

DRAPP 2014



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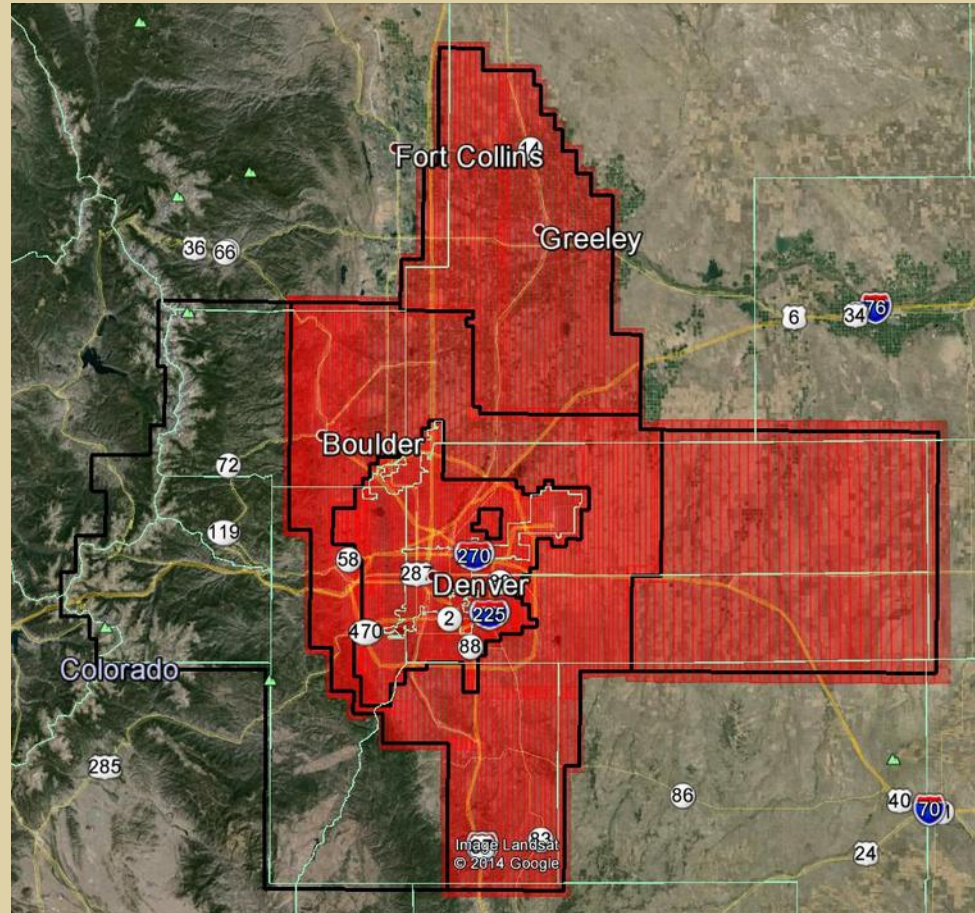
Agenda

- ◆ **Update on the DRAPP 2014 Spring Flights**
- ◆ **DRAPP 2014 Schedule**
- ◆ **Paperwork Reminders: LOIs, License Agreements, Invoices**
- ◆ **Placing a Custom Order**
- ◆ **Update on the FEMA/USGS LIDAR Project**
- ◆ **Comparison of LIDAR Software**
- ◆ **Regional Planimetrics Discussion**

We have call-ins today. Speak into your microphones so they can hear you.

