

# NLAPS CORRECTION PROCESSING REPORT

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|                                           |                                                                                                                                                                                                                                                                                                                                                                      |                    |               |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|
| NLAPS Version:                            | 4_1_11e8                                                                                                                                                                                                                                                                                                                                                             | Priority:          | 3             |
| Work Order:                               | 011011003017500004                                                                                                                                                                                                                                                                                                                                                   | Sensor:            | ETM+          |
| Satellite:                                | Landsat-7                                                                                                                                                                                                                                                                                                                                                            | Sensor Mode:       | N/A           |
| Camera Number:                            | N/A                                                                                                                                                                                                                                                                                                                                                                  |                    |               |
| Input Data Ident:                         | /diskIngest3/temp/011011003017500004/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.:     | 028.0         |
|                                           |                                                                                                                                                                                                                                                                                                                                                                      | End Row no.:       | N/A           |
| Image Lines:                              | 7243                                                                                                                                                                                                                                                                                                                                                                 | Image Pixels:      | 7629          |
| Image Orientation:                        | 0.00 deg from N                                                                                                                                                                                                                                                                                                                                                      | Output Bands:      | 123456789     |
| Viewing Angle:                            | 0.06 deg                                                                                                                                                                                                                                                                                                                                                             |                    |               |
| Scene center lat:                         | 46.031 deg                                                                                                                                                                                                                                                                                                                                                           | Scene center long: | -120.894 deg  |
| Sun Elevation:                            | 52.53 deg                                                                                                                                                                                                                                                                                                                                                            | Sun Azimuth:       | 143.82 deg    |
| Scene center date:                        | 2000 08 17                                                                                                                                                                                                                                                                                                                                                           | Scene center time: | 18:40:56.1998 |
| Output Media:                             | Disk                                                                                                                                                                                                                                                                                                                                                                 | Output Product Id: | N/A           |
| Product Format:                           | NDF                                                                                                                                                                                                                                                                                                                                                                  | Interleaving :     | BSQ           |
| Catalogued:                               | FALSE                                                                                                                                                                                                                                                                                                                                                                |                    |               |
| Completion date:                          | 2001 10 15                                                                                                                                                                                                                                                                                                                                                           | Completion time:   | 10:44:25      |
| 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  | -0.24    | 6.70    | 6.69        |
| Across Track | 1.72     | 8.09    | 7.91        |
| Height       | 0.08     | 0.82    | 0.81        |
| Combined     | 1.73     | 10.54   | 10.39       |

| Num   | Mark | Kind | Location |         | Height  | Residuals |        |        | Comb  |
|-------|------|------|----------|---------|---------|-----------|--------|--------|-------|
|       |      |      | Lat      | Long    |         | Along     | Across | Height |       |
| 8974  | Auto | RCP  | 46.18    | -120.94 | 1079.06 | -14.79    | 12.07  | -0.16  | 19.09 |
| 9548  | Auto | RCP  | 45.24    | -120.22 | 914.00  | 0.52      | -11.00 | -1.26  | 11.08 |
| 9545  | Auto | SCP  | 45.39    | -121.50 | 1424.45 | 1.41      | 12.28  | -0.56  | 12.37 |
| 9290  | Auto | RCP  | 45.57    | -122.30 | 18.28   | 3.92      | 4.85   | -0.73  | 6.27  |
| 8971  | Auto | RCP  | 46.52    | -119.53 | 209.40  | 8.06      | 2.96   | 0.39   | 8.59  |
| 26514 | Auto | RCP  | 46.83    | -121.52 | 1063.20 | 2.79      | -5.86  | 0.63   | 6.52  |
| 8707  | Auto | RCP  | 46.76    | -120.59 | 487.68  | 0.32      | 1.32   | 0.00   | 1.36  |
| 9273  | Auto | RCP  | 45.89    | -119.81 | 139.16  | 1.66      | 16.63  | 2.21   | 16.86 |
| 26518 | Auto | RCP  | 45.59    | -120.76 | 393.74  | -0.98     | -4.12  | -0.14  | 4.23  |
| 9396  | Auto | SCP  | 45.91    | -121.75 | 1121.65 | 10.95     | 1.64   | -0.16  | 11.08 |
| 8731  | Man  | RCP  | 46.59    | -121.56 | 866.00  | -8.05     | -8.33  | 0.87   | 11.62 |
| 8975  | Man  | RCP  | 46.21    | -119.95 | 207.97  | 0.28      | 0.01   | 0.00   | 0.28  |
| 9296  | Man  | RCP  | 45.79    | -121.20 | 122.00  | -9.23     | -0.14  | 0.00   | 9.23  |

