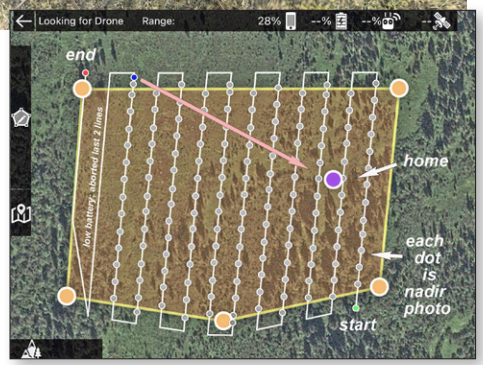

Burn in Yellowthroat Carr
Grid flight, south boundary, SEALT parcel
Richard Carstensen
Discovery Southeast
for SEALT
20230511

01 Burn edge Koren sifting through ash to see how wetland species fared in the flames.

Cover: **sc1**. Burn stopped near Redmud Flats, underlain by true clay, relatively rare in local palustrine strata outlying LIA glacial maxima. Slider to 4:45 in last year's slideshow. ● **Below**: Grid designed on-site in Map Pilot Pro.



20230511 Flying the SE AK Land Trust burn

Dan Hysell at SEALT called to request some aerial photography over a recent grass fire on southern edge of what's so far called the Montana Creek Wetlands parcel. [1]

Koren Bosworth and I met Dan at the Steelhead turnaround and hiked

[KINY May 7th, 2023 11:20am](#) *"Capital City Fire Rescue (CCFR) received a report of a grass fire behind Wren Drive and past River Road trail on Saturday, reported to be ~3-4 acres.[1] It was inaccessible for CCFR crews to go find and try to put it out. TEMSCO helicopter worked with CCFR in putting the fire out by using their water bags to drop water on the fire, using the river to fill their water bucket. CCFR Facebook Saturday said they don't know what caused the fire."*

1 Underestimated by ~3x, as measured from following orthomosaic.

1 SEALT should reconsider this name. Orth (1965) gives no background for why Kaxdigoowu Héen was renamed "Montana" by landgrab miners. There are several other 'Montana' placenames in Alaska, equally unexplained. Did Montana Bill take his name from the creek, or vice versa? Nobody knows, and only unrepentent anglophiles care. In above-linked 2019 talk for SEALT, John Hudson and I charged each other a dollar everytime we used the M-word.

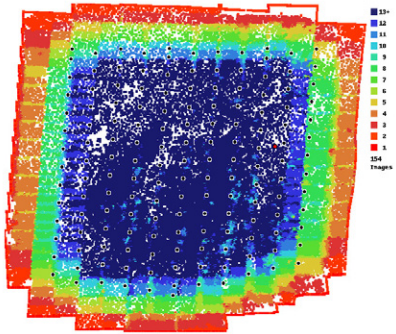
Names are important. I propose the SEALT Lands Committee consider a less colonial, more respectful, place-based name, in keeping with Glacier's Edge and Very Beary. Something like **Yellowthroat Carr?** Clay Pocket? Needlerust Flats?