Spring Flights

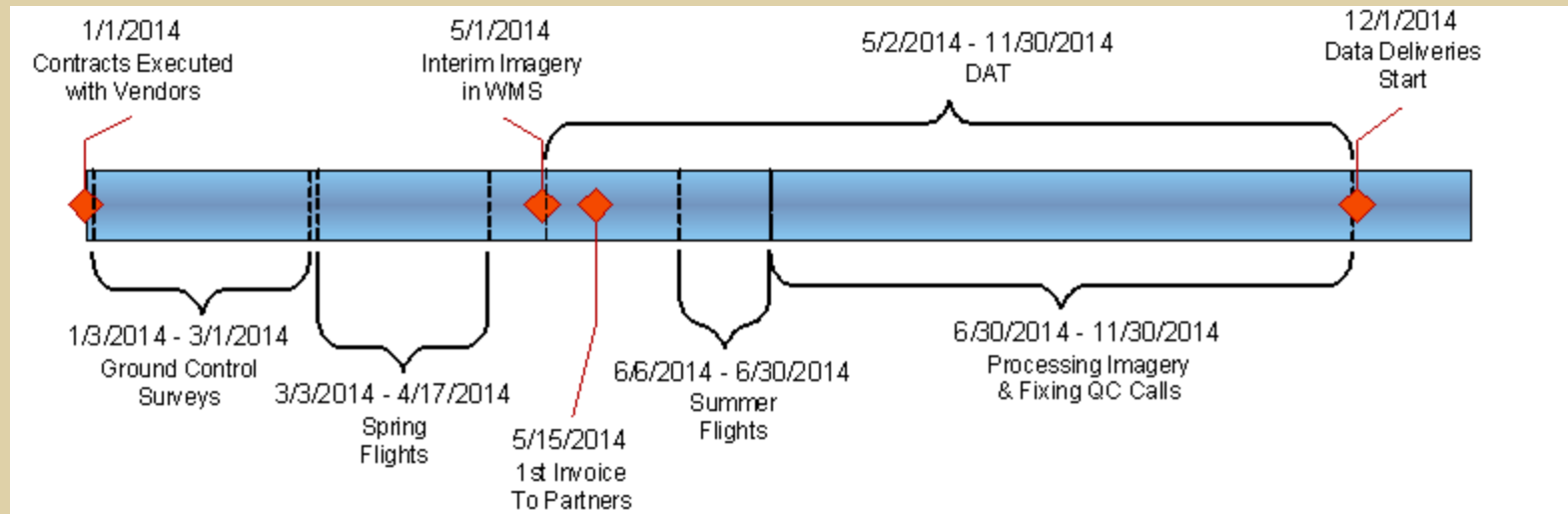
- ◆ All spring flights acquired within the flight window
- ◆ Interim imagery for Areas 2 & 4 were delivered this week to IntraSearch



Status Map: <http://www.kucerainternational.com/drapp2014>

DRAPP 2014 Schedule

- ◆ Interim Imagery in WMS
 - ◆ 1st Invoice
 - ◆ Summer Flights
 - ◆ Data Processing
 - ◆ Deliveries & 2nd Invoice
- May 2014
May 2014
June 2014
July - Nov
Dec/Jan



WMS

- ◆ If you already have an account (e.g. from DRAPP 2012), you simply need to log into the site and get the new URLs for the 2014 imagery.
- ◆ If you do not have an account, please contact me for instructions.



Finalizing Paperwork

◆ DRAPP 2014 Partners – 48 & counting

◆ LOIs – Missing 15%

◆ License Agreements – Missing 10%

Partnership
is not
official until
BOTH are
complete!

◆ 1st Invoices- 80% have been billed

◆ This bill represents 60% of your DRAPP cost. You will notice that it is less than expected based on your NTE.

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DRCOG
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Custom Orders

◆ Google Form

- ◆ Order up to 3 sets of imagery
 - Sets are distinguished by differing formats, projections, and resolutions
- ◆ If custom AOI, send me a shapefile
- ◆ Sending confirmations next week

◆ Pricing for re-projection of ortho imagery:

- ◆ Delivery in uncompressed form \$ 12/sq mile
- ◆ Delivery in compressed form \$ 13/sq mile
- ◆ Minimum charge \$ 250

