

UNCLASSIFIED

AD 410194

DEFENSE DOCUMENTATION CENTER

FOR

SCIENTIFIC AND TECHNICAL INFORMATION

CAMERON STATION, ALEXANDRIA, VIRGINIA



UNCLASSIFIED

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

CATALOGED BY DDC 410194
AS AD No. _____

410194

TECHNICAL MEMORANDUM

(TM Series)

DDC AVAILABILITY NOTICE

Qualified requesters may obtain
copies of this report from DDC.

This document was produced by SDC in performance of contract AF 19(628)-1648, Space
Systems Division Program, for Space Systems Division, AFSC.

Personnel Planning Information - 1604
Transition Programs Operations

by

C. Bustya
L. A. Friedman

Approved

G. P. West

3 May 1963

SYSTEM

DEVELOPMENT

CORPORATION

2500 COLORADO AVE.

SANTA MONICA

CALIFORNIA

The views, conclusions or recommendations expressed in this document do not necessarily reflect the official views or policies of agencies of the United States Government.

Permission to quote from this document or to reproduce it, wholly or in part, should be obtained in advance from the System Development Corporation.

Although this document contains no classified information it has not been cleared for open publication by the Department of Defense. Open publication, wholly or in part, is prohibited without the prior approval of the System Development Corporation.



3 May 1963

1

TM-1243/000/00

INTRODUCTION:

The purpose of this document is to update the information pertaining to *STIN and *STOUT on the original Personnel Planning Information (PPI) document (TM(L)-979/000/00), and add information regarding the new 1604 communications programs SBRDTLK and SMERGE, which will become operational in the A-1 time period along with *STIN and *STOUT. Specifically, this means updating the *STIN and *STOUT summary of tasks statements (sections 3.5.7.1 and 3.5.7.2 of the referenced PPI document), and briefly describing SBRDTLK and SMERGE, indicating their interfaces, and providing the summary of tasks for each of these programs. Note that the sections of the original PPI document (sections 3.2., 3.2.3, and figure 2 and 3) containing the equipment and position allocations, equipment layout recommendations, and interface diagrams for *STIN and *STOUT are not affected by these additions.

1.0 SUMMARY OF TASKS - *STOUT

1.1 Start *STOUT

1.1.1 Obtains basic information and transmission instructions for generating *STOUT function card from TWREA, TWREP, TWRCO.

1.1.2 Obtains and compiles, as per instructions, the necessary data inputs for processing and transferring prepass data and assembles these data in the order of expected processing as specified on the *STOUT function card.

1.1.2.1 Generates and/or assembles on magnetic tape and paper tapes required command messages, text messages and Antenna Pointing data messages from unaugmented 1604 programs for processing and subsequent placement on the 1604 Change tape.

1.1.2.2 Generates and/or assembles on data cards and paper tapes required latitude crossing, command and text message inputs from TWREA, TWREP, and TWRCO for processing and subsequent placement on the 1604 Change tape.

1.1.2.3 Generates appropriate control cards for *STOUT processing of text messages and command messages.

1.1.3 Loads, mounts, or exchanges magnetic tapes, paper tapes, and punched cards in accordance with program instructions for placement of prepass data onto 1604 Change tape and for transferring processed data from Change tape to the 1604-Bird Buffer Transfer tape.

1.2 Data Checks (modifies Step 3.5.7.1.3.3)

1.2.1 Determines level of reliability and/or validity of data being processed and placed on the Change tape by viewing on-line printouts of data and/or errors, and coordinating with representatives of other STA operational units which have responsibility for data being processed to determine final disposition of prepass messages.

1.2.1.1 Coordinates with Aces Control Directory, TWREA, TWRCO, or TWREP, for error corrections on all punched cards.

1.2.1.2 Coordinates with TWRCO representative for error correction and final disposition of command messages.

1.2.1.3 Coordinates with TWREP representative for error correction and final disposition of Latitude Crossing message, and command messages.

1.2.1.4 Coordinates with TWREA representative for error correction and final disposition of Antenna Pointing data, Acquisition and TPOT messages.

