RETRIEVING INDIVIDUAL OBSERVATIONS FROM SURFACE AVIATION OBSERVATION COLLECTIVES

Silver Spring, Md.
April 1996
PREFACE

The Techniques Development Laboratory’s (TDL’s) computer program (CP) series is a subset of TDL’s technical memorandum series. The CP series documents computer programs written at TDL primarily for the Automation of Field Operations and Services (AFOSS) computers.


NOAA Techniques Development Laboratory
Computer Program NWS TDL

CP 83-2 Simulation of Spilled Oil Behavior in Bays and Coastal Waters. Hess, October 1983. (PB84-122597)
CP 83-3 AFOSS-Era Forecast Verification. Heffernan, Newton, and Miller, October 1983. (PB84-129303)
CP 83-4 AFOSS Monitoring of Terminal Forecasts. Vercelli, December 1983. (PB84-145697LL)
CP 83-5 Generalized Exponential Markov (GEM) Updating Procedure for AFOSS. Herrmann, December 1983. (PB84-154822LL)
CP 84-1 AFOSS Display of MDR Data on Local Map Background. Newton, July 1984. (PB84-220797)
CP 84-2 AFOSS Surface Observation Decoding. Ferrotti, September 1984. (PB85-137586)
CP 84-3 AFOSS-Era Forecast Verification. Miller, Heffernan, and Ruth, September 1984. (PB86-146319LL)
CP 85-1 AFOSS Monitoring of Terminal Forecasts. Vercelli and Norman, May 1985. (PB85-236388LL)
CP 85-3 AFOSS-Era Forecast Verification. Ruth, Miller, and Heffernan, October 1985. (PB86-148319LL)
CP 87-1 AFOSS Terminal Aerodrome Forecast Formatting. Wantz and Eggers, July 1987. (PB88-104449LL)
CP 87-3 Forecast Review. Wolf, July 1987. (PB88-125588LL)
CP 88-1 AFOSS Terminal Forecast Decoding. Vercelli and Leaphart, August 1988. (PB89-101240LL)
CP 89-3 Extended Memory Library for AFOSS Applications. Leaphart, June 1989. (PB92-216290)

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NOAA Techniques Development Laboratory
Computer Program NWS TDL CP 96-1

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Robert A. Beasley

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RETRIEVING INDIVIDUAL OBSERVATIONS FROM SURFACE AVIATION OBSERVATION COLLECTIVES

Robert A. Beasley

1. INTRODUCTION

This program, MOBSEP, allows one to retrieve individual surface observations from a variety of collectives which are available on the National Weather Service's (NWS's) Automation of Field Operations and Services (AFOS) computer system (NWS 1969 and 1994a) and store them as individual products (AFOS keys). Types of surface observations found in collectives include Surface Aviation Observations (SAO's), (NWS 1994b and Office of the Federal Coordinator for Meteorological Services and Supporting Research [OFCM] 1994) METAR observations (MTR's), (OFCM 1995) test SAO's (MOB's), and test METAR observations (MTT's).

Used in conjunction with the AFOS background scheduler program WATCHDOG (Schneider and Peterson 1991), MOBSEP allows one to obtain a continuous set of surface observations for an individual site within a collective. Hence, observations originally buried in a collective, can be stored on AFOS in a manner analogous to that of the majority of SAO's, namely one observation per AFOS product or key. This prevents the user from having to search through many previous versions and through many observations within a collective to find the specific site that he/she wishes to examine.

MOBSEP was originally designed to reduce the work involved with the analysis and performance assessment of uncommissioned ASOS sites. The program can be used to separate and store uncommissioned ASOS SAO's from the collective NMCMOBNKA as individual AFOS products or keys. With time, however, further modifications to MOBSEP were required to meet additional requirements. Enhancements included adding the ability to retrieve METAR/SPECI observations from collectives of such, separate SAO's from any SAO or MOB collective not just NMCMOBNKA (including the Federal Aviation Administration's (FAA) Automated Weather Observing System (AWOS) (FAA 1991), allowing additional collectives to be examined during a single execution, and letting the user specify the AFOS node for the output product.

