



**UNALASKA AIRPORT
AKSAS PROJECT NO. 53443**

LAND OCCUPANCY REPORT

Prepared by:
R. Hank Brinker, PLS
R&M Consultants, Inc.
May 7, 2015

This report accompanies the draft submittal of the Unalaska Airport Land Occupancy mapping.

- a. Topic in Black
- b. Comments and decisions in Green
- c. Solutions and Questions in Red

SHEET 1

1. Historical Grid.

The original Unalaska Land Occupancy maps were stated as GRID BEARINGS and GRID DISTANCES. This LO is grid bearings, but ground distances.

I have not converted the grid distances to our Local system. No one wants to see 199.98 feet rather than 200'. Holding the grid distances as ground distances fit found monumentation fine. This is a non-issue.

2. Airport Boundary.

The current LO shows only the boundary of Tract I.

This LO depicts all airport tracts and the entire Airport boundary.

3. Utilities

Utility locates were discussed in the pre-work meeting. I noted that the move of Ballyhoo road at the south end of the airport included major re-routing of every utility conceivable. The 2012 airport construction included major storm drain improvements (manholes, culverts, storm drains), as well as a complete extension with new facilities at the north end. We were instructed to NOT locate utilities.

The current LO shows numerous faint utility lines. I strongly expect that most of these are obsolete. I don't have the utility information from this older LO. I show no utilities except for two FAA lines and ROW's to the AWOS and Wind Instrument. These will be discussed more below.

Additionally, the ADA 8218 packet (provided by DOT) includes 2005 Electric, Sewer and Water asbuilts with easements. A memo from Mike Miller, PLS dated May 25, 2005 denies the



easements because the asbuilts don't meet department requirements. It appears that nothing was done afterwards. Even If I wished to place the easements, the quality is too poor to make out the dimensions.

DOT does not seem to have an organized system for tracking airport utilities and the easements. I'm not sure there even needs to be easements. It seems just showing the location of the line with ties to survey control would be sufficient. Easement lines clutter a drawing, especially when you have many underground lines, such as an airport has.

See more discussion under line-item No. 6 below.

4. Area vs. Lease Area.

As with Cold Bay, there are discrepancies between the Lease/Permit areas and those I have computed. I have placed two columns in the Status Block, the same as DOT instructed me to do with Cold Bay. This second column can be removed, once the Leases and Permits have been updated to match the actual square footage in the AREA column. It may take many years for that to happen.

5. Parcel G.

Parcel G text was redlined on the existing LO provided me by DOT, but the Lessee information was crossed out. The intent seemed to be that I make sure and show it, but remove the Lessee.

a. The Permit expired in 2011.

Do we keep Parcel G, or delete it?

Do we keep the Lessee or delete it?

> keep it.

b. Parcel G completely encompasses Lot 1E, Block 4.

Do we exclude Lot 1E from Parcel G, or do we delete Lot 1E?

→ see our notes on sheet #. 3

c. Parcel G square footage far exceeds the Permit listed square footage, even if I exclude the area of Lot 1E, Block 4.

I placed the Parcel G boundary 1' inside the fence line, and then guessed at the sidelines using the Permit sketch. My computed area is 20% larger.

d. The current LO does not dimension Parcel G.

✓ Is there any reason to dimension Parcel G? Yes.

6. FAA ITEM(s) and Cable ROW's (ADA 08510)

All the "ITEM's" in this LO are FAA facilities and their cable ROW's. All ITEM's (except the new ODAL's) are addressed in the ADA 08510 MOA. Some of these facilities have been rearranged or removed recently. All of these ITEM(s) have utility lines with claimed ROW's. Only two (AWOS & Wind Inst.) have survey dimensions of the ROW's that can place the ROW's on Airport property and one of these (Wind Inst.) has discrepancies that cause the whereabouts of the ROW to be in doubt.