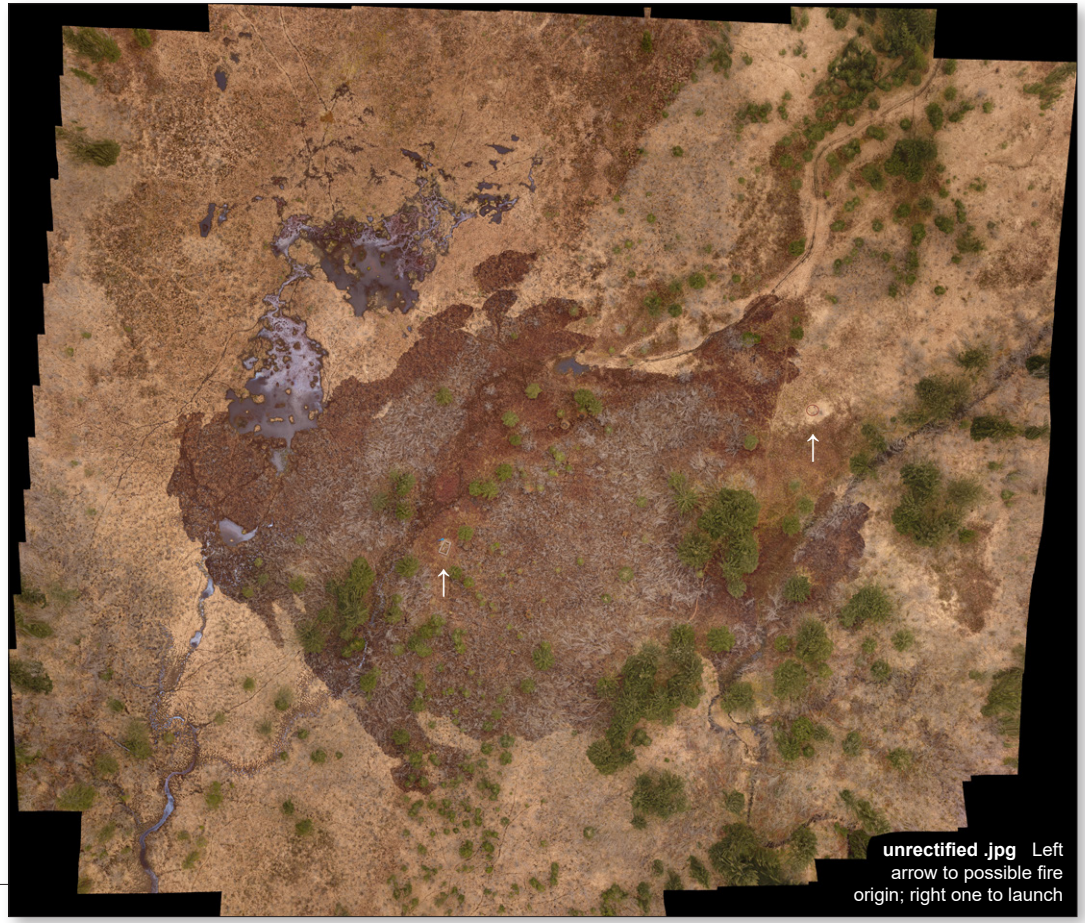
in following a track he laid with Krista several days ago. I've redcircled our launch, in the egg-shaped sedge fen where I tamped a flatpatch big enough to clear the props and cam-gimbal. Intermittent drizzle but almost no breeze, so droplets thankfully never speckled the nadir camera lens.

Flight went off without a hitch, Wish I could say the same for my Origin laptop, back home,

