SDMI ORTHO 2012 Acceptance Report

Acceptance Overview for 2013 NM2 20130718 Delivery

13 Tiles 5,200 km^2

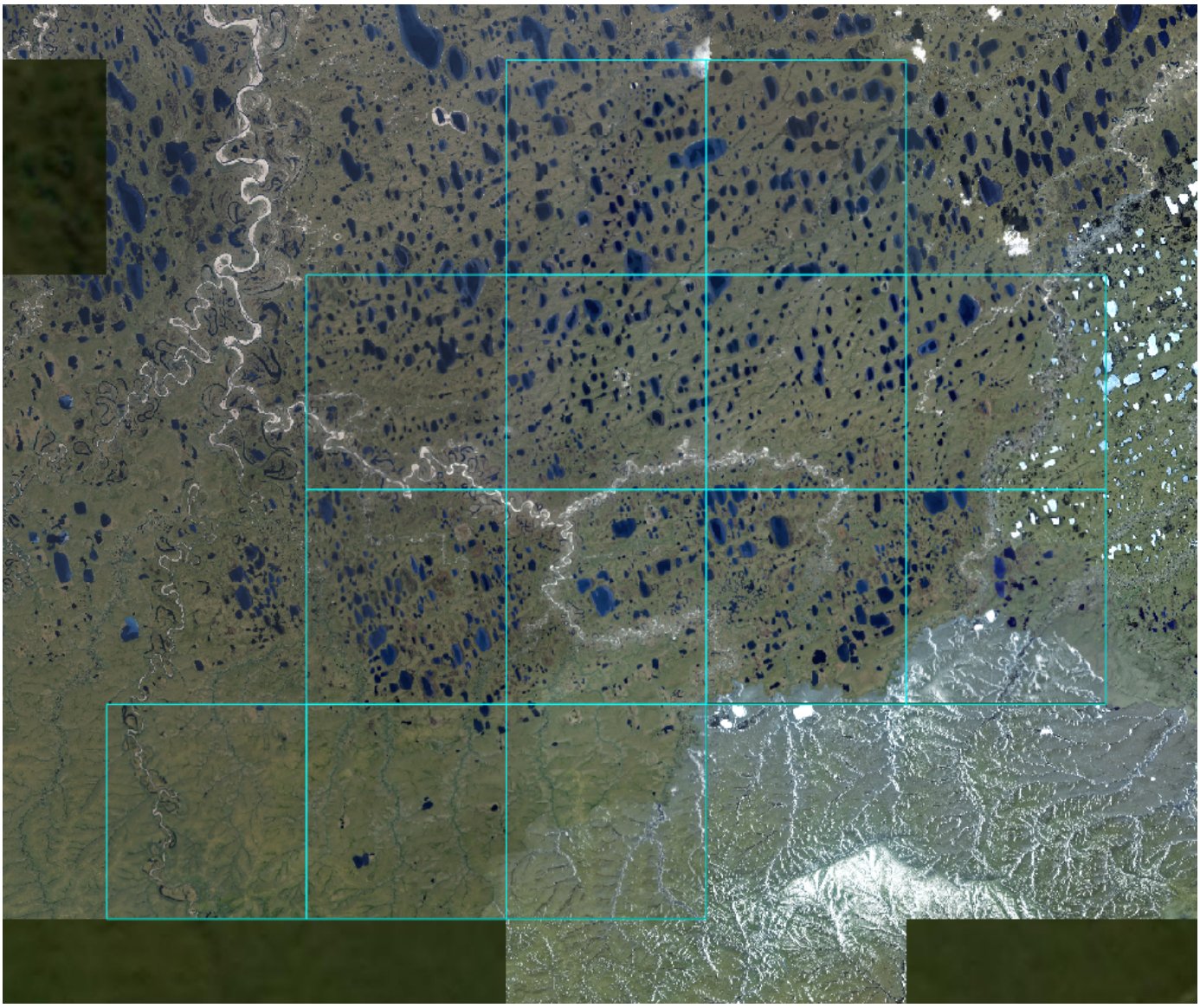
The 20130718 delivery of NM2_20130311_20130717 has been inspected and evaluated by UAF-GINA staff. The evaluation has determined that no corrections or modifications are necessary, and this delivery complies with the Scope of Work under this contract.