Only two FAA drawings were provided me that show cable ROW's with asbuilt information. One of those (the Wind Instrument) does not end where we have located the Wind Instrument tower.

ADA 08510 MOA contains the following requirement (see below). FAA is not adhering to this criterion.



5. AS-BUILT DRAWINGS/CABLE MARKINGS

(a) The FAA will submit to the State a complete set of as-built drawings of all facilities constructed or installed under this agreement within ninety (90) days after completion of installation or construction of the facilities. The State, within ninety (90) days of completion of construction, will submit to the FAA as-built drawings of FAA facilities that the State has relocated under an AIP. The drawings will include ties to survey monumentation on the Airport. Monumentation acceptable to the State must be runway station monuments, Airport boundary monuments, lease lot corner monuments or survey control monuments. If acceptable monumentation is not available at the Airport when the FAA completes the installation or construction of facilities on the Premises, the FAA is not obligated to include survey ties on the as-built drawings of the facilities.

(b) If acceptable as-built drawings are not submitted to the State and surface markers are not installed as required by this paragraph, the FAA may not hold the State responsible for any claim or liability associated with damage to the FAA's underground facilities or to the State that occurs as a result of construction or excavation by the State or the State's lessees, permittees or contractors.

Note: my experience with FAA drawings leads me to the conclusion they are unqualified to provide their own asbuilts. Their drawings routinely contain irreconcilable errors. This Airport's OAW and Wind Inst. sites are examples. Neither facility lies where their asbuilts place them.

a. ITEM re-numbering.

I have re-numbered many ITEM(s). ITEM 1 has forever been left blank. Item's 2-4 have are replaced with the new FAA MOA or no longer exist. It appears that once an ITEM disappears, DOT removes the ITEM forever. For now, I have begun at No. 5, which historically included the VASI(s). I think we have the opportunity on this airport to start over with No. 1, mainly because the previous FAA ADA's have been terminated and replaced with ADA 08510.

I can start fresh, beginning with ITEM 1. I don't see a conflict. Would DOT like me to? →

b. ITEM 5 – VASI's

The VASI's used to be included with REIL's and anemometer. This was confusing. I have separated them into two items: VASI's as ITEM 5 and REIL's as ITEM 10. The anemometer no longer exists (one exists at the ITEM 8).

MOA 08510 mentions a cable ROW but no asbuilt information exists.

c. ITEM 6

The VASI, REIL(s) and anemometer at the north end no longer exist. I've removed ITEM 6 for now. If we renumber, ITEM 6 will be assigned to some other ITEM.

d. ITEM 7 - AWOS

FAA provided an asbuilt drawing for the AWOS and Cable ROW dated 4-19-93. The drawing depicts a 25' square tract with a 10' cable ROW leading away to Lot 5B, Block 2. Our location of the AWOS shows that is not completely within the 25' square. The tower falls 1' inside the north boundary. Within my experience, this is the height of accuracy for FAA.

Is DOT still placing tracts around FAA parcels? The MOA mentions tracts, but no drawings are included with the MOA. → We still do the tracts. It will change later.

If we are to place a tract, I would suggest we move the 25' sq. parcel to where the AWOS tower is centered. The nearby Wind Instrument complicates this though. See ITEM 8. Note: MOA 08510 describes the cable ROW as 20', though the 1993 asbuilt shows it as 10'.

What do we do with the 25' sq. parcel and 20' ROW? My suggestion is stated under ITEM 8.

Please keep current numbers as they all numbers have historical record attached to them in our database



e. ITEM 8 – Wind Instrument

FAA provided an asbuilt drawing for the Wind Instrument and Cable ROW dated 5/14/93. A photo that FAA provided includes the AWOS in the background. The wind sensor that now exists is not the same, but our own photos verify that it is located at the same location. The FAA asbuilt places the wind sensor 60' southwest of the AWOS. Our measurements place it only 24' southwest of the AWOS. It is actually 1' inside the south boundary of the erroneous AWOS parcel.

