

Aerial_Master_2015_2017_v24 Version History

Edits made by AAB

5 May 2022

ALW did a final QAQC of the 2009-2021 ASAMM data in April/May 2022, which resulted in the following edits.

E363, F212, 7/30/2015 – Clinometer = -1, X/YofWhale = -1, copied ArcLat/Long to Lat/LongTemp, notes = “1 sighting on each side of the aircraft of 1 sup each was pooled into this sighting; right sighting clino was 35, left sighting clino was 68 with dive behavior”

E359, F212, 7/30/2015 – Clinometer = -1, X/YofWhale = -1, copied ArcLat/Long to Lat/LongTemp, notes = “1 sighting on each side of the aircraft of 1 sup each was pooled into this sighting; right sighting clino was 20, left sighting clino was 40 with dive behavior”

E582, F249, 10/12/2015 – saved = 0

E1, F202, 7/3/2015 – added to notes: “Air_Head and airhead_gps do not match; likely due to survey program issues.”

E18, F202, 7/3/2015 – notes = “made the lat/long and time of this identical to event 16 because E18 didn't save correctly initially. This time and position is not accurate, so we decided to pool it with E16.”

E16, F202, 7/3/2015 – Final_group = 2, Clinometer = -1, X/YofWhale = -1, copied ArcLat/Long to Lat/LongTemp, notes = “30 sec count to pool E18 with this sighting because E18 didn't save correctly. Approx clino 86. 1 swim, 1 hauled out on ice.”

E997, F43, 10/4/2015 – Totalno = 1, Final_group = 6, added to notes: “May 2022 edits: totalno was 6 and final grp was 1, so we switched those because from this note that the animals were spread out, we know final group was >1; most likely, the DR accidentally input the values backwards”

E447, F231, 9/1/2015 – NoReacted = 0, notes: “unk rxn = 12 animals dove”

E244, F17, 8/19/2015 – NoReacted = 0

E448, F21, 8/26/2015 – NoReacted = 0

E920, F21, 8/26/2015 – NoReacted = 0

E447, F231, 9/1/2015 – NoReacted = 0

E612, F24, 9/1/2015 – NoReacted = 0

E640, F24, 9/1/2015 – NoReacted = 0

E765, F24, 9/1/2015 – NoReacted = 0

E738, F33, 9/21/2015 – NoReacted = 0

E792, F245, 9/28/2015 – NoReacted = 0

E222, F246, 9/26/2016 – PrimObs = 1, notes = “PrimObs error corrected during QAQC May 2022”

E994, F232, 8/29/2016 – Entry = p on search

E354, F236, 9/10/2016 – Family = 3

E995, F232, 8/29/2016 – TotalNo = 1

E180, F237, 9/11/2016 – Clinometer = -1, notes = “approx clino 62”

E352, F235, 9/6/2016 – PrimObs = 1, notes = “PrimObs error corrected during QAQC May 2022”

E576, F236, 9/10/2016 – PrimObs = 1, notes = “PrimObs error corrected during QAQC May 2022”

E370, F221, 8/7/2016 – added to notes: “Inter-annual match. Photographed on 9/6/2014, F28, E606 with COY. Scars of rostrum, left and right scapula, and middle- right back all match (images B20140926_0030-0051)”

E386, F221, 8/7/2016 – Low_estimate = 4, notes = “C. Accardo, frames 52-109. additional behavior = SAG and mill; img 88 left whale = old based on ped/fluke pigmentation and has entanglement scars on peduncle. Low est of 4 because there are 4 whales in the photos.”

E404, E405, F221, 8/7/2016 – notes = “C. Accardo, frames 110-132”, PhotoTaken = 1

E187, F14, 8/16/2017 – Calf_on_circle = 2

E713, F235, 9/14/2017 – PrimObs = 1, notes = “PrimObs error corrected during QAQC May 2022”

E430, E441, F201, 7/3/2017 – Clinometer = -1, X/YofWhale = -1, copied ArcLat/Long to Lat/LongTemp

E651, F231, 9/9/2017 – Clinometer = -1, X/YofWhale = -1, copied ArcLat/Long to Lat/LongTemp, notes = “Karen Vale, frames 15-25. Carcass begin scavenged by E654. Behind plane, on beach. Approx clino 25, plane was turning.”

E654, F231, 9/9/2017 – GMT_Minus8_DateTime = 9/9/2017 2:11:07 PM, ArcLat & LatTemp = 71.02016, ArcLong & LongTemp = -157.3143, Entry = s on circling – transect, FltType = 5, DIST_FROM_SHORE = blank, notes = “”

Karen Vale, frames 14-24, scavenging on carcass E652, rxn = stop feeding, look, return to feeding. Sighting was discovered in photos and added to the data post-flight.”

(This sighting was initially inserted incorrectly. The walrus that the fox was associated with was marked late while the plane was diverting. Then the inserted sighting was added as a sighting on transect after the divert and the lat/long and time was changed to match that of the walrus which was erroneous to begin with. The entry taken while circling is equally if not more accurate. Also, with that edit, the sequential order of the Event No’s did not match the sequential order of time. So we changed it back to its initial time and lat/long.)

Aerial_Master_2015_2017_v23 Version History

Edits made by AAB
3 February 2022

ALW found the following mdb updates during QAQC of gray whale carcass imagery Jan 2022:

9/6/2016, F235, E199: notes "Karen Vale, frames 1-37. Probable killer whale predation. Resighted 9/15/2016 F240 E572 on beach; resight discovered in 2022 during photo analysis."

