ACCESSION NUMBER 78-0158

DDF A:2:08

DATA DOCUMENTATION FORM

TR2847

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED O.M.B. No. 41-R2051

F033

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Dr. Calvin Lensink
U.S. Fish and Wildlife Service - Office of Biological Services - Coastal Ecosystems
800 A Street Suite 110
Anchorage, Alaska 99501

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

OCSEAP RU-337

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

FM7028

4. PLATFORM NAME(S)

Grumann Goose

5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)

Aircraft

3191

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
USA	USA

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
03/07/77	03/09/77

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR____ MONTH____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

[X] NO [ ] YES [ ] PART (SPECIFY BELOW)

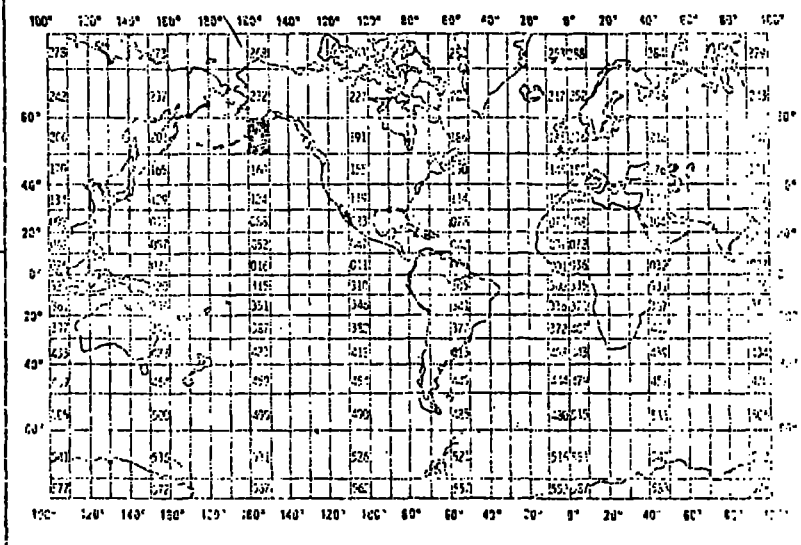
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1)

Dr. Calvin Lensink
Mr. Craig Harrison
(907) 265-5401

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

WSQ/96 Marsden Square

GENERAL AREA



B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Station Type	N/A	See Attached Codes	N/A	N/A
Start Latitude & Longitude	Degrees, Minutes, Seconds, Hemis.	GNS 500 (VLF output)	N/A	N/A
Date - Time	Year, Month, Day, Hour, Minute	Always GMT	N/A	N/A
End Latitude & Longitude	Degrees, Minutes, Seconds, Hemis.	GNS 500 (VLF output)	N/A	N/A
Time Zone	International Standard	N/A	N/A	N/A
Speed	Knots	GNS 500 (VLF output)	N/A	N/A
Course	10's of degrees true made good	Compass	N/A	N/A
Height	Whole Meters	Radio altimeter	N/A	N/A
Transect Width	10's of meters	Estimated, based on clinometer and trigonometry	N/A	N/A
Sea State	WMO 3700 codes	Observation	N/A	N/A
Weather	WMO 4677 codes selected	Observation - see attached list of selected codes	N/A	N/A
Taxonomic Code	NODC Taxonomic Codes	1977 Version	N/A	N/A
Number	Number of individual organisms	Observation	N/A	N/A
Linkage	033 Codes	N/A	N/A	N/A
Outside Zone	033 Codes	N/A	N/A	N/A

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Type 1 = Location

Type 2 = Environmental

Type 4 = Text

Type 5 = Data

These are differentiated by byte 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File organized by Station Number (Record Type 1, Bytes 11-13)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Robert L. Blanscett (907) 265-5401
ADDRESS U.S.F.W.S., OBS-CE, 800 A St., Suite 110, Anchorage, Alaska 99501

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☐ ASCII ☒ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☒ NINE ☐ _____

7. PARITY ☒ ODD ☐ EVEN

8. DENSITY ☐ 200 BPI ☐ 1600 BPI ☐ 556 BPI ☒ 800 BPI ☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☐ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION (*INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER*)

OCSEAP - USFWS/OBSCE
337 033 FW7028
Grumann Goose Aerial Survey
77/03/07 - 77/03/09
9 TRK, 800 BPI, ODD, EBCDIC

12. PHYSICAL BLOCK LENGTH IN BYTES
83

13. LENGTH OF BYTES IN BITS
8

RECORD FORMAT DESCRIPTION

RECORD NAME Location - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	"Always 033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	"Always 1"
Station Number	11	5	bytes	A5	4th byte coded for ship type 5th byte coded for transect type
Latitude, Degrees	16	2	bytes	I2	Starting Position
Minutes	18	2	bytes	I2	" "
Seconds	20	2	bytes	I2	" "
Hemisphere	22	1	bytes	A1	"N" or "S"
Longitude, Degrees	23	3	bytes	I3	Starting Position
Minutes	26	2	bytes	I2	" "
Seconds	28	2	bytes	I2	" "
Hemisphere	30	1	bytes	A1	"E" or "W"
Year	31	2	bytes	I2	Last two digits of year = Starting Time GMT
Month	33	2	bytes	I2	" " "
Day	35	2	bytes	I2	" " "
Hour	37	2	bytes	I2	" " "
Minute	39	2	bytes	I2	" " "
Latitude, Degrees	41	2	bytes	I2	Ending Position
Minutes	43	2	bytes	I2	" "
Seconds	45	2	bytes	I2	" "
Hemisphere	47	1	bytes	A1	"N" or "S"
Longitude, Degrees	48	3	bytes	I3	Ending Position
Minutes	51	2	bytes	I2	" "
Seconds	53	2	bytes	I2	" "
Hemisphere	55	1	bytes	A1	"E" or "W"
Time Zone	58	1	byte	A1	"+" or "-"
Time Zone	59	2	bytes	A2	01-12
Speed Made Good	61	3	bytes	I3	in whole knots
Course Made Good	64	2	bytes	I2	tens of degrees true

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

NAME Location (continued) - Ship and Aircraft Census

FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Height of eyes above sea	66	3	bytes	I3	In whole meters
Transect width	81	3	bytes	I3	10's of meters

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Environmental - Aircraft Censuses

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Always 033
File Identfier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Always 2
Wind Direction	45	2	bytes	I2	In 10's of degrees true See WMO codes 0885 &0877
Wind Speed	47	2	bytes	I2	In whole knots
Sea State	49	1	bytes	A1	WMO code 3700
Weather	55	2	bytes	A2	WMO code 4677 with restricted choice as shown below: 00,03,41,43,68,69,87,88,71,73

RECORD FORMAT DESCRIPTION

RECORD NAME Data - Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Always 033
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Always 5
Station Number	11	5	bytes	A5	bytes 14-15 define ship and observation types
Taxonomic Code	18	10	bytes	I10	NODC 1977 codes
Subspecies	28	2	bytes	I2	
Species Group	30	2	bytes	A2	
Number of Individuals	37	5	bytes	I5	whole numeric
Linkage	51	3	bytes	I3	Sequence number of a group within one observation
Sequence	78	3	bytes	I3	Ascending numeric, for sorting
Outside Zone	83	1	bytes	A1	0=birds within transect width defined in RT 1, bytes 81-83. 1-9=birds other than above

USCOMM-DC 44289-P72

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	(✓)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

A FORM 24-TS

FW7028


```
0101    033FW70280001296000  N15230  W77030722005950  N15230  W  +1112509035    010
0102    033FW7028200129                                3     00
0103    033FW7028500129  91                     0                                1  0
0104    033FW70281002295950  N15230  W77030722005940  N15230  W  +1112509035    010
0105    033FW7028200229                                3     00
0106    033FW7028500229  91                     0                                1  0
0107    033FW70281003295940  N15230  W77030722005930  N15230  W  +1112509035    010
0108    033FW7028200329                                3     00
0109    033FW7028500329  91                     0                                1  0
0110    033FW70281004295930  N15230  W77030722005920  N15230  W  +1112509035    010
0111    033FW7028200429                                3     00
0112    033FW7028500429  91                     0                                1  0
0113    033FW70281005295920  N15230  W77030722005910  N15230  W  +1112509035    010
0114    033FW7028200529                                3     00
0115    033FW7028500529  91                     0                                1  0
0116    033FW70281006295910  N15230  W77030722005900  N15230  W  +1112509035    010
0117    033FW7028200629                                3     00
0118    033FW7028500629  91290103               1                                1  0
0119    033FW70281007295900  N15230  W77030722005850  N15230  W  +1112509035    010
0120    033FW7028200729                                3     00
0121    033FW7028500729  9128020301             2                                0  0
0122    033FW70281008295850  N15230  W77030722005840  N15230  W  +1112509035    010
0123    033FW7028200829                                3     00
0124    033FW7028500829  91100401               1                                1  0
0125    033FW7028500829  9128020103            18                                2  0
0126    033FW7028500829  9128020301             1                                3  0
0201    033FW7028500829  91290103               6                                4  0
0202    033FW7028500829  9221010601             1                                5  0
0203    033FW7028500829  9221010501             1                                6  0
0204    033FW70281009295840  N15230  W77030722155840  N15220  W  +1112009035    010
0205    033FW7028200929                                3     00
0206    033FW7028500929  91100401               4                                1  0
0207    033FW7028500929  9112011301             1                                2  0
0208    033FW7028500929  9128020103            10                                3  0
0209    033FW7028500929  91290103               1                                4  0
0210    033FW7028500929  9113021002             1                                5  0
0211    033FW7028500929  91                     4                                6  0
0212    033FW70281010295840  N15220  W77030722155840  N15210  W  +1112009035    010
0213    033FW7028201029                                3     00
```

CORRECTIONS 78-0158

Data not in ascending TRACK #s.
Sorted into ascending TRACK #s.

In TR2853 station 16629, record '1' latitude degree and minutes shifted from columns 42-45 to cols 41-44 in agreement with format

See also 7 pages of corrections from originator
All corrections made 11/06/78

In TR2848, station # 16129, seq # 009, record type '5', tax code 912901190| corrected to 912901140|
as suggested by Jim Audet

In TR2851, station 01773, seq # 002, record type '5'
tax code 911218010 2 corrected to 911201180 2
as suggested by Jim Audet

In TR2853 station # 67629 corrected to 07629
see also originators corrections.

18-0158

file 033 Birds NODC. CODES

tax code		Warnings
~~TR2849~~ ~~9121011401~~ station 16129	corrected 11/06/78 ~~see letter for TR2849~~ 9	code not found
TR2848 912901(19)01 station 14973	corrected 11/08/78 per Jim Audet to 9129011401 14?	code not found
TR2851 9112180102 station 01773	corrected 11/08/78 per Jim Audet to 9112011802 0118?	code not found

~~Waiting from originator:~~

~~1- 2 tax (codes not found) above~~

~~2- Station number questionable in TR 2853~~

corrected 11/06/78

see corrections letter for TR 2853

all corrections made 11/06/78 ①
page 1-7
cmlt

Corrections Made to OCSEAP Data, File Type 033,
Following 7. Subsequent to Submission to NODC
Reported Oct, 1978

Data from RU#337 Processed by RU#527

NODC Track Number TR2847 Original File ID FW7028

	11 for 5 STATION NUMBER	10 CARD TYPE	78 for 3 SEQUENCE NUMBER	FIELD ABBR	COLUMNS	FROM	TO
	✓02429	5	002	SUB	28-29	00	blank ✓
	✓04029	5	008	SUB	28-29	00	blank ✓
	✓04129	5	009	SUB	28-29	00	blank ✓
	✓05329	5	003	SUB	28-29	00	blank ✓
5-	✓05629	5	002	SUB	28-29	00	blank ✓

60 corrections NAPIS 78-0158

OK

(2)

Corrections Made to OCSEAP Data, File Type 033,
Subsequent to Submission to NODC
Reported Oct, 1978

Data from RU#337 Processed by RU#527

NODC Track Number TR2849 Original File ID FW7034

NMFS 78-0158

STATION NUMBER	CARD TYPE	SEQUENCE NUMBER	FIELD ABBR	COLUMNS	FROM	TO
10773	5	001	TAX	18-27	9221030103	9221030107
10873	5	001	TAX	18-27	9221030103	9221030107
13178	5	001	TAX	18-27	9109020301	9109030201
14973	5	001	TAX	18-27	9112011801	9112011802
14973	5	012	TAX	18-27	9121011401	9129011401
19073	5	017	TAX	18-27	9221030103	9221030107
19978	5	005	TAX	18-27	9221030103	9221030107
21378	1		LAT	16-22	572375N	572315N
23673	5	008	TAX	18-27	9221030103	9221030107
27471	5	016	TAX	18-27	9221030103	9221030107
27573	5	003	TAX	18-27	9221030103	9221030107
27673	5	008	TAX	18-27	9221030103	9221030107
27773	5	001	TAX	18-27	9221030103	9221030107
28273	5	001	TAX	18-27	9221030103	9221030107
28373	5	005	TAX	18-27	9221030103	9221030107
44573	5	006	TAX	18-27	9109020301	9109030201

O/C

③

Corrections Made to OCSEAP Data, File Type 033,
Subsequent to Submission to NODC
Reported Oct, 1978

Data from RU#337 Processed by RU#527

NODC Track Number TR2850 Original File ID FW7035

78-0158

	STATION NUMBER	CARD TYPE	SEQUENCE NUMBER	FIELD ABBR	COLUMNS	FROM	TO
	03473	5	001	IND	37-41	blank	7 ✓
	03473	5	002	IND	37-41	blank	2 ✓
	03473	5	003	IND	37-41	blank	4 ✓
	03473	5	004	IND	37-41	blank	4 ✓
	03473	5	005	IND	37-41	blank	1 ✓
	10178	1		DAT	31-36	720816	770816 ✓
	14278	1		LON	23-30	1514275W	1514215W ✓
	23973	5	009	TAX	18-27	9221030103	9221030107 ✓
9-	24073	5	006	TAX	18-27	9221030103	9221030107 ✓

9/so change time zone to 09
sta. 15278

Corrections Made to OCSEAP Data, File Type 033,
Subsequent to Submission to NODC
Reported Oct, 1978

Data from RU#337 Processed by RU#527

NODC Track Number TR2851 Original File ID FW7036

78-0158

STATION NUMBER	CARD TYPE	SEQUENCE NUMBER	FIELD ABBR	COLUMNS	FROM	TO
02673	5	002	TAX	18-27	9221030103	9221030107 ✓
06973	5	009	TAX	18-27	9221030103	9221030107 ✓
3- 07173	5	003	TAX	18-27	9221030103	9221030107 ✓

(5)

Corrections Made to OCSEAP Data, File Type 033,
Subsequent to Submission to NODC
Reported Oct, 1978

Data from RU#337 Processed by RU#527

NODC Track Number TR2852 Original File ID FW7042

78-0158

STATION NUMBER	CARD TYPE	SEQUENCE NUMBER	FIELD ABBR	COLUMNS	FROM	TO
00369	5	006	SUB	28-29	00	blank
00369	5	009	SUB	28-29	00	blank
00468	5	005	SUB	28-29	00	blank
00468	5	009	SUB	28-29	00	blank
00569	5	001	SUB	28-29	00	blank
00569	5	006	SUB	28-29	00	blank
00769	5	009	SUB	28-29	00	blank
00969	5	001	SUB	28-29	00	blank
01368	5	006	SUB	28-29	00	blank
SAVED 01769	5	005	SUB	28-29	00	blank
01968	5	003	SUB	28-29	00	blank
02269	5	013	SUB	28-29	00	blank
02468	5	011	SUB	28-29	00	blank
02569	5	011	SUB	28-29	00	blank
04069	5	006	SUB	28-29	00	blank
05169	5	005	SUB	28-29	00	blank
05369	5	006	SUB	28-29	00	blank
05769	5	007	SUB	28-29	00	blank
07369	5	008	SUB	28-29	00	blank
20 - 07468	5	006	SUB	28-29	00	blank

(4)

Corrections Made to OCSEAP Data, File Type 033,
Subsequent to Submission to NODC
Reported Oct, 1978

Data from RU#337 Processed by RU#527

NODC Track Number TR2853 Original File ID FW7045

78-0158

STATION NUMBER	CARD TYPE	SEQUENCE NUMBER	FIELD ABBR	COLUMNS	FROM	TO
16629	1		LTD	41-47	5930 N	5930 N (shifted)
67629	1		STA	11-15	67629	07629
67629	2		STA	11-15	67629	07629
67629	5	001	STA	11-15	67629	07629
67629	5	002	STA	11-15	67629	07629

(7)

Corrections Made to OCSEAP Data, File Type 033,
Subsequent to Submission to NODC
Reported Oct, 1978

Data from RU#337 Processed by RU#527

NODC Track Number TR2854 Original File ID FW7046

78-0158

STATION NUMBER	CARD TYPE	SEQUENCE NUMBER	FIELD ABBR	COLUMNS	FROM	TO
25269	5	007	IND	37-41	blank	4 ✓
2- 26268	5	002	TAX	18-27	9221030103	9221030107 ✓

ACCESSION NUMBER 78-0158

ODF A:2:08

DATA DOCUMENTATION FORM

TR2848

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED
O.M.B. No. 41-R2651

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Dr. Calvin Lensink
U.S. Fish and Wildlife Service - Office of Biological Services -- Coastal Ecosystems
800 A Street Suite 110
Anchorage, Alaska 99501

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

OCSEAP RU-337

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

FW7031

4. PLATFORM NAME(S)

Grumann Goose

5. PLATFORM TYPE(S) *(E.G., SHIP, BUOY, ETC.)*

Aircraft

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
USA	USA

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
05/19/77	05/20/77

8. ARE DATA PROPRIETARY?

[XX] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR____ MONTH____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?

