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New York TRACON Demonstration of Program Recoding Requirements Analysis Document

Data Transformation Corporation
8121 Georgia Avenue
Silver Spring, Maryland 20910

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Final Report

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16. Abstract

This document is an intermediate deliverable in a project whose objective was to convert portions of the current New York (N.Y.) TRACON software written in ULTRA to a higher order transportable language. A combination of ADA/PDL leading to PASCAL as the higher order language was chosen. The document consists of four main parts: (1) a detailed analysis of the N.Y. TRACON demonstration project software requirements for software version A5.04; (2) a description of the demonstration system architecture, in contrast with the current N.Y. TRACON hardware; (3) a description and rationale for the demonstration system operational software architecture; and (4) a data dictionary of the current system. The output of this document led to the next step which was the actual writing of the new software.

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Preface

The New York TRACON Demonstration Requirements Analysis is on library TCDRA002.DEV.SCRIPT; the outline is called OUTLINE.

The first revision is January 14, 1987. The following changes are reflected:

- Retrack passes all interfacility messages (both input and output) to the interfacility task. The filtering of messages to process and matching of TCIDs for AM and CX messages will be performed within the interfacility task.

- Retrack will fabricate Start Track messages when processing Tracking Data messages that contain a valid ACID and none is stored for that track. This will allow the demonstration system to display full data blocks for tracks where the interfacility flight plan data was not replayed from the CDR file (because it was on the previous file).

- In CDR conversion, octal digits that will be preserved (message codes and beacon codes) will be translated to EBCDIC, for ease of use by TRACON programs. An octal to real conversion was also added. The CDR conversion rationale and package was added to the architecture section.

- The following keyboard commands are also not being recoded: ATIS, altitude filter limits, and relocating tabular lists.

- The CDR Editor will run under VM.

The second revision is May 29, 1987. The following changes are reflected:

- PSRAP sends the input sector time and target report messages to CDR extraction.

- Retrack initiates processing using either the Data Buffer Header record or the CDR Initialization record is read, whichever occurs first.

- Retrack fabricates a flight data entry keyboard entry based on the information in the Tracking Data message.

- Retrack passes interfacility FP messages to the interfacility task when the matching DA is encountered. Subsequent AM and CX messages for these flights are also sent to interfacility. All other interfacility messages are discarded and are not placed on the CDR File.

- The software architecture has been updated to reflect the system implementation in the following areas:

- Send and Receive interface
- Monitor Packages
- Load Modules
- Subtask Communication
- Primary Storage Management
- Software Clock Management

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EXECUTIVE SUMMARY

This document is an intermediate deliverable in a project whose objective was to convert portions of the current New York (N.Y.) TRACON software written in ULTRA to a higher order transportable language. A combination of ADA/PDL leading to PASCAL as the higher order language was chosen. The document consists of four main parts: (1) a detailed analysis of the N.Y. TRACON demonstration project software requirements for software version A5.04; (2) a description of the demonstration system architecture, in contrast with the current N.Y. TRACON hardware; (3) a description and rationale for the demonstration system operational software architecture; and (4) a data dictionary of the current system. The output of this document led to the next step which was the actual writing of the new software.

1.0 Introduction and Scope

This document consists of four parts: a detailed analysis of the New York TRACON demonstration software requirements, based on the ARTS IIIA computer program functional specifications (NAS MDs) for version A5.04; a description of the demonstration system architecture, in contrast with the current New York TRACON system architecture; a description and rationale for the demonstration system operational software architecture and the formal definitions and rules for the proposed architecture; and an appendix containing a data dictionary of the current system.

The bulk of the document contains the software requirements. They are organized by NAS MD. Each section contains an introductory paragraph, the analysis by NAS MD subsection, and a discussion of additional capabilities, if there are any. If a subsection contains a functional capability that is being converted from ULTRA to Pascal/VS, it is identified under the heading "Recoded" with a "Yes"; if the function is not a software function, or is being replaced by commercial software, or is not being considered for the demonstration, or contains administrative information only, and so on, it is identified under the "Recoded" heading with a "No." In either case, the rationale is included. Concluding the software requirements section is a section describing our approach to converting the CDR input file from Sperry-UNIVAC format to IBM S/370 format.

2.0 Applicable Documents

The following documents were used during requirements analysis: the NY TRACON Computer Program Functional Specifications (CPFS), contained in a series of nineteen volumes, the Retrack User's Guide, User's Manual for ATC Support Software (NASP-3202-01), and three volumes of the NY TRACON Coding Specifications.

The CPFS documents in the series are the following:

NAS-MD	TITLE
631	NAS En Route Stage A - NY TRACON
634	System Description and Specified Series
635	Executive Control
636	Parallel SRAP Processing
637	Target Processing (Tracking) and ISL
638	Keyboard Input Processing
639	Display Output Processing
640	Interfacility Data Transfer
641	Bulk Store Flight Plan
642	CDT Non-Executive Error and Status Messages
643	Site Adaptation
644	MSAW and Altitude Tracking
645	Non-Executive Console Teletype Processing and On Call Tasks
646	Builder - BUP and CDR Editor
647	Recovery
648	Continuous Data Recording
649	Remote Display Processing
650	Support Software
650A	Support Software Ultra Assembler
650B	Support Software Librarian
650C	Support Software Loader
650D	Support Software Utilities
650E	Support Software CONIOP
651	Conflict Alert

3.0 Software Requirements

This section outlines the major functions that will be developed for the New York TRACON demonstration. A detailed requirements analysis for each NAS-MD is included in the sections that follow.

Major Functions

The following functions are being implemented and will be traceable to the current New York TRACON code:

- Retrack
- Keyboard Operational Functions (for supported messages)
- PSRAP
- Tracking
- Data Base (for supported functions)
- CDR Editor
- Interfacility

The following functions are being implemented but are not traceable to the current New York TRACON code:

- Continuous Data Recording Extractor
- Executive Services Request Module (our implementation uses MVS/RTX and not MPE)
- Display Output (to work with the situation display)
- Test Tools (to support the build plan)
- SDL software (for custom panel support for New York TRACON)
- CDR tape conversion program (to convert the CDR tape to S/370 format and place it on a disk data set)

The following major functions are not being implemented in the New York TRACON demonstration:

- Console Data Terminal Processing

- ETG and ETG scenario generator
- On-call programs
- Keyboard Input Processing (KIP)
- Advanced Tracking (conflict alert, altitude tracking, and MSAW)
- Interfacility (Responses and ARTCC Interface)

In addition, the following functions are not being provided:

- alarm processing
- weather processing
- critical data recording and recovery processing
- bulk store FP processing
- dynamic altering of CDR categories
- consolidation of sectors
- SRAP performance monitoring
- SWABS processing
- the following multifunction keyboard commands
  - C - Configuration
  - D - Display
  - E - Emergency
  - G - BRATS
  - I - Mag Tape/Disc FP
  - K - Reinitialize Display
  - O - Auto Offset
  - Q - MSAW (Display Inhibit)
  - R - Memory Readout
  - V - MSAW (Enable/Disable)

- •• X - SWABS
- •• 1 - CDR Extractor
- •• 2 - Manual Reconf

- remote tower display processing
- handoff

Detailed Functions and Operational Concepts

The demonstration system will be run under MVS/RTX on an IBM S/370 architecture processor. The system will appear as an MVS/RTX batch job. There will be no inputs allowed during the run. There will be an interactive job (and an interactive terminal attached to that job) ready to be initiated to execute the CDR Editor at the completion of the run.

We will convert the FAA-provided CDR tape from 7-track to 9-track format at the Tech Center. Prior to executing the online system, the FAA-provided CDR tape (in 9-track format) will be converted to S/370 format and stored in a disk data set (see section 3.21 for details on the conversion program) by an offline program.

An executive control program will be implemented, that uses MVS/RTX, to provide application services previously provided by the Multiprocessor Executive (MPE).

Control will pass to Retrack, which will drive the operational system. (See section 3.4 for the requirements analysis for Retrack.) The converted CDR data set will be read by Retrack. The Retrack program will be coded to process tracking data, keyboard data, Radar only Target reports, sector time, CDR termination, interfacility messages, target reports, and data buffer headers. Retrack will pass this input data to PSRAP, keyboard and interfacility for application processing.

The tracking programs will be recoded to provide a traceable functional equivalence with the current New York TRACON algorithms. These programs read the data provided by Retrack and perform tracking for multiple sensors, generating entries in the Central Track Store (CTS) and sending the appropriate data to the display output programs. (The demonstration will display data for only a single controller position.) (See section 3.6 for the requirements analysis for tracking.)

The keyboard operation functions (KOF) programs will be recoded to provide a traceable functional equivalence with the current New York TRACON implementation, for the supported commands. (See section 3.7 for the requirements analysis for keyboard.) These programs read the data provided by Retrack, process the messages, and send the required information to Tracking and Display for further processing.

The display output programs will be coded to support the situation display. The functions performed will be equivalent to the current functions, but, because of the difference in the display hardware interface, functional traceability will not be maintained. (See section 3.8 for the requirements analysis for display output.) The programs that support the remote displays will not be recoded.

The interfacility function will process FP, AM, and CX messages, so that an operational flight plan data base can be maintained. The remaining interfacility messages will not be processed. No interfacility output messages will be generated and the ARTCC interface will not be supported (see Section 3.9). However, the ARTCC Aircraft ID/TRACON Terminal Computer ID relationship will be maintained to process subsequent (AM and CX) messages. The interfacility input programs will pass its data to tracking.

The CDR extractor will be recoded to provide information for the CDR Editor. The points at which the extraction is performed will remain the same as the current NY TRACON system, for the functions recoded. However, the data formats will change to support the following interfaces:

- CDR extractor and PSRAP
- CDR extractor and tracking
- CDR extractor and keyboard
- CDR extractor and display
- CDR extractor and CDR editor

The CDR extractor will produce a data set which resides on an IBM 3380 disk data set. (See section 3.17 for the requirements analysis for CDR extraction.)

CDR Editor will be recoded to produce a listing that will verify the functional equivalence between the GFE system and the demonstration system, for the functions we are recoding in the operational program. The listing produced by the recoded CDR Editor will be identical to that produced by the current editor, for the functions that are supported in the operational recoding. (See section 3.15 for the requirements analysis for the CDR Editor.)

3.1 ICD En Route CCC/NY TRACON

This document (NAS-MD-631) describes the interface between the NAS En Route Stage A Central Computer Complex and the NY TRACON facility. Details of the hardware, software, and operational elements are provided.

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.0	TRANSMISSION CHARACTERISTICS	No
	This section describes the ARTCC hardware interface and, as such, contains no demonstrable functions.	

Sub-section	Title	Recoded
3.0	REQUIREMENTS AND FUNCTIONAL CAPABILITIES	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.1	Functions	No
	This section provides an overview of the functions performed by the operational interface. Aside from this information, this section contains no demonstrable functions.	

Sub-section	Title	Recoded
3.2	Model A3d2/NY TRACON Interface	No
	This section provides an overview of the Model A3d2/NY TRACON Interface. This section contains no demonstrable functions.	

Sub-section	Title	Recoded
4.0	MESSAGES	Yes
	The following input messages are supported: Flight Plan (FP) Amendment (AM) Cancellation (CX) No other messages are supported. Refer to Section 3.9 of this document for the rationale.	

Sub-section	Title	Recoded
5.0	SUPERVISORY CONTROLS	No
	This function is not required by the FAA and is not required to maintain an integral system. Interfacility will always be enabled. Refer to Section 3.9 of this document for the rationale.	

Sub-section	Title	Recoded
6.0	REFERENCES	No
	This section is administrative and contains no demonstrable functions.	

3.2 System Description and Specification Series

This document (NAS-MD-634) contains the ARTS System Description, Program Organization and presents an overview of the NY TRACON Computer Program Functional Specifications (CPFS) series.

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.0	SYSTEM DESCRIPTION	No
	This section is administrative and contains no demonstrable functions. Note also that this section describes hardware components.	

Sub-section	Title	Recoded
2.1	System Organization	No
	This section provides an overview of the following sections and, as such, contains no demonstrable functions.	

Sub-section	Title	Recoded
2.1.1	Data Processing Subsystem	No
	The IBM central processor and software operating systems MVS and RTX comprise the Data Processing system.	

Sub-section	Title	Recoded
2.1.2	Sensor Receiver and Processor	No
	This section describes the hardware components of the SRAP. We are not using the SRAP, since all SRAP inputs have been recorded on the CDR input tape that is read by Retrack.	

Sub-section	Title	Recoded
2.1.3	Data Entry and Display Subsystem	No
	This section describes the input and output devices at the controller workstations. There will be no input capability from the data entry sets, because all inputs have been recorded on the CDR tape after KIP processing. The situation display will function as the output device for controller displays.	

Sub-section	Title	Recoded
2.1.4	Continuous Data Recording Subsystem	No
	Continuous Data Recording will be performed on the IBM processor. There will be no critical data recording. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
2.1.5	Remote Displays	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.0	OPERATIONAL PROGRAM	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.1	Program Organization	No
	This section provides the major program modules, or subprograms, and the CPFS that describes them. Aside from this information, this section contains no demonstrable functions.	

Sub-section	Title	Recoded
3.1.1	Multiprocessor Executive	No
	Refer to Section 3.3 of this document for the rationale.	

Sub-section	Title	Recoded
3.1.2	SRAP Input Processing	Yes
	Refer to Section 3.5 of this document for the rationale.	

Sub-section	Title	Recoded
3.1.3	Radar/Beacon Tracking Module	Yes
	Refer to Section 3.6 of this document for the rationale.	

Sub-section	Title	Recoded
3.1.4	Keyboard Input Module	Yes
	Refer to Section 3.7 of this document for the rationale.	

Sub-section	Title	Recoded
3.1.5	Interfacility Input/Output	Yes
	Refer to Section 3.9 of this document for the rationale.	

Sub-section	Title	Recoded
3.1.6	Bulk Store Flight Plan Input Module	No
	Refer to Section 3.10 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.1.7	Display Output Module	Yes
	Refer to Section 3.8 of this document for the rationale.	

Sub-section	Title	Recoded
3.1.8	Automatic Format Offset Module	Yes
	Refer to Section 3.8 of this document for the rationale.	

Sub-section	Title	Recoded
3.1.9	Minimum Safe Altitude Warning (MSAW)	No
	Refer to Section 3.13 of this document for the rationale. This is a priority 2 function and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.1.10	Continuous Data Recording	Yes
	Refer to Section 3.17 of this document for the rationale.	

Sub-section	Title	Recoded
3.1.11	Recovery Program	No
	Refer to Section 3.16 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.1.12	On Call Programs	No
	Refer to Section 3.14 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.1.13	RBTL Operational Functions	No
	Refer to Section 3.16 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.1.13.1	Full RBTL Operational Function	No
	Refer to Section 3.16 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.1.13.2	First Level Backup RBTL Operational Function	No
	Refer to Section 3.16 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.1.13.3	Second Level Backup RBTL Operational Function	No
	Refer to Section 3.16 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.1.14	Conflict Alert (CA) Module	No
	Refer to Section 3.20 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
4.0	ORGANIZATION OF THE CPFS	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
5.0	GLOSSARY OF TERMS	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
6.0	ACRONYMS AND ABBREVIATIONS	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
7.0	ADDITIONAL REFERENCE DOCUMENTS	No
	This section is administrative and contains no demonstrable functions.	

3.3 Multiprocessor Executive

This document (NAS-MD-635) specifies the functional requirements for the Multiprocessor Executive (MPE).

The functions performed by the MPE in the NY TRACON system are performed in the demonstration system by MVS/RTX or are not part of the TRACON Recode project. This section will map categories of MPE work to MVS/RTX services and identify those that will not be re-implemented.

Critical Data Recording and the Recovery Sequence that uses the Critical Data will not be recoded. The equivalent of a scatter interrupt will not exist on the demonstration system.

The initializer module used during preset operation will not be recoded. Offline builds of the load modules to be executed under MVS/RTX will be performed. Task set up will be performed as part of the initialization of the RTX system.

The NY TRACON normal mode MPE services are :

1) Interrupt Control
2) Scheduler
3) Executive Service Request Module
4) Debug Module

Interrupt Control processes the following categories of interrupts:

- Interprocessor - Since the recode is on a uniprocessor, interrupts of this type will not occur.

- Executive Controlled I/O interrupts. I/O processing is handled by MVS standard access methods. Included in the Job Control Language that is used to setup the RTX job, will be information about input and output files. MVS will use this information to set up control blocks that describe the characteristics of the files. Pascal/VS will use the control blocks to generate calls to the proper MVS access methods.

The MPE scheduler schedules planned tasks and popup tasks. Planned tasks are scheduled through a lattice which imbeds strict predecessor/successor rules. RTX will schedule a subtask when a Work Request is sent to the subtask from another subtask. Subtask successor rules for each type of work will be imbedded in the logic of the subtask. The execution sequence within a subtask is determined by logic within the subtask.

Popup tasks are aperiodic and are executed on the basis of an associated real time value. RTX time queuing will be used when time related scheduling is required.

The Executive Services Module processes ESRs, critical data requests and executive input messages. It also prints recovery variables and provides device handlers.

The recoded system will use MVS standard I/O routines and will not perform critical data processing or print recovery variables. It will not process EX (Executive) Operator messages. Individual ESRs are covered in the following sub-sections.

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.0	EXECUTIVE SERVICES MODULE	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
2.1	Device Handlers	No
	This section is a heading for the 2.1.X sections. I/O to the devices that are on the recoded system will be performed by standard access methods under MVS.	

Sub-section	Title	Recoded
2.1.1	Console Data Terminal Control	No
	This is a priority 1 function, but there are no CDTs in the demonstration system. In the NY TRACON system, CDTs were used to interactively display and enter operator messages. In the recoded system, there is no interactivity.	

Sub-section	Title	Recoded
2.1.2	Disc Control	No
	Equivalent Disk I/O functions will be provided by MVS/RTX.	

Sub-section	Title	Recoded
2.1.3	MSP Control	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
2.1.4	MTS Control	No
	Equivalent Tape I/O functions will be provided by MVS/RTX.	

Sub-section	Title	Recoded
2.1.5	CMC Control	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
2.2	Executive Input Messages	No
	This function is not required by the FAA and is not required to maintain an integral system. Executive (EX) operator messages will not be processed during the demonstration. These messages include scheduling popups (via the CDT), scatter interrupts (which initiated a recovery sequence), diagnostic loading requests (capability to load diagnostic programs), Print Resources and Print Switches, Peripheral Status Down/Up (redefine status of peripheral devices), Task/Ancillary Message (allows operator to send message to on-call program), Select Designated Backup Level Program, Switch CDT Messages, Select Alternate MSP Channel, Select Alternate DCU Channel, CMC Related EX Messages, CDT Related Input Messages, and Wait for Input Command. The above commands relate to NY TRACON specific hardware, recovery processes or MPE scheduling of tasks. None of these functions will be recoded on the demonstration system.	

Sub-section	Title	Recoded
2.3	Executive Service Request	No
	This section provides technical content but contains no demonstrable functions. Executive Services in NY TRACON allow tasks to request operating system services. In the demonstration system, since it is recoded in Pascal/VS with a modern operating system, the language processor will generate I/O access method calls on behalf of the user. Application code will contain GETs and PUTs rather than an Executive Service request. Scheduling ESRs will be replaced by calls to the SEND/RECEIVE application services. For a description see Additional Capabilities section.	

Sub-section	Title	Recoded
2.3.1	Input/Output ESRs	No
	An equivalent function is being provided by a standard MVS access method.	

Sub-section	Title	Recoded
2.3.2	Indirect ESR Request	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
2.3.3	Clear Arithmetic Overflow Designator	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
2.3.4	Scheduling ESRs	No
	An equivalent function is being provided by RTX scheduling services invoked by SEND and RECEIVE application services.	

Sub-section	Title	Recoded
2.3.5	Debug - Snap Dump	No
	An equivalent function is being provided by RTX Probe and Debug services.	

Sub-section	Title	Recoded
2.3.6	Request System Resources	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
2.3.7	Critical Data ESRs	No
	This function is not required by the FAA and is not required to maintain an integral system. The demonstration system will not include recovery mechanisms.	

Sub-section	Title	Recoded
2.3.8	Device Oriented ESRs	No
	An equivalent function is being provided by standard MVS access methods. Refer to Section 2.3 of this document for the rationale.	

Sub-section	Title	Recoded
2.3.9.1	Request Data (E$DATA)	NO
	This function is not required by the FAA and is not required to maintain an integral system. In the MPE system, this ESR allows a task to read or write the contents of any memory location in the system. It is used to access an area of memory that the task cannot access directly. In the demonstration system, if a task cannot directly access a variable that it requires, it will send a request to the task that owns the data and the owning task will return the requested data.	

Sub-section	Title	Recoded
2.3.9.2	System Scatter Interrupt (E$SCAT)	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
2.3.9.3	Call Ancillary (E$CALL)	No
	This function is not required by the FAA and is not required to maintain an integral system. On-call programs will not be recoded for the demonstration system.	

Sub-section	Title	Recoded
2.3.9.4	Exit (E$EXIT)	No
	An equivalent function is being provided by MVS/RTX and Pascal/VS. An E$EXIT is used by a task to indicate that it has completed processing. In the demonstration system, the Pascal/VS support system will generate the program exit at the completion of execution.	

Sub-section	Title	Recoded
2.3.9.5	Switch CDT Messages (E$STM)	No
	This function is not required by the FAA and is not required to maintain an integral system. The recoded system does not contain any CDTs.	

Sub-section	Title	Recoded
2.3.10	CMC Related ESRs	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.0	INITIALIZER MODULE	No
	An equivalent function is being provided by MVS/RTX Initialization. The MPE Initializer module initialized processor hardware, initialized MPE software, and passed control to task specified preset routine. MVS/RTX will perform these services as part of normal job initiation under RTX.	

Sub-section	Title	Recoded
4.0	SCHEDULER MODULE	No
	This section provides technical content but contains no demonstrable functions. Refer to the Overview of the Multiprocessor Executive which appears at the beginning of Section 3.3 for the rationale.	

Sub-section	Title	Recoded
4.1	Popup Scheduler	No
	An equivalent function is being provided by RTX Time Scheduling. Refer to the Overview of the Multiprocessor Executive which appears at the beginning of Section 3.3 for the rationale.	

Sub-section	Title	Recoded
4.2	Planned Scheduler	No
	An equivalent function is being provided by the RTX Scheduler. Refer to the Overview of the Multiprocessor Executive which appears at the beginning of Section 3.3 for the rationale.	

Sub-section	Title	Recoded
4.3	Executive Time Check Routine	No
	An equivalent function is being provided by Timing Control executive service. This routine checks each processor's time to determine if it has been away from the Executive longer than the allotted time or has been in the Executive longer than the allotted time. In the demonstration system, Timing Control will verify that a subtask is not executing an unacceptable length of time. See Additional Capabilities below.	

Sub-section	Title	Recoded
5.0	INTERRUPT CONTROL MODULE	No
	An equivalent function is being provided by MVS/RTX Interrupt Processing. In the MPE system, the Interrupt Control Module processes operational and error interrupts. In the demonstration system, processor and peripheral communication (operational interrupts) will be fielded by MVS; error interrupts of a software nature (program checks) will be fielded by MVS/RTX; hardware interrupts will be fielded by MVS.	

Sub-section	Title	Recoded
6.0	DEBUG MODULE	No
	An equivalent function is being provided by RTX Debugging aids. The MPE Debug module allows setting and releasing of software breakpoints, timing of task execution, snap dumps, history function, automatic restart, etc. In the demonstration, no recovery capabilities will be provided. Program debugging during development will be performed by calls to RTX SNAP and TRACE routines.	

Additional Capabilities

SEND/RECEIVE will be an application service that provides intertask communication. These services will be used by subtasks to pass data and buffers between subtasks and to request services from other subtasks.

Timing Control will be an application service that periodically determines if processing deadlines are being met. It also passes system time for output to the display at a predetermined interval.

Initialization/Termination will be an application service that prepares each subtask for execution at system initialization and terminates processing of all subtasks at system termination.

3.4 Retrack

Retrack is a program that, through use of CDR tape, acts as a load tester and driver for the New York TRACON environment. For the NYTRACON demonstration program, RETRACK will act as a driver only. In the New York TRACON environment RETRACK is an off-line program which uses the backup IOPB to drive the operational system during non-operational periods. The NYTRACON program for the demonstration will be an integral part of the operational program.

The demonstration RETRACK will make use of the same CDR file that the original RETRACK uses; however, not all of the messages will be processed by RETRACK or the operational program. The messages that are not processed will be discarded.

The demonstration RETRACK will be written in PASCAL/VS. The data used will be read from a disk containing CDR data which has been converted to IBM format by an off-line program (see Section 3.21).

Sub-section	Title	Recoded
1.0	INTRODUCTION	NO
	This section contains general information on RETRACK, and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.1	Purpose	NO
	This section contains general information on RETRACK, and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.2	Scope	NO
	This section contains general information on RETRACK, and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.3	Background	NO
	This section contains general information on RETRACK, and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.4	Environment	NO
	Runs as part of the operational system as an MVS/RTX task. Input is from disk.	

Sub-section	Title	Recoded
1.5	Program Description	NO
	This section contains a general description of RETRACK, but contains no demonstrable functions. The demonstration Retrack will be an integral part of the operational system, not an independent program. Enhanced Target Generation will not be incorporated into the demonstration RETRACK. Input data will come from a single source. Refer to section 2.3.1, below. Input data will consist of all information on CDR tapes. Refer to section 3.0, below. The options of the New York TRACON RETRACK will not be incorporated in the demonstration RETRACK. If the data that is sent by RETRACK is not used by the demonstration operational program as it would have been by the New York TRACON program, the receiving task will discard the data.	

Sub-section	Title	Recoded
2.0	PROGRAM OPTIONS	NO
	This section contains general information, and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.1	Assembly Options	NO
	This section contains general information, and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.1.1	Message Processing Inhibits	NO
	This is a New York TRACON assembly option. The demonstration RETRACK will not inhibit CDR message types or subtypes. All messages will be read from the disk. The messages which are ignored by the New York TRACON RETRACK will also be ignored by the demonstration RETRACK. Those messages which are processed by the New York TRACON RETRACK, will also be processed by the demonstration RETRACK. Keyboard messages will not be inhibited by the demonstration RETRACK.	

Sub-section	Title	Recoded
2.1.2	Process Non-Standard Formats	NO
	RETRACK will be coded to accept standard NYTRACON formatted data only.	

Sub-section	Title	Recoded
2.1.3	System/Site Adaptation Parameters	NO
	System parameters used will be unique to the demonstration program. RETRACK Ultra program parameters will not be used.	

Sub-section	Title	Recoded
2.2	Program Startup Options	NO
	These options will not apply to the demonstration program	

Sub-section	Title	Recoded
2.2.1	Force Operational System Into Training Mode	NO
	This option will not apply to the demonstration program	

Sub-section	Title	Recoded
2.2.2	Select Input Sensors	NO
	The four New York TRACON sensors will be processed by the demonstration program. The selection option will not apply.	

Sub-section	Title	Recoded
2.3	Runtime Options	NO
	These options are system specific to UNIVAC hardware. They are not required for the demonstration.	

Sub-section	Title	Recoded
2.3.1	Select Input Media	NO
	Input data will come from an IBM formatted disk containing the CDR data which has been converted to IBM format.	

Sub-section	Title	Recoded
2.3.2	Select Replay Initiation	NO
	This is a UNIVAC hardware specific option. Startup times may be entered in to New York TRACON RETRACK program to invoke the processing of the RETRACK program. The demonstration RETRACK will startup on command from the user not from startup input.	

Sub-section	Title	Recoded
2.3.3	Enable/Disable Interfacility Data Processing	NO
	In the New York TRACON RETRACK, this is a hardware controlled option. For the demonstration RETRACK the option of inhibiting interfacility messages will not apply. RETRACK has the capability to playback interfacility messages when processing non-flight interfacility messages such as AM and CX. The current RETRACK checks to make sure a flight plan has been received and acknowledged first, then it processes the non-flight interfacility messages. The demonstration RETRACK will also have this capability. The demonstration RETRACK will also have the capability to process interfacility flight plan messages.	

Sub-section	Title	Recoded
3.0	INPUTS AND INPUT DATA FORMATS	YES
	Data Buffer Header	
	CDR Initialization	
	CDR Termination	
	Data Delete/Resume *	
	Data Loss *	
	Memory Dump *	
	Sector Time	
	Target Report	
	Tracking Data	
	Keyboard Entry	
	Automatic Function *	
	Interfacility Data	
	MSAW ALARM message *	
	Altitude Tracking message *	
	MSAW DISPLAY message *	
	CTS DATA message *	
	Radar Only Target Report	
	Radar Data Loss *	
	CA Linear message *	
	CA MFMAMS message *	
	CA PROXIMITY message *	
	* are discarded messages	

Sub-section	Title	Recoded
4.0	RETRACK OUTPUTS/OUTPUT DATA FORMATS	YES
	1) Sector Time Messages 2) Beacon/Radar Reinforced Beacon Target Messages 3) Radar only Target Report Messages 4) Display Keyboard Messages 5) Interfacility Input Messages Note: Only the following messages will be fabricated: Keyboard flight data message for CDR input tracking data for which there is no current flight plan.	

Sub-section	Title	Recoded
4.1	SRAP Message Formats	YES
	Only those that are applicable to the NYTRACON program will be included. (parallel SRAP message formats)	

Sub-section	Title	Recoded
4.1.1	Tampa/Sarasota Serial SRAP Message Formats	NO
	These message formats do not apply to the demonstration program.	

Sub-section	Title	Recoded
4.1.2	ARTS IIIA/NEW YORK TRACON Parallel SRAP Message Formats	YES
	These message formats do apply to the demonstration program.	

Sub-section	Title	Recoded
4.1.2.1	Beacon/Radar Reinforced Beacon Message Formats	YES
	These message formats do apply to the demonstration program.	

Sub-section	Title	Recoded
4.1.2.2	Radar Only Message Formats	YES
	These message formats do apply to the demonstration program.	

Sub-section	Title	Recoded
4.1.2.3	Weather Map Formats	NO
	These message formats do not apply to the demonstration program.	

Sub-section	Title	Recoded
4.1.2.4	Sector Mark Formats	YES
	These message formats do apply to the demonstration program.	

Sub-section	Title	Recoded
4.2	Common Digitizer (CD) MESG Formats	NO
	Not applicable to NYTRACON RETRACK.	

Sub-section	Title	Recoded
4.3	Display Keyboard Message Formats	YES
	All keyboard messages with no errors that are read from the CDR data will be processed and sent to keyboard processing. Keyboard messages in error will be logged to a designated log file.	

Sub-section	Title	Recoded
4.4	Interfacility Message Formats	YES
	RETRACK will read all interfacility messages, but will only send FP, CX, and AM messages to the demonstration interfacility module. The FP message must have a matching DA sent to the ARTCC to be sent to interfacility. All other messages will be discarded.	

Sub-section	Title	Recoded
5.0	SYSTEM INITIALIZATION AND CONTROL	NO
	This section contains information describing hardware options, as well as interactive run time options. The assembly and run time options will be incorporated into the core resident RETRACK program.	

Sub-section	Title	Recoded
5.1	RFDU	NO
	This is hardware related to UNIVAC, and is replaced by IBM/370 environment.	

Sub-section	Title	Recoded
5.2	Disk Subsystem Initialization	NO
	This is hardware related to UNIVAC, and is replaced by IBM/370 environment.	

Sub-section	Title	Recoded
5.3	VIC Tape Subsystem Initialization	NO
	This is hardware related to UNIVAC, and is replaced by IBM/370 environment.	

Sub-section	Title	Recoded
5.4	IMT Initialization	NO
	This is hardware related to UNIVAC, and is replaced by IBM/370 environment.	

Sub-section	Title	Recoded
5.5	IOPB Initialization	NO
	This is hardware related to UNIVAC, and is replaced by IBM/370 environment.	

Sub-section	Title	Recoded
5.6	System Startup	NO
	This will not be hardware oriented to the extent discussed in this section, the MVS/RTX environment will provide startup.	

Sub-section	Title	Recoded
5.7	Select Runtime Options	NO
	The options specified in the RETRACK USER'S MANUAL are oriented to the New York TRACON RETRACK program only. Run time options for the demonstration RETRACK will be defined by the operating system of which RETRACK will be a subfunction.	

Sub-section	Title	Recoded
APPENDIX A	Message Type Selection Options	YES
	These equates are required to maintain an integral system.	

Sub-section	Title	Recoded
APPENDIX B	CDR System Parameter Options	YES
	Only those equates specific to NYTRACON will be included.	

Sub-section	Title	Recoded
APPENDIX C	OPS Description Parameters	YES
	Only those equates specific to NYTRACON will be included	

Sub-section	Title	Recoded
APPENDIX D	RETRACK Assembly Runstream	NO
	These values will be incorporated into the demonstration RETRACK, but will not be considered as a 'runstream.'	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.5 SRAP Processing

This document elaborates on the recoding specifications for Parallel SRAP processing. The sections are derived from NAS-MD-636.

PSRAP receives the radar reports, beacon reports and radar reinforced beacon reports, along with sector time messages, from RETRACK. It then puts them into the formats needed by TRACKING.

PSRAP will not do any hardware related SRAP functions, such as SRAP hardware initialization, performance monitoring, alternate SRAP selection and SRAP Confidence test. It will not process SRAP alarm messages.

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section provides an introduction to the following subsections and, as such, contains no demonstrable functions.	

Sub-section	Title	Recoded
2.0	SRAP INITIALIZATION	Yes
	Only the following SRAP Initialization functions will be implemented: Scan Time Initialization, Sector Mark Table Initialization, and Input Buffer Initialization.	

Sub-section	Title	Recoded
3.0	SRAP MESSAGE PROCESSING	No
	This section provides an introduction to the following subsections and, as such, contains no demonstrable functions.	

Sub-section	Title	Recoded
3.1	BEACON REPORT PROCESSING	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.2	RADAR REPORT PROCESSING	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.3	SECTOR MARK PROCESSING	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.4	ALARM MESSAGE PROCESSING	No
	The alarm processing function is not being provided as stated in Section 3.0: Software Requirements.	

Sub-section	Title	Recoded
4.0	SRAP PERFORMANCE MONITORING	No
	The SRAP performance monitoring function is not being provided.	

Sub-section	Title	Recoded
5.0	ALTERNATE SRAP SELECTION	No
	Since there is no SRAP performance monitoring, there is no need for the Alternate SRAP Selection function.	

Sub-section	Title	Recoded
6.0	SRAP CONFIDENCE TEST	No
	Since there is no SRAP performance monitoring, there is no need for the SRAP Confidence test function.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.6 Target Processing (Tracking) and ISL (Inter-sensor Linker)

This document (NAS-MD-637) describes the specifications for tracking and inter sensor linker.

Tracking gets its inputs of target reports from PSRAP and flight plans from Interfacility. It also receives keyboard messages to update Tracking data base. The primary function of tracking is to correlate proper tracks with the targets and generate data to be displayed and to be extracted on CDR tape. In cases where correlation is not possible, it creates new tracks in CTS using the information in the target reports. Tracking will not store data for Conflict Alert and MSAW, since those functions are not being recoded.

Tracking algorithms will be completely preserved as they are in the current system.

Inter sensor linker links the associated tracks within one sensor to unassociated tracks in a related sensor.

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section provides an overview of the following subsections and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.1	TRACKING SUBFUNCTIONS	No
	This section provides an overview of the tracking subfunctions and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.2	TRACKING FLOW	No
	This section provides an overview of the tracking flow and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.0	TRACKING CONTROL	Yes
	The tracking control function is a require- if the tracking function is to be implemented and consequently is a priority 1 function.	

Sub-section	Title	Recoded
3.0	TRACKED TARGET PROCESSING	No
	This section provides an overview of the following subsections and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.1	CORRELATION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.1	TRACKING FIRMNESS AND TRACK ORIENTED SMOOTHING	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.2	TRACKING BINS	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.3	PRIMARY/SECONDARY BINS	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.4	CROSS REFERENCING	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.5	TARGET SELECTION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.6	PRIMARY/SECONDARY CORRELATION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.7	NORMAL, PARENT AND PARENT TRIAL TRACK CORRELATION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.8	SUSPENDED TRACKS	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.9	DEVIATION TRACK CREATION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.10	SECOND PASS PROCESSING	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.11	INITIAL CORRELATION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.12	DEVIATION TRACK CORRELATION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.13	TRACK CORRECTION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.14	AUTOMATIC ACQUISITION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.1.15	STORE CONFLICT ALERT DATA	No
	The Advanced Tracking functions are not being implemented in the NY TRACON program re-coding.	

Sub-section	Title	Recoded
3.2	PREDICTION	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.2.1	AUTO-DROP AREA PREDICTIONS	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.2.2	AUTO TRANSFER OF FDB	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.2.3	AUTO ACTIVATION OF AIRCRAFT TYPE	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.2.4	AUTO TRANSFER OF AIRCRAFT TYPE TO BRITE TABULAR LIST	No
	The New York TRACON recode demonstration project will not incorporate a Brite display	

Sub-section	Title	Recoded
4.0	PROCESS UNUSED REPORTS (TPUR)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
5.0	INTER-SENSOR LINKER (ISL)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
6.0	EARLY DISCRETE CORRELATION (TEDC)	Yes
	This is a priority 1 function.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.7 Keyboard Processing

This document (NAS-MD-638) describes the specifications for the KEYBOARD module. The KEYBOARD module shall process all completed preview messages. The preview messages' characters shall be interpreted, and the required operation processing shall be initiated. The preview messages shall be received from the RETRACK module. RETRACK shall filter out invalid keyboard messages by looking at the error field in each message, and only sending those messages to the KEYBOARD module which are error free. RETRACK will also send to KEYBOARD flight data messages fabricated from the Tracking Data Messages.

The KEYBOARD module shall receive all error free keyboard messages which are on the CDR tape, but shall only process a subset of them. The following sections elaborate on which functions will be implemented, and which functions will not be implemented.

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.1	Components of the Keyboard Input Module	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.1.1	Alphanumeric Keyboard	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
1.1.2	Slew Entry Device (SED)	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
1.1.3	Quick Look Selector Switches	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
1.2	Classification and Validation of Messages	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
1.2.1	Message Categories	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
1.2.2	General Message Validation Criteria	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
1.2.3	Message Entry Error Indications	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
1.2.4	Duplicate ACID'S for Track File Identity	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.0	KEYBOARD OPERATIONAL FUNCTION PROCESSING (KOF)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.1	Inputs	Yes
	This is a priority 1 function. The following functions will be recoded. Initiate Control Track Reposition Track Suspend Terminate Control Flight Data Entry The following functions will not be recoded. Handoff Initiate Interfacility Message Print INPRINT Interfacility Test Program Operational Training Target Generator Messages Conflict Alert The following Multifunctions will be recoded. deleted BCN (Beacon) deleted HVYJG (Heavy Jet) deleted MODL (Modify) PREK (Preview) SYSK (System Data) TABG (Tabular List Messages) YSCP (Scratch Pad) The following Multifunctions will not be recoded. ATIS CFGD (Configuration) DISL (Display) EMGL (Emergency) BRATS (Beacon Reports and Tracking Summary) FILK (Filter) IFP (Mag-Tape/Disc Flight Plan) KINK (Reinitialize Display) LDRL (Leader) OFFK (Auto-Offset) QMSAW (MSAW Display Inhibit) RDTL (Memory Readout) VMSAW (Enable/Disable MSAW Functions) XBCN (Display Sensor Switching) CDR Extractor Manual Reconfiguration	

Sub-section	Title	Recoded
2.1	Inputs (continued)	Yes
	The following Implied Functions will be recoded. Beacon Readout Terminate Control Display/Inhibit Associated Track deleted Abbreviated Flight Data Entry Initiate Control Beacon Code Modify The following Implied Functions will not be recoded. Override Interfacility Display Presentation Handoff Accept/Recall Handoff Initiate Remote Tower Display Keyboard Functions Inhibit Blinking DM	
When keyboard messages that are not being recoded are encountered, they will be recorded on the CDR file and designated as unprocessed keyboard messages. When fabricated messages are processed, they will be recorded and designated as fabricated keyboard messages.		

Sub-section	Title	Recoded
2.2	Subprogram Description	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
2.2.1	Initiate Control Operational Function (STL)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.1.1	Initiate a New Track File	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.1.2	Activate an Existing Track File in Central Track Store	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.1.3	Enable Automatic Acquisition of an Existing Track File	No
	Automatic acquisition is enabled for all tracks.	

Sub-section	Title	Recoded
2.2.2	Track Reposition Operation Function (RPL)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.3	Track Suspend Operational Function (SUL)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.4	Terminate Control Operational Function (DPL)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.4.1	Terminate a Single Track	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.4.2	Terminate All Tracks	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.5	Handoff Initiate/Recall/Accept (HDL)	No
	This function is not required to maintain an integral system. Only data applicable to one controller is being processed for this demonstration.	

Sub-section	Title	Recoded
2.2.6	Flight Data Entry (FDL)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.6.1	Initiate new track file in CTS with Flight Plan or Store Status	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.6.2	Display "DM" for Keyboard Entered Flight Plans	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.2.6.3	Display/Delete Display of Aircraft Type in the Full Data Block	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.0	MULTIFUNCTION (KFK)	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
3.1	ATIS Multifunction (ATIS)	No
	This function is not required to maintain an integral system. ATIS will be preset for entire demonstration.	

Sub-section	Title	Recoded
3.1.1	Select and Display the HOST ALTIMETER setting, ATIS and GI or unique altimeter settings and unique GI.	No
	This function is not required to maintain an integral system. System data will be preset for entire demonstration.	

Sub-section	Title	Recoded
3.1.2	Enable/Disable Arrival Fix Area(s)	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.2	Beacon Multifunction (BCNK)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.2.1	Beacon Code Readout of a Single Track	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.2.2	Enter or Delete Selected Code in System Data Area.	No
	System data area will not display the selected codes.	

Sub-section	Title	Recoded
3.3	Configuration Multifunction (CFGD)	No
	This function is not required to maintain an integral system. The consolidation/deconsolidation of control positions is not a part of this demonstration. System configuration will be preset for entire demonstration.	

Sub-section	Title	Recoded
3.4	Display Multifunction (DISL)	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.5	Emergency Multifunction (EMGL)	No
	This function is not required to maintain an integral system. Emergency/radio failure/hijack indicators will be displayed in the full data block.	

Sub-section	Title	Recoded
3.6	Filter Multifunction (FILK)	No
	Filtering of the data blocks will be based on preset limits.	

Sub-section	Title	Recoded
3.7	Beacon Reports and Tracking Summary	No
	This function is not required to maintain an integral system. Printed output of data collections via keyboard entry is not a part of this demonstration.	

Sub-section	Title	Recoded
3.8	Heavy Jet Flight Plan Status, site Adapted Alpha, Aircraft Type Multi-function (HVYJG)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.9	Mag-Tape/Disc Flight Plan Multifunction (IFP)	No
	This function is not required to maintain an integral system. Flight plan input from tape or disc is not part of this demonstration	

Sub-section	Title	Recoded
3.10	F7J is currently undefined	No
	This section is administrative and contains no demonstrable functions. This section provides a place holder.	

Sub-section	Title	Recoded
3.11	Reinitialize Display	No
	This function is not required to maintain an integral system. The reinitialization of previously inhibited display conditions will not be implemented for this demonstration.	

Sub-section	Title	Recoded
3.12	Leader Multifunction (LDRL)	No
	Automatic offset is implemented for this demonstration.	

Sub-section	Title	Recoded
3.13	Modify Multifunction (MODL)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.13.1	Modify specified data	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.13.2	Modify flight plan to display "DM" on departure.	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.14	F7N is currently undefined	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.15	Auto-Offset Multifunction (OFFK)	No
	This function is not required to maintain an integral system. Automatic offset function the display is enabled for this demonstration.	

Sub-section	Title	Recoded
3.16	Preview Multifunction	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.16.1	Relocate the preview area and brite tabular lists.	No
	Preview area will not be displayed and brite functions will not be implemented for this demonstration.	

Sub-section	Title	Recoded
3.16.2	Select/inhibit supervisory position	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.17	Process MSAW Display Inhibit (QMSAW)	No
	This function is not required to maintain an integral system. MSAW is a priority 2 function in the Advanced Tracking category, which is not in the scope of this effort.	

Sub-section	Title	Recoded
3.18	Memory Readout Multifunction (RDTL)	No
	This function is not required to maintain an integral system. The display and/or modifying the memory readout buffer is beyond the scope of this demonstration.	

Sub-section	Title	Recoded
3.19	System Data (SYSK)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.19.1	Relocate System Data	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.19.2	Modify host altimeter or unique altimeter settings	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.19.3	System time settings	Yes
	This message will cause an abnormal termination.	

Sub-section	Title	Recoded
3.19.4	Initiate/modify/delete Host ATIS character and general information.	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.19.5	Initiate/modify/delete unique general information.	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.19.6	System date settings	Yes
	This message will cause an abnormal termination.	

Sub-section	Title	Recoded
3.20	Tabular List Messages (TABG)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.20.1	Relocate arrival/departure list	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.20.2	Relocate coast/suspend list	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.20.3	Select/inhibit display of arrival/ departure tabular list.	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.20.4	Terminate store track with ETA/PTD less than time specified.	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.20.5	Terminate all store tracks with ETA/PTD less time specified.	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.20.6	Relocate MSAW Display Area	No
	This function is not required to maintain an integral system. MSAW is a priority 2 function in the Advanced Tracking category, which is not in the scope of this effort.	

Sub-section	Title	Recoded
3.21	F7U is currently undefined	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.22	Enable/Disable MSAW Functions (VMSAW)	No
	This function is not required to maintain an integral system. MSAW is a priority 2 function in the Advanced Tracking category, which is not in the scope of this effort.	

Sub-section	Title	Recoded
3.23	F7W is currently undefined	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.24	Display Sensor Switching (XBCN)	No
	This function is not required to maintain an integral system. The scope of this demonstration is limited to one sensor.	

Sub-section	Title	Recoded
3.25	Scratch Pad Multifunction (YSCP)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.26	F7Z is currently undefined	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.27	CDR Extractor Control Multifunction (CDKEY)	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
3.28	Manual Reconfiguration (IORFG)	No
	This function is not required to maintain an integral system. The capability of controlling hardware (e.g. switching SRAPs, TTY or MSP), or controlling software functions (e.g. enable/inhibit printouts, full operational vs. backup programs) will not be part of this demonstration.	

Sub-section	Title	Recoded
3.29	Select/Inhibit Printout of IF Messages (INPR)	No
	This function is not required to maintain an integral system. There will not be any printout of IF messages.	

Sub-section	Title	Recoded
3.30	Interfacility Test Program Operational Function (TKOF14)	No
	This function is not required to maintain an integral system. Only FP, AM and CX inter-facility messages will be processed.	

Sub-section	Title	Recoded
4.0	IMPLIED FUNCTIONS	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
4.1	Beacon Readout	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
4.2	Handoff Accept/Recall	No
	This function is not required to maintain an integral system. Handoff processing will not be implemented for this demonstration.	

Sub-section	Title	Recoded
4.3	Handoff Initiate	No
	This function is not required to maintain an integral system. Handoff processing will not be implemented for this demonstration.	

Sub-section	Title	Recoded
4.4	Terminate Control	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
4.5	Display/Inhibit Associated Track	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.28	Manual Reconfiguration (IORFG)	No
	This function is not required to maintain an integral system. The capability of controlling hardware (e.g. switching SRAPs, TTY or MSP), or controlling software functions (e.g. enable/inhibit printouts, full operational vs. backup programs) will not be part of this demonstration.	

Sub-section	Title	Recoded
3.29	Select/Inhibit Printout of IF Messages (INPR)	No
	This function is not required to maintain an integral system. There will not be any printout of IF messages.	

Sub-section	Title	Recoded
3.30	Interfacility Test Program Operational Function (TKOF14)	No
	This function is not required to maintain an integral system. Only FP, AM and CX inter-facility messages will be processed.	

Sub-section	Title	Recoded
4.0	IMPLIED FUNCTIONS	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
4.1	Beacon Readout	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
4.2	Handoff Accept/Recall	No
	This function is not required to maintain an integral system. Handoff processing will not be implemented for this demonstration.	