9/15/2016, F240, E572: notes "Jess Taylor, frames 0009-0020. Resight from 9/16/2016, F235, E199 when it was sighted floating. Found during carcass QAQC for Willoughby et al. 2022; COD = probable killer whale predation"

7/6/2016, F202, E367 – added to notes "(AW, frames 31-36)", PhotoTaken = 1

8/24/2016, F227, E246 – family = 2

8/27/2016, F23, E610 – family = 1

9/30/2017, F241, E580 – family = 1

Aerial_Master_2015_2017_v22 Version History

Edits made by AAB

19 February 2019

Mike Hay updated the Block field to "1a" for the following events:

| YEAR | Flt_No | Event |
|------|--------|-------|
| 2015 | 3 | 366 |
| 2015 | 4 | 256 |
| 2015 | 12 | 223 |
| 2015 | 30 | 465 |
| 2015 | 34 | 658 |
| 2015 | 35 | 37 |
| 2015 | 35 | 226 |
| 2015 | 41 | 608 |
| 2016 | 2 | 736 |
| 2016 | 7 | 546 |
| 2016 | 7 | 548 |
| 2016 | 7 | 564 |
| 2016 | 7 | 569 |
| 2016 | 7 | 571 |
| 2016 | 13 | 456 |
| 2016 | 13 | 464 |
| 2016 | 13 | 472 |
| 2016 | 13 | 476 |
| 2016 | 16 | 345 |
| 2016 | 16 | 373 |
| 2016 | 16 | 387 |
| 2016 | 17 | 743 |
| 2016 | 20 | 108 |
| 2016 | 20 | 226 |
| 2016 | 20 | 229 |
| 2016 | 20 | 256 |
| 2016 | 20 | 349 |
| 2016 | 20 | 359 |
| 2016 | 26 | 175 |
| 2016 | 31 | 220 |
| 2016 | 31 | 369 |
| 2016 | 34 | 367 |
| 2016 | 35 | 32 |
| 2016 | 38 | 176 |
| 2016 | 38 | 197 |
| 2016 | 44 | 603 |
| 2016 | 45 | 216 |
| 2016 | 207 | 291 |

| | | |
|------|-----|------|
| 2016 | 207 | 292 |
| 2016 | 207 | 293 |
| 2016 | 259 | 618 |
| 2017 | 1 | 335 |
| 2017 | 1 | 336 |
| 2017 | 1 | 530 |
| 2017 | 5 | 583 |
| 2017 | 5 | 599 |
| 2017 | 5 | 600 |
| 2017 | 5 | 620 |
| 2017 | 6 | 1097 |
| 2017 | 6 | 1098 |
| 2017 | 6 | 1107 |
| 2017 | 9 | 631 |
| 2017 | 9 | 633 |
| 2017 | 9 | 642 |
| 2017 | 9 | 656 |
| 2017 | 11 | 214 |
| 2017 | 11 | 323 |
| 2017 | 11 | 332 |
| 2017 | 11 | 351 |
| 2017 | 11 | 352 |
| 2017 | 11 | 450 |
| 2017 | 11 | 465 |
| 2017 | 11 | 467 |
| 2017 | 11 | 484 |
| 2017 | 11 | 485 |
| 2017 | 11 | 486 |
| 2017 | 11 | 586 |
| 2017 | 12 | 534 |
| 2017 | 13 | 376 |
| 2017 | 13 | 384 |
| 2017 | 13 | 548 |
| 2017 | 13 | 549 |
| 2017 | 13 | 551 |
| 2017 | 14 | 922 |
| 2017 | 17 | 212 |
| 2017 | 17 | 214 |
| 2017 | 17 | 255 |
| 2017 | 17 | 256 |
| 2017 | 17 | 257 |
| 2017 | 19 | 617 |
| 2017 | 19 | 626 |
| 2017 | 21 | 525 |

| | | |
|------|-----|------|
| 2017 | 23 | 168 |
| 2017 | 23 | 169 |
| 2017 | 23 | 203 |
| 2017 | 23 | 204 |
| 2017 | 28 | 273 |
| 2017 | 28 | 289 |
| 2017 | 29 | 1212 |
| 2017 | 29 | 1253 |
| 2017 | 30 | 36 |
| 2017 | 30 | 414 |
| 2017 | 30 | 714 |
| 2017 | 30 | 715 |
| 2017 | 30 | 720 |
| 2017 | 30 | 774 |
| 2017 | 30 | 779 |
| 2017 | 30 | 908 |
| 2017 | 34 | 291 |
| 2017 | 38 | 180 |
| 2017 | 38 | 188 |
| 2017 | 38 | 310 |
| 2017 | 38 | 341 |
| 2017 | 39 | 236 |
| 2017 | 39 | 301 |
| 2017 | 39 | 344 |
| 2017 | 39 | 348 |
| 2017 | 42 | 186 |
| 2017 | 203 | 996 |
| 2017 | 247 | 352 |
| 2017 | 254 | 403 |
| 2017 | 254 | 404 |
| 2017 | 254 | 405 |
| 2017 | 254 | 555 |
| 2017 | 254 | 629 |
| 2017 | 254 | 637 |
| 2017 | 254 | 645 |

AAB mapped all Block 1 events and found more sightings along the Block 1 shoreline that were not included in the Block 1 to Block 1a update because the Block 1a shapefile did not extend all the way to overlap the shoreline. AAB updated these events to Block 1a:

| ID | Event | Flight | Date |
|--------|-------|--------|-----------------|
| 87094 | 538 | 7 | 7/29/2016 14:26 |
| 153983 | 265 | 43 | 9/26/2016 12:28 |
| 153984 | 266 | 43 | 9/26/2016 12:28 |
| 157964 | 193 | 1 | 7/19/2017 12:34 |

| | | | |
|--------|-----|----|-----------------|
| 157942 | 330 | 1 | 7/19/2017 13:33 |
| 158237 | 515 | 1 | 7/19/2017 14:47 |
| 164922 | 591 | 11 | 8/9/2017 14:03 |
| 170656 | 629 | 19 | 8/25/2017 17:20 |