In addition, the program has also been designed specifically to work with the SAO Decoder (SAODECII) (Beasley 1993) program. Special code within MOBSEP allows it to recognize that it has been called by SAODECII and hence prepares individual observations for decoding by SAODECII. This eliminated the need for SAODECII to decode entire collectives. MOBSEP is activated by SAODECII via the global "K" switch on the SAODECII command line.

Storing observations within collectives as separate AFOS products also renders these observations more amenable for use by a host of other programs. A few examples of such programs are the Satellite Composite State Weather Roundup (SCSWR) (Sunkel 1993), the Hourly Weather Roundup for the NOAA Weather Radio (HWRMWR) (Battel et. al. 1994), the Universal Graphic Generator (UGG) plot file program (FLTGEN) (Beasley 1993), and the AFOS Data Analysis or Mesoanalysis Program (ADAP) (Bothwell 1985).
2. METHODOLOGY AND SOFTWARE STRUCTURE

MOBSEP is a relatively simple program designed to achieve an otherwise laborious task. The objective is to read one or more collectives of SAO’s, MOB’s, MTR’s, or MTT’s from the AFOS database and retrieve observations from the collectives for those sites that have been designated for such by the user. Each observation separated is then stored as a separate product or key. Observations retrieved are stored as CCCNNNXXX (CCC = user specified AFOS node, NNN = SAO, MOB, MTR, or MTT, and XXX = site designated by user to be retrieved from the collective) in the AFOS database. The CCC and XXX for each site to be retrieved from the collective are specified in the Real Time Disk Operating System (RDOS) (Data General Corporation 1974 and 1978) file MOBLIST.11, where "11" represents any combination of two alphanumerics characters. Collectives to be searched for the sites listed in MOBLIST.11 are given in the RDOS file MOBKEYS.11. See Fig. 1 for an example of a MOBKEYS file and Fig. 2 for an example of a MOBLIST file. The default value for the extension "11" of the files MOBLIST and MOBKEYS is "SA", but may be changed by using the local "L" switch (see Section 6 - Part B). The extension "SA" is reserved for use by SAODECII when it swaps to MOBSEP and hence should not be used for other purposes.

Collectives are produced centrally and transmitted at specific intervals (e.g., 10 minutes) as additional stations are received. The total number of stations that can be transmitted in any one collective (e.g., MMCMOBNAK, CCCSAA0C01, etc.) is quite large and usually the collectives transmitted near the hour contain a high percentage of the number of observations assigned to that collective. Collectives transmitted at other times throughout the hour, however, usually contain only a few special or late observations and hence represent only a small percentage of the total number of sites which belong to that collective. In fact it is even possible for a collective to contain only one observation. Some sample collectives of SAO, MOB, and MTT collectives are shown in Figs. 3, 4, and 5.

Generally, an individual forecast office is only interested in examining observations for sites within its area of jurisdiction. Use of this program will allow retrieval of only those observations desired. The retrieved observations, which are otherwise buried in a host of other non-desired ones, can then be examined in a chronological sequence. When used in conjunction with the SAODECII program, specified observations are retrieved for decoding immediately prior to the actual decoding process. This eliminates the old requirement of decoding the entire collective just to obtain one or more observations within the collective.

The first task of MOBSEP is to read the command line switches, which are detailed in Section 6 - Part B. As mentioned before, the collectives to be searched and the stations to be retrieved from the various collectives searched are specified in the RDOS files MOBKEYS.11 and MOBLIST.11, respectively. The AFOS node (CCC) for each individually output observation is also specified through the file MOBLIST.11. The product category is extracted from the key names given in MOBKEYS.11.

The stations to be retrieved and the collectives to be examined are stored in memory during program execution. MOBSEP then opens the user specified collectives and inspects each line for those stations which the user has designated for retrieval. Observations for stations satisfying these
requirements are then written to separate RDOS files named CCCNNNXXX, where
CCC denotes the AFOS node, NNN = SAO, MOB, MTT, or MTR, and XXX denotes the
call letters of the station which has been retrieved from the collective.
These RDOS files are subsequently stored in the AFOS database. Fig. 6
illustrates the logical flow of the program.

In order to reap the full benefits of this program when not used in conjunc-
tion with the SAO Decoder, it is intended that MOBSEP be included as a regular
part of the AFOS background scheduler program WATCHDOG. This will allow
automatic retrieval and storage of desired observations. MOBSEP can be
activated upon receipt of a collective, provided the AFOS key name for the
product identifier is included in the WATCHDOG WDSCHD file.