## RADIOMETRIC CORRECTION

Algorithm: NASA

| Band | Ref<br>Detector | DN to Radiance |          | Default<br>Abs Calib? |
|------|-----------------|----------------|----------|-----------------------|
|      |                 | gain           | offset   |                       |
| 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                 |

# DEM PROCESSING

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

## DEM Files Used

washcanus\_elev2

# GEOMETRIC QUALITY ASSESSMENT

Number of QA CPs: 9

| Error        | Mean (m) | RMS (m) | Std Dev (m) |
|--------------|----------|---------|-------------|
| Along Track  | -0.38    | 8.01    | 8.00        |
| Across Track | -0.57    | 5.95    | 5.92        |
| Height       | 0.00     | 0.00    | 0.00        |
| Combined     | 0.68     | 9.98    | 9.96        |

| Num   | Mark | Kind | Location |         | Height | Residuals |        |        |       |
|-------|------|------|----------|---------|--------|-----------|--------|--------|-------|
|       |      |      | Lat      | Long    |        | Along     | Across | Height | Comb  |
| 9540  | Man  | RCP  | 45.39    | -122.08 | 358.87 | 5.20      | 9.01   | 0.00   | 10.40 |
| 9330  | Man  | RCP  | 45.46    | -119.95 | 426.00 | -9.98     | 0.01   | 0.00   | 9.98  |
| 9253  | Man  | SCP  | 45.76    | -121.86 | 186.75 | 0.01      | 0.00   | 0.00   | 0.01  |
| 9249  | Man  | SCP  | 45.63    | -121.18 | 60.00  | -9.79     | -10.21 | 0.00   | 14.14 |
| 9248  | Man  | SCP  | 45.72    | -120.62 | 192.78 | -0.01     | 0.01   | 0.00   | 0.02  |
| 9104  | Man  | RCP  | 46.42    | -120.25 | 269.53 | 12.41     | 0.57   | 0.00   | 12.42 |
| 8988  | Man  | RCP  | 46.23    | -121.28 | 849.43 | -1.26     | 5.70   | 0.00   | 5.84  |
| 26513 | Man  | RCP  | 46.75    | -121.56 | 667.94 | -10.00    | -10.01 | 0.00   | 14.15 |
| 8838  | Man  | SCP  | 46.75    | -120.23 | 670.00 | 10.00     | -0.18  | 0.00   | 10.00 |

# RADIOMETRIC QUALITY ASSESSMENT

NOTE:

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

| Band | Chip Location | Chip Size | Mean | Std Dev | Striping |
|------|---------------|-----------|------|---------|----------|
|------|---------------|-----------|------|---------|----------|