Sub-section	Title	Recoded
4.3	Handoff Initiate	No
	This function is not required to maintain an integral system. Handoff processing will not be implemented for this demonstration.	

Sub-section	Title	Recoded
4.4	Terminate Control	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
4.5	Display/Inhibit Associated Track	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
4.6	Inhibit Blinking "DM" from a FDP	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
4.7	Abbreviated Flight Data Entry	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
4.8	Initiate Control	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
4.9	Implied Beacon Code Modify	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
4.10	Override Interfacility Display Presentation	No
	This function is not required to maintain an integral system.	

Sub-section	Title	Recoded
4.11	Remote Tower Display Keyboard Functions.	No
	This function is not required to maintain an integral system. Tower messages will not be processed for this demonstration.	

Sub-section	Title	Recoded
5.0	TRAINING TARGET GENERATOR MESSAGES	No
	This function is not required by the FAA and is not required to maintain an integral system. Training target generator will not not be implemented for this demonstration.	

Sub-section	Title	Recoded
6.0	CONFLICT ALERT MESSAGES	No
	This is a priority 2 function which is beyond the scope of this demonstration.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.8 Display Output Processing

Display Output Processing (NAS-MD-639) primarily will be concerned with the preparation of alphanumeric track data for presentation on the display. There will also be display of selected system data (see below). Interactive keyboard responses (preview area and readout area) will not be processed. Only data originating from the retrack modules that impact tracking/display data will be processed. System parms/data will have to be initialized to some pre-determined values.

Display processing will support the display

Automatic Offset

Full, Limited, Partial Data Blocks and Single Symbols

Coast/Suspend, Arrival/Departure Tabular Lists

System Data display outputs of Current Time, Current Altimeter Setting

Display processing will not display

Preview and Readout Areas

MSAW/CA Data Blocks

IOP/DBM/MDBM Operations and Memory

Brite display Tabular List

System Data display outputs of Memory, Program Level, Test Targets, Overload Sensing and Protection, Emergency/Radio Failure/Hijack & Suspect Aircraft, Host ATIS Character & General Information, Selected Codes

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section provides technical content but contains no demonstrable functions. This is an overview of some of the functions in the current TRACON system.	

Sub-section	Title	Recoded
2.0	ENVIRONMENT	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.1	General	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.2	Output Data Transfer Function	No
	This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. 1. Data transfer from host to situation display will be done using RTX-MVS tools. a. We will not be using sublists to process data information. 2. Memory buffer management will not be done using the IOP/MDBM. A method of passing data from the applications (host) to the situation display will be devised.	

Sub-section	Title	Recoded
2.3	MDBM Operation Description	No
2.3.1	General	
2.3.2	DBM Operation	
2.3.2.1	Linked Control Word File	
2.3.2.2	Completion of a Sublist	
	This section provides technical content but contains no demonstrable functions.	
	An overview of the MDBM/DBM functions are discussed in this section of the document.	

Sub-section	Title	Recoded
2.4	Memory Allocation for MDBM	No
	This section provides technical content but contains no demonstrable functions.	
	This is an overview of the MDBM & data support which are sub-divided into sublists.	
	1. We are not using sublist processing or MDBM data storage, but, there is still a need to store & display some data.	

Sub-section	Title	Recoded
2.4.1	Tabular Display Data	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. The supported data in the system display area are: * Time * Altimeter The non-supported data in the system display area are: * Memory readout area * Emergency/radio failure/hijack/suspect aircraft indication * Program level * Test targets * Overload sensing and protection * ATIS character & general info. Other non-supported display data are: * Aircraft which are in MSAW low altitude warning or in Conflict Alert. Rationale - Please, look at sub-section 2.4.	

Sub-section	Title	Recoded
2.4.2	Keyboard Display Data	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Each keyboard connected to the display has its own memory allocation which contains: Keyboard readout/preview (not-supported) Keyboard coast/suspend list Keyboard store track list Rationale - look at sub-section 2.4. Although no interactive keyboard processing will be supported, nevertheless, keyboard data could enter into the system from the retrack tape.	

Sub-section	Title	Recoded
2.4.3	Data Blocks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Rationale - look at sub-section 2.4.	

Sub-section	Title	Recoded
2.4.4	Single Symbols	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Rationale - look at sub-section 2.4.	

Sub-section	Title	Recoded
2.4.5	P-Stack Control	No
	Rationale - Look at sub-section 2.2.	

Sub-section	Title	Recoded
2.4.6	Memory Management	No
	This is a priority 2 function. Rationale - Look at sub-section 2.2.	

Sub-section	Title	Recoded
3.0	DISPLAY CONSOLE OUTPUT	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.1	Introduction	No
	This section provides technical content but contains no demonstrable functions. This overviews the class definition of display console data consisting of: Single symbols Limited data blocks Full data blocks Partial data blocks	

Sub-section	Title	Recoded
3.2	Associated Tracks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Associated tracks are processed as full data blocks for all tracks under a controlling console.	

Sub-section	Title	Recoded
3.2.1	Full Data Blocks (FDB)	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Alphanumeric track data is periodically updated to indicate the track position.	

Sub-section	Title	Recoded
3.2.1.1	Format of Full Data Blocks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Format consists of six fields: one field for target position symbol one field for leader lines of data which contain four data fields	

Sub-section	Title	Recoded
3.2.1.2	Display of Full Data Blocks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Associated tracks require full data blocks if the data is controlled on a given display.	

Sub-section	Title	Recoded
3.2.2	Single Symbols	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Associated tracks which are not displayed as full data or partial data blocks. Symbols represent associated tracks which are controlled at other display positions.	

Sub-section	Title	Recoded
3.2.3	Command Codes	No
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Data transfer from host to situation display is handled differently.	

Sub-section	Title	Recoded
3.3	Unassociated Tracks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Unassoc. tracks are processed and presented as limited data blocks or special single symbols on each display.	

Sub-section	Title	Recoded
3.3.1	Limited Data Block (LDB)	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
3.3.1.1	Format of Limited Data Blocks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Formats of data are discussed.	

Sub-section	Title	Recoded
3.3.1.1.1	Position Symbol	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
3.3.1.1.2	Unassociated Track Symbology Leader	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Length of the leader is variable (zero to 1.5 inches) and will be coded as a system parameter.	

Sub-section	Title	Recoded
3.3.1.2	Processing of Limited Data Blocks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. List of conditions are documented.	

Sub-section	Title	Recoded
3.3.2	Single Symbols	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Conditions/limitations of displaying data are discussed.	

Sub-section	Title	Recoded
3.3.3	Command Codes	No
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Data transfer from host to situation display is handled differently.	

Sub-section	Title	Recoded
3.4	Partial Data Blocks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
3.4.1	Format of Partial Data Blocks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Overview of formats.	

Sub-section	Title	Recoded
3.4.2	Position Symbol	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. This position symbol is an alphanumeric character which identifies the controlling keyboard or the letter 'C' indicating the track is controlled by ARTCC.	

Sub-section	Title	Recoded
3.4.3	Processing of Partial Data Blocks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Display the track if it is within selected filter limits. Full data blocks supersede the display of partial data blocks.	

Sub-section	Title	Recoded
3.5	MSAW/CA Data Blocks (MCADB)	No
3.5.1 3.5.2 3.5.3	Format of MSAW/CA Data Blocks Position Symbol Processing of MSAW/CA Data Blocks This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. 1. Assumption - not performing MSAW/CA. The data base and display of data processing are not needed.	

Sub-section	Title	Recoded
4.0	TABULAR LISTS	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
4.1	Introduction	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. This overviews six classes of data messages. Site adaptation used to define location and character size of list.	

Sub-section	Title	Recoded
4.2	Tabular Coast and Suspend Status	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
4.2.1	Tabular Tracks	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Associated tracks which fail to correlate for consecutive scans or have a firmness of zero, and not in handoff status, are automatically transferred to tabular coast status.	

Sub-section	Title	Recoded
4.2.2	Format of Coast/Suspend Tabular Lists	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. This lists conditions of formatting data.	

Sub-section	Title	Recoded
4.2.3	Command Codes	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. Associated command codes with data.	

Sub-section	Title	Recoded
4.3	Flight Plans	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
4.3.1	Flight Plans - Arrivals/Departures	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
4.3.2	Format of Arr./Dep. Tabular List	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
4.3.3	Single Symbol Fix Designators	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
4.3.4	Command Codes	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
4.4	Brite Display Tabular List	No
4.4.1 4.4.2 4.4.3	Landing Aircraft - Brite Display Format of Brite Display Tabular List Command Codes This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. 1. Assumption - not processing Brite displays.	

Sub-section	Title	Recoded
4.5	MSAW Display Area	No
4.5.1 4.5.2 4.5.3	Tracks Flagged for MSAW Warning Format of MSAW Display Area Command Codes This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. 1. Assumption - not performing altitude tracking, conflict alert, MSAW.	

Sub-section	Title	Recoded
5.0	SYSTEM DATA DISPLAY OUTPUTS	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
5.1	Introduction	Yes
	This section provides technical content but contains no demonstrable functions. 1.Initial location of system data on the display console is defined in site adaptation. System data can be relocated by keyboard entry.	

Sub-section	Title	Recoded
5.2	Current Time	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
5.3	Current Altimeter Setting	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system.	

Sub-section	Title	Recoded
5.4	Host ATIS Character and Gen. Info. or Unique Designator Gen. Info.	No
	This is a priority 2 function. This function is derived from the FAA requirements and is not required to maintain an integral system.	

Sub-section	Title	Recoded
5.5	Selected Codes	No
	This is a priority 2 function. This function is derived from the FAA requirements and is not required to maintain an integral system.	

Sub-section	Title	Recoded
5.6	Emergency/Radio Failure/Hijack & Suspect Aircraft	No
	This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. 1. Assumption - not processing multifunctions (emergency). 2. Emergency indicator will not be shown in the system data area but will be shown in the full data block area.	

Sub-section	Title	Recoded
5.7	Memory	No
	This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. 1. Assumption - not processing multifunction (memory readout).	

Sub-section	Title	Recoded
5.8	Program Level	No
	This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
5.9	Test Targets	No
	This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. 1. Assumption - Not Processing interfacility. 2. No interactive keyboard activity	

Sub-section	Title	Recoded
5.10	Overload Sensing and Protection	No
	This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. 1. Assumption - not doing SRAP hardware processing.	

Sub-section	Title	Recoded
5.11	CA Inhibit	No
	This is a priority 2 function. Rationale - Look at sub-section 4.5.	

Sub-section	Title	Recoded
6.0	PREVIEW/READOUT AREA DISPLAY OUTPUTS	No
	This is a priority 2 function. This function is not required by the FAA and is not required to maintain an integral system. Readout area of two lines precedes the preview area. It is used to display illegal keyboard message entries and data as a result of a keyboard request. Preview area is used to verify the message content of keyboard entries prior to entry of into DEDS. Preview data is prepared and maintained by keyboard input processing. 1. Assumption - There will be no interactive processing from the keyboard. 2. Retrack will filter out error messages, therefore eliminating the need for these areas.	

Sub-section	Title	Recoded
7.0	SLEW ENTRY DEVICE OUTPUTS	No
	This is a priority 2 function. This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
8.0	AUTOMATIC OFFSET	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
8.1	Automatic Offset - Introduction	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
8.2	Active Track Automatic Offset	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
8.2.1	Offset Conditions	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
8.2.2	Offset processing	Yes
	This is a priority 2 function. This function is derived from the FAA requirements and is required to maintain an integral system. 1. Automatic offset used to prevent overlap of track info.	

Sub-section	Title	Recoded
9.0	DISPLAY REFRESH RATE	No
	This is a priority 2 function. An equivalent function is being provided by: 1.Display refresh rate will be controlled by the situation display.	

Additional Capabilities
1.There will a method of displaying a history trail of a track. 2.There will be the use of a color flag used to display color on the display. Although the demonstration is performed without color, future anticipated demonstrations will use color.

3.9 Interfacility Data Transfer

Interfacility Data Transfer as specified in NAS-MD 640 contains the functional requirements between NAS Enroute Stage A and NY TRACON. The data are classified as operational flight data, track data, test data and related responses. This module is used as the primary means of entering flight plan data into the system.

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
2.0	ARTCC-NY TRACON OPERATIONAL FLIGHT DATA TRANSFER	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.1	Flight Plan Message (FP)	Yes
	This is a priority 1 function. It is used as a mechanism to obtain flight plans. This includes departure flight plans, arrival flight plans, overflight plans and duplicate flight plans. No responses will be generated for these messages.	

Sub-section	Title	Recoded
2.2	Amendment Message (AM)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
2.3	Cancellation Message (CX)	Yes
	This is a priority 1 function.	

Sub-section	Title	Recoded
3.0	ARTCC-NY TRACON AND ARTS TO NY TRACON TRACK DATA TRANSFER	No
	Track data transfers will not be processed for this demonstration.	

Sub-section	Title	Recoded
4.0	ARTCC-NY TRACON TEST DATA TRANSFER	No
	Test data transfers will not be processed for this demonstration.	

Sub-section	Title	Recoded
5.0	NY TRACON-ARTCC AND NY TRACON-ARTS RESPONSE MESSAGE TRANSFER	No
	Response messages will not be implemented for this demonstration. However, the system will maintain the ARTCC ACID/TRACON TCID relationship to process subsequent messages.	

Sub-section	Title	Recoded
6.0	NY TRACON-ARTCC OPERATIONAL FLIGHT DATA TRANSFER	No
	Interfacility outputs will not be implemented for this demonstration.	

Sub-section	Title	Recoded
7.0	NY TRACON-ARTCC AND NY TRACON-ARTS TRACK DATA TRANSFER	No
	Track data transfers will not be implemented for this demonstration.	

Sub-section	Title	Recoded
8.0	NY TRACON-ARTCC TEST DATA TRANSFER (TR)	No
	Test data transfers will not be implemented for this demonstration.	

Sub-section	Title	Recoded
9.0	ARTCC-NY TRACON AND ARTS-NY TRACON RESPONSE MESSAGE TRANSFER	No
	Response messages will not be processed for this demonstration.	

Sub-section	Title	Recoded
10.0	DISCARDED MESSAGES	Yes
	In addition to messages that do not have a recognizable or legitimate source field, these messages will be discarded: Initiate Transfer (TI) Track Update (TU) Accept Transfer (TA) Test Data Transfer (TR) Acceptance Message (DA) Retransmit Message (DX) Rejection Message (DR) Data Test Message (DT)	

Sub-section	Title	Recoded
11.0	RETRANSMISSIONS	No
	No messages will be transmitted for this demonstration.	

Sub-section	Title	Recoded
12.0	MESSAGE PRIORITIES	No
	Output message priorities are not applicable because no messages are transmitted.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.10 Bulk Store Flight Plans

This document (NAS-MD-641) specifies the functional requirements for processing Bulk Store Flight Plans. This function is beyond the scope of this demonstration.

Sub-section	Title	Recoded
NAS-MD-641	Bulk Store Flight Plans	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.11 Non-Executive Error, Status and Input Messages

This document (NAS-MD-642) describes the Non-Executive Error and Status Messages which are printed on the CDTs to alert users of a significant change to the system. This function is beyond the scope of this demonstration.

Sub-section	Title	Recoded
NAS-MD-642	ASR-37 Non-Executive Error, Status and Input Messages	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.12 Site Adaptation

This document (NAS-MD-643) provides a description of the parameters used by the NY TRACON operational system.

There are five distinct types of parameters which are used to assemble program elements into a total system program. The types are:

- 1) System parameters, used in the assembly of the task programs
- 2) Site dependent parameters, used in the assembly of the data base
- 3) Executive assembly parameters, used in the assembly of the MPE elements
- 4) Executive build parameters, used during the preoperational build process
- 5) System build parameters, used in the build process

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
2.0	SYSTEM PARAMETERS	Yes
	System parameters define data which are variable within the task programs, but are not site dependent. Generally, these are equated values that do not take up storage space in the current system. System parameters corresponding to functions we are recoding will be retained. Examples of this are: Bin parameters SRAP parameters Tracking parameters CDR filter parameters CTS word names System parameters corresponding to functions we are recoding but modifying will also be modified. Examples of this are: DBM parameters CDR data set parameters System parameters corresponding to functions we are not recoding will not be retained. Examples of this are: Interfacility retry information MSAW parameters FP disk information KIP parameters On-call program parameters	

Sub-section	Title	Recoded
3.0	SITE PARAMETERS	Yes
	Site parameters are site adaptable data used to generate the system data base. Though these are equated values, they result in storage being allocated for the operational program. Site parameters corresponding to functions we are recoding will be retained. Examples of this are: Sensor data CTS size Number of keyboards and definitions Beacon code subsets Auto acquire areas Auto drop areas Arrival fixes, airports, and fixes Aircraft display parameters Interfacility site information CDR filters (always enabled) Site parameters corresponding to functions we are recoding but modifying will also be modified. Examples of this are: DBM and MDBM display information Site parameters corresponding to functions we are not recoding will not be retained. Examples of this are: MSAW information Auto quick look definitions Critical data parameters RDBM information SWABS information	

Sub-section	Title	Recoded
4.0	EXECUTIVE ASSEMBLY PARAMETERS	No
	An equivalent function is being provided by the MVS/RTX operating system. Refer to Section 3.3 of this document for the rationale.	

Sub-section	Title	Recoded
5.0	EXECUTIVE BUILD PARAMETERS	No
	An equivalent function is being provided by the MVS/RTX operating system. Refer to Section 3.3 of this document for the rationale.	

Sub-section	Title	Recoded
6.0	SYSTEM BUILD PARAMETERS	No
	An equivalent function is being provided by the MVS/RTX operating system. Refer to Section 3.3 of this document for the rationale.	

Sub-section	Title	Recoded
7.0	CONFLICT ALERT SYSTEM PARAMETERS	No
	Refer to Section 3.20 of this document for the rationale. This function is not required by the FAA and is not required to maintain an integral system.	

Sub-section	Title	Recoded
APPENDIX A	SITE VARIABLE PARAMETERS	Yes
	This function is derived from the FAA requirements and is required to maintain an integral system. See the discussion under section 3.0 of this document for the rationale.	

Sub-section	Title	Recoded
APPENDIX B	NY TRACON SITE DATA	Yes
	This function is derived from the FAA requirements and is required to maintain an integral system.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.13 MSAW and Altitude Tracking

This document (NAS-MD-644) contains the design data for the Minimum Safe Altitude Warning (MSAW) program. This function is not being implemented for this demonstration.

Sub-section	Title	Recoded
NAS-MD-644	MSAW and Altitude Tracking	No
	This is a priority 2 function in the Advanced Tracking category, which is not in the scope of this effort.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.14 Non-Executive Console Teletype Input Processing & On-Call Tasks

This document (NAS-MD-645) describes all appropriate action that is taken once a message is entered from a Console Data Terminal. This function is beyond the scope of this demonstration.

Sub-section	Title	Recoded
NAS-MD-645	Non-Executive Console Teletype Input Processing.	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.15 Builder/BUP & CDR Editor

As described in NAS-MD-646, the CDR Editor is an offline program which reduces the CDR data that is collected on-line. The data, which is recorded on or disk, is searched for class type/filter information that is specified during initialization of the Editor. The requested data is collected, and printed onto a designated device, usually a high or medium speed printer.

The types of messages that CDR Editor processes are listed in Appendix A of this document.

Due to project module limitations several messages that are extracted during normal execution of the existing operational program, will not be extracted by the newly coded CDR. Therefore, some messages will not be reduced or printed by the Editor. The messages that will not be reduced are indicated by a 'NO' under the recode column in Appendix A.

The printed listing, which will be generated by the recoded Editor, will contain the same information that is provided by the FAA Editor program. However, we will only produce listings for tracking data, automatic functions, interfacility, and keyboard. The demonstration EDITOR will be run under VM.

Sub-section	Title	Recoded
1.0	BUILDER	NO
	An equivalent function is being provided by commercial software, and the MVS/RTX environment.	

Sub-section	Title	Recoded
2.0	BUILDER UTILITY PROGRAM	NO
	An equivalent function is being provided by commercial software, and the MVS/RTX environment.	

Sub-section	Title	Recoded
3.0	INTRODUCTION TO CDR EDITOR	No
	This section provides an overview of the following section and, as such, contains no demonstrable functions.	

Sub-section	Title	Recoded
4.0	CDR EDITOR DESCRIPTION	Yes
	This is a priority 1 function. This function is derived from the FAA requirements, and is required to maintain an integral system.	

Sub-section	Title	Recoded
APPENDIX A	EXTRACTION MESSAGES	Yes
	DATA BUFFER HEADER	No
	INITIALIZATION MESSAGE	Yes
	TERMINATION MESSAGE	Yes
	DATA DELETE/RESUME MESSAGE	No
	DATA LOSS	No
	MEMORY DUMP	No
	SECTOR TIME MESSAGE	Yes
	TARGET REPORT	No
	TRACKING DATA	Yes
	KEYBOARD ENTRY MESSAGE	Yes
	AUTOMATIC FUNCTION MESSAGE	Yes
	INTERFACILITY MESSAGE	Yes
	MSAW ALARM MESSAGE	No
	ALTITUDE TRACKING MESSAGE	No
	MSAW DISPLAY WARNING MESSAGE	No
	RT-BTL CTS DATA MESSAGE	No
	RADAR ONLY TARGET REPORT MESSAGE	No
	LINEAR EXTRACTION MESSAGE	No
	MFMAMS EXTRACTION MESSAGE	No
	PROXIMITY EXTRACTION MESSAGE	No

Sub-section	Title	Recoded
APPENDIX B	LISTING FORMATS	Yes
	The listing formats produced will be identical in format to the printed output from the NYTRACON CDR Editor. Listings for Tracking Data, Automatic Functions, Interfacility and Keyboard will be produced for the demonstration.	

Sub-section	Title	Recoded
APPENDIX C	PARAMETERS	Yes
	These parameters are required to maintain an integral system, and will be included in a stand alone NYTRACON EDITOR program.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.16 Recovery

This document (NAS-MD-647) describes the recovery software which exercises diagnostic sub-programs on all IOPs and memory modules and isolates failed elements. This function is beyond the scope of this demonstration.

Sub-section	Title	Recoded
NAS-MD-647	Recovery	No
	This function is not required by the FAA and is not required to maintain an integral system.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.17 Continuous Data Recording Processing

This document (NAS-MD-648) specifies the functional requirements for Continuous Data Recording Processing (CDR).

In the NY TRACON system, Continuous Data Recording had two major components: CDR Extractor Control and the CDR Extractor. Extractor Control provides manual and automatic switching between disk drives, periodic checks of the function (enabled/disabled) and checks to see if CDR was previously enabled in the event of a system fault/recovery sequence. In the Demonstration system, CDR will be written to a disk using an MVS access method which will verify that I/O has completed successfully. A file directory will not be maintained since the access method will determine the next available location in the file. Since records will be queued for recording, records will not be lost due to an overload condition. This eliminates the need for overload checking as is performed in the current NY TRACON CDR Extractor Control.

In the NY TRACON system, the CDR Extractor consists of three parts - Data Extraction, Data Buffer Index Control and Data Buffer Output Control. The function of the Extractor is to extract information from database areas, CTS files and buffers and place the information into output buffers. The CDR data will be obtained in the demonstration system by application programs at specific points during the execution of the tasks. The programs will issue a SEND to the CDR Extractor task; the CDR Extractor will be responsible for recording the data in a file that will be accessible to the offline editor program. In the demonstration system, direct I/O will be performed and the access method will be responsible for I/O buffering.

Sub-section	Title	Recoded
1.0	INTRODUCTION	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
2.0	CDR CONTROL (EXTRACTOR CONTROL)	No
	An equivalent function is being provided by MVS/RTX file services in combination with RTX work queuing mechanisms. Refer to the Overview of Continuous Data Recording which appears at the beginning of Section 3.17 for the rationale.	

Sub-section	Title	Recoded
3.0	CDR EXTRACTOR	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
3.1	Inputs	No
	This section provides technical content but contains no demonstrable functions.	

Sub-section	Title	Recoded
3.2	Descriptions	No
	This section is administrative and contains no demonstrable functions.	

Sub-section	Title	Recoded
3.2.1	Data Extractions	Yes
	This is a priority 1 function. The following extractions will be made: Sector Time, Target Reports, Tracking Data, Keyboard Data, Interfacility, Initialization, Termination and Automatic Functions. The following extractions will not be made: MSAW Alarm, Altitude Tracking, MSAW Display, Data Loss, Data Delete/Resume, Conflict Alert Extractions, RT-BTL CTS Entries, and Memory Dump.	

Sub-section	Title	Recoded
3.2.2	Data Buffer Index Control (CDBIC)	No
	An equivalent function is being provided by MVS file services in combination with RTX work queuing mechanisms. Refer to the Overview of Continuous Data Recording which appears at the beginning of Section 3.17 for the rationale.	

Sub-section	Title	Recoded
3.2.3	Data Buffer Output Control (CDBOC)	No
	An equivalent function is being provided by MVS I/O services in combination with RTX work queuing mechanisms. Refer to the Overview of Continuous Data Recording which appears at the beginning of Section 3.17 for the rationale.	

Sub-section	Title	Recoded
3.3	Outputs	No
	This section provides technical content but contains no demonstrable functions.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.18 Remote Display Processing

Remote Display Processing (NAS-MD-649) describes the interface between the NY TRACON operational program and the Remote Tower Cab Display (BANS) via a Communications Multiplexer Controller (CMC) and a Remote Display Buffer Memory (RDBM).

Recode of remote processing is beyond the scope of this project and will not be implemented.

Sub-section	Title	Recoded
MD-649	Remote Display Processing	No
	This function had no priority. It is not required to maintain an integral system. 1.Assumption - remote processing is not to be done.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.19 Support Software

The NAS-MD-650 series of documents specifies the functional requirements for ATC Support Software. This series of documents is comprised of NAS-MD-650 (Support Software SIR-CINOS Executive), NAS-MD-650A (Support Software Ultra Assembler), NAS-MD-650B (LIBRARIAN), NAS-MD-650C (Support Software Loader), NAS-MD-650D (Utilities) and NAS-MD-650E (Support Software CONIOP).

Support Software services in the NY TRACON system provide the capability to assemble source programs, load and link object programs, maintain programs in a library format and to perform data storage conversions.

In the demonstration system, all development will be performed under the IBM VM operating system. VM supports both CMS (Conversational Monitoring System) and MVS, IBM's standard batch operating system.

Automated library management, software configuration control and automated document preparation will be accomplished through the use of panel-driven user interfaces, specifically tailored for the N.Y. TRACON Demonstration System, that build on commercial products. Programmers will use panel interfaces to interactively create batch jobs such as compilations, loads and links. Once the jobs are created, they will be sent to MVS for compilation, link, load and execution under MVS/RTX.

Some JCL, test tools and conversion software will be coded or recoded to maintain an integral system.

Sub-section	Title	Recoded
NAS-MD-650	SUPPORT SOFTWARE SIR-CINOS EXECUTIVE	No
	The SIR-CINOS Executive provided the capabilities to control and facilitate the operation of the support system components. This function is not required by the FAA and is not required to maintain an integral system. Refer to the Overview of Support Software which appears at the beginning of Section 3.19 for the rationale.	

Sub-section	Title	Recoded
NAS-MD-650A	SUPPORT SOFTWARE ULTRA ASSEMBLER	No
	This function is not required by the FAA and is not required to maintain an integral system. Refer to the Overview of Support Software which appears at the beginning of Section 3.19 for the rationale.	

Sub-section	Title	Recoded
NAS-MD-650B	LIBRARIAN	No
	This function is not required by the FAA and is not required to maintain an integral system. Refer to the Overview of Support Software which appears at the beginning of Section 3.19 for the rationale.	

Sub-section	Title	Recoded
NAS-MD-650C	SUPPORT SOFTWARE LOADER	No
	The equivalent function is being provided by Linkage-Editor in MVS. It will generate executable load modules for execution under MVS/RTX. Refer to the Overview of Support Software which appears at the beginning of Section 3.19 for the rationale.	

Sub-section	Title	Recoded
NAS-MD-650D	UTILITIES	No
	The utility routines provide equipment-to-equipment conversions. This function is not required by the FAA and is not required to maintain an integral system. Refer to the Overview of Support Software which appears at the beginning of Section 3.19 for the rationale.	

Sub-section	Title	Recoded
NAS-MD-650E	CONIOP	No
	This function is not required by the FAA and is not required to maintain an integral system. Refer to the Overview of Support Software which appears at the beginning of Section 3.19 for the rationale.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.20 Conflict Alert Adaptation Standards & Guidelines

This document (NAS-MD-651) provides a functional description of Conflict Alert. This function is beyond the scope of this demonstration.

Sub-section	Title	Recoded
NAS-MD-651	Conflict Alert Adaptation Standards and Guidelines	No
	This is a priority 2 function in the Advanced Tracking category, which is not in the scope of this effort.	

Additional Capabilities
There will be no additional capabilities provided for the demonstration.

3.21 CDR Tape Conversion (from Sperry to IBM Format)

This section describes the offline routine that will be developed to convert the CDR tape from the NY TRACON IOP system to a form readable on an IBM System/370 computer. This routine will place the reformatted data on a disk data set to be read in by Retrack.

This capability could be provided as part of the Retrack processing of the CDR tape, but it is desirable to implement this offline because:

- The entire CDR tape can be converted and moved to disk in one step
- The operational system does not have to declare and process the CDR tape formats
- The Retrack input formats can be identical to the CDR extractor output formats
- The output CDR file from the recoding could be read back in by Retrack

Because we are recoding the entire system, there is no additional impact to SRAP, Tracking, Display, Keyboard, and CDR to implement the new formats.

The following record types are contained on a CDR tape:

- Data Buffer Header
- Initialization Message (01)
- Termination Message (02)
- Data Delete/Resume Message (03)
- Data Loss (04)
- Memory Dump (05)
- Sector Time Message (06)
- Target Report (07)
- Tracking Data (10)
- Keyboard Entry (11)
- Automatic Function (12)
- Interfacility Message (13)

- MSAW Alarm (14)
- Altitude Tracking Data (15)
- MSAW Display Warning (16)
- RB-BTL CTS Data Message (17)
- Radar Only Target Report (20)
- Radar Data Loss (21)
- Linear Extraction (22)
- MFMAMS Extraction (23)
- Proximity Extraction (24)

We will ensure that all records on the CDR tape are converted, even those that are not processed by Retrack. Records not processed by Retrack will have the message type converted and space reserved, but otherwise the contents will not be converted. The following records will be converted in their entirety to a S/370 format:

- Data Buffer Header
- Termination Message (02)
- Sector Time Message (06)
- Target Report (07)
- Tracking Data (10)
- Keyboard Entry (11)
- Interfacility Message (13)
- Radar Only Target Report (20)

The fields in the input CDR tape comprise various types of data:

- Octal bit(s) - flags, data items (such as range, azimuth, time), both signed and unsigned
- Octal digits - message type, beacon codes
- Octal BCD - altitude
- ASCII - aircraft IDs in the tracking data

- TI ASCII - characters in keyboard input messages
- EBCDIC - characters in interfacility messages

The following conversions have been identified:

- Octal bit(s) to Hexadecimal bit(s), both signed and unsigned
- Octal bit(s) to Real
- Octal digits to Hex digits (preserving the octal digits) to EBCDIC

  For example, the message type will be translated this way
- Octal BCD to Hexadecimal bits
- ASCII to EBCDIC
- TI ASCII to EBCDIC
- EBCDIC to EBCDIC - moving the data from 3 characters in an IOP word to 4 characters in a S/370 word

The conversion routine will identify the various fields of input and convert th based on the input type and the desired output format. ASCII characters will be converted using translate tables.

The resultant CDR records on the S/370 disk data set will be traceable to the CDR records on the input CDR tape. Each record on the input tape will be on the disk file. If the record on the input file is a type processed by the system, each field on this record will be converted to a corresponding field on the disk file.

4.0 System Architecture

The current New York TRACON system comprises two subsystems:

- a development and support subsystem (offline) used to build and reduce data from the operational subsystem
- an operational subsystem (online) comprising these subsystems:
  - Data processing
  - ARTCC interface
  - System monitor and control
  - Target acquisition
  - Data entry and display (including local and remote interfaces)

Current New York TRACON Architecture

The current development subsystem runs on a commercial Sperry 1100 processor (and peripherals) under a commercial off-the-shelf operating system and utilities, or on the (IOP) data processing equipment used by the operational subsystem.

The development subsystem uses special purpose software to build and reduce data generated by the operational subsystem. The operational software is coded in Ultra; the Ultra assembler is particular to the IOP architecture. Of special interest to the New York TRACON demonstration is the CDR Editor, which reduces the data recorded on the CDR file, created by the operational software.

Assemblies and operational software builds can be done on both the 1100 and the IOP; the CDR Editor runs only on the IOP.

The current operational system subsystem runs in a multiprocessor, a set of IOPs connected point-to-point and shared memory modules. The IOP is a UNIVAC 8300 processor. The IOPs and memory modules and attached peripherals define the data processing subsystem (DPS).

The DPS interfaces with the en route ARTCCs through a Communications Multiplexor Controller (CMC).

The CMC also provides the interface between the DPS and the Console Data Terminals (CDTs). The CDTs provide an interactive means for the operations and system engineering staff to communicate with the system.

Targets are acquired (from the sensors) through the sensor receiver and processor (SRAP). The SRAP interfaces with the IOPs through the processors' (SRAP and IOP) channels.

The DPS interface to the data entry and display subsystem (DEDS) is in two parts: the local interface directs controller data to and from the Texas Instruments keyboard and display (in the TRACON) through multiplexor display memory (MDBM) -- display buffer memory (DBM) units; the remote interface (to and from the BRITE keyboard/display in the towers) comprises (from the IOP outward) a CMC, a modem in the TRACON, a modem in the tower, and a remote display buffer memory (RDBM) in the tower.

The DPS software comprises a customized monitor, the multiprocessor executive (MPE), and the ARTS IIIA applications. There is firmware in the SRAP but no software in the other operational subsystems.

The high availability of the operational subsystem is maintained through the use of redundant elements, such as IOPs and memory modules, that can be swapped for failed elements.

New York TRACON Demonstration Architecture

The demonstration system also comprises a development and an operational subsystem. The operational subsystem, however, consists of only a data processing subsystem and a data entry and display subsystem (the local interface only).

Both the development and the operational subsystems will run under a single architecture, an IBM S/370. Both subsystems can run on a single 3083-BX processor -- with 3380 DASD, 3480 tape cartridge units, high speed printers and a set of interactive terminals. The primary characteristics of a 3083 that set it apart from an IOP are these: the 3083 is a uniprocessor; it executes a simpler and more robust instruction set at roughly four times the cycle speed of an IOP and contains 16 megabytes of storage; the interface to secondary storage devices, the DASD and tapes, run at channel speed (approximately 3 megabytes per second) and the devices hold gigabytes of data.

The development software architecture supports a batch, interactive, and network environment. All software executes under VM. VM supports both CMS, the Conversational Monitoring System, and MVS, IBM's standard batch operating system. Interactive users can run directly under CMS or they can use TSO under VM-MVS. TSO is IBM's standard MVS time-sharing system. The New York TRACON demonstration software development tools run under CMS.

Because the operational subsystem is designed to run under MVS, both the development and operational subsystems can run on the same processor under VM. RTX, the FSD-Houston realtime control program, allows the ARTS applications to run as realtime programs under MVS. (RTX runs under MVS similar to the way that TSO runs under MVS for interactive work.)

In a test environment, the development subsystems can communicate with the operational subsystem through VM: programmers can create and edit the operational software under VM-CMS and send it to MVS to be compiled, built and executed. In a demonstration environment, the operational subsystem will run under MVS-RTX native (without VM and the development subsystem in the processor).

The demonstration development system, under VM-CMS, will use a set of interactive panel-driven tools, tailored to the New York TRACON demonstration, but built on commercial products. The tools include automated design issues, program trouble reports, software accounting and development planning, as well as panels designed to interactively run batch work, such as compilations.

The demonstration data processing subsystem will be connected to the demonstration DEDS through a 3083-BX processor channel. The demonstration DEDS consists of a 7170 Device Attachment Control Unit (DACU), driven by an IBM PC, and a single situation display, comprising a display generator with attached data entry devices and a monitor.

The demonstration operational software architecture is described in detail in "5.0 Software Architecture". In summary, the ARTS applications, including Retrack, the test mode simulated inputs driver, will run under MVS-RTX and will use the services of MVS and RTX through an applications services interface developed for the New York TRACON demonstration. There will be no software recoded or developed for recovery or availability functions. The CDR Editor will execute under MVS-TSO after the operational run is complete.

5.0 Software Architecture

This section is in two parts: The first subsection describes the rationale for the demonstration operational subsystem software architecture and our approach to structural changes in the applications software. The second subsection is a formal set of definitions and rules describing the expected behavior of the operational subsystem software.

The software architecture of the development subsystem is commercial off-the-shelf. For an overview of the products and their capabilities refer to the "New York TRACON Operational Demonstration of Program Recoding Technical Proposal," and "4.0 System Architecture".

5.1 Operational Software Architecture Description and Rationale

Recoding the New York TRACON operational data processing subsystem to execute on an IBM S/370 processor and interface with S/370 peripherals requires that structural changes be made to the current software, which executes on an IOP.

The Differences between the IOP and S/370

Realtime supervisors bind applications programs and their data to the data processing resources (processing time, memory, channels, I/O devices, etc.) they require to do system work; e.g., track an aircraft. (This binding of work to programs and hardware is often referred to as a task.) In doing so they provide each application with an interface

- To the processor and its memory and channels
- To external data processing resources, such as I/O devices, communications lines and other systems
- To the application user and the operator
- To the other applications.

The differences between the current operational subsystem and the demonstration operational subsystem with respect to software architecture turn on these four interfaces, the last determined by the rules for concurrency and sequential processing. (Although the 3083 is a uniprocessor, tasks will run concurrently just as in the IOP system.)

The differences caused by different generations and models of equipment, including the processor, its instruction set, etc., are documented in the principles of operations and design data for the IOP hardware and for the S/370 hardware, and will not be elaborated on here. (As described in "3.0 Software Requirements", the demonstration system will process data only in IBM S/370 format.)

The demonstration operational subsystem is much more constrained than the current system in that the demonstration processor will interface only with DASD files and a single DEDS display. The demonstration operational subsystem will not process bulk flight data, and it will not interface with ARTCCs. It will not allow operator or applications user inputs (there will be no interface to a SRAP) during its execution. There will be no realtime recovery. It will process simulated inputs from DEDS keyboards and from interfacility (ARTCC) interfaces through Retrack. Retrack will read the inputs from a file resident on a 3380 DASD, and the CDR records generated by the demonstration run will be written to a file also resident on a 3380 DASD.

The demonstration operational subsystem applications will be a subset of the current applications, but the overall data flow and algorithmic processing of the system work will be the same: Retrack will read CDR records and pass them to the interactive processors, keyboard and interfacility, for input parsing and validation, and to the target acquisition processor (PSRAP) for collation and buffering; the resultant data will be used to track the simulated aircraft, and tracking will pass the data that are candidates for display to the display programs; they will write it to the situation display.

In the current system the rules for concurrent and sequential execution of the ARTS applications are encoded in a lattice and carried out and enforced by the MPE. Because the IOP is a multiprocessor, the MPE assigns system work to the applications software in a strict time-sequenced order and then allocates the work--software pair to an available IOP. The multiprocessor achieves maximum concurrency by executing programs on multiple computers, at the same time. The primary objective driving the overall architecture is this: the IOP tasks search for work in order to keep the processors busy. (This is not the case in the demonstration system.)

In the demonstration system, the rules (described in the sections that follow) will be implemented through a combination of applications services, the task gateways (see below), and through a data base owned privately by the operating system. But the rules are not as rigid; no lattice is required. The overall flow of control and data through the applications will be the same in both systems. But the performance characteristics of the S/370 3083-BX processor, its speed and memory capacity, simplify the synchronization and binding of work to software and hardware. In place of a lattice, a set of tables will be generated that define the number and priority of each application task and the resources, such as I/O devices, that each task will need. After system generation the scheduling and dispatching of tasks occurs automatically without regard for processor availability and performance. Unlike the current system, tasks wait for work and execute without the constraint of maximizing system resources.

Monitors and Operating Systems

The supervisor we have chosen to control the execution of the ARTS applications is MVS. MVS is a general purpose operating system, unlike the MPE, the NAS Monitor and Host Monitor, which are monitors.

Monitors are special-purpose supervisors written to control the execution of applications in a specific environment, for example, run air traffic control software on a 9020. They require special tools to build, they are not adaptable to a variety of hardware and operational environment, and the applications interface is not adaptable.

Operating systems provide a complete data processing environment. Typically, they are commercial offerings or products. They can be used for development as well as for a specialized mission, and support a wide variety of hardware models -- both processor and peripheral -- within the operating system family (viz., UNIX, OS/360, DOS, MVS). Applications include realtime space missions, job shops, military command and control systems, large accounting systems, etc. Operating systems provide support for many more data processing capabilities than task and memory management; they contain built-in features that support security, telecommunications, data base management, and so on.

MVS

MVS is a system in itself. It contains a kernel that provides the basic services of any supervisor, task dispatching, buffer management, secondary storage support, etc. But it also contains a constellation of support services that make it adaptable to many data processing environments. Supporting these services are a number of control programs. The following list identifies the primary services and the products that support them (there are others):

- Security - RACF
- Batch processing - JES
- Networking - VTAM
- Data base management - IMS, CICS, DB2 (SQL)
- Interactive development - TSO
- Realtime systems - RTX, Ada

RTX

Because the need for realtime systems is limited, IBM has concentrated its operating system support for realtime systems in the Federal Systems Division. A realtime control program was developed by FSD-Houston in the 1960s to support space missions. In the 1970s and 1980s the growth in realtime systems, or modernizing existing systems, yielded an effort to provide a general purpose control program. The

original Houston control program was modified and called RTX. It is now in use supporting several large-scale realtime systems for NASA and the U.S. Air Force.

RTX is a small set of programs that allows realtime applications to use the services of MVS -- not unlike TSO, which allows MVS to support interactive development. Because the processing constraints of realtime systems are greater than for other systems (data base, etc.), RTX is a markedly smaller offering than the other control programs listed above. RTX provides another layer of task, storage, time and recovery control in order to significantly limit operating system overhead. It does this by using data supplied at system generation to tailor the system to the applications it is running, and by executing services in problem state. The following chart conveys the message: (The timings include the request for the service by the application, any interrupt overhead, any queuing overhead, the fielding and parsing of the service request by the supervisor, the execution of the service by the supervisor, any tasking overhead, and the return to the next sequential instruction after the service request. The timings do not include the time the application spent waiting to be dispatched. The timings are averages taken over several runs; they represent trends.)

AVERAGE PROCESSOR TIMINGS (usec)		
Function	MVS	with RTX
Storage Mgmt.	755	95
Queues/Locks	1180	40
Task Management	1850	565

Applications Services

In addition to MVS-RTX, IBM is developing a layer of applications services to further shield the ARTS applications from the implementation details of the operating system and control program services. The applications services provide initialization/termination, message (between the applications tasks) control, and timing control, so that the applications programs can be implemented and run as sequential programs, as independent of the operating environment as possible.

Our Approach to Minimizing the Impact of Structural Changes

A realtime application typically contains these parts:

- An interface to the supervisor to receive work and send it to another application asynchronously
- An interface to the supervisor to acquire internal data processing services, such as time and memory, while performing at a real world pace
- An interface (through a supervisory access method) to request I/O services, including the check-pointing of data for recovery
- An interface with a data base that ensures a deadlock-free and coherent system state
- The algorithms that perform the functional capability.

In transporting the ARTS applications from an IOP architecture to a S/370, our objective is to isolate the algorithmic part of each application as much as possible, thereby maximizing source code traceability from one system to the other. We have achieved this through architecture and design.

The applications software topology is an internal network, much like a system that is functionally distributed across different processors; in this case the processors are internal tasks. Each task owns the data that it needs; global data is minimal. Tasks communicate with each other similar to processors in a network, through well-defined messages. All I/O requests have been localized in three tasks, interfacing with the input CDR file, the output CDR file and the DEDS.

Deleted

Within tasks, an application receives requests for work in a single program called a gateway. (The model for a gateway is provided below in "5.2 Operational Software Architecture Definitions and Rules".) The gateway interfaces with RTX to receive work and call the appropriate application routine to process the work.

Rationale for Application Software Changes

The following chart summarizes the rationale for changing each of the major ARTS application tasks being converted. There are five factors that may change the structure and content of a task:

- (1) Operational constraints: the demonstration will operate in test mode with additional constraints; unlike the field system, we will not support recovery, we will not allow operator inputs during the run, etc. (refer to "3.0 Software Requirements")

- (2) Functional requirements: the demonstration system will not develop all the functions (as described in a particular NAS MD) specified for a functional area (refer to "3.0 Software Requirements")

- (3) Architecture: as described above, there will be changes due to the impact of a new system and software architecture

- (4) Ada design: Ada enforces design properties that may or may not be congruent with the design properties resulting from the original New York TRACON software design

- (5) HOL (Pascal/VS): the effects caused by the recoding of ULTRA source code into a high order language.

Each change is assigned a value of high, medium or low. If the change is assigned a value of low, it means that the rationale for change, such as a different architecture, is not much of a factor in converting that application. If the value is high, that particular rationale for change is a significant factor. The value of high, medium or low is not related to how well the resulting design protects against future changes in each of the areas; on the contrary, because of the steps we have taken to host the applications in an environment that makes them easy to modify and portable, the value with respect to future changes would be low.

Task	Factors	Value	Rationale
CDR Editor	(1)	Low	Operational concepts: similar
	(2)	Medium	Fewer report types
	(3)	Medium	On S/370 equipment: MVS-TSO
	(4)	Low	Minimal data decomposition
	(5)	Medium	Data types & control structures
Retrack	(1)	Medium	No hardware switches to set
	(2)	High	Driver only; no msg. fabrication
	(3)	High	S/370; software interfaces
	(4)	Medium	Data hiding concepts
	(5)	Medium	Data types & control structures
CDR Extraction	(1)	Medium	No recovery from data loss; disk
	(2)	High	No filtering; extraction in appl
	(3)	High	S/370 standard I/O interfaces
	(4)	Low	Minimal data decomposition
	(5)	Low	(2) and (3) requires recode
DEDS Access	(1)	Medium	No keyboard; no backup
	(2)	Low	Similar functions
	(3)	High	New technology display
	(4)	Low	Minimal data decomposition
	(5)	Medium	Will use AL and Pascal/VS
Interfacility	(1)	Medium	No ARTCC interface
	(2)	High	Markedly reduced functions
	(3)	Medium	New software interfaces
	(4)	Low	Minimal data decomposition
	(5)	Medium	Data types & control structures
Keyboard	(1)	Medium	No keyboard
	(2)	High	Reduced functions: no KIP
	(3)	Medium	New software interfaces
	(4)	Low	Minimal data decomposition
	(5)	Medium	Data types & control structures
PSRAP	(1)	High	No SRAP; no recovery
	(2)	Medium	Reduced functions
	(3)	Medium	New software interfaces
	(4)	Low	Minimal data decomposition
	(5)	Medium	Data types & control structures

Task	Factors	Value	Rationale
Tracking	(1)	Low	No impact
	(2)	Low	Same functions
	(3)	High	New software interfaces
	(4)	High	Major data decomposition
	(5)	High	Algorithmic sensitivity
Display	(1)	Medium	Single display: no recovery
	(2)	Medium	No preview and response msgs.
	(3)	Medium	New software interfaces
	(4)	Medium	Moderate data decomposition
	(5)	Medium	Data types & control structures
Common Updateable Data	(1)	Low	No impact
	(2)	Low	Size of data space irrelevant
	(3)	High	Controlled data access
	(4)	High	Significant data hiding
	(5)	Medium	Data types & control structures
CDR Conversion	(1)	Low	Offline operation
	(2)	Medium	Not all message types converted
	(3)	High	Language, Word Size, 7->9 track
	(4)	Low	Offline operation
	(5)	Medium	PASCAL not bit oriented

Rationale for a Formal Architecture

The next section describes the formal architecture of the demonstration operational subsystem: formal, so that we can record the expected behavior of the software precisely enough to analyze and verify its correctness, completeness and consistency before committing to an implementation; architecture, because software systems as a whole are in need of design as much as individual modules.