Previous versions of collectives may also be examined by MOBSEP. By
default, 10 previous versions of each collective are examined for user-spe-
cified stations. This can be increased to 126 versions or decreased to one
version through use of the local "V" switch. The global "P" switch should be
used when no previous versions of the collectives are to be examined. See
Section 6 - Part B for details on all of the global and local switches.

3. PROCEDURES

MOBSEP may be executed from either the background terminal or the Alphanu-
meric Display Module (ADM), although it should principally be executed
automatically through the WATCHDOG scheduler. It can also be activated by the
SAO Decoder program through use of the global "K" switch on the SAODECII
command line.

As a stand alone program, it is initiated at the background terminal simply
by typing:

MOBSEP/E/P kk/K ll/L sss₁/S sss₂/S sss₃/S ... sssₙ/S vv/V

This entry will (1) read and set the optional command line switches (defined
in Section 6 - Part B), (2) retrieve the specified observations listed in the
RDOS file MOBLIST.1l from the collectives listed in the RDOS file MOBKEYS.kk,
and (3) store each retrieved observation in the AFOS database as an individual
product or key.

The keys which are to be examined are listed in the RDOS file MOBKEYS.kk
(where kk = "SA" by default but which may be changed by the user through the
local "K" switch). The individual observations which are to be retrieved from
the indicated collectives are specified in the RDOS file MOBLIST.1l (where ll =
"SA" by default but which may be changed by the user through the local "L"
switch). When only one or two stations are to be retrieved from the collec-
tive, the user may prefer to use the command line local "S" switch for
specification of the stations which are to be retrieved instead of maintaining
an RDOS file. Please note, however, that for SAODECII to use MOBSEP the files
MOBKEYS.SA and MOBLIST.SA must exist and be defined.

4. CAUTIONS

1. When the "no previous version option" is set (global "P" switch), only
   the most recent version of an observation will be retrieved from the
   collectives and stored as an AFOS product. A flag is set internally
which prevents older observations from being stored or overwriting the most recent observation. Non-current observations cannot be retrieved without purging the current and all preceding observations back to the one desired.

2. The maximum number of different collectives that can be examined per execution of MOBSEP is 100.

3. The maximum number of observations that can be retrieved per execution of MOBSEP is 500 regardless of the number of different collectives to be examined.

4. When specifying the individual stations which are to be retrieved from the indicated collectives, you must enter the station call letters in international METAR format (i.e., KDFW for Dallas-Fort Worth).

5. The collectives are transmitted often to accommodate hourlies and specials for all of the observations which are assigned to the collectives. The observations are received centrally at varying intervals and hence the number of observations transmitted will vary widely from one version of a collective to the next. For storage purposes, assume that the collectives are transmitted at 10-minute intervals.
5. REFERENCES


6. PROGRAM INFORMATION AND PROCEDURES FOR INSTALLATION AND EXECUTION

PART A: PROGRAM INFORMATION and INSTALLATION PROCEDURES

PROGRAM NAME: MOBSEP

FUNCTION: Retrieves user specified SAO or METAR surface observations from collectives of SAO’s, MOB’s, MTR’s, or MTT’s and stores them in the AFOS database as individual products.

PROGRAM INFORMATION:

Development Programmer(s):
Robert A. Beasley

Maintenance Programmer(s):
Robert A. Beasley

Location: Techniques Development Laboratory

Phone: 301-713-0056

Language: FORTRAN IV/Rev 5.57
MACRO Assembler/Rev 6.30

Save file creation dates: MOBSEP.SV

Revision 1.00 - November 1994
Revision 1.10 - November 1994
Revision 2.00 - July 1995
Revision 3.00 - August 1995
Revision 3.10 - September 1995
Revision 3.20 - February 1996

Running time:
Approximately 1.6 seconds per observation retrieved.