3 May 1963

3

TM-1243/000/00

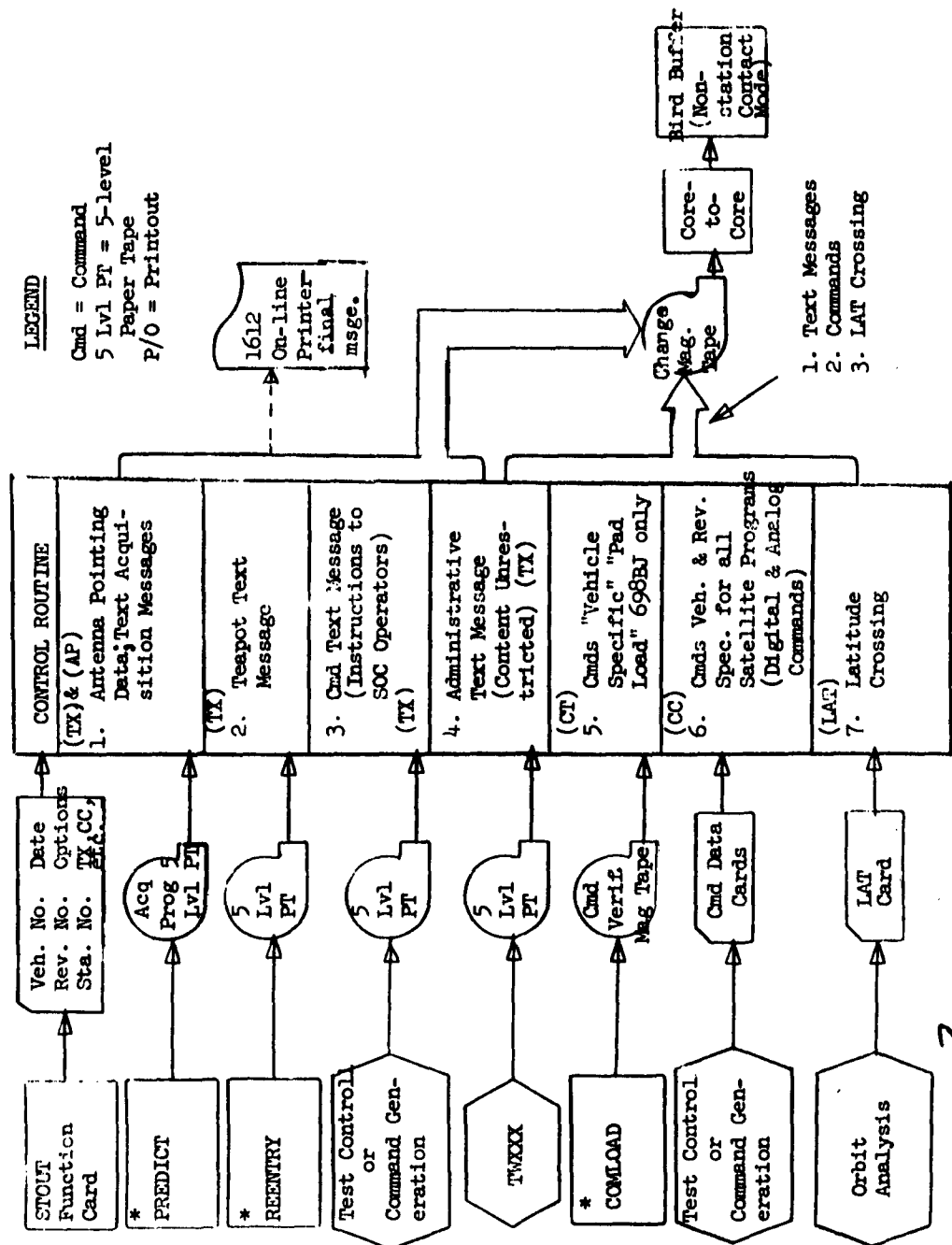


Figure 3. STOUT Operational Interfaces - Prepass Operations A-1 Period

3 May 1963

4

TM-1243/000/00

2.0 SUMMARY OF TASKS - *STIN

2.1 Procedures

- 2.1.1 Load the appropriate Bird Buffer Transfer tape and enter the appropriate function card in the reader.
- 2.1.2 Observe printed outputs of processing error conditions and take the corrective actions detailed in SDC document TM-1165, "Integrated Bird Buffer-1604 System Operational Procedures, A-1 Period."
- 2.1.3 Observe printed outputs of data errors and make certain such messages are forwarded to those personnel (TWREP, TWREA, etc.) who will use them in interpreting the results of the programs using *STIN's tape output.
- 2.1.4 Check for paper tape outputs (one for each antenna number) and store these tapes for future use with other unaugmented 1604 programs (e.g., CCORD, DATLAP, ONAGER, etc.).

3.0 GENERAL FUNCTION OF THE PROGRAM SBRDTLK

SBRDTLK performs the function of transferring *STOUT processed prepass data to the Bird Buffer and recording (on tape) "raw" tracking and vehicle time calibration data (hereafter referred to as "tracking data") received from the Bird Buffer. The tracking data are for later use by the 1604 transition program, *STIN. In addition, SBRDTLK updates prepass tapes. In no single run of SBRDTLK are all functions exercised. Either tracking data are received and prepass tapes updated, or prepass data are sent. In addition, it provides, upon request from the Bird Buffer, SCHOPS scheduling information which is transmitted to the stations.

