

SDMI ORTHO 2012 Acceptance Report

Acceptance Overview for 20130725 delivery

CM2_13_a_20130731: 8 Tiles 3,200 km²

CM3_13_b_20130731: 6 Tiles 2,400 km²

The 20130527 delivery of CM2_20130416 and CM3_20130416 has been inspected and evaluated by UAF-GINA staff. The evaluation has determined that no corrections or modifications are necessary and this delivery complies with the Scope of Work under this contract.

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[Figure 1 - Block Coverages for 20130725 Delivery](#)

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[Western Block - CM2_20130416 - PASSED](#)

[Eastern Block - CM3_20130416 - PASSED](#)

[Figure 2-CM2_20130416 artifacts](#)

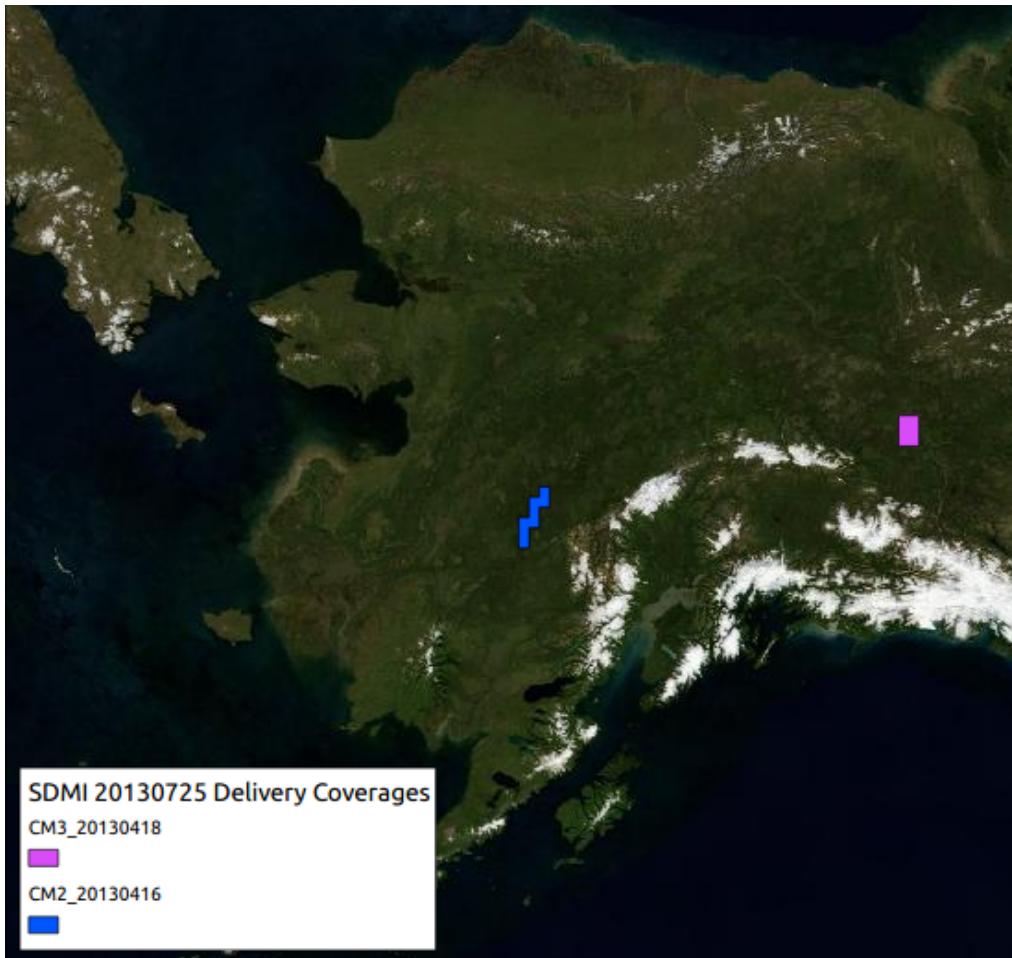
[Figure 3-CM3_20130416 artifacts](#)