Disk space:
Program files:
MOBSEP.SV - 38 RDOS blocks

Data files:
MOBKEYS.kk - ((10 * nstns)/512) blocks
MOBLIST.11 - ((6 * nstns)/512) blocks
PROGRAM REQUIREMENTS

Program files:

NAME
MOBSEP.SV

Data files:

<table>
<thead>
<tr>
<th>NAME</th>
<th>Disk location</th>
<th>READ/WRITE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOBKEYS.kk</td>
<td>SYSZ</td>
<td>R</td>
<td>&quot;kk&quot; denotes any combination of alphanumeric characters.</td>
</tr>
<tr>
<td>MOBLIST.ll</td>
<td>SYSZ</td>
<td>R</td>
<td>&quot;ll&quot; represents any combination of alphanumeric characters.</td>
</tr>
</tbody>
</table>

AFOS products:
(These are just some examples of collectives from which individual observations can be retrieved and stored as separate products. Any valid SAO or METAR collective can be used.)
NMCSAOE01 (Eastern region AWOS collective.)
NMCSAOOC01 (Central region AWOS collective.)
NMCSAOS01 (Southern region AWOS collective.)
NMCSAOW01 (Western region AWOS collective.)
NMCMOBNKA (contains uncommissioned ASOS observations for FAA expansion sites.)
IMXSAOMX# (collectives of Mexican METAR observations, where # = 1, 2, 3, 4, or 5.)
CCCMTTSYT (test product available only prior to implementation of METAR.)
CCCMTTPSC (test product available only prior to implementation of METAR.)
CCCMOBXXX (for each site to be retrieved from NMCMOBNKA.)
CCCSAOXXX (for each site to be retrieved NMCSAO&01, where & = E, C, S, or W.)
CCCMTTXXX (for each site to be retrieved from CCCMTTSYT or CCCMTTPSC or IMXSAOMX#.)

LOAD LINE

RLDR/P/E MOBSEP MOBSEP.LM/L MOBREV STNSRCH NAFTREAD AFDTIM DCMPR ^
INITAR IPANDEC ILEN CCAT BCONVRT SEARCH ICEQAL BMOVE ^
<BG UTIL SYS FORT AFOSE>.LB

PROGRAM INSTALLATION

1. Move the executable module MOBSEP.SV to the master partition or to an applications partition with links to the master partition.

2. Add any or all of the products listed above under "AFOS PRODUCTS" to your database. Most of the collectives are transmitted several times per hour because of the large number of stations which are assigned to
each individual collective. Therefore, you should store several versions of each collective or place them on time purge for the appropriate number of hour's worth of observations you wish to keep. If you place it on version purge, be aware that the frequency of transmission is on the order of every 5 minutes or approximately 12 times an hour (generally with different stations in each collective).

3. Create MOBKEYS.SA and MOBLIST.SA files (see Figs. 1 and 2) for use with the SAODECII program. Then, if required, create one or more additional MOBKEYS and MOBLIST files for non-SAODECII purposes using extensions other than "SA".
PART B: PROGRAM EXECUTION and ERROR CONDITIONS

PROGRAM NAME: MOBSEP

PROGRAM EXECUTION

1. Run MOBSEP.

At the background terminal or Dasher enter:

MOBSEP/E/P kk/K ll/L sss_1/S sss_2/S sss_3/S ... sss_n/S vvv/V

Definition of switches:

GLOBAL

/E = List on the background terminal those observations which are stored correctly in the database and those which are duplic-ates.

/P = Examine only the current version of the collectives from which observations are to be retrieved.

LOCAL

sss_n/D = Denotes the station(s) for which observations are to be retrieved from the collectives listed in the MOBKEYS.kk file. Any number of stations may be listed successively on the command line in this manner. However, it is suggested that the MOBLIST.11 file be used if more than three stations are to be retrieved.

kk/K = Specifies the list (MOBKEYS.kk) of SAO/METAR collectives which are to be examined and from which individual observations will be retrieved. This file is required.

ll/L = Specifies the list (MOBLIST.11) of stations for which observations are to be retrieved and stored as individual products.

vvv/V = Denotes the number of previous versions of the collectives which are to be examined. "vvv" may be any number from 0 to 127. No previous versions are checked when the global "P" switch is used.

Defaults (Switch not used):

Global

/E = Do not list on the background terminal observations which have been retrieved.

/P = Examine the current version and "vvv" previous versions of the collectives listed in the MOBKEYS.kk file. If the local "V" switch is not used on the command line, then all previous versions of the collectives will be examined.
Local

/K = Use the default list of SAO/METAR products, MOBKEYS.SA, to obtain the observations for the sites specified on the command line or in the MOBLIST file. "SA" is the default extension, but may be changed through the local "K" switch.