(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

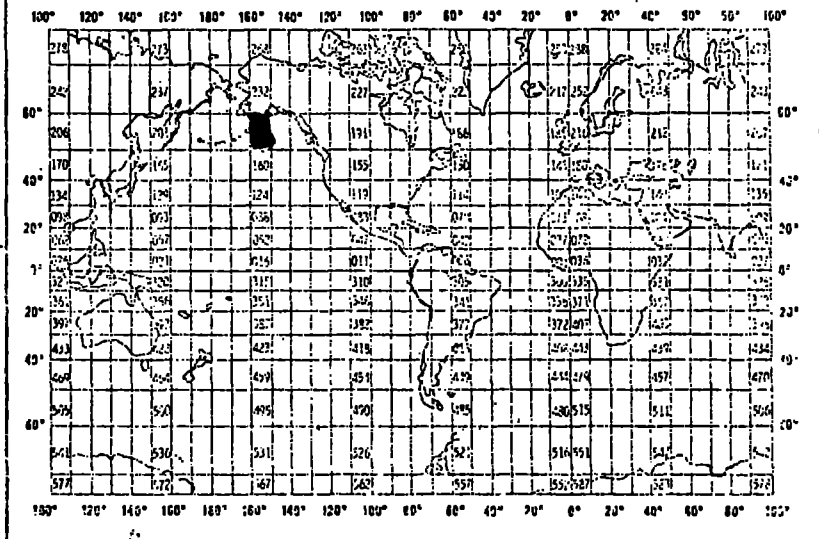
[X] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Calvin Lensink
Mr. Craig Harrison
(907) 265-5401

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



USCOMM-DC 44289-P72

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
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Start Latitude & Longitude	Degrees, Minutes, Seconds, Hemis.	GNS 500 (VLF output)	N/A	N/A
Date - Time	Year, Month, Day, Hour, Minute	Always GMT	N/A	N/A
End Latitude & Longitude	Degrees, Minutes, Seconds, Hemis.	GNS 500 (VLF output)	N/A	N/A
Time Zone	International Standard	N/A	N/A	N/A
Speed	Knots	GNS 500 (VLF output)	N/A	N/A
Course	10's of degrees true made good	Compass	N/A	N/A
Height	Whole Meters	Radio altimeter	N/A	N/A
Transect Width	10's of meters	Estimated, based on clinometer and trigonometry	N/A	N/A
Sea State	WMO 3700 codes	Observation	N/A	N/A
Weather	WMO 4677 codes selected	Observation - see attached list of selected codes	N/A	N/A
Taxonomic Code	NODC Taxonomic Codes	1977 Version	N/A	N/A
Number	Number of individual organisms	Observation	N/A	N/A
Linkage	033 Codes	N/A	N/A	N/A
Outside Zone	033 Codes	N/A	N/A	N/A

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Type 1 = Location

Type 2 = Environmental

Type 4 = Text

Type 5 = Data.

These are differentiated by byte 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File organized by Station Number (Record Type 1, Bytes 11-13)

ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Robert L. Blanscett (907) 265-5401

ADDRESS U.S.F.W.S., OBS-CE, 800 A St., Suite 110, Anchorage, Alaska 99501

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY
☐ ASCII ☒ EBCDIC
☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN
☒ NINE
☐ _____

7. PARITY
☒ ODD
☐ EVEN

8. DENSITY
☐ 200 BPI ☐ 1600 BPI
☐ 556 BPI
☒ 800 BPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN)
☐ 3/4 INCH
☐ _____

10. END OF FILE MARK
☐ OCTAL 17
☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

OCSEAP - USFWS/OBSCE
337 033 FW7031
Grumann Goose Aerial Survey
77/05/19 - 77/05/20 LENSINK
9 TRK, 800 BPI, ODD, EBCDIC

12. PHYSICAL BLOCK LENGTH IN BYTES
83

13. LENGTH OF BYTES IN BITS
8

RECORD FORMAT DESCRIPTION

RECORD NAME Location - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	"Always 033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	"Always 1"
Station Number	11	5	bytes	A5	4th byte coded for ship type 5th byte coded for transect type
Latitude, Degrees	16	2	bytes	I2	Starting Position
Minutes	18	2	bytes	I2	" "
Seconds	20	2	bytes	I2	" "
Hemisphere	22	1	bytes	A1	"N" or "S"
Longitude, Degrees	23	3	bytes	I3	Starting Position
Minutes	26	2	bytes	I2	" "
Seconds	28	2	bytes	I2	" "
Hemisphere	30	1	bytes	A1	"E" or "W"
Year	31	2	bytes	I2	Last two digits of year = Starting Time GMT
Month	33	2	bytes	I2	" " "
Day	35	2	bytes	I2	" " "
Hour	37	2	bytes	I2	" " "
Minute	39	2	bytes	I2	" " "
Latitude, Degrees	41	2	bytes	I2	Ending Position
Minutes	43	2	bytes	I2	" "
Seconds	45	2	bytes	I2	" "
Hemisphere	47	1	bytes	A1	"N" or "S"
Longitude, Degrees	48	3	bytes	I3	Ending Position
Minutes	51	2	bytes	I2	" "
Seconds	53	2	bytes	I2	" "
Hemisphere	55	1	bytes	A1	"E" or "W"
Time Zone	58	1	byte	A1	"+" or "-"
Time Zone	59	2	bytes	A2	01-12
Speed Made Good	61	3	bytes	I3	in whole knots
Course Made Good	64	2	bytes	I2	tens of degrees true

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

NAME Location (continued) - Ship and Aircraft Census

FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Height of eyes above sea	66	3	bytes	I3	In whole meters
Transect width	81	3	bytes	I3	10's of meters

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Environmental - Aircraft Censuses

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Always 033
File Identfier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Always 2
Wind Direction	45	2	bytes	I2	In 10's of degrees true See WMO codes 0885 &0877
Wind Speed	47	2	bytes	I2	In whole knots
Sea State	49	1	bytes	A1	WMO code 3700
Weather	55	2	bytes	A2	WMO code 4677 with restricted choice as shown below: 00,03,41,43,68,69,87,88,71,73

RECORD FORMAT DESCRIPTION

RECORD-NAME Data - Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Always 033
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Always 5
Station Number	11	5	bytes	A5	bytes 14-15 define ship and observation types
Taxonomic Code	18	10	bytes	I10	NODC 1977 codes
Subspecies	28	2	bytes	I2	
Species Group	30	2	bytes	A2	
Number of Individuals	37	5	bytes	I5	whole numeric
Linkage	51	3	bytes	I3	Sequence number of a group within one observation
Sequence	78	3	bytes	I3	Ascending numeric, for sorting
Outside Zone	83	1	bytes	A1	0=birds within transect width defined in RT 1, bytes 81-83. 1-9=birds other than above

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

AA FORM 24-13

FW7031


```
4501    033FW7031406229ALL SW SITTING                                                  7
4502    033FW70311063295730  N15150  W77052001505730  N15140  W  +11120  035          010
4503    033FW7031206329                                  3     00
4504    033FW7031506329  9109020201            1                                      1  0
4505    033FW7031506329  9128020301            3                                      2  0
4506    033FW7031506329  91290103              11                                      3  0
4507    033FW7031506329  9129011401            1                                      4  0
4508    033FW7031506329  9128010102            1                                      5  2
4509    033FW70311064295730  N15140  W77052001505730  N15130  W  +11120  035          010
4510    033FW7031206429                                  3     00
4511    033FW7031506429  91090204              22                                      1  0
4512    033FW7031506429  9109020407            1                                      2  0
4513    033FW7031506429  9128020301            3                                      3  0
4514    033FW7031506429  91290103               8                                      4  0
4515    033FW7031506429  9129011401            10                                      5  0
4516    033FW70311065295730  N15130  W77052001505730  N15120  W  +11120  035          010
4517    033FW7031206529                                  3     00
4518    033FW7031506529  9109020407          1888                                      1  0
4519    033FW7031506529  91290103              48                                      2  0
4520    033FW7031506529  9129011401            1                                      3  0
4521    033FW70311066295730  N15120  W77052001505730  N15110  W  +11120  035          010
4522    033FW7031206629                                  3     00
4523    033FW7031506629  91090204            3006                                      1  0
4524    033FW7031506629  9128020103            1                                      2  0
4525    033FW7031506629  9128020301            11                                      3  0
4526    033FW7031506629  9129011401            3                                      4  0
4601    033FW70311067295730  N15110  W77052001505730  N15100  W  +11120  035          010
4602    033FW7031206729                                  3     00
4603    033FW7031506729  91090204              99                                      1  0
4604    033FW7031506729  9128020301            14                                      2  0
4605    033FW7031506729  91290103              11                                      3  0
4606    033FW7031506729  9129011401            2                                      4  0
4607    033FW7031506729  9221010501            1                                      5  0
4608    033FW70311068295730  N15100  W77052001505730  N15050  W  +11120  035          010
4609    033FW7031206829                                  3     00
4610    033FW7031506829  91090204               2                                      1  0
4611    033FW7031506829  9109020407            2                                      2  0
4612    033FW7031506829  9128020301            5                                      3  0
4613    033FW7031506829  91290103              10                                      4  0
```

ACCESSION NUMBER 78-0158

DDF A:2:08

DATA DOCUMENTATION FORM

RECEIVED TR 20849

OCT 18 1977

NOAA FORM 24-13 (4-77)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

FORM APPROVED O.M.B. No. 41-R2651 EXPIRES 1-81

NEGOA

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Dr. Calvin Lensink
U.S. Fish & Wildlife Service - Office of Biological Services - Coastal Ecosystems
800 A Street - Suite 110
Anchorage, Alaska 99501

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

OCSEAP RU-337

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

FW7034

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
Yankee Clipper	Ship	USA	USA	7/6/77	7/29/77

8. ARE DATA PROPRIETARY?

[XX] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ____ MONTH ____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

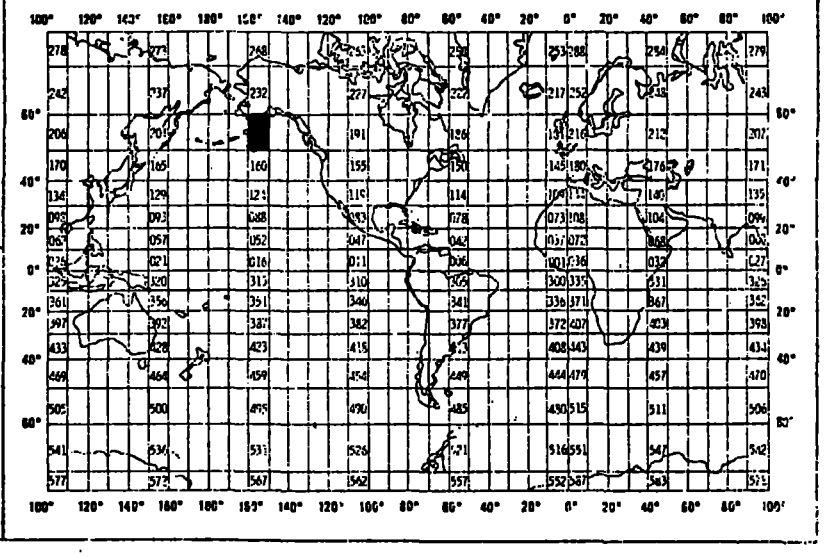
[XX] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Calvin Lensink
Dr. Patrick J. Gould

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Station Type	N/A	See Attatched Codes	N/A	N/A
Start Latitude & Longitude	Degrees, Minutes, Seconds, Hemisph.	Combined Radar Fixes and Depth Charts	N/A	N/A
Date - Time	Year, Month, Day Hour, Minute	Always GMT	N/A	N/A
Elapsed Time	Minutes	N/A	N/A	N/A
Time Zone	International Standard	N/A	N/A	N/A
Speed	Knots made good	Derived from plotted positions	N/A	N/A
Course	10's of degrees true made good	Derived from plotted positions	N/A	N/A
Height	Whole meters	Measured with steel Tape	N/A	N/A
Obs. Conditions	633 code	Observers opinion of all factors influencing observations - subjective	N/A	N/A
Transect Width	10's of meters	Estimated, based on periodic checks with a range finder.	N/A	N/A
Depth	meters	Fathometer and Charts	N/A	N/A
Surface Temp.	tenths of degrees centigrade	Temp. gage at ships intake	N/A	N/A
Sea State	WMO 3700 codes	Observation	N/A	N/A
Weather	WMO 4677 codes selected	Observation - see attatched list of selected codes	N/A	N/A
Taxonomic Code	NODC Taxonomic codes	1977 version	N/A	N/A
Age	033 codes	Observation	N/A	N/A
Sex	033 Codes	Observation	N/A	N/A
Color Phase	033 Codes	Observation	N/A	N/A

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Number	Number of individual organisms	Binoculars	N/A	N/A
Flight Direction	10's of degrees true	Observation	N/A	N/A
Linkage	033 codes	N/A	N/A	N/A
Behavior	Selected 033 codes	See attatched list of Selected codes	N/A	N/A
Outside Zone	033 codes	N/A	N/A	N/A

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Type 1 = Location
Type 2 = Environmental
Type 4 = Text
Type 5 = Data
These are differentiated by byte 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File organized by Station Number (Record Type 1, Bytes 11-13)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Robert L. Blanscett 901-265-5401
ADDRESS U.S.F.W.S., OBS-CE, 800 A St., Suite 110, Anchorage, Alaska 99501

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☐ ASCII ☒ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☒ NINE ☐ _____

7. PARITY ☒ ODD ☐ EVEN

8. DENSITY ☐ 200 BPI ☐ 1600 BPI ☐ 556 BPI ☒ 800 BPI ☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☐ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

OCSEAP - USFWS/OBSCE
337 033 FW7034
Yankee Clipper - Charter Leg III
77/7/6 - 77/7/29 LENSINK
9TRK, 800BPI, ODD, EBCDIC

12. PHYSICAL BLOCK LENGTH IN BYTES
83

13. LENGTH OF BYTES IN BITS
8

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Location - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	"Always 033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	"Always 1"
Station Number	11	5	bytes	A5	4th byte coded for ship type 5th byte coded for transect type
Latitude, Degrees	16	2	bytes	I2	Starting Position
Minutes	18	2	bytes	I2	" "
Seconds	20	2	bytes	I2	" "
Hemisphere	22	1	bytes	A1	"N" or "S"
Longitude, Degrees	23	3	bytes	I3	Starting Position
Minutes	26	2	bytes	I2	" "
Seconds	28	2	bytes	I2	" "
Hemisphere	30	1	bytes	A1	"E" or "W"
Year	31	2	bytes	I2	Last two digits of year = Starting Time GMT
Month	33	2	bytes	I2	" " "
Day	35	2	bytes	I2	" " "
Hour	37	2	bytes	I2	" " "
Minute	39	2	bytes	I2	" " "
Latitude, Degrees	41	2	bytes	I2	Ending Position
Minutes	43	2	bytes	I2	" "
Seconds	45	2	bytes	I2	" "
Hemisphere	47	1	bytes	A1	"N" or "S"
Longitude, Degrees	48	3	bytes	I3	Ending Position
Minutes	51	2	bytes	I2	" "
Seconds	53	2	bytes	I2	" "
Hemisphere	55	1	bytes	A1	"E" or "W"
Elapsed Time	56	2	bytes	I2	whole minutes
Time Zone	58	1	byte	A1	"+" or "-"
Time Zone	59	2	bytes	A2	01-12
Speed Made Good	61	3	bytes	I3	in whole knots
Course Made Good	64	2	bytes	I2	tens of degrees true

RECORD FORMAT DESCRIPTION

RECORD NAME Location (continued) - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Height of eyes above sea	66	3	bytes	I3	In whole meters
Observation conditions	75	1	bytes	A1	1-7 bad-excellent
Transect width	81	3	bytes	I3	10's of meters

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Environmental - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "2"
Depth	16	4	bytes	I4	In whole meters
Surface Temp.	23	4	bytes	I4	In tenths of degrees Centigrade
Surface Salinity	27	3	bytes	I3	In parts per hundred
Barometric Pressure	40	4	bytes	I4	In tenths of millibars
Barometric Trend	44	1	bytes	A1	+ = rising, 0 = steady, - = falling
Wind Direction	45	2	bytes	I2	In 10's of degrees true See WMO codes 0885 & 0877
Wind Speed	47	2	bytes	I2	In whole knots
Sea State	49	1	bytes	A1	WMO code 3700
Weather	55	2	bytes	A2	WMO code 4677 with restricted choice as shown below: 00, 03,41,43,68,69,87,88,71,73

RECORD FORMAT DESCRIPTION

RECORD NAME / Data - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "5"
Station Number	11	5	bytes	A5	bytes 14-15 define ship and observation types
Taxonomic Code	18	10	bytes	I10	NODC 1977 codes
Subspecies	28	2	bytes	I2	
Species Group	30	2	bytes	A2	
Age Class	32	1	bytes	A1	
Sex	33	1	bytes	A1	
Color Phase	34	1	bytes	A1	
Number of Individuals	37	5	bytes	I5	whole numeric
Flight Direction	48	2	bytes	I2	In 10's of degrees
Linkage	51	3	bytes	I3	Sequence number of a group within one observation
Behavior	56	2	bytes	A2	
Sequence	78	3	bytes	I3	Ascedding numeric, for sorting
Outsice Zone	83	1	bytes	A1	0 = birds within transect width defined in RT 1, bytes 81-83. 1-9 = birds other than above.

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOAA FORM 24-13

```
0101 033FW703410017957352 5N1520530W7707062150                W10+09  920  4    4    30
0102 033FW7034200179  88   + 97                          4     03
0103 033FW703450017957910902 04                  58           01                        001  OUNSH
0104 033FW703450017957912901 03                   1           01                        002  OANMU
0105 033FW703450017957912901 06                   1           20                        003  OBRMU
0106 033FW703450017957910902 04                  60           01                        004  OUNSH
0107 033FW703450017957912901 1401                 5           01                        005  OTUPU
0108 033FW703450017957910902 0408               240           01                        006  OSTSH
0109 033FW703450017957912707 0301                 8           01                        007  ONOPH
0110 033FW703410027957311 2N1521100W7707062223                W10+09  920  4    4    30
0111 033FW7034200279  55   + 96                          4     03
0112 033FW703450027957912901 1401                 1     1     01                        001  OTUPU
0113 033FW703450027957910902 0408                 6     1     01                        002  OSTSH
0114 033FW703450027957910902 04                  10           29                        003  OUNDS
0115 033FW703450027957912901 1401                 1           20                        004  OTUPU
0116 033FW703450027957912901 06                   5           01                        005  OBRMU
0117 033FW703450027957912901 06                   1           20                        006  OBRMU
0118 033FW703450027957912901 1401                 5           01                        007  OTUPU
0119 033FW703450027957912901 1302                 1           01                        008  OHOPU
0120 033FW703450027957910902 04                   1           03                        009  OUNDS
0121 033FW703410037957280 0N1521545W7707062250                W10+09  921  4    4    30
0122 033FW7034200379  51   +100                          4     03
0123 033FW703450037957910902 04                   1     32    20                        001  OUNDS
0124 033FW703450037957912707 0301                 2           01                        002  ONOPH
0125 033FW703450037957912901 03                   1           01                        003  OUNMU
0126 033FW703450037957910902 04                   2     13    20                        004  OUNDS
0201 033FW703450037957912802 0301                 1     06    20                        005  OBLKI
0202 033FW703450037957912901 1401                 1     04    20                        006  OTUPU
0203 033FW703410047957240 0N1521912W7707062320                W10+09  921  4    4    30
0204 033FW7034200479  18   +089                          4     03
0205 033FW703450047957912901 0502                 3     14    20                        001  OPIGU
0206 033FW703450047957912901 0502                 4           01                        002  OPIGU
0207 033FW703450047957912901 0301                 7           01                        003  OCOMU
0208 033FW703450047957912802 0301                 4           29                        004  OBLKI
0209 033FW703450047957912901 0801                 4           01                        005  OANMU
0210 033FW703450047957912901 06                   1           20                        006  OBRMU
0211 033FW703450047957912802 0301                16           01                        007  OBLKI
0212 033FW703450047957912901 0601                 2           01                        008  OMAMU
0213 033FW703450047957912901 0602                 5           20                        009  OKIMU
0214 033FW703450047957912901 06                   4           01                        010  OBRMU
0215 033FW703450047957912802 0103                 1           01                        011  OGWGU
0216 033FW703410057957204 8N1522554W[illegible]070623[illegible]  W10+09  923  4    4    30
0217 033FW7034200579  78   100                           4     03
0218 033FW703450057957912901 1401                 1     04    20                        001  OTUPU
0219 033FW703450057957910902 04                   3     08    20                        002  OUNDS
```

U.S. FISH AND WILDLIFE SERVICE PELAGIC SEABIRD PROJECT

Instructions for Using Data Coding Forms

1. These forms are to be filled in by the person making the observation, and should be completed as soon as possible after the observations are made.