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[CM2_20130416 - PASSED](#)

[CM3_20130416 - PASSED *](#)

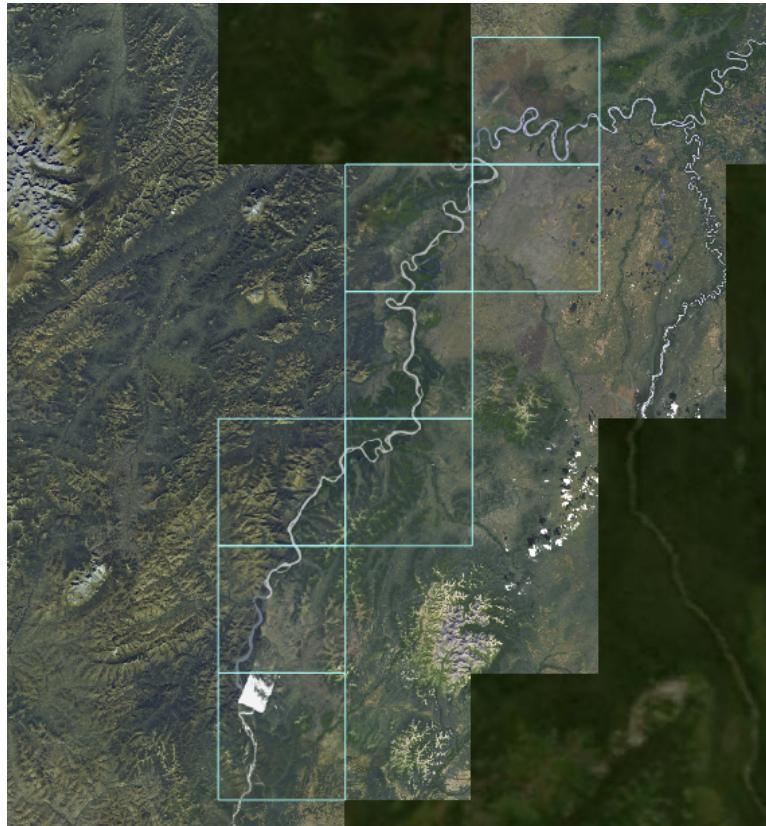
[Figure 1 - Block Coverages for 20130725 Delivery](#)



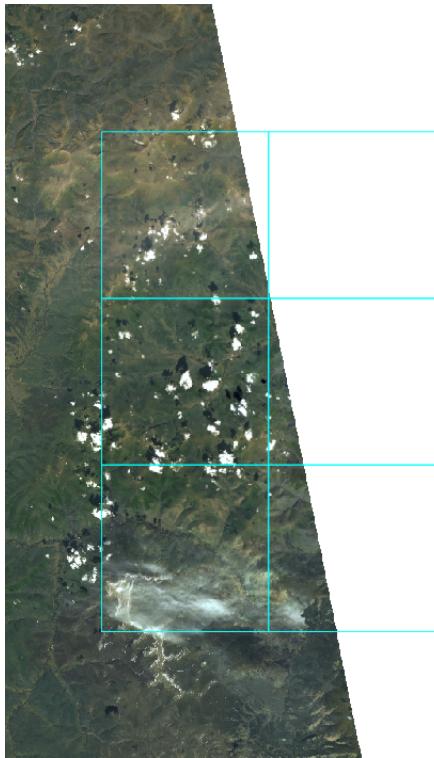
Radiometric Accuracy Assessment

Radiometric quality for all three image types (CIR, PAN, and RGB) was visually evaluated based on these categories: cloud/shadow, haze, blend, contrast, saturation, artifact, blurry, ghosting, color, location, and nodata.

