BOARD OF GAME
FINDINGS ON UNIT 13 MOOSE SEASON AND BAG LIMITS
ADOPTED JUNE 23, 1992

The Board of Game has considered the establishment of a 1992 season and bag limit for moose in Game Management Unit 13, which comprises generally that area east and south of the Alaska Range, north of the Talkeetna Mountains and west of the Wrangell Mountains, in the Copper River and Susitna River drainages.

The Board referred consideration of the season and bag limit for moose in Unit 13 to itself as a quasi committee of-the-whole. The actions and report of the quasi committee of-the-whole are part of the official record of the proceedings of this board and are an integral part of the board’s deliberations. The record of the board proceedings is incorporated herein, inclusive of all staff reports, documents, public comments and board deliberations.

There are two primary components in determining reasonable opportunity: (1) the opportunity to participate in a hunt, and (2) the opportunity to kill an animal during a hunt. The "opportunity to participate" in a hunt is a function of the number of hunters allowed to hunt and of the percentage of interested hunters allowed to hunt. The "opportunity to kill" during a hunt is a function of the percentage of hunter success on the area’s game population, the duration of successful hunts (mean days to kill and the time to achieve a percentage of the kill), as well as the duration of unsuccessful hunts. The latter function is important for determining the period of time before which a hunter loses interest and ceases to use additional opportunity.

Both primary components are important in determining reasonable opportunity. For example, if there are 300 hunter days of hunting opportunity available, using only opportunity to kill could result in one person being given 300 days to hunt. Using opportunity to participate only could lead to 300 people hunting for one day. The Board must strike a balance between the two components and focus on the range of numbers of hunters and length of season that will achieve a reasonable expectation of success for participants.

In determining reasonable opportunity for subsistence use, the board took the following factors into consideration:

the traditional seasons of different use groups; transportation and access, methods and means, competition created by number of participants; hunter success rates; prey population cycle; the customary and traditional level of use; traditional season times and lengths including opportunity to participate within a season.
The Board recognizes there are other considerations as well. Hunters like the freedom to select the time to hunt, they like to have a "quality" hunt, and there is interest expressed in selecting the sex, age or size of the animal. Information provided by the Alaska Department of Fish and Game (department) staff indicates the relative importance of the primary components. For example, during the 1990 Nelchina (Unit 13) registration hunt for caribou (a three day registration hunt) many people were willing to compromise flexibility and "quality" in order to get the opportunity to hunt.

Based on information provided by the department and written public comment, the Board makes the following findings under the 1986 subsistence law - AS 16.05.258:

1. The Board reaffirms the previous findings of customary and traditional use of moose in Game Management Unit 13 as found by the Board in 1983 and again in 1986.

2. The Board accepts the department recommendation that 600 bull moose (based on harvest range of 500 to 700) are available as a harvestable surplus consistent with the sustained yield principle mandated by the Alaska Constitution. Based on the current department estimate, the moose population in Unit 13 ranges between 19,000 and 21,000.

3. The Board determined there are approximately 3000 subsistence users who hunt in Unit 13. Approximately 600 of these hunters are local residents of Unit 13.

Although the Board reviewed harvest data for the past 20 years the board determined that data for the past 12 years was more reliable due to improved data gathering techniques and more relevant due to changing human demographics, access to the hunt area and moose abundance and distribution. Based on this 12 year data (1980 - 1991), there was an average of 3400 Alaska residents hunting moose in Unit 13. This 12 year average included five years when the moose population was at a recent high. During the last two years, when the moose population declined significantly due to weather and wolf predation and the season length was reduced, the average number of hunters was 2844. Considering the range of numbers, the Board decided 3000 was the number of subsistence users who would hunt moose in Unit 13 in 1992.

4. Working under the all Alaskans policy which states that all Alaska residents are eligible to be subsistence users, the Board determined that all 600 harvestable moose were needed to provide a "reasonable opportunity" for subsistence uses.

This number was reached by looking at historical statistics on the number of moose harvested and the number of hunters
participating. Once again the board reviewed harvest data for the past 20 years, however again focused on the last 12 years for the same reasons cited in number 3 above. The success rate of Unit 13 resident subsistence moose hunters ranged from 19 percent to 28 percent with a median of 22 percent. Success rates for non-local hunters ranged from 19.5 percent to 28 percent, virtually the same as for local hunters. A harvest of 600 moose by approximately 3000 hunters yields a success rate of 20 percent, which is within the recent historical range.

5. The Board determined that there was no harvestable surplus of moose available for non subsistence uses.

See no. 4 above.