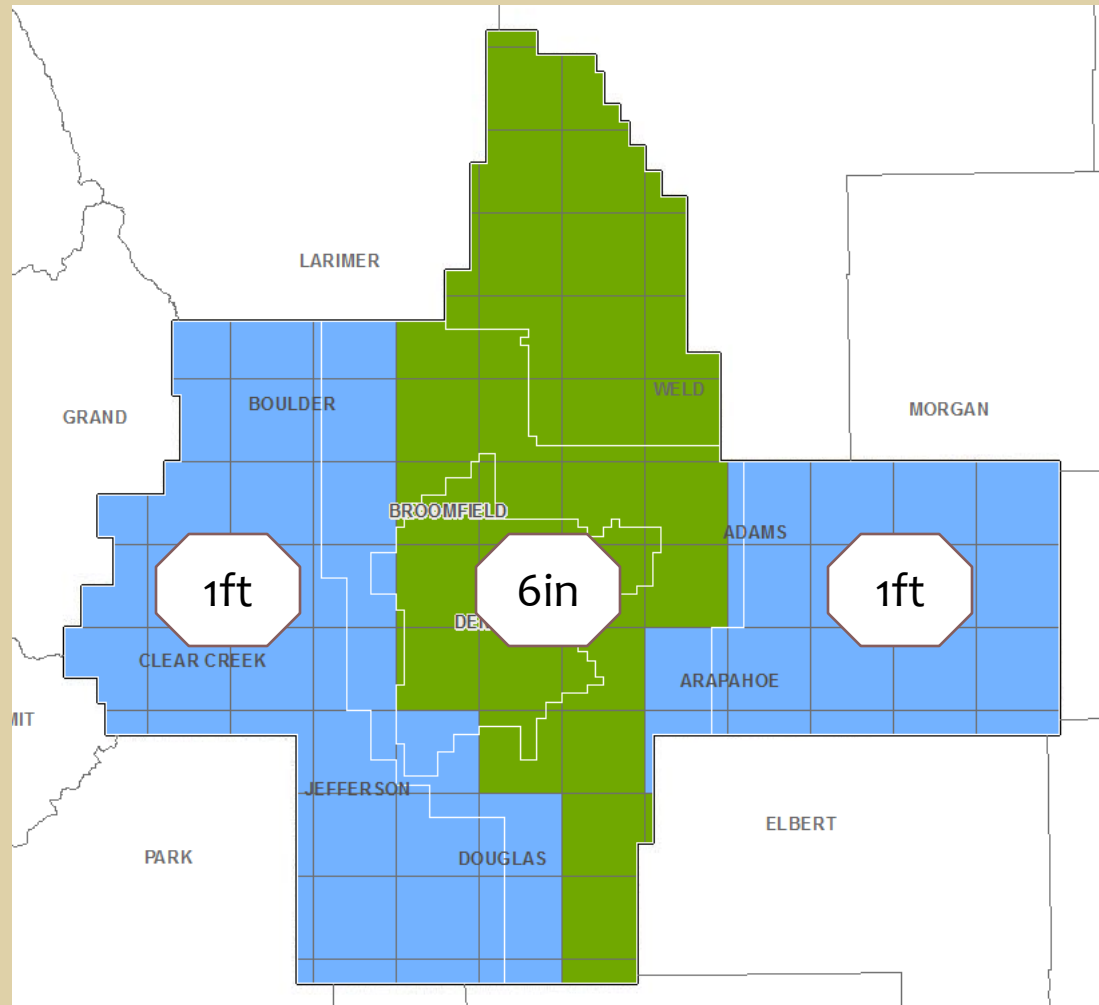
Thoughts on Projections

- ◆ **Order form options are based on most requested projections from 2012:**
 - ◆ State Plane Colorado Central (0502), NAD83 (2011)
 - ◆ State Plan Colorado North (0501), NAD83 (HARN)
 - ◆ UTM Zone 13 North, NAD83 (2011)
- ◆ **LIDAR:**
 - ◆ State Plane, NAD83 (2011) and NAVD88, Geoid12a
- ◆ **Don't use HARN with Geoid12a!**
 - ◆ If you plan to use the imagery and the LiDAR products simultaneously, you need your imagery to have a 2011 transformation – or be ok with a 2cm or so offset.
- ◆ **Refresher: Pam Fromhertz's [presentation on datums](#) from 2/20.**

Custom Orders – SID vs TIFF

**SIDs are 10
mile x 10
mile tiles (3
band)**

**TIFFs and
JPEGs are 1
mile x 1 mile
tiles (4 band)**



Custom Orders – File Size

Files size in GB if you purchased all the data at the highest resolution (for which you are eligible). To see these broken down by project area, email Ashley.