2. These forms constitute our major field record, and as such should be:

   A. Very legible.
   B. Filled out in pencil.
   C. Double checked for accuracy.
   D. Kept clean and in a safe place.

3. Any pertinent observations not entered as text cards should be clearly written in the space provided under FIELD NOTES. This should include a listing of all specimens collected.

4. Text cards should be kept brief: abbreviate where possible and do not include unneccessary words such as and, the, etc.

5. Do not enter numbers into any field when the information is unknown or in doubt. A zero usually means actual negative data. When a field (I.E., STATION, START LATITUDE, SEX, etc.) is used, zeros must be placed in all columns to the right of the number or letter entered, but not to the left. For example:

   A. NUMBER (column 37-41): if one bird is recorded then enter "----1", if 199 birds are recorded then enter "--100".

   B. START LATITUDE (columns 16-22): The columns for degrees, minutes and seconds are considered separate fields. If degrees are 58, minutes are 53, and seconds are unknown then the columns should be entered as "5858".

   C. TAXONOMIC CODE (colums 18-29): the twelve columns in this super-field represent six sub-fields. Zero filling is done on the basis of sub-field: Unidentified Bird = "88----------", Unidentified Alcid = "881010-----", Unidentified Phalarope = "881006------".

6. For transects during which no birds were seen use the following entry method:

SPECIES COMMON NAME	TAXONOMIC CODE	NUMBER	OUTSIDE ZONE
NONE	88----------	----0	0 (no birds in counting zone)
NONE	88----------	----0	1 (no ship followers)
NONE	88----------	----0	2 (no birds outside counting zone)

Coding-form field descriptions:

File Identifier (4-9): This number is assigned by the OBS Office before each field operation.

Station No. (11-13): A sequential number beginning with 001 for field operation, or as issued by a NOAA vessel. This number should not be duplicated during any one field operation.

Station Type (14-15): CODED: column 14 indicates the platform type, and column15 indicates the observation type.

The major criteria for a Standard Station are that the ship is stationary and that 200 m zones are used out to 600 m. On all station surveys, a text card should be made indicating how long the ship has been stationary.

The major criteria for a Standard Transect are: the distance from the ship, with or without zones, is 0-300 m; 10 or 15 minutes observation time; speed 5-15 knots; visibility at least 1,000 m; range finder can be used during entire transect; ship speed and direction constant.

Back to back transects can be used, but if the second or third are within the same 10-minute latitude/longitude block, then the second or third become experimental transects.

A Coastline Survey is one made within 500 m of the shoreline. A Bay or Fjord Survey is one made within a bay or fjord (range finder not usable) but the end zone of the observations.

Record Type (10): CODED: distinguishes between location card, environment card, ice card, text card, and data card.

Start Latitude(16-22)
Start Longitude (23-30): Position of ship at beginning of observations to nearest 1/100 seconds.

Date (31-36): Year, month, and day at the beginning of observations. Always record in GMT.

Time: (37-40): Hour and minute for the beginning of observations. Always recorded in GMT.

End Latitude (41-47) End Longitude (48-55):	Position of ship at end of observations to nearest 1/100 seconds. This field is used only for aerial surveys or if observations lasted 30 minutes or longer.
Elapsed Time (56-57)	Length of survey in munutes (temporal).
Time Zone (58-60)	Relates local time to GMT time.
Speed (61-63):	Ship's speed made good in whole knots.
Course (64-65)	Ship's course made good in 10's of whole degrees.
Height (66-68)	Height of observer's eye above water in whole meters.
Observer Conditions (75):	CODED:
Transect Width (81-83):	Width of counting zone in whole meters from the side of the ship; 300 meters is standard for USFWS-OBS-CE operations.
Depth (16-19):	Depth of water column in whole meters.
Surface Temperature (23-26)	Surface temperature of water to nearest 1/10 degree centigrade. Column23 indicates + or - degrees.)
Surface Salinity (27-29)	Surface salinity of water to nearest 1/10 part per thousand.
Barometer (40-44)	Barometric pressure to nearest 1/10 milibar. First digit of 1,000 or more is not entered. Column 44 uses + for rising, 0 for steady, and - for falling.
Wind Direction (45-46)	True direction of wind in 10's of degrees.
Wind Speed (47-48)	True speed of wind in whole knots.
Sea State (49)	CODED: - WMO 3700
Weather (55-56)	CODED:
Common Name (-----)	These columns may not be key punched. They are for the convenience of the recorder and should be used for checking accuracy of the Taxonomic Code. Use the first two letters of each common name (Common Murre - COMU). If one of the common names is hyphenated, then use the first letter of each hyphenated name (Red-legged Kittiwake = RLKI). UN is used for unknown (unidentified murre = UNMU) US is used for unknown small (small alcid = USAL). UL is used for unknown large (large gull = ULGU). UALB is used for unidentified albatross.

Taxonomic Code (18–29)	CODED:
Species Group (30–31)	CODED:
Age (32)	CODED
Sex (33)	CODED
Color Phase (34):	CODED
Group Size: (——)	Used only for internal data analysis and will not be key punched. Indicates the size of each sighting or flock. The total is then put in the Number Field.
Number (37–41)	Number of birds recorded within the paramters designated in Transect Width and Outside Zone Columns.
Flight Direction (48–49)	Direction of birds' flight in 10's of degrees to true north.
Linkage (51–53)	These columns are used to unite two or more cards into a single sighting. For example if 1,000,000 birds are recorded in one flock then two cards, each of 50,000 birds are needed. Each of these cards would have "001" in the linkage columns. If two or more linkages occur in one transect or survey, then the second linkage would have "oo2" on each card, etc.
Behavior: (56–57)	CODED
Sequence Number (78–80)	These prerecorded numbers make each card unique.
Outside Zone (83)	CODED: Those observations not to be used in estimating transect density (e.g., ship follower or bird seen outside of transect) are indicated in this column by the use of a special code.

8. Experimental Designs

There are many types and variations of data gathering techniques which can be used on ship cruises. The technique you use will depend on many factors such as ship activity, weather conditions, etc. In order to standardize our procedures as much as possible, we have established five major experimental designs which we ask you to follow as closely as possible. These designs include: Transect Censuses, Ship Follower Surveys, Station Surveys, General Observations and Collecting.

A. Transect Census: this is our most important and profitable technique. It should be given top priority and used whenever possible. Transects are taken at intervals along predetermined or opportunistic cruise tracks. The transect boundaries will always be 300 meters laterally from the observer by 10 minutes (GMT) cruising time. The basic method is for the ship to move along a straight path at a constant speed. The observer counts all birds observed forward of mid-

ip to the end of the transect and laterally out to 300 meters. A forward can insures the detection of birds which may leave the area, or fly through it, before the ship reaches them (especially important for ship avoiders). The forward scan also insures on the probability of detecting birds sitting on the water. Only those birds observed within the transect boundaries during the actual time of the transect are counted.

In theory, we would like to get an "instantaneous count of birds within the transect zone. This is, of course, next to impossible from shipboard. Flying birds present a particular problem in this respect. If the observer counted all the individuals of a large flock (e.g., shearwaters) flying across the transect zone, the eventual estimate of birds per Km^2 would be greatly exagerated. There are several ways to reduce this sort of bias:

A. Make periodic instantaneous estimates of birds within discrete portions of the transect area and use the average to calculate birds per KM^2. This can be converted to the number of birds estimated to be within the transect area during the time of the transect.

B. In the case of birds streaming perpendicularly across the bow of the ship, the number of birds crossing per minute within a specific distance (1,000 m for shearwaters, 500 m for storm petrels) can be counted. Three to five of these counts can be made during the course of one 10-minute transect. The average time it takes for one bird to cross the 300 m zone should also be measured. With these two pieces of data the number of birds per Km2 can be calculated. This density can then be used to estimate the number of birds within the transect area during the time of the census.

As the transect progresses, the observer will frequently encounter birds outside of the counting zone. Such observations, especially of species not being recorded in the count area or of large concentrations, should be included in the data but marked as being outside of the census area (Outside Zone (OZ) code). Interesting observations between transects may be handled this way or by using the General Observation method.

The timing and number of transects on each day of the cruise will depend on the ship's and observer's routine. We would like to have at least one transect completed in as many 10-minute latitude-longitude blocks as possible. If time and conditions permit, you may elect to make continuous (back to back) transects. This is especially useful in high density areas. Remember that after 1/2 to 1 hour an observer tends to become less vigilent and accuracy tends to go down.

Observations should be made from the bridge or flying bridge of the ship whenever possible. An eye height of 20 to 40 feet seems to be best for our experimental design. An unobstructed view of the 90 degree sighting area is essential.

We are enploying a range finder technique to determine distances at sea. This technique is currently being rigorously tested by Dennis Heinnman and Wayne Hoffman from Oregon State University.

Ship's log, climatic and oceanographic data are integral parts of each transect. All such data are based on the starting point of each 10-minute transect.

Ship following birds should be included in each transect by recording the maximum number of individuals per species seen at any one time during the transect along with the proper code in the Outside Zone (OZ) column.

Ship followers may also be treated by a separate experimental design (see Ship Follower Survey). If a bird originates within a transect area and subsequently becomes a ship follower, it is counted in the transect where it was first observed and listed as a ship follower in all subsequential transects where it occurs.

Be sure that all data are kept safe and up to date throughout the cruise. If you use a tape recorder, make sure that it is in proper working order each time you use it. You may elect to transcribe data directly onto coding forms. Be sure, however, to have a tape recorder handy in case observations become too frequent to handle by hand.

C. Ship Follower Survey: one of the biggest problems in collecting at-sea bird data is what to do with those species and individuals which follow the ship. From what distance(s) are birds attracted to a particular ship? How long do individual birds follow a single ship? Because of these and other unknowns, density data cannot be estimated for ship followers, Nevertheless, the birds are still present and must be accounted for. A useful approach is to consider ship followers as a separate category and survey them separately. An index of ship follower abundance should be derived using the following method:

Begin by making several complete circuits of the ship noting behavior patterns birds around the ship. Then stand on the flying bridge, or fantail if the bridge is unavailable. After five (5) minutes record the maximum number of individuals, by species, observed at any one time during the five minute survey period. When possible, break down the observations by number of each color phase or age group, etc. Hourly counts should be made in low density areas and 1/2 hourly counts in high density areas. Associated data such as position, weather, etc., should be based on the point at which observations begin. Data priorities follow Table 1 as discussed under Data Types.

This experimental design need not be used when careful counts are made during evenly spaced transect censuses.

D. Station Survey: there will often be periods when the ship is stopped. During these times we have an opportunity to collect manykinds of data not available from moving platforms. Of particular interest from the standpoint of our immediate objectives is to determine the effect that the presence and activity of a ship has on local bird populations. Do bird populations build up around a stopped ship? Are different species affected differently. Is the effect temporary or does it vary with time? Is there a "turn-over rate"? What pollution effects does a stopped ship create and how do these affect seabirds? These and many other questions can be at least partially answered by Station Surveys.

The station Survey area consists of four concentric zones with the ship at the center. The first three zones are each 200 meters wide, and the fourth one extends to the horizon. All birds are counted within each zone by making as rapid a circular sweep of the entire area as is consistent with detecting and counting birds. Make only one (1) sweep per survey. If a bird moves from one zone to another, record in it only as having occurred in the first zone in which it was seen.

The first station survey should be made as soon as the ship stops. Further surveys should be conducted intermittently thereafter, preferably at 1/2 hour intervals in areas of high bird density, and one hour intervals in areas of low bird density. Be sure to record how long each count takes. The timing and number of surveys will be left to the discretion of the observer. The more surveys you make, the better the overall data base. Changes in ship activity, weather conditions, food availability, etc., are good reasons for initiating new surveys. Try to keep track of garbage dumping by the ship. This will usually have an influence on bird activity, and thus affect your surveys. It is important to record, for each survey, the length of time between the beginning of the survey and the time the ship became stationary.

As adjuncts to Station Surveys, extensive behavioral notes (see General Observation section) should be kept, particularly when the behavior patterns relate to the ships activity or pollution effects. Station time will often provide a good opportunity for collection of specimens. Take advantage of this possible if you can. If the ship is engaged in oceanographic work, especially with regards to potential bird food sources, then observations of behavior, collecting, and local bird density estimates will be worth their weight in gold.

E. General Observations: throughout the cruise whenever time and opportunity permit (even while at the dock), you should take notes on seabirds and the environmental factors affecting seabirds. The more detailed these notes are, the more valuable they are. Many of your observations will be publishable.

ACCESSION NUMBER 78-0158

DDF A'.2'.08

DATA DOCUMENTATION FORM

RECEIVED OCT 18 1977

TR2854

NOAA FORM 24-13 (4-77)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

NEGOA

FORM APPROVED
O.M.B. No. 41-R2651
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Dr. Calvin Lensink
U.S. Fish & Wildlife Service - Office of Biological Services - Coastal Ecosystems
800 A Street - Suite 110
Anchorage, Alaska 99501

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

OCSEAP RU-337

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

FW7046

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) *(E.G., SHIP, BUOY, ETC.)*	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
NOAA R/V Surveyor	Ship	USA	USA	9/5/77	9/15/77

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ____ MONTH ____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?

(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

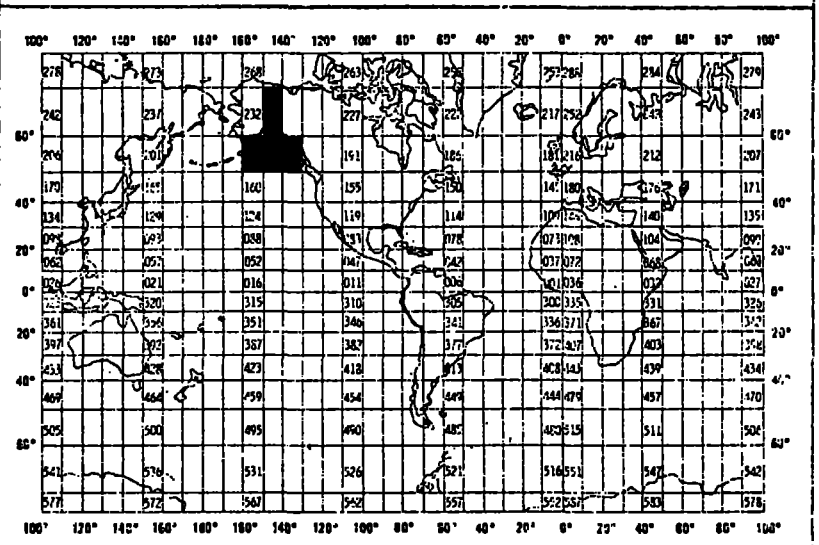
[X] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Calvin Lensink
Dr. Patrick J. Gould

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Station Type	N/A	See Attatched Codes	N/A	N/A
Start Latitude & Longitude	Degrees, Minutes, Seconds, Hemisph.	Combined Radar Fixes and Depth Charts	N/A	N/A
Date - Time	Year, Month, Day Hour, Minute	Always GMT	N/A	N/A
Elapsed Time	Minutes	N/A	N/A	N/A
Time Zone	International Standard	N/A	N/A	N/A
Speed	Knots made good	Derived from plotted positions	N/A	N/A
Course	10's of degrees true made good	Derived from plotted positions	N/A	N/A
Height	Whole meters	Measured with steel Tape	N/A	N/A
Obs. Conditions	033 code	Observers opinion of all factors influencing observations - subjective	N/A	N/A
Transect Width	10's of meters	Estimated, based on periodic checks with a range finder.	N/A	N/A
Depth	meters	Fathometer and Charts	N/A	N/A
Surface Temp.	tenths of degrees centigrade	Temp. gage at ships intake	N/A	N/A
Sea State	WMO 3700 codes	Observation	N/A	N/A
Weather	WMO 4677 codes selected	Observation - see attatched list of selected codes	N/A	N/A
Taxonomic Code	NODC Taxonomic codes	1977 version	N/A	N/A
Age	033 codes	Observation	N/A	N/A
Sex	033 Codes	Observation	N/A	N/A
Color Phase	033 Codes	Observation	N/A	N/A

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Number	Number of individual organisms	Binoculars	N/A	N/A
Flight Direction	10's of degrees true	Observation	N/A	N/A
Linkage	033 codes	N/A	N/A	N/A
Behavior	Selected 033 codes	See attatched list of Selected codes	N/A	N/A
Outside Zone	033 codes	N/A	N/A	N/A

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Type 1 = Location

Type 2 = Environmental

Type 4 = Text

Type 5 = Data

These are differentiated by byte 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File organized by Station Number (Record Type 1, Bytes 11-13)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Robert L. Blanscett 901-265-5401

ADDRESS U.S.F.W.S., OBS-CE, 800 A St., Suite 110, Anchorage, Alaska 99501

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY
☐ ASCII ☒ EBCDIC
☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN
☒ NINE
☐ _____

7. PARITY
☒ ODD
☐ EVEN

8. DENSITY
☐ 200 BPI ☐ 1600 BPI
☐ 556 BPI
☒ 800 BPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☐ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

