

DATA CENTER OPERATIONS BRANCH

NDS OPERATIONS PROCEDURE MANUAL
NO. P-I011

APPLICATIONS SOFTWARE
13 April 1983

INTELLIGENCE RECONNAISSANCE
ORGANIZATION LISTING

SYMBOLIC TITLE: IROL-STRIP & IROL-PRINT
PROGRAMMER:

STAT

ADMINISTRATIVE-INTERNAL USE ONLY

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Program IROL

Date 8/14/81

APPROVALS

This operations manual has been reviewed and approved by the following persons:

STAT

7 Dec 81
(date)

8 Dec 81
(date)

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Program IR0L

Date 8/14/81

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SUMMARY

Section 1. APPLICABLE DOCUMENTS

<u>Document No.</u>	<u>Title</u>
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Section 2. DESCRIPTIONA. Software Summary

IROL (Intelligence Reconnaissance Organization Listing) is a system which takes the IROL tapes that are sent to us from DIA and list them in different sequences.

IROL is composed of three steps. First, the tapes are run through IROL-STRIP which strips information from many tapes to create one tape.

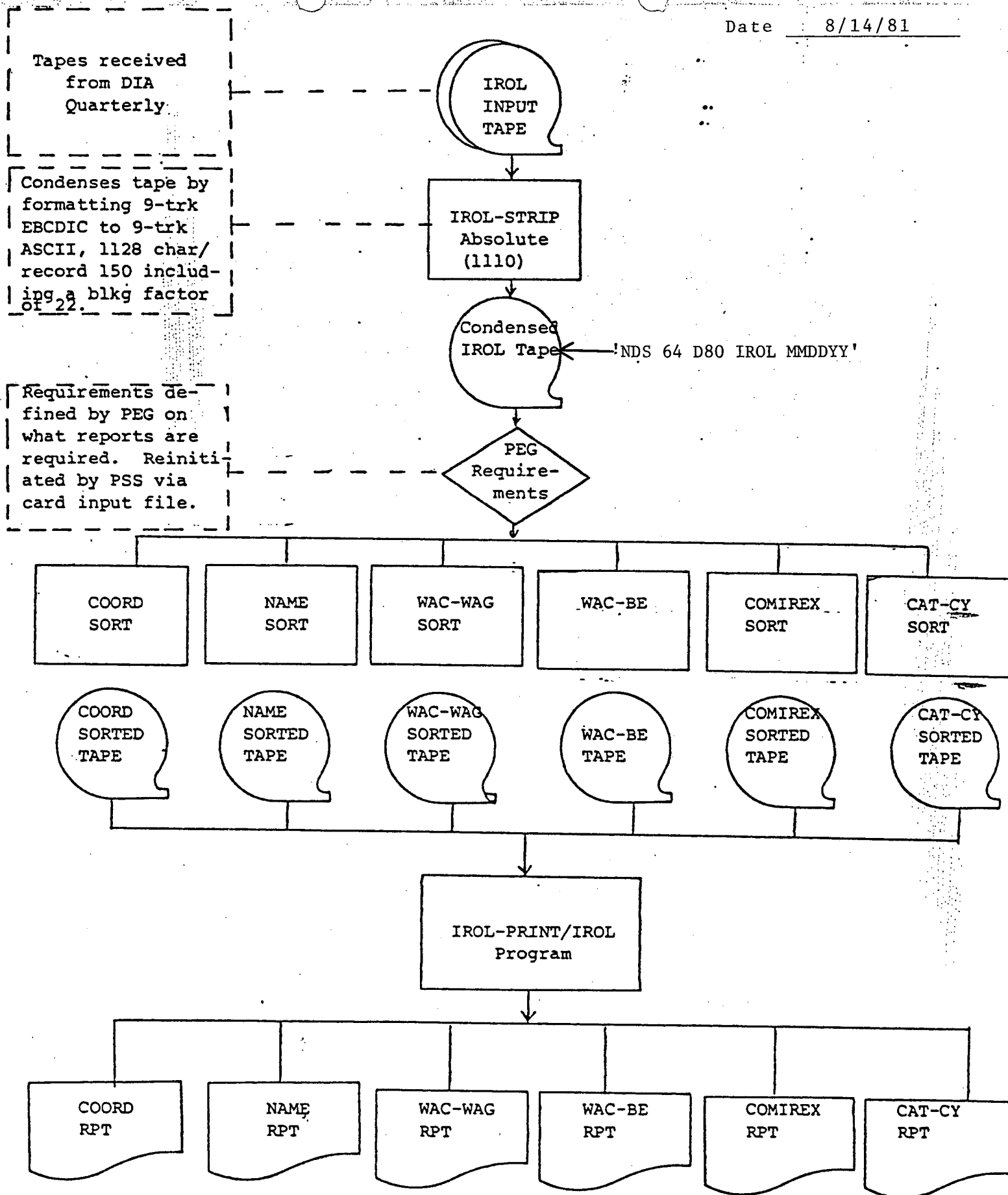
Second, the output from IROL-STRIP is sorted in 1-6 sequences by the stand-alone tape sort on the Univac 1100. The requester specifies the sort desired.

