



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WINNEMUCCA DISTRICT OFFICE
705 EAST 4TH STREET
WINNEMUCCA, NEVADA 89445



IN REPLY REFER TO:

4700
(NV-023.4)

APR 22 1991

Commission for the Preservation of
Wild Horses
Ms. Cathy Barcomb
Stewart Facility, Capitol Complex
Carson City, NV 89710

Dear Ms Barcomb:

The Winnemucca District recently completed a series of flights on sixteen (16) Herd Management Area's and one (1) Herd Use Area for the purpose of collecting data on the seasonal distribution of animals. I have enclosed copies of the specialists memorandum's summarizing the results of their observations.

I hope you will find this information useful. If you would like copies of the maps depicting the location of the animals observed during the flights, please contact this office.

Sincerely yours,

Acting *Robert J. Neary*
District Manager

Enclosures:

1. Memorandums (5)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:
4700 (NV-026.81)

Memorandum

To: Area Manager, Sonoma-Gerlach Resource Area

From: Kathy McKinstry, Range Technician

Subject: January-February 1991 Wild Horse and Burro Distribution Flight

Beginning on January 28 and continuing through February 4, 1991, aerial observations were made on twelve Herd Management Areas (HMA's) and one Herd Area (HA). Four HMA's in the Paradise-Denio Resource Area were also flown; see the memo by C. Mayer for information on those areas. The purpose of the aerial observations was not to get a precise animal count but rather to locate animals and develop a seasonal distribution map. The HMA's and HA were observed in the following order:

Jan. 28	Fox and Lake; Lone Juniper Pasture a.m./Buffalo Hills p.m.
Jan. 29	Granite Range a.m./Calico Mountains p.m.
Jan. 30	Warm Springs Canyon; Black Rock East-West(northern portion)a.m./Black Rock East-West(southern portion); Jackson Mountains(northern portion)p.m.
Jan. 31	Little Owyhee a.m./Snowstorm Mountains p.m.
Feb. 1	Bluewing-Shawave-Nightingale Mountains a.m./Jackson Mountains(southern portion)p.m.
Feb. 4	Kamma Mountains; Lava Beds a.m./Seven Troughs; Antelope Range p.m.

Aircraft

A Cessna Centurion 210 contracted from Lander Aviation of Battle Mountain, Nevada was utilized for all six days of flying. The 210 is capable of high airspeeds when ferrying to and from HMA's due to its retractable landing gear, and the 210 is also capable of slower flight speeds needed for observing animals making it a good choice for this type of work.

Observers

Two observers were used at all times to locate animals, one on each side of the aircraft. When possible, the pilot, Wayne Evans, helped to spot groups of animals but did not attempt to count them. The observers on day 1, 2 and the morning session of day 3 were Peggy Wiltse and myself. On day 3 and 4 Chris Mayer and myself were the observers and on day 5 Dale Owen observed in the morning and Chris Mayer observed in the afternoon. On day 6, Tom Seley and I were the observers all day. All observers were used to locate animals and I recorded the numbers of animals and their location on the attached maps. The figures on each map indicate the number of horses and those circled indicate burros. There were very few obvious foals but when possible I did note foals on the maps; the foals being the number under the adults (i.e. 6/1 would indicate 6 adults and 1 foal). I did not include a foal column in the results chart due to the low number of foals observed. The flight path is also indicated on the maps as is the presence of deer, antelope and livestock.

Weather

Weather conditions were good for flying on all days except Monday the 28th. On this day there were winds gusting to 60 mph and flying about the mountains of the Fox and Lake Range was very turbulent. This did not seem to have an effect on our counting ability as we spotted more horses than we did last year in calm air. On Thursday, Jan. 31st it was overcast and dark but this actually aided the observers by reducing the glare from the snow and eliminating shadows.

Ground Conditions

Due to the recent warm spell, most of the snow received in December melted in mid-January. Only the highest peaks and the most northern of aspects still had snow on the ground. Locating animals on this kind of background is not difficult and is much better than uniform one to two inch snow cover.

Flight Patterns

The HMA's were flown in either north-south or east-west transects depending on contours of the terrain. The distance between the transects varied from 1 to 2 miles. In the HMA's containing high mountains, the mountains were flown in either an upward or downward spiral. When possible, natural or manmade barriers such as deep canyons or fences were used to break large areas into smaller areas and prevent double counting of animals. Because we were utilizing a fixed-wing aircraft, we stayed at or above 500 feet AGL.

Results

The results of the aerial distribution flight are shown on the following page. In parenthesis is the number of animals observed last year in the February/March distribution flight and have been included for comparison purposes. The purpose of the flight was for distribution only; these are not census results.