6. Based on the foregoing findings and considerations, the Board hereby adopts a regulation to allow moose hunting in Unit 13 during an open season of September 1-14 with a bag limit of one bull moose per household and the same antler restrictions that were in place in 1991-92. The use by hunters of all motorized vehicles, except boats, is prohibited from September 1-7 except on borough- or state-maintained roads or highways.

The majority of the board felt that the seven day season established for 1991 provided reasonable opportunity based on harvest information and success rates presented by the department. (Attached and incorporated herein to these findings are two tables showing average number of days hunted by local Unit 13 residents and non-local residents. In 1991 the averages were 6.5 days and 4.3 days.) By establishing a 14 day season with restrictions, the board extended the window of opportunity to hunt by seven days, including two full weekends. This seven day extension gives access to the greatest number of subsistence hunters while still addressing conservation of the moose resource. By restricting the use of ORVs and aircraft during the first seven days, it will improve the quality of the hunt of those in the field but will not be detrimental to local subsistence hunters who traditionally use highway vehicles as their mode of transportation for hunting. In addition, a week of hunting opportunity for aircraft and ORV hunters is still provided during the second half of the season.

The board determined that one moose per household is consistent with use patterns and had previously been recommended by Ahtna Corporation and several local advisory committees in proposals to the board. Based on information provided by the department at this meeting, a one moose per household bag limit would satisfy the vast majority of the subsistence users.
The board took into consideration the federal subsistence season on federal land in Unit 13 which is open only to federally qualified subsistence hunters who reside in Unit 13. The federal season is open for 27 days, from August 25 to September 20. The federal season will open seven days before the state hunt, will be open during the state hunt and for six days following the state hunt.

Attached and incorporated herein is the new regulation for Unit 13.

Dated: June 29 1992
Fairbanks, Alaska

Richard Burley, Chair
Alaska Board of Game
Note to Publisher: When a subsection, paragraph, subparagraph, etc. is indicated by the appropriate number or letter and no text follows that symbol, then the omitted text is the same as that set out in the previous register containing the section. Amended text to be added is underlined. Amended text to be deleted is capitalized and enclosed in brackets.

EMERGENCY REGULATIONS

Register 1992 FISH AND GAME

PART 3. GAME

CHAPTER 85. HUNTING SEASONS AND BAG LIMITS

Article 2. Seasons and Bag Limits

5 AAC 85.045(a)(11) is amended to read:

5 AAC 85.045. HUNTING SEASONS AND BAG LIMITS FOR MOOSE. (a).

Resident

Open Season

(Subsistence and Nonresident

Units and Bag Limits General Hunts) Open Season

(11)
Register, 1992

FISH AND GAME


- northwest of Black River
  - 1 bull with spike-fork
  - or 50-inch antlers per household; the use of any motorized vehicle, including aircraft but excepting boats.
  - for hunting moose or for access to hunt moose
  - from Sept. 1--Sept. 7 is prohibited, including transportation of moose hunters or parts of moose; however, this does not apply to a motorized vehicle on a State or borough-maintained highway/road


- west of the Lake Louise road, Lake Louise, Lake Susitna, Tyeone River, and southeast of Black River
  - 1 bull with spike-fork antlers per household:
the use of any motorized
vehicle, including air-
craft but excepting boats,
for hunting moose or for
access to hunt moose from
Sept. 1--Sept. 7 is pro-
hibited, including trans-
portation of moose hunters
or parts of moose; however,
this does not apply to a
motorized vehicle on a
State or borough-maintained
highway/road


1 bull with 36-inch
antlers per household;
the use of any motorized
vehicle, including air-
craft but excepting
boats, for hunting moose
or for access to hunt
moose from Sept. 1--
Sept. 7 is prohibited,
including transportation
EMERGENCY REGULATIONS

Register, 1992 FISH AND GAME

of moose hunters or
parts of moose; however,
this does not apply to
a motorized vehicle on
a State or borough-maintained highway/road

(Eff. 8/20/89, Register 111; am 12/30/89, Register 112; am
8/9/90, Register 115; am 12/27/90, Register 116; am 6/16/91,
Register 118; am 8/10/91, Register 119; am 1/7/92, Register 122;
em am / /92-- / /92, Register )
Average Number of Days Hunted: Successful, Unsuccessful, All Hunters, Moose General (Sport) Hunts, Unit 13.