Updated new baitball sighting to Block 0 (was updated in v0_21 from a note on a non-sighting entry to a sighting, but the Block field was not updated):

| ID | Event | Flt_No | GMT_Minus8_DateTime | Block |
|--------|-------|--------|---------------------|-------|
| 122687 | 995 | 232 | 29-Aug-16 | 0 |

Carcass updates:

2015:

E652, F205, 7/7/2015 – notes = “VB, fr 9-15, resight of: 8/27/14 F228 E242 and 9/5/14 F233 E737”

E384, F223, 8/18/2015 – notes = “CLC, frames 7-24. Killer whale predation: killer whale raking visible on forward body (possibly lower mandible and rostrum); pec flipper is missing. Resighted 9/2/2015 F232”

E373, F225, 8/20/2015 – added to notes: Killer whale predation

E526, F232, 9/2/2015 – added to notes: Killer whale predation

E548, F232, 9/2/2015 – notes = “fr 23-28, KV. Resight of 8/18/2015, F223, E384; KW predation (based on images of original sighting).”

E572, F232, 9/2/2015 – notes = “fr 29-33, KV, 37 approx clino. Just bones. Cause of death could not be determined.”

E665, F232, 9/2/2015 – notes = “fr 51-53, KV; resight from 7July2015, FLT205, E652, and from 2014: 8/27/14 F228 E242 and 9/5/14 F233 E737”

E610, F239, 9/18/2015 – added to notes: Killer whale predation

2016:

E313, F202, 7/6/2016 – added to notes: Suspect killer whale predation.

E428, F213, 7/24/2016 – added to notes: Cause of death could not be determined; blunt trauma to throat.

E211, F219, 8/5/2016 – added to notes: Killer whale predation.

E588, F225, 8/22/2016 – added to notes: Killer whale predation.

E308, F227, 8/24/2016 – added to notes: Cause of death could not be determined; blunt trauma to throat in 7/24/16 sighting.

E341, F227, 8/24/2016 – added to notes: Killer whale predation (based on images of original sighting).

E199, F235, 9/6/2016 – added to notes: Killer whale predation.

E559, F240, 9/15/2016 – added to notes: Cause of death could not be determined; blunt trauma to throat in 7/24/16 sighting.

E572, F240, 9/15/2016 – added to notes: Cause of death unknown, possible post-mortem human salvage: tissue removed from jaw line in what appears a linear cut

E429, F241, 9/18/2016 – added to notes: Killer whale predation.

2017:

E498, F212, 7/26/2017 – added to notes: Suspect killer whale predation.

E520, F212, 7/26/2017 – added to notes: Killer whale predation.

E177, F213, 7/27/2017 – added to notes: Killer whale predation.
E459, F219, 8/11/2017 – added to notes: Killer whale predation.
E468, F219, 8/11/2017 – added to notes: Killer whale predation.
E439, F222, 8/21/2017 – added to notes: Killer whale predation (based on images of original sighting).
E281, F226, 8/28/2017 – added to notes: Killer whale predation.
E386, F227, 8/29/2017 – added to notes: Killer whale predation (based on images of original sighting).
E395, F227, 8/29/2017 – added to notes: Killer whale predation (based on images of original sighting).
E393, F234, 9/13/2017 – added to notes: Killer whale predation (based on images of original sighting).

Compacted & Repaired.

Aerial_Master_2015_2017_v21 Version History

Edits made by AAB
4 February 2019

ID 121516 E1001 F232 (8/29/2016) – notes “.”

ID 122687 E995 F232 (8/29/2016) - s on search, Species baitball, Sightcue body, Habitat open water, Final_group 1, sop l, Observer Vicki Beaver, PrimObs 1, Aerial_Survey NMML_Cmdr, Swimdir_True -1, saved=1, notes “hundreds of birds feeding on bait balls; wasn't sure what it was at 1st and is why we circled”, Family 7, enttag 3, PhotoTaken 0, copied Arclat/Long to Lat/LongTemp

ID 130391 E221 F236 (9/10/2016) – PhotoTaken 1, notes “Vicki Beaver, frames 7-17, 1 of 2 whales”.

ID 130392 E222 F236 (9/10/2016) – notes - corrected frame #s to 18-21.

ID 7733, E406, F223 (8/18/2015) – notes “CLC, fr 25-37, chgd to bowhead post flight from photos. Visual COD: R.Stimmelmayer 31Mar2019 -unable to determine”

ID 22589, E1135, F241 (9/21/2015) – notes “from deadhead, no clino, flew over Bm to mark, Suzie Hanlan frames 2-7. Visual COD investigation: R.Stimmelmayer (NSB DWM) 31Mar2019: suspect killer whale predation due to pecs. Frayed tissue on left side of head but hard to see, no other injuries notable.”

ID 59366, E281, F35 (9/23/2015) – notes “few seconds late, LB, frames 0105-120. Visual COD investigation: R.Stimmelmayer (NSB DWM) 31Mar2019: COD unable to determine; interesting injury that looks like a linear cut.”