OCSEAP - USFWS/OBSCE
337 033 FW7046
NOAA R/V Surveyor
77/9/5 - 77/9/15 LENSINK
9TRK, 800BPI, ODD, EBCDIC

12. PHYSICAL BLOCK LENGTH IN BYTES
83

13. LENGTH OF BYTES IN BITS
8

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Location - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	"Always 033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	"Always 1"
Station Number	11	5	bytes	A5	4th byte coded for ship type 5th byte coded for transect type
Latitude, Degrees	16	2	bytes	I2	Starting Position
Minutes	18	2	bytes	I2	" "
Seconds	20	2	bytes	I2	" "
Hemisphere	22	1	bytes	A1	"N" or "S"
Longitude, Degrees	23	3	bytes	I3	Starting Position
Minutes	26	2	bytes	I2	" "
Seconds	28	2	bytes	I2	" "
Hemisphere	30	1	bytes	A1	"E" or "W"
Year	31	2	bytes	I2	Last two digits of year = Starting Time GMT
Month	33	2	bytes	I2	" " "
Day	35	2	bytes	I2	" " "
Hour	37	2	bytes	I2	" " "
Minute	39	2	bytes	I2	" " "
Latitude, Degrees	41	2	bytes	I2	Ending Position
Minutes	43	2	bytes	I2	" "
Seconds	45	2	bytes	I2	" "
Hemisphere	47	1	bytes	A1	"N" or "S"
Longitude, Degrees	48	3	bytes	I3	Ending Position
Minutes	51	2	bytes	I2	" "
Seconds	53	2	bytes	I2	" "
Hemisphere	55	1	bytes	A1	"E" or "W"
Elapsed Time	56	2	bytes	I2	whole minutes
Time Zone	58	1	byte	A1	"+" or "-"
Time Zone	59	2	bytes	A2	01-12
Speed Made Good	61	3	bytes	I3	in whole knots
Course Made Good	64	2	bytes	I2	tens of degrees true

RECORD FORMAT DESCRIPTION

RECORD NAME Location (continued) – Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Height of eyes above sea	66	3	bytes	I3	In whole meters
Observation conditions	75	1	bytes	A1	1-7 bad-excellent
Transect width	81	3	bytes	I3	10's of meters

RECORD FORMAT DESCRIPTION

RECORD NAME Environmental - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "2"
Depth	16	4	bytes	I4	In whole meters
Surface Temp.	23	4	bytes	I4	In tenths of degrees Centigrade
Surface Salinity	27	3	bytes	I3	In parts per hundred
Barometric Pressure	40	4	bytes	I4	In tenths of millibars
Barometric Trend	44	1	bytes	A1	+ = rising, 0 = steady, - = falling
Wind Direction	45	2	bytes	I2	In 10's of degrees true See WMO codes 0885 & 0877
Wind Speed	47	2	bytes	I2	In whole knots
Sea State	49	1	bytes	A1	WMO code 3700
Weather	55	2	bytes	A2	WMO code 4677 with restricted choice as shown below: 00, 03,41,43,68,69,87,88,71,73

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME / Data - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "5"
Station Number	11	5	bytes	A5	bytes 14-15 define ship and observation types
Taxonomic Code	18	10	bytes	I10	NODC 1977 codes
Subspecies	28	2	bytes	I2	
Species Group	30	2	bytes	A2	
Age Class	32	1	bytes	A1	
Sex	33	1	bytes	A1	
Color Phase	34	1	bytes	A1	
Number of Individuals	37	5	bytes	I5	whole numeric
Flight Direction	48	2	bytes	I2	In 10's of degrees
Linkage	51	3	bytes	I3	Sequence number of a group within one observation
Behavior	56	2	bytes	A2	
Sequence	78	3	bytes	I3	Asceiding numeric, for sorting
Outside Zone	83	1	bytes	A1	0 = birds within transect width defined in RT 1, bytes 81-83. 1-9 = birds other than above.
Species Name Abbreviation	84	4	bytes	A4	

NOAA FORM 24-13

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOAA FORM 24-19

U.S. FISH AND WILDLIFE SERVICE PELAGIC SEABIRD PROJECT

Instructions for Using Data Coding Forms

1. These forms are to be filled in by the person making the observation, and should be completed as soon as possible after the observations are made.

2. These forms constitute our major field record, and as such should be:

   A. Very legible.
   B. Filled out in pencil.
   C. Double checked for accuracy.
   D. Kept clean and in a safe place.

3. Any pertinent observations not entered as text cards should be clearly written in the space provided under FIELD NOTES. This should include a listing of all specimens collected.

4. Text cards should be kept brief: abbreviate where possible and do not include unneccessary words such as and, the, etc.

5. Do not enter numbers into any field when the information is unknown or in doubt. A zero usually means actual negative data. When a field (I.E., STATION, START LATITUDE, SEX, etc.) is used, zeros must be placed in all columns to the right of the number or letter entered, but not to the left. For example:

   A. NUMBER (column 37-41): if one bird is recorded then enter "----1", if 199 birds are recorded then enter "--100".

   B. START LATITUDE (columns 16-22): The columns for degrees, minutes and seconds are considered separate fields. If degrees are 58, minutes are 53, and seconds are unknown then the columns should be entered as "5858".

   C. TAXONOMIC CODE (colums 18-29): the twelve columns in this super-field represent six sub-fields. Zero filling is done on the basis of sub-field: Unidentified Bird = "88----------", Unidentified Alcid = "881010-----", Unidentified Phalarope = "881006------".

6. For transects during which no birds were seen use the following entry method:

SPECIES COMMON NAME	TAXONOMIC CODE	NUMBER	OUTSIDE ZONE
NONE	88----------	----0	0 (no birds in counting zone)
NONE	88----------	----0	1 (no ship followers)
NONE	88----------	----0	2 (no birds outside counting zone)

7. Coding-form field descriptions:

File Identifier (4-9): This number is assigned by the OBS Office before each field operation.

Station No. (11-13): A sequential number beginning with 001 for field operation, or as issued by a NOAA vessel. This number should not be duplicated during any one field operation.

Station Type (14-15): CODED: column 14 indicates the platform type, and column15 indicates the observation type.

The major criteria for a Standard Station are that the ship is stationary and that 200 m zones are used out to 600 m. On all station surveys, a text card should be made indicating how long the ship has been stationary.

The major criteria for a Standard Transect are: the distance from the ship, with or without zones, is 0-300 m; 10 or 15 minutes observation time; speed 5-15 knots; visibility at least 1,000 m; range finder can be used during entire transect; ship speed and direction constant.

Back to back transects can be used, but if the second or third are within the same 10-minute latitude/longitude block, then the second or third become experimental transects.

A Coastline Survey is one made within 500 m of the shoreline. A Bay or Fjord Survey is one made within a bay or fjord (range finder not usable) but the end zone of the observations.

Record Type (10): CODED: distinguishes between location card, environment card, ice card, text card, and data card.

Start Latitude(16-22)
Start Longitude (23-30): Position of ship at beginning of observations to nearest 1/100 seconds.

Date (31-36): Year, month, and day at the beginning of observations. Always record in GMT.

Time: (37-40): Hour and minute for the beginning of observations. Always recorded in GMT.

End Latitude (41-47) End Longitude (48-55):	Position of ship at end of observations to nearest 1/100 seconds. This field is used only for aerial surveys or if observations lasted 30 minutes or longer.
Elapsed Time (56-57)	Length of survey in munutes (temporal).
Time Zone (58-60)	Relates local time to GMT time.
Speed (61-63):	Ship's speed made good in whole knots.
Course (64-65)	Ship's course made good in 10's of whole degrees.
Height (66-68)	Height of observer's eye above water in whole meters.
Observer Conditions (75):	CODED:
Transect Width (81-83):	Width of counting zone in whole meters from the side of the ship; 300 meters is standard for USFWS-OBS-CE operations.
Depth (16-19):	Depth of water column in whole meters.
Surface Temperature (23-26)	Surface temperature of water to nearest 1/10 degree centigrade. Column23 indicates + or - degrees.)
rface Salinity (27-29)	Surface salinity of water to nearest 1/10 part per thousand.
Barometer (40-44)	Barometric pressure to nearest 1/10 milibar. First digit of 1,000 or more is not entered. Column 44 uses + for rising, 0 for steady, and - for falling.
Wind Direction (45-46)	True direction of wind in 10's of degrees.
Wind Speed (47-48)	True speed of wind in whole knots.
Sea State (49)	CODED: - WMO 3700
Weather (55-56)	CODED:
Common Name (-----)	These columns may not be key punched. They are for the convenience of the recorder and should be used for checking accuracy of the Taxonomic Code. Use the first two letters of each common name (Common Murre - COMU). If one of the common names is hyphenated, then use the first letter of each hyphenated name (Red-legged Kittiwake = RLKI). UN is used for unknown (unidentified murre = UNMU) US is used for unknown small (small alcid = USAL). UL is used for unknown large (large gull = ULGU). UALB is used for unidentified albatross.

Taxonomic Code (18–29)	CODED:
Species Group (30–31)	CODED:
Age (32)	CODED
Sex (33)	CODED
Color Phase (34):	CODED
Group Size: (----)	Used only for internal data analysis and will not be key punched. Indicates the size of each sighting or flock. The total is then put in the Number Field.
Number (37–41)	Number of birds recorded within the paramters designated in Transect Width and Outside Zone Columns.
Flight Direction (48–49)	Direction of birds' flight in 10's of degrees to true north.
Linkage (51–53)	These columns are used to unite two or more cards into a single sighting. For example if 1,000,000 birds are recorded in one flock then two cards, each of 50,000 birds are needed. Each of these cards would have "001" in the linkage columns. If two or more linkages occur in one transect or survey, then the second linkage would have "oo2" on each card, etc.
Behavior: (56-57)	CODED
Sequence Number (78–80)	These prerecorded numbers make each card unique.
Outside Zone (83)	CODED: Those observations not to be used in estimating transect density (e.g., ship follower or bird seen outside of transect) are indicated in this column by the use of a special code.

8. Experimental Designs

There are many types and variations of data gathering techniques which can be used on ship cruises. The technique you use will depend on many factors such as ship activity, weather conditions, etc. In order to standardize our procedures as much as possible, we have established five major experimental designs which we ask you to follow as closely as possible. These designs include: Transect Censuses, Ship Follower Surveys, Station Surveys, General Observations and Collecting.

A. Transect Census: this is our most important and profitable technique. It should be given top priority and used whenever possible. Transects are taken at intervals along predetermined or opportunistic cruise tracks. The transect boundaries will always be 300 meters laterally from the observer by 10 minutes (GMT) cruising time. The basic method is for the ship to move along a straight path at a constant speed. The observer counts all birds observed forward of mid-

ship to the end of the transect and laterally out to 300 meters. A forward scan insures the detection of birds which may leave the area, or fly through it, before the ship reaches them (especially important for ship avoiders). The forward scan also insures on the probability of detecting birds sitting on the water. Only those birds observed within the transect boundaries during the actual time of the transect are counted.

In theory, we would like to get an "instantaneous count of birds within the transect zone. This is, of course, next to impossible from shipboard. Flying birds present a particular problem in this respect. If the observer counted all the individuals of a large flock (e.g., shearwaters) flying across the transect zone, the eventual estimate of birds per Km^2 would be greatly exagerated. There are several ways to reduce this sort of bias:

A. Make periodic instantaneous estimates of birds within discrete portions of the transect area and use the average to calculate birds per KM^2. This can be converted to the number of birds estimated to be within the transect area during the time of the transect.

B. In the case of birds streaming perpendicularly across the bow of the ship, the number of birds crossing per minute within a specific distance (1,000 m for shearwaters, 500 m for storm petrels) can be counted. Three to five of these counts can be made during the course of one 10-minute transect. The average time it takes for one bird to cross the 300 m zone should also be measured. With these two pieces of data the number of birds per Km2 can be calculated. This density can then be used to estimate the number of birds within the transect area during the time of the census.

As the transect progresses, the observer will frequently encounter birds outside of the counting zone. Such observations, especially of species not being recorded in the count area or of large concentrations, should be included in the data but marked as being outside of the census area (Outside Zone (OZ) code). Interesting observations between transects may be handled this way or by using the General Observation method.

The timing and number of transects on each day of the cruise will depend on the ship's and observer's routine. We would like to have at least one transect completed in as many 10-minute latitude-longitude blocks as possible. If time and conditions permit, you may elect to make continuous (back to back) transects. This is especially useful in high density areas. Remember that after 1/2 to 1 hour an observer tends to become less vigilent and accuracy tends to go down.

Observations should be made from the bridge or flying bridge of the ship whenever possible. An eye height of 20 to 40 feet seems to be best for our experimental design. An unobstructed view of the 90 degree sighting area is essential.

We are enploying a range finder technique to determine distances at sea. This technique is currently being rigorously tested by Dennis Heinnman and Wayne Hoffman from Oregon State University.

Ship's log, climatic and oceanographic data are integral parts of each transect. All such data are based on the starting point of each 10-minute transect.

Ship following birds should be included in each transect by recording the maximum number of individuals per species seen at any one time during the transect along with the proper code in the Outside Zone (OZ) column.

Ship followers may also be treated by a separate experimental design (see Ship Follower Survey). If a bird originates within a transect area and subsequently becomes a ship follower, it is counted in the transect where it was first observed and listed as a ship follower in all subsequential transects where it occurs.

Be sure that all data are kept safe and up to date throughout the cruise. If you use a tape recorder, make sure that it is in proper working order each time you use it. You may elect to transcribe data directly onto coding forms. Be sure, however, to have a tape recorder handy in case observations become too frequent to handle by hand.

C. Ship Follower Survey: one of the biggest problems in collecting at-sea bird data is what to do with those species and individuals which follow the ship. From what distance(s) are birds attracted to a particular ship? How long do individual birds follow a single ship? Because of these and other unknowns, density data cannot be estimated for ship followers, Nevertheless, the birds are still present and must be accounted for. A useful approach is to consider ship followers as a separate category and survey them separately. An index of ship follower abundance should be derived using the following method:

Begin by making several complete circuits of the ship noting behavior patterns of birds around the ship. Then stand on the flying bridge, or fantail if the bridge is unavailable. After five (5) minutes record the maximum number of individuals, by species, observed at any one time during the five minute survey period. When possible, break down the observations by number of each color phase or age group, etc. Hourly counts should be made in low density areas and 1/2 hourly counts in high density areas. Associated data such as position, weather, etc., should be based on the point at which observations begin. Data priorities follow Table 1 as discussed under Data Types.

This experimental design need not be used when careful counts are made during evenly spaced transect censuses.

D. Station Survey: there will often be periods when the ship is stopped. During these times we have an opportunity to collect marykinds of data not available from moving platforms. Of particular interest from the standpoint of our immediate objectives is to determine the effect that the presence and activity of a ship has on local bird populations. Do bird populations build up around a stopped ship? Are different species affected differently. Is the effect temporary or does it vary with time? Is there a "turn-over rate"? What pollution effects does a stopped ship create and how do these affect seabirds? These and many other questions can be at least partially answered by Station Surveys.

The station Survey area consists of four concentric zones with the ship at the center. The first three zones are each 200 meters wide, and the fourth zone extends to the horizon. All birds are counted within each zone by making as rapid a circular sweep of the entire area as is consistent with detecting and counting birds. Make only one (1) sweep per survey. If a bird moves from one zone to another, record in it only as having occurred in the first zone in which it was seen.

The first station survey should be made as soon as the ship stops. Further surveys should be conducted intermittently thereafter, preferably at 1/2 hour intervals in areas of high bird density, and one hour intervals in areas of low bird density. Be sure to record how long each count takes. The timing and number of surveys will be left to the discretion of the observer. The more surveys you make, the better the overall data base. Changes in ship activity, weather conditions, food availability, etc., are good reasons for initiating new surveys. Try to keep track of garbage dumping by the ship. This will usually have an influence on bird activity, and thus affect your surveys. It is important to record, for each survey, the length of time between the beginning of the survey and the time the ship became stationary.

As adjuncts to Station Surveys, extensive behavioral notes (see General Observation section) should be kept, particularly when the behavior patterns relate to the ships activity or pollution effects. Station time will often provide a good opportunity for collection of specimens. Take advantage of this possible if you can. If the ship is engaged in oceanographic work, especially with regards to potential bird food sources, then observations of behavior, collecting, and local bird density estimates will be worth their weight in gold.

E. General Observations: throughout the cruise whenever time and opportunity permit (even while at the dock), you should take notes on seabirds and the environmental factors affecting seabirds. The more detailed these notes are, the more valuable they are. Many of your observations will be publishable.