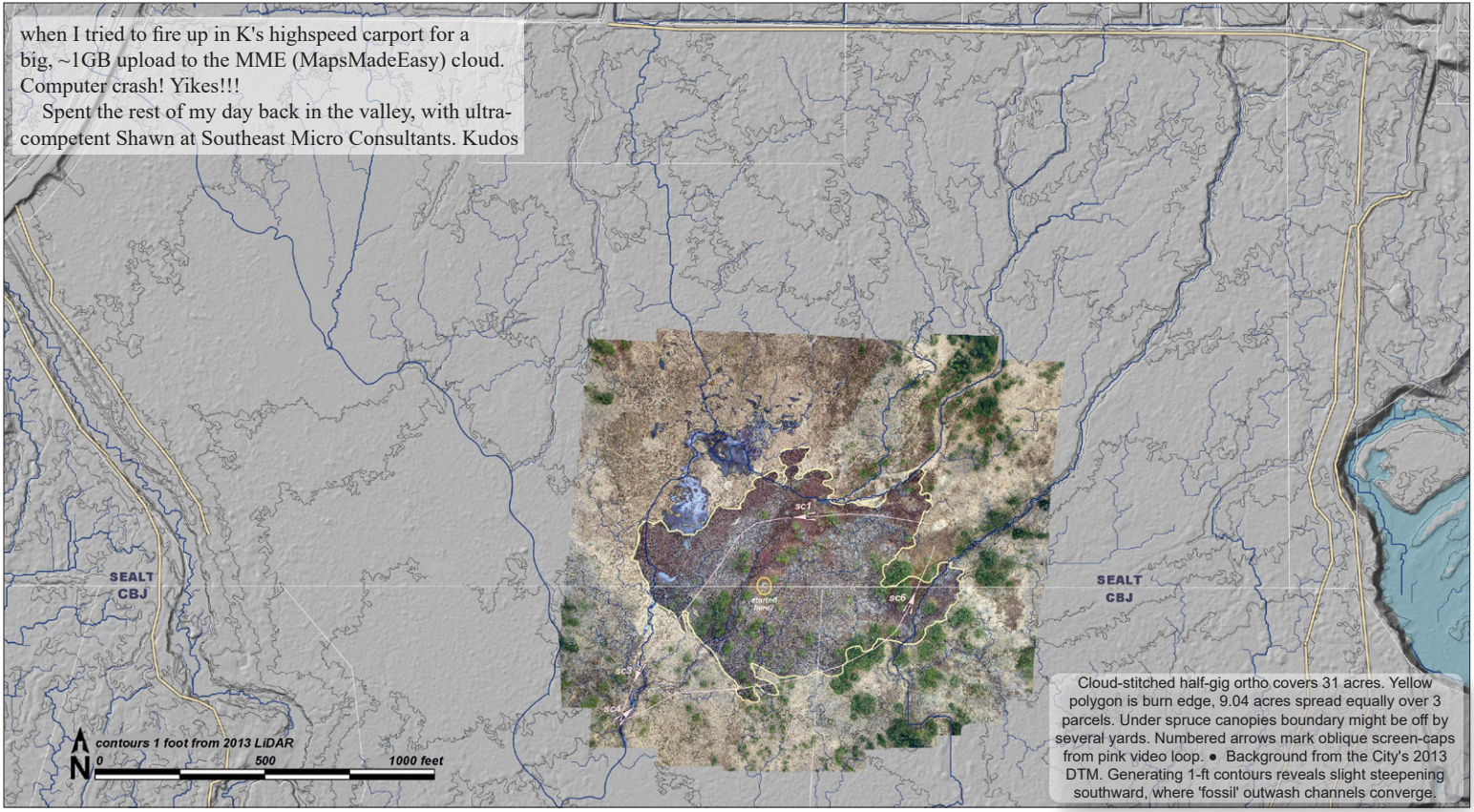
Misson stats:
● **Date/time** May 11, 2023, 9:37 a.m. ● **Images Uploaded** 155 ● **Side-&-end-lap** 75% ● **Resolution** 1.17 inch/pixel ● **Average AGL** 235 ft ● **Area** 31.2 acres ● **Output**: **geotif** 411 MB ● **Full Res jpg** 61.6 MB ● **DEM (tif)** 34 MB ● **3D GE KMZ** 10 MB ● **Point Cloud (las)** 292 MB.

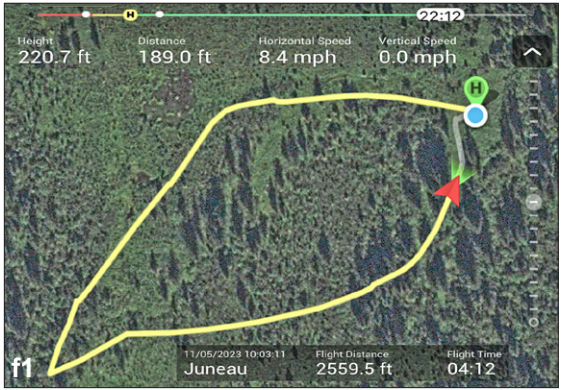
Overlap heatmap: Optimally, every point on ground should be seen by 12 photos, coded blue. Good results for ortho production. Pointcloud was inadequate for tree modeling; better with 95% endlap.