<table>
<thead>
<tr>
<th>Year</th>
<th>Successful Hunters</th>
<th>Unsuccessful Hunters</th>
<th>Total Days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. hunters</td>
<td>Total # days</td>
<td>Ave. # days</td>
</tr>
<tr>
<td>1981</td>
<td>767</td>
<td>4382</td>
<td>5.7</td>
</tr>
<tr>
<td>1982</td>
<td>611</td>
<td>3440</td>
<td>5.6</td>
</tr>
<tr>
<td>1983</td>
<td>862</td>
<td>5854</td>
<td>6.7</td>
</tr>
<tr>
<td>1984</td>
<td>810</td>
<td>4843</td>
<td>5.9</td>
</tr>
<tr>
<td>1985</td>
<td>787</td>
<td>4835</td>
<td>6.1</td>
</tr>
<tr>
<td>1986</td>
<td>947</td>
<td>5651</td>
<td>5.9</td>
</tr>
<tr>
<td>1987</td>
<td>764</td>
<td>4959</td>
<td>6.4</td>
</tr>
<tr>
<td>1988</td>
<td>950</td>
<td>5745</td>
<td>6.0</td>
</tr>
<tr>
<td>1989</td>
<td>876</td>
<td>5256</td>
<td>6.0</td>
</tr>
<tr>
<td>1990</td>
<td>378</td>
<td>1489</td>
<td>3.9</td>
</tr>
<tr>
<td>1991</td>
<td>577</td>
<td>2522</td>
<td>4.3</td>
</tr>
</tbody>
</table>
### Average Number of Days Hunted: Successful, Unsuccessful, All Hunters, Moose Subsistence Hunts, Unit 13.

<table>
<thead>
<tr>
<th>Year</th>
<th>Successful Hunters</th>
<th></th>
<th></th>
<th>Unsuccessful Hunters</th>
<th></th>
<th></th>
<th>Total Days</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. hunters</td>
<td>Total # days</td>
<td>Ave. # days</td>
<td>Total # days</td>
<td>Ave. # days</td>
<td>No. hunters</td>
<td>Total # days</td>
<td>Ave. # days</td>
</tr>
<tr>
<td>1983&lt;sup&gt;a&lt;/sup&gt;</td>
<td>32</td>
<td>140</td>
<td>4.4</td>
<td>46</td>
<td>371</td>
<td>8.1</td>
<td>78</td>
<td>511</td>
</tr>
<tr>
<td>1984&lt;sup&gt;a&lt;/sup&gt;</td>
<td>19</td>
<td>150</td>
<td>7.9</td>
<td>53</td>
<td>426</td>
<td>8.0</td>
<td>72</td>
<td>576</td>
</tr>
<tr>
<td>1985&lt;sup&gt;b&lt;/sup&gt;</td>
<td>31</td>
<td>254</td>
<td>8.1</td>
<td>118</td>
<td>873</td>
<td>7.4</td>
<td>149</td>
<td>1127</td>
</tr>
<tr>
<td>1986&lt;sup&gt;c&lt;/sup&gt;</td>
<td>174</td>
<td>929</td>
<td>5.3</td>
<td>596</td>
<td>4659</td>
<td>7.8</td>
<td>770</td>
<td>5588</td>
</tr>
<tr>
<td>1987&lt;sup&gt;c&lt;/sup&gt;</td>
<td>152</td>
<td>772</td>
<td>5.0</td>
<td>371</td>
<td>3050</td>
<td>8.2</td>
<td>523</td>
<td>3822</td>
</tr>
<tr>
<td>1988&lt;sup&gt;c&lt;/sup&gt;</td>
<td>191</td>
<td>939</td>
<td>4.9</td>
<td>371</td>
<td>2719</td>
<td>7.3</td>
<td>562</td>
<td>3658</td>
</tr>
<tr>
<td>1989&lt;sup&gt;c&lt;/sup&gt;</td>
<td>212</td>
<td>928</td>
<td>4.3</td>
<td>386</td>
<td>2888</td>
<td>7.5</td>
<td>598</td>
<td>3816</td>
</tr>
<tr>
<td>1990&lt;sup&gt;b+d&lt;/sup&gt;</td>
<td>149</td>
<td>452</td>
<td>6.4</td>
<td>231</td>
<td>1470</td>
<td>6.4</td>
<td>301</td>
<td>1922</td>
</tr>
<tr>
<td>1991&lt;sup&gt;d&lt;/sup&gt;</td>
<td>99</td>
<td>651</td>
<td>6.5</td>
<td>413</td>
<td>3570</td>
<td>8.6</td>
<td>512</td>
<td>4221</td>
</tr>
</tbody>
</table>

---

<sup>a</sup> Drawing permit hunt.
<sup>b</sup> Tier II permit hunt.
<sup>c</sup> Registration permit hunt.
<sup>d</sup> Federal subsistence hunt.