<u>HMA</u>	<u>Horses</u>	<u>Burros</u>
Fox and Lake Range	(95) 149	(0) 0
Lake Range	<u>(178) 158</u>	<u>(0) 0</u>
Fox Range	(273) 307	(0) 0
Total		
Lone Juniper Pasture	(NA) 26	(NA) 0
Buffalo Hills	(207) 181	(0) 0
Granite Range		
south of drift fence	(111) 192	(0) 0
north of drift fence	<u>(187) 243</u>	<u>(0) 0</u>
Total	(298) 435	(0) 0
Calico Mountains		
west of Donnelly Flat	(151) 69	(0) 0
east of Donnelly Flat	<u>(202) 240</u>	<u>(0) 0</u>
Total	(353) 309	(0) 0
Warm Springs Canyon	(302) 187	(0) 16
Black Rock West	(NA) 218	(NA) 0
Bluewing Mountains	(27) 23	(1) 18
Shawave Mountains		
north of main road	(117) 115	(1) 3
south of main road	<u>(240) 268</u>	<u>(0) 0</u>
Total	(357) 383	(1) 3
Nightingales		
Tunnel Springs area	(88) 74	(9) 0
south of main road	<u>(16) 121</u>	<u>(0) 0</u>
Total	(104) 195	(9) 0
Kanma Mountains	(7) 18	(0) 0
Lava Beds		
Dry Mountain	(128) 143	(0) 0
mountains north of Sheep Spring	(29) 61	(0) 0
Lava Beds proper	(92) 98	(0) 1
valleys	(NA) 46	(0) 0
Middle Mountain	<u>(NA) 7</u>	<u>(0) 0</u>
Total	(249) 355	(0) 1
Seven Troughs		
east of Rocky Canyon	(7) 34	(0) 10
Sage Valley	(0) 8	(17) 23
7-Troughs	<u>(60) 105</u>	<u>(0) 0</u>
Total	(67) 147	(17) 33

Flight Time

The following table lists the time required to fly each HMA and the ferry time needed to conduct the aerial distribution flights:

<u>HMA</u>	<u>Ferry</u>	<u>Distribution</u>	<u>Total</u>
Fox and Lake	1.18	2.17	3.70
Lone Juniper Pasture	***	.58	.58
Buffalo Hills	1.20	1.30	2.50
Granite Range	1.15	2.50	3.65
Calicos	.87	2.00	2.87
Warm Springs	.60	1.00	1.60
Black Rock East/West	.83	3.33	4.16
*Jackson Mountains	.52	2.60	3.12
*Little Owyhee	1.00	3.17	4.17
*Snowstorms	.75	1.08	1.83
Blue/Shaw/Night.	.98	3.00	3.98
Kamma Mountains	.30	.55	.85
Lava Beds	.35	3.00	3.35
Seven Troughs	.38	1.37	1.75
Antelope Range	.25	.78	1.03
Five days ferry			
BAM-WMC-BAM	<u>4.74</u>		<u>4.74</u>
TOTAL	15.1	<u>28.43</u>	43.93

*- See memo by C. Mayer for information on these HMA's.

***- This area was flown in conjunction with another area and has no individual ferry times.

All times are given in tenths of hours and were recorded by me for future reference. Actual time spent is given below.

Cost

The actual cost of the horse and burro distribution flight was:

Flight time - 44.00 hrs. @ 165.85/hr. = \$7396.91

Attachments

R. M. Kenney

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:
4700 (NV-024.8)
Feb. 4, 1991
(BRCENS91)

Memorandum

To: BLACK ROCK EAST AND WEST HMA FILES
From: Chris Mayer, W/H & B Specialist
Subject: Distribution / Census Flight (01/91)

On January 30, 1991 a distribution flight was conducted on the Black Rock East and West HMAs. During the morning the northern portion of the Black Rock East and West HMAs was flown. Earlier in the morning prior to flying the Black Rock, a distribution flight of the Warm Springs HMA was conducted. After refueling at Winnemucca Airport at midday we continued with the distribution flight of the southern portion of the HMAs. A Cessna 210 airplane was utilized for the distribution and census flight. Wayne Evans of Lander Aviation was the pilot. During the morning flight those aboard included, Chris Mayer, Kathy McKinstry and Peggy Wiltse. Kathy recorded the flight path and location and number of horses on the HMA Map in the morning. Myself and Peggy were observers. During the afternoon flight Kathy and myself were aboard. Kathy was an observer while I recorded the flight path and number and location of horses on the HMA map.

The weather conditions were high clouds and overcast skies with light wind and good for counting and observing wild horse distribution. Ground conditions were difficult for picking up the horses due to the patchy snow cover conditions over portions of the HMA.

The purpose of the flight was (1), determine distribution and record the location of the different bands within the grazing pastures, (2) determine population estimates, and (3) observe condition of the animals.