Western Block - CM2_20130416 - PASSED



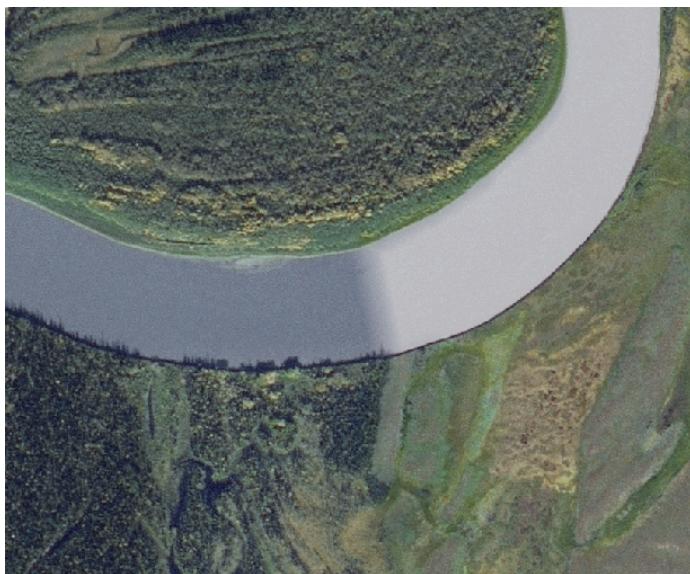
Eastern Block - CM3_20130416- PASSED



CM2_20130416 possesses several instances of color contrast on the Kuskokwim River along cutlines. CM2 Tile 0988_1134 has one patch of dense cloud cover obscuring about 10% of the tile.

CM3_20130416 has been truncated by the U.S. Canada border. 25% of CM3 Tile 1062_1154 is partially obscured by light cloud cover. Less than 10% of Tile 1062_1156 is obscured by dense scattered clouds.

Figure 2-CM2_20130416 artifacts



Tile 0988_1134 contrast along cutlines

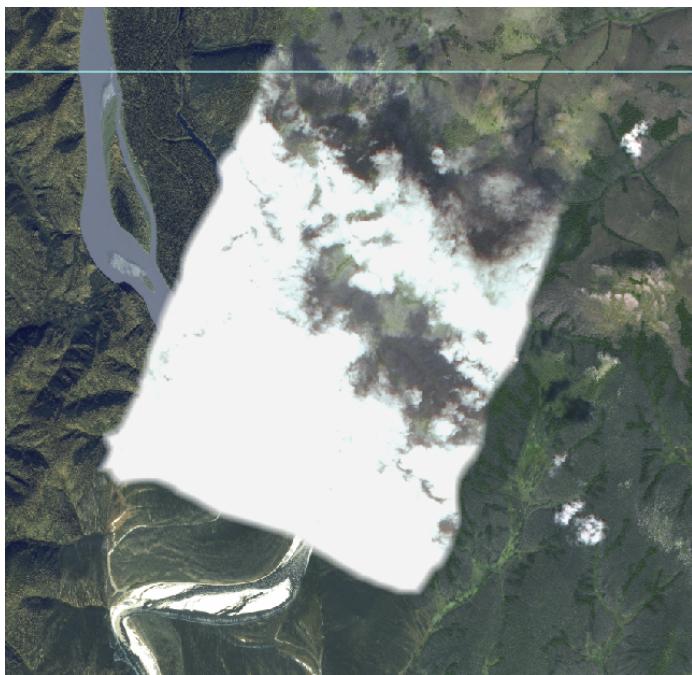
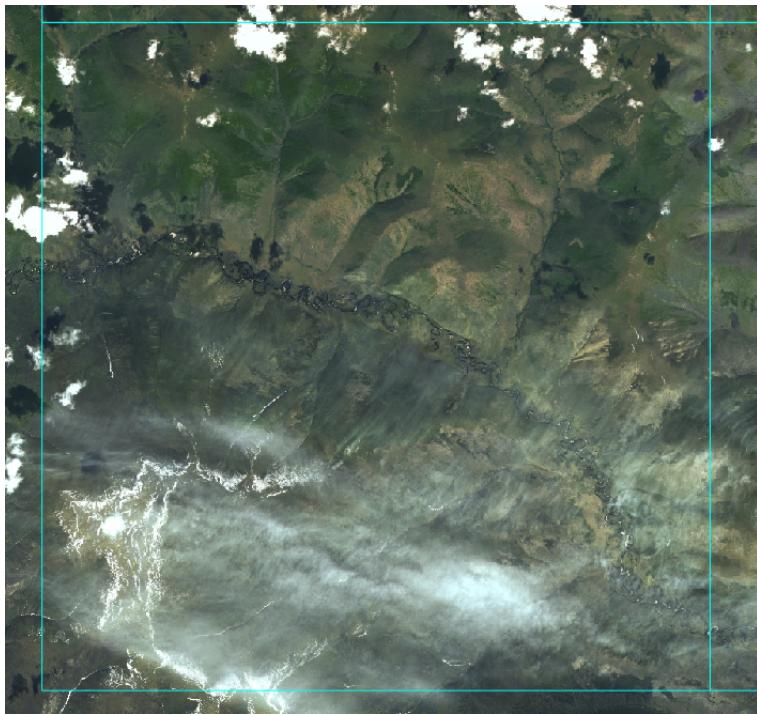