C. DATA FORMAT Ship and Aircraft Census 2-20-76

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS. 33

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE Marine Bird Sighting I (Air/Ship)

Five record types; Location (type 1), Environmental (type 2), Ice (type 3), Text (type 4) and Data (type 5) differentiated by byte 10.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER _____
ADDRESS _____

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☐ ASCII ☐ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☐ NINE ☐ _____

7. PARITY ☐ ODD ☐ EVEN

8. DENSITY ☐ 200 BPI ☐ 1600 BPI ☐ 556 BPI ☐ 800 BPI ☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☐ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

12. PHYSICAL BLOCK LENGTH IN BYTES

13. LENGTH OF BYTES IN BITS

RECORD FORMAT DESCRIPTION

RD NAME Location Ship and Aircraft Census 2-20-76

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '033'
File Identifier	4	6	Bytes	A6	
Record Type	10	1	Bytes	I1	Always '1'
Station Number	11	5	Bytes	A5	
Latitude,					
Degrees	16	2	Bytes	I2	
Minutes	18	2	Bytes	I2	
Seconds	20	2	Bytes	I2	Starting Position
Hemisphere	22	1	Bytes	A1	'N' or 'S'
Longitude,					
Degrees	23	3	Bytes	I3	
Minutes	26	2	Bytes	I2	
Seconds	28	2	Bytes	I2	
Hemisphere	30	1	Bytes	A1	'E' or 'W'
Year	31	2	Bytes	I2	Last two digits of year (Starting Date/Time GMT)
Month	33	2	Bytes	I2	1-12
Day	35	2	Bytes	I2	1-31
Hour	37	2	Bytes	I2	0-23
Minute	39	2	Bytes	I2	0-59
Latitude,					
Degrees	41	2	Bytes	I2	
Minutes	43	2	Bytes	I2	
Seconds	45	2	Bytes	I2	Ending Position
Hemisphere	47	1	Bytes	A1	'N' or 'S'

RECORD FORMAT DESCRIPTION

5/5/77

NAME Location Continued Ship and Aircraft Census

14. ELEMENT NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Longitude,					
Degrees	48	3	Bytes	I3	
Minutes	51	2	Bytes	I2	
Seconds	53	2	Bytes	I2	
Hemisphere	55	1	Bytes	A1	'E' or 'W'
Elapsed Time	56	2	Bytes	I2	Whole minutes
Time Zone	58	1	Bytes	A1	Always '+' or '-'
Time Zone	59	2	Bytes	A2	01-12
Speed Made Good	61	3	Bytes	I3	To whole knots
Course Made Good	64	2	Bytes	I2	Tens of degrees
Height Above Sea Surface of Observer's Eyes	66	3	Bytes	I3	To whole meters
Platform Type Code	69	1	Bytes	A1	
Sampling Technique Code	70	1	Bytes	A2	
Ship Activity Code	71	1	Bytes	A1	
Photo(s) Taken	72	1	Bytes	A1	Use collection code
Width of Transect	73	1	Bytes	A1	Use Zone Scheme Code
Angle of View Code	74	1	Bytes	A1	
Observation Conditions Code	75	1	Bytes	A1	
Distance Made Good	76	4	Bytes	I4	Kilometers to tenths
Watch Type Code	80	1	Bytes	A1	Use Watch Type Illustration
Transect Width	81	3	Bytes	3I	Tens of meters

RECORD FORMAT DESCRIPTION

2-20-76

RD NAME Environmental Ship and Aircraft Census

FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '033'
File Identifier	4	6	Bytes	A6	
Record Type	10	1	Bytes	I1	Always '2'
Station Number	11	5	Bytes	A5	
Depth to Bottom	16	4	Bytes	I4	In whole meters
Depth of Thermocline	20	3	Bytes	I3	In whole meters
Surface Temperature	23	4	Bytes	I4	In tenths of degree Celsius
Surface Salinity	27	3	Bytes	I3	Parts/thousand to tenths
Dry Bulb Temperature	30	4	Bytes	I4	In tenths of deg. C
Wet Bulb Temperature	34	4	Bytes	I4	In tenths of Deg. C.
Relative Humidity	38	2	Bytes	I2	Percent (00-99)
Barometric Pressure	40	4	Bytes	I4	In tenths of millibars
Barometric Trend	44	1	Bytes	A1	'+' = rising, '0' = steady, '-' = falling
Wind Direction	45	2	Bytes	I2	In tens of degrees WMO Codes 0885 and 0877
Wind Speed	47	2	Bytes	I2	In whole knots
Sea State	49	1	Bytes	A1	WMO code 3700
Swell Direction	50	2	Bytes	I2	In tens of degrees WMO Codes 0885 and 0877
Swell Height	52	3	Bytes	I3	In meters to tenths
Weather	55	2	Bytes	A2	WMO code 4677
Cloud Type	57	1	Bytes	A1	WMO code 0500
Cloud Amount	58	1	Bytes	A1	WMO code 2700
Water Color	59	2	Bytes	A2	Forel - Ule scale

5-31-77

RECORD FORMAT DESCRIPTION

RD NAME Environmental Continued Ship and Aircraft Census

FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Visibility	61	1	Bytes	A1	WMO code 4300
Sun Direction Code	62	1	Bytes	A1	Use compass direction code
Glare Intensity Code	63	1	Bytes	A1	
Glare Area Code	64	1	Bytes	A1	
Light Level	65	3	Bytes	I3	Tens of foot-candles
Moon Phase Code	68	1	Bytes	A1	
Tide Height Code	69	1	Bytes	A1	
Rising or Falling Tide	70	1	Bytes	A1	'+' = rising, '-' = falling, '0' = slack water
Distance to nearest Shoreline	71	4	Bytes	I4	In whole nautical miles
Distance to shelf Break	75	3	Bytes	I3	In whole nautical miles
SECCHI Depth	78	2	Bytes	I2	In whole meters
Debris Code	80	1	Bytes	A1	Debris encountered but not bird associated.
Blank	81	3	Bytes	3X	

RECORD FORMAT DESCRIPTION

RD NAME ICE SHIP AND AIRCRAFT CENSUS 2-20-76

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '033'
File Identifier	4	6	Bytes	A6	
Record Type	10	1	Bytes	I1	Always '3'
Station Number	11	5	Bytes	A5	
Ice in Transect					
Coverage Code	16	1	Bytes	A1	WMO 0547
Type Code	17	1	Bytes	A1	WMO 3763
Form Code	18	1	Bytes	A1	WMO 1147
Relief Code	19	1	Bytes	A1	WMO 3962
Thickness Code	20	1	Bytes	A1	WMO 4006
Melt Code	21	1	Bytes	A1	WMO 2650
Ice Outside Transect					
Coverage Code	22	1	Bytes	A1	WMO 0547
Type Code	23	1	Bytes	A1	WMO 3763
Form Code	24	1	Bytes	A1	WMO 1147
Relief Code	25	1	Bytes	A1	WMO 3962
Thickness Code	26	1	Bytes	A1	WMO 4006
Melt Code	27	1	Bytes	A1	WMO 2650
Open Water					
Type Code	28	1	Bytes	A1	WMO 4552
Direction Code	29	1	Bytes	A1	WMO 0739
Distance Code	30	1	Bytes	A1	WMO 3600

5-17-77

RECORD FORMAT DESCRIPTION

RECORD NAME ICE (CONTINUED) SHIP AND AIRCRAFT CENSUS

FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Lead or Polynya Width Code	31	1	Bytes	A1	WMO 4300 (used only if '6', '7' or '8' in column 28)
Visible Ice					
Description Code	32	1	Bytes	A1	WMO 0663 (used only if '9' in column 28
Direction Code	33	1	Bytes	A1	WMO 0739 used only if column 32 is coded
Distance Code	34	1	Bytes	A1	WMO 3600
Miscellaneous					
Arctic Cod Observed	35	1	Bytes	A1	Use collection code
Excess Sediment	36	1	Bytes	A1	Use collection code
Ice Algae Layer	37	1	Bytes	A1	Use collection code
Mammal Trace Code	38	1	Bytes	A1	Use mammal trace code
Other Features	39	1	Bytes	A1	Use mammal trace code
Blank	40	7	Bytes	7X	Blank
Percent Water Versus Land Covered	47	2	Bytes	I2	00-99%
Size of Ponds	49	1	Bytes	A1	Use File 033 Size of Pond Code
Blank	50	34	Bytes	34X	

RECORD FORMAT DESCRIPTION

5-18-77

NAME TEXT SHIP AND AIRCRAFT CENSUS

14. NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '033'
File Identifier	4	6	Bytes	A6	
Record Type	10	1	Bytes	I1	Always '4'
Station Number	11	5	Bytes	A5	
Text	16	62	Bytes	62A1	
Sequence	78	3	Bytes	I3	Ascending numeric, used for sorting
Blank	81	3	Bytes	3X	

RECORD FORMAT DESCRIPTION

2-20-76

RD NAME Data Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '033'
File Identifier	4	6	Bytes	A6	
Record Type	10	1	Bytes	I1	Always '5'
Station Number	11	5	Bytes	A5	
Time	16	2	Bytes	I2	Number of minutes from starting time to observation time, in whole minutes
Taxonomic Code	18	10	Bytes	I10	
Sub Species	28	2	Bytes	I2	
Species Group	30	2	Bytes	A2	
Age Class Group Code	32	1	Bytes	A1	
Sex Code	33	1	Bytes	A1	
Color Phase Code	34	1	Bytes	A1	
Plumage Code	35	1	Bytes	A1	
Molt Code	36	1	Bytes	A1	
Number of Individuals	37	5	Bytes	I5	Whole numeric
Counting Method Code	42	1	Bytes	A1	
Reliability Code	43	1	Bytes	A1	
Dist. Measurement Type Code	44	1	Bytes	A1	
Distance from observation platform to birds	45	3	Bytes	I3	In tens of meters
Direction of Flight	48	2	Bytes	I2	In tens of degrees
Association code, Type of Association	50	1	Bytes	A1	

RECORD FORMAT DESCRIPTION

NAME Data Ship and Aircraft Census (Continued)

14. NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Linkage for Multispecies (sequence number)	51	3	Bytes	I3	Sequence number of the group within one observation time block (blank for single birds)
Number of Species Participating	54	2	Bytes	I2	Should equal the number of cards with the same sequence number, bytes 51-53
Behavior (Activity) Code	56	2	Bytes	A2	
Special Marks Code	58	1	Bytes	A1	
Bird Condition Code	59	1	Bytes	A1	
Food Source Assoc-Code	60	1	Bytes	A1	
Taxonomic Code for Food Species	61	10	Bytes	I10	
Debris Code	71	1	Bytes	A1	
Oil Code	72	1	Bytes	A1	
Distance from Nearest Breeding Colony	73	3	Bytes	I3	In nautical miles
Habitat Code	76	2	Bytes	2A1	Up to 2 different habitats reported. Code from right to left
Sequence Number	78	3	Bytes	I3	Ascending numeric, for sorting purposes
Substrate Code	81	1	Bytes	A1	
Cover Code	82	1	Bytes	A1	
Outside Zone Code	83	1	Bytes	A1	

1-9-86

RECORD FORMAT DESCRIPTION

RECORD NAME ICE SHIP AND AIRCRAFT CENSUS

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '033'
File Identifier	4	6	Bytes	A6	
Record Type	10	1	Bytes	I1	Always '3'
Station Number	11	5	Bytes	A5	
Ice in Transect					
Coverage Code	16	1	Bytes	A1	WMO 0547
Type Code	17	1	Bytes	A1	WMO 3763
Form Code	18	1	Bytes	A1	WMO 1147
Relief Code	19	1	Bytes	A1	WMO 3962
Thickness Code	20	1	Bytes	A1	WMO 4006
Melt Code	21	1	Bytes	A1	WMO 2650
Ice Outside Transect					
Coverage Code	22	1	Bytes	A1	WMO 0547
Type Code	23	1	Bytes	A1	WMO 3763
Form Code	24	1	Bytes	A1	WMO 1147
Relief Code	25	1	Bytes	A1	WMO 3962
Thickness Code	26	1	Bytes	A1	WMO 4006
Melt Code	27	1	Bytes	A1	WMO 2650
Visible Open Water					Used when area of open water is visible in distance
Type of Opening Code	28	1	Bytes	A1	WMO 4552
Direction Code	29	1	Bytes	A1	WMO 0739 used only if column 28 coded
Distance to Open Water Code	30	1	Bytes	A1	WMO 3600 used only if column 28 coded

RECORD FORMAT DESCRIPTION

RECORD NAME ICE (CONTINUED) SHIP AND AIRCRAFT CENSUS 1-18-78

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Lead or Polynya	31	1	Bytes	A1	WMO 4300 (used only if '6', '7' or '8' in column 28)
Visible Ice					
Description Code	32	1	Bytes	A1	WMO 0663 (used only if '9' in column 28)
Direction Code	33	1	Bytes	A1	WMO 0739 Used only if column 32 is coded
Distance to Visible Ice Code	34	1	Bytes	A1	WMO 3600
Miscellaneous					
Arctic Cod Observed	35	1	Bytes	A1	Use collection code
Excess Sediment	36	1	Bytes	A1	Use collection code
Ice Algae Layer	37	1	Bytes	A1	Use collection code
Mammal Trace Code	38	1	Bytes	A1	Use mammal trace code
Other Features	39	1	Bytes	A1	Use mammal trace code
Ice in Transect					
Pattern	40	1	Bytes	A1	1 - Regular 2 - Clumped
Ice Outside Transect					
Pattern	41	1	Bytes	A1	
Ship in Water	42	1	Bytes	A1	1 - Lead 2 - Polynya 3 - Open water of indeterminable type
Width of Lead	43	1	Bytes	A1	WMO 4300
Distance of Ship from Edge of Lead or Polynya	44	1	Bytes	A1	WMO 4300
Time of Ice Conditions	45	2	Bytes	I2	Number of minutes from starting time to observation time, in whole minutes

RECORD FORMAT DESCRIPTION

RECORD NAME ICE (CONTINUED) SHIP AND AIRCRAFT CENSUS 1-18-78

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Percent Water Versus Land Covered	47	2	Bytes	I2	00-99%
Size of Ponds	49	1	Bytes	A1	Use File 033 Size of Pond Code
Description of Open Water Ice	50	1	Bytes	A1	WMO 1147
Open Water Ice Coverage	51	1	Bytes	A1	WMO 0547
Blank	52	26	Bytes	26x	
Sequence Number	78	3	Bytes	I3	Ascending numeric used for sorting
Blank	81	3	Bytes	3x	

NOAA FORM 24-13

ACCESSION NUMBER 78-0158

TR2853

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED
O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Dr. Calvin Lensink
U.S. Fish and Wildlife Service - Office of Biological Services - Coastal Ecosystems
800 A Street Suite 110
Anchorage, Alaska 99501

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

OCSEAP RU-337

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

FW7045

4. PLATFORM NAME(S)

Grumann Goose

5. PLATFORM TYPE(S) *(E.G., SHIP, BUOY, ETC.)*

Aircraft

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
USA	USA

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
06/17/77	06/18/77

8. ARE DATA PROPRIETARY?

[XX] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR____ MONTH____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?

(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

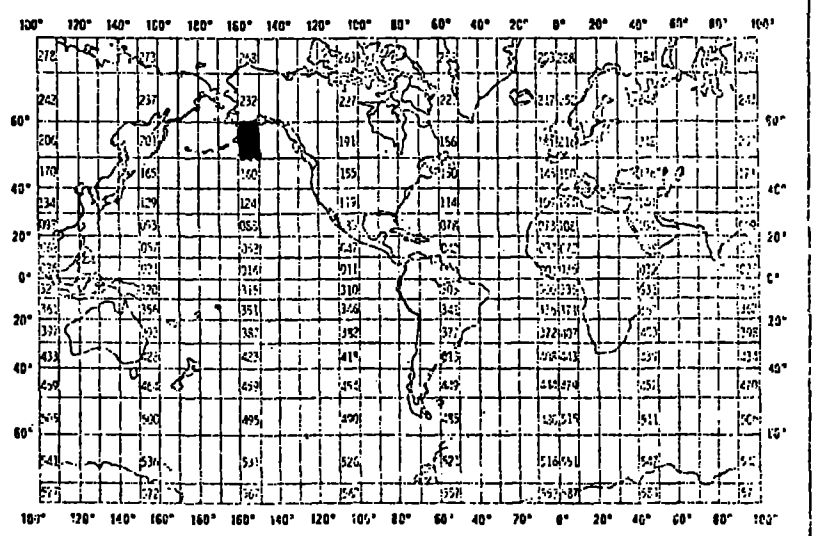
[XX] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Calvin Lensink
Mr. Craig Harrison
(907) 265-5401

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



NOAA FORM 24-13

USCOMM-DC 44269-P72

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Station Type	N/A	See Attached Codes	N/A	N/A
Start Latitude & Longitude	Degrees, Minutes, Seconds, Hemis.	GNS 500 (VLF output)	N/A	N/A
Date - Time	Year, Month, Day, Hour, Minute	Always GMT	N/A	N/A
End Latitude & Longitude	Degrees, Minutes, Seconds, Hemis.	GNS 500 (VLF output)	N/A	N/A
Time Zone	International Standard	N/A	N/A	N/A
Speed	Knots	GNS 500 (VLF output)	N/A	N/A
Course	10's of degrees true made good	Compass	N/A	N/A
Height	Whole Meters	Radio altimeter	N/A	N/A
Transect Width	10's of meters	Estimated, based on clinometer and trigonometry	N/A	N/A
Sea State	WMO 3700 codes	Observation	N/A	N/A
Weather	WMO 4677 codes selected	Observation - see attached list of selected codes	N/A	N/A
Taxonomic Code	NODC Taxonomic Codes	1977 Version	N/A	N/A
Number	Number of individual organisms	Observation	N/A	N/A
Linkage	033 Codes	N/A	N/A	N/A
Outside Zone	033 Codes	N/A	N/A	N/A

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Type 1 = Location

Type 2 = Environmental

Type 4 = Text

Type 5 = Data

These are differentiated by byte 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File organized by Station Number (Record Type 1, Bytes 11-13)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Robert L. Blanscett (907) 265-5401

ADDRESS U.S.F.W.S., OBS-CE, 800 A St., Suite 110, Anchorage, Alaska 99501

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☐ ASCII ☒ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☒ NINE ☐ _____

7. PARITY ☒ ODD ☐ EVEN

8. DENSITY ☐ 200 BPI ☐ 1600 BPI ☐ 556 BPI ☒ 800 BPI ☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☐ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

OCSEAP - USFWS/OBSCE
337 033 FW7045
Grumann Goose Aerial Survey
77/06/17 - 77/06/18 LENSINK
9 TRK, 800 BPI, ODD, EBCDIC

12. PHYSICAL BLOCK LENGTH IN BYTES
83

13. LENGTH OF BYTES IN BITS
8

RECORD FORMAT DESCRIPTION

RECORD NAME Location - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	"Always 033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	"Always 1"
Station Number	11	5	bytes	A5	4th byte coded for ship type 5th byte coded for transect type
Latitude, Degrees	16	2	bytes	I2	Starting Position
Minutes	18	2	bytes	I2	" "
Seconds	20	2	bytes	I2	" "
Hemisphere	22	1	bytes	A1	"N" or "S"
Longitude, Degrees	23	3	bytes	I3	Starting Position
Minutes	26	2	bytes	I2	" "
Seconds	28	2	bytes	I2	" "
Hemisphere	30	1	bytes	A1	"E" or "W"
Year	31	2	bytes	I2	Last two digits of year = Starting Time GMT
Month	33	2	bytes	I2	" " "
Day	35	2	bytes	I2	" " "
Hour	37	2	bytes	I2	" " "
Minute	39	2	bytes	I2	" " "
Latitude, Degrees	41	2	bytes	I2	Ending Position
Minutes	43	2	bytes	I2	" "
Seconds	45	2	bytes	I2	" "
Hemisphere	47	1	bytes	A1	"N" or "S"
Longitude, Degrees	48	3	bytes	I3	Ending Position
Minutes	51	2	bytes	I2	" "
Seconds	53	2	bytes	I2	" "
Hemisphere	55	1	bytes	A1	"E" or "W"
Time Zone	58	1	byte	A1	"+" or "-"
Time Zone	59	2	bytes	A2	01-12
Speed Made Good	61	3	bytes	I3	in whole knots
Course Made Good	64	2	bytes	I2	tens of degrees true

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

NAME Location (continued) - Ship and Aircraft Census

FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Height of eyes above sea	66	3	bytes	I3	In whole meters
Transect width	81	3	bytes	I3	10's of meters

RECORD FORMAT DESCRIPTION

RECORD NAME Environmental - Aircraft Censuses

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Always 033
File Identfier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Always 2
Wind Direction	45	2	bytes	I2	In 10's of degrees true See WMO codes 0885 &0877
Wind Speed	47	2	bytes	I2	In whole knots
Sea State	49	1	bytes	A1	WMO code 3700
Weather	55	2	bytes	A2	WMO code 4677 with restricted choice as shown below: 00,03,41,43,68,69,87,88,71,73