The HMA was flown in a north-south direction working west to east. The intervals between the north-south flight patterns was approximately one to two miles. The morning and afternoon flights were split at the Paiute Creek and Slumgullion Creek drainages.

A total of 540 animals were counted. In the West HMA 218 wild horses were counted. In the East HMA 322 wild horses were counted, 173 south of Paiute Creek and 149 north of Paiute Creek.

<u>HMA</u>	<u>Total horses counted</u>
West	218
East (south Paiute)	173
(north Paiute)	149

The horses appeared to be in good physical condition.
The actual hours and ferry time required to conduct the census/distribution was as follows;

	<u>Census Hours</u>	<u>Ferry Time</u>	<u>Total Hours</u>
(Morning)	1 hr. 40 min.	Ferry Back: 25 min.	
(Afternoon)	1 hr. 40 min.	Ferry To: 25 min.	4 hr. 10 min.

Refer to the HMA flight map for further detail.

Walter Mayne

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:
4700 (NV-024.8)
Feb. 4, 1991
(LOCENS91)

Memorandum

To: LITTLE OWYHEE DESERT HMA FILE
From: Chris Mayer, W/H & B Specialist
Subject: Distribution / Census Flight (01/91)

During the morning of January 31, 1991, I conducted a census/distribution flight of the Little Owyhee Desert HMA. A Cessna 210 airplane was utilized for the distribution and census flight. Wayne Evans of Lander Aviation was the pilot. Kathy Mckinstry was also aboard for observation assistance. I recorded the flight path and location and number of horses on the HMA Map. The weather conditions were high clouds and overcast skies with light wind and good for counting and observing wild horse distribution. Ground conditions were difficult for picking up the horses due to the patchy snow cover conditions. The purpose of the flight was (1), determine distribution and record the location of the different bands within the grazing pastures, (2) determine population estimates, and (3) observe condition of the animals. The HMA was flown in a east-west direction working from the north end to the south end. The intervals between the east-west flight patterns was approximately two miles. A total of 823 animals were counted, 800 within the HMA and 23 outside. They were distributed as follows;

<u>PASTURE NAME</u>	<u>TOTAL ADULT HORSES</u>
Lake Creek	347
Twin Valley Springs	309
Fairbanks	<u>144</u>
	800
* Rock Springs Field	8
* Calico Field	<u>15</u>
	23
* outside HMA	Total 823

In the Lake Creek Pasture horses seemed to be scattered over the area with

concentration near the north west corner, near Indian Butte and between Corral Lake Well and McCleary Well #2. In the Twin Valley Springs Pasture horses were found concentrated near Twin Valley Springs and east of Button Lake. Most of the horses in the Fairbanks pasture were concentrated in the southern portion of the pasture west of the North Fork Little Humboldt River. The horses appeared to be in good physical condition with excellent color characteristics evident throughout the HMA. One horse observed near the Twin Valley Spring area had a lame rear leg and could not keep up with the band. The actual hours and ferry time required to conduct the census/distribution was as follows;

<u>Census Hours</u>	<u>Ferry Time</u>	<u>Total Hours</u>
3 hrs. 10 min.	36 min. ferry to HMA	4 hrs. 10 min.
	<u>24 min. ferry return airport</u>	
	1 hr.	

There was no ferry time to and from the Winnemucca airport to conduct the census/distribution flight on the HMA. We drove by vehicle to Battle Mountain from Winnemucca.

Refer to the HMA flight map for further detail.

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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:
4700 (NV-024.8)
Feb. 4, 1991
(SNCENS91)

Memorandum

To: SNOWSTORM MTNS. HMA FILE
From: Chris Mayer, W/H & B Specialist
Subject: Distribution / Census Flight (01/91)

During the afternoon of January 31, 1991 I conducted a Census/Distribution Flight of the Snowstorm Mtns. HMA. A Cessna 210 airplane was utilized for the distribution and census flight. Wayne Evans of Lander Aviation was the pilot. Kathy Mckinstry was also aboard for observation assistance. I recorded the flight path and location and number of horses on the HMA map.

The afternoon weather conditions were high clouds and overcast with light winds being good for counting and observing wild horse distribution. The snow ground cover conditions made counting difficult in the Castle Ridge pasture due to the patchy conditions. Snow cover conditions were not a problem in the First Creek and Dry Hills Pastures.

The purpose of the flight was (1) determine distribution and record the location of the animals, (2) determine population estimates, and (3) observe condition of the animals.