Figure 1 - North West NM2 20130718 Delivery

Radiometric Accuracy Assessment - PASSED

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. All images were within allowable limits. New imagery blended well with 2010 and 2011 ortho tiles.

Block - NM2_20130311_20130717



Geometric Accuracy Assessment - PASSED

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 if necessary. The RMSE was calculated based on these differences. Control points were chosen based on them being photo identifiable in the base imagery. High resolution base imagery from UA-GINA's best data layer (BDL) was available for a section of the NM2_20130311_20130717 delivery.

Block - NM2_20130311_20130628

The imagery (Figure 1) (CIR, PAN, and RGB) was compared to base images of 2.5 meter spatial resolution. A total of 50 ground control points were analyzed and all points fell within the National Map Accuracy Standard (NMAS) CE90 of 12.2 meters and generated an RMSE of 3.44 meters (Figure 2). These errors are acceptable based on map accuracy of the National Standard for Spatial Data Accuracy (NSSDA) CE95 of 13.9 meters or a RMSE of 8 meters.

Figure 2 - 2013 NM2 20130718 RGB RMS Report

FID	POINT_X1	POINT_X2	POINT_Y1	POINT_Y2	X_Diff.	Y_Diff.	XY_Diff.	Ratio_to_RMS
0	35069.7103224	35066.6940664	2225555.66407	2225558.68032	3.016256	-3.0162499999	4.2656259001	1.24
1	34941.9163168	34940.5933975	2225682.66432	2225688.61746	1.3229193	-5.9531399999	6.0983597248	1.77
2	34858.5724002	34855.7942696	2225377.86371	2225380.77413	2.7781306	-2.9104199996	4.0235002429	1.17
3	35567.339651	35563.4767266	2225265.23036	2225266.97662	3.8629244	-1.7462599999	4.2392934444	1.23
4	34959.8585274	34958.6943584	2225463.22641	2225465.66058	1.164169	-2.4341699998	2.6982351729	0.78
5	34819.0999126	34818.3537861	2225564.03286	2225566.11249	0.7461265	-2.0796300001	2.2094265526	0.64
6	-7616.02045692	-7616.02045692	2210939.80254	2210945.09422	0	-5.2916799998	5.2916799998	1.54
7	-6786.64398727	-6784.13044058	2210120.26256	2210123.90059	-2.51354669	-3.63803	4.4218976971	1.29
8	-6207.49637064	-6207.66173556	2210063.42995	2210062.53697	0.16536492	0.89298	0.9081623408	0.26
9	-5881.35486767	-5881.35486767	2210089.80014	2210091.70514	0	-1.9050000003	1.9050000003	0.55
10	-5495.54749883	-5495.54749883	2210151.58929	2210151.58929	0	0	0	0
11	-2157.49575327	-2158.68638066	2209687.57093	2209688.99968	1.19062739	-1.42875	1.8598172341	0.54
12	2422.47956987	2420.23060704	2210338.90143	2210339.95977	2.24896283	-1.05834	2.4855416646	0.72
13	1755.70618771	1754.30918491	2209408.66867	2209409.84342	1.3970028	-1.1747499998	1.8252820016	0.53
14	-3373.59594591	-3372.86834029	2208984.07331	2208984.99935	-0.72760562	-0.9260400003	1.1776926681	0.34
15	-5808.44768194	-5808.44768194	2209521.61732	2209523.44295	0	-1.8256299999	1.8256299999	0.53
16	-6793.21558897	-6793.48017284	2209873.24927	2209877.21803	0.26458387	-3.9687600001	3.9775696804	1.16
17	-7245.35468335	-7244.16405597	2215552.88914	2215556.46103	-1.19062738	-3.5718899998	3.7651018218	1.09
18	-4825.40453095	-4826.35703285	2217633.79713	2217633.16212	0.9525019	0.6350099999	1.1447696578	0.33
