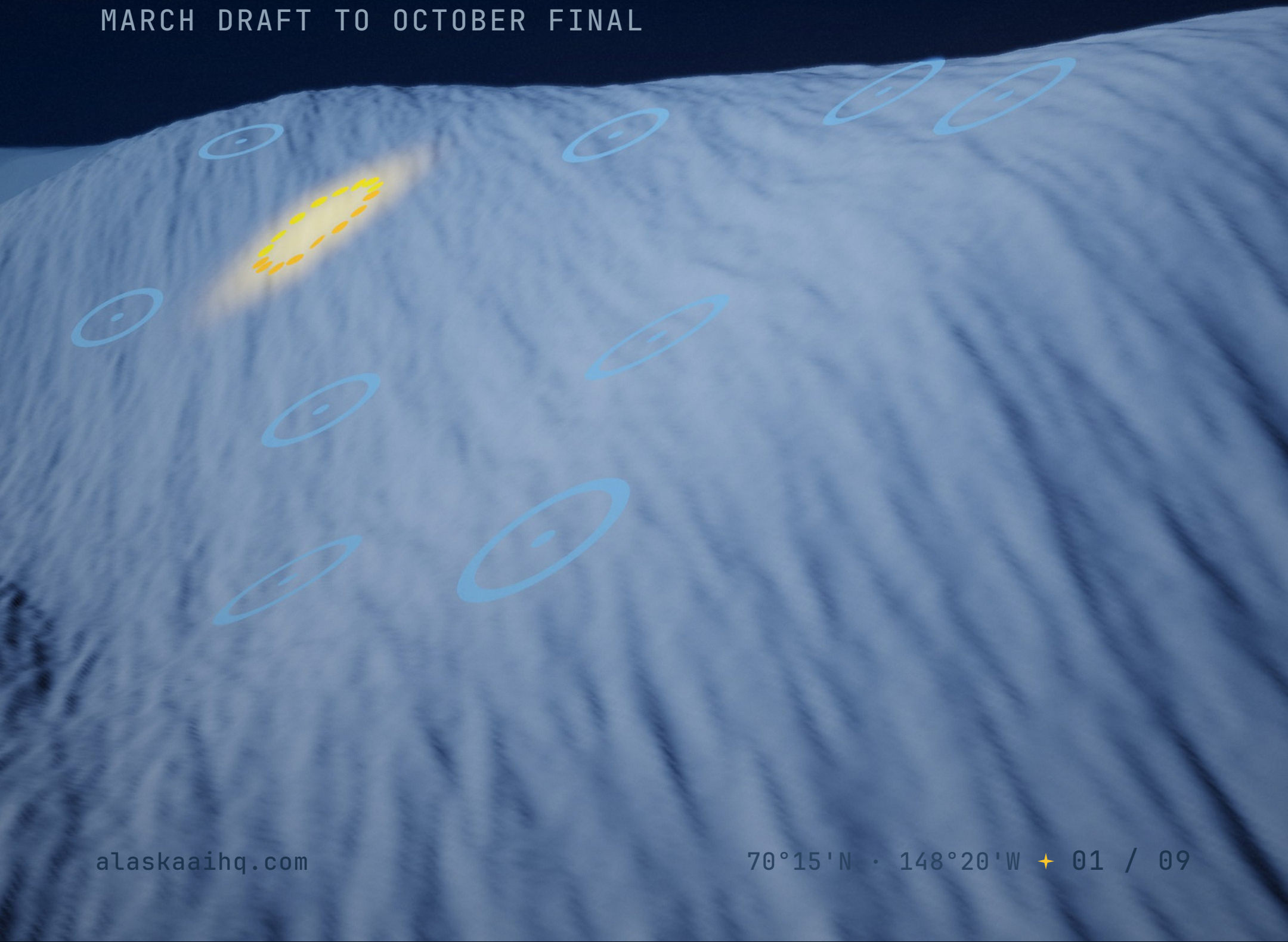


FWS DEN MODEL, FIVE-YEAR ESTIMATE

One line of code. Harassed denning bears went 6 to 22.