The HMA was flown in a east-west direction working north to south. The intervals between the east-west flight patterns was approximately two miles. A total of 86 wild horses were counted, 82 within the HMA and 4 outside. They were distributed as follows;

<u>PASTURE NAME</u>	<u>WILD HORSES</u>
First Creek	59
Castle Ridge	<u>23</u>
	82
* Kinney Creek	4
Total	<u>86</u>

The horses were in good condition and no hurt animals were observed. There was no ferry time to and from Winnemucca. Ferry time was from Battle Mountain Airport to the HMA. We drove by vehicle to Battle Mountain from

Winnemucca.

The actual hours and ferry time required to conduct the census and distribution was as follows;

Census Hours
1 hr. 5 min.

Ferry Time
22 min. ferry to
22 min. ferry back
44 min.

Total Hours
1 hr. 49 min.

Refer to the flight map for further detail.

Winnemucca

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:
4700 (NV-024.8)
Feb. 5, 1991
(JKCENS91)

Memorandum

To: JACKSON MTNS. HMA FILE
From: Chris Mayer, W/H & B Specialist
Subject: Distribution / Census Flight (02/91)

During the afternoon of February 1, 1991, a Census/Distribution Flight of the Jackson Mtns. HMA. was conducted. During the afternoon of January 30, 1991 the northern portion of the HMA from Deer Creek Peak north was flown after completing the Black Rock flight. A Cessna 210 airplane was utilized for the distribution and census flight. Wayne Evans of Lander Aviation was the pilot. Kathy McKinstry was aboard for observation assistance both days. I recorded the flight path and location and number of horses on the HMA map both days. The afternoon weather conditions were high clouds and overcast with light winds being good for counting and observing wild horse distribution. The Juniper tree cover in the southern portion of the HMA made counting difficult.

The purpose of the flight was (1) determine distribution and record the location of the animals, (2) determine population estimates, and (3) observe condition of the animals.

The HMA was flown in a east-west direction working south to north in the southern portion of the HMA. The central and northern portion of the HMA was flown in a north-south direction working west to east. The intervals between the east-west flight patterns was approximately one to two miles. A total of 130 wild horses were counted, 81 in the southern portion of the HMA and 49 in the northern portion of the HMA.

The horses were in good condition and no hurt animals were observed. The actual hours and ferry time required to conduct the census and distribution was as follows;

	<u>Census Hours</u>	<u>Ferry Time</u>	<u>Total Hours</u>
Jan. 30	27 min.	Ferry Time on Black Rock	
Feb. 1	2 hr. 8 min.	27 min.	3 hr. 2 min.

Refer to the HMA flight map for further detail.

Chris Mayer

2/4/91

Dist. File

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:
4700 (NV-024.8)
Feb. 4, 1991
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Memorandum

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The weather conditions were high clouds and overcast skies with light wind and good for counting and observing wild horse distribution. Ground conditions were difficult for picking up the horses due to the patchy snow cover conditions over portions of the HMA.

The purpose of the flight was (1), determine distribution and record the location of the different bands within the grazing pastures, (2) determine population estimates, and (3) observe condition of the animals.

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(Morning)	1 hr. 40 min.	Ferry Back: 25 min.	4 hr. 10 min.
(Afternoon)	1 hr. 40 min.	Ferry To: 25 min.	

Refer to the HMA flight map for further detail.

W. May

HMA	1990	Horses	1991	Burros
Fox and Lake Range	(95)	149		(0) 0
Lake Range	(178)	158		(0) 0
Fox Range				(0) 0
Total	(273)	307		
Lone Juniper Pasture		(NA)	26	(NA) 0
Buffalo Hills		(207)	181	(0) 0
Granite Range		(111)	192	(0) 0
south of drift fence		(187)	243	(0) 0
north of drift fence		(298)	435	(0) 0
Total				
Calico Mountains		(151)	69	(0) 0
west of Donnelly Flat		(202)	240	(0) 0
east of Donnelly Flat		(353)	309	(0) 0
Total				
Warm Springs Canyon		(302)	187	(0) 16
Black Rock West		(NA)	218	(NA) 0
Bluewing Mountains		(27)	23	(1) 18
Shawave Mountains		(117)	115	(1) 3
north of main road		(240)	268	(0) 0
south of main road		(357)	383	(1) 3
Total				
Nightingales		(88)	74	(9) 0
Tunnel Springs area		(16)	121	(0) 0
south of main road		(104)	195	(9) 0
Total				
Kanma Mountains		(7)	18	(0) 0
Lava Beds		(128)	143	(0) 0
Dry Mountain		(29)	61	(0) 0
mountains north of Sheep Spring		(92)	98	(0) 1
Lava Beds proper		(NA)	46	(0) 0
valleys		(NA)	7	(0) 0
Middle Mountain		(249)	355	(0) 1
Total				
Seven Troughs		(7)	34	(0) 10
east of Rocky Canyon		(0)	8	(17) 23
Sage Valley		(60)	105	(0) 0
7-Troughs		(67)	147	(17) 33
Total				