ID 25565, E985, F244 (9/27/2015) – notes “SH fr 1-17. Resighted 28Sep2015, F245 E964 & E979. C.George initially said calf based on photos; subsequent analysis: not calf based on length (~8.8 m), likely yearling or <5 years old. KW predation: pectoral fin defects fresh”

ID 27692, E339, F247 (10/4/2015) – notes “MF: 0001-0014. Visual COD investigation: R.Stimmelmayer (NSB DWM) 3Apr2019 -suspect killer whale predation: big tissue defect/skin peeled back, left armpit tissue defect”

ID 34723, E133, F257 (10/27/2015) – notes “Corey Accardo fr 1-14; post-flight photo review confirmed bowhead. Visual COD investigation R.Stimmelmayer (NSB DWM) 31Mar2019: unable to determine; possible glowing mass subsurface (left side of head); type of lesion on pec uncharacteristic of KW”

ID 34791, E201, F257 (10/27/2015) – notes “Corey Accardo fr 15-38; carcass has orange float poly ball attached; typical of whaling, not commercial fisheries”

ID 34901, E311, F257 (10/27/2015) – notes “Corey Accardo fr 39-55. Small - likely yearling (less likely: possible calf). Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 21Jan2018”

ID 100015, E91, F23 (8/27/2016) – notes “Marjorie Foster, frames 1-80; how is this floating so high? Resighted again on 9/8 (F28 E343), 9/21 (F39 E605). Visual COD investigation R.Stimmelmayer 3Apr2019: suspect killer whale predation; there are KW bites, but also looks like someone filleted whale”

ID 135088, E688, F237 (9/11/2016) – notes “Karen Vale, frames 294-319. Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 21Jan2018. Small, likely yearling.”

ID 128093, E284, F33 (9/14/2016) – notes “M Foster frames 1-33. Visual COD investigation: R.Stimmelmayer (NSB DWM): killer whale predation based on tissue fray on the left lip”

ID 216888, E204, F241 (9/30/2017) – Calfno 0, Calf_on_circle -1, notes “SH, fr 1-30. Likely yearling. C.George reviewed photo: small male, skin dark, possibly a yearling (1.5 years old), or poss. calf-of-the-year, flipper size consistent with calf. Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 29Jan2018”

ID 104298, E390, F206 (7/13/2016) – notes “Corey Accardo, frames 49-61. Resighted on beach 20160910 F236, E276; matched using lesions on jaw and aft of pec. Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 21Jan2018. Resighted in 2017: 7/12 F205 E523, 7/26 F212 E538”

Changed Species from “baitball” to “bait ball”:

| ID | Event | Flt_No | GMT_Minus8_DateTime |
|--------|-------|--------|-----------------------|
| 122687 | 995 | 232 | 8/29/2016 5:59:44 PM |
| 190705 | 535 | 205 | 7/12/2017 3:55:11 PM |
| 193280 | 344 | 209 | 7/18/2017 11:50:15 AM |
| 193281 | 345 | 209 | 7/18/2017 11:50:20 AM |
| 193289 | 352 | 209 | 7/18/2017 11:53:21 AM |

Compacted & Repaired.

Aerial_Master_2015_2017_v20 Version History

Edits made by AAB

14 November 2018

Added fields:

Icepercent_l

Icepercent_r

assoc_event

In Design View of the Output table, copy/pasted the Description entries for those fields from the 2018 master database:

Added Icepercent_l Description: Estimate of the percent of ocean surface within the visual range of the left observer (beginning in 2018)

Added Icepercent_r Description: Estimate of the percent of ocean surface within the visual range of the right observer (beginning in 2018)

Added assoc_event Description: FltType 8, enttags 6 & 7 are populated with the Event number of the FltType 8, enttag 3 they are associated with. FltType 8, enttag 3 are populated with the Event numbers of the FltType 8, enttags 6 & 7 they are is associated with.

Changed the Block field from Number to ShortText in Design View:

(so that all Block fields are formatted the same throughout the master databases; in 2018, with the inclusion of block 13N, the field had to be changed to ShortText.)

When trying to change the field to ShortText, Access gave me this error: Microsoft Access can't change the data type. There isn't enough disk space or memory.

So I created a blank database/table with all the same table structure: copied the Design view of the Output table and pasted it into a new table's Design view. That created a table with all the fields, but no data yet. In this new table, changed Block to ShortText and saved it. Then ran an append query to append the 2015-2017 master data into the new table. Copied the FlightInfo and SummaryInfo tables and the other geodatabase and selection tables into the new database.

Compacted & Repaired.

Aerial_Master_2015_2017_v19 Version History

Edits made by AAB

14 November 2018

ID10301 F226 E600 23Aug2015 – notes “defecation (red in color), KV frames 14-30” (based on photos, added that color was red)

ID38540 F11 E29 4Aug2015 – environmental data NA (because the event is a p on deadhead)

ID96460 F19 E51 22Aug2016 – Skycon NA (because the event is a p on deadhead; previous Skycon value was “.”)

ID210347 F334 E234 13Sep2017 – Depth blank, DIST_FROM_SHORE blank, enttag 2 (must have originally been a sighting but those fields had not gotten changed to non-sighting values)

Aerial_Master_2015_2017_v18 Version History

Edits made by AAB
16 August 2018

Deleted lut_Observer and lut_Pilot tables.

Output table:

Calf_on_circle 1:

ID 193184 E258 F209

ID 163560 E352 F9

ID 199439 E555 F218

ID 166447 E191 F14

ID 175472 E804 F25

ID 175498 E827 F25

ID 178744 E322 F30

ID 210910 E384 F235

ID 210917 E390 F235

Calf_on_circle 2:

ID 179485 E99 F30

ID 210903 E378 F235

ID 95349 E768 F17 8/17/2016 – PhotoTaken 1, notes “saw 2 whales on initial sighting; ID'ed 2nd whale as calf during circling, Lisa Barry, frames 177-196 taken over range of events: 768, 769, 777, 780”

PhotoTaken 1, notes "Lisa Barry, frames 177-196 taken over range of events: 768, 769, 777, 780":

ID 95350 E769 F17 8/17/2016

ID 95359 E777 F17 8/17/2016

ID 95363 E780 F17 8/17/2016

PhotoTaken 1, notes "A. Willoughby, frames 137-140, photos range events 901, 902, 911":

ID 99205 E901 F22 8/26/2016

ID 99206 E902 F22 8/26/2016

ID 99216 E911 F22 8/26/2016

Aerial_Master_2015_2017_v17 Version History

Edits made by AAB

7 March 2018

ID 213253, E220, F237 9/20/2017 - PhotoTaken=0, notes "."