The definitions and rules that follow define the architecture. The commercial operating environment (MVS, Pascal/VS, etc.) represent the implementation tools. The architecture must stand on its own as a working model, and it must meet the implementation criteria imposed on it by the tools. So the next section closes with a mapping of the intended behavior to the implementation tools: MVS-RTX and Pascal/VS.

5.2 Operational Software Architecture Definitions and Rules

Introduction

Software architecture describes the mapping of system application work and system operations work to the software. The architecture should answer the questions: What are the units of work and the units of software, including the major data bases? How are the work units allocated to the software units? How is the work synchronized? How do the software units communicate with each other? And how do they carry out their work using available data processing resources, such as the processor, its storage, and I/O channels.

Scope

The description that follows defines the structure and behavior of the online system (see definitions). The offline work, identified below, will be performed in a standard, batch environment. We are not developing any software to control the flow of work through the offline system; the software architecture is provided commercial-off-the-shelf, viz., VM/SP and MVS.

There are two types of work required of the New York TRACON software system: applications and operations (the work required to start, monitor and control, and terminate the system, regardless of the application).

The description of the software architecture pertaining to system operations (see definitions below) is limited; the text concentrates on the software architecture of the applications work and the software services required to perform it. The New York TRACON demonstration system's support for system operations is limited to the capabilities provided by the commercial-off-the-shelf operating system, MVS. MVS provides the capabilities to allow the operator to start and terminate the system.

Objective

The objective of a realtime system software architecture is to record as precisely as possible the rules for software decomposition -- the developmental design (d), for sequential design (s), for concurrent design (c), and for system performance(p), while modeling as closely as possible the behavior of the real world. The rules will state the invariant conditions between d, s, c and p; the rules for c, for example, should not be defined without regard for their impact on the rules for s, etc. There should be as few rules as possible, while stating all the invariants (defining a rule that all modules shall execute correctly satisfies the first condition but avoids entirely the second).

The New York TRACON demonstration system software architecture -- the rules for d, s, c and p -- is defined below in more application- and method-specific terms: the developmental design is described in terms of levels of Ada packages; the sequential design in terms of what defines a TRACON Ada package -- which requirements are clustered within each package; the concurrent design in terms of subtasks and software messages -- both of which will be described later in more concrete (RTX) terms; and the performance in terms of S/370, MVS, and RTX behavior.

Definitions (in alphabetical order):

- Ada package: a software unit that has a specification part and a body that defines an abstract data type and behaves as a state machine

- Applications: the ARTS work exclusive of operations, tracking for example; the software that automates that work

- Application messages: units of data through which the system and the real (air traffic) world communicate: beacon and radar targets, tracks and flights.

- Application work: work units, containing system application messages, that define the processing constraints of the software; a process must complete one system application work unit, such as a track, before starting the next.

- Application work station command: an integral input from the system application work station

- ARTS: system that automates the work of TRACONs and their associated towers; Automated Radar Tracking System.

- Batch mode: execution of an offline program non-interactively.

- Concurrent design: the rules that describe how subtasks (see below) interact as they compete for system resources (processor, channels, data, etc.).

- Controller command: a keyboard action from the DEDS

- Controller sector: an area of real airspace mapped onto display coordinates that composes an application work station.

- Conversation: Two-way communication between processes.

- CDR: continuous data recording (logging by category).

- CTS: central track store (the set of track records).

- DEDS: ARTS data entry and display subsystem.

- Flight: the set of data that defines and characterizes an aircraft controlled within ARTS.

- Gateway: a set of programs and data that provide the concurrent interface control for a package.

- Interactive (I): a process initiated by an external input that may interrupt and modify the flow of data through the system.

- Interactive application work station: The device (the DEDS) (including hardware and software), functions and people that interact with the system to create, observe, modify or delete system application work.

- Level-1 package: the top level software parts that compose the monitor and application software; in sequential design, the Ada packages that define the top level abstract data types; in concurrent design, the subtasks (see below).

- Level-2 package: an implementable module that decomposes from a level-1 package.

- Monitor: a set of programs and data that provide data and control synchronization for the software system without knowledge of the application.

- MVS: IBM's batch operating system.

- Online: a run (or execution) of the New York TRACON operational system. The online system runs under MVS-RTX.

- Offline: a run separate from an online run; a data processing job that runs under MVS (but not under RTX) or VM.

- Operational mode: running the ARTS with live target and live controller interaction -- as it would be run in the field.

- Operations: work required to run the system (hardware, software and human interface to them); the software that automates that work, such as the online operating system.

- Operations messages: units of data through which the system and the humans or machines running the system communicate.

- Operations work: units of data containing system operations messages.

- Operations work station: The device (including hardware and software), functions and people that interact with the system to create, modify or delete system operations work.

- Pipeline (P): a set of processes that execute in order; process A produces data for process B and so on.

- Process: the execution of a subtask that operates on a unit of application work.

- RTX: IBM control program running under MVS to provide realtime services to applications running under it.

- Second-order messages: application messages that modify the state of a track or a flight.

- Sector: a subset of an antenna scan; there are 32 sectors per scan; a sector's worth of tracks or targets.

- Sensor: a unique radar antenna; a full antenna scan of targets.

- Sequential design: the decomposition of the software system into parts (and their relationship to one another), expressed in a deterministic way without regard for processing concurrency, data coherency and the impact of executing the software on machines.

- Software messages: units of data through which packages communicate.

- Subtask: a set of applications software that operates independently, and is dispatchable under MVS-RTX; the binding of a work unit to a level-1 package.

- Targets: a set of beacon and radar messages.

- Task: the automatic execution of system work under the control of an operating system that allocates and monitors all the system resources (channels, devices, memory, programs etc.) required to perform the work.

- Test mode: running the ARTS system using simulated targets, flights, and controller commands.

- Track: a computer model of an aircraft's position and velocity, -- maintained in real world and display coordinates; a dynamic record of the aircraft's behavior.

- Type: a specification of the operations that can be performed on a set of data.

- Work hierarchy: a tree of categories of work units; categories are numbered from 1 to n, where 1 is at the top of tree.

Packages and their Attributes:

The figure below describes 10 application (Ada) packages, 9 online, and 1 offline, the CDR Editor; and 3 monitor (M) packages, 1) Initialization and Termination, 2) Message Control, 3) Timing Control.

(The Level-1 Ada package name is noted to the right of each package identified below.)

Monitor Packages:

The Initialization and Termination package will run at system initialization and termination to synchronize startup and shutdown.

A pair of services, Send and Receive, will provide the means for communicating between subtasks. Send and Receive will be processed by the Message Control package that provides communications error checking and issues RTX services for synchronization and buffer management.

Timing Control will ensure that all system work completes on time as it moves through the system, and will provide timer services to the other packages.

Initialization/Termination	(TM01$$$$)
Message Control	(TM02$$$$)
Timing Control	(TM03$$$$)

Application Packages:

The application packages decompose the New York TRACON demonstration system at the top level, level-1. Each of these will further decompose into level-2 packages.

There are 5 classes of application packages, each with specific attributes:

- Offline (O)
- Control (C)
- Interactive (I)
- Pipeline (P)
- Data (D)

Offline: the offline package, the CDR Editor, runs separately from the operational software. It runs under VM -- under CMS. It uses the CDR output generated by the operational execution as input, and generates a printed report.

The offline package, CDR Conversion, converts the input CDR tape from 9-track ULTRA format to Pascal/VS format readable and processable by the demonstration system.

CDR Editor	(TM04$$$$)
CDR Conversion	(TM14$$$$)

Control: there are three control packages:

Retrack	(TM05$$$$)
CDR Extraction	(TM06$$$$)
DEDS Access	(TM07$$$$)

Although each package has unique attributes, the overriding attribute that binds them is that they are responsible for controlling the applications work, its synchronization and flow, as it interacts with I/O devices.

The DEDS Access software will be largely commercial off-the-shelf; a small part of it will be developed.

Interactive: applications packages that can run as processes and receive their input only from Control packages; they process applications work without knowledge of Control and Data operations and can access Data packages concurrent with Pipeline packages and other Interactive packages. They may converse with pipeline packages; thus, I <====> P.

Interfacility	(TM08$$$$)
Keyboard	(TM09$$$$)

Pipeline: applications packages that can run as processes receive work from a Control package or another Pipeline package, can send work to another Pipeline package, and can access Data packages concurrent with other Pipeline packages and Interactive packages. Pipeline packages may not converse with each other; thus, P ====> P.

Target Acquisition (PSRAP)	(TM10$$$$)
Tracking	(TM11$$$$)
Display	(TM12$$$$)

Deleted

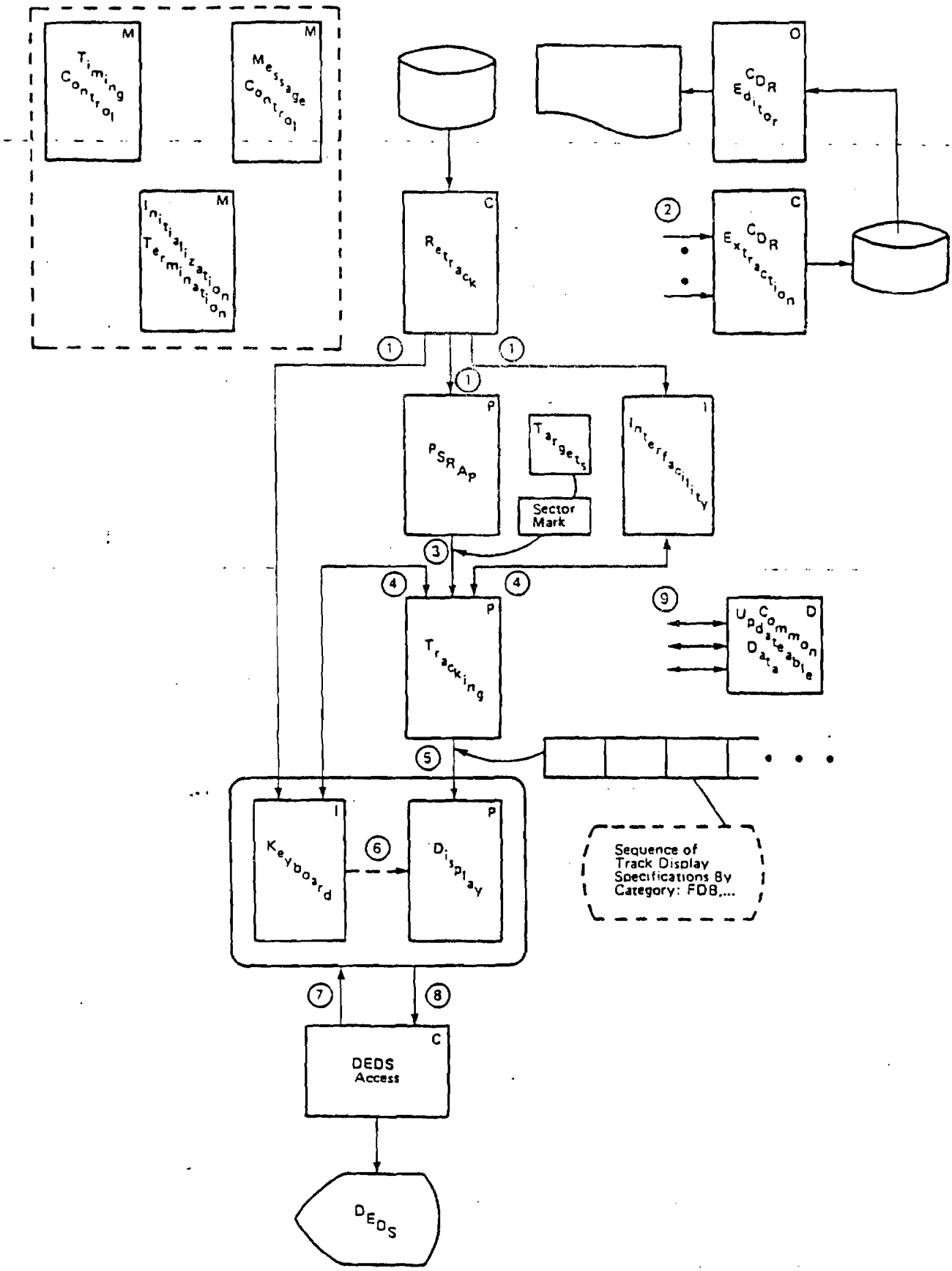


Figure 1. New York TRACON Demonstration Operational Software Architecture

Rules:

I. System Work

- The demonstration system will run in test mode. No work will be permitted into the system except from the CDR input file during steady state execution.

- The indivisible units of system application work are these system application messages: - targets (beacon and radar), tracks, flights.

- The work hierarchy for the system application work is:

  1 - CDR record

  1 - controller sector

  1 - application work station command (command)

  1 - TRACON airspace

  1 - sensor

    2 - sector

      3 - target

      3 - track

      3 - flight

- In test mode, CDR records -- containing the scenario data, the targets, flights, etc., from an earlier run -- are read from a CDR file by Retrack and new CDR records are generated by the applications and written to a CDR file, periodically during system execution, by the CDR Extraction package.

- A controller sector is a subset of a sensor's airspace that is bound to an application work station. It represents the set of tracks and targets within a sensor that are eligible for display.

- An application work station command is a message from the DEDS keyboard. In test mode the commands will be read from CDR records and passed directly to the Keyboard package; in operational mode commands would be directed to Keyboard from the DEDS Access package.

- A sensor represents the targets (and other messages) that are transmitted through a SRAP from a single antenna. The internal representation of target and track data will be sorted by sensor.

- A sector is 1/32 of an antenna sweep -- all the targets and tracks that lie within that wedge. The internal representation of target and track data will be sorted by sector.

- In operational mode, targets enter the system through a SRAP, as a continuous sequence of messages; in test mode, the messages are read from CDR records.

- Tracks are created automatically by the tracking software -- as a result of the receipt of a discrete beacon return, (called automatic initiation) or as a result of a track handoff from an adjacent ARTS or NAS facility -- or manually, by human command. In test mode, tracks will be automatically initiated or will be read from CDR records simulating the interfacility and keyboard inputs.

- In operational mode, flights enter the system from an adjacent facility or through a batch (bulk) sequence of pre-defined flight plans, or manually, by human command. In test mode, flights will be read from CDR records simulating the interfacility and keyboard inputs. (In test mode, bulk flights could be read from a tape as they would be in operational mode; but, for the demonstration, there will be no bulk processing.)

- Sensors, sectors and controller sectors contain integral target and tracks.

- CDR records contain integral targets, tracks, flights and work station commands.

II. System Parts and their Work

- There will be six classes of level-1 packages (see below):

  - Monitor (M)
  - Offline (O)
  - Control (C)
  - Interactive (I)
  - Pipeline (P)
  - Data (D)

- The Initialization and Termination package (M) will synchronize the system startup and shutdown by sending and receiving notification software messages to and from the other packages. It will process operator requests to start and stop the job. (In operational mode there would be an interactive interface with the operator; in test mode, the operator will cancel the MVS job and there would be no interaction with this package.) If the run is terminated gracefully for other reasons, such as a processing timing parameter is exceeded, this package will be invoked. Its retained data will include the names of the other packages and information about their processing states.

- Message Control (M) will field the communications primitives issued by the other packages and interface with RTX to provide the appropriate (time and space) resources.
  Deleted

- Timing Control (M) will periodically determine if the pipeline deadlines are being met; if they are not it will record the event.
  Its retained data will include the critical system events and expected elapsed times for each. It will terminate processing if a critical event does not occur within the expected time. It will provide system time services to the other packages.

- The offline package, CDR Editor (O), will execute in batch mode under VM. It will read the CDR (output) file (on tape or disk) and generate a listing of the online system's journal. The listing will show that the demonstration system functions are equivalent to those in the current New York TRACON system.

- The offline package, CDR Conversion (O), will execute in batch mode under VM. It will read the CDR (input) file and convert the CDR messages from ULTRA format to PASCAL format. All fields in messages processed by the demonstration system will be converted. Time will be converted from 1/1024ths of a second to 1/1000 of a second (milliseconds).

- The online application packages and their primary work units are:

DEDS Access (C)	==	Software messages
Retrack (C)	==	CDR records
CDR Extraction (C)	==	CDR records
Interfacility (I)	==	Flights
Keyboard (I)	==	Controller commands
Target Acquisition (P)	==	TRACON airspace
Tracking (P)	==	TRACON airspace
Display (P)	==	Controller sector (a set of tracks and targets within a sensor)

Deleted.

- The DEDS Access package provides -- through commercial off-the-shelf and developed software -- the link level I/O support between the Display Outputs application and the DEDS. Because controller commands (keyboard inputs) will be input from Retrack only, DEDS Access will support outputs only. DEDS Access will use MVS services to provide channel- and interrupt-level I/O support. It will retain data about the DACU and the display generator protocol.

- Retrack will read the CDR tape containing the recorded transactions from a previous execution of the full ARTS system (not our demonstration system). Retrack will read target, controller command and flight records into its internal buffers and pass the target records to the Target Acquisition package, the commands to Keyboard, and the flight data to Interfacility. Retrack will not pass work that has already been identified on the CDR tape as in error. Retrack will send second-order messages, modifications to existing flights and tracks, to Interfacility and Keyboard. If the messages are out of sequence they will be recorded as errors on the CDR output by Keyboard or Interfacility. (Retrack will not interface directly with the CTS as in the current New York TRACON system.)

- CDR Extraction will receive software messages from the other online packages, transform them to CDR records and write the records to the CDR (output) file using a standard MVS access method.

- Interfacility will receive flight data from Retrack. It will check for applications errors (such as out of sequence second-order messages) and send software messages containing track-related fields to Tracking. Tracking will ensure the coherency of the values sent in the message (with respect to the current data retained within Tracking) and either commit the data and return a success indicator or not commit the data and return an error indicator.

- Keyboard will receive flight data from Retrack. It will check for applications errors (such as out of sequence second-order messages) and send software messages containing track-related fields to Tracking. Tracking will ensure the coherency of the values sent in the message (with

respect to the current data retained within Tracking) and either commit the data and return a success indicator or not commit the data and return an error indicator.

- Target Acquisition will determine the sector boundaries and sort the target data by sensor--sector, sending the data (sector data and target data) to Tracking.

- Tracking will perform automatic acquisition, discrete correlation, standard correlation, smoothing and prediction, track termination, and inter-sensor linking. Tracking will receive its inputs from PSRAP, Keyboard and Interfacility. It will create a sequence of software messages containing the application work station and data for each eligible (for display) work station. Tracking will maintain the sensor-sector data base, the target data base, the tracking data base (CTS) Beacon Only Table (BOT), the Radar Only Table (ROT) and the Report Address Table (RAT) -- that defines the mapping of CTS entries to Target entries and vice versa -- within its package.

- Display will output to the DEDS full data blocks for associated tracks, limited data blocks for unassociated tracks, partial data blocks, tabular lists and some system data, such as time. It will control the automatic offsetting of data blocks if they overlap on the display. Display will receive a sequence of messages from Tracking for each work station eligible for display updating. Timing Control will send the system time to Display. Display will access non-tracking data from the Common Updateable Data package. Display will maintain internally the data that describes the model for all outputs at each level of protocol -- the data necessary to convert internal information to a display topology and write it to a DEDS monitor. Deleted.

III. The Decomposition of Parts

- Level-2 packages will decompose from Level-1 packages.
- The relationship between a Level-1 package and its Level-2 packages can be one-to-one or one-to-many.
- Level-2 packages will provide type management for the data refined or decomposed from the Level-1 retained data; for example, a Level-2 Tracking package would control the access to RAT.
- Level-2 application packages will work on integral units of system application work.

IV. Tasks and Concurrency

- A subtask will execute independent of and concurrent with other subtasks.
- All Level-1 application packages will map one-to-one onto a subtask.
- Deleted.
- Level-2 application packages will execute sequentially within a subtask.
- Message Control will ensure that all subtasks are synchronized -- via the Send and Receive primitives.
- The synchronization of a Level-1 package (a subtask) with other Level-1 packages will be centralized in a single Level-2 package, if the mapping of a Level-1 to -2 package is one-to-many -- or in a single procedure, if the mapping is one-to-one. The single procedure or package is called a gateway. (See Section VII for the mapping to Pascal programs.)
- A subtask will, if possible, request all the data that it does not own (encapsulated by a D package) prior to executing its sequence of algorithms.
- Subtasks need not queue work (work queuing will be provided by RTX -- see below) unless it is required by the Level-1 package, such as Common Updateable Data queuing requests to update the same data.

- The model of a gateway follows:

Gateway:

```
Pascal Entry
Receive signal to start or stop or to process work
case PROCESSING_STATE is
when START =>
  Set data space for initialization
  Send to Initialization/Termination in response
when WORK =>
  Send to Timing control to start timing
  Send (wait) to acquire external resources
  Call sequential programs to perform work
  Send to Timing control to complete timing
  Send work to next subtask
when STOP =>
  Set data space for termination
  Send to Initialization/Termination in response
end case
Pascal Exit
```

V. Communications Between Subtasks

- Monitor (M) packages may communicate and converse with any subtask.
- Control (C) subtasks may communicate and converse with any subtask.
- Data (D) subtasks may communicate and converse with any subtask.
- Pipeline (P) subtasks may converse with Interactive (I) subtasks (P <====> I).
- Pipeline subtasks may not converse with other Pipeline subtasks (P <==/==> P); they may direct work only to the "next P" subtask in the pipeline.
- Interactive subtasks may not communicate with each other (I ==/== I).
- Only Control (C) subtasks may perform requests for I/O.
- All subtasks will communicate through the same means, using Send and Receive commands via Message Control.

Sends:

- There will be 6 categories of Sends:

  1) Sends that start a process and do not converse

  2) Sends that start a conversation (they start a process and wait for a response)

  3) Sends that end a conversation by responding to a waiting subtask; and

  4) Sends that schedule an event (to initiate a process) at a delta time from the present

  5) Sends that schedule a cyclic event

  6) Sends that schedule an event (to initiate a process) at an absolute time in the future

- A Send to a Data package represents a request for data
- Send will pass data contained in a communication packet.
- The communication packet will consist of a header followed by the user record.

- The header portion of the record will contain the sender, receiver and record identifier (command).

- The command will imply the specification of the user record and the order of the values that follow.

- The user record may be a buffer.

- A buffer is a one-dimensional array containing no meta-data, no data about the data in the array; for example, a buffer may contain a sequence of target reports. (A reminder: arrays are fixed-length.)

- A record passed in a Send is transient; permanent records reside in a primary or secondary storage data base (see "Data Base and Data Coherency" below).

- A user record may contain a sequence of records.

- All types in a sequence must be of equal length.

- Transient records can not be recursive; the type field can not be followed by a type field.

- Examples of illegal transient records:

  Illegal:

  1. A sequence of one record
     <LDB> <LDB> <field_a> <field_b> ... recursion

  2. A sequence of two records
     <TAB> <field_a> <field_b>
     <TAB> <field_a> <field_b> <field_c> variable length

  3. A sequence of one record
     <field_a> value-only -- no type name

- Conversational Sends (categories 2 and 3) will be modelled as either a

  (1) procedure call -- the passed values will be processed by the receiving package and a value indicating the success of the operation will be stored by the "return" Send; or as a

  (2) function -- the type defines a set of values that will be returned by the "return" Send; (Example: a sending package requests a D package to return a named record; the type field is the name of the transaction -- e.g., read, and the name of the variable, the remaining fields in the record specify the sequence or implied hierarchy of values to be returned by the D package).

Receives:

- When a Package is invoked, it issues a Receive to obtain its communication packet. The communication packet may contain :

  - a Send from Initialization and Termination to startup or shutdown

  - a Send from another package of buffer data or records.

Reliability:

- Message Control will type check the Send command and the

- Each package will type check records; buffers need not be type checked.

- No link-level protocol will be implemented to ensure that receiving packages receive sent data -- the demonstration system is providing minimal realtime recovery.

The Send and Receive commands:

```
-----------------------------------
| Legend:                         |
|     <> defines a component      |
|     () means it is optional     |
|     | is an "or" symbol         |
|     ::= means is replaced by    |
-----------------------------------
```

```
<Send> <Category> <From_task> <To_task> <CMD> <Record_address>
       <Record_length> <Timed attribute>

<Timed attribute> - non-zero if category is 4,5,6
```

```
<Receive> <Address of communication packet>
```

VI. Data Base and Data Coherency

- The data base comprises sets of records.
- Data sets can be in primary or secondary storage.
- There will be 5 categories of data:
  - read-only data such as system and site parameters; these data will be directly accessible by each package
  - retained data encapsulated by a P, C, I, or M package that provides synchronous data base services within the subtask (the Level-1 package state data), or within the Level-2 package
  - local variables, required by the various Level-2 package procedures
  - records on secondary storage devices
- Each data set, except local variables, requires a header to identify the data set.

VII. Executing the Online System under MVS and RTX with Pascal

Building the System:

The system is built and initialized for execution under RTX using tables created prior to execution, Job Control language (JCL), which is evaluated at execution time, and instructions to RTX entered as part of the SYSIN data.

The following datasets must be created pre-initialization:

- All load modules that comprise the TRACON application.

- Mappings and tables to be used by RTX in system initialization:

  The Master Communications Vector Table (MCVT) is a COPY source member maintained by RTX. The MCVT is used to define Subsystem Communications Vector Tables and Initialization List Tables and is used in the assembly of application programs.

  The Subsystems Communication Vector Table (SCVT) is a COPY source member composed of macros and assembly language statements. The SCVTs are used to define Initialization List Tables (ILTs).

  Initialization List Tables (ILTs) contain information required to configure the execution. They contain the names of all load modules, work queue definitions, locks to be initialized, buffer pool definitions, and work server definitions.

- Job Control Language is used to specify the RTX version and to specify the data set names containing the MCVT, SCVTs, ILTs and load modules to the MVS batch initiation system.

- SYSIN input control commands are part of the input stream to the RTX job and select options to be used during a particular execution.

Monitor Packages:

- A copy of Message Control will be linked to each application load module.

- Timing Execution Control will be implemented in the bridge of each task. (Each task contains a bridge that is the entry point for that task. The Pascal Gateway is a reentrant procedure that is invoked from the bridge.)

- A copy of Timing services will be linked to each application load module.

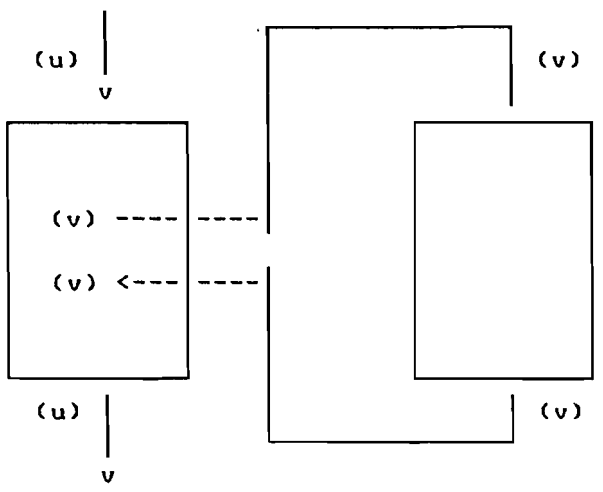
- Initialization and Termination will run as a subtask.

Load Modules:

- Each subtask will be an independent load module.
- The entry point for each load module is contained in a bridge for the load module.
- The bridge contains data used by Timing Execution Control.
- The bridge passes a pointer to the task's state data to the gateway.
- The bridge is written in Assembly language and is not reentrant.
- The Gateway is a reentrant Pascal routine.
- RTX will be in an independent MVS address space.
- Each load module will have only a single entry point.
- A copy of the read-only data will be linked to each load module.
- A copy of the Pascal run-time modules will be linked to each load module.

Subtask Communications:

- Subtasks will communicate asynchronously. (In the case of conversational Sends, communications will take place through a combination of synchronous and asynchronous RTX services.)
- Subtasks will communicate (u) and converse (v) in the following manner, with respect to enter and exiting load modules:



- The Send implementation uses the following RTX services:

  - GKENTER, GKEXIT - standard entry and exit linkage
  - GKQWORK - queues a unit of RTX work on an RTX server
  - GKBLOCK - find an RTX control block
  - GKGBUF - request a buffer from RTX
  - GKLBUF - locate an RTX buffer
  - GKTIMREF - convert time from one reference to another
  - GKTWORK - queues a unit of RTX work on a timed basis
  - GKTIME - returns the current time in milliseconds or hours
  - GKFLTAB - address of flight/mode table

- Category 2 Sends queue a unit of RTX work on an RTX server and wait for completion of the work. This is a synchronous work request. Information to satisfy the work request will be placed by the invoked task into a work server buffer acquired by the requesting task at initialization.

- Category 3 Send will respond to a category 2 send by moving the requested information into the requestor's buffer. RTX will inform the requesting task that the work request is complete when the task containing the Category 3 Send terminates. This is a synchronous work request.

- Categories 4, 5 and 6 queue work on a work server to execute at a specified time in the future.

- Receive will be used by an application package after a category Send to locate and access the data placed in the Work Queue buffer by the originator of the Send.

The Relationship of Ada Packages to Pascal Compilations:

- A Pascal load module comprises a single Main program and some number of nested levels of procedures. The Main program controls and manages the interface to other Pascal load modules and the interfaces within its load module. In short, Pascal presumes a hierarchy of programs within a load module. The demonstration architecture presumes that a load module contains a network of Ada packages (or a single node), each comprising a small set of procedures.

- Because a Level-1 Ada package (a load module) may decompose into one (the single node case) or more Level-2 Ada packages, and Pascal/VS expects the relationship of a load module to a Main program to be one-to-one, the relationship of Level-2 Ada packages to Pascal programs may vary:

Single node case:

- If a Level-1 Ada package decomposes into only one Level-2 package, the Gateway will be the Pascal Main program and its subordinate Pascal procedures will be equivalent to the Level-2 Ada procedures.

Multiple node case:

- If a Level-1 Ada package decomposes into more than one Level-2 package, the Gateway will be the Pascal Main program -- as in the single node -- and its immediately (the first level of nesting) subordinate Pascal procedures will be equivalent to the Level-2 Ada packages. The procedures nested under the first level procedures, then, will be equivalent to the Level-2 Ada procedures.

Primary Storage Management:

- Primary storage (an RTX buffer) will be allocated to each task during the first execution of the task (at initialization time).
- Each time the task is subsequently entered, the bridge for the task will obtain the pointer to the buffer and pass it to the gateway for the task.
- The data that exists across executions of the task is State data.
- Variables created by any procedure within a package will be allocated when the procedure is invoked and released when the procedure exits.
- As part of the Send processing,a task will acquire a work queue buffer to be used by Send and Receive.
- All primary storage will be deallocated at task termination.

Secondary Storage Management:

- A CDR input file, in IBM external and internal format, will be resident on DASD at the start of the online run.
- A CDR output file, in IBM external and internal format, will be resident on DASD at the end of the online run, and it will be accessible to the CDR Editor, running under TSO.
- A LOGREC file will be available at the end of the online run.
- An RTX log file will be available at the end of the online run.
- There will be no system parameters or variables maintained in secondary storage.

- There will be no recovery files maintained in secondary storage.

Recording System States and Recovery:

- There will be no realtime recovery.
- There will be five mechanisms for recording information about the state of the system:
  - the processor and MVS will record equipment errors on the LOGREC file
  - the applications will record data for CDR
  - the applications can log an error with RTX and continue
  - the applications can log an error with RTX and ABEND
  - the applications can log an error to a SYSOUT file (this may be available only in debug mode)
- An ABEND may cause the demonstration to terminate.

Device Access Methods:

- Applications will interface with the disk and tape devices through standard Pascal/VS services.
- Input/Output facilities in Pascal/VS will use the following OS access methods: Queued Sequential Access Method (QSAM) for sequential data sets and Basic Direct Access Method (BDAM) for random record access. An interface to the Graphics Access Method (GAM) will be supplied by assembler programs residing in the DEDS (Data Entry and Display Subsystem) package.
- A data definition entry (//DD in JCL) will be included as part of SYSIN for the RTX job for the CDR input and CDR output files. Both files will be sequential data sets of fixed length records.
- The Retrack gateway program will declare a file variable that will associate the Pascal/VS internal name with the external data control block (DCB).
- Retrack initialization will open the CDR input file using Pascal/VS RESET statement. A RESET statement explicitly opens a file for input.
- Retrack will use Pascal/VS GET statements to read one record at a time from the CDR input file. Whenever an end of file condition is detected, Retrack will notify the Initialization/Termination package using a Send.

- When Retrack is entered at termination, it will explicitly close the file by using a Pascal/VS CLOSE statement.

- The CDR Extractor gateway program will declare a file variable that will associate the Pascal/VS internal name with the external data control block (DCB).

- CDR Extractor Initialization will open the CDR output file using a Pascal/VS REWRITE statement. A REWRITE statement explicitly opens a file for output.

- The CDR Extractor will use Pascal/VS PUT statements to write one record at a time to the CDR output file.

- When the CDR Extractor is entered at termination, it will explicitly close the file by using a Pascal/VS CLOSE statement.

Software Clock Maintenance:

In the current New York TRACON system, the oscillator speed updates the real time clock at intervals of 1/1024ths of a second. This is updated independent of any monitor or software within the system.

In the recoded system, we will use a software clock that is updated every 100 milliseconds. Since a sector mark on an antenna is crossed every 125 milliseconds, our analysis indicates that this is adequate for this demonstration.

The software implications of this are that each time Retrack executes, it will send all CDR input records to the proper tasks that have an earlier time stamp than the current time plus 100 milliseconds. It will then schedule itself for execution in 100 milliseconds.

A further consequence is that CDR records recorded during the demonstration run will be time stamped with the software clock time. That is, data recorded for a single antenna sweep will contain 32 different time stamps. The time stamp will differ from records recorded during a CDR run on the New York TRACON system.

A.0 New York TRACON A5.04 Data Dictionary

The Data Element Dictionary (DED) contains all the global data element names and descriptions. The main purpose of this DED is to define the usage of global elements and provide for configuration management control of these elements. This control of the data elements, along with their conventions, data typing, data base assignment, and description, enhances communication of information throughout the project.

The Data Element Dictionary may map multiple new names to a data element name in the existing NY TRACON system. This occurs when the UNIVAC 30-bit word is subdivided into halfword and bit variables. The new names comprise the old name with an integer appended; this integer indicates the different variables in the word.

The DED is maintained using the PC program dBASE III Plus. the structure of each record is as follows:

- COMPANY - the company responsible for coding the data element (D - DTC, I - IBM, P - PJA)

- DATANAME - data element name (for the existing NY TRACON system)

- data base - data base name (for the existing NY TRACON system)

- PAGENUMBER - page number in NY TRACON Coding Specs (for the data base) that describes the data element

- P1 - procedure name that references the data element

  There are up to 10 procedure names; if more than 10 procedures set or use the field, additional lines (with DATANAME, data base, PAGENUMBR, TYPE, VARNAME, DBNAME, NEWPGNUM, and DESCRIPTION duplicated) are used

- S1 - indicator specifying whether the procedure sets and/or uses the data element

  There is one S indicator for each valid procedure name

  Valid settings of the S field are:

  - 0 - Not available
  - 1 - set by referencing procedure
  - 2 - used by referencing procedure
  - 3 - both set and used by referencing procedure

- TYPE - data element type code

Valid settings of the type field are:

- S - character string
- C - character
- L - boolean
- i - integer (short)
- I - integer (long)
- r - real (short)
- R - real (long)
- B - bit
- A - array (table)
- P - pointer (address)
- E - enumerated type

- VARNAME - new data element name
- DBNAME - new data base name; currently used to describe the task that will own the data element

  Valid settings of the data base name are:

  - NA - Not recoded
  - ? - Don't know original data base, don't know new data base, etc
  - PSRAP - PSRAP
  - TRACK - Tracking
  - KBD - Keyboard
  - DISP - Display
  - IFY - Interfacility
  - SPARM - Global System and Site Parameters
  - SYSTEM - Global Parameters that are not System nor Site Parameters

- CDR - Continuous Data Recording
- RETRACK - RETRACK
- MSAW - MSAW
- CA - Conflict Alert
- blank - haven't worked on yet

- NEWPGNUM - page number in new data base document describing the data element
- DESCRIPT - data element description

The data elements are presented sorted by data base on the pages that follow.

Record#	COMPANY	DATANAME	DATABASE	PAGENUMBR	P1	S1 P2	S2 P3	S3 P4	S4 P5	S5 P6	S6 P7	S7 P8	S8 P9	S9 P10	S10	TYPE	VARNAME	DBNAME	NEWPGNUM
1		BOTIT	BOT	4	TPUR	1 SUBS	0	0	0	0	0	0	0	0	0	A	bot_trk	TRACK	0
2		BOTIT1	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	I	bot_report_azimuth	TRACK	0
3		BOTIT10	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	I	bot_va	TRACK	0
4		BOTIT11	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	S	bot_beacon_code	TRACK	0
5		BOTIT12	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	I	bot_rep_vc	TRACK	0
6		BOTIT13	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	I	bot_altitude	TRACK	0
7		BOTIT2	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	I	bot_range	TRACK	0
8		BOTIT3	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	R	bot_y_coord	TRACK	0
9		BOTIT4	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	R	bot_x_coord	TRACK	0
10		BOTIT5	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	R	bot_y_dot	TRACK	0
11		BOTIT6	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	R	bot_x_dot	TRACK	0
12		BOTIT7	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	A	bot_wdw	TRACK	0
13		BOTIT8	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	I	bot_firmness	TRACK	0
14		BOTIT9	BOT	4	TPUR	3	0	0	0	0	0	0	0	0	0	E	bot_time_of_last_correl	TRACK	0
15		ABEAT1	CTS	7		0 CRIT	0 DBATM	0 IFI	2 KOF	3	0	0 MSAW	0 MTGCT	0	0	L	last_correl_on_radar_only_trk	TRACK	0
16		ABEAT1	CTS	7	TEDC	3	0 TINIT	3	0 TPUR	3 TPRED	0 ALTRKR	0 CDR	2 COMA	3 COMB	2	L	last_correl_on_radar_only_trk	TRACK	0
17		ABEAT1	CTS	7	PSBLD	0 RETRACK	1 SMOTH	0 TEDCRS	0 TI	0 TPSEC	3 TSUB0	0 TSUB1	0	0	0	L	last_correl_on_radar_only_trk	TRACK	0
18		ABEAT2	CTS	7	TPSEC	3 TCRSS	2 TINIT	3 IFI	3 TPUR	3 TPRED	2 COMA	3	0	0	0	L	initial_correl_proc_enabled_trk	TRACK	0
19		ABEAT3	CTS	7	TEDC	3 TCRSS	2 TINIT	3 IFI	3 TPUR	3 TPRED	2 SLINK	2 TPSEC	3 RETRACK	2 KOF	3	E	assigned_beacon_code_trk	TRACK	0
20		ABEAT4	CTS	7	TPSEC	3 COMA	3 TINIT	1	0 TPUR	3	0	0	0	0	0	I	constant_zero_trk	TRACK	0
21		ABEAT5	CTS	7	TEDC	3 TCRSS	2 TINIT	3 DOP	3 TPUR	3 SLINK	3 IFI	3 TPSEC	1 KOF	3 TPRED	2	I	beac_code_status_code_trk	TRACK	0
22		ACTYPT	CTS	18	TPRED	0 TPSEC	3 TPUR	3 KOF	3 IFI	1	0 SCTME	2 TINIT	3 SLINK	0 TEDC	2	I	aircraft_type_code_trk	TRACK	0
23		ACTYPT2	CTS	18	IFI	3	0 KOF	3	0	0	0	0	0	0	0	C	sp_amen_site_ad_alphy	TRACK	0
24		ALT1	CTS	17	TINIT	3 AUT	2 TPUR	1 ALTRKR	0 CDR	2 COMA	3 COMB	2 KOFB	0 KOFC	0 MSAW	0	I	rep_altitude_trk	TRACK	0
25		ALT1	CTS	17	TI	0 TRAD	2 KOFB	3 KOFC	3	0	0	0	0	0	0	I	rep_altitude_trk	TRACK	0
26		ALT2	CTS	17	TINIT	3 AUT	0 TPUR	1 IFI	0	0	0	0	0	0	0	L	trak_console_printout_requested	TRACK	0
27		ALT31	CTS	17		0 AUT	0 TPUR	1	0	0	0	0	0	0	0	L	alt_missing_last_scan_trk	TRACK	0
28		ALT32	CTS	17		0 AUT	0 TPUR	1	0	0	0	0	0	0	0	L	alt_valid_current_scan_trk	TRACK	0
29		ALT4	CTS	17	TINIT	3 AUT	0 TPUR	1	0	0	0	0	0	0	0	L	assigd_beac_code_checked_trk	TRACK	0
30		ALT51	CTS	17	TINIT	3 AUT	0 TPUR	1	0	0	0	0	0	0	0	L	current_scan_alt_missing_trk	TRACK	0
31		ALT52	CTS	17	TINIT	3 AUT	0 TPUR	1	0	0	0	0	0	0	0	L	last_scan_alt_invalid_trk	TRACK	0
32		ALT6	CTS	17	TINIT	3 AUT	0 TPUR	1	0	0	0	0	0	0	0	I	trak_warn_count_trk	TRACK	0
33		ALT7	CTS	17		0 AUT	0 TPUR	0	0	0	0	0	0	0	0	L	terrain_warn_is_in_effect_trk	TRACK	0
34		ALT8	CTS	17	TINIT	3 AUT	0 TPUR	0	0	0	0	0	0	0	0	L	approch_warn_is_in_effect_trk	TRACK	0
35		ALT9	CTS	17	TINIT	0 AUT	0 TPUR	0 TPRED	2	0	0	0	0	0	0	L	msaw_is_inhibited_trk	TRACK	0
36		ASOCT1	CTS	6	SLINK	3 TPSEC	3 TINIT	3 TPUR	3 TPRED	2 CATRK	0 CDR	2 COMA	3 COMB	2 CRIT	0	E	track_numbr_trk	TRACK	0
37		ASOCT1	CTS	6	TI	0 TRAD	2 TSUB0	0 TSUB1	0	0	0	0	0	0	0	E	track_numbr_trk	TRACK	0
38		ASOCT1	CTS	6	IFI	3 KOF	3	2 MSAW	0 MTGCT	0 PDOP	2 RTQCC	0	0 SWABS	0 TEDCRS	0	E	track_numbr_trk	TRACK	0

39	ASOCT2	CTS	6	TPUR	2	TPSEC	3	TINIT	2	TPUR	2	TEDC	2	IFI	1	0	0	0	0	L	is_dev_track_trk	TRACK
40	ASOCT3	CTS	6	TEDC	3	TPSEC	3	TINIT	3	TPUR	3	IFI	1		0	0	0	0	0	L	spi_indicator_is_enabled_trk	TRACK
41	ASOCT4	CTS	6	TEDC	3	TPSEC	3	TINIT	3	TPUR	3	IFI	1		0	0	0	0	0	L	is_in_emergency_status_trk	TRACK
42	ASOCT5	CTS	6	TCRSS	2	TPSEC	3	TINIT	3	TPUR	3	TPRED	2	IFI	1	SLINK	1	TEDC	3	KOF	1	0	I	firmness_value_trk	TRACK
43	ASOCT6	CTS	6	TEDC	2	TPSEC	1	TINIT	3	TPUR	0	TPRED	2	IFI	3	KOF	3		0		0	0	L	handoff_has_been_completed	TRACK
44	ASOCT7	CTS	6	TEDC	2	TPSEC	3		0	TPUR	3		0		0		0		0		0	0	I	trk_class_code_trk	TRACK
45	ASOCT8	CTS	6	TEDC	2	TPSEC	3	TINIT	2	TPUR	3	TPRED	1		0		0		0		0	0	L	turn_correl_proc_inhibited_trk	TRACK
46	ASOCT9	CTS	6	TCRSS	2	TPSEC	3	TINIT	2	TPUR	3	TPRED	3	TEDC	2		0		0		0	0	L	has_been_predicted_trk	TRACK
47	CATB	CTS	19	RETRACK	3		0		0		0		0		0		0		0		0	0	S	pos_ssimb_char_trk	TRACK
48	CATB	CTS	19	KOF	2	PDOP	2	SLINK	0	TPRED	2	TI	0	TRAD	2	TSUB0	0	TSUB1	0	TINIT	0	TPSEC	0	S	pos_ssimb_char_trk	TRACK
49	CATB	CTS	19	TROUT	0	AUT	2	TPUR	0	TEDC	2	CDR	2	COMA	3	COMB	3	IFI	3	KOF	3		0	S	pos_ssimb_char_trak	TRACK
50	CATB1	CTS	21	TROUT	0	COMA	1	COMB	3	TI	0	TRAD	2	KYBD	0		0		0		0		0	S	pos_data_b_word	TRACK
51	CATC11	CTS	19		0	MSAW	0	TI	0	TRAD	2	TPSEC	2	TEDC	2	TPUR	2	TINIT	3		0		0	S	rep_beca_code_trk	TRACK
52	CATC11	CTS	19		0	TPRED	2	CATU	0	CDR	2	COMA	3		0	CRIT	0	IFI	3	KOFB	2	KOFC	2	S	rep_beca_code_trk	TRACK
53	CATC12	CTS	19	TUD	2	TPRED	2	CATU	0	CDR	2	COMA	3		0	CRIT	0	IFI	3	KOF	3		0	S	acid_char_trk	TRACK
54	CATC12	CTS	19	MAT	0	TPSEC	3	TI	0	TRAD	3	TEDC	2	SLINK	2	TPUR	3	TINIT	3	RETRACK	3		0	S	acid_char_trk	TRACK
55	CATC21	CTS	19	MAT	0	MSAW	0	TI	0	TPUR	2	TINIT	3	SLINK	0		0		0		0		0		ldb_id_char_trk	NA
56	CATC21	CTS	19	TUD	2	TPRED	2	TPSEC	2	CDR	2	COMA	3	TEDC	2	CRIT	0	IFI	3	KOF	3		0		ldb_id_char_trk	NA
57	CATC22	CTS	19	TUD	2	TPRED	3	TPSEC	2	SLINK	0	TEDC	2	TPUR	3	TINIT	3	IFI	3	RETRACK	0	KOF	3			NA
58	CATC31	CTS	19	COMA	1	KOFC	2	TINIT	3		0		0		0		0		0		0		0	S	alt_chars_trk	TRACK
59	CATC32	CTS	19	COMA	1	KOF	1	TINIT	0	IFI	1		0		0		0		0		0		0	C	rec_pos_symbol_trk	TRACK
60	CATC41	CTS	20	COMA	3		0		0		0		0		0		0		0		0		0	S	ldb_pad_char	TRACK
61	CATC42	CTS	20	COMA	3		0		0		0		0		0		0		0		0		0	S	airc_typ_trk	TRACK
62	CFLGT1	CTS	8	TUDS	3	RETRACK	3		0		0		0		0		0		0		0		0	I	assc_sensor_numbr_trk	TRACK
63	CFLGT1	CTS	8	CDR	2	COMA	3	COMB	2		0	CRIT	0		0	KOF	3		0		0		0	I	assc_sensor_numbr_trk	TRACK
64	CFLGT1	CTS	8	MSAW	0	MTP	0	SMOTH	0	SWABS	0		3	TEDCRS	0	TI	0	TRAD	2	TSUB0	0	TSUB1	0	I	assc_sensor_numbr_trk	TRACK
65	CFLGT1	CTS	8		0	TPSEC	0		0	TUD	3	TROUT	2	TPUR	3	TPRED	0	AUT	2	BRATS	0	CATU	0	I	assc_sensor_numbr_trk_old	TRACK
66	CFLGT10	CTS	8	IFI	1	TPSEC	3	TINIT	3	KOF	1		0	TPUR	3	TPRED	3	AUT	0		0		0	I	csec_coast_count_trk	TRACK
67	CFLGT11	CTS	8	SLINK	0	TPSEC	3	TINIT	3	TPUR	2	TDOP	3	KOF	3	TPRED	2	AUT	2	IFI	3	MAT	2	I	arriv_depart_status_code_trk	TRACK
68	CFLGT12	CTS	8	TEDC	3	TPSEC	1	TINIT	3	IFI	1	KOF	1		0	TPRED	3	AUT	0		0		0	I	consec_cde_match_count	TRACK
69	CFLGT13	CTS	8	IFI	1	TPSEC	3	TINIT	3	KOF	1		0		0		0	AUT	0		0		0	L	attempt_secnd_pass_flag	TRACK
70	CFLGT14	CTS	8	SLINK	0	TPSEC	3	TINIT	3	TDOP	3	KOF	3	TPUR	2	TPRED	2	AUT	0	IFI	3	MAT	2	L	flight_plan_was_received	TRACK
71	CFLGT15	CTS	8	KOF	1	TPSEC	1	TINIT	3		0		0		0		0	AUT	0	IFI	1		0	L	auto_acquisit_is_disallowed	TRACK
72	CFLGT16	CTS	8	SLINK	0	TPSEC	3	TINIT	3	TDOP	3	KOF	3	IFI	3	TPRED	3	AUT	2		0		0	L	is_outside_max_radar_range	TRACK
73	CFLGT2	CTS	8	RETRACK	2	TPSEC	0		2	TUD	3		0	TPUR	2		0	AUT	2		0		0	I	cts_thred_dispos_code	TRACK
74	CFLGT3	CTS	8	SLINK	0	TPSEC	3	TINIT	3	TUD	2	IFI	3	TDOP	3	TPRED	2	AUT	0	MAT	2	KOF	3	I	non_space_acid_char_count	TRACK
75	CFLGT4	CTS	8	SLINK	0	TDOP	3	TINIT	2	MAT	2	KOF	0	IFI	3	TPRED	2	AUT	2	TPSEC	2		0	I	fp_data_dispos_code	TRACK
76	CFLGT5	CTS	8	SLINK	0	TPSEC	3	TINIT	3	IFI	3	TDOP	3	TPUR	3	TPRED	2	AUT	2	MAT	2	KOF	3	L	auto_acq_is_inhibited	TRACK
77	CFLGT6	CTS	8	SLINK	0	TPSEC	3	TINIT	3	COMC	2	KOF	3		0	TPRED	2	AUT	2	IFI	3		0	L	is_a_heavy_jet	TRACK
78	CFLGT7	CTS	8	TCRSS	2	TPSEC	3	TINIT	3		0		0	TPUR	1		0	AUT	2		0		0	L	has_modec_status	TRACK