3.1 SUMMARY OF TASKS - SBRDTLK

3.1.1 Start Procedures

- 3.1.1.1 Load the proper tapes for operating the program module (e.g., prepass data transfer, tracking data transfer, update prepass tapes, SCHOPS data transfer).
- 3.1.1.2 Set up the tape cabinets for operation.
- 3.1.1.3 Initiate the operation of the program according to printed instructions.
- 3.1.1.4 Check the 1612 printer and console typewriter for indications of error conditions and correct such according to the procedures specified in TM-1165, "Integrated Bird Buffer-1604 System Operational Procedures, A-1 Period."

3.1.2 TRACKING DATA TRANSFER, UPDATE PREPASS TAPE, SCHOPS DATA TRANSFER MODULES PROCEDURES.

- 3.1.2.1 Check the console typewriter for indications of error conditions and instructions for eliminating them.
- 3.1.2.2 Correct error conditions and perform the instructions given by the program.

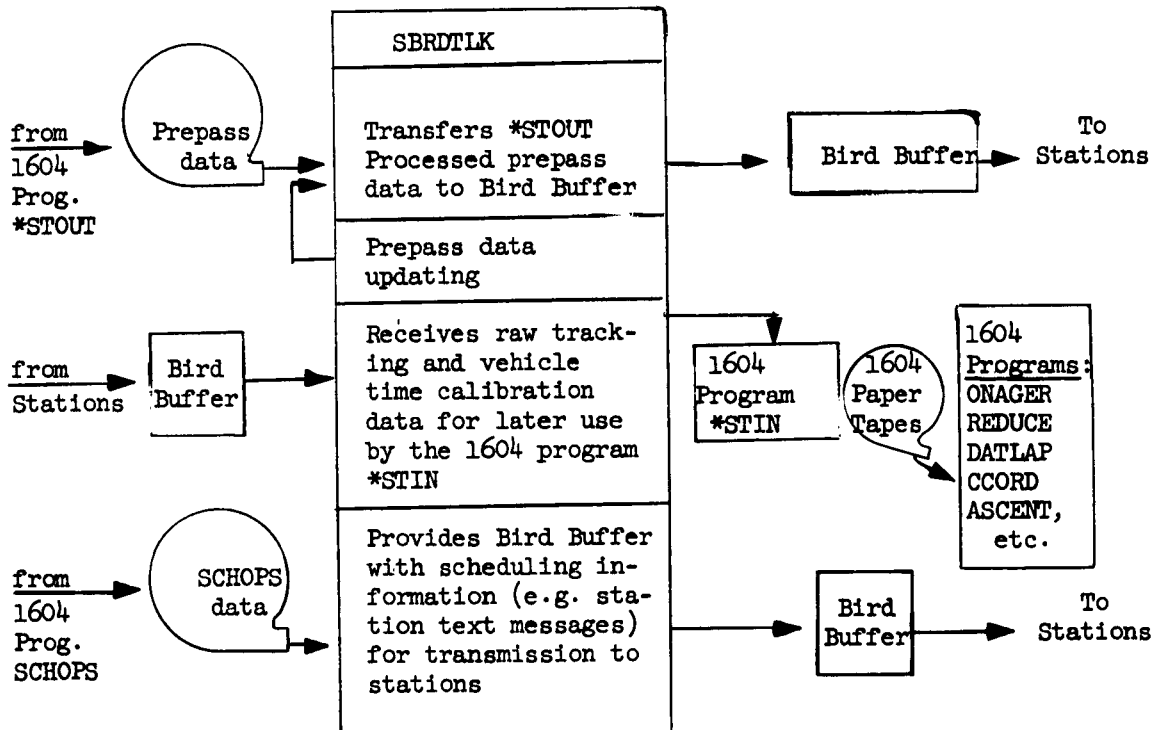


Figure 2. SBRDTLK Operational Interfaces (A-1 Period)

4.0 GENERAL FUNCTION OF THE COMMUNICATION PROGRAM SMERGE

SMERGE is called into operation by the program, SWRTOUT, which functions as a part of the Transition Program, *STOUT. It is operated each time SWRTOUT indicates receipt of a block of information such as Text Messages, Antenna Pointing Data, etc., from *STOUT and has placed it upon the Change Tape. The operation occurs only during the pre-pass phase. The function of SMERGE is to order, according to vehicle number, revolution, and data type, the information contained on the Change Tape, then to merge it in proper context on the Transfer Tapes (sometimes referred to as the prepass tapes).

