

# NLAPS CORRECTION PROCESSING REPORT

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|                                           |                                                                                                                                                                                                                                                                                                                                                                      |                    |               |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|
| NLAPS Version:                            | 4_1_11e8                                                                                                                                                                                                                                                                                                                                                             | Priority:          | 3             |
| Work Order:                               | 011011003017500002                                                                                                                                                                                                                                                                                                                                                   | Sensor:            | ETM+          |
| Satellite:                                | Landsat-7                                                                                                                                                                                                                                                                                                                                                            | Sensor Mode:       | N/A           |
| Camera Number:                            | N/A                                                                                                                                                                                                                                                                                                                                                                  |                    |               |
| Input Data Ident:                         | /diskIngest1/temp/011011003017500002/L72EDC1900230                                                                                                                                                                                                                                                                                                                   |                    |               |
| Input Media Type:                         | Disk                                                                                                                                                                                                                                                                                                                                                                 | File Number:       | N/A           |
| Orbit Number:                             | 87566                                                                                                                                                                                                                                                                                                                                                                |                    |               |
| Processing Level:                         | Precision Geocorrection                                                                                                                                                                                                                                                                                                                                              | Resampling:        | CC            |
| Map Projection:                           | SPCS                                                                                                                                                                                                                                                                                                                                                                 | Zone:              | 4602          |
| Earth Ellipsoid:                          | NAD83                                                                                                                                                                                                                                                                                                                                                                | Product Orient.:   | Map North     |
| Projection Params:                        | 0.0000000000000000e+00 0.0000000000000000e+00 0.0000000000000000e+00<br>0.0000000000000000e+00 0.0000000000000000e+00 0.0000000000000000e+00<br>0.0000000000000000e+00 0.0000000000000000e+00 0.0000000000000000e+00<br>0.0000000000000000e+00 0.0000000000000000e+00 0.0000000000000000e+00<br>0.0000000000000000e+00 0.0000000000000000e+00 0.0000000000000000e+00 |                    |               |
| Line Spacing:                             | 030.0                                                                                                                                                                                                                                                                                                                                                                | Pixel Spacing:     | 030.0         |
| Path/Strip no.:                           | 045                                                                                                                                                                                                                                                                                                                                                                  | Start Row no.:     | 026.0         |
|                                           |                                                                                                                                                                                                                                                                                                                                                                      | End Row no.:       | N/A           |
| Image Lines:                              | 7242                                                                                                                                                                                                                                                                                                                                                                 | Image Pixels:      | 7608          |
| Image Orientation:                        | 0.00 deg from N                                                                                                                                                                                                                                                                                                                                                      | Output Bands:      | 123456789     |
| Viewing Angle:                            | 0.08 deg                                                                                                                                                                                                                                                                                                                                                             |                    |               |
| Scene center lat:                         | 48.870 deg                                                                                                                                                                                                                                                                                                                                                           | Scene center long: | -119.797 deg  |
| Sun Elevation:                            | 50.54 deg                                                                                                                                                                                                                                                                                                                                                            | Sun Azimuth:       | 147.14 deg    |
| Scene center date:                        | 2000 08 17                                                                                                                                                                                                                                                                                                                                                           | Scene center time: | 18:40:08.4033 |
| Output Media:                             | Disk                                                                                                                                                                                                                                                                                                                                                                 | Output Product Id: | N/A           |
| Product Format:                           | NDF                                                                                                                                                                                                                                                                                                                                                                  | Interleaving :     | BSQ           |
| Catalogued:                               | FALSE                                                                                                                                                                                                                                                                                                                                                                |                    |               |
| Completion date:                          | 2001 10 15                                                                                                                                                                                                                                                                                                                                                           | Completion time:   | 12:33:03      |
| Termination Status: Successful Completion |                                                                                                                                                                                                                                                                                                                                                                      |                    |               |