79	CFLGT8	CTS	8 SLINK	0 TPSEC	3 TINIT	3 IFI	3 KOF	3	0 TPRED	0 AUT	2	0	0 L	code_display_is_inhibited	TRACK	0
80	CFLGT9	CTS	8 TCRSS	2 TPSEC	3 TINIT	3 TDOP	3 KOF	3 TPUR	3 TPRED	2 AUT	2 IFI	3	0 L	radar_flit_plan_is_available	TRACK	0
81	CTSIT	CTS	1 TEXEC	3 TPUR	3 TCRSS	3 TPSEC	3 TUD	3 TUDS	3 TEDC	3 TINIT	3 MAT	3 SLINK	3 A	cts_trk	TRACK	0
82	CTSST1	CTS	14	0	0 RTDOP	0 SCTME	0 SWABS	0	2 TI	0 TRAD	2 TSUBO	0 TSUB1	0 S	trk_scratch_pad	TRACK	0
83	CTSST1	CTS	14 TINIT	3 AUT	2 TPUR	1 COMA	3	0 CRIT	0 IFI	3 IFO	1 KOF	3	0 S	trk_scratch_pad	TRACK	0
84	CTSST2	CTS	14 TROUT	0 AUT	3 TPUR	3 IFI	3 SLINK	0 TINIT	3 TPSEC	3 TEDC	3 TDOP	3 MAT	3 I	ctsst_temp_store	TRACK	0
85	CTSST3	CTS	14 IFI	3 AUT	0 TPUR	1 TINIT	3 KOF	3	0	0	0	0	0 L	leadr_dirct_reset_inhibitd	TRACK	0
86	CTSST4	CTS	14 IFI	1 AUT	3 TPUR	1 TINIT	3 KOF	1	0	0	0	0	0 L	is_eligible_for_flash_rbc	TRACK	0
87	CTSST5	CTS	14 TCRSS	0 AUT	3 TPUR	1 TINIT	3	0	0	0	0	0	0 L	is_displaying_blinking_rdr	TRACK	0
88	CTSST6	CTS	14	0 AUT	3 TPUR	1	3 TINIT	3	0	0	0	0	0 L	in_handoff_action_stat	TRACK	0
89	CTSST7	CTS	14 COMA	2 AUT	3 TPUR	1 IFI	3 TINIT	3 KOF	1	0	0	0	0 L	prev_auto_acquired	TRACK	0
90	CTSST8	CTS	14	0 AUT	3 TPUR	1 TINIT	3	0	0	0	0	0	0 L	has_assigned_altitude	TRACK	0
91	CTST1	CTS	1 CATRK	0 CATU	0 CDR	2 COMA	0	0	0 CRIT	0 DBATM	0 IFI	3 IFO	3 I	controlng_posit_numbr_assoc_trk	TRACK	0
92	CTST1	CTS	1 TSUB1	0 RETRACK	0	0	0	0	0	0	0	0	0 I	controlng_posit_numbr_assoc_trk	TRACK	0
93	CTST1	CTS	1 KOF	3	0	0 MAT	2 MSAW	0 MTGA	0 MTGCT	0 PAUS	2 PDOP	2 QLOOK	0 I	controlng_posit_numbr_assoc_trk	TRACK	0
94	CTST1	CTS	1 RTDOP	0 RTQCC	0 SCTME	2 SLINK	3 SWABS	0 TDOP	3 TEDCRS	0 TI	0 TRAD	2 TSUBO	0 I	controlng_posit_numbr_assoc_trk	TRACK	0
95	CTST1	CTS	1 TEDC	2 TPSEC	3 TINIT	3	0	0 TPUR	3 TPRED	2 AUT	2 ALTRKR	0 BRATS	0 I	controlng_posit_numbr_assoc_trk	TRACK	0
96	CTST2	CTS	1 TEDC	2 TPSEC	1 TINIT	3 KOF	3 TROUT	3 TPUR	1 TPRED	2 AUT	2 IFI	3 SLINK	1 I	handoff_status_code_assoc_trk	TRACK	0
97	CTST3	CTS	1 TEDC	2 TPSEC	3 TINIT	3 TUDS	2 TROUT	2 TPUR	3 TPRED	2 TCRSS	2 AUT	2 SLINK	3 I	at_file_status_code	TRACK	0
98	CTST3	CTS	1 IFI	3 TDOP	2 COMC	2 MAT	3 KOF	3 TUD	3	0	0	0	0 I	at_file_status_code	TRACK	0
99	CTST4	CTS	1 SLINK	3 TPSEC	3 TINIT	3 RETRACK	2 TROUT	2 TPUR	3 TPRED	3 AUT	2 IFI	3 MAT	3 I	at_a_word_code	TRACK	0
100	CTST4	CTS	1 TDOP	3 COMC	2 KOF	3	0	0	0	0	0	0	0 I	at_a_word_code	TRACK	0
101	CTST5	CTS	1 TEDC	3 TPSEC	3 TINIT	3 RETRACK	2 TROUT	2 TPUR	3 TPRED	3 AUT	2 IFI	3 SLINK	3 I	at_tp_word_code	TRACK	0
102	CTST5	CTS	1 TDOP	2 COMC	2 MAT	3 KOF	3	0	0	0	0	0	0 I	at_tp_word_code	TRACK	0
103	CTST6	CTS	1 SLINK	3 TPSEC	3 TINIT	3 TUD	2 TUDS	2 TPUR	3 TPRED	2 AUT	2 IFI	3 KOF	3 I	at_sensor_numbr_new	TRACK	0
104	CTST7	CTS	1 SLINK	1 TPSEC	3 TINIT	3 KOF	1	0 TPUR	1 TPRED	3 AUT	2 IFI	1	0 R	at_enroute_time	TRACK	0
105	CTST8	CTS	1 SLINK	1 TPSEC	3 TINIT	3 KOF	1	0 TPUR	1 TPRED	2 AUT	2 IFI	1	0 I	at_enr_status_numbr	TRACK	0
106	CTST9	CTS	1 TEDC	3 TPSEC	0 TINIT	0 TUD	0 SLINK	0 TPUR	0 TPRED	3 AUT	2 TUDS	0 IFI	3 L	at_fl_is_set	TRACK	0
107	DALT1	CTS	18 TPUR	1 ALTRKR	0 CDR	2 COMA	0	0 MSAW	0 TI	0	0	0	0 R	alti_velocity_trk	TRACK	0
108	DALT2	CTS	18 TPUR	1 ALTRKR	0 CDR	2 COMA	0	0 MSAW	0 TI	0	0	0	0 R	alti_acceleration_trk	TRACK	0
109	FILT1	CTS	14 TPUR	3 COMA	3 KOF	3	0 IFI	3 TRED	0 TRAD	2 SLINK	0 TINIT	3 TPSEC	3 A	at_displ_as_fdb_1_30	TRACK	0
110	FILT2	CTS	14 TPUR	3 COMA	3 KOF	3	0 IFI	3 TRED	0 TRAD	2 SLINK	0 TINIT	3 TPSEC	3 A	at_disp2_as_fdb_31_60	TRACK	0
111	LGCT1	CTS	12	0 CRIT	0 IFI	1 IFO	1 KOF	3	0	0	0 MTGCT	0	3 L	ti_was_received_trk	TRACK	0
112	LGCT1	CTS	12 TSUB1	0	2 RTDOP	0	3	0 SWABS	0 TDOP	0 TEDCRS	0	0 TSUBO	0 L	ti_was_received_trk	TRACK	0
113	LGCT1	CTS	12	0	0 TINIT	3	0	0	3 TPUR	1 CATU	0 COMA	3	0 L	ti_was_received_trk	TRACK	0
114	LGCT10	CTS	12	2 RTDOP	0	3	0 SWABS	0	3 TEDCRS	0	0 TSUBO	0 TSUB1	0 L	is_in_old_status_trk	TRACK	0
115	LGCT10	CTS	12 COMC	2 CRIT	0	0 IFO	1 KOF	3	0	0	0 MTGCT	0 PAUS	2 L	is_in_old_status_trk	TRACK	0
116	LGCT10	CTS	12	0	0 TINIT	3	0	0	3 TPUR	1 CATU	0 COMA	1	0 L	is_in_old_status_trk	TRACK	0
117	LGCT11	CTS	12	2 RTDOP	0	3 SLINK	3 SWABS	0 TDOP	3 TEDCRS	0	0 TSUBO	0 TSUB1	0 I	display_status_code_trk	TRACK	0
118	LGCT11	CTS	12	0 TPSEC	3 TINIT	3	0	0	3 TPUR	0 CATU	0 COMA	3	0 I	display_status_code_trk	TRACK	0

119	LGCT11	CTS	12	0 CRIT	0 IFI	3 IFO	1 KOF	3	0	0	0 MTGCT	0 PAUS	3 I	display_status_code_trk	TRACK
120	LGCT12	CTS	12	2 RTDOP	0 SCTME	3 SLINK	3 SWABS	0 TDOP	3 TEDCRS	0	0 TSUB0	0 TSUB1	0 L	paus_ref_was_requested_trk	TRACK
121	LGCT12	CTS	12 COMC	3 CRIT	0 IFI	1 IFO	1 KOF	3	0	0	0 MTGCT	0 PAUS	3 L	paus_ref_was_requested_trk	TRACK
122	LGCT12	CTS	12 MAT	3 TPSEC	3 TINIT	3 TROUT	3 TPRED	3 AUT	0 TPUR	3 CATU	0 COMA	3	0 L	paus_ref_was_requested_trk	TRACK
123	LGCT13	CTS	12	0	0 TINIT	1 TROUT	0 TPRED	1	3 TPUR	0 CATU	0 COMA	0 COMB	0 I	aft_type_display_time_trk	TRACK
124	LGCT13	CTS	12	2 RTDOP	0 SCTME	0 SLINK	3 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 I	aft_type_display_time_trk	TRACK
125	LGCT13	CTS	12	0 CRIT	0	0 IFO	1 KOF	1	0	0	0 MTGCT	0	0 I	aft_type_display_time_trk	TRACK
126	LGCT14	CTS	12	2 TDOP	0	3 SLINK	3 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 L	disp_aircrft_type_inhib_trk	TRACK
127	LGCT14	CTS	12	0	0 TINIT	1	0	0	3 TPUR	1 CATU	0 COMA	0 COMB	0 L	disp_aircrft_type_inhib_trk	TRACK
128	LGCT14	CTS	12	0 CRIT	0	1 IFO	1 KOF	1	0	0	0 MTGCT	0 PAUS	0 L	disp_aircrft_type_inhib_trk	TRACK
129	LGCT15	CTS	12	0	0 TINIT	1	0	0	3 TPUR	1 CATU	0 COMA	1	0 L	elig_for_blinking_if_displa	TRACK
130	LGCT15	CTS	12	2 RTDOP	0	3 SLINK	3 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 L	elig_for_blinking_if_displa	TRACK
131	LGCT15	CTS	12	0 CRIT	0	3 IFO	1 KOF	3	0	0	0 MTGCT	0 PAUS	2 L	elig_for_blinking_if_displa	TRACK
132	LGCT16	CTS	12	0	0 TINIT	3	0 TPRED	2	3 TPUR	1 CATU	0 COMA	1	0 L	exper_forced_control_change	TRACK
133	LGCT16	CTS	12	0 CRIT	0 IFI	3 IFO	1 KOF	3	0	0	0 MTGCT	0	3 L	exper_forced_control_change	TRACK
134	LGCT16	CTS	12	2 RTDOP	0	3 SLINK	3 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 L	exper_forced_control_change	TRACK
135	LGCT17	CTS	12	2 RTDOP	0	3 SLINK	3 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 L	status_suspended	TRACK
136	LGCT17	CTS	12	0	0 TINIT	1	0	0	3 TPUR	1 CATU	0 COMA	1	0 L	status_suspended	TRACK
137	LGCT17	CTS	12	0 CRIT	0	3 IFO	1 KOF	3	0	0	0 MTGCT	0 PAUS	3 L	status_suspended	TRACK
138	LGCT18	CTS	12	2 RTDOP	0	3 SLINK	3 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 I	speed_trk	TRACK
139	LGCT18	CTS	12	0 TPSEC	3 TINIT	3	0 TPRED	2	3 TPUR	3 CATU	0 COMA	1	0 I	speed_trk	TRACK
140	LGCT18	CTS	12	0 CRIT	0 IFI	3 IFO	1 KOF	3	0	0	0 MTGCT	0 PAUS	2 I	speed_trk	TRACK
141	LGCT19	CTS	12	0 TPSEC	1 TINIT	1	0 TPRED	1	3 TPUR	0 CATU	0 COMA	1	0 I	tabular_coast_countdown	TRACK
142	LGCT19	CTS	12 MAT	3 CRIT	0 IFI	2 IFO	1 KOF	3	0	0 MAT	3 MTGCT	0 PAUS	3 I	tabular_coast_countdown	TRACK
143	LGCT19	CTS	12	2 RTDOP	0	3 SLINK	0 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 I	tabular_coast_countdown	TRACK
144	LGCT2	CTS	12	2 RTDOP	0	3	0 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 L	dup_id_to_be_checkd_by_mat	TRACK
145	LGCT2	CTS	12	0	0 TINIT	3	0	0	0 TPUR	3 CATU	0 COMA	1	0 L	dup_id_to_be_checkd_by_mat	TRACK
146	LGCT2	CTS	12 MAT	3 CRIT	0 IFI	1 IFO	1 KOF	1	0	0 MAT	3 MTGCT	0	0 L	dup_id_to_be_checkd_by_mat	TRACK
147	LGCT20	CTS	12 C	0 CRIT	0 IFI	2 IFO	1 KOF	2	0	0	0 MTGCT	0 PAUS	2 I	eta_ptd_trk	TRACK
148	LGCT20	CTS	12 MAT	3 RTDOP	0 SCTIME	0 SLINK	3 SWABS	0 TDOP	0 TEDCRS	0	0 TSUB0	0 TSUB1	0 I	eta_ptd_trk	TRACK
149	LGCT20	CTS	12	0 TPSEC	2 TINIT	3	0	0	0 TPUR	3 CATU	0 COMA	3	0 I	eta_ptd_trk	TRACK
150	LGCT3	CTS	12	0 TPSEC	3 TINIT	3	0	0	3 TPUR	3 CATU	0 COMA	1	0 L	use_special_symbology	TRACK
151	LGCT3	CTS	12	0 CRIT	0 IFI	3 IFO	1 KOF	3	0	0	0 MTGCT	0 PAUS	3 L	use_special_symbology	TRACK
152	LGCT3	CTS	12	2 RTDOP	0	3 SLINK	0 SWABS	0 TDOP	0 TEDCRS	0 TRAD	3 TSUB0	0 TSUB1	0 L	use_special_symbology	TRACK
153	LGCT4	CTS	12 COMC	2 CRIT	0 IFI	1 IFO	1 KOF	1	0	0	0 MTGCT	0 PAUS	3 L	position_has_changed	TRACK
154	LGCT4	CTS	12 PDOP	0 RTDOP	0	3 SLINK	3 SWABS	0 TDOP	3 TEDCRS	0 TRAD	3 TSUB0	0 TSUB1	0 L	position_has_changed	TRACK
155	LGCT4	CTS	12 TROUT	0 SLINK	3 TINIT	3	0	0	3 TPUR	1 CATU	0 COMA	1	0 L	position_has_changed	TRACK
156	LGCT5	CTS	12	0 CRIT	0	0 IFO	1 KOF	0	0	0	0 MTGCT	0 PAUS	0 L	implied_drop_is_inhibited	TRACK
157	LGCT5	CTS	12	2 RTDOP	0	3	0 SWABS	0 TDOP	0 TEDCRS	0	3 TSUB0	0 TSUB1	0 L	implied_drop_is_inhibited	TRACK
158	LGCT5	CTS	12	0	0 TINIT	3	0	0	3 TPUR	1 CATU	0 COMA	3	0 L	implied_drop_is_inhibited	TRACK

159	LGCT6	CTS	12 TEDC	3 TPSEC	1 TINIT	3	0 TPRED	3	3 TPUR	1 CATU	0 COMA	1	0 L	tedc_correl_is_inhibited	TRACK	0
160	LGCT6	CTS	12 PDOP	0 RTDOP	0	3	0 SWABS	0	3 TEDCRS	0	3 TSUB0	0 TSUB1	0 L	tedc_correl_is_inhibited	TRACK	0
161	LGCT6	CTS	12	0 CRIT	0	0 IFO	1 KOF	3	0	0	0 MTGCT	0	3 L	tedc_correl_is_inhibited	TRACK	0
162	LGCT7	CTS	12	0	0 TINIT	3	0	0	3 TPUR	1 CATU	0 COMA	1	0 L	correlated_by_tedc	TRACK	0
163	LGCT7	CTS	12 TPRED	1 CRIT	0	0 IFO	1 KOF	3	0	0	0 MTGCT	0	3 L	correlated_by_tedc	TRACK	0
164	LGCT7	CTS	12 PDOP	0 RTDOP	0	3	0 SWABS	0	3 TEDCRS	0	3 TSUB0	0 TSUB1	0 L	correlated_by_tedc	TRACK	0
165	LGCT8	CTS	12	2 RTDOP	0	3	0 SWABS	0	3 TEDCRS	0	3 TSUB0	0 TSUB1	0 L	acid_has_changed	TRACK	0
166	LGCT8	CTS	12	0	0 TINIT	3	0	0	3 TPUR	1 CATU	0 COMA	1	0 L	acid_has_changed	TRACK	0
167	LGCT8	CTS	12	0 CRIT	0 IFI	1 IFO	1 KOF	1	0	0	0 MTGCT	0 PAUS	3 L	acid_has_changed	TRACK	0
168	LGCT9	CTS	12	2 RTDOP	0	3	0 SWABS	0	3 TEDCRS	0	3 TSUB0	0 TSUB1	0 L	processed_by_trout	TRACK	0
169	LGCT9	CTS	12	0 CRIT	0	0 IFO	1 KOF	3	0	0	0 MTGCT	0 PAUS	0 L	processed_by_trout	TRACK	0
170	LGCT9	CTS	12	0	0 TINIT	3 TROUT	3	0	3 TPUR	1 CATU	0 COMA	1	0 L	processed_by_trout	TRACK	0
171	LNK1T1	CTS	16 TPUR	2 ALTRKR	0 TINIT	3 IFI	2 RTQCC	0 SDB1	0 SLINK	3 KOF	2	0	0 I	s_1_1_track_numbr	TRACK	0
172	LNK1T2	CTS	16 TROUT	3 ALTRKR	0 ALTRKR1	0 IFI	1 TPUR	1 SDB1	0 SLINK	3 KOF	2 TPSEC	1 TINIT	3 L	s_1_1_time_to_monit	TRACK	0
173	LNK1T3	CTS	16 TPSEC	2 ALTRKR	0 ALTRKR1	0 IFI	3 RTQCC	0 SDB1	0 SLINK	2 KOF	3 TINIT	3 TPUR	3 L	s_1_pseudo_link_exists	TRACK	0
174	LNK1T4	CTS	16 TROUT	2 ALTRKR	0 ALTRKR1	0 IFI	3 TPUR	3 SDB1	0 SLINK	3 KOF	3 TPSEC	3 TINIT	3 L	s_1_no_link_exists	TRACK	0
175	LNK1T5	CTS	16 TPUR	2 ALTRKR	0 ALTRKR1	0 IFI	2 RTQCC	0 SDB1	0 SLINK	2 KOF	2	0	0 I	s_2_1_track_numbr	TRACK	0
176	LNK1T6	CTS	16 TROUT	3 ALTRKR	0 TPUR	1 IFI	2 RTQCC	0 SDB1	0 SLINK	3 KOF	2 TINIT	3	0 L	s_2_1_time_to_monit	TRACK	0
177	LNK1T7	CTS	16 TPSEC	3 ALTRKR	0 ALTRKR1	0 IFI	3 TPUR	2 SDB1	0 SLINK	2 KOF	3 TINIT	3 TPUR	3 L	s_2_pseudo_link_exists	TRACK	0
178	LNK1T8	CTS	16 TROUT	2 ALTRKR	0 TPUR	3 IFI	3 RTQCC	0 SDB1	0 SLINK	3 KOF	3 TINIT	3 TPSEC	3 L	s_2_no_link_exists	TRACK	0
179	LNK2T1	CTS	16 TPUR	1 ALTRKR	0 ALTRKR1	0 IFI	2 SDB1	0 SLINK	1 KOF	2	0	0	0 I	s_3_1_track_numbr	TRACK	0
180	LNK2T2	CTS	16 TROUT	3 ALTRKR	0 ALTRKR1	0 IFI	2 SDB1	0 SLINK	3 KOF	2 TPUR	2 TPSEC	2	0 L	s_3_1_time_to_monit	TRACK	0
181	LNK2T3	CTS	16 TPUR	1 ALTRKR	0 ALTRKR1	0 IFI	3 SDB1	0 SLINK	2 KOF	3 TPSEC	2	0	0 L	s_3_pseudo_link_exists	TRACK	0
182	LNK2T4	CTS	16 TROUT	2 ALTRKR	0 ALTRKR1	0 IFI	3 SDB1	0 SLINK	3 KOF	3 TPUR	3 TPSEC	3	0 L	s_3_no_link_exists	TRACK	0
183	LNK2T5	CTS	16 TPUR	1 ALTRKR	0 ALTRKR1	0 IFI	2 SDB1	0 SLINK	2 KOF	2	0 TINIT	3	0 I	s_4_1_track_numbr	TRACK	0
184	LNK2T6	CTS	16 TROUT	3 ALTRKR	0 ALTRKR1	0 IFI	1 SDB1	0 SLINK	3 KOF	2 TPUR	1 TINIT	3	0 L	s_4_1_time_to_monit	TRACK	0
185	LNK2T7	CTS	16 TPUR	1 ALTRKR	0 ALTRKR1	0 IFI	3 SDB1	0 SLINK	2 KOF	3	0 TPSEC	2	0 L	s_4_pseudo_link_exists	TRACK	0
186	LNK2T8	CTS	16 TROUT	2 ALTRKR	0 ALTRKR1	0 IFI	3 SDB1	0 SLINK	3 KOF	3 TPUR	3 TPSEC	3	0 L	s_4_no_link_exists	TRACK	0
187	LNKT1	CTS	16 TINIT	3 TPUR	1 COMA	3	0 CRIT	0 KOF	2 RTDOP	0 SLINK	3	3	0 I	s_1_1_fail_count	TRACK	0
188	LNKT2	CTS	16 TINIT	3 TPUR	1 COMA	3	0 CRIT	0 KOF	2 RTDOP	0 SLINK	3	3	0 I	s_2_1_fail_count	TRACK	0
189	LNKT3	CTS	16 TINIT	3	0 COMA	3	0 CRIT	0 KOF	2 RTDOP	0 SLINK	3	3	0 I	s_3_1_fail_count	TRACK	0
190	LNKT4	CTS	16 TINIT	3	0 COMA	3	0 CRIT	0 KOF	2 RTDOP	0 SLINK	3	3	0 I	s_4_1_fail_count	TRACK	0
191	LNKT5	CTS	16 TINIT	0 MAT	1 COMA	0	0 CRIT	0 KOF	0 TPSEC	0 SLINK	0 TDOP	0 TEDC	1		NA	0
192	LNKT6	CTS	16 TINIT	1 MAT	1 COMA	3	0 CRIT	0 KOF	2 TPSEC	1	0 TDOP	3 TEDC	1 L	repacked_trk_tab_data	TRACK	0
193	PALT1	CTS	18 TPUR	1 ALTRKR	0 ALTRKR1	0 CATRK	0 CDR	2 COMA	3 MSAW	0	0	0	0 R	prdd_altitude_trk	TRACK	0
194	PALT2	CTS	18 TPUR	1 ALTRKR	0 ALTRKR1	0 CATRK	0 CDR	2 COMA	3 MSAW	0	0	0	0 I	alt_tracking_firmness_trk	TRACK	0
195	PALT3	CTS	18 TPUR	1 ALTRKR	0 ALTRKR1	0 CATRK	0 CDR	2 COMA	3 MSAW	0	0	0	0 A	alt_history_window_trk	TRACK	0
196	PALT4	CTS	18 TPUR	1 ALTRKR	0 ALTRKR1	0 CATRK	0 CDR	2 COMA	3 MSAW	0	0	0	0 L	alti_is_valid_trk	TRACK	0
197	PDB1T1	CTS	21	0 COMA	3	0 KOF	3 TRAD	3 TINIT	3 IFI	3	0	0	0 C	lsdigit_rbc	TRACK	0
198	PDB1T2	CTS	21	0 COMA	3	0 KOF	3 TRAD	2 TINIT	3 IFI	3	0	0	0 S	three_alt_char	TRACK	0

199	PDB2T1	CTS	22	0 COMA	3	0 KOF	3 TRAD	3 IFI	3	0	0	0	0 S	susp_trk_contrl_symb		TRACK
200	PDB2T2	CTS	22	0 COMA	3	0 KOF	3 TRAD	2 IFI	3	0	0	0	0 S	pad_char_unassoc_trk		TRACK
201	RBEAT1	CTS	10	0 IFI	1 KOF	1	0	0 RTQCC	0 SLINK	3 TEDCRS	0 TRAD	2 TSUBO	0 R	correl_report_altitude		TRACK
202	RBEAT1	CTS	10 TEDC	3 TPSEC	3 TINIT	3 TPUR	3 TPRED	2 ALTRKR	0 ALTRKR1	0 CATU	0 CDR	2 COMA	3 R	correl_report_altitude		TRACK
203	RBEAT1	CTS	10 TSUBO	0	0	0	0	0	0	0	0	0	0 R	correl_report_altitude		TRACK
204	RBEAT2	CTS	10	0 TPSEC	3 TINIT	3 TPUR	1 TPRED	2 ALTRKR	0 ALTRKR1	0 CATU	0 CDR	2 COMA	3 I	reported_alt_validity_code		TRACK
205	RBEAT2	CTS	10	0 IFI	1 KOF	1	0	0 RTQCC	0	0 TEDCRS	0	2 TSUBO	0 I	reported_alt_validity_code		TRACK
206	RBEAT2	CTS	10 TSUB1	0 SLINK	3	0	0	0	0	0	0	0	0 I	reported_alt_validity_code		TRACK
207	RBEAT3	CTS	10 TSUB1	0	0	0	0	0	0	0	0	0	0 L	altitude_report_is_availabl		TRACK
208	RBEAT3	CTS	10	0	0	0	0	0	0	0	0	0	0 L	altitude_report_is_availabl		TRACK
209	RBEAT3	CTS	10	0	0	0	0 KOF	2	0	0	0	0	0 L	altitude_report_is_availabl		TRACK
210	RBEAT3	CTS	10	0 IFI	1 KOF	1	0 RTQCC	0	0 TEDCRS	0 TRAD	2 KOF	0 TSUBO	0 L	altitude_report_is_availabl		TRACK
211	RBEAT3	CTS	10 TEDC	2 TPSEC	3 TINIT	3 TPUR	1 TPRED	2 ALTRKR	0 SLINK	3 CATU	0 CDR	2 COMA	3 L	altitude_report_is_availabl		TRACK
212	RBEAT4	CTS	10 TEDC	2 TPSEC	3 TINIT	3 TPUR	2 TPRED	2 ALTRKR	0 ALTRKR1	0 CATU	0 CDR	2 COMA	3 S	report_beacon_code		TRACK
213	RBEAT4	CTS	10 TSUB1	0	0	0	0	0	0	0	0	0	0 S	rep_beacon_code		TRACK
214	RBEAT4	CTS	10	0 IFI	3 KOF	3	0	0 RTQCC	0 SLINK	3 TEDCRS	0 TRAD	2 TSUBO	0 S	report_beacon_code		TRACK
215	RBEAT5	CTS	10 TSUB1	0	0	0	0	0	0	0	0	0	0 I	r_b_validity_cod		TRACK
216	RBEAT5	CTS	10	0 IFI	3 KOF	3	0	0 RTQCC	0 SLINK	3 TEDCRS	0 TRAD	2 TSUBO	0 I	r_b_validity_cod		TRACK
217	RBEAT5	CTS	10 TEDC	3 TPSEC	3 TINIT	3 TPUR	3 TPRED	2 ALTRKR	0 ALTRKR1	0 CATU	0 CDR	2 COMA	3 I	r_b_validity_cod		TRACK
218	RBEAT6	CTS	10 TSUB1	0 TCRSS	2	0	0	0	0	0	0	0	0 L	r_b_is_availabl		TRACK
219	RBEAT6	CTS	10	0 IFI	1 KOF	1	0	0 RTQCC	0 SLINK	3 TEDCRS	0	2 TSUBO	0 L	r_b_is_not_availabl		TRACK
220	RBEAT6	CTS	10 TEDC	3 TPSEC	3 TINIT	3 TPUR	3 TPRED	2 ALTRKR	0 ALTRKR1	0 CATU	0 CDR	2 COMA	3 L	r_b_is_not_availabl		TRACK
221	RECRT10	CTS	15	0 TINIT	3	0	0	0 TPUR	1 CATU	0 CDR	2 COMA	3	0 L	just_been_initiated_trk		TRACK
222	RECRT10	CTS	15 RTDOP	0 SLINK	1 SWABS	0	3 TEDCRS	0	2 TSUBO	0 TSUB1	0	0	0 L	just_been_initiated_trk		TRACK
223	RECRT10	CTS	15 CRIT	0 IFI	1 IFO	3 KOF	1	0	0 MSAW	0 MTGA	0 MTGCT	0 QLOOK	0 L	just_been_initiated_trk		TRACK
224	RECRT1A	CTS	15 RTDOP	0	0 SWABS	0 TDOP	2 TEDCRS	0 TRAD	2 TSUBO	0 TSUB1	0	0	0 I	handoff_recvr_numbr		TRACK
225	RECRT1A	CTS	15 MAT	2 TINIT	3 TPSEC	2	0 TPRED	2 TPUR	2 CATU	0 CDR	2 COMA	3 COMB	2 I	handoff_recvr_numbr		TRACK
226	RECRT1A	CTS	15 CRIT	0 IFI	3 IFO	3 KOF	3	0	0 MSAW	0 MTGA	0 MTGCT	0 QLOOK	0 I	handoff_recvr_number		TRACK
227	RECRT1B	CTS	15 CRIT	0	3 IFO	3 KOF	3	0	0 MSAW	0 MTGA	0 MTGCT	0 QLOOK	0 I	handoff_sendr_numbr		TRACK
228	RECRT1B	CTS	15 TPSEC	2	0	0	2	0 TPUR	2 CATU	0 CDR	2 COMA	3	0 I	handoff_sendr_numbr		TRACK
229	RECRT1C	CTS	15 TINIT	3	0	0	0	0	0	0	0	0	0 I	prime_contrl_number_trk		TRACK
230	RECRT2	CTS	15 TPSEC	3 TINIT	2	0	0	0 TPUR	0 CATU	0 CDR	2 COMA	3	0 I	tcidt_tab_index_trk		TRACK
231	RECRT2	CTS	15 CRIT	0 IFI	3 IFO	3 KOF	3	0	0 MSAW	0 MTGA	0 MTGCT	0 QLOOK	0 I	tcidt_tab_index_trk		TRACK
232	RECRT2	CTS	15 RTDOP	0 SLINK	0 SWABS	0	3 TEDCRS	0 TRAD	2 TSUBO	0 TSUB1	0 TEDC	2	0 I	tcidt_tab_index_trk		TRACK
233	RECRT3	CTS	15 RTDOP	0	0 SWABS	0	3 TEDCRS	0	2 TSUBO	0 TSUB1	0	0	0 I	succf_correl_count		TRACK
234	RECRT3	CTS	15	0 TINIT	3	0	0	0 TPUR	3 CATU	0 CDR	2 COMA	3	0 I	succf_correl_count		TRACK
235	RECRT3	CTS	15 CRIT	0 IFI	1 IFO	3 KOF	1	0	0 MSAW	0 MTGA	0 MTGCT	0 QLOOK	0 I	succf_correl_count		TRACK
236	RECRT4	CTS	15 CRIT	0	0 IFO	3 KOF	3 KOFB	3	0 MSAW	0 MTGA	0 MTGCT	0 QLOOK	0			NA
237	RECRT4	CTS	15	0 TINIT	3	0	0	0 TPUR	3 CATU	0 CDR	2 COMA	3	0			NA
238	RECRT4	CTS	15 RTDOP	0	0 SWABS	0	3 TEDCRS	0	2 TSUBO	0 TSUB1	0	0	0			NA

239	RECRT5	CTS	15	RTDOP	0	0	SWABS	0	3	TEDCRS	0	2	TSUBO	0	TSUB1	0	0	0	L	hold_area_auto_acq_allowed	TRACK	0
240	RECRT5	CTS	15		0	TINIT	2	0	0		0	TPUR	1	CATU	0	CDR	2	COMA	3	0	L	hold_area_auto_acq_allowed	TRACK	0
241	RECRT5	CTS	15	CRIT	0	1	IFO	3	KOF		1	0	0	MSAW	0	MTGA	0	MTGCT	0	QLOOK	0	L	hold_area_auto_acq_allowed	TRACK	0
242	RECRT6	CTS	15		0	TINIT	3	0	0		0	TPUR	1	CATU	0	CDR	2	COMA	3	0	L	mode_c_alt_is_inhibited	TRACK	0
243	RECRT6	CTS	15	CRIT	0	IFI	1	IFO	3	KOF	3	0	0	MSAW	0	MTGA	0	MTGCT	0	QLOOK	0	L	mode_c_alt_is_inhibited	TRACK	0
244	RECRT6	CTS	15	TRDOP	0	0	SWABS	0	TDOP		0	TEDCRS	0	2	TSUBO	0	TSUB1	0	0	0	L	mode_c_alt_is_inhibited	TRACK	0
245	RECRT7	CTS	15		0	TINIT	3	0	0		0	TPUR	1	CATU	0	CDR	2	COMA	3	0	L	speed_has_changed_trk	TRACK	0
246	RECRT7	CTS	15	CRIT	0	IFI	1	IFO	3	KOF	1	0	0	MSAW	0	MTGA	0	MTGCT	0	QLOOK	0	L	speed_has_changed_trk	TRACK	0
247	RECRT7	CTS	15	RTDOP	0	0	SWABS	0	3	TEDCRS	0	2	TSUBO	0	TSUB1	0	0	0	L	speed_has_changed_trk	TRACK	0
248	RECRT8	CTS	15	CRIT	0	IFI	1	IFO	3	KOF	1	0	0	MSAW	0	MTGA	0	MTGCT	0	QLOOK	0	L	alt_changed	TRACK	0
249	RECRT8	CTS	15	TPSEC	3	TINIT	3	0	0		0	TPUR	3	CATU	0	CDR	2	COMA	3	0	L	alt_changed	TRACK	0
250	RECRT8	CTS	15	RTDOP	0	TEDC	3	SWABS	0	TDOP	3	TEDCRS	0	2	TSUBO	0	TSUB1	0	0	0	L	alt_changed	TRACK	0
251	RECRT9	CTS	15	RTDOP	0	SLINK	0	SWABS	0		3	TEDCRS	0	2	TSUBO	0	TSUB1	0	0	0	L	arts_trk	TRACK	0
252	RECRT9	CTS	15	TPSEC	2	TINIT	3	0	0		0	TPUR	3	CATU	0	CDR	2	COMA	3	0	L	arts_trk	TRACK	0
253	RECRT9	CTS	15	CRIT	0	IFI	2	IFO	3	KOF	2	0	0	MSAW	0	MTGA	0	MTGCT	0	QLOOK	0	L	arts_trk	TRACK	0
254	RECRTIC	CTS	15	TPUR	2	0	0	0	0		0	0	0		0		0		0		0	I	recrtic	TRACK	0
255	RGAZT1	CTS	4	TEDC	3	TPSEC	3	TINIT	3		0	TPRED	3	TPUR	3	BRATS	0	CDR	2	TCRSS	2	MSAW	0	R	pred_range	TRACK	0
256	RGAZT1	CTS	4	SWABS	0	TEDCRS	0	TRAD	2	TSUBO	0	TSUB1	0	0	SLINK	0	TEDC	3	IFI	2	KOF	2	R	pred_range	TRACK	0
257	RGAZT2	CTS	4	SWABS	0	TEDCRS	0	TRAD	2	TSUBO	0	TSUB1	0	TUDS	2	SLINK	0		0		0	R	pred_azimuth	TRACK	0
258	RGAZT2	CTS	4	TEDC	3	TPSEC	3	TINIT	3	IFI	3	TPRED	3	TPUR	1	BRATS	0	CDR	2	TCRSS	2	MSAW	0	R	pred_azimuth	TRACK	0
259	SALT1	CTS	18	TRAD	2	0	0	0	0		0	0	0		0		0		0		0	I	smoothed_alt	TRACK	0
260	SALT1	CTS	18	TPUR	1	ALTRKR	0	ALTRKR1	0	CATRK	0	CDR	2	COMA	3		0	KOF	3		0	MSAW	0	R	smoothed_alt	TRACK	0
261	SALT2	CTS	18	TPUR	1	ALTRKR	0	ALTRKR1	0	CATRK	0	CDR	2	COMA	3		0	KOF	3		0	MSAW	0	L	aural_alarm_is_inhibited	TRACK	0
262	SALT2	CTS	18		3	TINIT	3	IFI	1		0	0	0		0		0		0		0	L	aural_alarm_is_inhibited	TRACK	0
263	SALT3	CTS	18	TRAD	3	0	0	0	0		0	0	0		0		0		0		0			NA	0
264	SALT3	CTS	18	TPUR	0	ALTRKR	0	ALTRKR1	0	CATRK	0	CDR	2	COMA	3		0	KOF	3		0	MSAW	0			NA	0
265	SALT4	CTS	18	TPUR	1	ALTRKR	0	ALTRKR1	0	CATRK	0	CDR	2	COMA	3		0	KOF	1		0	MSAW	0	L	disp_inhibited	TRACK	0
266	SALT4	CTS	18	TRAD	2	TINIT	3	IFI	1		0	0	0		0		0		0		0	L	disp_inhibited	TRACK	0
267	SLIDT1	CTS	10	TPSEC	2	TINIT	3	SLINK	0	KOF	1	AUT	3	TPUR	0	ALTRKRO	0	CRIT	0	POOP	0	TRAD	3	L	leader_change_was_requested	TRACK	0
268	SLIDT2	CTS	10	TPSEC	2	TINIT	3	SLINK	0	KOF	3	AUT	3	TPUR	0	ALTRKR1	0	IFI	1	RTDOP	0	TSUBO	0	I	requested_leader_code	TRACK	0
269	SLIDT3	CTS	10	TPSEC	3	TUD	3	TUDS	2	TINIT	3	IFI	3	TPUR	3	BRATS	0	KOF	3	SLINK	3	TSUB1	0	L	thread_change_was_requested	TRACK	0
270	SLIDT4	CTS	10	IFI	1	RETRACK	2		0		0		0		0		0		0		0		0	I	consec_correl_br_ro_count	TRACK	0
271	SLIDT4	CTS	10		0		0	TROUT	2		0		3	TPUR	1	CDR	2	KOFC	3	SWABS	0		0	I	consec_correl_br_ro_count	TRACK	0
272	SLIDT5	CTS	10	TPSEC	1	TINIT	3	TROUT	2	TPRED	3	IFI	1	TPUR	3	SLINK	3	MAT	3	TDOP	2	KOF	1	L	auto_terminate_is_enabled	TRACK	0
273	SLIDT6	CTS	10	TPSEC	3		0	TROUT	3	TPRED	3	KOF	3	TPUR	3		0	TINIT	3	SLINK	0	IFI	1	L	del_from_sectr_thred_reqstd	TRACK	0
274	SLIDT7	CTS	10	TPSEC	0	MAT	0	TEDC	2	TPRED	2	IFI	2	TPUR	0	TCRSS	0	PAUS	3	TINIT	0	SLINK	0	L	training_mode_is_enabled	TRACK	0
275	SLIDT8	CTS	10	TPSEC	3		0	TEDC	3	TINIT	3		3	TPUR	3		0		0		0		0	A	beac_target_window	TRACK	0
276	SLIDT9	CTS	10	TPSEC	3		0	TINIT	3	TEDC	3		3	TPUR	3		0		0		0		0	A	radar_target_window	TRACK	0
277	TAB1T	CTS	20	COMB	0	RTDOP	0	TDOP	3	TI	0		0		0		0		0		0		0	S	ns_acid_tabular_track	TRACK	0
278	TAB3T1	CTS	20		0		0		0		0		0		0		0		0		0		0			NA	0

279	TAB3T2	CTS	20	0	0	0	0	0	0	0	0	0	0			NA
280	TAB3T3	CTS	21	0	0	0	0	0	0	0	0	0	0			NA
281	TAB4T2	CTS	21	0	0	0	0	0	0	0	0	0	0			NA
282	THRET1	CTS	14 TINIT	3 AUT	2 BRATS	0 COMA	3 CRIT	0 IFO	2 KOF	3	0	0 TUD	3	T	trk_thrd_prev_trk_numbr	TRACK
283	THRET1	CTS	14 IFI	1 RETRACK	1	0	0	0	0	0	0	0	0	T	trk_thrd_prev_trk_numbr	TRACK
284	THRET2	CTS	14 TEDC	2 TPSEC	2 TUD	3 IFI	3 SLINK	2 TDOP	0 KOF	3 TINIT	3 TPUR	2 TUD	0	T	trk_thred_next_track_numbr	TRACK
285	TIMET1	CTS	5 TPSEC	3 TINIT	3 TPUR	2 CDR	2 TEDC	3 KOF	2 PAUS	3 TPRED	3 IFI	1 TRAD	3	F	t_last_successful_correl_time	TRACK
286	TIMET2	CTS	5 TPSEC	3 TINIT	3 TPUR	1 TSUBG	0 TSUB1	0 IFI	0	0	0	0	0	I	last_successful_correl_stn	TRACK
287	TIMET3	CTS	5 TPSEC	3 TINIT	3 TPUR	1 IFI	1	0	0	0	0	0	0	I	t_sucsfl_corr_stn_not_presnt	TRACK
288	TNPT1	CTS	15 TEDC	2 TCRSS	2	0	0 TUDS	3	0 TPUR	3	0 BRATS	0	2	I	s_thrd_prev_trak_numbr	TRACK
289	TNPT2	CTS	15 TEDC	2 TCRSS	2 TPRED	2 TUDS	3 TPSEC	2 TINIT	3	0	0 KOFC	3 MSAN	0	I	s_thrd_next_trak_numbr	TRACK
290	TNPT3	CTS	15 TEDC	2 TINIT	2 TPSEC	2 TPUR	2 TUDS	3	0	0	0 TI	0 TSURO	0	I	sectn_numbr	TRACK
291	TNPT4	CTS	15 TROUT	2 TEDC	2 TCRSS	2 TPRED	2 TUDS	3 TPSEC	2 TINIT	2	0 TSUB1	0	0	L	sec_thred_has_no_next_trk	TRACK
292	TNT1	CTS	11 TCRSS	3 TPSEC	2 RETRACK	1	0	0 TPUR	3 BRATS	0 COMA	3 COMB	0 CRIT	0	I	int_rat_index	TRACK
293	TNT10	CTS	11 TCRSS	3 TPRED	3 TPUR	3 TPSEC	3	0	0	2 IFO	0 KOF	0	0	L	bad_scan_correl_processing	TRACK
294	TNT2	CTS	11 SLINK	2 TPSEC	3 TINIT	2 TPUR	2 IFI	2 TPRED	3 KOF	3	0 SWABS	0 TEDCRS	0	L	actively_tracking	TRACK
295	TNT3	CTS	11 TCRSS	3 TPUR	1	0	0	0	0 TI	0 TPRED	0 TRAD	2 TSUBO	0	L	had_report_in_secondary_bin	TRACK
296	TNT4	CTS	11 SLINK	3 TPSEC	3 TINIT	3 TPUR	3 KOF	3	0 TSOB1	0	0 IFI	3	0	L	dm_is_to_be_displayed	TRACK
297	TNT5	CTS	11 TPUR	1 TINIT	3 KOF	1	0	0	0 IFI	1	0	0	0	I	fp_status_code	TRACK
298	TNT6	CTS	11 TROUT	3 SLINK	3 TPRED	3 TUDS	3 TPSEC	3 TINIT	3 IFI	3 TPUR	3 KOF	3 TUD	3	I	change_to_sector_thred_code	TRACK
299	TNT7	CTS	11 TROUT	2 SLINK	0 TEDC	3 TINIT	3 TPUR	3 TPSEC	3 TCRSS	2 TPRED	3 IFI	3 KOF	3	L	correl_this_scan	TRACK
300	TNT8	CTS	11 TEDC	3 TINIT	3 TPSEC	3 TPUR	3 IFI	1 KOF	1	0	0	0	0	L	pur_correl_is_inhibited	TRACK
301	TNT9	CTS	11 TCRSS	3 TPSEC	2 TPUR	1	0	0	0	0	0	0	0	I	rts_in_bin_count	TRACK
302	XCORT	CTS	5 TPSEC	3 TINIT	3 TROUT	2 TPRED	3 TPUR	3 KOF	3 COMA	3 IFI	3 TEDC	3 SLINK	3	R	pred_x_coord	TRACK
303	XYDOT1	CTS	5 TPSEC	3 TPRED	2 TPUR	3 CATRK	0 CDR	2 KOF	3 TEDC	3 CRIT	0 IFI	0 TINIT	3	R	x_dot_trk	TRACK
304	XYDOT2	CTS	5 TPSEC	3 TPRED	2 TPUR	3 CATRK	0 CDR	2 KOF	3 IFI	3 TINIT	3 TEDC	3	0	R	y_dot_trk	TRACK
305	XYDOT3	CTS	5 TPSEC	2 TEDC	2 TPUR	2 CATRK	0 CDR	2 KOF	3 TINIT	2 IFI	3	0	0	I	apt_tabl_exit_fix	TRACK
306	XYDOT4	CTS	5 TPSEC	2	0 TPUR	2 CATRK	0 CDR	2 KOF	3 TINIT	2 TEDC	2 IFI	3	0	I	apt_entr_tab_fix	TRACK
307	XYDOT41	CTS	5 IFI	3 KOF	3	0	0	0	0	0	0	0	0	S	alt_primary_controller	TRACK
308	XYDOT5	CTS	5 TPSEC	2 TPRED	1 IFI	3 CATRK	0 CDR	2 KOF	3 TINIT	1	0	0	0	F	ato_tab_coast_time	TRACK
309	YCORT	CTS	5 TPSEC	3 TINIT	3 TROUT	2 TPRED	3 TPUR	3 TRAD	2 TEDC	3 SLINK	3 MTGCT	0 MSAW	0	R	predicted_y_coord	TRACK
310	YCORT	CTS	5 IFI	3 KOF	3	0	0	0	0	0	0	0	0	R	predicted_y_coord	TRACK
311	ECIDT	IDAT	5	0 IFI	3 KOF	3 TPUR	3 TPSEC	3	0	0	0	0	0	A	ecid_tab	TRACK
312	TCIDT	IDAT	5	0 IFI	3 KOF	3 TPUR	3 TPSEC	3	0	0	0	0	0	A	tcid_tab	TRACK
313	RTCQ	NASMD643	18 PSRAP	2 MAT	2 TINIT	2	0	0	0	0	0	0	0		rtc_value	NA
314	SECTOLQ	NASMD643	31 PSRAP	2	0	0	0	0	0	0	0	0	0	R	p_sectr_mrk_0_max_dlta_wait	NA
315	SIMSMTQ	NASMD643	16 PSRAP	2	0	0	0	0	0	0	0	0	0	I	consectv_sectr_mk_max	NA
316	SIPBLQ	NASMD643	41 PSRAP	2	0	0	0	0	0	0	0	0	0	I	s_in_buffer_lngth	NA
317	SIPCSMQ	NASMD643	31 PSRAP	2	0	0	0	0	0	0	0	0	0	I	min_sectr_mrks_for_psrap_synch	NA
318	SIPDERQ	NASMD643	31 PSRAP	3	0	0	0	0	0	0	0	0	0		illegal_id_max	NA