|   | Line    | Pixel    | Lines | Pixels |        |        |        |
|---|---------|----------|-------|--------|--------|--------|--------|
| 1 | 1197.60 | 1268.00  | 128   | 128    | 58.83  | 1.971  | 0.2383 |
| 1 | 2394.20 | 2535.00  | 128   | 128    | 61.21  | 1.379  | 0.0744 |
| 1 | 3590.80 | 3802.00  | 128   | 128    | 81.68  | 3.248  | 0.1809 |
| 1 | 4787.40 | 5069.00  | 128   | 128    | 90.70  | 3.503  | 0.1066 |
| 2 | 1197.60 | 1268.00  | 128   | 128    | 41.51  | 0.928  | 0.1082 |
| 2 | 2394.20 | 2535.00  | 128   | 128    | 47.38  | 1.283  | 0.1144 |
| 2 | 3590.80 | 3802.00  | 128   | 128    | 72.21  | 4.393  | 0.1993 |
| 2 | 4787.40 | 5069.00  | 128   | 128    | 87.79  | 7.690  | 0.2835 |
| 3 | 1197.60 | 1268.00  | 128   | 128    | 32.00  | 2.326  | 0.2934 |
| 3 | 2394.20 | 2535.00  | 128   | 128    | 44.73  | 3.042  | 0.2784 |
| 3 | 3590.80 | 3802.00  | 128   | 128    | 90.78  | 9.011  | 0.6246 |
| 3 | 4787.40 | 5069.00  | 128   | 128    | 129.14 | 15.735 | 0.4591 |
| 4 | 1197.60 | 1268.00  | 128   | 128    | 52.20  | 4.584  | 0.5067 |
| 4 | 2394.20 | 2535.00  | 128   | 128    | 61.87  | 2.447  | 0.2550 |
| 4 | 3590.80 | 3802.00  | 128   | 128    | 67.54  | 1.944  | 0.1823 |
| 4 | 4787.40 | 5069.00  | 128   | 128    | 79.63  | 9.411  | 0.2115 |
| 5 | 1197.60 | 1268.00  | 128   | 128    | 44.59  | 3.971  | 0.1715 |
| 5 | 2394.20 | 2535.00  | 128   | 128    | 78.88  | 5.858  | 0.4994 |
| 5 | 3590.80 | 3802.00  | 128   | 128    | 133.57 | 5.662  | 0.3868 |
| 5 | 4787.40 | 5069.00  | 128   | 128    | 125.24 | 3.757  | 0.2521 |
| 6 | 599.20  | 634.40   | 128   | 128    | 121.85 | 2.392  | 0.2086 |
| 6 | 1197.40 | 1267.80  | 128   | 128    | 141.67 | 2.991  | 0.0782 |
| 6 | 1795.60 | 1901.20  | 128   | 128    | 158.64 | 1.536  | 0.1182 |
| 6 | 2393.80 | 2534.60  | 128   | 128    | 158.36 | 1.469  | 0.1257 |
| 7 | 1197.60 | 1268.00  | 128   | 128    | 24.25  | 2.653  | 0.4250 |
| 7 | 2394.20 | 2535.00  | 128   | 128    | 46.91  | 4.821  | 0.4516 |
| 7 | 3590.80 | 3802.00  | 128   | 128    | 86.90  | 6.547  | 0.5947 |
| 7 | 4787.40 | 5069.00  | 128   | 128    | 94.76  | 3.045  | 0.1247 |
| 8 | 2394.40 | 2536.80  | 128   | 128    | 39.92  | 2.026  | 0.0928 |
| 8 | 4787.80 | 5072.60  | 128   | 128    | 46.41  | 1.366  | 0.2041 |
| 8 | 7181.20 | 7608.40  | 128   | 128    | 64.13  | 6.894  | 0.2357 |
| 8 | 9574.60 | 10144.20 | 128   | 128    | 55.94  | 3.486  | 0.0614 |
| 9 | 599.20  | 634.40   | 128   | 128    | 133.67 | 4.313  | 0.3835 |
| 9 | 1197.40 | 1267.80  | 128   | 128    | 169.36 | 5.383  | 0.1324 |
| 9 | 1795.60 | 1901.20  | 128   | 128    | 200.02 | 2.802  | 0.2234 |
| 9 | 2393.80 | 2534.60  | 128   | 128    | 199.47 | 2.649  | 0.2205 |

PRODUCT FORMATTING

Product Scene Center Location (lat/long) : 46.031 -120.894  
Product Scene Center Date/Time (yyyy mm dd): 2000 8 17 18:40:56.1998

Product Extent:

|                  |       |                  |
|------------------|-------|------------------|
| Lat: 46.99       | ----- | Lat: 47.00       |
| Long: -122.41    |       | Long: -119.40    |
| North: 186300.00 |       | North: 186300.00 |
| East: 355080.00  |       | East: 583920.00  |
|                  |       |                  |
|                  |       |                  |
|                  |       |                  |

|        |           |        |           |
|--------|-----------|--------|-----------|
| Lat:   | 45.04     | Lat:   | 45.05     |
| Long:  | -122.34   | Long:  | -119.43   |
| North: | -30960.00 | North: | -30960.00 |
| East:  | 355080.00 | East:  | 583920.00 |

# EXECUTION INFORMATION

| Stage        | Start                    | End                      | CPU     |
|--------------|--------------------------|--------------------------|---------|
| Ingest       | Mon Oct 15 08:58:23 2001 | Mon Oct 15 09:00:58 2001 | 138.95  |
| ModelRefiner | Mon Oct 15 09:01:03 2001 | Mon Oct 15 09:51:46 2001 | 46.41   |
| DemIngest    | Mon Oct 15 09:51:59 2001 | Mon Oct 15 09:52:42 2001 | 24.93   |
| WarpDem      | Mon Oct 15 09:52:43 2001 | Mon Oct 15 09:52:58 2001 | 31.56   |
| ImCorr       | Mon Oct 15 09:53:01 2001 | Mon Oct 15 10:05:32 2001 | 1529.79 |
| RadQa        | Mon Oct 15 10:05:33 2001 | Mon Oct 15 10:05:34 2001 | 0.59    |
| GeoQa        | Mon Oct 15 10:05:37 2001 | Mon Oct 15 10:43:31 2001 | 10.71   |
| Output       | Mon Oct 15 10:43:32 2001 | Mon Oct 15 10:44:15 2001 | 18.32   |
| Catalog      | Mon Oct 15 10:44:17 2001 | Mon Oct 15 10:44:18 2001 | 0.52    |
|              |                          |                          | 1801.78 |