unrectified .jpg Left arrow to possible fire origin; right one to launch


when I tried to fire up in K's highspeed carport for a big, ~1GB upload to the MME (MapsMadeEasy) cloud. Computer crash! Yikes!!!
Spent the rest of my day back in the valley, with ultra-competent Shawn at Southeast Micro Consultants. Kudos
SEALT
CBJ
SEALT
CBJ
started here?
SC1
SC2
SC3
SC4
SC6
contours 1 foot from 2013 LiDAR
0
500
1000 feet
N
Cloud-stitched half-gig ortho covers 31 acres. Yellow polygon is burn edge, 9.04 acres spread equally over 3 parcels. Under spruce canopies boundary might be off by several yards. Numbered arrows mark oblique screen-caps from pink video loop. • Background from the City's 2013 DTM. Generating 1-ft contours reveals slight steepening southward, where 'fossil' outwash channels converge.



to Shawn for the rescue! By midnight I was back on track, luxuriating in the cartographic wealth of deliverables from MME.

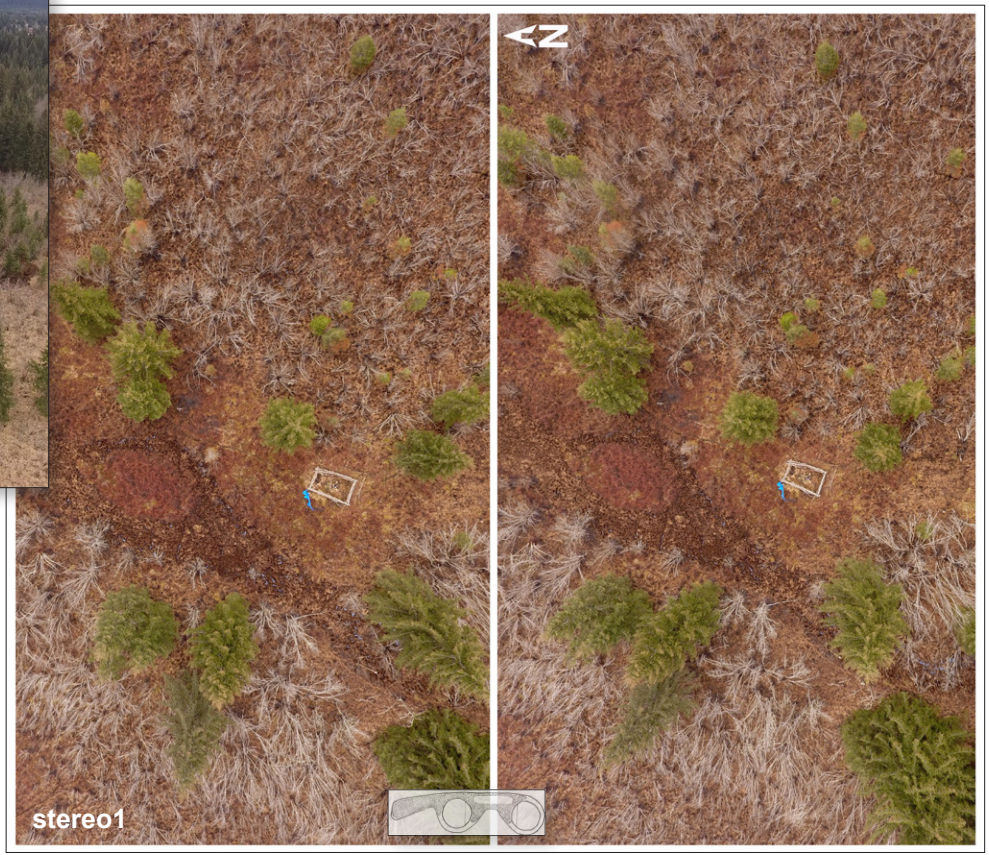
f1 Used only one battery on grid flight. Afterward, popped in fresh one for manual *Flight-1*, 6-minute video loop with mostly oblique camera.

stereo3 3D pair from adjacent images. North is roughly left, according to flightlines on preceding MME grid. [2] We're standing in the yellow oval.

