.040448007268814

0.016389922846278 0.041153126167764 0.999018413561889

-8.255 0.505 -284.258

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -2.6210 gon Phi: 1.0435 gon Kappa: 2.6272 gon

Nombre del modelo: 3477-3476

Focal: 305.581

Coord. P.P.: -0.010 -0.012

81.769 -6.867 -0.329

0.999604469205822 -0.026755669306432 -0.008662522941465

0.026662310465653 0.999587024870429 -0.010719184265445



0.008945744484372 0.010483981621899 0.999905025382397

7.059 -52.619 -290.773

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: -0.6675 gon Phi: 0.5695 gon Kappa: -1.6976 gon

Nombre del modelo: 3482-3481

Focal: 305.581

Coord. P.P.: -0.010 -0.012

91.669 -4.755 0.085

0.999770891421373 0.020666211496165 0.005574259494162

-0.020749951011753 0.999665958809473 0.015408125471546

-0.005253969882130 -0.015520260949250 0.999865749638693

3.658 0.850 -311.233

Giros de la cámara izquierda:

Omega: 0.0000 gon Phi: 0.0000 gon Kappa: 0.0000 gon

Giros de la cámara derecha:

Omega: 0.9881 gon Phi: -0.3345 gon Kappa: 1.3211 gon

1.24.2.Resultados de la orientación externa

Nombre del modelo: 3471-3470

IMAGEN IZQUIERDA

211071.496 3192519.109 1750.159

ESTUDIO ECOCARTOGRÁFICO DEL LITORAL DE LA ISLA DE LA PALMA



0.616353853828409 0.787425168970390 -0.008338473650557 Omega: 0.7788

-0.786929806137889 0.616288946607121 0.030486300229281 Phi: 1.8557

0.029144589251736 -0.012228555181969 0.999500402879113 Kappa: 57.7006

IMAGEN DERECHA

211389.601 3192883.620 1760.371

0.627915503077766 0.778195632609473 0.011561936781430 Omega: 0.9822

-0.778281194917838 0.627832417982064 0.010238972998195 Phi: 0.0451

0.000708965343561 -0.015427647854977 0.999880735412881 Kappa: 56.7817

Nombre del modelo: 3473-3472

IMAGEN IZQUIERDA

210438.234 3191792.687 1733.266

0.671965817713403 0.740136077891453 0.025700700928474 Omega: 1.4092

-0.740452496091776 0.672092856073830 0.004614525542376 Phi: -0.8822

-0.013857880653853 -0.022130951583239 0.999659031933291 Kappa: 53.0845

IMAGEN DERECHA

210758.211 3192151.359 1744.979

0.641530837726667 0.767057502039519 0.007808508859807 Omega: -1.1262

-0.766374002311597 0.641334699449176 -0.036887557025908 Phi: -2.1205

-0.033302745031384 0.017680267173545 0.999288914841973 Kappa: 55.6304

Nombre del modelo: 3477-3476

IMAGEN IZQUIERDA

209106.388 3190374.272 1732.260

0.627187922119712 0.778847132806374 -0.005696847062125 Omega: -0.3243

-0.778863083612313 0.627193114045841 -0.001046269276568 Phi: 0.1756



0.002758139422939 0.005093271323222 0.999983225486384 Kappa: 56.8410

IMAGEN DERECHA

209443.113 3190727.317 1727.577

0.647754960636869 0.761713982651025 -0.014328977780769 Omega: -1.1865

-0.761848718434281 0.647645367234641 -0.011916732754766 Phi: 0.0129

0.000202954110102 0.018635636115236 0.999826320855882 Kappa: 55.1416

Nombre del modelo: 3482-3481

IMAGEN IZQUIERDA

207540.120 3188529.419 1731.793

0.618923060573043 0.785330477782474 0.013794410347966 Omega: 0.4865

-0.785350713732771 0.619029606211144 -0.005157816738044 Phi: -0.8015

-0.012589739088819 -0.007641158290912 0.999891549704091 Kappa: 57.5099

IMAGEN DERECHA

207857.358 3188891.655 1739.002

0.602480857569045 0.797900954798155 0.019258312362722 Omega: 1.3608

-0.798124981711844 0.602409519956796 0.009964127302022 Phi: -0.2324

-0.003651004017592 -0.021373736164147 0.999764889147468 Kappa: 58.8355