/L = Use the default list of stations, MOBLIST.SA, for which observations are to be retrieved from the SAO/METAR collectives specified in the MOBKEYS file. "SA" is the default extension, but may be changed through the local "K" switch.

/S = Obtain the list of stations for which observations are to be retrieved from the collectives NMCMOBNK and/or NMCSAO&01 and stored as individual products, from the RDOS file MOBLIST.SA. "SA" is the default extension but may be changed through the "L" local switch.

/V = Retrieve only the current version of the product if the global "P" switch is also used or all versions of the product if the global "P" switch is not used.

PROGRAM ERROR CONDITIONS

<table>
<thead>
<tr>
<th>ERROR CONDITIONS</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOBLIST.XX NOT FOUND</td>
<td>The RDOS file MOBLIST.XX does not exist. This file contains the station identifiers for those stations which are to be retrieved from the collectives listed in MOBKEYS.XX. As a minimum, the MOBLIST.SA file must be defined.</td>
</tr>
<tr>
<td>MOBKEYS.XX NOT FOUND</td>
<td>The RDOS file MOBKEYS.XX does not exist. This file contains the AFOS product (key) names which are to be searched for the stations listed in MOBLIST.XX. As a minimum, the MOBKEYS.SA file must be defined.</td>
</tr>
<tr>
<td>UNABLE TO OPEN AFOS KEY CCCNNNXXX</td>
<td>The specified collective CCCNNNXXX could not be opened. Make sure that the product exists in the database.</td>
</tr>
<tr>
<td>PROBLEM READING AFOS KEY CCCNNNXXX</td>
<td>The specified collective was found in the database but cannot be read. Check to make sure that the product is good. It may be necessary to purge the product or run a MODIFY.</td>
</tr>
</tbody>
</table>
ATTEMPT TO EXCEED 500 INPUT STATIONS

Attempt was made to retrieve more than 500 individual observations during a single execution of MOBSEP. If more than 500 stations are to be separated, make separate runs of MOBSEP.

ATTEMPT TO EXCEED 100 INPUT KEYS

More than 100 collectives were specified in the MOBKEYS.XX file. If more than 100 keys need to be examined, make separate runs of MOBSEP.
Figure 1. Sample MOBLIST.ll file which specifies the stations which are to be retrieved from the collectives listed in the MOBKEYS.kk file. The first three characters specify the AFOS node for the site being retrieved, the fourth character the international block identifier, and the last three characters the station identifier.

SMCSAOC01
SAUC82 KNKA 052005

CBG SA 1956 AO2 CLR BLO 120 10 2/-12/2805/040
ETH SA 1955 AO2 CLR BLO 120 10 2/-14/0000/041
FSE SA 1955 AO2 CLR BLO 120 10 -3/-21/0000/032
UGN SA 1945 CLR 15 18/4/2910/028
MVE SA 1955 AO2 MM 10 5/-8/3403/043
OWA SA 1955 AWOS CLR BLO 120 10 5/-7/3305/039
I26 SA 1956 AWOS CLR BLO 120 10 29/10/2213G18/041
19D SA 1955 AWOS CLR BLO 120 10 7/-11/2805/040
GPZ SA 1955 AWOS CLR BLO 120 10 1/-16/3403/032
ARG SA 1955 AWOS CLR BLO 120 10 32/14/2115G20/046
SGT SA 1954 AWOS M35 BKN 10 29/12/1515/048
EWK SA 1956 AWOS CLR BLO 120 10 38/19/0103/029
CWI SA 1956 AWOS CLR BLO 120 10 18/7/3008/035
AIZ SA 1954 AWOS CLR BLO 120 10 36/13/3005/032
GBD SA 1955 AWOS M 10 37/27/3609/028
SQI SA 1954 AWOS M 10 21/6/3206/033
FAM SA 1955 AWOS CLR BLO 120 10 33/12/2606/033

Figure 2. Sample MOBKEYS.kk file specifies the keys from which observations are to be retrieved. The full keyname must be specified in the file. This example uses the AFOS node STL.