The easy solution is to move the wind sensor 10' radius clearance zone to the actual location of the wind sensor. The question is: what do we do about the cable ROW? Do I move the cable ROW 40' away from where the FAA asbuilt places it? That's pretty sketchy.

My solution:

1. Place a 25' radius point midway between the AWOS and Wind sensor and show a 25' radius clearance zone that encompasses both the AWOS and the wind sensor. This can be simply mapped with the station and offset to the radius point.
2. Show only the centerline of the two 20' cable ROW's. Note that they are approximate. No dimensions.
3. For discussion, how might this affect ADA 08510

f. ITEM 9 – OAW

FAA provided an asbuilt for the OAW site dated 4-5-2000. The asbuilt shows a small tract around the OAW. Our location places the OAW outside the tract.

MOA 08510 lists two easements: a 10' x 175' and 10' x 1200'. The 1200' line cannot be placed accurately using the 2000 asbuilt. The 175' easement could be computed and moved to the actual location of the OAW.

MOA 08510 also lists a "requested" 500' BRL around the tower.

I suggest, either showing no parcel, or a radius point with small radius around the tower.

The cable ROW's must be discussed. The 1200' line goes right through Blocks 1, 2, & 3.

The 500' BRL must be discussed. — not clear, let's discuss on the phone

g. ITEM 10 – REIL's

MOA 08510 lists a cable ROW, but we have no information to place one.

The north end REIL's have been replaced by ODAL's.

h. ITEM 11 – ODAL's

The ODAL's are new and are not covered by ADA 08510, or any other agreement.

Final comments on FAA easements:

Not one single FAA drawing is without ambiguity, error, mismatch with our locates, or lack of information. So few of the FAA underground cables can be placed better than "very approximate", that it seems not worth the trouble. Depicting them may establish disinformation rather than information. I would require FAA to submit updated asbuilts with supporting data similar to what we as contractors are required to submit. That is, if you wish to show their utilities accurately.

Also, I would not accept 20' easements for their utility lines. 10' is the norm, and is more than adequate for a single line, or even a group of lines. You don't see 20' electric easements or communications easements around town unless major trunks are traveling alongside secondary systems. Even then, you rarely see wider than 15'.

**7. Rotating Beacon and Windsocks**

I assume these are State facilities and need no ITEM number.

SHEET 2**1. 60' ROW**

The 60' ROW along the south side of Airport lease lots 5B & 7A, Block 2 is unique in that it spans the Airport boundary. This is due to the original Airport boundary and lease lots having once been platted together. The Airport boundary changed, but nearby adjacent private platting continues to respect the old airport ROW here. This is explained in great detail in the Property Plan Report also submitted here.

2. Lot 1, Block 1

Building No. 417, a.k.a. Navy Terminal, a.k.a. Aereology building, on Lot 1, Block 1 was retained by Ounalashka Corp. in the 1980 Airport deed from the Corp. to State of Alaska.

The above note has been added to the drawing as Note 4. *OK*

3. Lot 2, Block 1

Building No. 415, a.k.a. Reeve Terminal, a.k.a. Air Administration building, on Lot 2, Block 1 was retained by Ounalashka Corp in the original 1980 deed to the State, but has since been demolished.

The above note has been added to the drawing as Note 5. *OK*

4. Lot 4B, Block 2

Building No. 429, a warehouse, a.k.a. Receiving Warehouse on Lot 4B, Block 2 was retained by Ounalashka Corp. in the 1980 Airport deed from the Corp. to State of Alaska.

The above note has been added the drawing as Note 6. *OK*

The Lease packet provided by DOT for Lot 4B contains a number of easement drawings denied by Mike Miller, PLS May 25, 2005. These easements span the airport, but have portions that are obsolete due to recent construction. *→ VE to check on this.*

5. Lot 5B, Block 2

The LO provided me was marked with expanded dimensions for Lot 5B.