Figure 3-CM3_20130416 artifacts



Geometric Accuracy Assessment

The geometric accuracy assessment was based on methodology developed by i-cubed, *Alaska SDMI QC Setup & Procedures*. The RMSE was calculated based on the i3tools toolbox, RMS Reporter tool developed for use in ArcMap. Control points were chosen for each block from the base imagery, and were adjusted in the CM2 block delivery images if necessary. The RMSE was calculated based on these differences. Control points were chosen based on them being photo identifiable in the base imagery. Only partial coverage of high resolution base imagery was available for the CM2_20130416 delivery. No base imagery was available for the CM3_20130416 delivery.

CM2_20130416 - PASSED

The CM2 block images (Figure 1) (CIR, PAN, and RGB) were compared to UA-GINA's best data layer (BDL), where imagery was available at greater than 2.5 meters spatial resolution. There was not sufficient coverage for the entire block delivery, resulting in 35 ground control points being analyzed. The RMSE for the southern block was < 3.98 meters (Figure 4). These points fell within the National Map Accuracy Standard (NMAS) CE90 of 12.2 meters. These errors are acceptable base on map accuracy of the National Standard for Spatial Data Accuracy (NSSDA) CE95 of 13.9 meters or a RMSE of 8 meters.

CM3_20130416 - PASSED *

The CM3 block images were located in a region where no high resolution imagery was available for comparison. The margins of the delivery were checked for continuity with adjacent SPOT 5 Ortho imagery. The CIR, PAN, and RGB imagery were checked for relative variation.