319	SIPIPRSQ	NASMD643	31	PSRAP	2	0	0	0	0	0	0	0	0	0 I	synch_consectiv_id	NA	0
320	SIPLWIQ	NASMD643	31	PSRAP	2	0	0	0	0	0	0	0	0	0	ps_execs_wout_psrap_inp_fail	NA	0
321	SIPPTLQ	NASMD643	41	PSRAP	2	0	0	0	0	0	0	0	0	0 I	s_scan_t_stor_tbl_lngth	PSRAP	0
322	SIPROTQ	NASMD643	41	PSRAP	2	0	0	0	0	0	0	0	0	0 S	output_time_rpt_stor_ovflow_msg	NA	0
323	SIPTFQ	NASMD643	30	PSRAP	3	0	0	0	0	0	0	0	0	0	fail_time_delay	NA	0
324	SIPTIMEQ	NASMD643	30	PSRAP	2	0	0	0	0	0	0	0	0	0 R	ps_startup_time	PSRAP	0
325	NSECIT	NSEC	6	TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	2 TROUT	2 TPUR	2 TPRED	2	0	0 A	nsec_trk	TRACK	0
326	NSECIT1	NSEC	6	TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2	0 TROUT	2 TPUR	2 TPRED	2	0	0 I	nsec_sec_number	TRACK	0
327	NSECIT2	NSEC	6	TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	0 TROUT	2 TPUR	2 TPRED	2	0	0 L	nsec_s_proc_is_required	TRACK	0
328	BOHTIQ	PARAM	0	TPUR	2 MSITEQ	0	0	0	0	0	0	0	0	0 I	i_file_min_hits_beacon_only	SYSTEM	0
329	BOMSIQ	PARAM	0	TPUR	2 MSITEQ	0	0	0	0	0	0	0	0	0 I	max_misses_init_file	SYSTEM	0
330	BOWLIQ	PARAM	0	TPUR	2 MSITEQ	0	0	0	0	0	0	0	0	0 I	beacon_only_window_length	SYSTEM	0
331	DISQ	PARAM	0	TPUR	2 TI	0 TINIT	2	0	0	0	0	0	0	0 R	allow_dist_betw_targ_trk	SYSTEM	0
332	DXYDOTQ	PARAM	0	TPUR	2 MSITEQ	0	0	0	0	0	0	0	0	0 R	i_fil_max_velocty_rdr_only	SYSTEM	0
333	FIRM2Q	PARAM	0	TPUR	2 TI	0	0	0	0	0	0	0	0	0 I	tpur_firmness	SYSTEM	0
334	LSPDIQ	PARAM	0	TPUR	2	0	0	0	0	0	0	0	0	0 R	auto_i_min_speed	SYSTEM	0
335	PURTOQ	PARAM	0	TPUR	2	0	0	0	0	0	0	0	0	0	tpur_max_execut_time	SYSTEM	0
336	RBHTIQ	PARAM	0	TPUR	2 SDB1	0	0	0	0	0	0	0	0	0 I	rdr_rein_init_file_min_hits	SYSTEM	0
337	RBMSIQ	PARAM	0	TPUR	2 SDB1	0	0	0	0	0	0	0	0	0 I	rdr_rn_init_file_max_misses	SYSTEM	0
338	RBWLIQ	PARAM	0	TPUR	2 SDB1	0	0	0	0	0	0	0	0	0 I	rdr_r_window_length	SYSTEM	0
339	ROHTIQ	PARAM	0	TPUR	0 SDB1	0	0	0	0	0	0	0	0	0		NA	0
340	ROMSIQ	PARAM	0	TPUR	0	0	0	0	0	0	0	0	0	0		NA	0
341	ROTSPDIQ	PARAM	0	TPUR	0	0	0	0	0	0	0	0	0	0 R	rdr_o_min_speed	SYSTEM	0
342	ROWLIQ	PARAM	0	TPUR	0 SDB1	0	0	0	0	0	0	0	0	0 I	rdr_o_window_length	SYSTEM	0
343	SCANIQ	PARAM	0	TPUR	2 CDAT	0 MTGA	0 MTGCT	0 SDB1	0	0	0	0	0	0 R	scan_length	SYSTEM	0
344	TIMLIQ	PARAM	0	TPUR	2	0	0	0	0	0	0	0	0	0 R	min_time_init_file_correl	SYSTEM	0
345	TIMUIQ	PARAM	0	TPUR	2	0	0	0	0	0	0	0	0	0 R	max_time_init_file_correl	SYSTEM	0
346	TPRSECQ	PARAM	0	TPUR	2 TI	0	0	0	0	0	0	0	0	0 I	working_sector_12	SYSTEM	0
347	USPDIQ	PARAM	0	TPUR	2	0	0	0	0	0	0	0	0	0 R	auto_int_max_speed	SYSTEM	0
348	SIPIDT	PSRAP	148	PSRAP	2	0	0	0	0	0	0	0	0	0 A	ps_msg_id_table	NA	0
349	RATAIT	RAT	0	TCRSS	0 TPSEC	2	0	0	0	0	0	0	0	0 A	rpt_score_tab	NA	0
350	RATIT	RAT	3	TCRSS	3 TPSEC	2	0	0	0	0	0	0	0	0 A	rat_trk	TRACK	0
351	RATIT1	RAT	3	TCRSS	1 TPSEC	2	0	0	0	0	0	0	0	0 L	rat_r_in_secondary_bin	TRACK	0
352	RATIT2	RAT	3	TCRSS	1	0	0	0	0	0	0	0	0	0 L	rat_r_radar_only	TRACK	0
353	RATIT3	RAT	3	TCRSS	3 TPSEC	2	0	0	0	0	0	0	0	0 I	rat_track_numbr	TRACK	0
354	RATIT4	RAT	3	TCRSS	1	0	0	0	0	0	0	0	0	0 L	rat_r_beacon_only	TRACK	0
355	RATIT5	RAT	3	TCRSS	3 TPSEC	2	0	0	0	0	0	0	0	0 I	rat_r_trs_index	TRACK	0
356	RATIT6	RAT	3	TCRSS	3 TPSEC	2	0	0	0	0	0	0	0	0 I	rat_r_tk_x_ref_count	TRACK	0
357	RATIT7	RAT	3	TCRSS	0	0	0	0	0	0	0	0	0	0		NA	0
358	RATIT8	RAT	3	TCRSS	3 TPSEC	2	0	0	0	0	0	0	0	0 I	rat_r_t_score	TRACK	0

359	ROTII	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
360	ROTII1	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
361	ROTII2	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
362	ROTII3	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
363	ROTII4	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
364	ROTII5	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
365	ROTII6	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
366	ROTII7	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
367	ROTII8	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
368	ROTII9	ROT	5	0	0	0	0	0	0	0	0	0	0			NA
369	DCONT	S662	3	AUT	2 COMA	2 COMB	3 COMC	3 CRIT	0 KOF	0 IFI	2 IFO	0 KOF	2 KIPM	0 A	param_tabl_disp	DISP
370	XTRAYT	SDB	39	COMB	0 SLINK	2	0	0	0	0	0	0	0	0		NA
371	ADBOT	SDB1	52	TPUR	0	0	0	0	0	0	0	0	0	0		NA
372	ADBRITE	SDB1	52	TPRED	2	0	0	0	0	0	0	0	0	0		NA
373	ADFIRST	SDB1	51	TUD	0	0	0	0	0	0	0	0	0	0		NA
374	ADNSECT	SDB1	51	TEXEC	0 TEDC	0 TPSEC	0 TINIT	0 TROUT	0 TPUR	0 TPRED	2 BRATS	0 MSAW	0 TCRSS	0		NA
375	ADRAT	SDB1	52	TPSEC	0 TCRSS	0	0	0	0	0	0	0	0	0		NA
376	ADROT	SDB1	52		0	0	0	0	0	0	0	0	0	0		NA
377	ADRPT	SDB1	52	RTOCC	0 SMOTH	0 TCRSS	2 TSUB0	0	0	0	0	0	0	0		NA
378	ADRPT	SDB1	52	TEXEC	0 TEDC	0 TPSEC	0 TINIT	0 TPUR	0 PSRAP	0 BRATS	0 MTGA	0 MTGCT	0 RDOP	0		NA
379	ADSUMT	SDB1	52	TEXEC	0 TEDC	0 TPUR	0 PSRAP	0 BRATS	0 MTGA	0 MTGCT	0 TCRSS	0 TSUB0	0 TINIT	0		NA
380	ADTIMT	SDB1	52	TINIT	0 TPUR	0 PSRAP	0 CATRK	0 MTGA	0 MTGCT	0 TSUB0	0 TSUB1	0 TPSEC	0 TEDC	2		NA
381	ADTSATLL	SDB1	22	COMA	3 TINIT	0	0	0	0	0	0	0	0	0		NA
382	ADTTST	SDB1	41		0 PDOP	0	0	0	0	0	0	0	0	0		NA
383	ADTYMG	SDB1	0	PSRAP	2	0	0	0	0	0	0	0	0	0 C	adtymg_psrap	NA
384	ADUNCONT	SDB1	51	TUD	0	0	0	0	0	0	0	0	0	0		NA
385	ADUNUSET	SDB1	51	TUD	0	0	0	0	0	0	0	0	0	0		NA
386	AFXAD	SDB1	48		0	0	0	0	0	0	0	0	0	0		NA
387	AFXP	SDB1	34	TINIT	2 KOF	0	0	0	0	0	0	0	0	0 I	arriv_fix areas_inhibited_count	SYSTEM
388	ALRMTSF	SDB1	34	MSAW	0 COMB	3	0	0	0	0	0	0	0	0		NA
389	ALSENS	SDB1	21	TEXEC	0	0	0	0	0	0	0	0	0	0		NA
390	ALTIMP1	SDB1	20	CRIT	0 KOFC	0 MTGA	0 PSRAP	3	0	0	0	0	0	0	ps_altimeter_correction	NA
391	ALTIMP2	SDB1	20	PSRAP	3	0	0	0	0	0	0	0	0	0 I	alt_psrap	NA
392	AOSPACK	SDB1	57	PDOP	0	0	0	0	0	0	0	0	0	0		NA
393	AZ1RG1	SDB1	29	TSUB0	0 TSUB1	0 TINIT	2 TPRED	2	0	0	0	0	0	0 A	first_aut_dp_range_azm	SYSTEM
394	AZ2RG2	SDB1	29	TSUB0	0 TSUB1	0 TPRED	2 TINIT	2 TPRED	2	0	0	0	0	0 A	sec_aut_drp_range_azm	SYSTEM
395	AZ3RG3	SDB1	29		0 TSUB0	0 TSUB1	0 TPRED	2 TINIT	2	0	0	0	0	0 A	third_aut_drp_range_azm	SYSTEM
396	AZMBINS1	SDB1	44		0	0	0	0	0	0	0	0	0	0	azm_rdr_only	NA
397	AZMBINS2	SDB1	44		0	0	0	0	0	0	0	0	0	0	azmtwo_rdr_only	NA
398	BART	SDB1	0		2	0	0	0	0	0	0	0	0	0		NA

399	BOMSHT1	SDB1	55	TPUR	2	0	0	0	0	0	0	0	0	0 I	bot_track_init_scan_hit_min	SYSTEM	0
400	BOMSHT2	SDB1	55	TPUR	2	0	0	0	0	0	0	0	0	0 I	bot_purge_scan_misses_max	SYSTEM	0
401	BOSHFT	SDB1	55		0	0	0	0	0	0	0	0	0	0 I	bot_window_length	SYSTEM	0
402	BOTOVT	SDB1	21	TEXEC	3 TPUR	1	0	0	0	0	0	0	0	0 A	bot_overflow_count	NA	0
403	BRAFLG	SDB1	14	KOF	0 BRATS	0	0	0	0	0	0	0	0	0		NA	0
404	BSECT	SDB1	21	TEXEC	3 BRATS	0	0	0	0	0	0	0	0	0 A	bsect_trk	TRACK	0
405	BSECT1	SDB1	21	TEXEC	3 BRATS	0	0	0	0	0	0	0	0	0 A	base_sector_numbr_trk	TRACK	0
406	BSEGT	SDB1	46	MSAW	0 KOF	0	0	0	0	0	0	0	0	0		NA	0
407	CAALARM	SDB1	34	CA	0	0	0	0	0	0	0	0	0	0		NA	0
408	CASENS	SDB1	21	TEXEC	0	0	0	0	0	0	0	0	0	0		NA	0
409	CNSL719	SDB1	57	CA	0	0	0	0	0	0	0	0	0	0		NA	0
410	CNSLALL	SDB1	57	CA	0	0	0	0	0	0	0	0	0	0		NA	0
411	CNSLNEG	SDB1	57	CA	0	0	0	0	0	0	0	0	0	0		NA	0
412	CNSLNEG1	SDB1	57	CA	0	0	0	0	0	0	0	0	0	0		NA	0
413	CNSLNEG2	SDB1	57	CA	0	0	0	0	0	0	0	0	0	0		NA	0
414	COAST1	SDB1	52	TSUBO	0 TPSEC	2 TINIT	2	0	0	0	0	0	0	0 I	cst_mx_scans_unassoc_beacon	SYSTEM	0
415	COAST2	SDB1	52	TSUBO	0 TPSEC	2 TINIT	2	0	0	0	0	0	0	0 I	cst_max_scans_assoc_beacon	SYSTEM	0
416	COAST3	SDB1	52	TSUBO	0 TPSEC	2 TINIT	2	0	0	0	0	0	0	0 I	uasc_rdr_coast_max_scans	SYSTEM	0
417	COAST4	SDB1	52	TSUBO	0 TPSEC	2 TINIT	2	0	0	0	0	0	0	0 I	asc_rdr_coast_max_scans	SYSTEM	0
418	CRSENS	SDB1	20	TEXEC	0 TCRSS	0	0	0	0	0	0	0	0	0		NA	0
419	CRTCSAVE	SDB1	0	PSRAP	3	0	0	0	0	0	0	0	0	0 I	cur_rtc_value	NA	0
420	CSAVB5	SDB1	21	CRIT	0	0	0	0	0	0	0	0	0	0		NA	0
421	CSECT	SDB1	20	TEXEC	3 PSRAP	3 TUDS	0 TCRSS	2 TINIT	2	0	0	0	0	0 A	csect_trk	TRACK	0
422	CSECT1	SDB1	20	TEXEC	3 PSRAP	3 TUDS	0 TCRSS	2 TINIT	2	0	0	0	0	0 I	c_work_sector_numbr	TRACK	0
423	CTBRAT	SDB1	44	BRATS	0 CTIP	0	0	0	0	0	0	0	0	0		NA	0
424	CTIPLL	SDB1	14		0 CTIP	0 KOF	0 RKIP	0	0	0	0	0	0	0		NA	0
425	CTSOVT	SDB1	21	TEXEC	3 COMA	3 SLINK	3 TPUR	3	0	0	0	0	0	0 I	cts_overflow_count	TRACK	0
426	DELXYDT1	SDB1	56		0	0	0	0	0	0	0	0	0	0 R	delta_x_coord_max	SYSTEM	0
427	DELXYDT2	SDB1	56		0	0	0	0	0	0	0	0	0	0 R	delta_y_coord_max	SYSTEM	0
428	DOVERT	SDB1	13	FDOP	0	0	0	0	0	0	0	0	0	0		NA	0
429	DTTBUF	SDB1	13	PDOP	0	0	0	0	0	0	0	0	0	0		NA	0
430	DUPIDLK	SDB1	22	TUD	0 COMA	3 SLINK	0 TPSEC	0 TINIT	1 TPUR	0	0	0	0	0 L	dupid_lk_flag_trk	TRACK	0
431	DUPIDLY	SDB1	18	TUD	2	0	0	0	0	0	0	0	0	0 L	dupid_clear	TRACK	0
432	DUPIDT	SDB1	18	KOF	0 SLINK	0 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0	0 A	dupid_tab_buff	TRACK	0
433	DUPIDY	SDB1	18	COMA	3 TUD	1 SLINK	0 TPSEC	3 TINIT	3 TPUR	3	0	0	0	0 A	dupidy	TRACK	0
434	DUPNEG1	SDB1	57	CA	0	0	0	0	0	0	0	0	0	0		NA	0
435	DUPP	SDB1	57	CA	0	0	0	0	0	0	0	0	0	0		NA	0
436	EDSENS	SDB1	20	TEXEC	1 TEDC	3	0	0	0	0	0	0	0	0 I	tedc_process_sensor_numbr	NA	0
437	ENDBOT	SDB1	52	TPUR	2	0	0	0	0	0	0	0	0	0 I	bot_end_pointer	TRACK	0
438	ENDRAT	SDB1	52	TCRSS	2 TPSEC	2	0	0	0	0	0	0	0	0 I	end_rat_index	TRACK	0

439	ENDRO1	SDB1	52	TPUR	2	0	0	0	0	0	0	0	0	0			NA	0
440	ENDRP1	SDB1	52	TEXEC	2 TPUR	2	0 BRATS	0 MTGA	0 MTGCT	0 TCRSS	2 TSUBO	0 TEDC	2 TINIT	2 I	trs end pointer		TRACK	0
441	ESPPP	SDB1	35		0	0	0	0	0	0	0	0	0	0			NA	0
442	ETGCAFLG	SDB1	35	CA	0	0	0	0	0	0	0	0	0	0			NA	0
443	EX	SDB1	36		0	0	0	0	0	0	0	0	0	0			NA	0
444	FINDS	SDB1	22	TPSEC	0	0	0	0	0	0	0	0	0	0 I	finds_lk_flag		TRACK	0
445	FIRMI	SDB1	53	TINIT	2 TPUR	2 CATRK	0 TSUBO	0 TSUB1	0 TEDC	2 TPSEC	2	0	0	0 A	firmness_tab_trk		SYSTEM	0
446	FIRST	SDB1	14	TEDC	2 TPUR	2 TINIT	2 TUD	3 TPSEC	2 IFI	2 SLINK	2	0	0	0 A	first trk		TRACK	0
447	FIRST1	SDB1	14		0	0	0	0 MTGA	0 MTGCT	0 TEDC	2 SCTME	0 TDOP	0 TPUR	2 I	first_controlled_track_file		TRACK	0
448	FIRST1	SDB1	14	TINIT	2 TUD	3 SLINK	2	0 AUT	2 TPSEC	2 COMA	2 CRIT	0 IFI	2	0 I	first_controlled_track_file		TRACK	0
449	FIRST2	SDB1	14	TINIT	2 TPSEC	2 SLINK	2 TPUR	2 AUT	0 KOF	2 IFI	2 TUD	3	0	0 I	cntrld_track_file_count		TRACK	0
450	FREEZER	SDB1	18	TEDC	2 TPSEC	0 TINIT	0 TPUR	0 TPRED	0 ALTRKR	0 MSAW	0 MTGA	0 MTGCT	0 TEDCRS	0			NA	0
451	FREEZER	SDB1	18	TSUBO	0 TSUB1	0	0	0	0	0	0	0	0	0			NA	0
452	GALTIE	SDB1	34	KOF	0 CRIT	0 MSAW	0	0	0	0	0	0	0	0			NA	0
453	GNSVB1	SDB1	17	COMA	3 SLINK	0 TPUR	0	0	0	0	0	0	0	0			NA	0
454	GNSVB5	SDB1	17	COMA	3 SLINK	0 TPUR	0	0	0	0	0	0	0	0			NA	0
455	IA1IR1	SDB1	23	TINIT	2	0	0	0	0	0	0	0	0	0 A	inner_range_azm_tab		SYSTEM	0
456	IA2IR2	SDB1	24	TINIT	2	0	0	0	0	0	0	0	0	0 A	sec_inner_range_azm_tab		SYSTEM	0
457	INSENS	SDB1	20	TINIT	0	0	0	0	0	0	0	0	0	0 I	tinit_process_sensor_numbr		NA	0
458	INSLQ21	SDB1	57	CA	0 CALTQ	0 CATU	0 KOF	0	0	0	0	0	0	0			NA	0
459	INSLT1	SDB1	57	CA	0 TROUT	0	0	0	0	0	0	0	0	0			NA	0
460	INSLT2	SDB1	57	CA	0 TROUT	0	0	0	0	0	0	0	0	0			NA	0
461	IR3	SDB1	24	TINIT	2	0	0	0	0	0	0	0	0	0 I	thrd_in_range_azm_ify		SYSTEM	0
462	KOFUNLK	SDB1	35	KOF	0	0	0	0	0	0	0	0	0	0			NA	0
463	LATENDT	SDB1	1	TEXEC	0	0	0	0	0	0	0	0	0	0			NA	0
464	LDDTABL	SDB1	44	CTIP	0	0	0	0	0	0	0	0	0	0			NA	0
465	LSR1TMP	SDB1	51	TDOP	0 TRAD	2	0	0	0	0	0	0	0	0			NA	0
466	LSR1TMP	SDB1	51	CALERT	0 COMA	2 COMB	2 COMC	2 DOP	0 IFI	0 IFO	0 KIP	0 KOF	0 MPEB	0			NA	0
467	LSR2TMP	SDB1	51	DBATM	0 TEDCRS	0 TINIT	0 TPRED	0 TPSEC	0	0	0	0	0	0			NA	0
468	LSR2TMP	SDB1	51	SLINK	0 COMA	2 IFI	2 KOF	0	0	0 MAT	2 MSAW	0 MTP	0 SMOTH	0			NA	0
469	MALM	SDB1	34		0 COMB	3	0	0	0	0	0	0	0	0			NA	0
470	MALRM	SDB1	34	MSAW	0 CATU	0 COMB	3	0	0	0	0	0	0	0			NA	0
471	MATTIM	SDB1	35	MAT	3	0	0	0	0	0	0	0	0	0			NA	0
472	MSAWALZ0	SDB1	34	MSAW	0	0	0	0	0	0	0	0	0	0			NA	0
473	MSAWEF2	SDB1	35	MSAW	0 COB	0	0	0	0	0	0	0	0	0			NA	0
474	MSCORT	SDB1	35	ALTRKR	0 ALTRKR1	0 KOF	0 TSUBO	0 TSUB1	0	0	0	0	0	0			NA	0
475	MSSENS	SDB1	21	TEXEC	0 MSAW	0	0	0	0	0	0	0	0	0			NA	0
476	NIOPQX1	SDB1	45		0	0	0	0	0	0	0	0	0	0			NA	0
477	NIOPT	SDB1	47	TPSEC	0 TPUR	0 TRAD	2	0 SLINK	0 TEDC	2 TCRSS	0	0	0	0			NA	0
478	NIOPT	SDB1	47	KOF	0	0	0 MSAW	0 MTP	0	0 TDOP	2	0 TINIT	2 TPRED	0			NA	0

479	NIOPT	SDB1	47	0 CALERT	0 CATRK	0 COMA	2 COMB	2	0 DBATH	0 IFI	2 MAT	2 KIP	0			NA	0
480	NMDBMQK1	SDB1	45 IFO	0 KIP	0	0	0	0	0	0	0	0	0			NA	0
481	NRDBMQK1	SDB1	45	0	0	0	0	0	0	0	0	0	0			NA	0
482	NSENSQK1	SDB1	45 AUT	2 TPUR	2 CDR	2 COMA	2 COMC	2 CRIT	0 IFI	2 IFO	0 KOF	2	0	I	number_sensors_sparm	SYSTEM	0
483	NSENSQK1	SDB1	47 TEDCRS	0 TEXEC	2 TINIT	3 TPUR	3 TRAD	2 TROUT	2 TSUBO	0	0 TPUR	2 TEDC	2	I	number_sensors_sparm	SYSTEM	0
484	NSENSQK1	SDB1	47	0 MSAW	0 MTGA	0 MTGCT	0 PAUS	2	0 TPSEC	2 SCTME	2 SLINK	2 SWABS	0	I	number_sensors_sparm	SYSTEM	0
485	NTRK	SDB1	22 COMA	3 SLINK	0 TPUR	0	0	0	0	0	0	0	0	L	ntrk_subroutine_is_locked_out	TRACK	0
486	NUMDQK1	SDB1	45 CRIT	0 MTGA	0 MTGCT	0 SWABS	0	0	0	0	0	0	0	I	num_diply_sparm	SYSTEM	0
487	NUMKQK1	SDB1	45 CRIT	0	0	0	0	0	0	0	0	0	0	I	num_keyd_sparm	SYSTEM	0
488	NUMTQK1	SDB1	46 CDR	2 CRIT	0 IFI	0 MAT	2 MTGCT	0 MTP	0 PSBLD	0 SWABS	0 TUD	2 TUDS	2	I	num_tks_sparm	SYSTEM	0
489	NXTRAD	SDB1	35 COMC	3	0	0	0	0	0	0	0	0	0			NA	0
490	OA1OR1	SDB1	23 TINIT	2	0	0	0	0	0	0	0	0	0	I	first_out_range_azm	SYSTEM	0
491	OA2OR2	SDB1	23 TINIT	2	0	0	0	0	0	0	0	0	0	I	sec_out_range_azm	SYSTEM	0
492	OA3OR3	SDB1	24 TINIT	2	0	0	0	0	0	0	0	0	0	I	third_out_range_azm	SYSTEM	0
493	ORTCSAVE	SDB1	0 PSRAP	3	0	0	0	0	0	0	0	0	0	I	old_rtc_value	NA	0
494	OSPACK	SDB1	57 PDOP	0	0	0	0	0	0	0	0	0	0			NA	0
495	OSPACK1	SDB1	57	0	0	0	0	0	0	0	0	0	0			NA	0
496	OSPACK2	SDB1	57	0	0	0	0	0	0	0	0	0	0			NA	0
497	OSPACK3	SDB1	57	0	0	0	0	0	0	0	0	0	0			NA	0
498	PAUST	SDB1	1 PAUS	0 PSBLD	0	0	0	0	0	0	0	0	0			NA	0
499	PBUFCT1	SDB1	0	0	0	0	0	0	0	0	0	0	0			NA	0
500	PBUFCT2	SDB1	0	0	0	0	0	0	0	0	0	0	0	I	dsply buffer_length	NA	0
501	PBUP	SDB1	0	0	0	0	0	0	0	0	0	0	0			NA	0
502	PRSENS	SDB1	20 TPRED	0	0	0	0	0	0	0	0	0	0	I	tpred process sensor header	NA	0
503	PSSENS	SDB1	20 TPSEC	0	0	0	0	0	0	0	0	0	0			NA	0
504	PUSENS	SDB1	20 TEXEC	0	0	0	0	0	0	0	0	0	0			NA	0
505	RAADT	SDB1	34 MSAW	0 COMB	3	0	0	0	0	0	0	0	0			NA	0
506	RATPIT	SDB1	21 TCRSS	3	0	0	0	0	0	0	0	0	0	A	rat_pointer_tab	TRACK	0
507	RATPIT1	SDB1	21 TCRSS	3	0	0	0	0	0	0	0	0	0	I	rat_sec_num	TRACK	0
508	RATPIT2	SDB1	21 TCRSS	3	0	0	0	0	0	0	0	0	0	I	f_rat_in_sec	TRACK	0
509	RATXIT	SDB1	21 TCRSS	3	0	0	0	0	0	0	0	0	0	A	rat_nxt_slot_tab	TRACK	0
510	RATXIT1	SDB1	21 TCRSS	3	0	0	0	0	0	0	0	0	0	I	rat_next_slot_index	TRACK	0
511	RATXIT2	SDB1	21 TCRSS	0	0	0	0	0	0	0	0	0	0			NA	0
512	RATXIT3	SDB1	21 TCRSS	3	0	0	0	0	0	0	0	0	0	I	rat_final_index	TRACK	0
513	RBMSHT1	SDB1	55 TPUR	2	0	0	0	0	0	0	0	0	0	I	bart_t_init_scan_hit_min	SYSTEM	0
514	RBMSHT2	SDB1	55 TPUR	2	0	0	0	0	0	0	0	0	0	I	bart_t_purge_scan_miss_max	SYSTEM	0
515	RBSHFT	SDB1	55 TPUR	2	0	0	0	0	0	0	0	0	0	I	bart_window_length	SYSTEM	0
516	RNGBINS1	SDB1	44 PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
517	RNGBINS2	SDB1	44	0	0	0	0	0	0	0	0	0	0			NA	0
518	ROMSHT1	SDB1	56 TPUR	0	0	0	0	0	0	0	0	0	0			NA	0

519	ROSHF1	SDB1	56	TPUR	0	0	0	0	0	0	0	0	0	0		NA	0
520	ROSHT2	SDB1	56	TPUR	0	0	0	0	0	0	0	0	0	0		NA	0
521	ROTOVT	SDB1	21	TEXEC	0	0	0	0	0	0	0	0	0	0		NA	0
522	ROTSPED	SDB1	56	TPSEC	2 TPUR	0 TSUB0	0 TSUB1	0	0	0	0	0	0	0	R rdr_o_clutter_max_speed	SYSTEM	0
523	RPCTR1	SDB1	17		0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0		NA	0
524	RPCTR2	SDB1	17		0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0		NA	0
525	RPCTR3	SDB1	17		0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0		NA	0
526	RTCMASK1	SDB1	55	CATU	0	0 PSRAP	0 TEXEC	0 TSUB0	0 TSUB1	0	0	0	0	0	rtc_mask	NA	0
527	S2TIME	SDB1	2		0 KOF	0	0	0	0	0	0	0	0	0		NA	0
528	SALARMS1	SDB1	11		0	0	0	0	0	0	0	0	0	0		NA	0
529	SALARMS2	SDB1	11		0	0	0	0	0	0	0	0	0	0		NA	0
530	SALTBCD1	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
531	SALTBCD2	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
532	SALTBCD3	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
533	SALTBCD4	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
534	SALTBCD5	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
535	SALTBCD6	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
536	SASTIT	SDB1	15	TEXEC	3 TEDC	2 TPUR	2 BRATS	0 MTGCT	0 TEDCRS	0 TSUB0	0 TCRSS	2	0	0	A sast_trk	TRACK	0
537	SASTIT1	SDB1	15	TEXEC	3 TEDC	2 TPUR	2 BRATS	0 MTGCT	0 TEDCRS	0 TSUB0	0 TCRSS	2 TINIT	2	0	I sast_str_trs_starting_index	TRACK	0
538	SASTIT2	SDB1	15	TEXEC	3 TEDC	2 TPUR	2 BRATS	0 MTGCT	0 TEDCRS	0 TSUB0	0	0	0	0	I sast_sec_numbr_of_targets	TRACK	0
539	SBAOT	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
540	SBBAA	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
541	SBBFDT	SDB1	11		0	0	0	0	0	0	0	0	0	0		NA	0
542	SBBFO	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
543	SBBMA	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
544	SBBRA	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
545	SBBRP	SDB1	11		0	0	0	0	0	0	0	0	0	0		NA	0
546	SBDALMT	SDB1	42		0	0	0	0	0	0	0	0	0	0		NA	0
547	SBDFO	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
548	SBIC	SDB1	11		0	0	0	0	0	0	0	0	0	0		NA	0
549	SBIE	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
550	SBRCWO	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
551	SBSENS	SDB1	21	TEXEC	0	0	0	0	0	0	0	0	0	0		NA	0
552	SBTO	SDB1	11		0	0	0	0	0	0	0	0	0	0		NA	0
553	SBTTND	SDB1	12		0	0	0	0	0	0	0	0	0	0		NA	0
554	SCALM	SDB1	43		0	0	0	0	0	0	0	0	0	0		NA	0
555	SCANIT	SDB1	22	TPSEC	2 TINIT	0 TPUR	2 TPRED	2 ALTRKR	0 ALTRKR1	0 CATRK	0 CATU	0 MSAW	0 PSRAP	3	A s_scan_time	TRACK	4
556	SCANOT1	SDB1	11	PSRAP	2	0	0	0	0	0	0	0	0	0	R calc_delta_scan_time	NA	0
557	SCANOT2	SDB1	11	PSRAP	1	0	0	0	0	0	0	0	0	0	R act_delta_scan_time	NA	0
558	SCTMET1	SDB1	1	SCTME	0 TEXEC	0	0	0	0	0	0	0	0	0		NA	0

559	SCTMET2	SDB1	1	SCTME	0	TEXEC	0	0	0	0	0	0	0	0	0		NA	0
560	SCTMET3	SDB1	1	SCTME	0	TEXEC	0	0	0	0	0	0	0	0	0		NA	0
561	SCTMET4	SDB1	1	SCTME	0	TEXEC	0	0	0	0	0	0	0	0	0		NA	0
562	SCTMET5	SDB1	1	SCTME	0	TEXEC	0	0	0	0	0	0	0	0	0		NA	0
563	SECLST	SDB1	21	TEXEC	0		0	0	0	0	0	0	0	0	0 I	lost_sector_count	NA	0
564	SENBR1	SDB1	21	SLINK	3		0	0	0	0	0	0	0	0	0 I	slink_prim_sensor	TRACK	0
565	SENBR2	SDB1	21	SLINK	3		0	0	0	0	0	0	0	0	0 I	slink_secnd_sensor	TRACK	0
566	SENSW1	SDB1	20	TEXEC	3	TINIT	2	0	0	0	0	0	0	0	0 I	trk_sensor_numbr	TRACK	0
567	SHTHRES1	SDB1	10	PSRAP	3		0	0	0	0	0	0	0	0	0 I	s_report_quality_code	PSRAP	0
568	SHTHRES2	SDB1	10	PSRAP	2		0	0	0	0	0	0	0	0	0 I	s_rep_hit_count_min	NA	0
569	SIP180B	SDB1	7	PSRAP	3		0	0	0	0	0	0	0	0	0 I	sec_180_deg_behind_numbr	NA	0
570	SIPALMT1	SDB1	41		0		0	0	0	0	0	0	0	0	0		NA	0
571	SIPALMT2	SDB1	41		0		0	0	0	0	0	0	0	0	0		NA	0
572	SIPALMT3	SDB1	41		0		0	0	0	0	0	0	0	0	0		NA	0
573	SIPAMSKS	SDB1	43		0		0	0	0	0	0	0	0	0	0		NA	0
574	SIPB7	SDB1	6		0		0	0	0	0	0	0	0	0	0		NA	0
575	SIPBUF	SDB1	3	PSRAP	2		0	0	0	0	0	0	0	0	0 A	ps_in_bf_len	NA	0
576	SIPCLRTC	SDB1	9	PSRAP	3		0	0	0	0	0	0	0	0	0	psrap_alarm_counter_clear_rtc	NA	0
577	SIPCLTIM	SDB1	9		0		0	0	0	0	0	0	0	0	0		NA	0
578	SIPCLTIM	SDB1	9	PSRAP	2		0	0	0	0	0	0	0	0	0 I	psrap_time_to_clear_error_cnt	NA	0
579	SIPCQT	SDB1	9	PSRAP	3		0	0	0	0	0	0	0	0	0 I	ps_curr_sec_quadt_numbr	NA	0
580	SIPCSM	SDB1	0	PSRAP	3		0	0	0	0	0	0	0	0	0	ps_in_fail_sequence_flag	NA	0
581	SIPCST	SDB1	7	PSRAP	3		0	0	0	0	0	0	0	0	0 I	ps_del_scan_time_sum	NA	0
582	SIPCSU	SDB1	8	PSRAP	3		0	0	0	0	0	0	0	0	0 L	synth_update_enabl	NA	0
583	SIPCTT	SDB1	7	PSRAP	3		0	0	0	0	0	0	0	0	0 I	reports_in_trs	NA	0
584	SIPD	SDB1	12		0		0	0	0	0	0	0	0	0	0		NA	0
585	SIPE	SDB1	12		0		0	0	0	0	0	0	0	0	0		NA	0
586	SIPENDI1	SDB1	4	PSRAP	3		0	0	0	0	0	0	0	0	0 I	s_in_start_index	NA	0
587	SIPENDI2	SDB1	4	PSRAP	3		0	0	0	0	0	0	0	0	0 I	temp_input_start_index	NA	0
588	SIPFAIL1	SDB1	4	PSRAP	0		0	0	0	0	0	0	0	0	0	cnsctv_fail_cnt	NA	0
589	SIPFAIL2	SDB1	4	PSRAP	0		0	0	0	0	0	0	0	0	0	time_last_fail	NA	0
590	SIPFDS	SDB1	0	PSRAP	2		0	0	0	0	0	0	0	0	0	sipfds_temp_psrap	NA	0
591	SIPFLG11	SDB1	4		0		0	0	0	0	0	0	0	0	0		NA	0
592	SIPFLG12	SDB1	4		0		0	0	0	0	0	0	0	0	0		NA	0
593	SIPFLG13	SDB1	4		0		0	0	0	0	0	0	0	0	0		NA	0
594	SIPFLG14	SDB1	4		0		0	0	0	0	0	0	0	0	0		NA	0
595	SIPFLG15	SDB1	4		0		0	0	0	0	0	0	0	0	0		NA	0
596	SIPFLG16	SDB1	4		0		0	0	0	0	0	0	0	0	0		NA	0
597	SIPFLG17	SDB1	4		0		0	0	0	0	0	0	0	0	0		NA	0
598	SIPFLG18	SDB1	4		0		0	0	0	0	0	0	0	0	0		NA	0

599		SIPFLRTC	SDB1	5	PSRAP	0	0	0	0	0	0	0	0	0	0	tiac_last_decid fail	NA	0
600		SIPICIN	SDB1	12	PSRAP	1	0	0	0	0	0	0	0	0	0 I	ini psr_input	NA	0
601		SIPICIN1	SDB1	12	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
602		SIPICIN5	SDB1	12	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
603		SIPIDER	SDB1	5	PSRAP	3	0	0	0	0	0	0	0	0	0 I	s_missing_msg_id_count	NA	0
604		SIPIFG1	SDB1	4	PSRAP	2	0	0	0	0	0	0	0	0	0	ps_sectr_mrk_cnt	PSRAP	0
605		SIPIFLG2	SDB1	4	PSRAP	3	0	0	0	0	0	0	0	0	0 L	ps_init_flag	NA	0
606		SIPINADR	SDB1	39	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
607	a	SIPIND1	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0	ps_input_words_to_proc	NA	0
608		SIPIND2	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0	ps input_words_proc	NA	0
609		SIPIPCT1	SDB1	5	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
610		SIPIPCT2	SDB1	5	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
611		SIPIPEX1	SDB1	5	PSRAP	3	0	0	0	0	0	0	0	0	0	sect_num_init	NA	0
612		SIPIPEX2	SDB1	5	PSRAP	3	0	0	0	0	0	0	0	0	0 I	s_in_par_proc_start_index	NA	0
613		SIPITOI	SDB1	3	PSRAP	3	0	0	0	0	0	0	0	0	0	input_tbl_overf_index	NA	0
614		SIPITOI2	SDB1	3	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
615		SIPLAB	SDB1	40	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
616		SIPLLP	SDB1	40	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
617		SIPLOM	SDB1	7	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
618		SIPMOC	SDB1	0	PSRAP	3	0	0	0	0	0	0	0	0	0 A	cdt_msg_store	NA	0
619		SIPMOC2	SDB1	0	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
620		SIPMOC3	SDB1	0	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
621		SIPMOC4	SDB1	0	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
622		SIPMOC5	SDB1	0	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
623		SIPMOC6	SDB1	0	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
624		SIPMOI1	SDB1	0	PSRAP	3	0	0	0	0	0	0	0	0	0 L	flag_to_chk_msg_buffer	NA	0
625		SIPMOI2	SDB1	0	PSRAP	3	0	0	0	0	0	0	0	0	0	num_words_msg_buf	NA	0
626		SIPMTB	SDB1	8	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
627		SIPMTP1	SDB1	8	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
628		SIPMTP2	SDB1	8	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
629		SIPNCA	SDB1	38	PSRAP	2	0	0	0	0	0	0	0	0	0		NA	0
630		SIPOLS1	SDB1	9	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
631		SIPOLS2	SDB1	9	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
632		SIPOSU	SDB1	8	PSRAP	3	0	0	0	0	0	0	0	0	0 L	s_synthet_update_is_disabled	NA	0
633		SIPOSU2	SDB1	8	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
634		SIPPBI	SDB1	2	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
635		SIPPSEMS	SDB1	0	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
636		SIPPUL	SDB1	3		0	0	0	0	0	0	0	0	0	0		NA	0
637		SIPRAC1	SDB1	12	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
638		SIPRAC3	SDB1	12	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0

639	SIPRBL	SDB1	38	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
640	SIPRBU	SDB1	38	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
641	SIPRIC	SDB1	12	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
642	SIPRICT1	SDB1	40	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
643	SIPRICT2	SDB1	40	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
644	SIPROT1	SDB1	9	PSRAP	3	0	0	0	0	0	0	0	0	0	last_print1_rtc	NA	0
645	SIPROT2	SDB1	9	PSRAP	3	0	0	0	0	0	0	0	0	0	print1_delta_rtc	NA	0
646	SIPRTC	SDB1	7	PSRAP	3	0	0	0	0	0	0	0	0	0 R	temp_rtc_value	NA	0
647	SIPS8	SDB1	3	PSRAP	2	0	0	0	0	0	0	0	0	0 I	ps_in_buffer_pointer	NA	0
648	SIPSBAD	SDB1	40		0	0	0	0	0	0	0	0	0	0		NA	0
649	SIPSBAD	SDB1	40	PSRAP	2	0	0	0	0	0	0	0	0	0		NA	0
650	SIPSBI1	SDB1	3	PSRAP	1	0	0	0	0	0	0	0	0	0 I	s_tout_error_count	NA	0
651	SIPSBI2	SDB1	3	PSRAP	1	0	0	0	0	0	0	0	0	0 I	srap_last_work_input_buf_pntr	NA	0
652	SIPSBINS	SDB1	3	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
653	SIPSENS1	SDB1	5	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
654	SIPSENS2	SDB1	5	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
655	SIPSEZ1	SDB1	7	PSRAP	3	0	0	0	0	0	0	0	0	0 L	ps_sec_mark_zero_was_found	PSRAP	0
656	SIPSEZ2	SDB1	7	PSRAP	3	0	0	0	0	0	0	0	0	0 L	ps_sec_zero_m_is_expectd	PSRAP	0
657	SIPSFM	SDB1	0	PSRAP	2	0	0	0	0	0	0	0	0	0 I	sipsfm	NA	0
658	SIPSFT1	SDB1	9	PSRAP	0	0	0	0	0	0	0	0	0	0	last_print2_rtc	NA	0
659	SIPSFT2	SDB1	9	PSRAP	0	0	0	0	0	0	0	0	0	0	print2_delta_rtc	NA	0
660	SIPSIC	SDB1	7	PSRAP	3	0	0	0	0	0	0	0	0	0 R	ps_delta_sector_time	PSRAP	0
661	SIPSME1	SDB1	6	PSRAP	3	0	0	0	0	0	0	0	0	0 I	ps_sec_out_of_seq_count	PSRAP	0
662	SIPSME2	SDB1	6	PSRAP	3	0	0	0	0	0	0	0	0	0 I	ps_next_expectd_sector_numbr	PSRAP	0
663	SIPSSF1	SDB1	8	PSRAP	3	0	0	0	0	0	0	0	0	0 L	s_has_started_up	PSRAP	0
664	SIPSSF2	SDB1	8	PSRAP	3	0	0	0	0	0	0	0	0	0 L	s_sec_mk_is_late	NA	0
665	SIPSTART	SDB1	5	PSRAP	1	0	0	0	0	0	0	0	0	0	s_startup_rtc	PSRAP	0
666	SIPSTAT	SDB1	2	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
667	SIPSTS	SDB1	10	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
668	SIPSTS1	SDB1	10	PSRAP	3	0	0	0	0	0	0	0	0	0 I	s_invalid_sector_mark_count	PSRAP	0
669	SIPSTS2	SDB1	10	PSRAP	2	0	0	0	0	0	0	0	0	0 I	s_inv_sector_max	PSRAP	0
670	SIPSZI	SDB1	40	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
671	SIPT	SDB1	7	PSRAP	3	0	0	0	0	0	0	0	0	0 R	s_nxt_sector_declare_rtc	NA	0
672	SIPTEMP	SDB1	6	PSRAP	2	0	0	0	0	0	0	0	0	0 A	ps_in_msg_temp_store	NA	0
673	SIPTEMP2	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
674	SIPTEMP3	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
675	SIPTEMP4	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
676	SIPTEMP5	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
677	SIPTEMP6	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
678	SIPTIO	SDB1	13	PSRAP	0	0	0	0	0	0	0	0	0	0	srap_term_i/o	NA	0

679	SIPTI03	SDB1	13	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
680	SIPTLI	SDB1	4	PSRAP	3	0	0	0	0	0	0	0	0	0	R	last_change_rtc	NA	0
681	SIPTMG1	SDB1	0	PSRAP	1	0	0	0	0	0	0	0	0	0		siptmg1	NA	0
682	SIPTMG2	SDB1	0	PSRAP	1	0	0	0	0	0	0	0	0	0		siptmg2	NA	0
683	SIPTMG3	SDB1	0	PSRAP	1	0	0	0	0	0	0	0	0	0		siptmg3	NA	0
684	SIPTMG4	SDB1	0	PSRAP	1	0	0	0	0	0	0	0	0	0		siptmg4	NA	0
685	SIPTRK1	SDB1	6	PSRAP	3	0	0	0	0	0	0	0	0	0	A	ps_temp_targ_store	NA	0
686	SIPTRK2	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
687	SIPTRK3	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
688	SIPTRK4	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
689	SIPTRK5	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
690	SIPTRK6	SDB1	6	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
691	SIPTTF1	SDB1	10	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
692	SIPTTF2	SDB1	10	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
693	SIPULL	SDB1	41	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
694	SIPUSH	SDB1	40	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
695	SIPWSZ1	SDB1	8	PSRAP	3	0	0	0	0	0	0	0	0	0	I	s_sec_0_wait_scan_count	NA	0
696	SIPWSZ2	SDB1	8	PSRAP	2	0	0	0	0	0	0	0	0	0	I	s_sect_0_wait_scan_max	NA	0
697	SLC3LK	SDB1	38	PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
698	SLCLK	SDB1	38	SLINK	0	TINIT	0	0	0	0	0	0	0	0			NA	0
699	SLCNTCL	SDB1	38	SLINK	0		0	0	0	0	0	0	0	0			NA	0
700	SLGLK	SDB1	38	SLINK	0	TPSEC	0	TINIT	0	TPUR	0	0	0	0	0	0	NA	0
701	SLNKTM	SDB1	1	SLINK	3		0	0	0	0	0	0	0	0	I	slink_entry_rtc	TRACK	0
702	SLT7LK	SDB1	39		0	COMA	0	0	0	0	0	0	0	0			NA	0
703	SLTILK	SDB1	39		0		0	0	0	0	0	0	0	0			NA	0
704	SLTRK	SDB1	1	SLINK	3		0	0	0	0	0	0	0	0	I	slink_track_was_found	TRACK	0
705	SMPOFF	SDB1	12		0		0	0	0	0	0	0	0	0			NA	0
706	SMPRBS	SDB1	12		0		0	0	0	0	0	0	0	0			NA	0
707	SMPRDF	SDB1	12		0		0	0	0	0	0	0	0	0			NA	0
708	SMPRT	SDB1	12		0		0	0	0	0	0	0	0	0			NA	0
709	SMPSF	SDB1	12		0	SDB1RO	0	0	0	0	0	0	0	0			NA	0
710	SMPTO	SDB1	12		0	SDB1RO	0	0	0	0	0	0	0	0			NA	0
711	SNRORP1	SDB1	10	PSRAP	3	CDR	2	0	0	0	0	0	0	0	I	s_rdr_o_report_count	NA	0
712	SNRORP2	SDB1	10	PSRAP	2	CDR	2	0	0	0	0	0	0	0	I	s_rd_o_max_report	NA	0
713	SOVERT	SDB1	8	PSRAP	0		0	0	0	0	0	0	0	0			NA	0
714	SRAOT	SDB1	11		0	SDB1RO	0	0	0	0	0	0	0	0			NA	0
715	SRAPNT1	SDB1	3	PSRAP	0		0	0	0	0	0	0	0	0			NA	0
716	SRAPNT2	SDB1	3	PSRAP	0		0	0	0	0	0	0	0	0			NA	0
717	SRAPOFF	SDB1	2	PSRAP	2	XOF	0	0	0	0	0	0	0	0	L	s_enabled	NA	0
718	SRIC	SDB1	11		0	SDB1RO	0	0	0	0	0	0	0	0			NA	0