Four days after the 0507 fire, dark chestnut of the burn in this imagery is from persisting ash that coming rains will soon erase. When K & I visited the 20200509 Asx'ée burn, a month afterward, [3] torched patches were crisp-edged, lush,

2 For mission planning prioritizing 3D views, E-W flightlines would deliver stereo with more traditional, less confusing, north-up orientation.

3 Asx̱'ée, *twisted tree* (Eagle Beach) That fire was only 2 days off this same-sized SEALT-parcel fire of 20230507, and *exactly* the date of Asx̱'ée's 2.5-acre



and darker green than unburned matrix. It'll be fascinating to compare initial green-up and longer-term successional response of this very different flora.

sc4 *sc=screen capture*. Returning NE to launch.

stereo1 Blue tarp near 'corral' was burnt. Party spot where bonfire escaped? [4] SEALT so far has no info from

outer-ridge fire on 19820509. Clustering of grassfire dates in early May—all 3 anthropogenic—is probably an intersection of 2 factors. First warm days of spring (and abundance of dry material) inspire Southeast Alaskans—unsurprisingly naive about safe *contain-&-extinguish* practise—to celebrate with a little bonfire. Secondly, laid-over thatch from last year's herbaceous growth creates a perfect fuel-bed.

4 **Bonfire**: "*a large open-air fire used as part of a celebration, for burning trash, or as a signal.*" I use it here instead of "**campfire**," because it was

CCFR. This tarp also appears in lower right of cover photo sc1.

As described in my narrated slideshow from last year's Discovery-SEALT bushwack, this parcel is a mosaic: in order of increasing wetness, ● sparse spruce woodland ● ankle-&-chest-shrub wetland ● sedge tussock meadow. It's mostly those intermediate shrubby habitats that burned.

likelier a party fire than for cooking at a camp. SEALT found beer cans; unclear how old.

[5] Flames must not have been very high. Few spruces were torched as in the Asx̲'ée fire. In several places it flamed out against the criss-crossing hiker-&-game trails where vegetation was compressed and dampened. Koren noted that while sedge tips were singed,

5 **Carr**: *British term for bog or fen in which scrub,* esp *willow, has become established*. I appreciate one-syllable words for unique, easily defined habitats. Probably the most distinctive breeder in ~~Montana~~ Wetlands is alder flycatcher. Thus my suggestion, Flycatcher Carr.

scrub alder & willow were largely undamaged and will probably leaf out on schedule. Same, apparently, with 'ankle-species' *Ledum* & lowbush *Vaccinium*.

MMEgrid-1 Context in yellow oval, *stereo3*. On takeoff, a Map Pilot flight pauses a few feet off the ground for still#1, then ascends to grid elevation. Clearly, there's as much or more laid-over thatch in this non-woody microhabitat, but it didn't burn. Probably it was more flattened, closer to damp surfaces, while thatch propped into the more 'lofted' adjacent ankleshrub was more flammable.

sc3 Southwest along sluggish stream draining Redmud Flats. In FPV (first person view) on my phone the darkened line looked like a continuation of the burn, so I briefly followed it.

This page and following has closeups by Koren Bosworth.

kb1 Edges will lose their sharpness as soon as rains wash ashes down into the soil, and green-up covers the unburned thatch on right.

I'm glad we flew immediately after the burn.

kb2 A few spruces will lose needles up to 10 feet or so, but flames apparently didn't reach as high as the Asx̲’ée burn.

kb3 Although fire concentrated in the intermediately drained alder-willow 'carr,' and shorter, ankleshrub habitats, almost no alders or willows were killed.

kb4 Bryphyte & lichen epiphytes were torched for a few feet up the trunks, but Koren thinks most woody species will leaf out 'on schedule.'

kb5 Last years thatch was burned off the sedge tussocks, and tips were blackened. But like lawn grasses, they grow from the base, not tip elongation.

PS 2026: visiting on 5th annual SEALT-DSE walk, even these treebase stains were gone.

sc6 Launch fen Beige launching-pad oval in center is relatively free of woody ankleshrub. Vegetation closeup in MMEgrid-1.