Third, the output from the sorted tape is run through IROL-PRINT. IROL-PRINT reads a card deck, submitted with the request, which specifies to the program what reports are to be created and printed.

The IROL Reports are listed, bound and sent back to the requester. Currently the requester is IEG/DBS.

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COMPUTER RUN PREPARATION

PUNCHED CARD INPUT

Type:

Identification: IROL-STRIP Program

Format:

```
@RUN IROLST,S33741069/COLE,R628,100
@SYM,D PRINT$
@ASG,A XOT*P$ABS.
@COPY,A XOT*P$ABS.IROL-STRIP,TPF$
@FREE XOT*P$ABS.
@ASG,TH IROLIN,U9H/////Q,IROL1/2/3/4/5/6/7/8/9
@ASG,T IROLOU,U9V/////8,SCRA
@XQT IROL-STRIP
@FIN
```

NOTE: On the sixth card,

```
@ASG,TH IROLIN,U9H/////Q,IROL1/2/3/4/5/6/7/8/9
```

the number of tapes received from DIA may vary causing the requester to change the format corresponding to the number of tapes received.

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PUNCHED CARD INPUT (Continued)

Source: Regular

Sequence: As shown above

Internal Sequence:

Restrictions:

Peripheral Device: 1-9 TRACK Uniservo, 800 FPI density
1-9 TRACK Uniservo, 1600 FPI density
Card Reader

Quantity:

Disposition: Cards are returned to requester.

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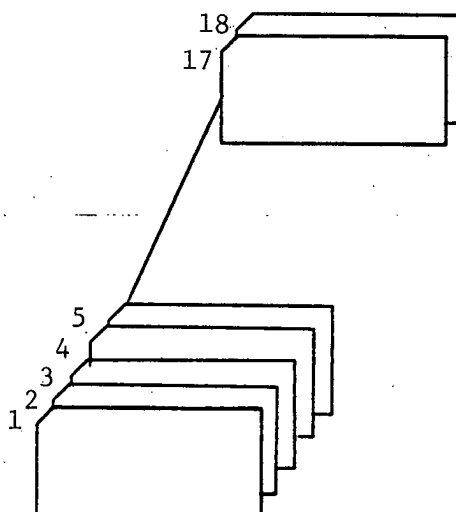
COMPUTER RUN PREPARATION

PUNCHED CARD INPUT

Type:

Identification: Sort Sequence for IROL

Format:



The card sequence above is used for each sort sequence. On the next six pages sort run cards are given. Note that there may be two sort keys, card 14 (see ex. #4, 5, and 6) will be used as the second key for the sort otherwise there are only 18 cards for the sort.

Program IROL

ADMINISTRATIVE-INTERNAL USE ONLY

Date 8/14/81Example 1. NAME

XOT*P\$RUN.IROL-NAME/SORT

1	@PUN,A SORT,S33751015/COLE,R62P
2	@ASSG,T IROL-STRIP,U9V////////R,INPUT
3	@ASSG,T NAME.,U9V,OUTPUT
4	@ASSG,T XA,F33/0/TEK/3010,DEVDB4
5	@ASSG,T XH,F33/0/TEK/3010,DEVDB4
6	@ASSG,T XC.,U9V
7	@ASSG,T XD.,U9V
8	@SORT,A
9	FILEIN=IROL-STRIP
10	LABEL=0BITTEL
11	RSZ=151
12	BLOCK=22
13	KEY=16,39,A,A,1-
14	VOLUME=LARGE
15	TAPES=2
16	FILEOUT=NAME ✓
17	@FOF
18	@FIN

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Program IROLDate 8/14/81Example 2. WAC-BE

XOT*P\$RUN. IROL-WAC-BE/SORT

1	@RUN,1	SORT,S3P701065/COLE,R628
2	@ASG,T	IROL-STRIP,USV////////,INPUT
3	@ASG,T	WAC-BE,09V,OUTPUT
4	@ASG,T	XA,F33//TPK/3000,DEVDB4
5	@ASG,T	XB,F33//TPK/3000,DEVDB4
6	@ASG,T	XC,09V
7	@ASG,T	XD,09V
8	@SORT,4	
9	FILEIN=	IROL-STRIP
10	LABEL=	OMITTED
11	RSZ=	150
12	BLOCK=	20
13	KEY=	1,10,A,A,1
14	VOLUME=	LARGE
15	TAPES=	2
16	FILEOUT=	WAC-BE
17	@EOF	
18	@FIN	