MARCH DRAFT TO OCTOBER FINAL



THE FIX, IN FWS'S OWN WORDS

It counted only the dens marked undisturbed.

MARCH DRAFT

"count all the dens specifically marked undisturbed"

OCTOBER FINAL

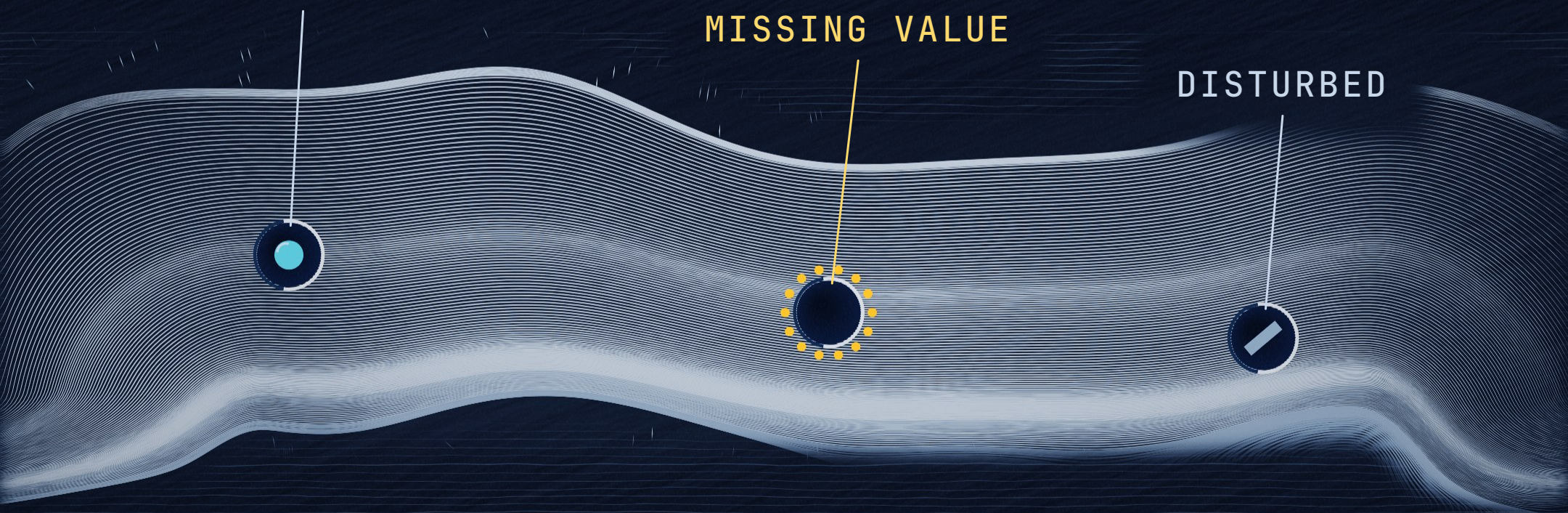
"count all dens except for those that were marked disturbed"

A den with a missing value matched neither, so the old line skipped it. The new one counts it.

UNDISTURBED

MISSING VALUE

DISTURBED



THE DENS THE OLD LINE SKIPPED

Quiet all winter. Disturbed after emergence.

The faulty output gave them 0 percent take. Fixed, each carries a 28 percent chance of Level B harassment for the sow and 72 percent of Level A for the cubs.

CUBS, LEVEL A
72 PERCENT

BEFORE THE FIX
0 PERCENT

SOW, LEVEL B
28 PERCENT

10,000 RUNS

FWS's den take figures come from a simulation run 10,000 times.

About 6.5 dens a year sit within a mile of the work, the same in March and October.