# DETAILED PROCESSING RESULTS

## MODEL REFINEMENT STATISTICS

Number of CPs in model: 13

| Error        | Mean (m) | RMS (m) | Std Dev (m) |
|--------------|----------|---------|-------------|
| Along Track  | -0.57    | 7.37    | 7.34        |
| Across Track | -0.33    | 8.01    | 8.01        |
| Height       | -0.10    | 0.70    | 0.69        |
| Combined     | 0.67     | 10.91   | 10.89       |

| Num   | Mark | Kind | Location |         | Height  | Residuals |        |        | Comb  |
|-------|------|------|----------|---------|---------|-----------|--------|--------|-------|
|       |      |      | Lat      | Long    |         | Along     | Across | Height |       |
| 7825  | Auto | RCP  | 48.92    | -119.76 | 492.56  | 18.08     | 2.51   | 0.01   | 18.25 |
| 7730  | Auto | RCP  | 49.63    | -120.65 | 1524.00 | -10.18    | 1.90   | -0.23  | 10.36 |
| 8223  | Auto | RCP  | 48.25    | -120.81 | 1953.77 | -8.02     | -3.37  | 0.30   | 8.71  |
| 7840  | Auto | RCP  | 49.38    | -119.58 | 339.00  | 5.33      | -12.05 | 0.00   | 13.18 |
| 7824  | Auto | RCP  | 49.37    | -118.47 | 640.08  | -0.85     | -12.14 | -1.48  | 12.26 |
| 8009  | Auto | RCP  | 48.77    | -118.65 | 733.49  | 0.23      | 3.59   | 0.47   | 3.63  |
| 8000  | Auto | RCP  | 48.71    | -121.16 | 312.82  | 3.78      | 6.36   | -0.93  | 7.46  |
| 8203  | Man  | RCP  | 48.24    | -120.40 | 2256.85 | -1.04     | -14.21 | 0.59   | 14.26 |
| 7821  | Man  | RCP  | 49.11    | -120.49 | 1676.40 | 1.56      | 12.73  | -1.13  | 12.87 |
| 8010  | Man  | RCP  | 48.58    | -119.53 | 325.83  | -0.25     | -0.18  | -0.01  | 0.31  |
| 8213  | Man  | RCP  | 48.26    | -118.90 | 796.67  | -1.30     | 0.42   | 0.06   | 1.37  |
| 8195  | Man  | RCP  | 48.03    | -119.15 | 744.93  | -2.24     | 10.17  | 1.12   | 10.47 |
| 26552 | Man  | RCP  | 49.43    | -119.10 | 775.34  | -12.52    | -0.01  | -0.01  | 12.52 |

## RADIOMETRIC CORRECTION

Algorithm: NASA

| Band | Ref<br>Detector | DN to Radiance<br>gain | offset   | Default<br>Abs Calib? |
|------|-----------------|------------------------|----------|-----------------------|
| 1    | 15              | 0.775686               | -6.20000 | FALSE                 |
| 2    | 12              | 0.795686               | -6.39999 | FALSE                 |
| 3    | 8               | 0.619216               | -5.00000 | FALSE                 |
| 4    | 7               | 0.965490               | -5.10001 | FALSE                 |
| 5    | 14              | 0.125725               | -0.99999 | FALSE                 |
| 6    | 8               | 0.066823               | 0.000000 | FALSE                 |
| 7    | 10              | 0.043726               | -0.35000 | FALSE                 |
| 8    | 27              | 0.971765               | -4.70000 | FALSE                 |
| 9    | 8               | 0.037059               | 3.200000 | FALSE                 |

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DEM PROCESSING

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Elevation Correction Applied: Fine DEM  
LineSpacing: 3.000000000000000e+01  
LineSpacingUnits: meters  
PixelSpacing: 3.000000000000000e+01  
PixelSpacingUnits: meters

DEM Files Used

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washcanus\_elev2

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GEOMETRIC QUALITY ASSESSMENT

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Number of QA CPs: 11

| Error        | Mean (m) | RMS (m) | Std Dev (m) |
|--------------|----------|---------|-------------|
| -----        |          |         |             |
| Along Track  | 3.78     | 11.35   | 10.70       |
| Across Track | -0.53    | 12.02   | 12.01       |
| Height       | 0.00     | 0.00    | 0.00        |
| Combined     | 3.82     | 16.53   | 16.09       |