I followed closely the redlined dimensions, but my square footage is roughly 8000 sq.ft. smaller than the one stated on the current lease.

I had the crew survey the parking lot western edge of pavement. This lot configuration encompasses that pavement.

6. Lot 6D, Block 2

Building No. 421, a warehouse, a.k.a. N.A.T.S. building, on Lot 6D, Block 2 was retained by Ounalashka Corp. in the 1980 Airport deed from the Corp. to State of Alaska.

The above note has been added to the drawing as Note 7. *Remove this note please*

7. Lot 6E, Block 2

Building No. 423, a.k.a. Torpedo Storage, a.k.a. Torpedo Shop on Lot 6E, Block 2 was retained by Ounalashka Corp. in the 1980 Airport deed from the Corp. to State of Alaska.

Lot 6E has been significantly reconfigured due to DOT's recent creation of Lot 6F. Does Lot 6E require a new designation (Lot 6G)? *yes, name it as 6G*

It is possible that Ounalashka has relinquished some of the buildings it retained in the 1980 Deed.

DOT did not provide me any such recorded documents, nor has DOT provided a title report for the airport, which may have discovered such relinquishments. *yes they did*

8. Lot 6F, Block 2

A new lot configuration per DOT instructions. As yet, no tenants. *Need to research*



9. Lot 7A, Block 2

A new lot configuration per DOT instructions.

Plans for new parking configurations were included in information provided by DOT. I had the crew survey edges of pavement. The survey and photos showed that parking spaces had been placed along the north side of the lot within an area that had been designated as ROW. I suggested to DOT that we reconfigure Lot 7A to include the new parking lot, and remove the ROW. DOT agreed.

Note: the permit is expired.

This is a significant change to Lot 7A. Shouldn't we re-designate the lot as 7B?

Yes

10. Lot 1, Block 3

The current LO did not contain enough information to place this lot with certainty. I adjusted it slightly to fit up against the airport boundary and Lot 2A.

Note the dashed line of a lot configuration shown on Chevron Subdivision, plat 83-15. This lot configuration crosses the airport boundary but is within the "Old Airport boundary". We recovered 5 monuments for this lot. The plat also depicted a pipeline easement that I scaled in.

Note: the lease is expired.

I have added the note to the drawing: Lot 1, Block 3 is heavily contaminated with fuel.

Remove the old boundary and easement or keep it?

11. Lot 2A, Block 3

No comments.

Remove it
(we will keep the
copy of old LO
in our records if we
need to see it in the
future)

SHEET 3

1. Lot 1A, Block 4

The DOT LO mark-up had "asbestos" marked on this lot.

I have added the note to the drawing: Lot 1A, Block 4 contains a WWII era hanger contaminated with asbestos.

There was only one way to compute the Lot 1A and 1B boundaries within the airport property using past LO's. Using the old 1986 LO and "old" runway station and offset to a corner on Lot 2, you could place Lot 2. Lot 2 is depicted as having a common boundary with Lot 1A. The current LO still depicts it this way. This is not the case. Asbuilt drawings in ADA 6502 give Stations and Offsets to Lot 1B that indicate Lot 2 is separated from Lot 1A. I did not realize this until the crew returned. There are corners to Lot 1B that probably exist, but our stakeout coordinates were off by about 16'. We did not find any corners for the lot.

2. Lot 1B, Block 4

This lot was originally leased by Mark Air, then the lease was transferred to PenAir, and then PenAir transferred the lease to Guardian Flight, Inc. Not surprisingly, the LO is confused about dates, dimensions and square footage.

The original 1991 Lease was for 40 years, from 4-24-1991 through 4-24-2031. The listed square footage was 24,310 sq.ft. (143'x170'). A Dowl asbuilt dated 3-27-1992, depicts the lot as expanded 10' westerly to 153' wide and 26,010 sq.ft. This is the square footage shown in the LO table, yet the LO shows the lot 143' wide. The 10' expansion was apparently to include facilities along the west side of the lot.