If you are eligible for 3in.

	TIFF	JPEG	SID
3in	1333	445	
6in	1407	469	169
<u>1ft</u>	<u>372</u>	<u>124</u>	<u>63</u>
TOTAL	3112	1038	232

If you are NOT eligible for 3in.

	TIFF	JPEG	SID
6in	1741	580	169
<u>1ft</u>	<u>372</u>	<u>124</u>	<u>63</u>
TOTAL	2113	704	232

2013 LiDAR Info

◆ **Schedule (Worst Case Scenario)**

- ◆ Quantum delivers data to USGS - May 31
- ◆ USGS performs QC - July 31
- ◆ Quantum responds to QC review - August 30
- ◆ Delivery of re-projected and re-tiled data to DRCOG - September 30
- ◆ DRCOG copies and mails external hard drives for partners - October

◆ **Dataset Sizes**

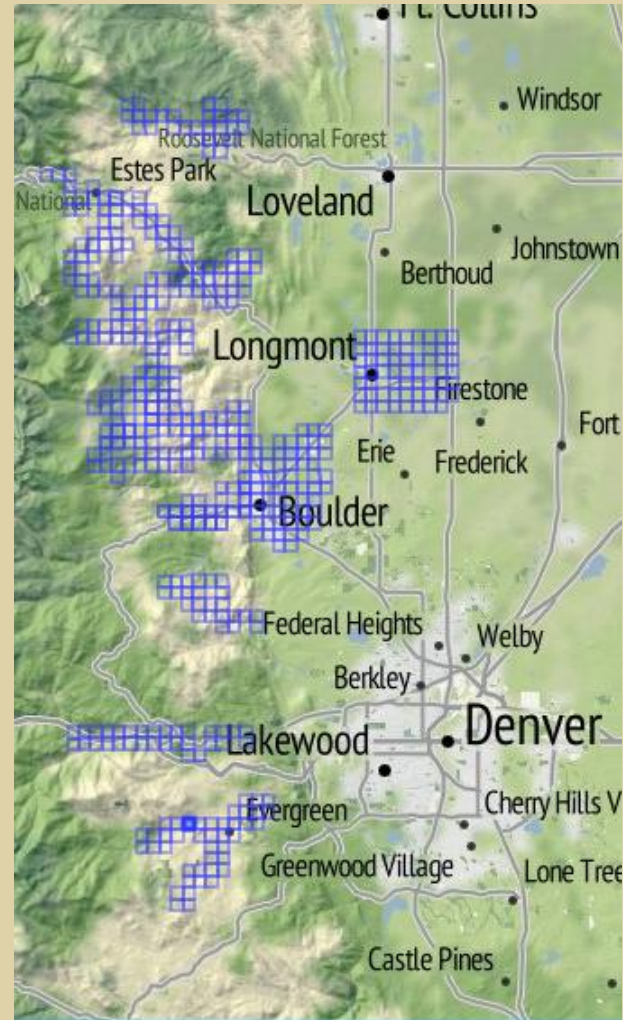
- ◆ 2.0tb for the Raw Flight line LAS files
- ◆ 1.5TB for the Classified LAS files
- ◆ 10GB for the Intensity Images
- ◆ 77.5GB for the Bare Earth DEM ERDAS IMG Files
- ◆ 20.0 GB for the Contour GDB files
- ◆ Breaklines and Metadata will be negligible

Colorado GeoDataCache

- ◆ OIT is making the LIDAR products available on a new site:

<https://geodata.co.gov/>

- ◆ **Preliminary** .las and DEMs are available
- ◆ Watch out for the metadata – acquisition date is really upload date



LIDAR Software Comparison

◆ Comparison of Free Versions :

Global Mapper v15 vs. Merrick MARS v7

- ◆ Contour and DEM creation was easier / more user friendly in the Global Mapper Free Version
- ◆ Both software packages dealt with point classifications in an easy and user friendly manner.
- ◆ Both Free versions prevent you from exporting data.
- ◆ Global Mapper's Free Version has a limit of 4 files to view/analyze at one time. The Merrick MARS version had no file limitation but crashes when loading large amounts of data.