Figure 3. A sample collective of AWOS SAO’s from the Central Region of the NWS from which individual observations can be retrieved and stored as separate products with the MOBSEP program.
<table>
<thead>
<tr>
<th>ZCZC NMC OBSKRA</th>
<th>SXUS91 KNKA 052000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2B4 TA 1953 AO2 CLR BLO 120 10+ 276/16/-5/2205/034/ TEST $</td>
<td></td>
</tr>
<tr>
<td>3R5 TA 1952 AO2 M20 OVC 10+ 302/50/32/2210/040/ TEST TNO $</td>
<td></td>
</tr>
<tr>
<td>ADQ TA 1953 AO2 M20 OVC 10+ 654/23/18/3207/851/ TEST TNO</td>
<td></td>
</tr>
<tr>
<td>AKN TA 1952 AO2 CLR BLO 120 10+ 735/-9/-20/3512/874/ TEST $</td>
<td></td>
</tr>
<tr>
<td>AKO TA 1953 AO2A CLR BLO 120 M 236/46/27/1807/022/ TEST $</td>
<td></td>
</tr>
<tr>
<td>AIA TA 1953 AO2 CLR BLO 120 10+ 229/45/27/2606/014/ TEST $</td>
<td></td>
</tr>
<tr>
<td>ANC TA 1953 AO2 MM 7 661/13/09/0000/852/ TEST TNO $</td>
<td></td>
</tr>
<tr>
<td>ANN TA 1953 AO2 M6V BKN 11 OVC 10+ 801/45/44/1420G28/894/ TEST CIG 6V9 TNO PK WND 1530/1933 $</td>
<td></td>
</tr>
<tr>
<td>ATY TA 1953 AO2 M50 OVC 10+ 316/04/-5/2104/033/ TEST</td>
<td></td>
</tr>
<tr>
<td>A21 TA 1953 AO2 M80 OVC 10+ 658/15/12/0000/852/ TEST OVC V BKN $</td>
<td></td>
</tr>
<tr>
<td>A8L TA 1953 AO2 7 SCT M21 BKN 27 OVC 11/4VS- 875/16/10/3317G35/920/ TEST VSBY 3/4V21/2 TNO PCPN M PK WND 0136/1923 $</td>
<td></td>
</tr>
<tr>
<td>B1G TA 1953 AO2 CLR BLO 120 31/2H 705/-11/-17/2804/849/ TEST SE39 $</td>
<td></td>
</tr>
<tr>
<td>BRW TA 1953 AO2 M65 OVC 3H 018/-16/-21/0417/958/ TEST $</td>
<td></td>
</tr>
<tr>
<td>BTT TS 1953 AO2 11 SCT M24 BKN 30 OVC 11/2S-F 778/-15/-19/0000/879/ TEST PCPN M $</td>
<td></td>
</tr>
<tr>
<td>BWG TA 1953 AO2 M10 OVC 10+ 322/28/00/2214G18/045/ TEST ZRNO PRESFR $</td>
<td></td>
</tr>
<tr>
<td>CDB TP 1955 AO2 MM 21/2H 756/15/06/3528G33/880/ TEST PWINO PK WND 3530/1955 $</td>
<td></td>
</tr>
<tr>
<td>CNU TA 1954 AO2 CLR BLO 120 M 270/37/15/0000/030/ TEST $</td>
<td></td>
</tr>
<tr>
<td>EMP TA 1954 AO2A CLR BLO 120 10+ 276/38/18/0104/029/ TEST</td>
<td></td>
</tr>
<tr>
<td>ENA TA 1953 AO2 M19 OVC 5S- 655/10/M/1005/1M50/ TEST SB48 PCPN 0000 $</td>
<td></td>
</tr>
<tr>
<td>ENN TA 1953 AO2 M41 BKN 110 OVC 7 720/-14/-21/3306/866/ TEST BKN V SCT</td>
<td></td>
</tr>
<tr>
<td>ESF TA 1953 AO2 MM M M/M/MM/056/ TEST PWINO PRESFR</td>
<td></td>
</tr>
<tr>
<td>EWB TA 1953 AO2 CLR BLO 120 10+ 271/17/-5/2309/033/ TEST ZRNO $</td>
<td></td>
</tr>
<tr>
<td>FIT TA 1952 AO2 CLR BLO 120 10+ 259/16/-5/2207/027/ TEST TNO ZRNO</td>
<td></td>
</tr>
<tr>
<td>GCK TA 1954 AO2A CLR BLO 120 10+ 263/48/24/0108/026/ TEST TNO</td>
<td></td>
</tr>
<tr>
<td>GKN TA 1953 AO2 M12 OVC 11/2S- 690/00/-5/MM/845/ TEST PCPN M $</td>
<td></td>
</tr>
<tr>
<td>GWV TA 1953 AO2 CLR BLO 120 10+ 297/32/17/3404/032/ TEST TNO $</td>
<td></td>
</tr>
<tr>
<td>HDO TA 1952 AO2 M16 OVC 10+ 301/47/36/1905/042/ TEST PRESFR</td>
<td></td>
</tr>
<tr>
<td>HEI TA 1953 AO2 CLR BLO 120 10+ 223/21/14/1608/006/ TEST</td>
<td></td>
</tr>
<tr>
<td>HLC TA 1953 AO2A CLR BLO 120 10+ 272/41/17/0506/028/ TEST</td>
<td></td>
</tr>
<tr>
<td>HOM TA 1953 AO2 M13 OVC 11/2S- M/M/MM/2510/852/ TEST TNO PCPN M $</td>
<td></td>
</tr>
<tr>
<td>HUT TA 1953 AO2 CLR BLO 120 10+ 264/43/22/3404/029/ TEST</td>
<td></td>
</tr>
<tr>
<td>I14 TA 1953 AO2 M95 BKN 10+ 283/21/07/2612G18/032/ TEST TNO</td>
<td></td>
</tr>
<tr>
<td>I15 TA 1953 AO2 120 SCT 10+ 283/20/02/2215G22/031/ TEST</td>
<td></td>
</tr>
<tr>
<td>I11 TA 1953 AO2 90 SCT 10+ 714/-7/-15/0000/868/ TEST PWIWO</td>
<td></td>
</tr>
<tr>
<td>IMT TA 1954 AO2 CLR BLO 120 10+ 266/08/-7/3109/022/ TEST TNO</td>
<td></td>
</tr>
<tr>
<td>SB00E10B5E45 ZRNO PCPN 0000 $</td>
<td></td>
</tr>
<tr>
<td>JNU TA 1953 AO2 MM 10+ 763/38/36/MM/883/ TEST TNO $</td>
<td></td>
</tr>
<tr>
<td>KAL TA 1953 AO2 CLR BLO 120 7 792/-28/M/2306/889/ TEST $</td>
<td></td>
</tr>
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<td>KTN TA 1953 AO2 M14 OVC 10+R- 791/45/43/1415G20/891/ TEST OVC V BKN TNO RE33B50 PCPN M</td>
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</table>