I am currently showing the lot 153' wide but I have reservations. There are no Supplements in the files provided me that indicate the expanded 153' width was agreed upon in writing.

How do I depict the lot, 143' wide or 153' wide?

Yes, show 153' wide.
We will adjust our lease



3. Lot 1E, Block 4

Lot 1E partially sets on a gravel pad. It seems there could be other lots here or that 1E could be reconfigured.

Also, Parcel G covers the entire area surrounding Lot 1E.

Same questions as earlier, how do we reconcile Lot 1E with Parcel G?

Do we want to adjust Lot 1E, or add lots?

4. Lot 2, Block 4

The current LO lists lot 2 as an M&O Reserve.

What does M&O Reserve refer to? Munitions and ordnance?

Do we wish to keep Lot 2 as an M&O Reserve? - Yes

5. DOT Facilities

Usually, DOT facilities are contained in Airport Lease Lots.

Do we wish to place a lot around the DOT facilities? → Yes. & call it DOT lot.

please see
sheet 3
for our
answer

SHEET 4

1. Revetment linework.

I am using the 2010 aerial gravel edge linework for the revetments. These lines don't really jibe with the lines shown in older LO's. I recently provided DOT exhibits for two of these revetments. One of the lessee's was asking how we arrived at the square footage. The answer is "not very scientifically". I believe DOT would be well served with an asbuilt of the usable areas in each revetment. There's really no other way to know. It would be an easy survey that would take about 1 hour. RTK control sets right in the middle of the revetments (DUT E).

It may be easier to just build parcels around the usable area. I don't show parcel lines for the revetment parcels. I asked about this at the pre-work meeting and was told not to →

Leave them
the way they
are.

All SHEETS

1. Stations California and Michigan.

Navy Tri-stations California and Michigan were the two original control stations for the Airport. Station California is also Corner 2 of the Airport boundary. Station Michigan has eroded completely and lies down the hill from its original position. However, we made ties to a 1993 DOT survey that had a position for Station Michigan. This position is in great harmony with positions shown on nearby plats that we have also tied. I believe that resurrecting the position of Station Michigan is valuable, and gives a great tool to future surveyors to use when they try to follow the complicated history of this airport's boundaries. For instance, I would have been unable to compute the old runway centerline without these two positions. Without the old runway centerline, the original Lease Lot boundaries become a fuzzy picture.

2. Runway alignments.

Three runway alignments have existed. The original Pre-1986, the 1986-2012, and the post-2012 alignments. I refer to them as the Old, the Middle, and the New.

The Old alignment skewed about 2 degrees from the Middle and New alignments.

The Middle alignment is essentially the same as the New alignment, the only difference being that the stationing was changed in 2012.

The Leases use only the Old and the Middle alignments. That will change now that this LO holds the New alignment. New Leases should reflect the New stationing that is shown on the LO.

I have included all the alignments in the drawing. I even created copies of the 3 alignments for the detail sheets. My purpose for this is so future users can find comfort by querying station and



offset to verify old stationing in the Leases. Even though new stations and offsets are shown, it can be verified that that these points are indeed the same points of the past, that the leased area is the same.

Note: the queried stations will not reflect exactly the old leases, but they will be close (within 0.2'). I built the lease lot lines using a combination of record LO dimensions and found monuments. This method precludes an exact match.

3. Mapping "Look" and layering.

This LO looks a little different than DOT standard LO's. Previous LO's have held the old DOT layering format. I believe this will be the first one using NCS and the current DOT ctb file.

It would have been much more labor-intensive to make the mapping look exactly like the standard DOT LO. This LO will look a little more like other DOT mapping, like Property Plans and SCD's. Since I created the Unalaska Property Plan first, and the SCD second, it took very little to turn those maps into an LO. I think it better that we make the LO's a little more like other DOT mapping.

RHB