ID 204791, E298, F226, 8/28/2017 – notes: Added "feed" to additional behaviors

ID 215958, E880, F239, 9/26/2017 – notes: corrected frame numbers "229-246"

ID 215989, E907, F239, 9/26/2017 – notes: corrected frame numbers "247-258"

ID 158652, E285, F2, 7/21/2017 – notes: corrected frame numbers "119-126"

ID 158653, E286, F2, 7/21/2017 – notes: corrected frame numbers "1-118"; added "birds present"

ID 158890, E364, F2, 7/21/2017 – notes: corrected frame numbers "150-151"; added "original photos missing"

ID 163958, E95, F9, 8/5/2017 – notes: "S.Hanlan, frames 1-47, two calves later joined by adults, additional behavior for calves=SAG, tail slap"

ID 166447, E191, F14, 8/16/2017 – notes: "calf alone; overexposed photos taken and deleted (dial got bumped, L.Barry, frames 61-93)"

ID 166449, E193, F14, 8/16/2017 – notes: "overexposed photos taken and deleted (dial got bumped, L.Barry, frames 94-112)"

ID 184937, E269, F39, 10/5/2017 – notes: Added "mud on rostrum and skim feeding"

Aerial_Master_2015_2017_v16 Version History

Edits made by AAB

9 February 2018

ID 25565, E985, F244, 9/27/2015 – calfno 0, notes: “SH fr 1-17. Resighted 28Sep2015, F245 E964 & E979. C.George initially confirmed as calf by based on photos; subsequent analysis indicated probably not calf based on length (~8.8 m), likely yearling or <5 years old”

ID 26571, E964, F245, 9/28/2015 – calfno 0, notes: “MF fr 1-35; E979=repeat for a more accurate location. Bm resight of 27Sep2015, F244 E985. C.George initially confirmed as calf based on photos; subsequent analysis indicated probably not calf based on length (~8.8 m), likely yearling or <5 years old”

ID 26660, E979, F245, 9/28/2015 – calfno 0, notes = “MF fr 1-35; repeat of E964, more accurate location; Bm resight of 27Sep2015, FLT244 E985. C.George initially confirmed as calf based on photos; subsequent analysis indicated probably not calf based on length (~8.8 m), likely yearling or <5 years old”

ID 66762, E929, F43, 10/4/2015 – notes: “LB, fr 84-120. Resolved rake marks on right pec; fresh injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 21Jan2018”

ID 34901, E311, F257, 10/27/2015 – notes: “Corey Accardo fr 39-55. Poss. calf based on size, C.George 30Apr2017. Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 21Jan2018”

ID 104298, E390, F206, 7/13/2016 – notes: “Corey Accardo, frames 49-61. Resighted on beach 20160910 F236, E276; matched using lesions on jaw and aft of pec. Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 21Jan2018”

ID 133698, E328, F237, 9/11/2016 – notes: “Karen Vale, frames 263-287. Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 21Jan2018”

ID 135088, E688, F237, 9/11/2016 – notes: “Karen Vale, frames 294-319. Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 21Jan2018”

ID 216888, E204, F241, 9/30/2017 – notes: “SH, fr 1-30. C.George reviewed photo: small male, flipper size consistent with calf, poss. calf-of-the-year, skin dark, possibly a yearling (1.5 years old). Injuries consistent with KW predation, R.Stimmelmayer (NSB DWM), 29Jan2018”

ID 200331, E459, F219, 8/11/2017 – notes: “SH, fr 132-142, species chgd based on post-flight image review. Resighted 8/29/2017 F227 E386”

ID 200342, E468, F219, 8/11/2017 – notes: “SH, fr 143-150. Resighted 8/21/2017 F222 E439, 8/29/2017 F227 E395, & 9/13/2017 F234 E393”

ID 202360, E439, F222, 8/21/2017 – notes: “KV, fr 30-36. Resight of 8/11/2017 F219 E468, 8/29/2017 F227 E395, & 9/13/2017 F234 E393; sp ID based on two visible throat grooves”

ID 20588, E386, F227, 8/29/2017 – notes: “SH, fr 8-20; Resight of 8/11/2017 F219 E459”

ID 205899, E395, F227, 8/29/2017 – notes: “Resight of 8/11/2017 F219 E468, 8/21/2017 F222 E439, & 9/13/2017 F234 E393; no photos because this was known resight”

ID 210412, E393, F234, 9/13/2017 – notes: “Resight of 8/11/2017 F219 E468, 8/21/2017 F222 E439, & 8/29/2017 F227 E395; no photos because this was known resight”

ID 211497, E911, F235, 9/14/2017 – NoReacted 7

ID 226475, E531, F255, 10/25/2017 – Removed trailing space from Habitat: "broken floes ".

Aerial_Master_2015_2017_v15 Version History

Edits made by AAB

17 January 2018

Transect 113R, E256-392 bowhead and sup sightings only, F30, Date 9/14/2017 - Repeat=unknown (chgd from ".") for all bowhead and sup sightings. (Repeat was NOT changed for the polar bear or bearded seal because they were not sighting the 1st time down T113.)