19	2247.96611754	2246.49767711	2223083.49433	2223082.06558	1.46844043	1.42875	2.048815233	0.6
20	1478.85169737	1480.12169991	2227388.47221	2227387.94304	-1.27000254	0.52917	1.37583696	0.4
21	8306.92113478	8307.97947023	2236745.37468	2236746.43301	-1.05833545	-1.0583299999	1.4967084931	0.44
22	21967.4987189	21965.5937151	2221576.04425	2221577.84342	1.9050038	-1.79917	2.6203152801	0.76
23	24856.3399827	24854.514354	2221257.65285	2221259.31973	1.8256287	-1.6668799999	2.4721264297	0.72
24	47531.4115968	47528.7922165	2207786.73591	2207789.11716	2.6193803	-2.3812500001	3.5399865422	1.03
25	47697.4159218	47695.2727925	2207768.63837	2207770.7815	2.1431293	-2.1431300002	3.0308430171	0.88
26	46949.9202081	46947.6183285	2206582.39647	2206584.5396	2.3018796	-2.1431299997	3.1451002986	0.91
27	52118.0434089	52117.2099698	2204317.89595	2204319.24533	0.8334391	-1.34938	1.5860161152	0.46
28	53299.2780631	53298.0477481	2218595.85431	2218595.77493	1.230315	0.07938	1.2328731417	0.36
29	53564.7659204	53563.4959179	2218952.0371	2218953.41294	1.2700025	-1.3758400003	1.8723893976	0.54
30	53495.9465554	53495.9465554	2217376.30791	2217376.30791	0	0	0	0
31	53146.431273	53143.6796008	2217908.06856	2217909.33856	2.7516722	-1.27	3.0306104824	0.88
32	40561.1455713	40559.9814023	2199031.12286	2199035.14453	1.164169	-4.0216700002	4.1867790784	1.22
33	40840.6916512	40837.7812287	2198981.19588	2198983.57714	2.9104225	-2.3812600002	3.7604465582	1.09
34	35450.0406338	35451.2974071	2197972.12859	2197975.43589	-1.2567733	-3.3073	3.5380379333	1.03
35	34280.7872189	34279.834717	2198967.97992	2198971.15492	0.9525019	-3.1750000003	3.3147978628	0.96
36	30992.6933163	30992.4551908	2199326.98604	2199328.91751	0.2381255	-1.9314700002	1.9460935526	0.57
37	29451.7139062	29451.1847385	2199231.16876	2199235.00523	0.5291677	-3.83647	3.8727923409	1.13
38	26992.3901472	26988.7918067	2198683.1221	2198678.46542	3.5983405	4.65668	5.884957347	1.71
39	26291.3487451	26288.1737388	2198579.73595	2198575.50261	3.1750063	4.2333400003	5.2916757802	1.54
40	16683.6397413	16680.5970268	2199319.41101	2199320.20476	3.0427145	-0.7937500002	3.1445429861	0.91
41	13565.1749626	13563.2699588	2197693.32224	2197695.75642	1.9050038	-2.4341799999	3.0909985037	0.9
42	11374.634453	11373.4835132	2197576.06	2197578.79844	1.1509398	-2.73844	2.9704740458	0.86
43	-6820.65489641	-6820.8665635	2197071.2481	2197080.13812	0.21166709	-8.8900199998	8.8925394885	2.58
44	-6297.1656923	-6297.48319293	2200024.80559	2200031.89643	0.31750063	-7.0908400002	7.0979446714	2.06
45	12834.3124436	12831.6930634	2213708.15298	2213707.51798	2.6193802	0.6349999998	2.6952509404	0.78
46	10355.906235	10355.906235	2215112.96673	2215112.96673	0	0	0	0
47	9395.80415855	9395.01040696	2214842.03947	2214843.69312	0.79375159	-1.6536499998	1.8342845767	0.53
48	17718.6227089	17716.0827038	2227524.87398	2227523.39231	2.5400051	1.4816700001	2.940573396	0.85
49	38516.8144022	38515.5576289	2205808.08684	2205810.13736	1.2567733	-2.05052	2.4050179621	0.7
				Sum of Sq. Diff	158.651395993	433.084639681	591.736035674	
				n = 50				
				RMS in X,Y	1.7812995031	2.9430753972		
				RMS	3.4401628905			
				Average Error	2.9688282844			