

Appendix II

FORMS FOR AERIAL LINE TRANSECT SURVEYS

The following forms are provided to assist in conducting aerial line transect surveys:

- **Transect Listing:** Use this form to lists transect lines, headings, and the survey design. The pilot or one of the observers can use the form to keep track of the survey's progress. The form can be placed in a plastic sheet holder. As each transect is completed, it can be checked off on the plastic using a nonpermanent Sharpie-type pen.
- **Preflight Checklist:** Use this form as a reminder about the description of the survey, personnel, equipment, flight-following information, inspections and orientations.
- **Data Form:** Use this form only as a last resort for recording data in the event that the onboard computer and back-up tape-recorder fail. It may be necessary to designate one of the observers as a data recorder and adjust the analysis to reflect only one observer for a portion of the survey. Normally, such equipment failures would warrant returning to the airport to try to repair the problem before continuing. This should only be used as a last resort.
- **Tally Sheet for Comparing Observer Efficiency in the "A" Band:** Use this form to tally the number of clusters observed in the "A" band during the survey. Tally counters (clickers) can be used instead of the form. The number of clusters observed on any given line will vary by observer position and whether or not they are looking with or into the sun. Over the survey, the total number of clusters should be similar for both observers, even though their observing efficiencies may differ across all four distance bands. The form can be used for helping train observers and for testing the assumption that all clusters on and near the line are seen.

Wyoming Game and Fish Department
Aerial Line Transect Surveys
TRANSECT LISTING AND CHECK-OFF

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This form is used to keep track of the survey's progress. List each transect line and its heading prior to the survey. A general map of the survey area showing transects, survey blocks and boundaries can also be helpful. Place the form in a plastic sheet holder. Check off each transect as it is completed.

HERD: _____ DATE: _____ PG: ____ of ____

BLOCK (if not entire survey area): _____

BOUNDARY DESCRIPTION: _____

SURVEY DESIGN (check):

____ SYSTEMATIC TRANSECTS spaced _____ apart. _____ Even Min. _____ Odd Min.

____ OTHER: _____

TRANSECT ORIENTATION: _____

____ NORTH-SOUTH _____ EAST-WEST _____ OTHER: _____

TRANSECT ALIGNMENT: _____

____ LATITUDE starting: _____

____ LONGITUDE starting: _____

____ OTHER: _____

LINE #	HEADING (N,S,E,W or degrees)	DECIMAL DEGREES (DDMM.MM)	DONE (check)	LINE #	HEADING (N,S,E,W or degrees)	DECIMAL DEGREES (DDMM.MM)	DONE (check)
1				26			
2				27			
3				28			
4				29			
5				30			
6				31			
7				32			
8				33			
9				34			
10				35			
11				36			
12				37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			
23				48			
24				49			
25				50			

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AERIAL LINE TRANSECT SURVEY PRE-FLIGHT CHECKLIST AND REMINDERS

Check off items as completed.

SURVEY IDENTIFICATION

_____ Survey Date: _____ Planned Time of Survey: _____
 _____ Herd: _____ Hunt Areas: _____
 _____ Flight: _____ of _____

AREA TO SURVEY

_____ Total Occupied Habitat: _____ Total Area: _____
 _____ Other (describe): _____

OBSEVERS

_____ Observers: _____ Position: _____ Front _____ Back
 _____ Side: _____ Right _____ Left
 _____ Position: _____ Front _____ Back
 _____ Side: _____ Right _____ Left
 _____ Briefed on survey design
 _____ Review procedures
 _____ Feeling alert and ready

PILOT

_____ Name: _____ Position: _____ Front _____ Back
 _____ Side: _____ Right _____ Left
 _____ Company: _____ Base: _____
 _____ Briefed on survey design
 _____ Review procedures
 _____ Review weather: _____, terrain _____, hazards _____
 _____ Other _____

AIRCRAFT

_____ Make: _____ Model: _____
 _____ Pre-flight Inspection of markers
 _____ General appearance of aircraft

Checklist (cont'd): HERD: _____ DATE: _____ FLIGHT: _____

FLIGHT FOLLOWING

Log Flight Plan with SALECS (1-800-442-2767)

GF Number for Flight Following: _____

Frequency of reporting position: _____ Tower(s): _____

Description of Plane:

Color: _____ Make/Model: _____

Number: _____ Marks: _____

Type of Survey: _____

Airport(s): _____

Area to be surveyed:

Transect Orientation: _____

Transect Spacing: _____

Planned start: _____

Planned duration of flight

Expected take-off time

Expected time of start

Planned breaks _____ Location: _____

Expected time of return _____ Location: _____

PRE-FLIGHT SAFETY CHECK

Nomex flight suits

Helmets (optional for LT surveys only)

_____ Safety belts

Exits

Fire extinguisher

Fuel cut-off switches

Electrical cut-off switches

Emergency radio

— ELT

Survival gear

First aid kit

Procedures

WGFD COORDINATION

Flight Officer (coordinator): _____

Notified of take-off (time): _____ Phone: _____

Notified of return (time): _____

Alternate observers: _____ phone _____
 _____ phone _____

phone _____

COMMENTS: _____

FORM COMPLETED BY: _____

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HERD: _____ DATE: _____ Pg ____ of ____
 OBSERVER(S): _____ PILOT: _____
 AIRCRAFT: _____ Digital Radar Altimeter? _____ GPS? _____
 WEATHER/LIGHT: _____
 COMMENTS: _____

[illegible]

REMARKS:

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AERIAL LINE TRANSECT SURVEYS
FORM TO TALLY CLUSTERS SEEN IN THE "A" BAND

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Use this form to compare the number of clusters tallied in the "A" band between observers. Over the entire survey (or flight), observers should count similar numbers of clusters (not individuals) in the "A" band unless observers are not watching the line properly. The total number of clusters seen across all distance bands will likely vary. That is okay.

For each transect, note the flight direction and position of the sun (looking into or with the sun) or other factors influencing light conditions. Put a slash for each cluster seen in the A band for each line within the appropriate box. You should NOT have to look down at the form to write. Move to the next box between transects.

HERD: _____ DATE: _____ Pg ____ of ____
OBSERVER: _____

LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____	LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____	LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____
CLUSTERS IN "A" (tally): <div></div>	CLUSTERS IN "A" (tally): <div></div>	CLUSTERS IN "A" (tally): <div></div>
Total Clusters in "A":	Total Clusters in "A":	Total Clusters in "A":
LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____	LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____	LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____
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Total Clusters in "A":	Total Clusters in "A":	Total Clusters in "A":
LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____	LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____	LINE NUMBER: LIGHT (check): <input type="checkbox"/> overcast <input type="checkbox"/> into sun <input type="checkbox"/> with sun <input type="checkbox"/> overhead sun <input type="checkbox"/> patchy light <input type="checkbox"/> other: _____
CLUSTERS IN "A" (tally): <div></div>	CLUSTERS IN "A" (tally): <div></div>	CLUSTERS IN "A" (tally): <div></div>
Total Clusters in "A":	Total Clusters in "A":	Total Clusters in "A":
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