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Example 3. COMIREX

XOT*P\$RUN.IROL-COMIREX/SORT

1	BRUN,A	SORT,S33741765/001E,R628
2	ASSG,T	IFOL-STRIP,U9V/////A,INPUT
3	ASSG,T	COMIREX,U9V,OUTPUT
4	ASSG,T	XA,F33/1/TRK/7000,DEVDB4
5	ASSG,T	XB,F33/1/TRK/3070,DEVDB4
6	ASSG,T	XC,U9V
7	ASSG,T	XD,U9V
8	ASORT,A	
9	FILEIN=IROL-STRIP	
10	LA=FL=0011FD	
11	RES=150	
12	BLOCK=28	
13	KEY=91,9,4,A,1	
14	VOLUME=LARGE	
15	TAPES=2	
16	FILEQUIT=COMIREX	
17	AE OF	
18	AFIN	

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Example 4. WAC-WAG

XOT*P\$RUN. IROL-WAC-WAG/SORT

1	@RUN,A	SORT,S33741065/COLE,R628
2	@ASG,T	IROL-STRIP,U9V/////8,INPUT
3	@ASG,T	WAC-WAG,U9V,OUTPUT
4	@ASG,T	X4,F337/TPK/3000,DEVDB4
5	@ASG,T	X8,F337/TPK/3000,DEVDB4
6	@ASG,T	XC,U9V
7	@ASG,T	XD,U9V
8	@SORT,A	
9	FILEIN=IROL-STRIP	
10	LABEL=0-ITTEL	
11	RSZ=150	
12	BLOCK=25	
13	KEY=1,17,A,A,1	
14	KEY=72,A,A,A,2	
15	VOLUME=LARGE	
16	FILEOUT=WAC-WAG	
17	TAPES=2	
18	@EOF	
19	@FIN	

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Program IROLDate 8/14/81Example 5. CAT-CY

XOT*P\$RUN.IROL-CAT-CY/SORT

```

1  @RUN,A  SORT,S33701065/COLE,R628
2  @ASG,T  IROL-STRIP,U9V/////5,INPUT
3  @ASG,T  CAT-CY,U9V,OUTPUT
4  @ASG,T  XA,F33/1/TK/3000,DEVDB4
5  @ASG,T  XB,F33/1/TK/3000,DEVDB4
6  @ASG,T  XC,U9V
7  @ASG,T  XD,U9V
8  @SORT,A
9  FILEIN=IROL-STRIP
10 LABEL=OMITTED
11 RSZ=150
12 BLOCK=25
13 KEY=11,5,2,A,1
14 KEY=89,2,A,A,2
15 VOLUME=LARGE
16 FILEOUT=CAT-CY
17 TAPES=2
18 @EOF
19 @FIN

```

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~~ADMINISTRATIVE-INTERNAL USE ONLY~~Program IROLDate 8/14/81Example 6. COORD

XOT*P\$RUN.IROL-COORD/SORT

```

1  @RUN,A  SORT,S33741015/CCLL,R62R
2  @ASG,T  IROL-STRIP,U9V////////R,INPUT
3  @ASG,T  COORD.,U9V,OUTPUT
4  @ASG,T  XA,F33/1/TPK/3000,DEVDB4
5  @ASG,T  XR,F33/1/TPK/3000,DEVDB4
6  @ASG,T  XC.,U9V
7  @ASG,T  XD.,U9V
8  @SORT,A
9  FILEIN=IROL-STRIP
10 LABEL=OMITTED
11 RSZ=150
12 BLOCK=22
13 KEY=54,7,A,A,1
14 KEY=61,6,A,A,2
15 VOLUME=LARGE
16 TAPES=2
17 FILEOUT=COORD
18 @EOF

```

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PUNCHED CARD INPUT (Continued)

Source:

Sequence:

Internal Sequence:

Restrictions:

Peripheral Device: 2-9 TRACK Uniservo, 1600 FPI density
Card Reader

Quantity:

Disposition: Return all cards to Requester.

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Program IROLDate 8/14/81

COMPUTER RUN PREPARATION

PUNCHED CARD INPUT

Type:

Identification: IROL-PRINT Program

Format: The following runstream will print all listing if the proper tape number is supplied on the data card. If the requester wants a certain report he can print only that report by submitting a data card for that report alone with the run deck.