◆ Price Comparison

- ◆ 1 Global Mapper License - \$449
- ◆ 1 MARS Explorer License - \$4,995

LIDAR Training

- ◆ **During GeCo in the Rockies – Sept 22-26**

- ◆ Introduction to LIDAR processing using LP360 -\$25
- ◆ [Global Mapper](#) - \$998

- ◆ **Should we ask Merrick or Blue Marble to do a training class for us?**

- ◆ **If so, where?**

- ◆ **How many are interested?**

- ◆ **When?**

Regional Planimetrics

◆ What?

- ◆ Building footprints and Edge of Pavement built off of the 2013 LIDAR and 2014 imagery.
- ◆ New collection only; no updates to existing data

◆ Where?

- ◆ Possibly Area 1 - highest density of partners and buildings

◆ How much?

- ◆ Rough estimate of new collection of both datasets for the 2655sqmi of Area 1 (based off old estimates) is \$1.1 million.

◆ When?

- ◆ Q1 2015, immediately following imagery delivery.

◆ Who?

- ◆ Kucera – they already have all the data and they already quoted us (but I'll see if we can get a better regional rate).

◆ Why?

- ◆ Fresh imagery and LIDAR data (that we got a great deal on) - these conditions may not occur again for a while.

Planimetrics - Footprints

Option for Subsequent Partnerships - Product Specifications

Feature	Building Footprints					
Geometry	Area					
Definition	Outlines of visible structures captured at the corners of the roof (eave) because the foundation typically cannot be					
Extraction Guidance	Review existing buildings within city limits against stereo imagery. Add, delete, and modify accordingly.					
Scale	1" = 100'					
Primary Source	DRAPP 2014 Imagery					
Capture Criteria	Only collect buildings with area >= 48 sq. ft. and over 5 ft. in height. (Sheds)					
Delineation Instructions	Collect new buildings at the Eave.					
Data Model						
Attribute Name	Building_ID	Bldg_Height	Ground_Elevation	Bldg_Type	Status	
Attribute Type	Long	Single to 2 decimal places	single and rounded to two decimal places	Text	Text	
Description	Unique ID	feet	feet			
Domains				Residential	Built	
				Commercial	Demolished	
				Industrial	Under Construction	
				Medical		
				Public		
				Garage/Shed		
				Parking Structure		
				Other		


Planimetrics - EOP

Option for Subsequent Partnerships - Product Specifications

Feature	Edge of Pavement (EOP)						
Geometry	Area and line						
Definition	Edge of paved and unpaved streets/roads. A road/street is defined as consistent material from edge to edge. The edge of pavement arcs should be coded with: curb with pan, curb without pan, and/or no curb.						
Extraction Guidance	Review existing edge of pavement within city limits against stereo imagery. Add, delete, and modify accordingly.						
Scale	1" = 100'						
Primary Source	DRAPP 2014 Imagery						
Capture Criteria	Collect all road features with a width >= 5 ft. Edge should be the flowline - lowest point in curb.						
Data Model							
Attribute Name	Surface	Type	CurbType	Status			
Attribute Type	Text	Text	Text	Text			
Domains	Paved	Freeway/Hwy	Curb with pan	Under Construction			
	Unpaved	Road/Street	Curb w/o pan	Existing			
		Alley	No curb				

Next Steps

- ◆ **Send in color/tone comments ASAP.**
- ◆ **Make sure you are hooked up to the WMS and if not, call me.**
- ◆ **Let me know if you are interested in a planimetrics project.**
- ◆ **Finalize your paperwork.**
- ◆ **3in resolution partners need to weigh in on file size again.**



For more information, contact Ashley Summers at
asummers@drcog.org or 303-480-6746.



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