719	SRKYFLAG	SDB1	2	0 KOF	0	0	0	0	0	0	0	0	0			NA	0
720	SRPTC1	SDB1	6 PSRAP	3	0	0	0	0	0	0	0	0	0 I	s_trs_index		NA	0
721	SRPTC2	SDB1	6 PSRAP	3	0	0	0	0	0	0	0	0	0 I	s_c_sector_report_count		PSRAP	0
722	SRRDAA	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
723	SRRDE	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
724	SRRDRA	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
725	SRRDT	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
726	SRRFO	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
727	SRRO	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
728	SRRRP	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
729	SRRSDT	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
730	SRRTO	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
731	SRSINX1	SDB1	8 PSRAP	3	0	0	0	0	0	0	0	0	0 I	s_next_avail_trs_index		NA	0
732	SRTIND	SDB1	11	0 SDB1RO	0	0	0	0	0	0	0	0	0			NA	0
733	STACKTO	SDB1	18 TPSEC	0 CDR	0	0	0 COMC	0 MSAW	0 RCOMR	0 SLINK	0 TINIT	0 TPUR	0			NA	0
734	STAROR	SDB1	10	0 KOF	0	0 PDOP	3	0	0	0	0	0	0			NA	0
735	STIMEIT	SDB1	16 TPSEC	2	0	0	0	0	0	0	0	0	0 A	stime_trk		TRACK	0
736	STNOVT	SDB1	22 TEXEC	0 PAUS	0 TRAD	3 PSRAP	0	0	0	0	0	0	0			NA	0
737	STTAZM1	SDB1	41 PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
738	STTAZM2	SDB1	41	0	0	0	0	0	0	0	0	0	0			NA	0
739	STTRNG1	SDB1	41	0	0	0	0	0	0	0	0	0	0			NA	0
740	STTRNG2	SDB1	41	0	0	0	0	0	0	0	0	0	0			NA	0
741	STTSTR	SDB1	10	0	0	0	0	0	0	0	0	0	0			NA	0
742	SWAZ1RG1	SDB1	51 SWABS	0	0	0	0	0	0	0	0	0	0			NA	0
743	SWAZ2RG2	SDB1	51 SWABS	0	0	0	0	0	0	0	0	0	0			NA	0
744	SWITOVER	SDB1	2 PSRAP	0 KOF	0	0	0	0	0	0	0	0	0			NA	0
745	SWOVAR1	SDB1	51 SWABS	0	0	0	0	0	0	0	0	0	0			NA	0
746	SWOVAR2	SDB1	51 SWABS	0	0	0	0	0	0	0	0	0	0			NA	0
747	SWSENS	SDB1	2	0 KOF	0	0	0	0	0	0	0	0	0			NA	0
748	SWUNRG	SDB1	51 SWABS	0	0	0	0	0	0	0	0	0	0			NA	0
749	SYSLOAD	SDB1	1 TEXEC	0	0	0	0	0	0	0	0	0	0			NA	0
750	SYSRO	SDB1	46 KOF	0 MTGCT	0 PSRAP	2	0	0	0	0	0	0	0 A	rdr_proc_disable_tab		NA	0
751	SZALARM	SDB1	41	0	0	0	0	0	0	0	0	0	0			NA	0
752	TALTIMP1	SDB1	20 KOF	0 MTGA	0	0	0	0	0	0	0	0	0			NA	0
753	TALTIMP2	SDB1	20	0	0	0	0	0	0	0	0	0	0			NA	0
754	TBCNT	SDB1	35 TINIT	0 COMA	1 KDFA	0 MAT	3	0	0	0	0	0	0			NA	0
755	TERMTRL	SDB1	22	0	0	0	0	0	0	0	0	0	0			NA	0
756	TESTFLG	SDB1	13 KOFB	0 KOF	0 PDOP	0	0	0	0	0	0	0	0			NA	0
757	TGTGEN1	SDB1	17 TPSEC	0 TINIT	0 TPUR	0 TPRED	0	0 TEDC	2 ALTRKR	0 CDR	2 KOF	0	0			NA	0
758	TGTGEN2	SDB1	17 TPRED	0 TINIT	0	0	0 TSUB1	2 MSAW	0 MTGA	0 MTACT	0 TEDCRS	0 TSUB0	0			NA	0

759	TKDEL	SDB1	17 COMA	3 SLINK	0 TPUR	0	0	0	0	0	0	0	0		NA	0
760	TMSCORT	SDB1	35 ALTRKR?	0 ALTRKRI	0 KOF	0 TSUBO	0 TSUB1	0	0	0	0	0	0		NA	0
761	TQK1	SDB1	57 TEDC	2 TINIT	1 TPSEC	2 TPUR	2 TPRED	2	0	0	0	0	0 I	trial_track_number_max	SYSTEM	0
762	TQK2	SDB1	57 TPRED	2 TPSEC	2	0	0	0	0	0	0	0	0 I	normal_track_number_max	SYSTEM	0
763	TRANIF	SDB1	35 ?	0	0	0	0	0	0	0	0	0	0		NA	0
764	TRAT1	SDB1	56 TCRSS	2	0	0	0	0	0	0	0	0	0 I	rat_length	SYSTEM	0
765	TRAT2	SDB1	56 TCRSS	0	0	0	0	0	0	0	0	0	0 H	rat_minus_1	SYSTEM	0
766	TRAXIP	SDB1	47 SLINK	2	0	0	0	0	0	0	0	0	0 R	x_coord_translation_tab	SYSTEM	0
767	TRAYIP	SDB1	46 SLINK	2	0	0	0	0	0	0	0	0	0 R	y_coord_translation_tab	SYSTEM	0
768	TRKXT1	SDB1	45 SLINK	0 TCRSS	0 TPSEC	0 TINIT	0 TROUT	0 TPUR	0 TPRED	0 AUT	0 TUD	0 TUD	0		NA	0
769	TRKXT2	SDB1	45 TEDC	0 TCRSS	0 TPSEC	0 TINIT	0 TROUT	0 TPUR	0 TPRED	0 TUD	0 SLINK	0 TUDS	0		NA	0
770	TRSENS	SDB1	20 TROUT	3	0	0	0	0	0	0	0	0	0 I	trout_process_sensor_numbr	NA	0
771	TRSTIOK1	SDB1	46	0	0	0	0	0	0	0	0	0	0 I	rdr_o_rpts_per_sector_max	SYSTEM	0
772	TRSTIOK2	SDB1	46	0	0	0	0	0	0	0	0	0	0		NA	0
773	TSFBC	SDB1	22 TPSEC	0 COMA	3 KOF	0	0	0 TSUBO	0 SLINK	0 TEDC	3 TINIT	0 TPUR	0		NA	0
774	TSSSIT	SDB1	16 TROUT	2	0 SDB1ROS	0 TPUR	0 TPSEC	2 TEDC	2 TCRSS	2 TPRED	2 TUDS	3	0 A	tsss_trk	TRACK	0
775	TSSSIT1A	SDB1	16 TROUT	2 TINIT	2 MTGCTS	0 TPUR	2 TPSEC	2 TEDC	2 TCRSS	2 TPRED	2 TUDS	3	0 L	tsss_t_contains_tracks	TRACK	0
776	TSSSIT1B	SDB1	16 TROUT	2 TINIT	2 SDB1ROS	0 TPUR	2 TPSEC	2 TEDC	2 TCRSS	2 TPRED	2 TUDS	3	0 I	tsss_t_track_count	TRACK	0
777	TSSSIT2	SDB1	16 TROUT	2 TINIT	2 SDB1ROS	0 TPUR	2 TEDC	2 TPSEC	2 TCRSS	2 TPRED	2 TUDS	3	0 I	tsss_t_start_track_numbr	TRACK	0
778	TUDCFH1	SDB1	22 TUD	3 TINIT	3 TROUT	1 SLINK	1 TPSEC	1 COMA	3 TPUR	1 IFI	0 KOF	3	0 L	cts_had_a_thread_change	TRACK	0
779	TUDCFH2	SDB1	22 TPSEC	1 TUDS	3 TROUT	1 SLINK	1 TINIT	1 COMA	3 TPUR	1 IFI	0 KOFC	0 TPRED	1 L	tnp_had_a_thread_change	TRACK	0
780	UNCONT1	SDB1	15 COMA	2 SLINK	2 TPUR	2 SDB1RO	0 KOF	2	0	0 IFI	2 TUD	3	0 I	unc_td_first_file_numbr	TRACK	0
781	UNCONT2	SDB1	15 COMA	2	0 TPUR	2 SDB1RO	0 KOF	0	0	0 IFI	0 TUD	3	0 I	unct_t_file_count	TRACK	0
782	UNCONTIT	SDB1	15 SLINK	2 TPUR	2 KOF	2 IFI	2 TUD	3	0	0	0	0	0 A	uncont_trk	TRACK	0
783	UNRG	SDB1	30 TSUBO	0 TSUB1	0 TINIT	2	0	0	0	0	0	0	0 I	range_az_auto_drop_tab	SYSTEM	0
784	UNUSET1	SDB1	15 TPUR	2 COMA	2	0 IFI	2 MTP	0	0 SLINK	2 KOF	2 TUD	3	0 I	unut_td_first_file_numbr	TRACK	0
785	UNUSET2	SDB1	15 TUD	3 COMA	2	0 IFI	2 MTP	0 SDB1RO	0 SLINK	0 TPUR	0 KOF	2	0 I	unu_t_d_file_count	TRACK	0
786	XTRAXT	SDB1RO	39 COMB	0 SLINK	2	0	0	0	0	0	0	0	0		NA	0
787	SIPABL	SDB1RO	37 PSRAP	2	0	0	0	0	0	0	0	0	0		NA	0
788	SIPABU	SDB1RO	38 PSRAP	2	0	0	0	0	0	0	0	0	0		NA	0
789	SIPBUFAD	SDB1RO	40 PSRAP	2	0	0	0	0	0	0	0	0	0		NA	0
790	SIPCHI	SDB1RO	39	0	0	0	0	0	0	0	0	0	0		NA	0
791	SIPLTS	SDB1RO	41 PSRAP	2	0	0	0	0	0	0	0	0	0 I	s_trs_tbl_length	NA	0
792	SIPMNRS1	SDB1RO	41 PSRAP	2	0	0	0	0	0	0	0	0	0 I	s_trs_table_reports_max	NA	0
793	SIPMNRS2	SDB1RO	41 PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
794	SIPOVERI	SDB1RO	40 PSRAP	0	0	0	0	0	0	0	0	0	0		NA	0
795	SIPOVERS	SDB1RO	40	0	0	0	0	0	0	0	0	0	0		NA	0
796	SLSCLK	SDB1RO	38	0 COMA	0 SLINK	0 TINIT	0	0	0	0	0	0	0		NA	0
797	SLSCSLK	SDB1RO	38	0	0 SLINK	0	0	0	0	0	0	0	0		NA	0
798	SLSLK	SDB1RO	38 TROUT	0 COMA	2 KOF	0	0 SWABS	0 TINIT	0	0	0	0	0		NA	0

799	SLSTILK	SDB1R0	38	TPSEC	0 COMA	0 IFI	0 KOF	0 SLINK	0 SWABS	0 TINIT	0 TPUR	0	0	0			NA	0
800	SLSI2LK	SDB1R0	39	TPSEC	0 COMA	0 CRIT	0 IFI	0 KOF	0 SLINK	0 SWABS	0 TPUR	0 TINIT	0	0			NA	0
801	SLTLK	SDB1R0	39	SLINK	0 AUT	2 TROUT	2 CDR	2 TPSEC	2 TINIT	0 IFI	2 KOF	0	0 TPUR	0			NA	0
802	SMPALMT	SDB1R0	43		0	0	0	0	0	0	0	0	0	0			NA	0
803	SPEEDP1	SDB1R0	56	TPUR	2	0	0	0	0	0	0	0	0	0	R	auto_i_speed_max	SYSTEM	0
804	SPEEDP2	SDB1R0	56	TPUR	2	0	0	0	0	0	0	0	0	0	R	auto_in_min_speed	SYSTEM	0
805	SRDALMT	SDB1R0	42		2	0	0	0	0	0	0	0	0	0			NA	0
806	SYMT	SDB1R0	14	AUT	2 CATY	0 CDR	2 COMA	2 KOF	2 COMC	2 CRIT	0 DDP	0 TFD	0 KIP	0	I	symt_misc	KYBD	0
807	TIMK1	SDB1R0	56	TINIT	2 TPUR	3	0	0	0	0	0	0	0	0		max_successv_correl_time_intervl	SYSTEM	0
808	TIMK2	SDB1R0	56		2	0 TINIT	2	0	0	0	0	0	0	0		successv_correl_time_intervl_min	SYSTEM	0
809	TQK	SDB1R0	0	TPSEC	1	0 TEDCRS	0 TSUB0	0 TSUB1	0 TINIT	2 TEDC	1 TPUR	1	0	0	I	track_file_count	SYSTEM	0
810	TRKXT	SDB1R0	45	SLINK	0 TCRSS	0 TPSEC	0 TINIT	0 TROUT	0 TPUR	0 TPRED	0 AUT	0 MAT	0 CATRK	0			NA	0
811	VELQT	SDB1R0	56	TPRED	2	0	0	0	0	0	0	0	0	0	R	auto_drop_velocity_max	SYSTEM	0
812	ADBPK	SDB2	37	KOF	0	0	0	0	0	0	0	0	0	0			NA	0
813	ADSTCT	SDB2	52		0 QLOOK	0 TRAD	2	0	0	0	0	0	0	0			NA	0
814	ADTRNT1	SDB2	42		0 KOF	0	0	0	0	0	0	0	0	0			NA	0
815	ADTRNT2	SDB2	42		0	0	0	0	0	0	0	0	0	0			NA	0
816	ADTRNT3	SDB2	42		0	0	0	0	0	0	0	0	0	0			NA	0
817	ADTRNT4	SDB2	42		0	0	0	0	0	0	0	0	0	0			NA	0
818	AMCT	SDB2	28	KOFB	0 PDOP	3	0	0	0	0	0	0	0	0	L	amp_funct_kbd	KBD	0
819	AMERMAT	SDB2	29	PDOP	0	0	0	0	0	0	0	0	0	0	L	amp_out_func	KBD	0
820	APACK	SDB2	37	KOF	0 MPEP	0	0	0	0	0	0	0	0	0	C	disp_pack_store_disp	DISP	0
821	APT	SDB2	43	COMB	2 IFI	2 KOF	0	0 MSITEQ	0	0	0	0	0	0	A	airp_fix_tab_ify	SYSTEM	0
822	AQLR2T	SDB2	7	COMC	2 TRAD	2	0	0	0	0	0	0	0	0	C	key_two_encode_disp	DISP	0
823	AQLR3T	SDB2	7	COMC	2 TRAD	2	0	0	0	0	0	0	0	0	C	key_three_encode_disp	DISP	0
824	AQLRCT	SDB2	7	COMC	2 TRAD	2	0	0	0	0	0	0	0	0	C	key_one_encode_disp	DISP	0
825	AQLRNGT	SDB2	10	COMC	2 TRAD	2	0	0	0	0	0	0	0	0			NA	0
826	ARTEID	SDB2	38	IFI	2 KOF	0	0	0	0	0	0	0	0	0	C	source_id_tracon_sys	SYSTEM	0
827	ATRNGD	SDB2	50	CRIT	0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0			NA	0
828	AWDT	SDB2	39		0 COMC	2 TRAD	0	0	0	0	0	0	0	0	A	aword_table	DISP	0
829	BCONFLG	SDB2	44	SWABS	0 CRIT	0 KOF	0 MTGA	0 SLINK	0	0	0	0	0	0			NA	0
830	BCWCAN	SDB2	37	KOF	0	0	0	0	0	0	0	0	0	0			NA	0
831	BCWT	SDB2	21	DOP	0 KOFC	0 MPEB	0 MTGA	0 MTGCT	0 RCOMR	0	0	0	0	0			NA	0
832	BLACAW	SDB2	37	KOF	0 CRIT	0	0	0	0	0	0	0	0	0			NA	0
833	BRITE1T	SDB2	50	COMB	3 KOF	0 MPEB	0 TPRED	3	0	0	0	0	0	0			NA	0
834	BRITE2T	SDB2	50	TPRED	3 COMB	2 KOF	0 MPEB	0	0	0	0	0	0	0			NA	0
835	BSCFRT	SDB2	44	SWABS	0 KOF	0	0	0	0	0	0	0	0	0			NA	0
836	BSWCNT	SDB2	44	SWABS	0	0	0	0	0	0	0	0	0	0			NA	0
837	BSWFLG	SDB2	44	SWABS	0	0	0	0	0	0	0	0	0	0			NA	0
838	CACIDIX	SDB2	37	KOF	0	0	0	0	0	0	0	0	0	0			NA	0

839	CACID2X	SDB2	37	KOF	0	0	0	0	0	0	0	0	0	0		NA	0
840	CACID3X	SDB2	37	KOF	0	0	0	0	0	0	0	0	0	0		NA	0
841	CAINT	SDB2	37	KOF	0	MPEB	0	0	0	0	0	0	0	0		NA	0
842	CANCAT	SDB2	37	KOF	0	MPEB	0	0	0	0	0	0	0	0		NA	0
843	CAOF	SDB2	38	KOF	0		0	0	0	0	0	0	0	0		NA	0
844	CAOFTS	SDB2	37	KOF	0	MPEB	0	0	0	0	0	0	0	0		NA	0
845	CFG12T	SDB2	36	KOF	0		0	0	0	0	0	0	0	0		NA	0
846	COFADC	SDB2	48		0	COMA	2	0	0	0	0	0	0	0		NA	0
847	COUNT	SDB2	12	KIP	0	CRIT	0	DOP	0	IFO	0	KOF	0	0	0 MPEB	0 MTGA	0 MTGCT	0 I	count_kbd	KBD	0
848	COUNT	SDB2	12	NUTIL	0	RCOMR	0	RKIP	0	KOF	3	0	0	0	0	0	0	0 I	count_kbd	KBD	0
849	CPSFLAG1	SDB2	37	KOF	0		0		0		0	0	0	0	0	0	0			NA	0
850	CRTYXT1	SDB2	5	AUT	2	IFO	0	KIP	0	RKIP	0	0	0	0	0	0	0	0 I	xcoord_range	DISP	0
851	CRTYXT2	SDB2	5	AUT	2	IFO	0	KIP	0	RKIP	0	0	0	0	0	0	0	0 I	ycoord_range	DISP	0
852	CSBT	SDB2	13	KIP	0	DOP	0	KOF	0		0	0	MPEB	0 PDOP	0 RCOMR	0	0	0 I	xybase_coord	KBD	0
853	DBCOUNT1	SDB2	40	TRAD	3	COMC	3	DOP	0	MPEB	0	0	0	0	0	0	0	0 I	db_alt_counter	DISP	0
854	DBCOUNT2	SDB2	40	TRAD	3	COMC	3	DOP	0	MPEB	0	0	0	0	0	0	0	0 I	ss_counter	DISP	0
855	DBCOUNT3	SDB2	40	TRAD	0		0		0	MPEB	0	0	0	0	0	0	0	0 I	fdb_counter	DISP	0
856	DBMAD2	SDB2	40	MSAW	0		0		0		0	0	0	0	0	0	0			NA	0
857	DBMADS1	SDB2	40	TRAD	3	COMC	3		0	MPEB	0	0	0	0	0	0	0			NA	0
858	DCODT	SDB2	48	KOF	0	IFI	0	MTGA	0	MTGCT	0	0	0	0	0	0	0			NA	0
859	DCONT	SDB2	3	RTDOP	0	SWABS	0	TDOP	3	TRAD	3	0	0	0	0	0	0	0 A	para_tab1_disp	DISP	0
860	DCONT	SDB2	3	KOF	0		0	MPEB	0	MTGA	0	MTGCT	0 PDOP	3 QLOOK	0 RCOMR	0 RDOP	0 RKIP	0 A	para_tab1_disp	DISP	0
861	DEGRDT	SDB2	40	TRAD	2	COMC	2	TRAD	0		0	0	0	0	0	0	0			NA	0
862	DFLAGT	SDB2	4	AUT	2	COMC	2	CRIT	0	DOP	0	IFO	0 KIP	0 KIPM	0 KOF	0	0	0 A	para_tab2_disp	DISP	0
863	DFLAGT	SDB2	4	TRAD	3	KOF	2		0		0		0	0	0	0	0	0 A	para_tab2_disp	DISP	0
864	DFLAGT	SDB2	4	MPEB	0	MTGA	0	MTGCT	0	PDOP	2	QLOOK	0 RCOMR	0 RKIP	0 RTDOP	0 SWABS	0 TDOP	2 A	para_tab2_disp	DISP	0
865	DINT	SDB2	45	?	0		0		0		0		0	0	0	0	0	0		NA	0
866	DISTRT	SDB2	2	DOP	0	IFO	0	KIP	0	KIPM	0	KOF	0	0 MPEB	0	0	0	0		NA	0
867	DMFLAG	SDB2	36	KOF	0		0		0		0		0	0	0	0	0	0 L	daflag_temp	KBD	0
868	DPRAD	SDB2	49	IFO	0	KIP	0		0		0		0	0	0	0	0	0		NA	0
869	DSLINT	SDB2	52	TRAD	2		0		0		0		0	0	0	0	0	0 I	dslint_trad	DISP	0
870	DSLW	SDB2	36	KOF	0		0		0		0		0	0	0	0	0	0		NA	0
871	DSPKY	SDB2	37	KOF	0		0	DOP	0	RDBMD	0		0	0	0	0	0	0		NA	0
872	DTK2	SDB2	40	TRAD	2		0		0		0		0	0	0	0	0	0		NA	0
873	DTK3	SDB2	40	TRAD	2		0		0		0		0	0	0	0	0	0		NA	0
874	DTK4	SDB2	40	TRAD	2		0		0		0		0	0	0	0	0	0		NA	0
875	DTP	SDB2	39	?	0		0		0		0		0	0	0	0	0	0 I	dead_time_psrap	NA	0
876	EIR	SDB2	36	KOF	0		0		0		0		0	0	0	0	0	0		NA	0
877	ELDDDT	SDB2	46	DOP	0		0		0		0		0	0	0	0	0	0		NA	0
878	EMRFT	SDB2	24		0	COMB	1	PDOP	0	RDBMD	0		0	0	0	0	0	0 I	em_rf_counter	DISP	0

879	ERMAT	SDB2	27 PDOP	0	0	0	0	0	0	0	0	0	0		NA	0
880	FIXCVT	SDB2	43 COMB	2 KOF	0	0	0	0	0	0	0	0	0 A	fix_desig_sysm_tab	IFY	0
881	FPFLGT	SDB2	47 MTFPY	0 CRIT	0 KOF	0 MTP	0	0	0	0	0	0	0		NA	0
882	FREEZET	SDB2	50 COMA	2 KOF	0 MTGA	0 MTGCT	0 MAT	0 SLINK	0 TPSEC	0 TINIT	0 TPUR	0	0		NA	0
883	FRTC	SDB2	50 COMA	2 KOF	0 MTGA	0 MTGCT	0 SLINK	0 TPSEC	0 TINIT	0 TPUR	0 MAT	0	0		NA	0
884	FULCON	SDB2	36 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
885	FUNCT	SDB2	34 KOF	0 CTIP	0 IFI	0 IFO	0 KIP	0 MTGA	0 MTGCT	0 RKIP	0 SCDU	0	0		NA	0
886	GOKOFK	SDB2	38 KOF	0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0		NA	0
887	HJT	SDB2	24	0 COMB	1 PDOP	0 RDBMD	0	0	0	0	0	0	0 I	hj_sa_counters	DISP	0
888	HVYCH	SDB2	33 COMA	2 KOF	0	0	0	0	0	0	0	0	0 A	hj_tab_kbd	KBD	0
889	ICHPNT	SDB2	3 DOP	0 IFO	0 KIP	0	0	0	0	0	0	0	0		NA	0
890	IDUBT	SDB2	15 KIP	0 TROUT	0 COMA	3 TPUR	0 KOF	3	3 TRAD	2 SLINK	0 TPSEC	0 TINIT	0	idupbt_key_trk_info	DISP	0
891	INTUSE	SDB2	36 KOF	0 CDR	3 CTIP	0 MTGA	0 MTGCT	0 MTP	0	0	0	0	0		NA	0
892	INIFC1	SDB2	46 TPUR	2 CRIT	0 IFI	2 IFO	0 KOF	2	0 MTP	0 SLINK	0 TPSEC	2 TINIT	2 S	ifi_data_word	SYSTEM	0
893	INIFC2	SDB2	46 TINIT	3	0	0	0	0	0	0	0	0	0 L	ifi_inhib_flg_trk	SYSTEM	0
894	KCK	SDB2	38 KOF	0 TTYD	0	0	0	0	0	0	0	0	0		NA	0
895	KCONT	SDB2	12 KIP	0	0	0	0	0	0	0	0	0	0 A	kcont_key_data	KBD	0
896	KDUPAK	SDB2	38 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
897	KDUPBK	SDB2	38 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
898	KFORMK	SDB2	38 KOF	0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0		NA	0
899	KICK	SDB2	38 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
900	KIFIHK	SDB2	38 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
901	KIFK	SDB2	38 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
902	KILFK	SDB2	38 KOF	0 IFI	0 MTGA	0 MTGCT	0	0	0	0	0	0	0		NA	0
903	KILINK	SDB2	38 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
904	KILPSK	SDB2	38 KOF	0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0		NA	0
905	KILTRK	SDB2	38 KOF	0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0		NA	0
906	KIPKY	SDB2	37 KOF	0 IFO	0 KIP	0 KIPM	0 RDBMD	0	0	0	0	0	0		NA	0
907	KITRGK	SDB2	38 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
908	KOFKEY	SDB2	37 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
909	KOFTME	SDB2	48 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
910	KOFTNG	SDB2	36 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
911	KSLEWK	SDB2	38 KOF	0 MTGA	0 MTGCT	0	0	0	0	0	0	0	0		NA	0
912	KYBDT	SDB2	15 TPRED	0 CDR	2 KOF	3	0	0	0	0	0	0	0		NA	0
913	KYBDX	SDB2	36 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
914	KYBTMP	SDB2	37 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
915	LAWORD	SDB2	37 KOF	0	0	0	0	0	0	0	0	0	0		NA	0
916	LSTRTC	SDB2	49 SLINK	0 COMA	3 TPSEC	3 TINIT	3 TPUR	3	0	0	0	0	0 R	rtc_saved_value	TRACK	0
917	MBADEI	SDB2	51 KIP	0 IFO	0 KIPM	0	0	0	0	0	0	0	0		NA	0
918	MBADF	SDB2	51 KIP	0 DOP	0 IFO	0	0	0	0	0	0	0	0		NA	0

919	MBADH	SDB2	51	KIP	0	IFO	0	KIPM	0	0	0	0	0	0	0	NA	0
920	MBADGP	SDB2	51	KIP	0	IFO	0	KIPM	0	0	0	0	0	0	0	NA	0
921	MBST	SDB2	45	KIP	0	DOP	0	MPEB	0	0	0	0	0	0	0	NA	0
922	MCAD	SDB2	45	KIP	0	DOP	0	MPEB	0	0	0	0	0	0	0	NA	0
923	MCONT	SDB2	2		0		0		0	0	0	0	0	0	0	NA	0
924	MEMRT	SDB2	26	KOF	0	PDOP	0		0	0	0	0	0	0	0	NA	0
925	METIM	SDB2	51	KIP	0	DOP	0		0	0	0	0	0	0	0	NA	0
926	MFAD	SDB2	45	DOP	0	MPEB	0		0	0	0	0	0	0	0	NA	0
927	MFAILF	SDB2	45	DOP	0		0		0	0	0	0	0	0	0	NA	0
928	MFUNCT	SDB2	35	KOF	0		0		0	0	0	0	0	0	0	NA	0
929	MFVGF	SDB2	37	KOF	0		0		0	0	0	0	0	0	0	NA	0
930	MICNTR	SDB2	46	IFO	0	KIP	0		0	0	0	0	0	0	0	NA	0
931	MIFDIG	SDB2	45	DOP	0	MPEB	0		0	0	0	0	0	0	0	NA	0
932	MINCH	SDB2	2	MDM	0		0		0	0	0	0	0	0	0	NA	0
933	MINTBT	SDB2	46	DOP	0		0		0	0	0	0	0	0	0	NA	0
934	MINTT	SDB2	46	DOP	0		0		0	0	0	0	0	0	0	NA	0
935	MIPAR	SDB2	51	KIP	0		0		0	0	0	0	0	0	0	NA	0
936	MIPF	SDB2	51	KIP	0	DOP	0	IFO	0	0	0	0	0	0	0	NA	0
937	MIPPT	SDB2	1	KIP	0	DOP	0	IFO	0	0	0	0	0	0	0	NA	0
938	MIPST	SDB2	50	MPEB	0		0		0	0	0	0	0	0	0	NA	0
939	MISAVA	SDB2	46		0		0		0	0	0	0	0	0	0	NA	0
940	MISIL	SDB2	46	DOP	0		0		0	0	0	0	0	0	0	NA	0
941	MISTG	SDB2	50	MPEB	0		0		0	0	0	0	0	0	0	NA	0
942	MLAAD	SDB2	45	DOP	0	MPEB	0		0	0	0	0	0	0	0	NA	0
943	MLAD	SDB2	45	DOP	0	MPEB	0		0	0	0	0	0	0	0	NA	0
944	MLBF	SDB2	45	DOP	0	MPEB	0		0	0	0	0	0	0	0	NA	0
945	MLCL	SDB2	45	MDBM	0	DOP	0		0	0	0	0	0	0	0	NA	0
946	MMINT	SDB2	45	?	0		0		0	0	0	0	0	0	0	NA	0
947	MPSTACK	SDB2	49	DBM	0	MPEB	0		0	0	0	0	0	0	0	NA	0
948	MPTEM	SDB2	45	DOP	0	MPEB	0		0	0	0	0	0	0	0	NA	0
949	MPULT	SDB2	1	KIP	0	DOP	0	IFO	0	0	0	0	0	0	0	NA	0
950	MRDKY	SDB2	37	KOF	0		0		0	0	0	0	0	0	0	NA	0
951	MRET	SDB2	45	DOP	0		0		0	0	0	0	0	0	0	NA	0
952	MSAWIE	SDB2	52	AUT	0	COMA	2	COMB	2	COMC	2	CRIT	0	KOF	0	0 MSAW	0 TRAD	2	0 L	msaw_inhibited	SYSTEM	0
953	MSCAWD	SDB2	37	KOF	0		0		0		0		0		0	0	0	0	0		NA	0
954	MSCBWD	SDB2	37	KOF	0		0		0		0		0		0	0	0	0	0		NA	0
955	MSLPX	SDB2	45	DOP	0	IFO	0	KIP	0		0		0		0	0	0	0	0		NA	0
956	MSTAGT	SDB2	50	DBM	0		0		0		0		0		0	0	0	0	0		NA	0
957	MSTAT	SDB2	46	IFO	0	KIP	0		0		0		0		0	0	0	0	0		NA	0
958	MSWKY	SDB2	37	KOF	0		0		0		0		0		0	0	0	0	0		NA	0

959	MIFLGT	SDB2	47	MTFPY	0 KOF	0 MTP	0	0	0	0	0	0	0	0		NA	0
960	MIFSW	SDB2	47	MTFPY	0 KOF	0 MTP	0	0	0	0	0	0	0	0		NA	0
961	MIPDSC	SDB2	48	MTFPY	0 CRIT	0 KOF	0 MTP	0	0	0	0	0	0	0		NA	0
962	MISI2Y	SDB2	47	MTFPY	0	0	0	0	0	0	0	0	0	0		NA	0
963	MISIP	SDB2	47	MTFPY	0 KOF	0 MTP	0	0	0	0	0	0	0	0		NA	0
964	MISIY	SDB2	47	MTFPY	0 MTP	0	0	0	0	0	0	0	0	0		NA	0
965	NBUFLG	SDB2	50	DBM	0	0	0	0	0	0	0	0	0	0		NA	0
966	NCFGT	SDB2	48		0 KOF	0 MSAW	0	0	0	0	0	0	0	0 I	ncfgt_sys_numeric	SYSTEM	0
967	NIOPQK	SDB2	1	DOP	0	0	0	0	0	0	0	0	0	0		NA	0
968	NMDBMQK	SDB2	1	DOP	0 IFO	0 KIP	0 KIPM	0 KOF	0	0	0	0	0	0		NA	0
969	NRDBMQK	SDB2	1		0	0	0	0	0	0	0	0	0	0		NA	0
970	NSENSQK	SDB2	1		0 CRIT	0 KOF	0	0	0 MTGA	0 MTGCT	0 PDOP	2	0	0 I	nsensqk_site	SYSTEM	0
971	NUMBCWS	SDB2	49	DBM	0 MPEB	0	0	0	0	0	0	0	0	0		NA	0
972	NUMDQK	SDB2	1	KOFC	0 MTGA	0 MTGCT	0 PDOP	2 QLOOK	0 TDOP	2 TRAD	2	0	0	0 I	num_displays_site	SYSTEM	0
973	NUMDQK	SDB2	1	AUT	2 CDR	2 COMB	2	0 CRIT	0 DOP	0 IFO	0 KIP	0 KIPM	0 KOFB	0 I	num_displays_site	SYSTEM	0
974	NUMKQK	SDB2	1	TPSEC	2 TINIT	2 CRIT	0 DOP	0 KOF	2	0	0 SLINK	0 TPUR	2 TROUT	2 I	num_keybd_site	SYSTEM	0
975	NUMTQK	SDB2	0		0	0	0	0	0	0	0	0	0	0 I	num_trks_site	SYSTEM	0
976	OCDSC	SDB2	45		0	0	0	0	0	0	0	0	0	0		NA	0
977	P2FLGW	SDB2	36	KOF	0	0	0	0	0	0	0	0	0	0		NA	0
978	PACK1T	SDB2	36	KOF	0	0	0	0	0	0	0	0	0	0		NA	0
979	PACK2T	SDB2	36	KOF	0	0	0	0	0	0	0	0	0	0		NA	0
980	PAIRT	SDB2	13	KIP	0 CRIT	0 DOP	0 IFO	0 KOF	3	0	0 MTGA	0 MTGCT	0 QLOOK	0 I	pairt_misc_kbd	KBD	0
981	PAIRT	SDB2	13	RKIP	0	0	0	0	0	0	0	0	0	0 I	pairt_misc_kbd	KBD	0
982	PREVT	SDB2	15	KIP	0 CDR	2 SLINK	0 IFO	0 KOF	2	2	0	0	0	0 I	prevt_misc_data_kdb	KBDTEM	0
983	PRGLVL	SDB2	36	KOF	0	0	0	0	0	0	0	0	0	0 S	prog_level_kbd	KBD	0
984	PRIPHT	SDB2	3	DOP	0 IFO	0 KIP	0	0	0	0	0	0	0	0		NA	0
985	PULST	SDB2	16	KIP	0 IFO	0 KOF	0	0 RKIP	0	0	0	0	0	0 A	trk_ball_changes_tab	KBD	0
986	QLRC2T	SDB2	6	COMC	0 IFO	0 KIP	0 QLOOK	0 RKIP	0	0	0	0	0	0		NA	0
987	QLRC3T	SDB2	6	COMC	0 QLOOK	0	0	0	0	0	0	0	0	0		NA	0
988	QLRC4T	SDB2	6	COMC	0 CRIT	0 IFO	0 KIP	0 KOFC	0 QLOOK	0 RKIP	0 TRAD	2	0	0		NA	0
989	QLRECT	SDB2	6	COMC	0	0	0	0	0	0	0	0	0	0		NA	0
990	QUIKT	SDB2	13	AUT	2 COMA	2 CRIT	0 DOP	0 KOF	0	0 QLOOK	0 CTIP	0 RTQCC	0 SDB1	0		NA	0
991	QUIXT	SDB2	13	SYSPAR	0 TSO	0 TTYD	0 TPUR	0 TINIT	0 TPSEC	2 TEDC	2	0	0	0		NA	0
992	RCNP	SDB2	47	MTFPY	0 KOFC	0 MTP	0	0	0	0	0	0	0	0		NA	0
993	RCONT	SDB2	11	KOFC	0 MPEB	0 RCOMR	0 RDOP	0 RTDOP	0	0	0	0	0	0		NA	0
994	RECYT	SDB2	47	MTFPY	0 KOF	0	0 MTP	0	0	0	0	0	0	0		NA	0
995	RFILT	SDB2	12	COMA	2 COMC	0 RCOMQ	0 RDOP	0	0	0	0	0	0	0		NA	0
996	RTCOUN	SDB2	11	RCOMR	0 RKIP	0	0	0	0	0	0	0	0	0		NA	0
997	RTCTY1	SDB2	47	MTFPY	0 MTP	0 KOF	0	0	0	0	0	0	0	0		NA	0
998	RTCTY2	SDB2	47	MTFPY	0 KOFC	0 MTP	0	0	0	0	0	0	0	0		NA	0

999	RTIMET	SDB2	11	RCOMR	0	RKIP	0	0	0	0	0	0	0	0	0		NA	0
1000	RTRANT	SDB2	10	MPEB	0	RCOMR	0	RDOP	0	RKIP	0	0	0	0	0		NA	0
1001	RWFLT	SDB2	48	MTFPY	0	KOF	0	MTP	0	0	0	0	0	0	0		NA	0
1002	SAT	SDB2	24	PDOP	3	RCOMR	0	0	0	0	0	0	0	0	0		NA	0
1003	SAVB4W	SDB2	36	KOF	0		0	0	0	0	0	0	0	0	0		NA	0
1004	SAVB5W	SDB2	36	KOF	0		0	0	0	0	0	0	0	0	I	savb5w_temp	KBD	0
1005	SAVB6	SDB2	36	KOF	0		0	0	0	0	0	0	0	0	I	saveb6_temp	KBD	0
1006	SAVB7W	SDB2	36	KOF	0		0	0	0	0	0	0	0	0	I	saveb7w_temp	KBD	0
1007	SAVK	SDB2	36	KOF	0		0	0	MTGA	0	MTGCT	0	0	0	0	I	savek_misc	KBD	0
1008	SCODT	SDB2	24	MPEB	0		0	0	0	0	0	0	0	0	0		NA	0
1009	SCT	SDB2	29	COMC	0	CRIT	0	KOF	0	MPEB	0	TRAD	0	0	0	0	NA	0
1010	SCT1	SDB2	29	COMC	0	KOF	0	MPEB	0	TRAD	0	0	0	0	0	0	NA	0
1011	SDABT	SDB2	5	DOP	0	KOF	0		0	MPEB	0	RCOMR	0	0	0	0	NA	0
1012	SELTMT	SDB2	48	MTFP	0	CRIT	0	KOF	0	MTP	0	0	0	0	0	0	NA	0
1013	SLEWT	SDB2	36	KOF	1		0	0	0	0	0	0	0	0	0	I slewt_misc_kbd	KBD	0
1014	SRPKY	SDB2	37		0	PSRAP	2	0	0	0	0	0	0	0	0	L keybrd_init_srap_switch_flag	KBD	0
1015	SRQW	SDB2	36		0		0	0	0	0	0	0	0	0	0		NA	0
1016	STNDEX	SDB2	52		0	TRAD	3	0	0	0	0	0	0	0	0		NA	0
1017	STNLO	SDB2	52		0		0	0	0	0	0	0	0	0	0		NA	0
1018	SUPKY	SDB2	37	KOF	2		0	0	0	0	0	0	0	0	0	C super_position_key	KBD	0
1019	SVKOFB2	SDB2	36	KOF	0		0	0	0	0	0	0	0	0	0		NA	0
1020	SYMBLS	SDB2	37	KOF	0		0	0	0	0	0	0	0	0	0	I misc_temp_stor_var	KBD	0
1021	SYMF	SDB2	0		0		0	0	0	0	0	0	0	0	0	C symf_kbd	KBD	0
1022	SYSLVL	SDB2	23	DOP	0	KOF	0		0	0	0	0	0	0	0		NA	0
1023	SYSLVT	SDB2	23	DOP	0	MPEB	0	RCOMR	0	0	0	0	0	0	0		NA	0
1024	TABBT	SDB2	14	KIPX	0	DOP	0	KDFL	0	KOF	0	MPEB	0	PDOP	0	RCOMR 0 0 0 0 A misc_xybase_coordinate_data	KBD	0
1025	TAST	SDB2	21	COMC	2	TEXEC	2	DOP	0	IFI	0	IFO	0	KIP	0	KIPM 0 KOF 1 0 MPEB 0 C out_sys_time_buff	SYSTEM	0
1026	TAST1	SDB2	22	?	0		0	0	0	0	0	0	0	0	0	0	NA	0
1027	TASTO	SDB2	22	KOF	0	MTGA	0	MTGCT	0	0	0	0	0	0	0	0	NA	0
1028	TBAL1T	SDB2	16	KIP	0	CDR	2	IFO	0	KOF	2	MTGA	0	MTGCT	0	RKIP 0 0 0 0 A misc_init_trackball_data	KBD	0
1029	TBAL2T	SDB2	16	KIP	0	CDR	2	IFO	0	KOF	2	0	0	MTGA	0	MTGCT 0 PDOP 0 RKIP 0 A tdop_misc_second_trackball_data	KBD	0
1030	TBCWT	SDB2	21	KOF	0	MTGA	0	MTGCT	0	0	0	0	0	0	0	0	NA	0
1031	TBLNCT	SDB2	11	RCOMR	0	RTDOP	0	0	0	0	0	0	0	0	0	0	NA	0
1032	TBPRET	SDB2	20	KIP	0	CRIT	0	DOP	0	IFO	0	0	KOF	0	0	OPEB 0 MTGA 0 MTGCT 0 S trkball_ab_word	KBD	0
1033	TBT	SDB2	38	KIP	0	COMA	3	COMB	0	IFI	3	SLINK	0	TEDC	3	TINIT 3 TPSEC 3 TPUR 3 KOF 3 A tab_line_indicator	TRACK	0
1034	TBT2T	SDB2	38	KIP	0	COMB	0	SLINK	0	TEDC	3	TINIT	3	TPSEC	3	TPUR 3 KOF 3 IFI 3 0 A tab_lin2_indicator	TRACK	0
1035	TBT3T	SDB2	38	KIP	0	SLINK	0	TEDC	3	TINIT	3	TPSEC	3	TPUR	3	KOF 3 IFI 3 0 0 A tab_lin3_indicator	TRACK	0
1036	TBT4T	SDB2	38	KIP	0	COMB	0	SLINK	0	TEDC	3	TINIT	3	TPSEC	3	TPUR 3 IFI 3 KOF 3 0 A tab_lin4_indicator	TRACK	0
1037	TDOPT	SDB2	52	TDOP	3		0	0	0	0	0	0	0	0	0	0 I dis_count_disp	DISP	0
1038	TEMP	SDB2	36		0	BRATS	0	DOFA	0	KOF	0	0	0	MTGCT	0	MTGA 0 0 SCDU 0 I temp_misc_var	KBD	0

1039	TEMRFT	SDB2	24	0	0 COMB	0 PDVP	0	0	0	0	0	0	0			NA	0
1040	TFLAG	SDB2	48 SCTME	3 COMA	2 TEXEC	0	0	0	0	0	0	0	0 I	scrch_pad_alt_flag		SYSTEM	0
1041	TFRTC	SDB2	50 MAT	0 COMA	2 KOF	0 MTGA	0 MTGCT	0 SLINK	0 TPSEC	0 TINIT	0 TPUR	0	0			NA	0
1042	THJT	SDB2	24 DISPLAY	0	0 COMB	2 POUP	0	0	0	0	0	0	0			NA	0
1043	TKRCXT	SDB2	6	0 CDR	2 COMC	3 CRIT	0 IFD	0 KIF	0 MPED	0 ALOOK	0 AKIP	0 TRAD	3 I	tkrcxt_misc_disp		DISP	0
1044	TMDAMT	SDB2	49	0 COMA	2 KOF	2	0	0 MAT	2 MTP	0 PDOP	0 IFI	2	0 I	t_o_d_minutes		SYSTEM	0
1045	TMDAST	SDB2	49	0	0	0	0	0	0	0	0	0	0 I	t_o_d_seconds		SYSTEM	0
1046	TMDYRTC	SDB2	49 SLINK	0 TPSEC	3 TINIT	3 TPUR	3 MAT	3	0	0	0	0	0 R	tmdyrtc_temp_sys_roll		SYSTEM	0
1047	TNGACT	SDB2	50 SLINK	0 COMA	2 MTGA	0 MTGCT	0 PDOP	0 TPSEC	0 TINIT	0 TPUR	0 MAT	0	0			NA	0
1048	TRN1T	SDB2	42	0 KOF	2 MTGA	0 MTGCT	0	0	0	0	0	0	0 A	sen_1_coord_transl_tab		KBD	0
1049	TRN2T	SDB2	42	0 KOF	2	0	0	0	0	0	0	0	0 A	sen_2_coord_transl_tab		KBD	0
1050	TRN3T	SDB2	42	0 KOF	2	0	0	0	0	0	0	0	0 A	sen_3_coord_transl_tab		KBD	0
1051	TRN4T	SDB2	42	0 KOF	2	0	0	0	0	0	0	0	0 A	sen_4_coord_transl_tab		KBD	0
1052	TS1T	SDB2	29 COMA	2 KOF	0 MTP	0	0	0	0	0	0	0	0			NA	0
1053	TS2T	SDB2	29 COMA	2 KOF	0 MTP	0	0	0	0	0	0	0	0			NA	0
1054	TSAT	SDB2	24	0 PDOP	3	0	0	0	0	0	0	0	0			NA	0
1055	TST	SDB2	29 COMA	2 KOF	0 MTP	0	0	0	0	0	0	0	0			NA	0
1056	TSTKY	SDB2	37 MTGA	0 MTGCT	0	0	0	0	0	0	0	0	0			NA	0
1057	TTAST	SDB2	21	0 MTGA	0 MTGCT	0 PDOP	3	0	0	0	0	0	0			NA	0
1058	TTMDAMT	SDB2	49 TPUR	0 COMA	2 KOF	0 MAT	2 RDOP	0 SLINK	2	0	0	0	0			NA	0
1059	TTMDAST	SDB2	49	0 MTGA	0 MTGCT	0 RDOP	0	0	0	0	0	0	0			NA	0
1060	TTYIHB	SDB2	37 KOFB	0	0	0	0	0	0	0	0	0	0 L	recon_inhibit_flag		KBD	0
1061	TYF	SDB2	40 COMA	0	0	0	0	0	0	0	0	0	0			NA	0
1062	TYI	SDB2	39 COMA	2	0	0	0	0	0	0	0	0	0			NA	0
1063	TYP1T	SDB2	7 AUT	2 INFO	0 KIP	0 KOF	0 MTGA	0 MTGCT	0 RKIP	0	0	0	0 S	last_corct_type		KBD	0
1064	TZULUL	SDB2	49 SLINK	0 COMA	3 KOF	0 TPSEC	0 TINIT	0 TPUR	0 MAT	0	0	0	0			NA	0
1065	UAFLT	SDB2	5	0	0 KOF	0 TRAD	2	0	0	0	0	0	0 I	alt_filter_display_up_low limits		DISP	0
1066	VIALT	SDB2	31	0 COMA	2 KOF	2	0	0	0	0	0	0	0 A	ifr_vf_code_tab		SYSTEM	0
1067	VICADT	SDB2	32 SLINK	0 COMA	2 KOF	0 TEDC	2 TINIT	0 TPUR	0 TPSEC	2	0	0	0			NA	0
1068	VICDT	SDB2	31 KOF	2 COMA	2 KOF	0 SLINK	0 TEDC	2 TINIT	0 TPUR	0 TPSEC	2	0	0 A	abc_table		SYSTEM	0
1069	VICIXT	SDB2	32	0 KOF	2	0	0	0	0	0	0	0	0 A	ifr_vf_inx_tab		SYSTEM	0
1070	VICWT	SDB2	33	0 KOF	0	0	0	0	0	0	0	0	0 A	ifr_vf_word_tab		SYSTEM	0
1071	VILCRT	SDB2	32 TINIT	2 TPUR	2 TPSEC	2	0	0	0	0	0	0	0 I	ifr_v_code_req		TRACK	0
1072	VITCRT	SDB2	32	0	0	0	0	0	0	0	0	0	0			NA	0
1073	ZULUL	SDB2	49 SLINK	0 MAT	3 CRIT	0 KOF	3 TEDC	2 TINIT	3 TPSEC	3 TPUR	3 TPRED	2 IFI	3 I	diff_btw rtc time_of_day		SYSTEM	0
1074	WRAPTIME	SDBIRO	329 PSRAP	2	0	0	0	0	0	0	0	0	0 I	wrap_time		NA	0
1075	SIPSTLQ	TI	0 PSRAP	0	0	0	0	0	0	0	0	0	0			NA	0
1076	SIPTOSFQ	TI	0 PSRAP	2	0	0	0	0	0	0	0	0	0 R	sensr_fail_msg_outtime		NA	0
1077	VAQ	TIRAM	0 TPUR	2 CATV	0 COMA	2 COMB	0 RTZCC	0 TCRSS	2 TINIT	2 TRAD	2 TSUBO	0 TSUB3	0 I	bn_code air_value		SYSTEM	0
1078	AAHC	TMP	5 COMA	2 IFI	1 KOF	1 MTP	0 TMP	0	0	0	0	0	0	[illegible]		TRACK	0