RECORD FORMAT DESCRIPTION

RECORD NAME Data - Aircraft Censuses

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Always 033
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Always 5
Station Number	11	5	bytes	A5	bytes 14-15 define ship and observation types
Taxonomic Code	18	10	bytes	I10	NODC 1977 codes
Subspecies	28	2	bytes	I2	
Species Group	30	2	bytes	A2	
Number of Individuals	37	5	bytes	I5	whole numeric
Linkage	51	3	bytes	I3	Sequence number of a group within one observation
Sequence	78	3	bytes	I3	Ascending numeric, for sorting
Outside Zone	83	1	bytes	A1	0=birds within transect width defined in RT 1, bytes 81-83. 1-9=birds other than above

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

A FORM 24-13

FW4045

22 DEC 77


```
0101    033FW70451001295957  N15200  W77061721385950  N15200  W  +11130  035          010
0102    033FW7045200129                                3     03
0103    033FW7045500129  91090204              7                                    1  0
0104    033FW7045500129  9128020103            3                                    2  0
0105    033FW7045500129  9128020301            3                                    3  0
0106    033FW7045500129  9128020704            1                                    4  0
0107    033FW7045500129  912901                1                                    5  0
0108    033FW7045500129  91290103              6                                    6  0
0109    033FW70451002295950  N15200  W77061721385940  N15200  W  +11130  035          010
0110    033FW7045200229                                3     03
0111    033FW7045500229  91090204             13                                    1  0
0112    033FW7045500229  9109020407            2                                    2  0
0113    033FW7045500229  9128020301            7                                    3  0
0114    033FW7045500229  91290103              4                                    4  0
0115    033FW70451003295940  N15200  W77061721385930  N15200  W  +11130  035          010
0116    033FW7045200329                                3     03
0117    033FW7045500329  91090204             25                                    1  0
0118    033FW7045500329  9128020103            3                                    2  0
0119    033FW7045500329  9128020301            6                                    3  0
0120    033FW7045500329  912901                8                                    4  0
0121    033FW7045500329  91290103             13                                    5  0
0122    033FW7045500329  91290106              4                                    6  0
0123    033FW7045500329  9220020101            4                                    7  0
0124    033FW70451004295930  N15200  W77061721385920  N15200  W  +11130  035          010
0125    033FW7045200429                                3     03
0126    033FW7045500429  91090204             80                                    1  0
0201    033FW7045500429  9109020407            8                                    2  0
0202    033FW7045500429  9128020301           14                                    3  0
0203    033FW7045500429  91290103              3                                    4  0
0204    033FW7045500429  9129011401            5                                    5  0
0205    033FW70451005295920  N15200  W77061721385910  N15200  W  +11130  035          010
0206    033FW7045200529                                3     03
0207    033FW7045500529  91090204            147                                    1  0
0208    033FW7045500529  9109020407           22                                    2  0
0209    033FW7045500529  9128020103           14                                    3  0
0210    033FW7045500529  9128020301           22                                    4  0
0211    033FW7045500529  91290103              8                                    5  0
0212    033FW7045500529  9129010502            1                                    6  0
0213    033FW7045500529  91290106              2                                    7  0
0214    033FW7045500529  9129011401           61                                    8  0
0215    033FW7045500529  9218022001            1                                    9  0
```

```
0101   033FW7046100163574400N1522006W7709052300     N      W10+09 1210 5          30
0102   033FW7046200163 123   +105                  06061   03
0103   033FW7046500163  91090204              2                                  001  0UNSH
0104   033FW7046500163  9128020301            54                                  002  0BLKI
0105   033FW7046500163  9129010301             2                                  003  0COMY
0106   033FW7046500163  9129011401             3                                  004  0TUPU
0107   033FW7046500163  9110040105             1                                  005  0PECO
0108   033FW7046100263574336N1521618W7709052310     N      W10+09 1210      5     30
0109   033FW7046200263 146   +105                  06061   03
0110   033FW7046500263  91090204              30                                  001  0UNSH
0111   033FW7046500263  9128020301            18                                  002  0BLKI
0112   033FW7046500263  9128010101             1                                  003  0POJA
0113   033FW7046500263  9127070301             2                                  004  0NOPH
0114   033FW7046500263  9129010301             6                                  005  0COMU
0115   033FW7046500263  91290106               1                                  006  0BRMU
0116   033FW7046500263  9129011302             1                                  007  0HOPU
0117   033FW7046500263  9129011401             1                                  008  0TUPU
0118   033FW7046500263  9110040105             1                                  009  0PECO
0119   033FW7046100363574312N1521230W7709052320     N      W10+09 1113      5     30
0120   033FW7046200363  91   +105                  06061   03
0121   033FW7046500363  91090204              16                                  001  0UNSH
0122   033FW7046500363  9128020301             4                                  002  0BLKI
0123   033FW7046500363  9128010101             2                                  003  0POJA
0124   033FW7046500363  9129010301             3                                  004  0COMU
0125   033FW7046500363  91290106               2                                  005  0BRMU
0126   033FW7046500363  912901302              2                                  006  0HOPU
0201   033FW7046500363  9129011401             3                                  007  0TUPU
0202   033FW7046100669571642N1523124W7709060330     N      W10+09 1222      4     30
0203   033FW7046200669 102   +102                  20062   00
0204   033FW7046500669  9109020201             1                                  001  0NOFU
0205   033FW7046500669  9109020407            10                                  002  0SOSH
0206   033FW7046500669  91090204               9                                  003  0UNSH
0207   033FW7046500669  9128020103             1                                  004  1GWGU
0208   033FW7046500669  9128020301             3                                  005  0BLKI
0209   033FW7046500669  9129010301            19                                  006  0COMU
0210   033FW7046500669  9129010901             1                                  007  0CAAU
0211   033FW7046500669  9129011302             1                                  008  2HOPU
0212   033FW7046100768571518N1523354W7709060340     N      W10+09 1222      4     30
0213   033FW7046200768 101   +103                  20062   00
0214   033FW7046500768  9109020407             9                                  001  0SOSH
0215   033FW7046500768  91090204             101                                  002  0UNSH
0216   033FW7046500768  9128020103             1                                  003  0GWGU
```

URI-UMSL SYSTEMS SUPPORT UTILITIES - TAPE ALLOCATION MAP

DEFAULT TAPE LENGTH=2400 FEET VOLUME=SER=WU9ND2

OWNER IS ' ' FRIDAY, 24 FEBRUARY 1978 5:57:02 PM

1	URI.QAK1.FW7034	CREATED ON 78.055, VOLUME=WU9ND2:0001 BY JOB/JOB STEP: QAK10165/ RECFM=FB LRECL= 83 BLKSIZE= 3735 DEN=3 LENGTH= 19.45 FEET %USED= .81% CUM. %USED= .81% DATA SET CONTAINS 77 BLOCKS, IS GOOD UNTIL 99365 AND IS NOT PASSWORD PROTECTED
2	URI.QAK1.FW7035	CREATED ON 78.055, VOLUME=WU9ND2:0001 BY JOB/JOB STEP: QAK10165/ RECFM=FB LRECL= 83 BLKSIZE= 3735 DEN=3 LENGTH= 13.92 FEET %USED= .58% CUM. %USED= 1.39% DATA SET CONTAINS 55 BLOCKS, IS GOOD UNTIL 99365 AND IS NOT PASSWORD PROTECTED
3	URI.QAK1.FW7042	CREATED ON 78.055, VOLUME=WU9ND2:0001 BY JOB/JOB STEP: QAK10165/ RECFM=FB LRECL= 83 BLKSIZE= 3735 DEN=3 LENGTH= 3.72 FEET %USED= .16% CUM. %USED= 1.55% DATA SET CONTAINS 14 BLOCKS, IS GOOD UNTIL 99365 AND IS NOT PASSWORD PROTECTED
4	URI.QAK1.FW7046	CREATED ON 78.055, VOLUME=WU9ND2:0001 BY JOB/JOB STEP: QAK10165/ RECFM=FB LRECL= 83 BLKSIZE= 3735 DEN=3 LENGTH= 8.20 FEET %USED= .34% CUM. %USED= 1.89% DATA SET CONTAINS 32 BLOCKS, IS GOOD UNTIL 99365 AND IS NOT PASSWORD PROTECTED
5	URI.QAK1.FW7028	CREATED ON 78.055, VOLUME=WU9ND2:0001 BY JOB/JOB STEP: QAK10165/ RECFM=FB LRECL= 83 BLKSIZE= 3735 DEN=3 LENGTH= 4.46 FEET %USED= .19% CUM. %USED= 2.07% DATA SET CONTAINS 17 BLOCKS, IS GOOD UNTIL 99365 AND IS NOT PASSWORD PROTECTED
6	URI.QAK1.FW7031	CREATED ON 78.055, VOLUME=WU9ND2:0001 BY JOB/JOB STEP: QAK10165/ RECFM=FB LRECL= 83 BLKSIZE= 3735 DEN=3 LENGTH= 6.70 FEET %USED= .28% CUM. %USED= 2.35% DATA SET CONTAINS 26 BLOCKS, IS GOOD UNTIL 99365 AND IS NOT PASSWORD PROTECTED
7	URI.QAK1.FW7036	CREATED ON 78.055, VOLUME=WU9ND2:0001 BY JOB/JOB STEP: QAK10165/ RECFM=FB LRECL= 83 BLKSIZE= 3735 DEN=3 LENGTH= 12.43 FEET %USED= .52% CUM. %USED= 2.87% DATA SET CONTAINS 49 BLOCKS, IS GOOD UNTIL 99365 AND IS NOT PASSWORD PROTECTED
8	URI.QAK1.FW7045	CREATED ON 78.055, VOLUME=WU9ND2:0001 BY JOB/JOB STEP: QAK10165/ RECFM=FB LRECL= 83 BLKSIZE= 3735 DEN=3 LENGTH= 5.46 FEET %USED= .23% CUM. %USED= 3.10% DATA SET CONTAINS 21 BLOCKS, IS GOOD UNTIL 99365 AND IS NOT PASSWORD PROTECTED

END OF UTILITY - TAPE IS MAPPED

9 track tape
1600bpi recording density
IBM standard label

		ACCESSION NUMBER	78-0158

DATA DOCUMENTATION FORM

TR2851

NOAA FORM 24-13 (4-77)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

FORM APPROVED
O.M.B. No. 41-R2651
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Dr. Calvin Lensink
U.S. Fish & Wildlife Service - Office of Biological Services - Coastal Ecosystems
800 A Street - Suite 110
Anchorage, Alaska 99501

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

OCSEAP RU-337

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

FW7036

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) *(E.G., SHIP, BUOY, ETC.)*	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
Yankee Clipper	Ship	USA	USA	09/07/77	09/19/77

8. ARE DATA PROPRIETARY?

[XX] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR___ MONTH___

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

[XX] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

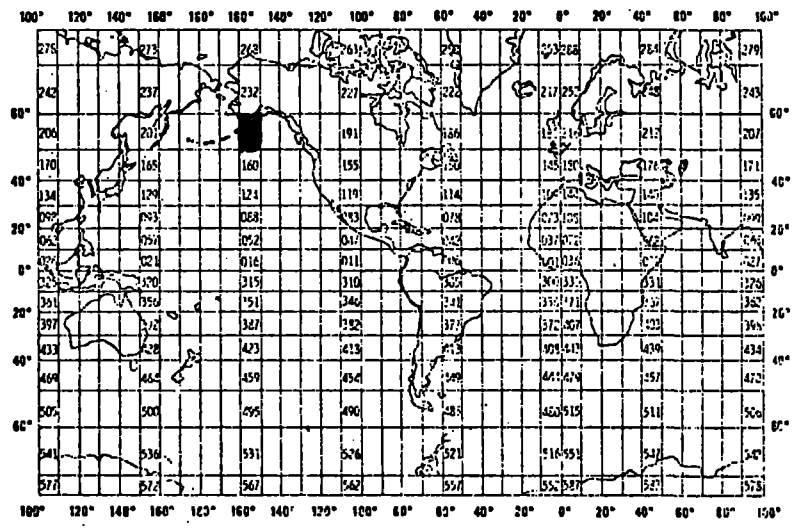
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Calvin Lensink
Dr. Patrick J. Gould

907-265-5401

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Station Type	N/A	See Attatched Codes	N/A	N/A
Start Latitude & Longitude	Degrees, Minutes, Seconds, Hemisph.	Combined Radar Fixes and Depth Charts	N/A	N/A
Date - Time	Year, Month, Day Hour, Minute	Always GMT	N/A	N/A
Elapsed Time	Minutes	N/A	N/A	N/A
Time Zone	International Standard	N/A	N/A	N/A
Speed	Knots made good	Derived from plotted positions	N/A	N/A
Course	10's of degrees true made good	Derived from plotted positions	N/A	N/A
Height	Whole meters	Measured with steel Tape	N/A	N/A
Obs. Conditions	033 code	Observers opinion of all factors influencing observations - subjective	N/A	N/A
Transect Width	10's of meters	Estimated, based on periodic checks with a range finder.	N/A	N/A
Depth	meters	Fathometer and Charts	N/A	N/A
Surface Temp.	tenths of degrees centigrade	Temp. gage at ships intake	N/A	N/A
Sea State	WMO 3700 codes	Observation	N/A	N/A
Weather	WMO 4677 codes selected	Observation - see attatched list of selected codes	N/A	N/A
Taxonomic Code	NODC Taxonomic codes	1977 version	N/A	N/A
Age	033 codes	Observation	N/A	N/A
Sex	033 Codes	Observation	N/A	N/A
Color Phase	033 Codes	Observation	N/A	N/A

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Number	Number of individual organisms	Binoculars	N/A	N/A
Flight Direction	10's of degrees true	Observation	N/A	N/A
Linkage	033 codes	N/A	N/A	N/A
Behavior	Selected 033 codes	See attatched list of Selected codes	N/A	N/A
Outside Zone	033 codes	N/A	N/A	N/A

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Type 1 = Location

Type 2 = Environmental

Type 4 = Text

Type 5 = Data

These are differentiated by byte 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File organized by Station Number (Record Type 1, Bytes 11-13)

ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Robert L. Blanscett 901-265-5401

ADDRESS U.S.F.W.S., OBS-CE, 800 A St., Suite 110, Anchorage, Alaska 99501

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY
☐ ASCII ☒ EBCDIC
☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN
☒ NINE
☐ _____

7. PARITY
☒ ODD
☐ EVEN

8. DENSITY
☐ 200 BPI ☐ 1600 BPI
☐ 556 BPI
☒ 800 BPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☐ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

OCSEAP - USFWS/OBSCE
337 033 FW7036
Yankee Clipper - Charter Leg V
77/09/07 - 77/09/19 LENSINK
9 TRK, 800 BPI, ODD, EBCDIC

12. PHYSICAL BLOCK LENGTH IN BYTES
83

13. LENGTH OF BYTES IN BITS
8

NOAA FORM 24-15

RECORD FORMAT DESCRIPTION

RECORD NAME Location - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	"Always 033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	"Always 1"
Station Number	11	5	bytes	A5	4th byte coded for ship type 5th byte coded for transect type
Latitude, Degrees	16	2	bytes	I2	Starting Position
Minutes	18	2	bytes	I2	" "
Seconds	20	2	bytes	I2	" "
Hemisphere	22	1	bytes	A1	"N" or "S"
Longitude, Degrees	23	3	bytes	I3	Starting Position
Minutes	26	2	bytes	I2	" "
Seconds	28	2	bytes	I2	" "
Hemisphere	30	1	bytes	A1	"E" or "W"
Year	31	2	bytes	I2	Last two digits of year = Starting Time GMT
Month	33	2	bytes	I2	" " "
Day	35	2	bytes	I2	" " "
Hour	37	2	bytes	I2	" " "
Minute	39	2	bytes	I2	" " "
Latitude, Degrees	41	2	bytes	I2	Ending Position
Minutes	43	2	bytes	I2	" "
Seconds	45	2	bytes	I2	" "
Hemisphere	47	1	bytes	A1	"N" or "S"
Longitude, Degrees	48	3	bytes	I3	Ending Position
Minutes	51	2	bytes	I2	" "
Seconds	53	2	bytes	I2	" "
Hemisphere	55	1	bytes	A1	"E" or "W"
Elapsed Time	56	2	bytes	I2	whole minutes
Time Zone	58	1	byte	A1	"+" or "-"
Time Zone	59	2	bytes	A2	01-12
Speed Made Good	61	3	bytes	I3	in whole knots
Course Made Good	64	2	bytes	I2	tens of degrees true

RECORD FORMAT DESCRIPTION

RECORD NAME Location (continued) - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Height of eyes above sea	66	3	bytes	I3	In whole meters
Observation conditions	75	1	bytes	A1	1-7 bad-excellent
Transect width	81	3	bytes	I3	10's of meters

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Environmental - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "2"
Depth	16	4	bytes	I4	In whole meters
Surface Temp.	23	4	bytes	I4	In tenths of degrees Centigrade
Surface Salinity	27	3	bytes	I3	In parts per hundred
Barometric Pressure	40	4	bytes	I4	In tenths of millibars
Barometric Trend	44	1	bytes	A1	+ = rising, 0 = steady, - = falling
Wind Direction	45	2	bytes	I2	In 10's of degrees true See WMO codes 0885 & 0877
Wind Speed	47	2	bytes	I2	In whole knots
Sea State	49	1	bytes	A1	WMO code 3700
Weather	55	2	bytes	A2	WMO code 4677 with restricted choice as shown below: 00, 03,41,43,68,69,87,88,71,73

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME / Data - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "5"
Station Number	11	5	bytes	A5	bytes 14-15 define ship and observation types
Taxonomic Code	18	10	bytes	I10	NODC 1977 codes
Subspecies	28	2	bytes	I2	
Species Group	30	2	bytes	A2	
Age Class	32	1	bytes	A1	
Sex	33	1	bytes	A1	
Color Phase	34	1	bytes	A1	
Number of Individuals	37	5	bytes	I5	whole numeric
Flight Direction	48	2	bytes	I2	In 10's of degrees
Linkage	51	3	bytes	I3	Sequence number of a group within one observation
Behavior	56	2	bytes	A2	
Sequence	78	3	bytes	I3	Ascedding numeric, for sorting
Outsice Zone	83	1	bytes	A1	0 = birds within transect width defined in RT 1, bytes 81-83. 1-9 = birds other than above.