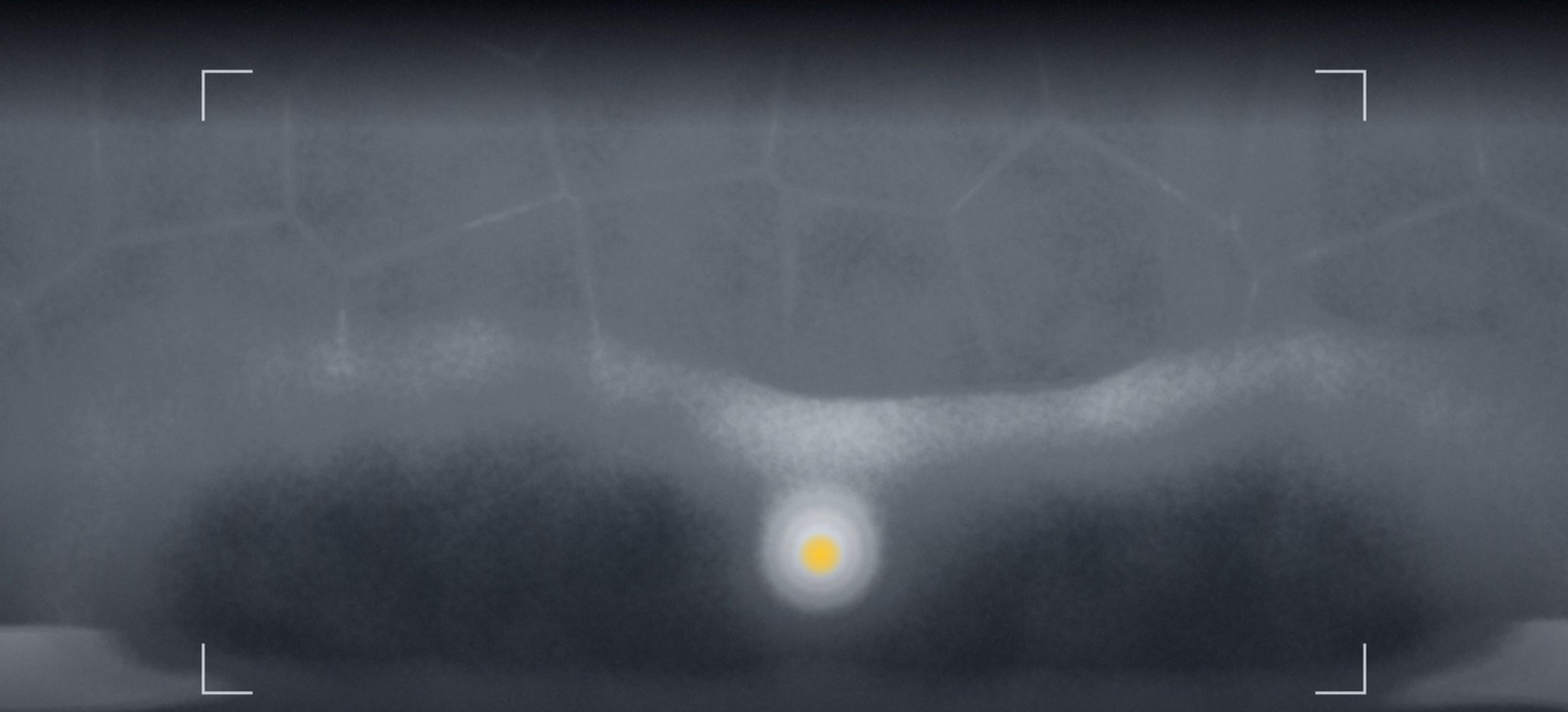
ONE STREAK PER RUN

To the eye,
a den is one more drift.

AERIAL INFRARED, THE RULE'S DEN SURVEY

From the air, the survey looks for heat.

Cameras on fixed-wing aircraft read a denning female's body heat through the snow, four times likelier to find a den than infrared from the ground, FWS says.