| Num  | Mark | Kind | Location |         | Height  | Residuals |        |        |       |
|------|------|------|----------|---------|---------|-----------|--------|--------|-------|
|      |      |      | Lat      | Long    |         | Along     | Across | Height | Comb  |
| 8220 | Man  | RCP  | 48.18    | -119.34 | 376.12  | 2.08      | 1.27   | 0.00   | 2.43  |
| 8197 | Man  | RCP  | 47.97    | -119.00 | 527.91  | 15.01     | -0.28  | 0.00   | 15.01 |
| 8031 | Man  | RCP  | 48.76    | -120.92 | 1827.58 | -0.01     | 0.00   | 0.00   | 0.01  |
| 8030 | Man  | RCP  | 48.76    | -119.42 | 284.37  | 15.01     | -15.00 | 0.00   | 21.22 |
| 7996 | Man  | RCP  | 48.38    | -120.29 | 672.73  | -15.00    | 0.00   | 0.00   | 15.00 |
| 7961 | Man  | SCP  | 49.19    | -118.99 | 733.82  | 0.29      | 15.02  | 0.00   | 15.02 |
| 7847 | Man  | RCP  | 49.38    | -118.72 | 2057.40 | -10.49    | -16.91 | 0.00   | 19.90 |
| 7839 | Man  | RCP  | 49.22    | -120.69 | 4250.00 | -0.33     | 15.01  | 0.00   | 15.02 |
| 7818 | Man  | RCP  | 48.89    | -120.53 | 2153.11 | 14.99     | 15.03  | 0.00   | 21.23 |
| 7726 | Man  | RCP  | 49.45    | -120.53 | 652.58  | 0.00      | 0.00   | 0.00   | 0.01  |
| 7719 | Man  | RCP  | 49.61    | -119.68 | 176.78  | 20.05     | -20.00 | 0.00   | 28.32 |

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RADIOMETRIC QUALITY ASSESSMENT

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NOTE:

Mean, Std.Dev, Striping are in DN's (Digital Numbers).

| Band | Chip Line | Location Pixel | Chip Lines | Size Pixels | Mean   | Std Dev | Striping |
|------|-----------|----------------|------------|-------------|--------|---------|----------|
| 1    | 1197.60   | 1268.00        | 128        | 128         | 65.30  | 5.698   | 0.1783   |
| 1    | 2394.20   | 2535.00        | 128        | 128         | 53.09  | 1.375   | 0.1031   |
| 1    | 3590.80   | 3802.00        | 128        | 128         | 72.01  | 3.378   | 0.3433   |
| 1    | 4787.40   | 5069.00        | 128        | 128         | 62.94  | 2.874   | 0.1245   |
| 2    | 1197.60   | 1268.00        | 128        | 128         | 51.35  | 7.711   | 0.1309   |
| 2    | 2394.20   | 2535.00        | 128        | 128         | 39.17  | 2.395   | 0.1802   |
| 2    | 3590.80   | 3802.00        | 128        | 128         | 64.74  | 3.540   | 0.4660   |
| 2    | 4787.40   | 5069.00        | 128        | 128         | 47.05  | 5.885   | 0.2512   |
| 3    | 1197.60   | 1268.00        | 128        | 128         | 46.73  | 11.458  | 0.1993   |
| 3    | 2394.20   | 2535.00        | 128        | 128         | 31.87  | 5.718   | 0.3978   |
| 3    | 3590.80   | 3802.00        | 128        | 128         | 75.16  | 7.642   | 1.0249   |
| 3    | 4787.40   | 5069.00        | 128        | 128         | 45.69  | 7.121   | 0.2864   |
| 4    | 1197.60   | 1268.00        | 128        | 128         | 57.09  | 13.212  | 0.2738   |
| 4    | 2394.20   | 2535.00        | 128        | 128         | 47.72  | 3.786   | 0.1836   |
| 4    | 3590.80   | 3802.00        | 128        | 128         | 66.54  | 2.051   | 0.3337   |
| 4    | 4787.40   | 5069.00        | 128        | 128         | 49.45  | 11.392  | 0.5527   |
| 5    | 1197.60   | 1268.00        | 128        | 128         | 67.79  | 16.583  | 0.4495   |
| 5    | 2394.20   | 2535.00        | 128        | 128         | 44.44  | 14.142  | 0.3327   |
| 5    | 3590.80   | 3802.00        | 128        | 128         | 118.67 | 9.933   | 0.5626   |
| 5    | 4787.40   | 5069.00        | 128        | 128         | 68.98  | 7.110   | 0.2211   |
| 6    | 599.20    | 634.40         | 128        | 128         | 130.27 | 2.650   | 0.0851   |
| 6    | 1197.40   | 1267.80        | 128        | 128         | 125.26 | 4.032   | 0.2063   |
| 6    | 1795.60   | 1901.20        | 128        | 128         | 157.92 | 4.382   | 0.2426   |
| 6    | 2393.80   | 2534.60        | 128        | 128         | 134.11 | 3.478   | 0.2797   |
| 7    | 1197.60   | 1268.00        | 128        | 128         | 44.41  | 13.732  | 0.3130   |
| 7    | 2394.20   | 2535.00        | 128        | 128         | 28.23  | 13.315  | 0.4934   |
| 7    | 3590.80   | 3802.00        | 128        | 128         | 81.39  | 7.382   | 0.5335   |
| 7    | 4787.40   | 5069.00        | 128        | 128         | 41.58  | 4.229   | 0.1224   |
| 8    | 2394.40   | 2536.80        | 128        | 128         | 48.51  | 2.795   | 0.2972   |
| 8    | 4787.80   | 5072.60        | 128        | 128         | 39.19  | 1.917   | 0.0950   |
| 8    | 7181.20   | 7608.40        | 128        | 128         | 59.32  | 2.200   | 0.1746   |
| 8    | 9574.60   | 10144.20       | 128        | 128         | 42.73  | 3.739   | 0.1581   |
| 9    | 599.20    | 634.40         | 128        | 128         | 148.89 | 4.782   | 0.1480   |
| 9    | 1197.40   | 1267.80        | 128        | 128         | 139.84 | 7.254   | 0.3794   |
| 9    | 1795.60   | 1901.20        | 128        | 128         | 198.72 | 7.909   | 0.4330   |
| 9    | 2393.80   | 2534.60        | 128        | 128         | 155.78 | 6.273   | 0.5126   |