NOAA FORM 24-13

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOAA FORM 24-13

FW70361

22 DEC 77 PAGE NO. 001

| | | |

ACCESSION NUMBER 78-0158

RECEIVED OCT 18 1977

TR2852

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-77)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

NE GOA

FORM APPROVED
O.M.B. No. 41-R2651
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Dr. Calvin Lensink
U.S. Fish & Wildlife Service - Office of Biological Services - Coastal Ecosystems
800 A Street - Suite 110
Anchorage, Alaska 99501

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

OCSEAP RU-337

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

FW7042

4. PLATFORM NAME(S)

NOAA R/V Surveyor

5. PLATFORM TYPE(S) *(E.G., SHIP, BUOY, ETC.)*

Ship

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
USA	USA

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
6/23/77	6/26/77

8. ARE DATA PROPRIETARY?

[XX] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR____ MONTH____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

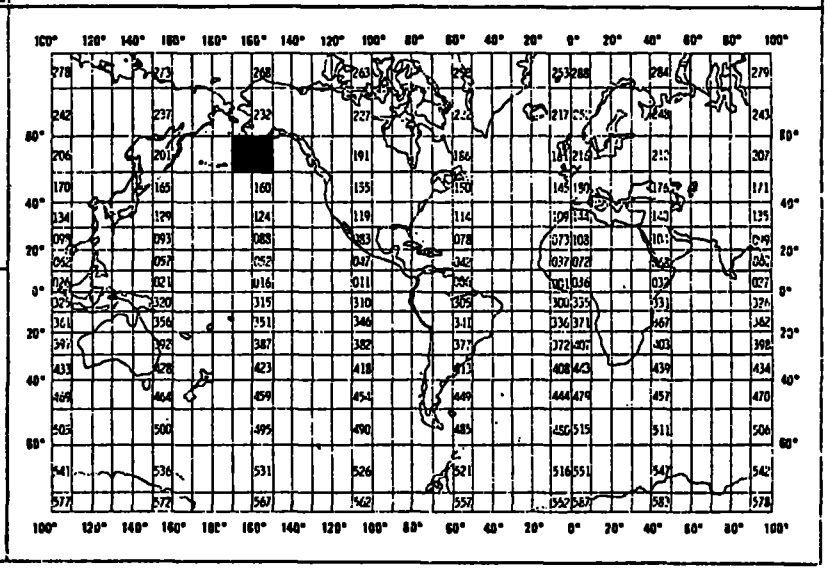
[XX] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Calvin Lensink
Dr. Patrick J. Gould

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Station Type	N/A	See Attatched Codes	N/A	N/A
Start Latitude & Longitude	Degrees, Minutes, Seconds, Hemisph.	Combined Radar Fixes and Depth Charts	N/A	N/A
Date - Time	Year, Month, Day Hour, Minute	Always GMT	N/A	N/A
Elapsed Time	Minutes	N/A	N/A	N/A
Time Zone	International Standard	N/A	N/A	N/A
Speed	Knots made good	Derived from plotted positions	N/A	N/A
Course	10's of degrees true made good	Derived from plotted positions	N/A	N/A
Height	Whole meters	Measured with steel Tape	N/A	N/A
Obs. Conditions	033 code	Observers opinion of all factors influencing observations - subjective	N/A	N/A
Transect Width	10's of meters	Estimated, based on periodic checks with a range finder.	N/A	N/A
Depth	meters	Fathometer and Charts	N/A	N/A
Surface Temp.	tenths of degrees centigrade	Temp. gage at ships intake	N/A	N/A
Sea State	WMO 3700 codes	Observation	N/A	N/A
Weather	WMO 4677 codes selected	Observation - see attatched list of selected codes	N/A	N/A
Taxonomic Code	NODC Taxonomic codes	1977 version	N/A	N/A
Age	033 codes	Observation	N/A	N/A
Sex	033 Codes	Observation	N/A	N/A
Color Phase	033 Codes	Observation	N/A	N/A

NOAA FORM 24-13

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Number	Number of individual organisms	Binoculars	N/A	N/A
Flight Direction	10's of degrees true	Observation	N/A	N/A
Linkage	033 codes	N/A	N/A	N/A
Behavior	Selected 033 codes	See attatched list of Selected codes	N/A	N/A
Outside Zone	033 codes	N/A	N/A	N/A

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Type 1 = Location

Type 2 = Environmental

Type 4 = Text

Type 5 = Data

These are differentiated by byte 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File organized by Station Number (Record Type 1, Bytes 11-13)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Robert L. Blanscett 901-265-5401

ADDRESS U.S.F.W.S., OBS-CE, 800 A St., Suite 110, Anchorage, Alaska 99501

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY
☐ ASCII ☒ EBCDIC
☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN
☒ NINE
☐ _____

7. PARITY
☒ ODD
☐ EVEN

8. DENSITY
☐ 200 BPI ☐ 1600 BPI
☐ 556 BPI
☒ 800 BPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN)
☐ 3/4 INCH
☐ _____

10. END OF FILE MARK
☐ OCTAL 17
☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

OCSEAP - USFWS/OBSCE
337 033 FW7042
NOAA R/V Surveyor - Transit
77/6/23 - 77/6/26 LENSINK
9TRK, 800BPI, ODD, EBCDIC

12. PHYSICAL BLOCK LENGTH IN BYTES
83

13. LENGTH OF BYTES IN BITS
8

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Location - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	"Always 033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	"Always 1"
Station Number	11	5	bytes	A5	4th byte coded for ship type 5th byte coded for transect type
Latitude, Degrees	16	2	bytes	I2	Starting Position
Minutes	18	2	bytes	I2	" "
Seconds	20	2	bytes	I2	" "
Hemisphere	22	1	bytes	A1	"N" or "S"
Longitude, Degrees	23	3	bytes	I3	Starting Position
Minutes	26	2	bytes	I2	" "
Seconds	28	2	bytes	I2	" "
Hemisphere	30	1	bytes	A1	"E" or "W"
Year	31	2	bytes	I2	Last two digits of year = Starting Time GMT
Month	33	2	bytes	I2	" " "
Day	35	2	bytes	I2	" " "
Hour	37	2	bytes	I2	" " "
Minute	39	2	bytes	I2	" " "
Latitude, Degrees	41	2	bytes	I2	Ending Position
Minutes	43	2	bytes	I2	" "
Seconds	45	2	bytes	I2	" "
Hemisphere	47	1	bytes	A1	"N" or "S"
Longitude, Degrees	48	3	bytes	I3	Ending Position
Minutes	51	2	bytes	I2	" "
Seconds	53	2	bytes	I2	" "
Hemisphere	55	1	bytes	A1	"E" or "W"
Elapsed Time	56	2	bytes	I2	whole minutes
Time Zone	58	1	byte	A1	"+" or "-"
Time Zone	59	2	bytes	A2	01-12
Speed Made Good	61	3	bytes	I3	in whole knots
Course Made Good	64	2	bytes	I2	tens of degrees true

RECORD FORMAT DESCRIPTION

RECORD NAME Location (continued) - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Height of eyes above sea	66	3	bytes	I3	In whole meters
Observation conditions	75	1	bytes	A1	1-7 bad-excellent
Transect width	81	3	bytes	I3	10's of meters

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Environmental - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "2"
Depth	16	4	bytes	I4	In whole meters
Surface Temp.	23	4	bytes	I4	In tenths of degrees Centigrade
Surface Salinity	27	3	bytes	I3	In parts per hundred
Barometric Pressure	40	4	bytes	I4	In tenths of millibars
Barometric Trend	44	1	bytes	A1	+ = rising, 0 = steady, - = falling
Wind Direction	45	2	bytes	I2	In 10's of degrees true See WMO codes 0885 & 0877
Wind Speed	47	2	bytes	I2	In whole knots
Sea State	49	1	bytes	A1	WMO code 3700
Weather	55	2	bytes	A2	WMO code 4677 with restricted choice as shown below: 00, 03,41,43,68,69,87,88,71,73

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME / Data - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "5"
Station Number	11	5	bytes	A5	bytes 14-15 define ship and observation types
Taxonomic Code	18	10	bytes	I10	NODC 1977 codes
Subspecies	28	2	bytes	I2	
Species Group	30	2	bytes	A2	
Age Class	32	1	bytes	A1	
Sex	33	1	bytes	A1	
Color Phase	34	1	bytes	A1	
Number of Individuals	37	5	bytes	I5	whole numeric
Flight Direction	48	2	bytes	I2	In 10's of degrees
Linkage	51	3	bytes	I3	Sequence number of a group within one observation
Behavior	56	2	bytes	A2	
Sequence	78	3	bytes	I3	Asceiding numeric, for sorting
Outsice Zone	83	1	bytes	A1	0 = birds within transect width defined in RT 1, bytes 81-83. 1-9 = birds other than above.

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	(✓)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOAA FORM 24-13

```
0101   033FW70421  369573200N1520600W7706230300                W10+09 1119 13      6      30
0102   033FW70422  369  22   +100              0095 11 62      03
0103   033FW70425  369579129011401             21              01                  001  0TUPU
0104   033FW70425  369579128020103              1              20                  002  0GWGU
0105   033FW70425  3695791290103               14              01                  003  0UNMU
0106   033FW70425  369579128020301              3              20                  004  0PLKI
0107   033FW70425  3695791090204                2              20                  005  0UNDS
0108   033FW70425  3695791290100000001         10              20                  006  0UNSA
0109   033FW70425  369579129011401              2              01                  007  0TUPU
0110   033FW70425  3695791090204                6              01                  008  0UNDS
0111   033FW70425  3695791290100000001          2              01                  009  0UNSA
0112   033FW70421  468573018N1520700W7706230310                W10+09 1120 13      6      30
0113   033FW70422  468  19   +100              0095011 62      03
0115   033FW70425  4685791290106               16              01                  001  0BRMU
0116   033FW70425  4685791290106               16              01                  002  0UNMU
0117   033FW70425  468579129011401              5              01                  003  0TUPU
0118   033FW70425  468579129010301              1              01                  004  0COMU
0119   033FW70425  4685791290100000001          8              20                  005  0UNSA
0120   033FW70425  4685791090204                4              48                  006  0UNDS
0121   033FW70425  468579128020301              2              20                  007  0BLKI
0122   033FW70425  4685791290106                4              01                  008  0BRMU
0123   033FW70425  4685791290100000001         16              01                  009  0UNSA
0124   033FW70425  4685791090204                2              01                  010  0UNDS
0207   033FW70421  569572830N1520800W7706230320                W10+09 1120 13      6      30
0208   033FW70422  569  55   +100              0095011 62      03
0209   033FW70425  5695791290100000001         17              20                  001  0UNSA
0210   033FW70425  569579129011401              4              20                  002  0TUPU
0211   033FW70425  5695791290103                1              01                  003  0UNMU
0212   033FW70425  5695791290106                5              01                  004  0BRMU
0213   033FW70425  569579129011302              3              20                  005  0HOPU
0214   033FW70425  5695791290100000001          3              01                  006  0UNSA
0215   033FW70425  569579129011401              5              01                  007  0TUPU
0216   033FW70425  5695791290106                5              20                  008  0BRMU
0217   033FW7042100769572254N1520654W7706230350                W10+09 1320 13      6      30
0218   033FW7042200769 154   +100              0095006 42      03
0219   033FW7042500769579129011201              1              20                  001  3RHAU
0220   033FW7042500769579221010601              1                                  002  0NFSE
0221   033FW7042500769579129011401              5              20                  003  0TUPU
0222   033FW7042500769579109020 4               3              48                  004  0UNDS
0223   033FW7042500769579129010 3              18              20                  005  0UNMU
0224   033FW7042500769579128010102              1              48                  006  0PAJA
0225   033FW7042500769579109020201      6       1              48                  007  0NOFU
0226   033FW7042500769579129011302              2              01                  008  0HOPU
0301   033FW7042500769579129010000001           2              20                  009  0UNSA
0302   033FW7042500769579128020301              4              20                  010  [illegible]
```

ACCESSION NUMBER 78-0158

RECEIVED OTR 2850

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-77)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

OCT 18 1977

FORM APPROVED
O.M.B. No. 41-R2651
EXPIRES 1-81

NEGOA

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Dr. Calvin Lensink
U.S. Fish & Wildlife Service - Office of Biological Services - Coastal Ecosystems
800 A Street - Suite 110
Anchorage, Alaska 99501

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

OCSEAP RU-337

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

FW7035

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
Yankee Clipper	Ship	USA	USA	8/11/77	8/23/77

8. ARE DATA PROPRIETARY?

[XX] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ____ MONTH ____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

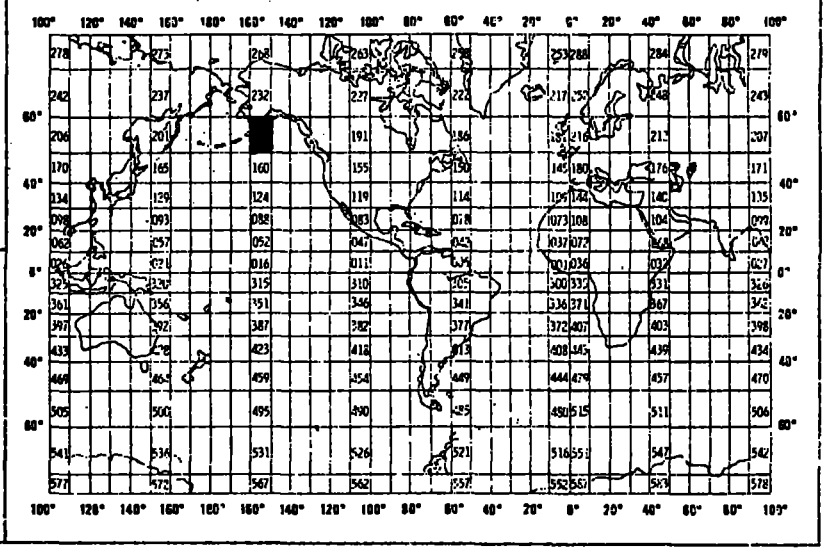
[XX] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Calvin Lensink
Dr. Patrick J. Gould

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



NOAA FORM 24-13

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Station Type	N/A	See Attatched Codes	N/A	N/A
Start Latitude & Longitude	Degrees, Minutes, Seconds, Hemisph.	Combined Radar Fixes and Depth Charts	N/A	N/A
Date - Time	Year, Month, Day Hour, Minute	Always GMT	N/A	N/A
Elapsed Time	Minutes	N/A	N/A	N/A
Time Zone	International Standard	N/A	N/A	N/A
Speed	Knots made good	Derived from plotted positions	N/A	N/A
Course	10's of degrees true made good	Derived from plotted positions	N/A	N/A
Height	Whole meters	Measured with steel Tape	N/A	N/A
Obs. Conditions	033 code	Observers opinion of all factors influencing observations - subjective	N/A	N/A
Transect Width	10's of meters	Estimated, based on periodic checks with a range finder.	N/A	N/A
Depth	meters	Fathometer and Charts	N/A	N/A
Surface Temp.	tenths of degrees centigrade .	Temp. gage at ships intake	N/A	N/A
Sea State	WMO 3700 codes	Observation	N/A	N/A
Weather	WMO 4677 codes selected	Observation - see attatched list of selected codes	N/A	N/A
Taxonomic Code	NODC Taxonomic codes	1977 version	N/A	N/A
Age	033 codes	Observation	N/A	N/A
Sex	033 Codes	Observation	N/A	N/A
Color Phase	033 Codes	Observation	N/A	N/A

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Number	Number of individual organisms	Binoculars	N/A	N/A
Flight Direction	10's of degrees true	Observation	N/A	N/A
Linkage	033 codes	N/A	N/A	N/A
Behavior	Selected 033 codes	See attatched list of Selected codes	N/A	N/A
Outside Zone	033 codes	N/A	N/A	N/A

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Type 1 = Location

Type 2 = Environmental

Type 4 = Text

Type 5 = Data

These are differentiated by byte 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File organized by Station Number (Record Type 1, Bytes 11-13)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Robert L. Blanscett 901-265-5401

ADDRESS U.S.F.W.S., OBS-CE, 800 A St., Suite 110, Anchorage, Alaska 99501

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY
☐ ASCII ☒ EBCDIC
☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN
☒ NINE
☐ _____

7. PARITY
☒ ODD
☐ EVEN

8. DENSITY
☐ 200 BPI ☐ 1600 BPI
☐ 556 BPI
☒ 800 BPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☐ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

OCSEAP - USFWS/OBSCE
337 033 FW7035
Yankee Clipper - Charter Leg IV
77/8/11 - 77/8/23 LENSINK
9TRK, 800BPI, ODD, EBCDIC

12. PHYSICAL BLOCK LENGTH IN BYTES
83

13. LENGTH OF BYTES IN BITS
8

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME Location - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	"Always 033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	"Always 1"
Station Number	11	5	bytes	A5	4th byte coded for ship type 5th byte coded for transect type
Latitude, Degrees	16	2	bytes	I2	Starting Position
Minutes	18	2	bytes	I2	" "
Seconds	20	2	bytes	I2	" "
Hemisphere	22	1	bytes	A1	"N" or "S"
Longitude, Degrees	23	3	bytes	I3	Starting Position
Minutes	26	2	bytes	I2	" "
Seconds	28	2	bytes	I2	" "
Hemisphere	30	1	bytes	A1	"E" or "W"
Year	31	2	bytes	I2	Last two digits of year = Starting Time GMT
Month	33	2	bytes	I2	" " "
Day	35	2	bytes	I2	" " "
Hour	37	2	bytes	I2	" " "
Minute	39	2	bytes	I2	" " "
Latitude, Degrees	41	2	bytes	I2	Ending Position
Minutes	43	2	bytes	I2	" "
Seconds	45	2	bytes	I2	" "
Hemisphere	47	1	bytes	A1	"N" or "S"
Longitude, Degrees	48	3	bytes	I3	Ending Position
Minutes	51	2	bytes	I2	" "
Seconds	53	2	bytes	I2	" "
Hemisphere	55	1	bytes	A1	"E" or "W"
Elapsed Time	56	2	bytes	I2	whole minutes
Time Zone	58	1	byte	A1	"+" or "-"
Time Zone	59	2	bytes	A2	01-12
Speed Made Good	61	3	bytes	I3	in whole knots
Course Made Good	64	2	bytes	I2	tens of degrees true

RECORD FORMAT DESCRIPTION

RECORD NAME Location (continued) - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Height of eyes above sea	66	3	bytes	I3	In whole meters
Observation conditions	75	1	bytes	A1	1-7 bad-excellent
Transect width	81	3	bytes	I3	10's of meters

RECORD FORMAT DESCRIPTION

RECORD NAME Environmental - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "2"
Depth	16	4	bytes	I4	In whole meters
Surface Temp.	23	4	bytes	I4	In tenths of degrees Centigrade
Surface Salinity	27	3	bytes	I3	In parts per hundred
Barometric Pressure	40	4	bytes	I4	In tenths of millibars
Barometric Trend	44	1	bytes	A1	+ = rising, 0 = steady, - = falling
Wind Direction	45	2	bytes	I2	In 10's of degrees true See WMO codes 0885 & 0877
Wind Speed	47	2	bytes	I2	In whole knots
Sea State	49	1	bytes	A1	WMO code 3700
Weather	55	2	bytes	A2	WMO code 4677 with restricted choice as shown below: 00, 03,41,43,68,69,87,88,71,73

NOAA FORM 24-13

RECORD FORMAT DESCRIPTION

RECORD NAME / Data - Ship and Aircraft Census

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	bytes	A3	Allways "033"
File Identifier	4	6	bytes	A6	
Record Type	10	1	bytes	I1	Allways "5"
Station Number	11	5	bytes	A5	bytes 14-15 define ship and observation types
Taxonomic Code	18	10	bytes	I10	NODC 1977 codes
Subspecies	28	2	bytes	I2	
Species Group	30	2	bytes	A2	
Age Class	32	1	bytes	A1	
Sex	33	1	bytes	A1	
Color Phase	34	1	bytes	A1	
Number of Individuals	37	5	bytes	I5	whole numberic
Flight Direction	48	2	bytes	I2	In 10's of degrees
Linkage	51	3	bytes	I3	Sequence number of a group within one observation
Behavior	56	2	bytes	A2	
Sequence	78	3	bytes	I3	Ascedding numeric, for sorting
Outsice Zone	83	1	bytes	A1	0 = birds within transect width defined in RT 1, bytes 81-83. 1-9 = birds other than above.