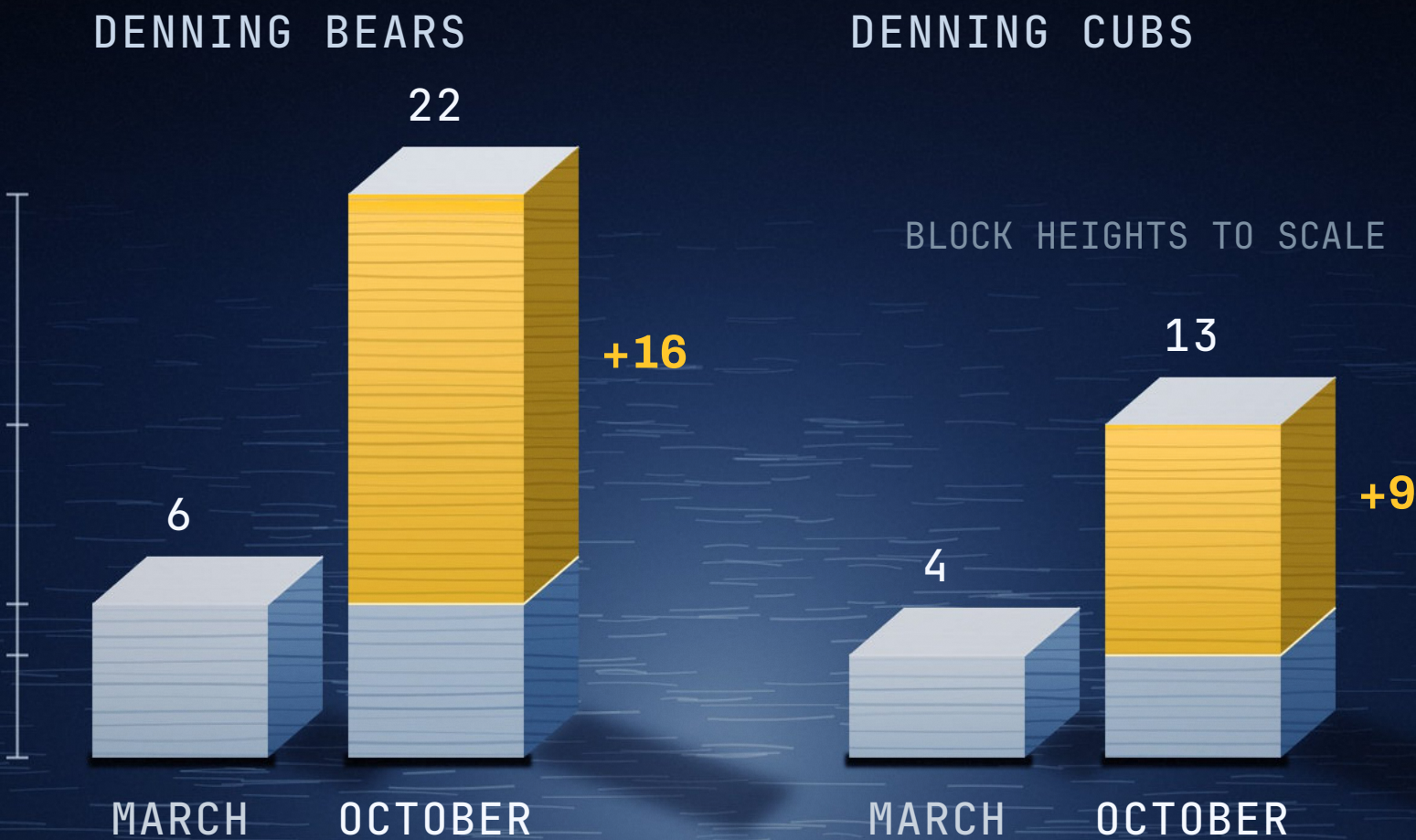
WITHIN 1 MILE OF WINTER WORK
FIRST SURVEY, NOVEMBER 25TH TO DECEMBER 25TH
SECOND, DECEMBER 15TH TO JANUARY 15TH
A THIRD SURVEY WAS DROPPED AS NOT PRACTICABLE

THE MODEL'S ESTIMATES, MARCH 9TH AND OCTOBER 19TH

What the fixes changed, and what they didn't.