Figure 4 - 2013 CM2 20130416 RGB RMS Report

FID	POINT_X1	POINT_X2	POINT_Y1	POINT_Y2	X_Diff.	Y_Diff.	XY_Diff.	Ratio_to_RMS
0	-73807.3662646	-73805.4480316	1438345.09323	1438345.15938	-1.918233	-0.0661500001	1.9193732479	0.48
1	-73854.0256287	-73852.5704175	1438255.42576	1438256.08722	-1.4552112	-0.6614600001	1.5984895897	0.4
2	-73659.4272847	-73657.5751976	1438759.2479	1438759.11561	-1.8520871	0.1322900001	1.856805663	0.47
3	-72641.7407354	-72635.6023898	1439757.99465	1439759.15882	-6.1383456	-1.16417	6.2477658802	1.57
4	-73387.7530156	-73382.0644626	1439715.44075	1439717.822	-5.688553	-2.3812499999	6.1668457736	1.55
5	-73457.0739876	-73454.9573167	1439696.39071	1439696.78759	-2.1166709	-0.3968800001	2.1535573903	0.54
6	-73779.1783818	-73775.4742077	1439706.36552	1439706.63011	-3.7041741	-0.26459	3.7136119387	0.93
7	-74524.295652	-74521.1206456	1439489.47108	1439489.33879	-3.1750064	0.1322900001	3.1777612063	0.8
8	-74364.0857135	-74362.4188352	1439719.48265	1439721.22891	-1.6668783	-1.7462600002	2.4141058915	0.61
9	-74681.8066146	-74676.5149373	1439712.34947	1439711.15884	-5.2916773	1.1906300001	5.4239698049	1.36
10	-74894.5029358	-74888.6291741	1439939.68522	1439940.00272	-5.8737617	-0.3174999999	5.882336505	1.48
11	-76159.4314188	-76153.7164074	1439728.10919	1439731.12544	-5.7150114	-3.0162500001	6.4621296308	1.62
12	-76001.308165	-75999.5619116	1439768.34446	1439766.96862	-1.7462534	1.3758400001	2.2231366676	0.56
13	-76362.077522	-76356.3625106	1440347.67684	1440347.35934	-5.7150114	0.3175000001	5.7238240323	1.44
14	-77038.2136451	-77033.3188437	1441063.53318	1441061.81338	-4.8948014	1.7198000001	5.1881396267	1.3
15	-78773.7327498	-78769.9227422	1442002.73478	1442001.30603	-3.8100076	1.42875	4.0690888998	1.02
16	-79587.6866382	-79587.6866382	1442386.64861	1442386.64861	0	0	0	0
17	-79953.1034107	-79950.5634056	1442548.64008	1442549.51321	-2.5400051	-0.87313	2.6858856835	0.67
18	-79869.9799805	-79866.0112226	1442057.79733	1442058.59108	-3.9687579	-0.79375	4.0473544855	1.02
19	-79767.0143041	-79763.31013	1441669.03632	1441671.47049	-3.7041741	-2.43417	4.4323909295	1.11
20	-75351.3220645	-75349.7345613	1443299.62947	1443302.32822	-1.5875032	-2.69875	3.1310410365	0.79
21	-75193.735916	-75190.3492426	1443966.93113	1443965.2378	-3.3866734	1.6933299999	3.7864129736	0.95
22	-78874.5488896	-78872.9613864	1449951.63014	1449953.53514	-1.5875032	-1.905	2.4797563207	0.62
23	-79240.5404706	-79237.4045526	1448642.44637	1448644.69599	-3.135918	-2.2496199999	3.8593745409	0.97
24	-78919.9618433	-78917.2101711	1449551.1839	1449554.3589	-2.7516722	-3.175	4.2014669934	1.05
25	-79317.9532389	-79315.6249009	1447702.08255	1447703.56422	-2.328338	-1.4816700001	2.7598014116	0.69
26	-79352.5200181	-79349.7683459	1446835.29567	1446836.45984	-2.7516722	-1.16417	2.98780717	0.75
27	-79396.4135989	-79392.8152584	1446426.52948	1446423.14281	-3.5983405	3.3866699999	4.9414155909	1.24
28	-78838.1317271	-78834.5333866	1442746.47773	1442742.66773	-3.5983405	3.8099999998	5.240625378	1.32
29	-79173.1037165	-79170.0874605	1445586.28367	1445586.91867	-3.016256	-0.635	3.0823733157	0.77
30	-77265.7662768	-77263.4379389	1446979.17219	1446979.17219	-2.3283379	0	2.3283379	0.58
31	-76390.7385124	-76387.4047557	1446585.96756	1446587.07881	-3.3337567	-1.1112500001	3.5140874061	0.88
32	-78042.2921488	-78040.9692295	1444410.30504	1444415.92744	-1.3229193	-5.6224	5.7759412423	1.45
33	-76490.3413279	-76490.3413279	1442293.23616	1442293.23616	0	0	0	0
34	-77972.3306634	-77970.0287838	1443621.49125	1443624.19	-2.3018796	-2.69875	3.5470975819	0.89
				Sum of Sq. Diff.	421.086796827	134.696089247	555.782886074	
				n = 35				
				RMS in X,Y	3.4685805941	1.9617491411		
				RMS	3.9849104169			
				Average Error	3.6292031917			