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOAA FORM 24-19

0101	033FW70351001735		2430N1521336W7708112034					W10+09	923	4	3	030			
0102	033FW7035200173		27 108			4	68								
0103	033FW7035500173	PIGU	9129010502	8			20					001	0		
0104	033FW7035500173	UNMU	91290103	1			20					002	0		
0105	033FW7035500173	PIGU	9129010502	9			03					003	0		
0106	033FW7035500173	UNTE	91280207	2			29					004	0		
0107	033FW7035500173	UNJA	91280101	1			29					005	0		
0108	033FW7035500173	UNMU	91290103	1			20					006	0		
0109	033FW70351002795		2140N1522600W7708112108					W10+09	923004		3	030			
0110	033FW7035200279		65 111			4	03								
0111	033FW7035500279	NOPH	9127070301	250			01					001	3		
0112	033FW7035500279	UNSA	912901	3			03					002	0		
0113	033FW7035500279	NOFU	9109020201	5			20					003	0		
0114	033FW7035500279	HOPU	9129011302	1			01					004	0		
0115	033FW7035500279	SOSH	9109020407	23	11		29					005	0		
0116	033FW7035500279	UNSA	912901	7			20					006	0		
0117	033FW7035500279	UNTE	91280207	1			20					007	0		
0118	033FW7035500279	UNMU	91290103	1			03					008	0		
0119	033FW7035500279	SOSH	9109020407	17			01					009	2		
0120	033FW7035500279	TUPU	9129011401	N	2		20					010	0		
0121	033FW7035500279	TUPU	9129011401	2			01					011	0		
0122	033FW7035500279	ANMU	9129010801	1			20					012	0		
0123	033FW7035500279	TUPU	9129011401	1			20					013	0		
0124	033FW7035500279	SOSH	9109020407	25	11		29					014	2		
0125	033FW70351003795		1915N1523300W7708112140					W10+09	923	4	3	030			
0126	033FW7035200379		00 +116			4	03								
0201	033FW7035500379	SOSH	9109020407	1			20					001	0		
0202	033FW7035500379	TUPU	9129011401	1			20					002	0		
0203	033FW7035500379	POJA	9128010101	1			20					003	0		
0204	033FW7035500379	ARTE	9128020704	1			20					004	0		
0205	033FW7035500379	HAPO	9218021801	1								005	0		
0206	033FW7035500379	UNSA	912901	3			20					006	0		
0207	033FW7035500379	UNMU	91290103	1			20					007	0		
0208	033FW70351004795		1536N1523115W7708112215					W10+09	923	4	2	30			
0209	033FW7035200479		44 +114			4	68								
0210	033FW7035500479	SOSH	9109020407	13			29					001	0		
0211	033FW7035500479	BLKI	9128020301	6			29					002	0		
0212	033FW7035500479	BRMU	91290106	1			20					003	0		
0213	033FW7035500479	PAJA	9128010102	2		01	82					004	0		

U.S. FISH AND WILDLIFE SERVICE PELAGIC SEABIRD PROJECT

Instructions for Using Data Coding Forms

1. These forms are to be filled in by the person making the observation, and should be completed as soon as possible after the observations are made.

2. These forms constitute our major field record, and as such should be:

   A. Very legible.
   B. Filled out in pencil.
   C. Double checked for accuracy.
   D. Kept clean and in a safe place.

3. Any pertinent observations not entered as text cards should be clearly written in the space provided under FIELD NOTES. This should include a listing of all specimens collected.

4. Text cards should be kept brief: abbreviate where possible and do not include unneccessary words such as and, the, etc.

5. Do not enter numbers into any field when the information is unknown or in doubt. A zero usually means actual negative data. When a field (I.E., STATION, START LATITUDE, SEX, etc.) is used, zeros must be placed in all columns to the right of the number or letter entered, but not to the left. For example:

   A. NUMBER (column 37-41): if one bird is recorded then enter "----1", if 199 birds are recorded then enter "--100".

   B. START LATITUDE (columns 16-22): The columns for degrees, minutes and seconds are considered separate fields. If degrees are 58, minutes are 53, and seconds are unknown then the columns should be entered as "5858".

   C. TAXONOMIC CODE (colums 18-29): the twelve columns in this super-field represent six sub-fields. Zero filling is done on the basis of sub-field: Unidentified Bird = "88----------", Unidentified Alcid = "881010------", Unidentified Phalarope = "881006------".

6. For transects during which no birds were seen use the following entry method:

SPECIES COMMON NAME	TAXONOMIC CODE	NUMBER	OUTSIDE ZONE
NONE	88----------	----0	0 (no birds in counting zone)
NONE	88----------	----0	1 (no ship followers)
NONE	88----------	----0	2 (no birds outside counting zone)

7. Coding-form field descriptions:

File Identifier (4-9): This number is assigned by the OBS Office before each field operation.

Station No. (11-13): A sequential number beginning with 001 for field operation, or as issued by a NOAA vessel. This number should not be duplicated during any one field operation.

Station Type (14-15): CODED: column 14 indicates the platform type, and column15 indicates the observation type.

The major criteria for a Standard Station are that the ship is stationary and that 200 m zones are used out to 600 m. On all station surveys, a text card should be made indicating how long the ship has been stationary.

The major criteria for a Standard Transect are: the distance from the ship, with or without zones, is 0-300 m; 10 or 15 minutes observation time; speed 5-15 knots; visibility at least 1,000 m; range finder can be used during entire transect; ship speed and direction constant.

Back to back transects can be used, but if the second or third are within the same 10-minute latitude/longitude block, then the second or third become experimental transects.

A Coastline Survey is one made within 500 m of the shoreline. A Bay or Fjord Survey is one made within a bay or fjord (range finder not usable) but the end zone of the observations.

Record Type (10): CODED: distinguishes between location card, environment card, ice card, text card, and data card.

Start Latitude(16-22)
Start Longitude (23-30): Position of ship at beginning of observations to nearest 1/100 seconds.

Date (31-36): Year, month, and day at the beginning of observations. Always record in GMT.

Time: (37-40): Hour and minute for the beginning of observations. Always recorded in GMT.

End Latitude (41-47) End Longitude (48-55):	Position of ship at end of observations to nearest 1/100 seconds. This field is used only for aerial surveys or if observations lasted 30 minutes or longer.
Elapsed Time (56-57)	Length of survey in munutes (temporal).
Time Zone (58-60)	Relates local time to GMT time.
Speed (61-63):	Ship's speed made good in whole knots.
Course (64-65)	Ship's course made good in 10's of whole degrees.
Height (66-68)	Height of observer's eye above water in whole meters.
Observer Conditions (75):	CODED:
Transect Width (81-83):	Width of counting zone in whole meters from the side of the ship; 300 meters is standard for USFWS-OBS-CE operations.
Depth (16-19):	Depth of water column in whole meters.
Surface Temperature (23-26)	Surface temperature of water to nearest 1/10 degree centigrade. Column23 indicates + or - degrees.)
rface Salinity (27-29)	Surface salinity of water to nearest 1/10 part per thousand.
Barometer (40-44)	Barometric pressure to nearest 1/10 milibar. First digit of 1,000 or more is not entered. Column 44 uses + for rising, 0 for steady, and - for falling.
Wind Direction (45-46)	True direction of wind in 10's of degrees.
Wind Speed (47-48)	True speed of wind in whole knots.
Sea State (49)	CODED: - WMO 3700
Weather (55-56)	CODED:
Common Name (———)	These columns may not be key punched. They are for the convenience of the recorder and should be used for checking accuracy of the Taxonomic Code. Use the first two letters of each common name (Common Murre - COMU). If one of the common names is hyphenated, then use the first letter of each hyphenated name (Red-legged Kittiwake = RLKI). UN is used for unknown (unidentified murre = UNMU) US is used for unknown small (small alcid = USAL). UL is used for unknown large (large gull = ULGU). UALB is used for unidentified albatross.

Taxonomic Code (18–29)	CODED:
Species Group (30–31)	CODED:
Age (32)	CODED
Sex (33)	CODED
Color Phase (34):	CODED
Group Size: (----)	Used only for internal data analysis and will not be key punched. Indicates the size of each sighting or flock. The total is then put in the Number Field.
Number (37–41)	Number of birds recorded within the paramters designated in Transect Width and Outside Zone Columns.
Flight Direction (48–49)	Direction of birds' flight in 10's of degrees to true north.
Linkage (51–53)	These columns are used to unite two or more cards into a single sighting. For example if 1,000,000 birds are recorded in one flock then two cards, each of 50,000 birds are needed. Each of these cards would have "001" in the linkage columns. If two or more linkages occur in one transect or survey, then the second linkage would have "oo2" on each card, etc.
Behavior: (56-57)	CODED
Sequence Number (78–80)	These prerecorded numbers make each card unique.
Outside Zone (83)	CODED: Those observations not to be used in estimating transect density (e.g., ship follower or bird seen outside of transect) are indicated in this column by the use of a special code.

8. Experimental Designs

There are many types and variations of data gathering techniques which can be used on ship cruises. The technique you use will depend on many factors such as ship activity, weather conditions, etc. In order to standardize our procedures as much as possible, we have established five major experimental designs which we ask you to follow as closely as possible. These designs include: Transect Censuses, Ship Follower Surveys, Station Surveys, General Observations and Collecting.

A. Transect Census: this is our most important and profitable technique. It should be given top priority and used whenever possible. Transects are taken at intervals along predetermined or opportunistic cruise tracks. The transect boundaries will always be 300 meters laterally from the observer by 10 minutes (GMT) cruising time. The basic method is for the ship to move along a straight path at a constant speed. The observer counts all birds observed forward of mid-

ship to the end of the transect and laterally out to 300 meters. A forward scan insures the detection of birds which may leave the area, or fly through before the ship reaches them (especially important for ship avoiders). The forward scan also insures us the probability of detecting birds sitting on the water. Only those birds observed within the transect boundaries during the actual time of the transect are counted.

In theory, we would like to get an "instantaneous count of birds within the transect zone. This is, of course, next to impossible from shipboard. Flying birds present a particular problem in this respect. If the observer counted all the individuals of a large flock (e.g., shearwaters) flying across the transect zone, the eventual estimate of birds per Km^2 would be greatly exagerated. There are several ways to reduce this sort of bias:

A. Make periodic instantaneous estimates of birds within discrete portions of the transect area and use the average to calculate birds per KM^2. This can be converted to the number of birds estimated to be within the transect area during the time of the transect.

B. In the case of birds streaming perpendicularly across the bow of the ship, the number of birds crossing per minute within a specific distance (1,000 m for shearwaters, 500 m for storm petrels) can be counted. Three to five of these counts can be made during the course of one 10-minute transect. The average time it takes for one bird to cross the 300 m zone should also be measured. With these two pieces of data the number of birds per Km2 can be calculated. This density can then be used to estimate the number of birds within the transect area during the time of the census.

As the transect progresses, the observer will frequently encounter birds outside of the counting zone. Such observations, especially of species not being recorded in the count area or of large concentrations, should be included in the data but marked as being outside of the census area (Outside Zone (OZ) code). Interesting observations between transects may be handled this way or by using the General Observation method.

The timing and number of transects on each day of the cruise will depend on the ship's and observer's routine. We would like to have at least one transect completed in as many 10-minute latitude-longitude blocks as possible. If time and conditions permit, you may elect to make continuous (back to back) transects. This is especially useful in high density areas. Remember that after 1/2 to 1 hour an observer tends to become less vigilent and accuracy tends to go down.

Observations should be made from the bridge or flying bridge of the ship whenever possible. An eye height of 20 to 40 feet seems to be best for our experimental design. An unobstructed view of the 90 degree sighting area is essential.

We are employing a range finder technique to determine distances at sea. This technique is currently being rigorously tested by Dennis Heinnman and Wayne Hoffman from Oregon State University.

Ship's log, climatic and oceanographic data are integral parts of each transect. All such data are based on the starting point of each 10-minute transect.

Ship following birds should be included in each transect by recording the maximum number of individuals per species seen at any one time during the transect along with the proper code in the Outside Zone (OZ) column.

Ship followers may also be treated by a separate experimental design (see Ship Follower Survey). If a bird originates within a transect area and subsequently becomes a ship follower, it is counted in the transect where it was first observed and listed as a ship follower in all subsequential transects where it occurs.

Be sure that all data are kept safe and up to date throughout the cruise. If you use a tape recorder, make sure that it is in proper working order each time you use it. You may elect to transcribe data directly onto coding forms. Be sure, however, to have a tape recorder handy in case observations become too frequent to handle by hand.

C. Ship Follower Survey: one of the biggest problems in collecting at-sea bird data is what to do with those species and individuals which follow the ship. From what distance(s) are birds attracted to a particular ship? How long do individual birds follow a single ship? Because of these and other unknowns, density data cannot be estimated for ship followers, Nevertheless, the birds are still present and must be accounted for. A useful approach is to consider ship followers as a separate category and survey them separately. An index of ship follower abundance should be derived using the following method:

Begin by making several complete circuits of the ship noting behavior patterns of birds around the ship. Then stand on the flying bridge, or fantail if the bridge is unavailable. After five (5) minutes record the maximum number of individuals, by species, observed at any one time during the five minute survey period. When possible, break down the observations by number of each color phase or age group, etc. Hourly counts should be made in low density areas and 1/2 hourly counts in high density areas. Associated data such as position, weather, etc., should be based on the point at which observations begin. Data priorities follow Table 1 as discussed under Data Types.

This experimental design need not be used when careful counts are made during evenly spaced transect censuses.

D. Station Survey: there will often be periods when the ship is stopped. During these times we have an opportunity to collect marykinds of data not available from moving platforms. Of particular interest from the standpoint of our immediate objectives is to determine the effect that the presence and activity of a ship has on local bird populations. Do bird populations build up around a stopped ship? Are different species affected differently. Is the effect temporary or does it vary with time? Is there a "turn-over rate"? What pollution effects does a stopped ship create and how do these affect seabirds? These and many other questions can be at least partially answered by Station Surveys.

The station Survey area consists of four concentric zones with the ship at the center. The first three zones are each 200 meters wide, and the fourth zone extends to the horizon. All birds are counted within each zone by making as rapid a circular sweep of the entire area as is consistent with detecting and counting birds. Make only one (1) sweep per survey. If a bird moves from one zone to another, record in it only as having occurred in the first zone in which it was seen.

The first station survey should be made as soon as the ship stops. Further surveys should be conducted intermittently thereafter, preferably at 1/2 hour intervals in areas of high bird density, and one hour intervals in areas of low bird density. Be sure to record how long each count takes. The timing and number of surveys will be left to the discretion of the observer. The more surveys you make, the better the overall data base. Changes in ship activity, weather conditions, food availability, etc., are good reasons for initiating new surveys. Try to keep track of garbage dumping by the ship. This will usually have an influence on bird activity, and thus affect your surveys. It is important to record, for each survey, the length of time between the beginning of the survey and the time the ship became stationary.

As adjuncts to Station Surveys, extensive behavioral notes (see General Observation section) should be kept, particularly when the behavior patterns relate to the ships activity or pollution effects. Station time will often provide a good opportunity for collection of specimens. Take advantage of this possible if you can. If the ship is engaged in oceanographic work, especially with regards to potential bird food sources, then observations of behavior, collecting, and local bird density estimates will be worth their weight in gold.

E. General Observations: throughout the cruise whenever time and opportunity permit (even while at the dock), you should take notes on seabirds and the environmental factors affecting seabirds. The more detailed these notes are, the more valuable they are. Many of your observations will be publishable.

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Password:
 accNo   fleA refNo  proj inst ship    startDate  cruise   catId
 ------- ---- ------ ---- ---- ------- ---------- -------- ----------
 7800158 F033 TR2847 0081 31W6 3191    1977/03/07 FW7028       306613
 7800158 F033 TR2848 0081 31W6 3191    1977/05/19 FW7031       306614
 7800158 F033 TR2849 0081 31W6 32YA    1977/07/06 FW7034       306615
 7800158 F033 TR2850 0081 31W6 32YA    1977/08/11 FW7035       306616
 7800158 F033 TR2851 0081 31W6 32YA    1977/09/07 FW7036       306617
 7800158 F033 TR2852 0081 31W6 31SU    1977/06/23 FW7042       306618
 7800158 F033 TR2853 0081 31W6 3191    1977/06/17 FW7045       306619
 7800158 F033 TR2854 0081 31W6 31SU    1977/09/05 FW7046       306620

(8 rows affected)
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Password:
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 ------- ---- ------ ---- ------ ------ ---------- ----------
 7800158 F033 TR2847 3191 165    757    77/03/07   77/03/09
 7800158 F033 TR2848 3191 175    1128   77/05/19   77/05/21
 7800158 F033 TR2849 32YA 316    3453   77/07/06   77/07/29
 7800158 F033 TR2850 32YA 240    2448   77/08/11   77/08/23
 7800158 F033 TR2851 32YA 212    2173   77/09/07   77/09/19
 7800158 F033 TR2852 31SU 62     588    77/06/23   77/06/26
 7800158 F033 TR2853 3191 169    926    77/06/17   77/06/19
 7800158 F033 TR2854 31SU 169    1437   77/09/05   77/09/15

(8 rows affected)
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