	MARCH	OCTOBER
Denning bears, Level B	6	22
Denning cubs, Level A	4	13
Dens a year near the work	6.5	6.5
All Level B takes	422	432

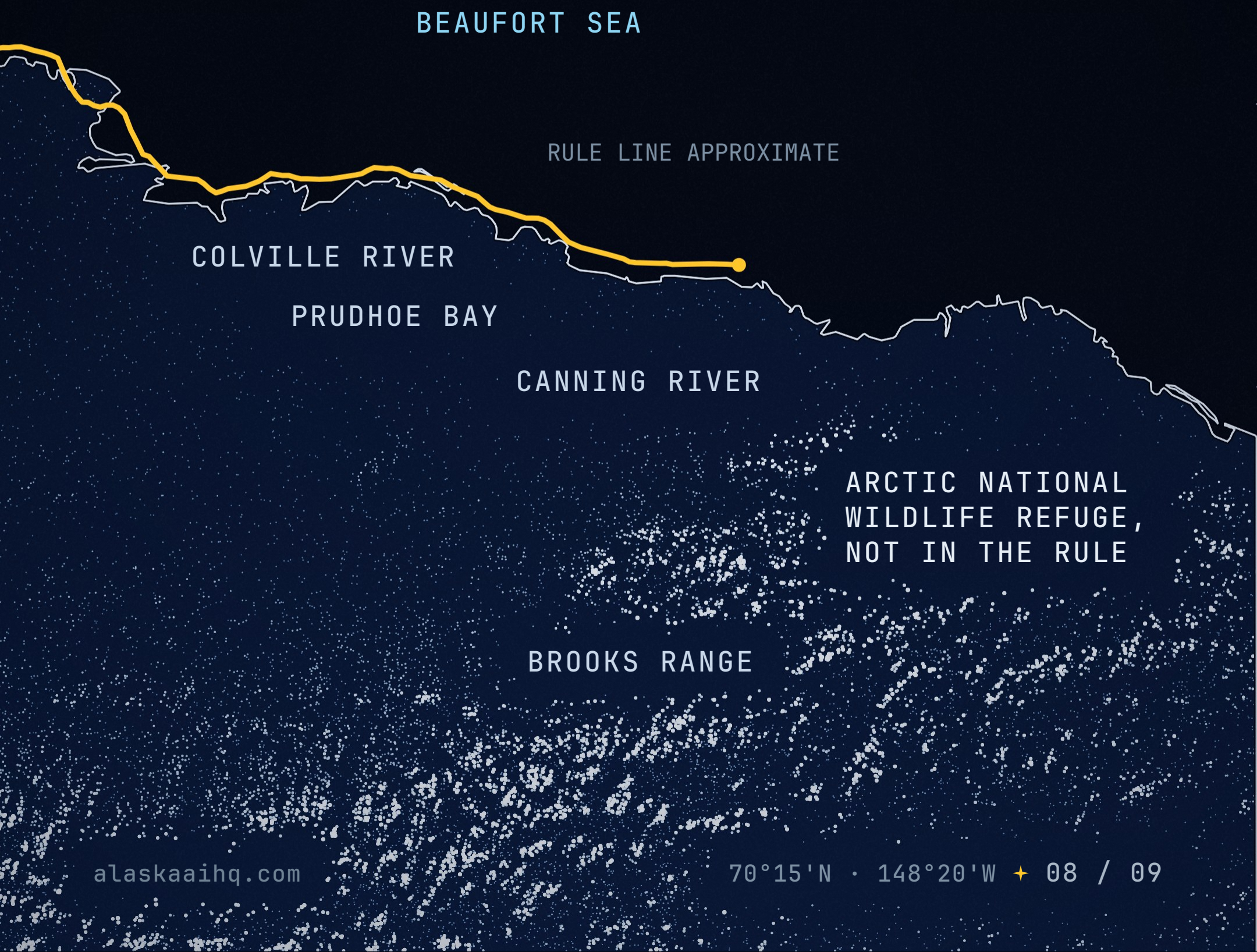
Vessel takes fell 16 to 10 in a separate fix to routes counted twice.
Industry's own estimate is 123 bears, Level B only.



THE RULE'S COAST, THROUGH OCTOBER 19TH, 2031

Fixed, then weighed no higher than industry's estimate.

FWS concedes the model's figures significantly exceed historical data and AOGA's. AOGA and one other commenter call it seriously flawed and not validated. FWS says the code and inputs are public.



FWS says the code is public. Should the model count for more?

The first den survey window opens November 25th.

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