CAT-AY /999999
 COMIREX/999999
 WAC-BE /999999
 WAC-WAG/999999
 NAME /999999
 COORD /999999

<u>Field</u>	<u>Column</u>	<u>Comments</u>
"Report Name"	1-7	Report 1 - 'COORDXX' Report 2 - 'NAMEXXX' Report 3 - 'WAC-WAG' Report 4 - 'WAC-BE' Report 5 - 'COMIREX' Report 6 - 'CAT-CY'
'Separator'	8	'/'
'Tape Number'	9-14	'000001-999999'
The tape number must be the tape that is sorted by the corresponding report sequence		

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Program IROL

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PUNCHED CARD INPUT (Continued)

```
XOT*P$RUN.IROL-PRINT/XQT
 1 @RUN IROLPR,S33741069/COLE,R628,100,99999
 2 @SYM,D PRINT$
 3 @DELETE,C IROL-REPORT1.
 4 @CAT,P IROL-REPORT1.
 5 @ASG,A IROL-REPORT1.,///2000
 6 @DELETE,C IROL-REPORT2.
 7 @CAT,P IROL-REPORT2.
 8 @ASG,A IROL-REPORT2.,///2000
 9 @DELETE,C IROL-REPORT3.
10 @CAT,P IROL-REPORT3.
11 @ASG,A IROL-REPORT3.,///2000
12 @DELETE,C IROL-REPORT4.
13 @CAT,P IROL-REPORT4.
14 @ASG,A IROL-REPORT4.,///2000
15 @DELETE,C IROL
16 @CAT,P IROL-REPORT5.
17 @ASG,A IROL-REPORT5.,///2000
18 @DELETE,C IROL-REPORT6.
19 @CAT,P IROL-REPORT6.
20 @ASG,A IROL-REPORT6.,///2000
21 @ASG,A XOT*P$ABS.
22 @COPY,A XOT*P$ABS.IROL-PRINT
23 @FREE XOT*P$ABS.
24 @XQT IROL-PRINT
25 COMIREX/999999
26 NAME /999999
27 WAC-BE /999999
28 WAC-WAG/999999
29 COORD /999999
30 CAT-CY /999999
31 @FIN
```

Disposition: Cards are returned to requester.

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MAGNETIC TAPE INPUT

Contents and Description of Tape Data - A full set of IROL tapes (received quarterly) are input to the 'IROL-STRIP' program. These tapes are 9-Track high-density formatted in EBCDIC. Each tape record is 1128 chars. long. There are approximately 10,000 records per tape.

UnitType of Unit (7 Track or 9 Track)

Standard Tape Label:

(to be inserted by programmer)

Label Block File Name:

Mode: EBCDIC

Code:

Record and Block Size: 1128 Characters/1 Record per block

File Sequence: Sorted on WAC-BE sequence

Source Program:

Source Component: Defense Intelligence Agency

Disposition: Tapes are returned to Tape Library

Retention Period: One month

Restrictions:

Quantity: Number may vary

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INPUT TAPE FORMAT

<u>Item</u>	<u>Record Positions</u>
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<u>Item</u>	<u>Record Positions</u>
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<u>Record Positions</u>

Record Maintenance Date	1-8
BE Number	9-18
Category	19-23
Requester	24-29
Filler	30
BE Name	31-68
Latitude	69-75
Longitude	76-83
Validity	84-85
CPL	86
Source of Coords	87-113
5200-50	114-117
NSL	118-120
Task	121-122
WGS-LAT	123-129
WGS-LONG	130-137
WGS-Validity	138
Record-Date (YYMMDD)	139-144
Photo A (PTLRF)	145-149
Photo B (PTFRF)	150-154
SLAR	155-158
Collector	159-164
Altitude	165-167
Length	168-170
Azimuth	171-172
Country	173-174

Admin-Number	175-183
Exploitation	184-187
CO EX	188
Justification	189-356
EEI	357-860
Filler	861-1000
DIA-Photo-1	1001-1005
DIA-Photo-2	1006-1010
DIA-Photo-3	1011-1015
OBLIQUITY-Photo A	1016-1019
OBLIQUITY-Photo B	1020-1023
BE-Suffix	1024-1025
Filler	1026
Master Record Indicator	1027
National Requirement Code	1028
BW-RES1-COMPOSITE (PFL)	1029-1031
BW-RES2-COMPOSITE	1032-1034
BW-RES5-COMPOSITE	1035-1037
BW-RES5-COMPOSITE	1038-1040
Color-RES1-COMPOSITE (PFL)	1041-1043
Color-RES2-COMPOSITE	1044-1046
Color-RES3-COMPOSITE	1047-1049
Color-RES5-COMPOSITE	1050-1052
Infrared-COMPOSITE (PFL)	1053-1056
SLAR-COMPOSITE (PFR)	1057-1059
Filler	1060-1072
Distance to S200-50 CTR	1073-1076
AZ to S200-50 Center	1077-1081
Cluster	1082-1090
S200-50 Center Lat	1091-1097
S200-50 Center Long	1098-1105
SMGRD	1106-1107
Filler	1108-1109
Old BE/CAT	1110-1124
Filler	1125-1128