ID 178664, E250, F30, Date 9/14/2017 - notes "T113R (E250-400) is a replicate survey of transect 113 flown N-S as an experiment to investigate the variability in sightings during replicate surveys. See additional note E251"

ID 178666, E251, F30, Date 9/14/2017 - notes "Sightings of bowheads and SUPs were marked as repeat=unknown due to the unique circumstance of surveying the same transect in a very short period of time"

ID 190692, E523, F205, Date 7/12/2017 – notes " V.Beaver frames 72-83; resight from 13Jul2016 F206 and 10Sep2016 F236, E526 of this flight is a repeat of this sighting; post-script: resighted on 26Jul2017 F212 E538"

ID 190695, E526, F205, Date 7/12/2017 – notes " V.Beaver frames 72-83; updated position to check against 2016's position; resight from 13Jul2016 F206 and 10Sep2016 F236, repeat of this flight E523, this lat/longtemp used for Level A; post-script: resighted on 26Jul2017 F212 E538"

ID 195345, E538, F212, Date 7/26/2017 - notes "Lisa Barry, frames 171-186; post script photo and location match to 12Jul2017 F205, E523 and E526"

Aerial_Master_2015_2017_v14

Edits made by AAB
13 December 2017

ID 177278 F29 E1253, 13 Sep 2017 - Calf_on_circle 15

ID 220772 F247 E500, 15 Oct 2017 - Calf_on_circle 22

ID 225696 F254 E645, 24 Oct 2017 - Calf_on_circle 6

Aerial_Master_2015_2017_v13_VH

Aerial_Master_2015_2017_v13

Edits made by AAB
13 December 2017

Updating these records per ALW's image QA/QC:

ID 212319 F236 E513, 19 Sep 2017 - Final_group 600, added to notes: "Final_group chgd during post-season image QA/QC"

ID 212320 F236 E514, 19 Sep 2017 - Final_group 500, added to notes: "Final_group chgd during post-season image QA/QC"

ID 212321 F236 E515, 19 Sep 2017 - Final_group 4,500, High_est. 6,000, added to notes: "Final_group and High_est. chgd during post-season image QA/QC"

ID 214538 F238 E479, 25 Sep 2017 - Final_group 4,300, Low_est 4,000, High_est. 6,000, added to notes: "Final_group, Low and High_est. chgd during post-season image QA/QC"

ID 218026 F243 E139, 7 Oct 2017 - High_est. 7,000, added to notes: "High_est. chgd during post-season image QA/QC"

ID 218028 F243 E140, 7 Oct 2017 - High_est. 2,000, added to notes: "High_est. chgd during post-season image QA/QC"

ID 221402 F248 E302, 16 Oct 2017 - Final_group 500, High_est. 900, added to notes: "Final_group and High_est. chgd during post-season image QA/QC"

ID 166065 F13 E548, 15 Aug 2017 - Final_group 15, Calfno 2, notes: "V. Beaver, frames 1-27, photographed north island only, 100% coverage of there; Final_group and Calfno chgd during photo QA/QC"

ID 177278 F29 E1253, 13 Sep 2017 - Final_group 74, High_est 81, Calfno 15, notes: "ALW, frames 82-159. rxn=walk (2 bears), look up (6 bears), stand (1 bear). photographed ~75% of island. add'l behavior=feed, swim, walk. Final_group, Highest, and Calfno chgd during photo QA/QC."

ID 184622 F38 E278, 1 Oct 2017 - notes: "rxn=1mom/1cub walking, 1mom/1cub running, 3 adults look up; K.Pagan, frames 1-160; FinalGrp=photo QA/QC (18 bears) and 5 bears sighted in flight not photo'ed; whole island not covered, camera didn't fire due to darkness"

ID 220772 F247 E500, 15 Oct 2017 - Final_group 72, High_est 75, Calfno 22, notes: "Marjorie Foster, frames 31-115, 90% isl. covered. rxn=look. Addt'l behaviors=mill, run (play not rxn per img review), swim. Final_group, High_est., and Calfno chgd during photo QA/QC. Final_group includes 1 unphotographed bear noted aloft"

ID 225696 F254 E645, 24 Oct 2017 - Final_group 16, Calfno 6, High_est 20, notes: "rxn=run then walk, Suzie Hanlan, frames 57-178, photographed 90% of the island; Final_group, High_est, and Calfno chgd during photo QA/QC"

Aerial_Master_2015_2017_v12_VH

Aerial_Master_2015_2017_v12

Edits made by AAB
11 December 2017

ID 218960 F243 E981 (7Oct2017) - Behavior SAG
ID 218963 F243 E984 (7Oct2017) - Behavior SAG

Aerial_Master_2015_2017_v11_VH

Aerial_Master_2015_2017_v11

Edits made by AAB
4 December 2017

Renamed file with 2017 in name, but continued on with version history numbering so all changes to 2015 and 2016 master data are included.

SummaryInfo table:

Deleted fields:

Bowhead_Calves

Bowhead_Calves_On_Transect

Renamed fields:

from Bowhead_Cow_calf_Pairs to Bowhead_Calves

from Bowhead_Cow_calf_Pairs_on_Transect to Bowhead_Calves_On_Transect

Appended 2017 data (All_Flights, FlightInfo, and SummaryInfo tables) from FlightsConcatenated_ASAMM2017_v2.mdb to this version (Aerial_Master_2015_2017_v11).

Aerial_Master_2015_2016_v10

Edits made by AAB
24 October 2017

ID35134 FLT257 E544 (10/27/2015) - Behavior run (removed trailing space)

ID34901 FLT257 E311 (10/27/2015) - notes "Corey Accardo 39-55; possible calf based on size per conversation with A.Brower and C.George Apr 30, 2017"

Changed Transect_id to 112 (from 120):

| ID | Event | Flt_No | GMT_Minus8_DateTime |
|-------|-------|--------|---------------------|
| 92789 | 1215 | 14 | 8/7/2016 6:55:42 PM |
| 92792 | 1218 | 14 | 8/7/2016 6:56:28 PM |
| 92801 | 1227 | 14 | 8/7/2016 7:00:28 PM |
| 92804 | 1230 | 14 | 8/7/2016 7:01:26 PM |
| 92821 | 1247 | 14 | 8/7/2016 7:07:42 PM |
| 92836 | 1262 | 14 | 8/7/2016 7:13:18 PM |
| 93353 | 1273 | 14 | 8/7/2016 7:18:18 PM |
| 93369 | 1289 | 14 | 8/7/2016 7:24:09 PM |
| 93384 | 1304 | 14 | 8/7/2016 7:30:16 PM |
| 93402 | 1322 | 14 | 8/7/2016 7:36:58 PM |
| 93415 | 1335 | 14 | 8/7/2016 7:42:15 PM |

Aerial_Master_2015_2016_v09

Edits made by AAB
30 March 2017

Changed table "All_Flights" name to "Output".