Figure 4. A sample collective of uncommissioned test FAA ASOS observations from which individual observations can be retrieved and stored as separate products with the MOBSEP program.
Figure 5. A sample test METAR collective transmitted from the NWS' Telecommunications Gateway where selected SAO’s are converted to METAR.
Figure 6. Logical program flow for the MOBSEP program.
Computer Program NWS TDL

CP 92-1 Separating Individual Synoptics from within Synoptic Collectives. Beasley, August 1992. (PB92-232313)


CP 93-2 AFOS Surface Observation Decoding. Beasley, September 1993. (PB94-112042)

CP 93-3 Decoding Satellite Cloud Products. Beasley, October 1993. (PB94-116845)

CP 93-4 Decoding Nested Grid Model Statistical Forecasts. Beasley, October 1993. (PB94-129210)

CP 93-5 Retrieving Alphanumeric and Graphic Products from the AFOS Database through the Background Partition. Beasley, November 1993. (PB94-143245)

CP 93-6 NOAA Weather Radio Climatological Data Reports. Calkins and Battel, December 1993. (PB94-143252)


CP 94-2 Miscellaneous Disk Utility Application Programs for the AFOS Background Partition. Beasley, April 1994. (PB94-181328)


CP 94-4 A Utility for Examining the Contents of DATAKEY0. Beasley, July 1994. (PB95-104204)


CP 95-1 An Alternative Program to Peditdoc for Generating an AFOS Trans File. Wantz, December 1995. (PB96-143854)