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MAGNETIC TAPE OUTPUT -

Contents and Description of Tape Data - The output tape (s) created by 'IROL-STRIP' are tape copied from BBCDIC to ASCII on the Univac-1100 so they may be sorted using the STAND-A-LONE SORT on the Univac-1100. Each tape record is 150 characters long. Each tape contains a blocking factor of 22.

Unit

Standard Tape Label: NDS 64 D80 IROL MMDDYY
(to be inserted by programmer)

Label Block File Name:

(To be inserted
by TAS)

Mode: ASCII

Code:

Record and Block Size: 150 Characters/22 Records per block

File Sequence:

Source Component: CSD

Disposition: Tapes are used in IROL-PRINT Program then returned
to Tape Library

Retention Period: Tapes are to remain in Library one month

Restrictions:

Quantity:

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OUTPUT TAPE FORMAT

(Use this page if the output tape format is different from the input tape format.)

<u>ITEM</u>	<u>RECORD POSITION</u>
WAC-BE	1-10
CATEGORY	11-15
NAME	16-53
LAT	54-60
LONG	61-68
VAL	69-70
CPL	71
WAG	72-75
NSR	76-78
TASK	79-80
ELV	81-83
LGN	84-86
AZ	87-88
CY	89-90
CMRX	91-98
EXPL	99-102
S	103
DCTR	104-107
AZCTR	108-112
FILLER	113-150

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HIGH-SPEED PRINTER OUTPUT

Identification: IROL-PRINT Program

Format: There are six reports that may be created by the 'IROL-PRINT' absolute. Note that each report contains the same fields, but in a different sequence. Examples are at the end of this manual.

Disposition: Each report is to be bound with a top and bottom cover and returned to requester.

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PROGRAM LOADING

Type of Program:

Base Address:

ECRT:

General Equation -

Sample Estimate -

FINAL CHECK SUMMARY - Each report must be checked (Quality Control) to ensure that the print detail is centered top to bottom and right to left and that print quality is legible (new ribbon). Each report is to be bound with a top and bottom cover.

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ON-LINE COMPUTER PROCESSING

EQUIPMENT REQUIREMENTS

Computer: Univac 1100

Storage:

Core Addendum -

Core Program - 20K IROL-STRIP and IROL-PRINT Programs

Drum -

Peripheral Devices: Card-reader, tape drives

Restrictions: None

Supplies: Standard

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NORMAL RUN INSTRUCTIONS

Initiation: Card Input

Messages: All program messages are sent to the console.

<u>Message</u>	<u>Cause</u>	<u>Operator Action</u>
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IROL-STRIP

'End of File Reached on IROL Tape'
 'STRIP Complete'
 'Total Records Copied'

IROL-PRINT

'Operator, Load Tape Sorted By' 'Tape Number'	Program is asking for sorted tape.	Load corresponding tape
'Report1 (Name) is Complete'	(as shown above)	Mount next tape
'Report2 (COMIREX) is complete'	Program is finish	if program ask
'Report3 (Category) is complete'	reading tape.	
'Report4 (WAC & WAG) is com- plete'	(as shown above)	
'Report5 (WAC-BE) is complete'		
'Report6 (LAT & LONG) is com- plete'		

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NORMAL RUN INSTRUCTIONS (Continued)

Interrupt/Reentry: Each step of the IROL Program Module
1). IROL-STRIP 2). SORT (1100) 3). IROL-PRINT
may be restarted from each step beginning, or the entire run may
be restarted.

Termination: As each report is completed, a message stating
is sent to the operator console.

Takedown: As IROL-PRINT completes each report, it rewinds and un-
loads the corresponding input tape for that report. The program
then issues a new request (@ASG,T) for the next tape to be loaded.

Disposition of Data: All tapes are to be returned to the Library
after termination and saved for 2 months.

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ABNORMAL RUN INSTRUCTIONS

Messages: All error messages will appear on the printed program output. Thus all possible errors are due to user error. No program error messages will be sent to the operator console.

<u>Message</u>	<u>Cause</u>	<u>Operator Action</u>
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