1079	AALTW	TMP	4 COMA	2 IFI	1 KOF	3	0 MTP	0 TMP	0	0	0	0	0 I	aaltw_temp_trk	TRACK	0
1080	ACTYPW	TMP	4 COMA	2 IFI	1 KOF	1 MTP	0 TMP	0	0	0	0	0	0 S	actypw_temp_trk	TRACK	0
1081	ADFLC	TMP	4 COMA	3 IFI	3 KOF	3	0 TMP	0	0	0	0	0	0 I	adflc_temp_trk	TRACK	0
1082	ADTRK	TMP	6 COMC	3 TMP	0 TRAD	3	0	0	0	0	0	0	0 I	adtrk_temp_trk	VBD	0
1083	ARCIDC	TMP	4 TINIT	3 TPUR	3 IFI	3 KOF	3	0 MAT	1 MTP	0 TMP	0 SLINK	0 TPSEC	3 I	arcidc_temp_trk	NA	0
1084	BEACNC	TMP	4 COMA	3 IFI	3 KOF	3	0	0 MTP	0 TMP	0	0	0	0 I	beacnc_temp_trk	TRACK	0
1085	BIND	TMP	6 TMP	0 TRAD	3	0	0	0	0	0	0	0	0 L	bind_temp_trk	SYSTEM	0
1086	CHGFLG	TMP	5 COMC	3 TMP	0 TRAD	3	0	0	0	0	0	0	0 L	chgflg_temp_trk	DISP	0
1087	CLDTRK	TMP	5 TMP	0 TRAD	3	0	0	0	0	0	0	0	0 I	cldtrk_temp_trk	DISP	0
1088	CONTRC	TMP	5 COMA	3 IFI	1 KOF	1	0	0 MTP	0 TMP	0	0	0	0 I	contrc_temp_trk	TRACK	0
1089	DBCWT	TMP	5	0 DOP	0 TMP	0 TRAD	0	0	0	0	0	0	0		NA	0
1090	DSPCLR	TMP	5 TMP	0 TRAD	3	0	0	0	0	0	0	0	0 I	dspclr_temp_trk	DISP	0
1091	DTCHGFLG	TMP	6 TMP	0 TRAD	3	0	0	0	0	0	0	0	0 L	alt_chg_flag_trk	DISP	0
1092	DUPBCK	TMP	5 TMP	0	0	0	0	0	0	0	0	0	0		NA	0
1093	DUPOUC	TMP	4 TPUR	3 IFI	2 KOF	2	0	0 MAT	2 TMP	0 SLINK	0 TPSEC	3 TINIT	3 I	dupouc_temp_trk	NA	0
1094	DUPTSD	TMP	4 COMA	3 TMP	0 SLINK	0 TPSEC	3 TINIT	1 TPUR	1	0	0	0	0 I	duptsd_temp_trk	TRACK	0
1095	ECIDIC	TMP	5 COMA	0 IFI	3 KOF	1 MTP	0 TMP	0	0	0	0	0	0 I	ecidc_temp_trk	TRACK	0
1096	ETAC	TMP	5 COMA	3 COMB	1 IFI	3 KOF	1	0	0 MTP	0 TMP	0	0	0 I	etac_temp_trk	TRACK	0
1097	FIXC	TMP	5 COMA	3 IFI	3 KOF	3	0 MTP	0 TMP	0	0	0	0	0 I	fixc_temp_trk	TRACK	0
1098	INIT	TMP	4 COMA	3 MAT	1 TMP	0	0	0	0	0	0	0	0 I	init_temp_trk	TRACK	0
1099	LXDTRK	TMP	5	0 TRAD	3	0	0	0	0	0	0	0	0 I	kdtrk_temp_trk	DISP	0
1100	MAXBYC	TMP	4 COMA	3 IFI	1 KOF	0 MAT	1 SLINK	0 TPSEC	3 TINIT	3 TPUR	3	0	0 I	maxbyc_temp_trk	NA	0
1101	MSWTMP	TMP	5 COMB	0	0	0	0	0	0	0	0	0	0		NA	0
1102	PACKAD	TMP	5 COMC	2 DOP	0	0	0	0	0	0	0	0	0		NA	0
1103	PAKET	TMP	6 TRAD	3	0	0	0	0	0	0	0	0	0 I	paket_temp_trk	TRACK	0
1104	PASB1	TMP	6 COMC	3	0	0	0	0	0	0	0	0	0 I	pasbl_temp_trk	TRACK	0
1105	PASTME	TMP	6	0	0	0	0	0	0	0	0	0	0		NA	0
1106	PFTMP	TMP	5 COMA	3	0	0	0	0	0	0	0	0	0 S	pftmp_temp_trk	TRACK	0
1107	PSCPAK	TMP	5 MPEB	0	0	0	0	0	0	0	0	0	0		NA	0
1108	PSCTMP	TMP	5 MPEB	0	0	0	0	0	0	0	0	0	0		NA	0
1109	RDELTZ	TMP	6 MSAW	0 CDR	2	0	0	0	0	0	0	0	0		NA	0
1110	SAVB2	TMP	5 DOP	3 KIPM	0	0	0	0	0	0	0	0	0 I	savb2_temp_trk	TRACK	0
1111	SAVEID	TMP	5 COMA	3 SLINK	0 TPSEC	3 TINIT	3 TPUR	3	0	0	0	0	0 I	saveid_temp	TRACK	0
1112	SCPDQ	TMP	5	0	0	0	0	0	0	0	0	0	0		NA	0
1113	SCPDW	TMP	5 KOF	1	0	0	0	0	0	0	0	0	0 S	scratch_pad	TRACK	0
1114	SCPWW	TMP	5 KOF	1	0	0	0	0	0	0	0	0	0 S	aalt	TRACK	0
1115	TCTBT	TMP	5	0 COMA	3 COMB	0	0	0	0	0	0	0	0		NA	0
1116	TEMTR1	TMP	5	0 TRAD	3	0	0	0	0	0	0	0	0 I	temtr1_temp	DISP	0
1117	TEMTR2	TMP	5	0 COMC	3 TRAD	3	0	0	0	0	0	0	0 I	temtr2_temp_trk	DISP	0
1118	TEMTR3	TMP	5	0 TRAD	3	0	0	0	0	0	0	0	0 I	temtr3_temp_trk	DISP	0

1119	TEMTRK	TMP	5	0 TRAD	3	0	0	0	0	0	0	0	0 I	temtrk_temp	DISP	0
1120	TFLG	TMP	5	0 COMA	3 COMB	0	0	0	0	0	0	0	0 I	tflg_temp	TRACK	0
1121	TRADB2	TMP	6	0	0	0	0	0	0	0	0	0	0		NA	0
1122	TRADB3	TMP	6	0 COMC	3 TRAD	3	0	0	0	0	0	0	0 I	tradb3_temp	DISP	0
1123	TRADB5	TMP	6	0	0 TRAD	0	0	0	0	0	0	0	0 I	tradb5_temp	DISP	0
1124	TRADCTS	TMP	6	0	0	0	0	0	0	0	0	0	0		NA	0
1125	TRADDLS	TMP	5	0	0	0	0	0	0	0	0	0	0		NA	0
1126	TRADSI	TMP	5	0	0	0	0	0	0	0	0	0	0		NA	0
1127	TRADSLE	TMP	5 COMMON	0 COMC	3 TRAD	3	0	0	0	0	0	0	0 I	tradsle_temp	TRACK	0
1128	TREC	TMP	5	0 COMA	3	0	0	0	0	0	0	0	0 I	tred_temp	TRACK	0
1129	TRKALT	TMP	5	0 COMC	3 TRAD	3	0	0	0	0	0	0	0 I	trkalt_temp	DISP	0
1130	TRKCLR	TMP	5	0 TRAD	3	0	0	0	0	0	0	0	0 I	trkclr_temp	DISP	0
1131	TRKFAM	TMP	5	0 TRAD	3	0	0	0	0	0	0	0	0 I	trkfam_temp_trk	DISP	0
1132	TRKLCA	TMP	5	0 TRAD	3	0	0	0	0	0	0	0	0 I	trklca_temp_trk	DISP	0
1133	TRKRBC	TMP	5	0 COMC	1 TRAD	3	0	0	0	0	0	0	0 I	trkrbc_temp_trk	DISP	0
1134	TRTNDX	TMP	5	0 COMC	3 TRAD	3	0	0	0	0	0	0	0 I	trtndx_temp	TRACK	0
1135	XDELTZ	TMP	6 MSAW	0 CDR	2	0	0	0	0	0	0	0	0		NA	0
1136	YDELZ	TMP	6 MSAW	0 CDR	0	0	0	0	0	0	0	0	0		NA	0
1137	TRSIT	TRS	28 TEXEC	1	0 TCRSS	2 TPSEC	2	0	0	0	0	0	0 A	trs_trk	TRACK	0
1138	TRSIT1	TRS	28 TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 R	trs_azimuth	TRACK	0
1139	TRSIT10	TRS	29 TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 I	trs_3a_validity_code	TRACK	0
1140	TRSIT11	TRS	29 TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 I	trs_beacon_code	TRACK	0
1141	TRSIT12	TRS	29 TEXEC	1	0 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 L	trs_strong	TRACK	0
1142	TRSIT13	TRS	29 TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	2	0	0	0	0	0 I	trs_mode_c_validity_code	TRACK	0
1143	TRSIT14	TRS	29 TEXEC	1	0 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 I	trs_alt_mode_c	TRACK	0
1144	TRSIT15	TRS	29 TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 R	trs_range	TRACK	0
1145	TRSIT2	TRS	29 TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 L	trs_radar_reinforced	TRACK	0
1146	TRSIT3	TRS	29 TEXEC	1	0 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 I	trs_quality_code	TRACK	0
1147	TRSIT4	TRS	29 TEXEC	1	0 TCRSS	2 TPSEC	1 TINIT	3 TPUR	2	0	0	0	0 L	trs_tpur_use_is_inhibited	TRACK	0
1148	TRSIT5	TRS	29 TEXEC	1	0	0 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 L	trs_emergency_is_in_effect	TRACK	0
1149	TRSIT6	TRS	29 TEXEC	1 TEDC	2 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 L	trs_training_target_gen	TRACK	0
1150	TRSIT7	TRS	29 TEXEC	1	0	0 TPSEC	2 TINIT	2	0	0	0	0	0 L	trs_ifr_mode	TRACK	0
1151	TRSIT8	TRS	29 TEXEC	1 TEDC	3 TCRSS	2 TPSEC	3 TINIT	3 TPUR	3	0	0	0	0 L	trs_unused	TRACK	0
1152	TRSIT9	TRS	29 TEXEC	1	0 TCRSS	2 TPSEC	2 TINIT	2 TPUR	2	0	0	0	0 L	trs_special_position	TRACK	0

Record#	DATANAME	DESCRIPT
1	BOTIT	Beacon initiation table
2	BOTITI	Beacon unused report azimuth (BOTIQ words)
3	BOTITI0	Beacon unused report Va ???????? (BOTIQ words)
4	BOTITI1	Beacon unused report beacon code (BOTIQ words)
5	BOTITI2	Beacon unused report Vc ??????????? (BOTIQ words)
6	BOTITI3	Beacon unused report altitude (BOTIQ words)
7	BOTITI2	Beacon unused report range (BOTIQ words)
8	BOTITI3	Beacon unused report y coordinate (BOTIQ words)
9	BOTITI4	Beacon unused report x coordinate (BOTIQ words)
10	BOTITI5	Beacon unused report velocity along y coordinate (BOTIQ)
11	BOTITI6	Beacon unused report velocity along x coordinate (BOTIQ words)
12	BOTITI7	Beacon unused report sliding window (BOTIQ words)
13	BOTITI8	Beacon unused report firmness value (BOTIQ) words)
14	BOTITI9	Beacon unused report time of last correlation (BOTIQ words)
15	ABEATI	Last correlation flag
16	ABEATI	Last correlation flag
17	ABEATI	Last correlation flag
18	ABEATI2	Initial correlation process flag
19	ABEATI3	Assigned beacon code
20	ABEATI4	Zero
21	ABEATI5	Defines status of beacon code
22	ACTYPT	Aircraft type
23	ACTYPT2	
24	ALTI	Reported altitude
25	ALTI	Reported altitude
26	ALTI2	Console typewriter printout request flag
27	ALTI31	Last scan altitude missing & current scan altitude valid flag
28	ALTI32	A flag indicating that a track's altitude is valid for the current scan
29	ALTI4	Assigned beacon code checked flag
30	ALTI51	Current scan altitude missing
31	ALTI52	Track's last scan altitude was greater than the violation altitude
32	ALTI6	Track's warn count
33	ALTI7	General terrain warning in effect flag
34	ALTI8	Approach warning in effect flag
35	ALTI9	MSAW inhibited flag
36	ASOCTI	Track no. parent or deviation trial: track number
37	ASOCTI	Track no. of parent or deviation trial: track number
38	ASOCTI	Track no. parent or deviation trial: track number

39	ASOCT2	Track no. parent or deviation trial: deviation trial track indicator
40	ASOCT3	Track no. parent or deviation trial: SPI indicator (sqawking ID)
41	ASOCT4	Track no. parent or deviation trial: emergency/radio failure indicator
42	ASOCT5	Track no. parent or deviation trial: firmness value
43	ASOCT6	Track no. parent or deviation trial: interfacility handoff indicator, no handoffs?
44	ASOCT7	Track no. parent or deviation trial: straightline track class code
45	ASOCT8	Track no. parent or deviation trial: flag to inhibit deviation trial tracks turn correl processing
46	ASOCT9	Track no. parent or deviation trial: track predict indicator
47	CATB	CURRENT POSITIONAL AND SINGLE SYMBOL DATA IN B WORD FORMAT
48	CATB	Current positional and single symbol data in B-word format
49	CATB	Current positional and single symbol data in B-word format
50	CATB1	x y positional data in b word format in old sys
51	CATC11	For limited data blocks: four digits of reported beacon code or pad characters
52	CATC11	For limited data blocks: four digits of reported beacon code or pad characters
53	CATC12	For full data blocks: Four M.S. characters of the ACID or pad characters or spaces, for all in pascl
54	CATC12	For full data blocks: Four M.S. characters of the ACID or pad characters or spaces, all in pascal
55	CATC21	For limited data blocks: contains "ID" or pad characters
56	CATC21	For limited data blocks: contains "ID" or pad characters
57	CATC22	For full data blocks: The three L.S. ACID characters, ALL IN CATC21 IN NEW SYS
58	CATC31	For limited data blocks: three altitude characters, "CST", "RDR", or 3 spaces
59	CATC32	For full data blocks: handoff receiver position symbol, "*", second L.S. digit of rep. beac. code
60	CATC41	For limited data blocks: two speed characters or pad characters
61	CATC42	For full data blocks: second L.S. character of aircraft type
62	CFLGT1	Radar subsystem with which the track is currently associated
63	CFLGT1	Radar subsystem with which the track is currently associated
64	CFLGT1	Radar subsystem with which the track is currently associated
65	CFLGT1	Radar subsystem with which the track is currently associated
66	CFLGT10	Consecutive times coasted counter
67	CFLGT11	Arrival/departure status indicator
68	CFLGT12	Consecutive successful scans of code match counter (for store/coast track with discrete ABC)
69	CFLGT13	Second pass flag
70	CFLGT14	Flight plan received flag
71	CFLGT15	Auto acquisition disallowed flag
72	CFLGT16	Outside of max range of radar flag
73	CFLGT2	Current CTS thread disposition flag
74	CFLGT3	No. of non-space characters in ACID
75	CFLGT4	Disposition of this files FP indicator
76	CFLGT5	Auto-acquisition inhibit flag
77	CFLGT6	Heavy jet flag
78	CFLGT7	Mode C status during track initiation flag

79	CFLGT8	Applicable code detection display flag
80	CFLGT9	Radar flight plan, ?? RDR_ONLY_TRAK??
81	CTSTT	cts table , contains track information for each track in the system and is the key tab in the system
82	CTSST1	Three character scratch pad data for track
83	CTSST1	Three character scratch pad data for track
84	CTSST2	Misc: shared counter or line identifier for track or blinking display counter
85	CTSST3	Inhibit reset indicator flag
86	CTSST4	Flashing report beacon code flag
87	CTSST5	Track displaying a blinking RDR flag
88	CTSST6	Interfacility handoff action flag
89	CTSST7	Track auto-acquired previously flag
90	CTSST8	Assigned altitude flag
91	CTST1	For associated track controlling position, position number
92	CTST1	For associated track: track controlling position, position number
93	CTST1	For associated track: track controlling position, position number
94	CTST1	For associated track: track controlling position, position number
95	CTST1	For associated track: track controlling position, position number
96	CTST2	For associated track: handoff status
97	CTST3	For associated track: type & status of track file (UT)
98	CTST3	For associated track: type & status of track file (UT)
99	CTST4	For associated track: type & status of track file (A)
100	CTST4	For associated track: type & status of track file (A)
101	CTST5	For associated track: type & status of track file (TP)
102	CTST5	For associated track: type & status of track file (TP)
103	CTST6	For associated track: radar subsystem with which the track is associated
104	CTST7	For associated track: enroute time field
105	CTST8	For associated track: enroute status
106	CTST9	For associated track: test & set flag for this track file
107	DALT1	Altitude velocity
108	DALT2	Altitude acceleration
109	FILT1	Associate track designator as full data block (displays 1 - 30)
110	FILT2	Associate track designator as full data block (displays 31 - 60)
111	LGCT1	Unassociated tabular tracks: TI received flag
112	LGCT1	Unassociated tabular list track: TI received flag
113	LGCT1	Unassociated tabular tracks: TI received flag
114	LGCT10	Unassociated tabular tracks: active track in old status flag
115	LGCT10	Unassociated tabular tracks: active track in old status flag
116	LGCT10	Unassociated tabular tracks: active track in old status flag
117	LGCT11	Unassociated tabular tracks: output display status indicator
118	LGCT11	Unassociated tabular tracks: output display status indicator

119	LGCT11	Unassociated tabular tracks: output display status indicator
120	LGCT12	Unassociated tabular tracks: PAUS PFDB/PLDB reference request flag
121	LGCT12	Unassociated tabular tracks: PAUS PFDB/PLDB reference request flag
122	LGCT12	Unassociated tabular tracks: PAUS PFDB/PLDB reference request flag
123	LGCT13	Active tracks: length of time aircraft type is displayed counter
124	LGCT13	Active tracks: lenght of time aircraft type is displayed counter
125	LGCT13	Active tracks: length of time aircraft type is displayed counter
126	LGCT14	Active tracks: aircraft type display inhibited flag
127	LGCT14	Active tracks: aircraft type display inhibited flag
128	LGCT14	Active tracks: aircraft type display inhibited flag
129	LGCT15	Active tracks: eligible to have blinking IF displayed flag
130	LGCT15	Active tracks: eligible to have blinking IF displayed flag
131	LGCT15	Active tracks: eligible to have blinking IF displayed flag
132	LGCT16	Active tracks: forced control change flag
133	LGCT16	Active tracks: forced control change flag
134	LGCT16	Active tracks: forced control change flag
135	LGCT17	Suspend active status flag
136	LGCT17	Suspend active status flag
137	LGCT17	Suspend active status flag
138	LGCT18	Active tracks: speed
139	LGCT18	Active tracks: speed
140	LGCT18	Active tracks: speed
141	LGCT19	Active tracks: tabular coast countdown
142	LGCT19	Active tracks: tabular coast countdown
143	LGCT19	Active tracks: tabular coast countdown
144	LGCT2	Unassociated tabular tracks: DUP ID check by MAT flag
145	LGCT2	Unassociated tabular tracks: DUP ID check by MAT flag
146	LGCT2	Unassociated tabular tracks: DUP ID check by MAT flag
147	LGCT20	Flight plans: flight plan ETA/PTD
148	LGCT20	Flight plans: flight plan ETA/PTD
149	LGCT20	Flight plans: flight plan ETA/PTD
150	LGCT3	Unassociated tabular tracks: special symbology for tabular suspend track flag
151	LGCT3	Unassociated tabular tracks: special symbology for tabular suspend track flag
152	LGCT3	Unassociated tabular tracks: special symbology for tabular suspend track flag
153	LGCT4	Unassociated tabular tracks: track position changed flag
154	LGCT4	Unassociated tabular tracks: track position changed flag
155	LGCT4	Unassociated tabular tracks: track position changed flag
156	LGCT5	Unassociated tabular tracks: implied track drop inhibited flag
157	LGCT5	Unassociated tabular tracks: implied track drop inhibited flag
158	LGCT5	Unassociated tabular tracks: implied track drop inhibited flag

159	LGCT6	Unassociated tabular tracks: TEDC correlation inhibited flag
160	LGCT6	Unassociated tabular tracks: TEDC correlation inhibited flag
161	LGCT6	Unassociated tabular tracks: TEDC correlation inhibited flag
162	LGCT7	Unassociated tabular tracks: TEDC correlation flag
163	LGCT7	Unassociated tabular tracks: TEDC correlation flag
164	LGCT7	Unassociated tabular tracks: TEDC correlation flag
165	LGCT8	Unassociated tabular tracks: ACID change flag
166	LGCT8	Unassociated tabular tracks: ACID change flag
167	LGCT8	Unassociated tabular tracks: ACID change flag
168	LGCT9	Unassociated tabular tracks: TROUT process this scan flag
169	LGCT9	Unassociated tabular tracks: TROUT process this scan flag
170	LGCT9	Unassociated tabular tracks: TROUT process this scan flag
171	LNK1T1	Track number of link in sensor 1
172	LNK1T2	Time to monitor link in sensor 1 flag
173	LNK1T3	Pseudo link in sensor 1 flag
174	LNK1T4	No link exists in sensor 1 flag
175	LNK1T5	Track number of link in sensor 2
176	LNK1T6	Time to monitor link in sensor 2 flag
177	LNK1T7	Pseudo link exists in sensor 2 flag
178	LNK1T8	No link exists in sensor 2 flag
179	LNK2T1	Track number of link in sensor 3
180	LNK2T2	Time to monitor link in sensor 3 flag
181	LNK2T3	Pseudo link in sensor 3 flag
182	LNK2T4	No link exists in sensor 3 flag
183	LNK2T5	Track number of link in sensor 4
184	LNK2T6	Time to monitor link in sensor 4 flag
185	LNK2T7	Pseudo link in sensor 4 flag
186	LNK2T8	Flag indicating no link exists in sensor 4
187	LNKT1	Sensor 1 link fail count
188	LNKT2	Sensor 2 link fail count
189	LNKT3	Sensor 3 link fail count
190	LNKT4	Sensor 4 link fail count
191	LNKT5	DBM address of data for tabular tracks
192	LNKT6	Tabular data repacked since last output to DBM flag
193	PALT1	Predicted altitude
194	PALT2	Altitude tracking firmness value
195	PALT3	Altitude history sliding window
196	PALT4	Valid altitude flag
197	PDB1T1	For associated tracks: least significant digit of flashing RBC
198	PDB1T2	For associated tracks: three altitude characters

199	PDB2T1	For associated tracks: suspended track controller symbol
200	PDB2T2	For unassociated tracks: pad characters
201	RBEAT1	Altitude of latest report with which this track correlated
202	RBEAT1	Altitude of latest report with which this track correlated
203	RBEAT1	Altitude of latest report with which this track correlated
204	RBEAT2	Altitude validity code
205	RBEAT2	Altitude validity code
206	RBEAT2	Altitude validity code
207	RBEAT3	Altitude this scan flag
208	RBEAT3	Altitude this scan flag
209	RBEAT3	Altitude this scan flag
210	RBEAT3	Altitude this scan flag
211	RBEAT3	Altitude this scan flag
212	RBEAT4	Reported beacon code for this scan for this track
213	RBEAT4	Reported beacon code for this scan for this track
214	RBEAT4	Reported beacon code for this scan for this track
215	RBEAT5	Reported beacon code validity for this scan for this track
216	RBEAT5	Reported beacon code validity code for this scan for this track
217	RBEAT5	Reported beacon code validity code for this scan for this track
218	RBEAT6	Reported beacon code this scan flag
219	RBEAT6	Reported beacon code this scan flag
220	RBEAT6	Reported beacon code this scan flag
221	RECRT10	Track file just initiated into system flag
222	RECRT10	Track file just initiated into system flag
223	RECRT10	Track file just initiated into system flag
224	RECRT1A	Controller number (Prime, handoff receiver, former), split into 2 variables.
225	RECRT1A	Controller number (Prime, handoff receiver, former),split into 2 variables.
226	RECRT1A	Controller number (Prime, handoff receiver, former), split into 2 variables.
227	RECRT1B	
228	RECRT1B	split one 2 valued parameter into 2 separate variables
229	RECRT1C	prime controller number based on flight plan data if no cfg keyboard entry had been made
230	RECRT2	Index to TCIDT table
231	RECRT2	
232	RECRT2	
233	RECRT3	
234	RECRT3	Counter for number of successive successful correlations for this track
235	RECRT3	counter for number of successive successful correlations for this track
236	RECRT4	
237	RECRT4	Not needed since the same counter may be used for parent trial and initial track correlation counts
238	RECRT4	

239	RECRT5	
240	RECRT5	Auto-acquisition allowed in 4 sector hold area flag
241	RECRT5	
242	RECRT6	Select mode C altitude in FDB inhibited flag
243	RECRT6	
244	RECRT6	
245	RECRT7	Speed changed flag
246	RECRT7	speed change flag
247	RECRT7	speed changed flag
248	RECRT8	altitude changed flag
249	RECRT8	Altitude changed flag
250	RECRT8	altitude changed flag
251	RECRT9	
252	RECRT9	ARTS track flag
253	RECRT9	
254	RECRTIC	
255	RGAZT1	Predicted track: range
256	RGAZT1	
257	RGAZT2	
258	RGAZT2	Predicted track: azimuth
259	SALT1	smoothed alt
260	SALT1	Smoothed altitude
261	SALT2	Aural alarm selected flag
262	SALT2	
263	SALT3	
264	SALT3	Flashing LA/CA indicator
265	SALT4	Display inhibited flag
266	SALT4	
267	SLIDT1	Leader direction change request flag
268	SLIDT2	Requested leader direction
269	SLIDT3	CTS thread change request flag
270	SLIDT4	
271	SLIDT4	No. of consecutive beacon reports correlated to a radar only track
272	SLIDT5	Delayed auto-terminate flag
273	SLIDT6	Delete from sector thread flag
274	SLIDT7	Live/training flag (live_mode = true)
275	SLIDT8	Beacon target correlation flag
276	SLIDT9	Radar target correlation flag
277	TAB1T	For tabular tracks: three N.S. ACID characters
278	TAB3T1	For suspend tracks: three characters of altitude

279	TAB3T2	For tabular coast tracks: ?????????
280	TAB3T3	For store tracks: beacon code
281	TAB4T2	For store tracks: exit fix symbol
282	THRET1	Track number of previous track file in thread
283	THRET1	
284	THRET2	Track number of next track file in thread
285	TIMET1	Successful correlation time
286	TIMET2	Successful correlation Sensor Track Number (STN)
287	TIMET3	Successful correlation: STN presence flag
288	TNPT1	Previous track number (sector thread)
289	TNPT2	Next track number (sector thread)
290	TNPT3	Sector number
291	TNPT4	No next track this sector thread flag
292	TNT1	Index to TNT table
293	TNT10	Primary/secondary correlation processing for this scan flag
294	TNT2	Suspend track is actively tracking flag
295	TNT3	Report in the secondary bin on the scan flag
296	TNT4	DM is to be displayed flag
297	TNT5	Aircraft flight plan status
298	TNT6	Sector thread change request flag
299	TNT7	Correlation flag
300	TNT8	Inhibit PUR correlation attempt flag
301	TNT9	Count of number of reports found in track's bin
302	XCORT	Predicted track: x coordinate
303	XYDOT1	Active tracks: x component of velocity
304	XYDOT2	Active tracks: Y component of velocity
305	XYDOT3	Flight plan or store tracks: index to APT table (exit)
306	XYDOT4	Flight plan or store tracks: index to APT table (entry), alternate primary controller
307	XYDOT41	
308	XYDOT5	Tracking table coast time of auto tab coast track
309	YCORT	Predicted track: y coordinate
310	YCORT	
311	ECIDT	
312	TCIDT	
313	RTCQ	real time clock value
314	SECTOLQ	Psrap sector mark 0 maximum delta wait time
315	SIMSMTQ	
316	SIPBLQ	128
317	SIPCSMQ	minimum sector marks for psrap to be declared in synch; 3
318	SIPDERQ	1

359	ROTIT	Radar only track table (5 * ROTiQ)
360	ROTIT1	Radar Only Table (ROT) : azimuth
361	ROTIT2	Radar Only Table (ROT): range
362	ROTIT3	Radar Only Table (ROT): y coordinate
363	ROTIT4	Radar Only Table (ROT): x coordinate
364	ROTIT5	Radar Only Table (ROT) : y coordinate component of velocity
365	ROTIT6	Radar Only Table (ROT): x coordinate component of velocity
366	ROTIT7	Radar Only Table (ROT): sliding window
367	ROTIT8	Radar Only Report (ROT): firmness value
368	ROTIT9	Radar Only Table (ROT): time of last correlation
369	DCONT	Table containing display parameter data
370	XTRAYT	Linking execute remote table: TRAYiT -) A register
371	ADBOT	Address of Beacon Only Track Table
372	ADBRITE	BRITE1T & BRITE2T table address
373	ADFIRST	FIRST Table address (NSENSQ words)
374	ADNSECT	NSECiT Table address (NSENSQ(SP) words)
375	ADRAT	RAT Table Address (NSENSQ words)
376	ADROT	ROTiT Table address (NSENSQ words)
377	ADRPT	
378	ADRPT	TRSiT table address (NSENSQ words)
379	ADSUMT	Address of the SASTiT table
380	ADTIMT	Address of the STIMEiT table
381	ADTSATLL	Lockout flag for Common Subroutine AT2L
382	ADTTST	Address of test target storage buffer (S words)
383	ADTYMG	
384	ADUNCONT	Address of UNCONT table (NSENSQ words)
385	ADUNUSET	Address of UNUSET word (1 word)
386	AFXAD	Address in AAFXP table for each subsystem (NSENSQ words)
387	AFXP	Number of arrival fix areas inhibited for auto acquisition (NSENSQ words)
388	ALRMTSF	MALRM table use flag
389	ALSENS	A flag indicating which sensor ALTRKR should process
390	ALTIMP1	Altitude threshold for altitude correction; altitude correction factor
391	ALTIMP2	altitude in 100s of feet
392	AOSPACK	Address of MPEB
393	AZ1RG1	First range/azimuth values for auto-drop areas
394	AZ2RG2	Second range/azimuth values for auto-drop areas
395	AZ3RG3	Third range/azimuth values for auto-drop areas
396	AZMBINS1	Table of azimuths for radar only report geographic clutter areas (inner)
397	AZMBINS2	Table of outer azimuths for radar only report geographic clutter areas
398	BART	The beacon and radar table (referenced twice: RAT, page 3.4.9-3; SDB1, page 55, data elem RBMSHT

399	BOMSHT1	Number of scan hits required to initiate a track in the CTS from the beacon only tabl (NSENSQ words)
400	BOMSHT2	Number of scan misses allowed before purging a beacon only track from the CTS (NSENSQ words)
401	BOSHFT	The number of scans that defines the window length of hits & misses from BOTiT
402	BOTOVT	Flag indicating a BOT table overflow
403	BRAFLG	BRATS enable/disable flag
404	BSECT	the tracking base sector (sect-1) table
405	BSECT1	The tracking base sector (SECT - 1) (NSENSQ(SP) words)
406	BSEGT	Beacon segments used for auto MSAW inhibit
407	CAALARM	Original time of conflict alert alarm
408	CASENS	A flag indicating which sensor CALT should process
409	CNSL719	Amount of core needed
410	CNSLALL	Length of conflict table
411	CNSLNEG	Negative value of CNSLALL
412	CNSLNEG1	Length of DUPAIR table minus one
413	CNSLNEG2	Length of conflict table minus 2
414	COAST1	No. scans the following may coast: Unassociated Beacon
415	COAST2	No. of scans an associated beacon track may coast
416	COAST3	No. scans an unassociated radar track may coast
417	COAST4	No. scans an associated radar track may coast
418	CRSENS	A flag indicating which sensor TCRSS should process
419	CRTCSAVE	current real time clock value
420	CSAV85	Save word for B5 (1 word)
421	CSECT	current working sector table
422	CSECT1	Current working sector (S words)
423	CTBRAT	Address of subroutines & tables BRATS uses
424	CTIPLL	On call execution flags & TI code task ID (7 x 2 words)
425	CTSOVT	CTS overflow flag
426	DELXYDT1	Maximum legal delta coordinate: X
427	DELXYDT2	Maximum legal delta of Y coordinate
428	DOVERT	Radar overflow message buffer, in use in new sys?
429	DTTBUF	Buffer containing test target display data
430	DUPIDLK	DUPIDY table locked out flag
431	DUPIDLY	Table cleared for DUPIDC
432	DUPIDT	Buffer containing duplicate IDs (DUPIDQ(11) words)
433	DUPIDY	Duplicate ID push/pull table
434	DUPNEG1	Length of DUPAIR table minus one
435	DUPP	Length of DUPAIR table (1 word)
436	EDSENS	A flag indicating which sensor TEDC should process
437	ENDBOT	Address of end of BOTiT table (NSENSQ words), replaced w/pointer
438	ENDRAT	Address of end of RAT table

439	ENDROT	Address of end of ROTiT table no rot table usage
440	ENDRPT	Address of end of Target Report Store table
441	ESPPP	Contains an ESPP used to schedule PSRAP as a periodic popup
442	ETGCAFLG	Used to distinguish target generator status
443	EX	A set of 26 execute remote instructions to perform miscelanneous register loading and storing funct.
444	FINDS	Subrouting FINDSLOTB locked out flag
445	FIRMT	Firmness table
446	FIRST	first controlled track file table 1*4 ie 1 per sensor
447	FIRST1	First track file pointer
448	FIRST1	First CONTROLLED track file pointer
449	FIRST2	Number of controlled track files
450	FREEZER	Target generator system freeze flag: freeze flag; init flag
451	FREEZER	Target generator system freeze flag: freeze flag; init flag
452	GALTIE	Inhibits or clears MSAW in approach areas whenF7, VI, or F7 VE respectively
453	GHSVB1	Used by subroutine GNTRK to save B1
454	GNSVB5	Used by subroutine GNTRK to save B5
455	IA1IR1	Table contains first inner range/azimuth values for airport areas
456	IA2IR2	Table containing second inner range/azimuth values for airport areas
457	INSENS	A flag specifying which sensor TINIT should process
458	INSLO21	2* length of pairwise inhibit table minus 1
459	INSLT1	(length of pairwise inhibit table minus 1) * 2
460	INSLT2	(length of pairwise inhibit table minus 2) * 2
461	IR3	Table containing third inner range/azimuth values for airport areas
462	KOFUNLK	Contains E$DATA used by KOF
463	LATENDT	Set to lattice execution time
464	LDDTABL	Contains addresses and instructions of system data for use by LDDT
465	LSR1TMP	Execute remote table for loading S1 register
466	LSR1TMP	Execute remote table for loading S1 register
467	LSR2TMP	Execute remote table for loading S2 register
468	LSR2TMP	Execute remote table for loading S2 register
469	MALM	Temporary storage used by MALMOFF
470	MALRM	MSAW alarm table
471	MATTIM	Timing variable used by MAT
472	MSAWALZO	MSAW alert indicator
473	MSAWEFZ	Alarm EF word
474	MSCORT	Difference between actual & rounded altimeter correction in feet
475	MSSENS	A flag specifying which sensor MSAW must process
476	NIOPQK1	System parameter table: no. of IOPs
477	NIOPT	Device number table
478	NIOPT	Device number table

479 NIOPT Device number table

480 NMDBMQK1 Parameter table: no. of MDBMs

481 NRDBMQK1 Parameter table: no. of RDBMs

482 NSENSQK1 Parameter table: no. of sensors

483 NSENSQK1 Parameter table: no. of sensors

484 NSENSQK1 Parameter table: no. of sensors

485 NTRK Common subroutine lockout flag: NTRK lockout flag

486 NUMDQK1 Parameter table: no. of displays

487 NUMKQK1 Parameter table: no. of keyboards

488 NUMTQK1 Parameter table: no. of tracks

489 NXTRAD Index determining which copy of TRAD to run next

490 OA1OR1 Table containing first outer range/azimuth values for airport areas

491 OA2OR2 Table containing second outer range/azimuth values for airport areas

492 OA3OR3 Table containing third outer range/azimuth values for airport areas

493 ORTCSAVE original real time clock reading

494 OSPACK MPEB packet used by PDOP

495 OSPACK1

496 OSPACK2

497 OSPACK3

498 PAUST Table used by PAUS: current track being processed;no. tracks;no of exec this lattice;no. of processo

499 PBUFCT1 Untracked target count

500 PBUFCT2 Display buffer length

501 PBUP Untracked target display buffer

502 PRSENS A flag indicating which sensor TPRED must process

503 PSSENS A flag indicating which sensor TPSEC must process

504 PUSENS A flag indicating which sensor TPUR must process

505 RAADT Remote aural alarm display table

506 RATPIT RAT pointer table (5 word revolving table containing indexes to RAT for sectors n-2 through n-6

507 RATPIT1 SEE RATPIT

508 RATPIT2 SEE RATPIT

509 RATXIT rat index table

510 RATXIT1 RAT index : next available slot in RAT (NSENSQ words)

511 RATXIT2 The next available address in RAT (NSENSQ words)

512 RATXIT3 Final address of RAT (NSENSQ words)

513 RBMSHT1 Number of scan hits required to initiate a track in the CTS from the BART (NSENSQ)

514 RBMSHT2 Number of scan misses allowed before a beacon and radar track is purged from the CTS (NSENSQ)

515 RBSHFT The no. scans that defines the window length of the hits & misses from beac & radar tabl

516 RNGBINS1 Radar only report geographic clutter areas range table: inner

517 RNGBINS2 Table of ranges for radar only report geographic clutter areas: outer range

518 ROMSHT1 Number of scan hits required to initiate a track in the CTS from the radar only table (NSENSQ words)

519 ROSHFT Tracking table: no. scans that defines the window length of the hits and misses from rad only table
520 ROSHT2 Number of scan misses allowed before a radar only track is purged from the CTS (NSENSO)
521 ROTOVT ROT table overflow flag
522 ROTSPED Tracking table: max speed for declaring radar only tracks as clutter
523 RPCTR1 No. of MTG reports in sector n-1;
524 RPCTR2 TRST table index
525 RPCTR3 PSRAP/MTG lockout flag (NSENSQ words)
526 RTCMASK1 Tracking table: mask for unused portion of RTC
527 S2TIME Srap needs swapping flag
528 SALARMS1 Alarm threshold count
529 SALARMS2 Alarm count
530 SALTBCD1 Temporary storage for conversion of binary beacon only & radar reinf beacon to BCD
531 SALTBCD2 converts beacon only and radar reinforced beacon altitudes from binary to Binary Coded Decimal
532 SALTBCD3
533 SALTBCD4
534 SALTBCD5
535 SALTBCD6
536 SASTIT Target report sector access store (32 sectors by 4 sensors)
537 SASTIT1 The start index into the TRS table for the first target associated with the sector (32 by 4 words)
538 SASTIT2 The number of targets associated with the sector (32 words by 4 sensors)
539 SBAOT Alarm label: BDAS azimuth out of tolerance
540 SBBAA Alarm label: BDAS BEX azimuth alarm
541 SBBFDT Alarm label: BDAS BEX FIFO data timeout
542 SBBFO Alarm label: BDAS BEX FIFO overload
543 SBBMA Alarm label: BDAS BEX mode alarm
544 SBBRA Alarm label: BDAS BEX range alarm
545 SBBRP Alarm label: BDAS BMC restart performed
546 SBDALMT BDAS alarm index table (13 words)
547 SBDFO Alarm label: BDAS defruiter FIFO overload
548 SBIC Alarm label: BDAS illogical condition
549 SBIE Alarm label: BDAS interface error
550 SBRCWO Alarm label: BDAS rng/code words out of order
551 SBSENS A flag indicating which sensor SWABS is to process
552 SBTO Alarm label: BDAS BMC table overflow
553 SBTTND Alarm label: BDAS test target not detected
554 SCALM Execute remote table for clearing unused alarm bits from SRAP alarm messages
555 SCANIT Scan time (NSENSQ(SP) words)
556 SCANQT1 Calculated delta scan time
557 SCANQT2 Actual scan time
558 SCTMET1 Table used by SCTME: test & set flag

559 SCTMET2 Current track number
560 SCTMET3 Number of executions this lattice
561 SCTMET4 Number of processors
562 SCTMET5 Time of last execution
563 SECLST No. sectors in which reports were purged
564 SENBR1 Working subsystem for SLINK
565 SENBR2
566 SENSW1 Specifies what subsystem tracking is currently processing
567 SHTHRES1 Reports calculated beacon quality for radar reinforced beacon target; min. bit count thresh
568 SHTHRES2 Minimum bit count threshold
569 SIP180B Sector no. that is 180 degrees behind current sector (S words)
570 SIPALMT1 PSRAP alarm address table: ROAS, BOAS, MP index table address
571 SIPALMT2 PSRAP alarm address table: BOAS
572 SIPALMT3 PSRAP alarm address table: MP index table address
573 SIPAMSKS Mask used in SCALM execute remote table to clear unused alarm bits
574 SIPB7 Temporary 07 storage
575 SIPBUF Input buffer (S * input buffer length words)
576 SIPCLRTC RTC value for clearing alarm counters (S words where S is the number of SRAPS)
577 SIPCLTIM Delta RTC value for clearing SRAP alarm counters (S words)
578 SIPCLTIM psrap time to clear error counter
579 SIPCQT The quadrant CSECT is currently in (S words)
580 SIPCSN
581 SIPCST Sum of the delta scan times (S words)
582 SIPCSU Flag determining if sectors are to be updated synthetically (S words)
583 SIPCTT Number of reports in TRSiT
584 SIPD SRAP disable interrupt status word storage (E$D)
585 SIPE SRAP enable interrupt status word storage (E$E)
586 SIPENDI1 Input start index
587 SIPENDI2 Temporary index storage
588 SIPFAIL1 No. of consecutive SRAP failures
589 SIPFAIL2 Time of last failure
590 SIPFDS
591 SIPFLG11 Initialization flags: set/reset
592 SIPFLG12 Init flags: init and in sync
593 SIPFLG13 Init flag: in sync, no sector mark
594 SIPFLG14 Init flag: input parity detected
595 SIPFLG15 Counter for SIPFLG11 (test and set init flag)
596 SIPFLG16 Counter for SIPFLG12 (init and in sync init flag)
597 SIPFLG17 Counter for SIPFLG13 (in sync no sector mark init flag)
598 SIPFLG18 Counter for SIPFLG14 (input parity init flag)

599 SIPFLRTC RTC of last declared SRAP failure
600 SIPICIN
601 SIPICIN1 SRAP initiate chain input (E$ICIN)
602 SIPICIN5
603 SIPIDER Count of number of consecutive words where message ID was not found (S words)
604 SIPIFG1 psrap sector mark counter
605 SIPIFLG2 srap initiation flag to indicate readiness for psrap processing
606 SIPINADR PSRAP input chain address (S words)
607 SIPIND1 Total no. of words to process this lattice
608 SIPIND2 Total number of words processed in this lattice
609 SIPIPCT1 Counts: input parity words per lattice
610 SIPIPCT2 Counts: input parity words per SRAP
611 SIPIPEX1 Sector mark initialization: index to start input parity processing (S words)
612 SIPIPEX2 Sector mark initialization: sector mark init flag
613 SIPITOI Input table overflow index
614 SIPITOI2 Interrupt status table overflow index
615 SIPLAB PSRAP execute remote table: SRAP input buffer -) A register
616 SIPLLP PSRAP execute remote table: load logical product on upper half of word in SRAP input buffer
617 SIPLOM Length of parallel SRAP error messages to go out to SRAP output buffer (S words)
618 SIPMOC CDT message store
619 SIPMOC2
620 SIPMOC3
621 SIPMOC4
622 SIPMOC5
623 SIPMOC6
624 SIPMOI1 flag to check message buffer
625 SIPMOI2 number of words in msg buffer
626 SIPMTB Buffer for formatted SRAP error messages (Temp Store minus 1 words by S words)
627 SIPMTP1 Temporary storage for formatted SRAP message to be pulled from error message queue
628 SIPMTP2 temporary storage word for the formated error msg in the error msg queue
629 SIPNCA SRAP execute remote table: no. of clutter bins -) A register
630 SIPOLS1 No. of sectors which had radar only overload per quad (4 quad by S sraps)
631 SIPOLS2 On where n is the quadrant number
632 SIPOSU Used to override synthetic sector update
633 SIPOSU2
634 SIPPBI Execute remote table: for pulling bottom on interrupt status word table
635 SIPPSENS number of parallal sraps
636 SIPPUL
637 SIPRAC1 SRAP request alternate peripheral (E$RAC)
638 SIPRAC3