# PRODUCT FORMATTING

Product Scene Center Location (lat/long) : 48.870 -119.797  
Product Scene Center Date/Time (yyyy mm dd): 2000 8 17 18:40:08.4033

Product Extent:

|        |           |       |        |           |
|--------|-----------|-------|--------|-----------|
| Lat:   | 49.84     | ----- | Lat:   | 49.83     |
| Long:  | -121.37   |       | Long:  | -118.20   |
| North: | 502020.00 |       | North: | 502020.00 |
| East:  | 437520.00 |       | East:  | 665730.00 |
|        |           |       |        |           |
|        |           |       |        |           |

Lat: 47.89  
Long: -121.34  
North: 284790.00  
East: 437520.00

Lat: 47.87  
Long: -118.28  
North: 284790.00  
East: 665730.00

EXECUTION INFORMATION

| Stage        | Start                    | End                      | CPU     |
|--------------|--------------------------|--------------------------|---------|
| Ingest       | Mon Oct 15 09:19:30 2001 | Mon Oct 15 09:22:00 2001 | 133.56  |
| ModelRefiner | Mon Oct 15 09:22:06 2001 | Mon Oct 15 11:59:56 2001 | 45.47   |
| DemIngest    | Mon Oct 15 12:00:09 2001 | Mon Oct 15 12:00:54 2001 | 25.08   |
| WarpDem      | Mon Oct 15 12:00:55 2001 | Mon Oct 15 12:01:19 2001 | 31.83   |
| ImCorr       | Mon Oct 15 12:01:22 2001 | Mon Oct 15 12:13:56 2001 | 1538.32 |
| RadQa        | Mon Oct 15 12:13:58 2001 | Mon Oct 15 12:13:59 2001 | 0.62    |
| GeoQa        | Mon Oct 15 12:14:01 2001 | Mon Oct 15 12:32:00 2001 | 10.72   |
| Output       | Mon Oct 15 12:32:01 2001 | Mon Oct 15 12:32:54 2001 | 15.61   |
| Catalog      | Mon Oct 15 12:32:55 2001 | Mon Oct 15 12:32:57 2001 | 0.54    |
|              |                          |                          | 1801.75 |