4.1 SUMMARY OF TASKS - SMERGE

4.1.1 Procedures

4.1.1.1 Prepare the tape units for operation of SMERGE.

4.1.1.2 Restart SMERGE when various read and write errors occur.

4.1.1.3 Provide SMERGE with a longer tape for creating the new transfer tape.

4.1.1.4 Change tapes (when indicated) to permit copying the new transfer tape.

4.1.1.5 Remove tape rings when operations are complete.

3 May 1963

8
(Last Page)

TM-12-3/000/00

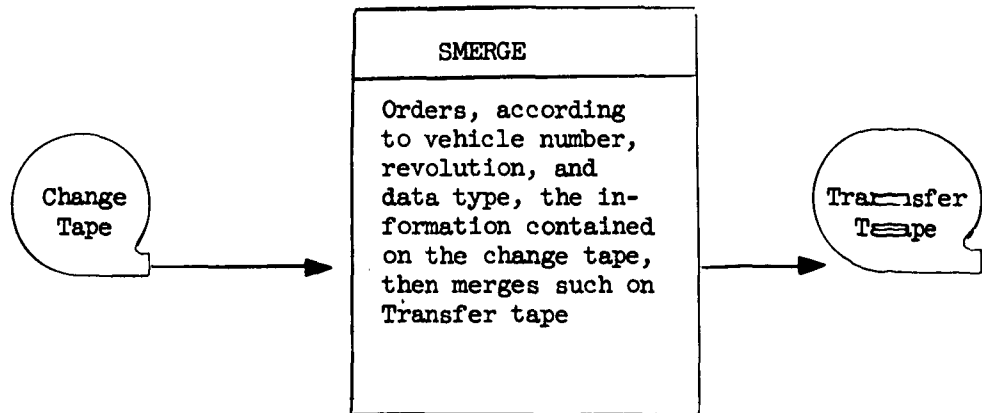


Figure 3. SMERGE Operational Interfaces (A-1 Period)

3 May 1963

TM-1243/000/00

EXTERNAL DISTRIBUTION

Copies

Space Systems Division
(Contracting Agency)

Maj. C. R. Bond (SSOCD)
Maj. M. Hill
Maj. K. Lindsay

6594th Aerospace Test Wing
(Contracting Agency)

Col. P. Villars (TWR)	10
Lt. Col. A. W. Dill (TWRD)	10
Lt. Col. M. S. McDowell (TWRU)	10

PIR-E1 (Lockheed)

W. E. Moorman	
R. L. Swanson	5
R. L. Vader	

PIR-E2 (Philco)

R. Morrison
T. Reiland

PIR-E5 (Aerospace)

C. S. Hoff	5
R. O. Brandsberg	
L. Garcia	
G. J. Hansen	
T. R. Parkin	
E. E. Retzlaff	
R. G. Stephenson	
V. White	
C. Beyer	

3 May 1963

TM-1243/000/00

INTERNAL DISTRIBUTION

<u>Name</u>	<u>Room No.</u>
Alexander, L. B.	22134
Alperin, N. I.	22088B
Bustya, C.	22134
DeCuir, L. E.	24053A
Dobrusky, W. B.	22150
Ellis, R. C.	22131A
Ericksen, S. R.	22113
Friedman, L. A.	22130
Greenwald, I. D.	22116B
Henley, D. E.	22094A
Holzman, H. J.	24065B
Knight, R. D.	22119
Marioni, J. D.	24076B
Myers, G. L.	14058B
Munson, J. B.	22096A
Olson, A. H.	22131
Polk, T. W.	24113
Resnick, H.	22137
Seiden, H. R.	22126B
Skelton, R. H.	22087
Stone, E. S.	24058B
Tennant, T. C.	27029
Van Daalen, W. T.	22137
Weinstock, M.	22131
West, G. P.	22126A
Wong, J. P.	Sunnyvale

UNCLASSIFIED

System Development Corporation,
Santa Monica, California
PERSONNEL PLANNING INFORMATION - 1604
TRANSITION PROGRAMS OPERATIONS.
Scientific rept., TM-1243/000/00, by
C. Bustya, L. A. Friedman. 3 May
1963, 7p., 3 figs.
(Contract AF 19(628)-1648, Space
Systems Division Program, for Space
Systems Division, AFSC)
Unclassified report

DESCRIPTORS: Programming (Computers),
Satellite Networks.

UNCLASSIFIED

Updates the information pertaining
to STIN and STOUT on the original
Personnel Planning Information (PPI)
document TM(L)-979/000/00, and adds
information regarding the new 1604
communications programs SBRDTLK and
SMERGE, which will become operational
in the A-1 time period along with
STIN and STOUT.

UNCLASSIFIED

UNCLASSIFIED