ID 16209 F234 E477 - VisImpRight changed to "none"

ID 25565 F244 E985 - Calfno 1, notes "SH: fr 0001-017. Resighted on 28 Sep 2015, FLT245 E964 and E979. Confirmed as a calf by C.George based on photos."

ID 26571 F245 E964, ID 26660 F245 E979 - Calfno 1, added to notes: "Confirmed as a calf by C.George based on photos."

ID 66303 F43 E419 - added to notes "Confirmed via photos to be struck and lost whale from several days prior."

Changed Seastate to "BO glassy, <1 kt":

ID 34224 F256 E173

ID 34226 F256 E175

ID 34228 F256 E177

ID 34421 F256 E312

ID 34422 F256 E313

ID 34424 F256 E315

ID 150639 F256 E274

ID 150642 F256 E277

ID 152568 F259 E413

ID 152574, F259 E419

ID 101202 F202 E426 - added to notes: "Post-field photo analysis showed open mouths indicating possible skim feeding on the 3 adults."

Aerial_Master_2015_2016_v08

Edits made by AAB
17 February 2017

ID3441 F218 E94 - Swimdir ".", Swimdir_True "-1"
ID4364 F218 E941 - Swimdir ".", Swimdir_True "-1"
ID73400 F208 E316 - Swimdir ".", Swimdir_True "-1"
ID96819 F20 E376 - Swimdir ".", Swimdir_True "-1"
ID98214 F21 E991 - Swimdir ".", Swimdir_True "-1"
ID98712 F22 E458 - Swimdir ".", Swimdir_True "-1"

ID97818 F21 E634 - notes "Marjorie Foster, frames 19-60; collared polar bear A img. 29-31, possible collared polar bear B img. 53-55"

ID134823 F39 E78 - notes "rxn=look up, S.Hanlan, frames 2-66, some bears milling; Final_group updated from post-flight photo processing; possible collared polar bear img. 0040, 0042, larger of the two resting on beach (lower right)"

Calf_on_Circle value changed to "1":

| ID | Event | Flt_No |
|--------|-------|--------|
| 68747 | 271 | 201 |
| 73316 | 189 | 208 |
| 73480 | 319 | 208 |
| 75438 | 109 | 212 |
| 75443 | 114 | 212 |
| 75610 | 300 | 212 |
| 52415 | 375 | 29 |
| 66607 | 735 | 43 |
| 101210 | 433 | 202 |
| 101232 | 454 | 202 |
| 112960 | 540 | 219 |
| 112971 | 559 | 219 |
| 112994 | 600 | 219 |
| 113090 | 643 | 219 |

Calf_on_Circle value changed to "2":

| ID | Event | Flt_No |
|--------|-------|--------|
| 75441 | 112 | 212 |
| 14218 | 397 | 232 |
| 114166 | 261 | 220 |

Aerial_Master_2015_2016_v07_VH

Aerial_Master_2015_2016_v07

Edits made by AAB
10 January 2017

ID114228 F220 E388 - notes "V. Beaver photographer; Frames 173-178 and 190-204; in the lagoon (Peard Bay) a little further from Point Franklin"

ID114234 F220 E394 - notes "V. Beaver photographer frames 179-189 and frame 205 (wide shot); in the lagoon (Peard Bay) near Point Franklin"

ID140871 F242 E383 - notes "post-script: carcass was resighted on FLT243 E651, 20 Sep 2016"

ID118553 F226 E667 - notes "VB frames 64-71; moderately decomposed, birds nearby; spotted after ending transect and going on deadhead; post-script: resighted on 8/24 (F227 E405) and 9/6 (F235 E315)"

ID118932 F227 E405 - notes "HF frames 82-99; people on ATV nearby; 18 km WSW Pt Franklin; repeat from 8/23 (F226 E667) and 9/6 (F235 E315)"

ID141282 F243 E112 - Behavior hunt

ID110021 F215 E123, ID110023 F215 E125 - notes "CA, frames 93-132", PhotoTaken 1

ID114175 F220 E280 - Final_group 10, Low_estimate 9, High_estimate 11, Calfno 2, Calf_on_circle 2, notes "V. Beaver photogapher; Frames 126-150. Photo analysis resulted in FinalGrp, LowEst, HighEst, Calfno, and CalfonCircle change."

ID118125 F226 E246 - Final_group 6, notes "VB frames 1-47. Photo analysis resulted in Final_group change"

ID119205 F228 E156 - notes "VB frames 123-125", PhotoTaken 1

ID119214 F228 E163 - notes "VB frames 126-137"

ID121963 F232 E342 - Calfno 1, Calf_on_Circle 1, notes "VB frames 42-55"

ID130391 F236 E221 - notes ".", PhotoTaken 0

ID130292 F236 E222 - notes "Vicki Beaver, frames 7-21, 1 of 2 whales"

ID130393 F236 E223 - Final_group 2

Aerial_Master_2015_2016_v06_VH

Aerial_Master_2015_2016_v06

Edits made by AAB
9 December 2016

(This database formerly had only 2015 data and was named "Aerial_Master_2015_v05".)

"Aerial_Master_2016_v03":

*All_Flights table, added fields: "Lat", "Long", "UTMZ6X", "UTMZ6Y". Renamed "Group_" field to "Group".

*SummaryInfo table, added fields: "ConnectMin", "ConnectKilo", "Trans_ConMin", "Trans_ConKilo", "RefuelMin", "RefuelSubtFromTotal&DeadMin".

"Aerial_Master_2015_v05":

*FlightInfo table, added field: "FileDirectory".

*lut_Observer table, added Jessica Taylor.

*lut_Pilot table, added Senecio Amboni Jr.

*lut_TeamLeader table, added Cynthia Christman.

Appended 2016 data (All_Flights, FlightInfo, and SummaryInfo tables) from database "Aerial_Master_2016_v03" to "Aerial_Master_2015_v05".

Renamed "Aerial_Master_2015_v05" to "Aerial_Master_2015_2016_v06". Kept the running version number so that all edits made to the database, regardless of whether it was when only 2015 data were included, could be tracked with the version number.

Aerial_Master_2015_v05_VH

All_Flights table:

Renamed Size field from "Size_" to "Size".

FLT33 E108 - PrimObs 1.

All records with Habitat "sm broken floes" changed to "broken floes" (n=48): FLT256 E173, E175, E177, E186, E312, E313, E315; FLT259 E87, E543, E544, E546, E547, E550, E551, E553, E555; FLT260 E50, E51, E53, E54, E56, E259, E266, E343, E345, E349, E408, E431, E440, E446, E448, E450, E452, E453, E454, E459, E460, E463, E469, E483, E484, E485, E487, E488, E490, E491, E492, E498.

SummaryInfo table:

Added fields to match 1979-2011 and 2012-2014 databases:

Moved ObjectID field to the end.

Added fields: Bowhead_Calves, Bowhead_Calves_On_Transect, ConnectMin, ConnectKilo, Trans_ConMin, Trans_ConKilo, RefuelMin, and RefuelSubtFromTotal & DeadMin.

Aerial_Master_2015_v04_VH

All_Flights table:

In Design View, added descriptions to field names, taken from Aerial_Master_2012_2014_v0_12.

Changed Aerial_Survey field from "COMIDA" and "BWASP" back to "NMML_Cmdr" (This field had already been changed, but was reverted to original entries during post-season final resummari zati on.)

Added fields: Lat, Long, UTMZ6X, UTMZ6Y

FLT256 E173, 175, 177, 312, 313, 315 - Ice percent 99

FLT1 E530 - notes "HJF, frames 0003-22"

FLT1 E588 - notes "ice photo, AAB, frames 0025-27, bearing 130"

FLT3 E70 - notes "ice photo, AAB, frames 0001-2 (bearing 350)-0003 (bearing 295)"

FLT6 E254 - notes "L.Crowe frames 0005-9"

FLT12 E582 - notes "JTC, frames 0009-10, bearing 010, ice photos for Norseman and ice list"

FLT30 E735 - Final_group 20, Low_estimate -1, High_estimate 22, Cal fno 2, Cal f_on_circle 2, Response yes, NoReacted 9, added to notes: "rxn = 7 looked up, 1 sat up, 1 stood up (all adults)."

FLT33 E275, E282, E295 - changed "292" in notes to "295"

FLT33 E608 - notes "LB, frames 0052-109"

FLT41 E74 - notes "LB, frames 0015-17 and 0020-21, calf not photographed, mud on head and back"

FLT204 E216 - notes "AW fr 34-43"

FLT205 E660 - notes ". ", PhotoTaken 0

FLT211 E332 - added to notes: "post-flight photo review sighted 6 sups in associati on wi th these belugas."

FLT212 E300 - notes "fr 55-66, VB. Additi onal behavi or: defecati on and probabl e nurse."

FLT219 E321 - notes "CLC, fr 1-11 slick and birds"

FLT223 E384 - notes "CLC, frames 7-24. killer whale raking visible on forward body (possibly lower mandible and rostrum); pec flipper is missing."

FLT244 E985 - notes "SH: fr 0001-017. Resighted on 28 Sep 2015 FLT245 E964."

FLT245 E964, E979 - added to notes: "Resighted from 27Sep015 FLT244 E985."

FLT254 E57 - added to notes: "BKR"

FLT256 E149 - notes "ice, fr 26-31, bearing 070, BR"

FLT212 E576, E615 - Behavi or hauled out

FLT14 E367 - Behavior other

FLT204 E373 - Habitat broken floes

Aerial_Master_2015_v01_VH

Changes made to "ASAMM_2015_summarized" (This was the data received back from Mike with the final 2015 resummari zation and Depth and Distance from Shore fields popul ated.)

Renamed to Aerial_Master_2015_v01

FLT38 E459 - Behavior swim
FLT240 E152, FLT221 E322 - Swi mdir ".", Swi mdir_True "-1"
FLT21 E724 - Skycon "NA" (removed empty space from "NA ")
FLT17 E244 - NoReacted 0, notes "unk rxn = 2 animal s dove"
FLT21 E448 - NoReacted 0, notes "unk rxn = 1 animal dove"
FLT21 E920 - NoReacted 0, notes "unk rxn = 1 animal dove"
FLT24 E612 - NoReacted 0, notes "unk rxn = 2 animal s dove"
FLT24 E640 - NoReacted 0, notes "unk rxn = 1 animal dove"
FLT24 E765 - NoReacted 0, notes "unk rxn = 2 animal s dove"
FLT33 E738 - NoReacted 0, notes "unk rxn 6 animal s"
FLT231 E447 - NoReacted 0, notes "12 animal s dove"
FLT245 E792 - NoReacted 0, notes "2 animal s startl ed"

Added FlightInfo, Lut_Observer, Lut_Pilot, Lut_TeamLeader tables from
\\nmfs\akc-nmml\CAEP\Bowhead\MMS BWASP & COMIDA\Data\ARCHIVE\Post-Season Data
Processing\2015_DataEditi ng\All 2015 appended\ASAMM_2015.mdb