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639 SIPRBL   SRAP execute remote table: lower RMCBINi =) Q register
640 SIPRBU   SRAP execute remote table: upper RMCBINi -) A register
641 SIPRIC   SRAP request interrupt capture (CSMIO)
642 SIPRICT1 Defines interrupt status word table: length of interrupt status word table
643 SIPRICT2 Interrupt status word table: address of interrupt status word table
644 SIPROT1  RTC value of last SRAP print
645 SIPROT2  Delta RTC value for printout
646 SIPRTC   Temporary storage of RTC value
647 SIPSB    Buffer input pointer (S words)
648 SIPSBAD
649 SIPSBAD  Address of SIPSBINi
650 SIPSBI1  SRAP timeout error count (S words_)
651 SIPSBI2  SRAP input buffer pointer last lattice (S words)
652 SIPSBINS SRAP store buffer input pointer
653 SIPSENS1 Number of dual parallel SRAPS configured minus 1 (S words)
654 SIPSENS2 Target generator init flag (S words)
655 SIPSEZ1  Sector mark zero found flag
656 SIPSEZ2  Sector mark still expected flag (S words)
657 SIPSFN   ???????
658 SIPSFT1  RTC value of last sector failure printout (S words)
659 SIPSFT2  Delta RTC value for printout
660 SIPSIC   Delta sector time (S words)
661 SIPSME1  Count of sector numbers out of sequence (S words)
662 SIPSME2  Next expected sector mark (S words)
663 SIPSSF1  SRAP startup flag
664 SIPSSF2  Sector mark zero late flag (S words)
665 SIPSTART RTC value at SRAP startup (S words)
666 SIPSTAT  SRAP buffer for interrupt storage (S words_)
667 SIPSTS
668 SIPSTS1  Number sector marks not equal to CSECT (S words)
669 SIPSTS2  Fail count threshold  (S words)
670 SIPSZI   PSRAP execute remote table: -D -) SRAP input buffer
671 SIPT     RTC value when next sector should be declared (S words)
672 SIPTEMP  The SRAP message to be processed (3 words)
673 SIPTEMP2
674 SIPTEMP3
675 SIPTEMP4
676 SIPTEMP5
677 SIPTEMP6
678 SIPTIO   Terminate input/output (E$TIO)
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679	SIPTI03	
680	SIPTLI	RTC value of last change in SBIN by SRAP (S words)
681	SIPTMG1	
682	SIPTMG2	
683	SIPTMG3	
684	SIPTMG4	
685	SIPTRK1	Temporary storage for target report input messages (S words)
686	SIPTRK2	temporary storage for target reports
687	SIPTRK3	
688	SIPTRK4	
689	SIPTRK5	psrap temporary target store, fifth word
690	SIPTRK6	
691	SIPTTF1	Number of test targets that failed the range/azimuth check (S words)
692	SIPTTF2	Fail count threshold (S words)
693	SIPULL	PSRAP execut remote table: pull bottom instruction
694	SIPUSH	PSRAP execute remote table: push top instruction
695	SIPWSZ1	Number of scans waiting for sector mark zero (S words)
696	SIPWSZ2	Threshold for declining failure (S words)
697	SLCJEX	Linking execute remote table: RLP on LNKiT
698	SLCLX	Linking execute remote table: RLP on LNKiT
699	SLCNTCL	Linking execute remote table: RLP on LNKiT
700	SLGLK	Linking execute remote table: LNKiT -) A register
701	SLNKTM	RTC value at SLINK entry (RTC is in units of time)
702	SLT7LK	Linking execute remote table: LNKiT -) A register
703	SLTILK	Linking execute remote table: LNKiT -) A register
704	SLTRK	Track found flag
705	SMPOFF	Alarm label: MP output FIFO full
706	SMPRBS	Alarm label: MP RDAS/BDAS sectors not equal
707	SMPRDF	Alarm label; MP RDAS data error
708	SMPRT	Alarm label: MP RDAS timeout
709	SMPSF	Alarm label: MP startup failure
710	SMPTO	Alarm label: MP table overflow
711	SNRORP1	Number of radar only reports per sector (S words)
712	SNRORP2	Threshold at which radar only reports per sector are discarded (S words)
713	SOVERT	Overload sensing and protection flag (S words)
714	SRAOT	Alarm label: RDAS out of tolerance
715	SRAPNT1	Relative peripheral numbers of the dual SRAP (S words)
716	SRAPNT2	Alternate relative peripheral numbers of the dual SRAP (S words)
717	SRAPOFF	SRAP disabled flag (S words)
718	SRIC	Alarm label: RDAS illogical condition

719	SRKYFLAG	Keyboard initiated SRAP switch flag
720	SRPTC1	Current target report store index (5 words)
721	SRPTC2	Number of reports in the current sector (5 words)
722	SRRDAA	Alarm label: RDAS REX detected azimuth alarm
723	SRRDE	Alarm label: RDAS RMC detected error
724	SRRDRA	Alarm label: RDAS REX detected range alarm
725	SRRDT	Alarm label: REX/RMC data timeout
726	SRRFO	Alarm label: RDAS REX/RMC FIFO overload
727	SRRO	Alarm label: RDAS RMC overload
728	SRRRP	Alarm label: RDAS RMC restart performed
729	SRRSDT	Alarm label: RDAS restart data timeout
730	SRRTO	Alarm label: RDAS RMC table overflow
731	SRSINX1	Next available open TRSIT index (5 words)
732	SRTTND	RDAS test target not detected
733	STACKTO	Processor save (push) and restore (pull) table control words
734	STAROR	Radar only overload function enabled flag
735	STIMETT	Target report sector time store (32 sectors by 4 sensors)
736	STNOVT	Sensor overflow flag (NSENSO words)
737	STTAZM1	Test target azimuth upper limit (5 words)
738	STTAZM2	Test target azimuth lower limit (5 words)
739	STTRNG1	Test target range upper limit (5 words)
740	STTRNG2	Test target range lower limit (5 words)
741	STTSTR	Buffer containing target report store formatted test targets (6 by 5), where 1-3 RO, 4-6 BO
742	SWAZ1RG1	Partial auto-acquire, auto-drop tables: first range/azimuth for auto-drop
743	SWAZ2RG2	Partial auto-acquire, auto-drop tables: second range/azimuth for auto-drop
744	SWITOVER	SRAP keyboard processing function request flag
745	SWOVAR1	Partial auto-acquire, auto-drop tables: first range/azimuth for auto-acquire
746	SWOVAR2	Partial auto-acquire, auto-drop tables: second range/azimuth for auto-acquire
747	SWSENS	Indicator for subsystem used by keyboard configuration
748	SWUNRG	Partial auto-acquire, auto-drop table: unknown arrivals for auto-drop
749	SYSLOAD	System load indicator (set by TEXEC)
750	SYSRO	Radar only processing disable table
751	SZALARM	Execute remote word for incrementing B6 by NSENSO
752	TALTIMP1	TALTIMP1 Training altimeter correction: altitude where correction necessary
753	TALTIMP2	TALTIMP2 Training altimeter correction: correction factor
754	TBCNT	Execution flag table
755	TERMTRL	Tracking overloaded and sensors lost flag (set in TEXEC) (NSENSO words)
756	TESTFLG	Test target enable/disable flag; display no. that requested display of test target
757	TGTGEN1	Target generator active/not-active (test mode) flag
758	TGTGEN2	Target generator is active flag

759	TKDEL	Training track considered for deletion code
760	TMSCORI	Difference between actual and rounded altimeter correction (for training)
761	TOK1	Track numbers: minimum trial
762	TOK2	Track numbers: maximum normal
763	TRANIF	Conflict alert training interface flag
764	TRAT1	Tracking table: length of RAT
765	TRAT2	Length of RAT minus 1
766	TRAXIP	Addition constant for translating x coord from one subsystem to another (4 sensors by 4 sensors)
767	TRAYIP	Addition constant for translating y coord from one sybsystem to another (4 sensors by 4 sensors)
768	TRKXT1	Central track store index table: track number (TQ words)
769	TRKXT2	Central Track Store (CTS) Index Table: track file address
770	TRSENS	A flag specifying which sensor TROUT is to process
771	TRSTIOK1	Maximum number of radar only reports allowed per sector when overload sensing & protection is enable
772	TRSTIOK2	Contents of TRSTIOK1 minus 1
773	TSFBC	Common subroutine lockout flag: subroutine DUPBC
774	TSSSIT	Track Sector Summary Table (TSSS)
775	TSSSIT1A	(TSSS): a flag specifying whether or not there are any tracks in this sector
776	TSSSIT1B	Track Sector Summary Table (TSSS): the number of tracks in this sector thread
777	TSSSIT2	Track Sector Summary Table (TSSS): starting track number of the first threaded track in this sector
778	TUDCFH1	Thread change flag: CTS
779	TUDCFH2	Thread change flag: TNP
780	UNCONT1	The file number of the first file in the related uncontrolled track thread
781	UNCONT2	The count of the number of files in uncontrolled track thread
782	UNCONTIT	uncontrolled track pointer table, not unused
783	UNRG	Range/azimuth values for auto-drop table: unknown arrival range
784	UNUSET1	The file number of the first file in the unused track thread
785	UNUSET2	The count of the number of files in the unused track thread
786	XTRAXT	Linking execute remote table: TRAXiP -> A register
787	SIPABL	SRAP execute remote table: for loading Q-register from AZMBINi (lower)
788	SIPABU	SRAP execute remote table: for loading A-register from AZMBINi (upper)
789	SIPBUFAD	SRAP input buffer address (S words)
790	SIPCHI	PSRAP chain command table (S words where S is equal to the number of SRAPS)
791	SIPLTS	Length of TRSiT table (S words)
792	SIPMNRS1	Maximum no. of reports for TRSiT
793	SIPMNRS2	
794	SIPOVERI	Execute remote table: SRAP input buffer -> A register
795	SIPOVERS	Execute remote table: SRAP interrupt status word buffer -> A register
796	SLSCLK	Linking execute remote table: SLQ -> Q register
797	SLSCSLK	Linking execute remote table: SLQ -> Q register
798	SLSLK	Linking execute remote table: ROR on LNKiT

799	SLST1LK	Linking execute remote table: A register -) LNKiT
800	SLST2LK	Linking execute remote table: A-register -) LNKiT
801	SLTLK	Linking execute remote table: LNKiT -) A register
802	SMPALMT	Merge processing alarm index table
803	SPEEDP1	Tracking table: upper speed limit for auto initiation (NSENSQ words)
804	SPEEDP2	Tracking table: lower speed limit for auto initiation (NSENSQ words)
805	SRDALMT	RDAS alarm index table
806	SYMT	Keyboard input table: miscellaneous data
807	TIMX1	Tracking table: successive correlation maximum time interval
808	TIMX2	Tracking table: successive correlation minimum time interval
809	TQX	Number of track files
810	TRKXT	Central track store index table (2 by TQ, where TQ is max track data files)
811	VELQT	Tracking table: max velocity in which a track may auto-drop
812	ADBPK	Display packet store
813	ADSTCT	Address of the first entry in the STMCTS table (1 word per sensor)
814	ADTRNT1	Address of the TRN1T table
815	ADTRNT2	Address of the TRN2T table
816	ADTRNT3	Address of the TRN3T table
817	ADTRNT4	Address of the TRN4T table
818	AMCT	Tables for Amplify function
819	AMERMAT	Output buffer for Amplify function
820	APACK	Display packet store
821	APT	Airport table (airports & fixes in TI code)
822	AQLR2T	Bit encoded keyboards (31 - 60) for adapted displays quick look
823	AQLR3T	Bit encoded keyboards (61-90) for adapted displays quick look
824	AQLRCT	Bit encoded keyboards (1 - 30) for adapted displays quick look
825	AQLRNGT	Range inside which tracks will be quick looked ,no quick look
826	ARTEID	Source identifier for NY TRACON (1 word)
827	ATRNGD	Bit encoded training displays (2 words)
828	AWDT	A word table (32 words)
829	BCONFLG	A flag indicating primary/alternate sensor for displays
830	BCWCAN	BCW command table
831	BCWT	Tables containing buffer control words for system data
832	BLACAW	MSAW/CA inhibited flag
833	BRITE1T	Buffer for first BRITE tabular list (11 words)
834	BRITE2T	Buffer for second BRITE tabular list (11 words)
835	BSCFRT	Legal sensor indicator in TI code
836	BSWCNT	Flags: which sensors need changing; which sensors are currently realigning; we are aligning
837	BSWFLG	Flags: No. sensors processed; whether first pass
838	CACIDIX	TI character tables

839	CACID2X	TI character tables
840	CACID3X	TI character tables
841	CAINT	Display tables
842	CANCAT	System display chain
843	CAOF	Subroutine sump table
844	CAOFTS	Temporary storage
845	CFG12T	Temporary storage
846	COFADC	Address of non-standard configuration tables (2 words)
847	COUNT	Keyboard counters (21 bit fields)
848	COUNT	Keyboard counters (21 bit fields)
849	CPSFLAG1	CA displays disable flag
850	CRTYXT1	Product of current range & offcenter of coordinate, complimented, scaled + 4: X coordinate
851	CRTYXT2	Product of current range & offcenter Y coord, complimented, scaled +4
852	CSBT	X, Y base coordinate
853	DBCOUNT1	Altitude data block counter
854	DBCOUNT2	Single Symbol counter
855	DBCOUNT3	Full data block counter
856	DBMAD2	Next available DBM address for MSAW and full data blocks (2 words)
857	DBMADS1	Next available DM address for single symbols and altitude data blocks
858	DCODT	Temporary storage table
859	DCONT	Table containing display parameter data
860	DCONT	Table containing display parameter data
861	DEGRDT	Table used for DBM display output
862	DFLAGT	Table containing display parameter data
863	DFLAGT	Table containg display parameter data
864	DFLAGT	Table containing display parameter data
865	DINT	A PLPR instruction
866	DISTRT	Contains MDBM parameter data
867	DMFLAG	Temporary storage
868	DPRAD	DBM address for keyboard on display (3 words, 1 for each display)
869	DSLIMT	DM address where data tykpes sublist begins; no. of sublist entries possible
870	DSLW	Shift instruction
871	DSPKY	Display print inhibit flag
872	DTK2	No. words of data type 1 that can be processed in dead time: Small
873	DTK3	No. words of data type 2 that can be processed in dead time: Small
874	DTK4	No. words of data type 3 that can be processed in dead time: Small
875	DTP	Dead time: Small
876	EIR	Constant: 040000,0
877	ELDDDT	Time interval between data loss messages
878	EMRFT	EM & RF counter table for subsystems 1,2,3,& 4.

879	ERMAT	Output buffer for the tab display of mem. readout requests
880	FIXCVT	Fix designator symbols table
881	FPFLGT	MIFPY variable: input ready flag; flight plan inhibit flag
882	FREEZET	System freeze flag
883	FRTC	TIG related data: freeze time RTC correction value
884	FULCON	Miscelanneous flag
885	FUNCT	Address of function processing routines; function characters
886	GOKOFK	Normal exit jump table
887	HJT	Table contains HJ & SA counters for subsystems 1,2,3,& 4
888	HVYCH	Heavy jet table containing aircraft category/flight plan status codes
889	ICHPNT	Contains pointer to the input chain
890	IDUBT	Keyboard track information
891	INTUSE	Misc. variables: Test & set for IMT available
892	INIFC1	Interfacility data word
893	INIFC2	interfacilty inhibit flag
894	KCK	Exit jump table: capacity error exit
895	KCONT	Keyboard parameter data
896	KDUPAK	Exit jump table: DUP ID error exit
897	KDUPBK	Exit jump table: DUP BCN error exit
898	KFORMK	Exit jump table: Format error exit
899	KICK	Exit jump table: ILL CHAR error exit
900	KIFIHK	Exit jump table: IF INHBT error exit
901	KIFK	Exit jump table: IF WAIT error exit
902	KILFK	Exit jump table: ILL FNCT error exit
903	KILINK	Exit jump table: ILL LINE error exit
904	KILPSK	Exit jump table: ILL POS error exit
905	KILTRK	Exit jump table: ILL TRK error exit
906	KIPKY	Switch table: KIP print inhibit
907	KITRGK	Exit jump table: OUT RNGE error exit
908	KOFKEY	KOF switch table
909	KOFTME	Time KOF was entered
910	KOFTNG	Miscellaneous variable: Training flag
911	KSLEWK	Exit jump table: NO SLEW error exit
912	KYBDT	Table containing BRITE data
913	KYBDX	Miscellaneous variable: Keyboard index
914	KYBTMP	Miscellaneous variable: Temporary storage
915	LAWORD	Miscellaneous variable: LA/CA store
916	LSTRTC	Saved value of RTC to detect if the RTC has rolled over
917	MBADEI	Last bad status interrupt with input parity received (1 per MDBM)
918	MBADF	Count of received: bad status interrupts; external interrupt parity errors (1 per MDBM)

919	MBADN	Last bad status interrupt received
920	MBADOP	Last bad status interrupt with output parity received
921	MBST	MDBM display output processing table: next starting address for output chain
922	MCAD	MDBM display output processing table: next available address for insertion into output chain
923	MCONT	MDM parameter table
924	MEMRT	Memory readout request table
925	METIM	Next time (in RTC time units) that interrupts are to be enabled for MDBM (1 per MDBM)
926	MFAD	MDBM display output processing table: first address in chain area
927	MFAILF	MDBM display output processing table: failure count
928	MFUNCT	Keyboard multifunction table
929	MFVGF	Miscellaneous variable: MSAW approach monitor entry flag
930	MICNTR	MDBM display output processing table: interrupt count
931	MIFDIG	MDBM display output processing table: digits for teletype output
932	MINCH	Input chain table
933	MINTBT	MDBM display output processing table: status queue BCW
934	MINTT	MDBM display output processing table: interrupt entrance address
935	MIPAR	Input processing table: temporary storage for input parity error status
936	MIPF	Input processing table: count of number of input buffer parity errors received
937	MIPPT	Push/pull control tables: input buffer parity storage table for MDBMs
938	MIPST	DBM output variables: BCW for P-stack output
939	MISAVA	MDBM display output processing table: temporary storage for A register
940	MISIL	MDBM display output processing table: SIL instruction
941	MISTG	DBM output variables: BCW for stagger sublist output
942	MLAAD	MDBM display output processing table: last avail addr in chain area before overwrite occurs
943	MLAD	MDBM display output processing table: last addr in chain area
944	MLBF	MDBM display output processing table: last MSST word used
945	MLCL	Display output processing table: last addr where an IOCL instr was stored in chain
946	MMINT	MDBM display output processing table: interrupt routine
947	MPSTACK	DBM output variable: PSTACK for DBM refreshed displays
948	MPTEM	DBM selection bits
949	MPULT	Push/pull control tables: used to retrieve data from the MBDM input buffer
950	MRDKY	Switch table: memory readout enable
951	MRET	MBDM display output processing table: retry counter for restarting a stopped chain
952	MSAWIE	MSAW inhibit flag
953	MSCAWD	Miscellaneous varible: temporary store
954	MSCBWD	Miscellaneous variable: temporary store
955	MSLPX	MDBM display output processing table: status loop indexes
956	MSTAGT	Output variable: A-word,B-word, & gross carriage returns
957	MSTAT	MDBM display output processing table: interrupt status word storage
958	MSWKY	Switch table: MSAW print inhibit flag

959	NIFLGI	Variable: NIFP init flag; mag tape busy flag
960	NIFSW	Variable: no time check on flight plans flag
961	NIPDSC	Variable: flight plan disk drive no.; flight plan source flag (disk or tape)
962	NIST2Y	Variable: external interrupt status word storage
963	NISTP	Variable: current time for flight plan time check; no. retries if error detected
964	NISTY	Variable: external interrupt status word storage
965	NBUFLG	Output variable: no. display buffers in system
966	NCFGT	Current configuration numeric
967	NIOPOK	Table of site variables: number of IOPs
968	NMDBHQK	Table of site variables: no. of MDBMs
969	NRDBHQK	Table of site variables: no. of RDBMs
970	NSENSOK	Table of site variables: no. of sensors
971	NUMBCWS	Output variable: no. of BCWs needed to flood DBM chain
972	NUMDOK	Table of site variables: no. of displays
973	NUMDOK	Table of site variables: no. of displays
974	NUMKOK	Table of site variables: no. of keyboards
975	NUMTOK	Number of tracks
976	OCDSC	MDBM display output processing table: previous output chain pointer
977	P2FLGW	Miscellaneous variable: CFG print flag
978	PACK1T	Miscellaneous variable: MPEB packet
979	PACK2T	Miscellaneous variable: MPEB packet
980	PAIRT	Keyboard table: keyboard data miscellaneous
981	PAIRT	Keyboard tables: keyboard data miscellaneous
982	PREVT	Keyboard table: miscellaneous preview data
983	PRGLVL	Miscellaneous variable: program level
984	PRIPHT	MDBM table: relative peripheral number
985	PULST	Keyboard table: horiz & vert changes of trackball in radar coord
986	QLRC2T	Display table: keyboards for which quick-look switches have been selected (31-60)
987	QLRC3T	Display table: keyboard for which quick-look switches have been selected (61-90)
988	QLRC4T	Display table: keyboards for which quick-look switches have been selected (91-96)
989	QLRECT	Display table: keyboards for which quick-look switches have been selected (1-30)
990	QUIKT	Keyboard table: miscellaneous quick look data
991	QUIKT	Keyboard table: miscellaneous quick look data
992	RCNP	Variable: no. of flight plan files to pass over
993	RCONT	RDBM table: miscellaneous message acknowledge data
994	RECYT	Variable: flags used while recovering from detected error
995	RFILT	RDBM table: range filter table
996	RTCOUN	RDBM table: re-transmit counter for RDBM
997	RTCTY1	Variable: next data flag
998	RTCTY2	Rewind flag

999	RTIMET	RDBM table: system time of last message received
1000	RTRANT	RDBM table: re-transmit request message no.: input;output
1001	RWFLT	Variable: no. flight plans to pass over ; 24 hour clock rewind flag
1002	SAT	Table contains nothing !
1003	SAVB4W	Variable: temporary storage
1004	SAVB5W	Variable: temporary storage
1005	SAVB6	Variable: temporary storage
1006	SAVB7W	Variable: temporary storage
1007	SAVK	Miscellaneous variable: temporary storage
1008	SCODT	Display table
1009	SCT	Selected code display table
1010	SCTI	Selected code display table
1011	SDABT	Display table: system data B word
1012	SELTMT	Variable: flight plan input day code; MTFP selected time for inputs
1013	SLEWT	Miscellaneous variable: temporary storage
1014	SRPKY	Switch table: SRAP print inhibit flag
1015	SROW	Miscellaneous variable: shift instruction
1016	STNDEX	Sensor track number control table: sensor track number index table (NSENSO words)
1017	STNLO	Sensor track number control table: sensor track number index lockout table
1018	SUPKY	Switch table: supervisory position key
1019	SVEOFB2	Miscellaneous varible: save B2
1020	SYMBLS	Miscellaneous variable: temporary storage
1021	SYMF	
1022	SYSLVL	Related tables: system level display data table
1023	SYSLVT	Related tables: TI coded name of system operational program currently being executed
1024	TABBT	Keyboard table: miscellaneous X, Y base coordinate data
1025	TAST	Output buffer: system time
1026	TASTI	Output buffer: satellite 1 -) 3 unique altimeter, ATIS & CST
1027	TASTO	Output buffer: Host altimeter, ATIS, & GSI
1028	TBAL1T	Keyboard table: miscellaneous first entered trackball data
1029	TBAL2T	Keyboard table: miscellaneous second entered trackball data
1030	TBCWT	System data BCW table for (for training)
1031	TBLNCT	RDBM table: no. coast/suspend tracks, no. of store tracks processed by RTDOP
1032	TBPRET	Keyboard table: trackball A & B word buffer . . . etc;
1033	TBT	Tab line ID indicator: keyboards 0 -) 30
1034	TBT2T	Tab line ID indicator: keyboards 31 -) 60
1035	TBT3T	Tab line ID indicator: keyboards 61 -) 90
1036	TBT4T	Tab line indicator: keyboards 91 -) 120
1037	TDOPT	Display counter
1038	TEMP	Miscellaneous variable: temporary storage

1039	TFMRFT	Counters for display of FM (training status)
1040	TFLAG	Scratch pad altitude display flag
1041	TFRTC	TTG-related data: freeze time RTC correction value (training)
1042	THJT	Counters for display of HJT (training status)
1043	TKRCXT	Display table: miscellaneous display data
1044	TMDAMT	Time of day in minutes
1045	TMDAST	Time of day in seconds
1046	TMDYRTC	Temporary storage for RTC when checking to see if it has rolled over
1047	TNGACT	TTG-related data: no. training displays in system
1048	TRN1T	Tracking translation table, sensor 1 to others: (2 by 4, where 1-y, 2-x, sensors 1-4)
1049	TRN2T	Tracking translation table, sensor 2 to others: (2 by 4, where 1-y, 2-x, sensors 1-4)
1050	TRN3T	Tracking translation table, sensor 3 to others:
1051	TRN4T	Tracking translation table, sensor 4 to others:
1052	TS1T	Last flight plan table (bulk store): word 1
1053	TS2T	Last flight plan table (bulk store): word 2
1054	TSAT	Counters for display of SAT (training status)
1055	TST	Last flight plan table (bulk store): word 3
1056	TSTKY	Switch table: test mode enable
1057	TTAST	Output buffer: system time (training)
1058	TTMDAMT	Time-related variable: time of day in minutes (training)
1059	TTMDAST	Time-related variable: time of day in seconds (training)
1060	TTYIHB	Miscellaneous variable: reconfiguration inhibit flag
1061	TYF	Force aircraft type display table
1062	TYI	Inhibit aircraft type display range table
1063	TYP1T	Display table: last correctly received type I data word received from display
1064	TZULUL	Time-related variable: difference between the RTC and time of day (training)
1065	UAFLT	Display table: altitude filter - lower and upper limit
1066	VIALT	IFR/VFR-related data: VFR/IFR code block data table
1067	VICADT	IFR/VFR-related data: contains addresses of VILCRT & VITCRT tables
1068	VICDT	IFR/VFR-related data: computer-assigned beacon code table
1069	VICIXT	IFR/VFR-related data: VFR/IFR index table
1070	VICWT	IFR/VFR-related data: temporary working table
1071	VILCRT	IFR/FVR-related data: IFR/VFR code request table
1072	VITCRT	IFR/VFR-related data: IFR/VFR code request table (training)
1073	ZULUL	Time-related variable: difference between the RTC and time of day
1074	WRAPTIME	wraparound (add on) time to convert to 24 hour clock; 532
1075	SIPSTLQ	psrap length interupt status table
1076	SIPTOSFQ	OUTPUT TIME FOR SENSOR MESSAGE; 74000
1077	VAQ	Beacon code validity value below which the code is considered to be bad
1078	AAHC	Temporary storage

1079	AALTW	Temporary storage
1080	ACTYPW	Temporary storage
1081	ADFLC	Temporary storage (1 word)
1082	ADTRK	Temporary storage
1083	ARCTDC	Temporary storage (7 words)
1084	BEACNC	Temporary storage
1085	BIND	Temporary storage (1 word)
1086	CHGFLG	Temporary storage (1 word)
1087	CLDTRK	Temporary storage (1 word)
1088	CONTRC	Temporary storage
1089	DBCWT	Temporary storage (14 words)
1090	DSPCLR	Temporary storage
1091	DTCHGFLG	Used to determine if an altitude data block has changed
1092	DUPBCK	Temporary storage
1093	DUPOUC	Temporary storage (3 words)
1094	DUPTSD	Temporary storage (1 word)
1095	ECIBIC	Temporary storage (1 word)
1096	ETAC	Temporary storage
1097	FIXC	Temporary storage
1098	INIT	Temporary storage
1099	LKDTRK	Temporary storage
1100	MAXBYC	Temporary storage
1101	MSWTMP	Temporary storage
1102	PACKAD	Temporary storage
1103	PAXET	Temporary storage
1104	PASB1	Temporary storage
1105	PASTME	Temporary storage
1106	PFTMP	Temporary storage
1107	PSCPAK	Temporary storage
1108	PSCTMP	Temporary storage
1109	RDELTZ	Temporary variable: reflect flag
1110	SAVB2	Temporary storage
1111	SAVEID	Temporary storage
1112	SCPDQ	Temporary store
1113	SCPDW	
1114	SCPWW	
1115	TCTBT	Temporary storage
1116	TEMTR1	Temporary storage
1117	TEMTR2	Temporary storage
1118	TEMTR3	Temporary storage

1119	TEMTRK	Temporary storage
1120	TFLG	Temporary storage
1121	TRADB2	Temporary storage
1122	TRADB3	Temporary storage
1123	TRADB5	Temporary storage
1124	TRADCTS	Temporary storage
1125	TRADDLS	Temporary storage
1126	TRADSI	Temporary storage
1127	TRADSLE	Temporary storage
1128	TREC	Temporary storage
1129	TRKALT	Temporary storage
1130	TRKCLR	Temporary storage
1131	TRKFAM	Temporary storage
1132	TRKLCA	Temporary storage
1133	TRKRBC	Temporary storage
1134	TRTNDX	Temporary storage
1135	XDELT2	Temporary variable: total time elapsed in x direction
1136	YDELZ	Temporary variable: total time elapsed in y direction
1137	TRSIT	Target Report Store (TRS) table
1138	TRSIT1	Target report azimuth (one entry per sensor)
1139	TRSIT10	Target report 3/A code validity code (NSENSQ words)
1140	TRSIT11	Target report beacon code (one per sensor)
1141	TRSIT12	Target report strength flag (one per sensor) Values: true - strong, false - weak.
1142	TRSIT13	Target report mode C validity code (one per sensor)
1143	TRSIT14	Target report mode C altitude (NSENSQ words)
1144	TRSIT15	Target report range (one per sensor)
1145	TRSIT2	Target report radar reinforced flag (one per sensor)
1146	TRSIT3	Target report radar report quality (one per sensor)
1147	TRSIT4	Target report TPUR use inhibited flag (one per sensor)
1148	TRSIT5	Target report emergency flag (one per sensor)
1149	TRSIT6	Target report training target generator flag (one per sensor)
1150	TRSIT7	Target report in IFR mode flag
1151	TRSIT8	Target report used flag (one per sensor)
1152	TRSIT9	Target report special position flag (one per sensor)

	DATANAME	SECTION	PAGE	DATABASE			TYPE	VARNAME	DBNAME	TT/TK
	aaaA	3.139	3.0-40	MSITEQ			i	ARR_STATUS_DEF_ARPT	TRACK	TTAPTID
	aaaD	3.139	3.0-40	MSITEQ			i	DEPT_STATUS_DEF_ARPT	TRACK	TTAPTID
c	AkQ	3.85	3.0-31	DSITEQ	KBDT TBPRET SYMT		TA	KYB_TYPE.AKQ	KBD	TTKEYBRD
	N/A-AAijQ	3.55.14	3.0-24							
	N/A-AADTQ	2.158	2.0-36	TI	MSITEQ		i	DEDS_SSFDB_AWORD_DISP_TIME	DISP	
	N/A-AAFijQ	3.55.15	3.0-24							
c	AAZaiQ	3.33	3.0-9	TSITEQ	AAFXP		T		TRACK	TTAUTOAQ
c							r	AIRPORT_ARRS(.i.).AZIM_START		TTAUTOAQ
c							r	AIRPORT_ARRS(.i.).AZIM_STOP		TTAUTOAQ
c							b	AIRPORT_ARRS(.i.).ARPT_INHIBIT(.j.)		TTAUTOAQ
c	AAZmiQ	3.30-31	3.0-8	TSITEQ	OVAR2 OVAR1		T		TRACK	TTAUTOAQ/DR
c							r	OVERFLIGHTS.AZIM_START		TTAUTOAQ
c							r	OVERFLIGHTS.AZIM_STOP		TTAUTOAQ
c							r	ARRIVALS.AZIM_START		TTAUTOAQ
c							r	ARRIVALS.AZIM_STOP		TTAUTOAQ
c						r		AIRPORT_DEPTS(.i.).ARPT_DATA_SDY.INNER_AZIM_1		TTAUTOAQ
c						r		AIRPORT_DEPTS(.i.).ARPT_DATA_SDY.INNER_AZIM_2		TTAUTOAQ
c							r	OVERFLIGHTS.AZIM_START		TTAUTODR
c							r	OVERFLIGHTS.AZIM_STOP		TTAUTODR
c							r	DEPARTURES.AZIM_START		TTAUTODR
c							r	DEPARTURES.AZIM_STOP		TTAUTODR
c						r		AIRPORT_ARRS(.i.).RNG_AZIM_SDY.AZIM_START		TTAUTODR
c						r		AIRPORT_ARRS(.i.).RNG_AZIM_SDY.AZIM_STOP		TTAUTODR
c	AAZLmiQ	3.31	3.0-8	TSITEQ	OA2OR2 OA3OR3 OA1OR1		T		TRACK	TTAUTOAQ
c						r		AIRPORT_DEPTS(.i.).ARPT_DATA_SDY.AZIM_2_START		TTAUTOAQ
c						r		AIRPORT_DEPTS(.i.).ARPT_DATA_SDY.AZIM_2_STOP		TTAUTOAQ
c						r		AIRPORT_DEPTS(.i.).ARPT_DATA_PRIM.AZIM_3_START		TTAUTOAQ
c						r		AIRPORT_DEPTS(.i.).ARPT_DATA_PRIM.AZIM_3_STOP		TTAUTOAQ
	N/A-ABDTQ	2.104	2.0-18	TI	DTADQ		i	TMSHR_DT_ABD_PARM	DISP	
	N/A-ABEAT	2.165	2.0-37					CTS_REFS_SIZES_WORD_8	SPARM	
c	ABET						T	TFIRM_TABLE	TRACK	TTABET
	N/A-ABIASQ	2.26	2.0-5							
	N/A-ACMQ	8.3.1	8.0-9							
c	ACNTQ	3.54.13	3.0-17	TSITEQ	TINIT		i	NO_SCAN_TARGET_HITS	TRACK	TKTRKPRM
	N/A-ACPZONEQ	1.126	2.0-28	TI			i	MTRK_ACPZONE	TRACK	
	N/A-ACQ	8.4.1	8.0-15						MSAW	
	N/A-ACTYPT	2.165	2.0-39					CTS_REFS_SIZES_WORD_27	SPARM	
	N/A-ADijQ	3.55.14	3.0-24							
	N/A-ADAQ	8.2.1	8.0-1							
	N/A-ADBNQ	3.119	3.0-36	MSITEQ	DSLIMT					
	N/A-ADDBP	2.41	2.0-8							
c	AFIRMQ	2.126	2.0-26	TI	TINIT		ebc	MTRK_FIRM_AUTO_AC	TRACK	TKTRKPRM
c	AFIXaiQ	3.32	3.0-9	TSITEQ	AFXP	AAFXP	Ti	NUM_ARR_FIX_AREAS	TRACK	TTAUTOAQ
	N/A-AFRMQ	2.27	2.0-5							
c	AFXP						Tb	ARR_INHIB_AREA		TTAUTOAQ
	N/A-AIFRQ	3.20	3.0-5	DSITEQ	VIALT			ALPHA_CHAR_IFR		
	N/A-AIHOQ	2.17	2.0-4	TI	IDAT		r	IFY_ALLOC_MILES	IFY	
	N/A-ALALT	7.5.3	7.0-44							
	N/A-ALARMQ	7.6.2	7.0-45							
c	ALSET						Tr	ALTIMETER.ALTIM_SETTING		TTALT
	N/A-ALT	2.165	2.0-38							
c	ALTiQ	2.2	2.0-1	TI	MSAW		Ti	ALTIMETER.ALTITUDE	KBD	TTALT
	N/A-ALTMASKQ			MSITEQ	ALTMASK			ALT_MASK		TKMISC

N/A-ANCRESQ							LENGTH_TTY_INPUT_BUFFER	SPARM	
N/A-ANCRESQ							ON_CALL_COMM_AREA_LNGTH	SPARM	
N/A-ANCRESQ		3.0-34	MSITEQ	BRATS CTIP DTOD FPDU LIMD		i	LENGTH_TTY_INPUT_BUFFER	SPARM	
N/A-ANCRESQ		3.0-34	MSITEQ	MTGA MTGCT SCDU TSO TI				SPARM	
N/A-ANCRESQ		3.0-34	MSITEQ	MTGA MTGCT SCDU TSO				SPARM	
N/A-ANCRESQ	2.127	2.0-29							
N/A-ANCRESQ	3.109	3.0-34							
N/A-ANCTK1Q	2.127	2.0-28	TI			i	ON_CALL_INITIALIZE	SPARM	
N/A-ANCTK2Q	2.127	2.0-28	TI			i	ON_CALL_EXECUTE	SPARM	
N/A-ANCTK3Q	2.127	2.0-28	TI	BRATS CTIP DTOD FPDU LIMD	scdu tso	i	ON_CALL_TERM_ENABL_FLAG	SPARM	
N/A-ANCTK4Q	2.127	2.0-28	TI	BRATS DTOD FPDU LIMD SCDU	tso	i	ON_CALL_MSG_PREFIX_AREA	SPARM	
N/A-ANCTK5Q		2.0-28	TI	CTIP		i	ON_CALL_INPUT_TTY_MSG	SPARM	
N/A-ANCTK6Q	2.127	2.0-28	TI	DTOD FPDU LIMD MTGA MTGCT	scdu tso	i	ON_CALL_UNPACK_TTY_MSG	SPARM	
N/A-ANCTK7Q	2.127	2.0-29	TI	BRATS CTIP FPDU IFO KIP		i	ON_CALL_PASSED_DATA	SPARM	
N/A-ANCTK7Q	2.127	2.0-29	TI	LIMD RKIP SCDU TSO		i	ON_CALL_PASSED_DATA	SPARM	
c AOFSTLQ	3.46	3.0-14	MSITEQ	SDB2		boo	AUTO_OFFSET_ENABLE	DISP	
N/A-APAijQ	3.55.9	3.0-22a							
N/A-APALijQ	3.55.8	3.0-22							
N/A-APHiQ	3.99	3.0-32							
N/A-APNijQ	3.55.1	3.0-19							
N/A-APRijQ	3.55.9	3.0-22a							
c APTnQ	3.37	3.0-11	DSITEQ	APT		TA	AIR_FIX_TYPE		TTAPTFIX
c APTQ	3.37	3.0-11	DSITEQ	APT			NO_FIXES_AND_AIRPORTS		TKRANGE
N/A-ARijQ	3.55.14	3.0-23							
c ARCSIQ	3.9	3.0-2	DSITEQ	IDAT		A	ARTCC_SOURCE_ID	IFY	TKMISC
N/A-AREASQ	2.28	2.0-6							
N/A-AREATQ			TI	ALTRKR ALTRKR1		i	INIT_ALT_ACCEL_REASON	TRACK	
N/A-AREAUQ			TI	ALTRKR ALTRKR1		i	SEC_ALT_ACCEL_REASON	TRACK	
c ARGmiQ	3.31	3.0-8	TSITEQ	OVAR2 OVAR1		T		TRACK	TTAUTOAQ/DR
c						r	OVERFLIGHTS.RANGE_IN		TTAUTOAQ
c						r	OVERFLIGHTS.RANGE_OUT		TTAUTOAQ
c						r	ARRIVALS.RANGE_IN		TTAUTOAQ
c						r	ARRIVALS.RANGE_OUT		TTAUTOAQ
c					r		AIRPORT_DEPTS(.i.).ARPT_DATA_SDY.INNER_RANGE_1		TTAUTOAQ
c					r		AIRPORT_DEPTS(.i.).ARPT_DATA_SDY.INNER_RANGE_2		TTAUTOAQ
c						r	OVERFLIGHTS.RANGE_START		TTAUTODR
c						r	OVERFLIGHTS.RANGE_STOP		TTAUTODR
c						r	DEPARTURES.RANGE_START		TTAUTODR
c						r	DEPARTURES.RANGE_STOP		TTAUTODR
c					r		AIRPORT_ARRS(.i.).RNG_AZIM_SDY.RANGE_START		TTAUTODR
c					r		AIRPORT_ARRS(.i.).RNG_AZIM_SDY.RANGE_STOP		TTAUTODR
c ARGLmiQ	3.31	3.0-8	TSITEQ	OA2OR2 OA3OR3 OA1OR1		T		TRACK	TTAUTOAQ
c					r		AIRPORT_DEPTS(.i.).ARPT_DATA_SDY.RANGE_2_INNER		TTAUTOAQ
c					r		AIRPORT_DEPTS(.i.).ARPT_DATA_SDY.RANGE_2_OUTER		TTAUTOAQ
c					r		AIRPORT_DEPTS(.i.).ARPT_DATA_PRIM.RANGE_3_INNER		TTAUTOAQ
c					r		AIRPORT_DEPTS(.i.).ARPT_DATA_PRIM.RANGE_3_OUTER		TTAUTOAQ
c ARRSNSiQ	3.82	3.0-30	DSITEQ	AQLRNGT		Ti	SENSOR_TYPE.SNSR_AVR_STATUS	IFY	TTSENSOR
N/A-ARTSiQ	3.11	3.0-2	DSITEQ	IDAT		TA	NYT_SOURCE_ID	IFY	
c ARTSIDQ	3.137	3.0-40	DSITEQ	IDAT		ebc	EBCDIC_SOURCE_ID	IFY	TKMISC
c ARTSIQ	3.10	3.0-2	DSITEQ	IDAT SDB2		A	NYTRAC_SOURCE_ID	IFY	TKMISC
N/A-ASLD	5.1.2	5.0-2							
N/A-ASOCT	2.165	2.0-37					CTS_REFS_SIZES_WORD_7	SPARM	
c ASQ	3.54.1	3.0-16	TI	COMA		i	PRE_ERA_FP_CHNG_STOR_DISPL	IFY	TKMISC
N/A-ASR7Q			TSITEQ			i	ASR_BEACON_SUBSYS	SPARM	
N/A-ASR7SQ			TSITEQ			i	ASR_ASSOC_DISPLAY_NO	SPARM	

N/A-ATRNGQ	3.130	3.0-39	MSITEQ	MTGA MTGCT	SPARM			i	ADAPTED_TRAIN_DISP_FLAG	ETG	
c ATSQ	3.54.2	3.0-16	TI	COMA				i	PRE_FIX_ARIV_OVFL_TMPTOCTS	IPY	TKMISC
N/A-ATYPTiQ	7.5.2	7.0-43									
N/A-ATYPTLQ	7.5.1	7.0-43									
AUTO		3.5.2-2	SYSEQ0	AUT KOFC SDB2	SYSEQ1	SYSEQ2		boo	AUTO_OFFSET	PSRAP	
N/A-AUTTIMQ			TI	AUT				i	TIME_DELTA_AUTO_OFFSET	DISP	
c AVFRiQ	3.20	3.0-5	DSITEQ	VIALT				i	CODE_INFO.AVFR	SPARM	TTBCMBMK
c AVFRQQ	3.20	3.0-5	DSITEQ	VIALT				i	CODE_INFO	SPARM	TTBCMBMK
N/A-AVGDTQ			DSITEQ					i	AVG_DISP_DEAD_TIME	DISP	
N/A-AWDQ	2.117	2.0-21	TI	KOFA KOFB KOFC MTGA MTGCT			SDB2	i	MBUFF_TBPRET_AB_WORDS	KBD	
N/A-AZBijQ	3.110	3.0-34	TSITEQ	AZMBIN				TA	AZIM_BIN_AREA	SPARM	
c BkQ	3.25	3.0-6	DSITEQ	CSBT PAIRT KYBDT BSCFRT MIPPT				TA	KYB_TYPE.BKQ	KBD	TTKEYBRD
c BARiQ	3.21	3.0-5	MSITEQ	TTASTO TASTO				r	INIT_ALTM		TKMISC
c BCNTQ	3.54.14	3.0-17	TSITEQ	KOFA KOFC				i	NO_SCAN_DISP_BEACON	TRACK	TKTRKPRM
N/A-BESG2Q	3.55.19	3.0-25									
N/A-BINBIASQ	2.126	2.0-26	TI					i	MTRK_BIN_BIAS	TRACK	
N/A-BLKS		3.5.2-2	SYSEQ0	CRIT KOFC MTP SDB2 SYSEQ1 SYSEQ2 TTYD				i	BULK_STORE_FP	SPARM	
c BOHTiQ	3.100	3.0-33	TSITEQ	BOMSHT				Ti	SENSOR_TYPE.BCON_NO_HIT_INIT	TRACK	TTSENSOR
c BOMSiQ	3.103	3.0-33	TSITEQ	BOMSHT				Ti	SENSOR_TYPE.BCON_NO_MISS_PUR	TRACK	TTSENSOR
c BOTiQ	3.75	3.0-28	TSITEQ	ENDBOT	BOTiT			Ti	SENSOR_TYPE.SIZE_BOT	TRACK	TTSENSOR
N/A-BOTHTQ	8.3.2	8.0-9	8.4.2	8.0-15							
N/A-BOUNDP	2.25	2.0-5									
c BOWLiQ	3.107	3.0-34	TSITEQ	BOSHFT				Ti	SENSOR_TYPE.BCON_SLIDE.WINDOW..	TRACK	TTSENSOR
N/A-BRP		3.5.2-2	SYSEQ0	SDB1,1RO SUBS SYSEQ1,2 TEXE TPUR TTYD				BOO	BEACON_REPT_PROCESS	SPARM	
N/A-BRQ	2.110	2.0-19	TI					i	DBM_WD_FDB_TAB_BRIGHT	DISP	
N/A-BRSSQ	2.111	2.0-20	TI					i	DBM_SS_BRIGHT	DISP	
N/A-BRTNQ	3.119	3.0-37	TI					i	DBM_SZ_BRITE	DBM	
N/A-BSEG1Q	3.55.19	3.0-25	MSITEQ	CDAT MSAWQ	SDB1RO			A	BEACON_SEG_LIMIT_1	MSAW	
N/A-BSEG2Q		3.0-25	MSITEQ	CDAT MSAWQ SDB1RO				A	BEACON_SEG_LIMIT_2	MSAW	
c CkQ	3.24	3.0-6	DSITEQ	QUIKT				TA	KYB_TYPE.CKQ	DISP	TTKEYBRD
N/A-CA Alarm	7.6	7.0-45									
N/A-CA Alarm	8.6	8.0-26									
N/A-CAALALT		3.5.2-2	SYSEQ0	SYSEQ1 SYSEQ2				i	CCD6494_CA_ZONE_SUPRESS	SPARM	
N/A-CADVQ	2.52	2.0-10									
N/A-CALALT			TI	CALTO COMS KOFB PAUS TCAS0				i	CTS_REFS_SIZES_WORD_42	SPARM	
N/A-CALALT			TI	TRAD TSUB0 TSUB1 TUD TUDCA				i	CTS_REFS_SIZES_WORD_42	SPARM	
N/A-CALL		3.5.2-2	SYSEQ0	ALTRKR ALTRKRT BRATS CDR		COMA		i	ON_CALL	SPARM	
N/A-CALL		3.5.2-2	SYSEQ0	CRIT CTIP DTOD FPDU		IFO		i		SPARM	
N/A-CALL		3.5.2-2	SYSEQ0	KIP KOFA KOFB KOFC		LIMD		i		SPARM	
N/A-CALL		3.5.2-2	SYSEQ0	MSAW MS1TEQ MTGA PDOP		PSRAP		i		SPARM	
N/A-CALL		3.5.2-2	SYSEQ0	RDBMD RKIP SCDU SDB1		SDB1RO		i		SPARM	
N/A-CALL		3.5.2-2	SYSEQ0	SDB2 SLINK SWAPS SYSEQ1		SYSEQ2		i		SPARM	
N/A-CALL		3.5.2-2	SYSEQ0	TBDCRS TI TINIT TPRED		TPSEC		i		SPARM	
N/A-CALL		3.5.2-2	SYSEQ0	TPUR TSO TSUB0 TSUB1		TTYD		i		SPARM	
N/A-CALRX			TI	TCAS0 TSUB0 TSUB1				i	CTS_REFS_SIZES_WORD_39	SPARM	
N/A-CALRY			TI	TCAS0 TSUB0 TSUB1				i	CTS_REFS_SIZES_WORD_40	SPARM	
N/A-CAPijQ	3.96	3.0-32									
c CAPLIM									CAPLIM_SATQ_TRK_LIM	TRACK	TKTRKPRM
N/A-CASBiQ	3.140	3.0-41									
N/A-CATB	2.165	2.0-39							CTS_REFS_SIZES_WORD_28	SPARM	
N/A-CATB1	2.165	2.0-39							CTS_REFS_SIZES_WORD_33	SPARM	
N/A-CATC1	2.165	2.0-39							CTS_REFS_SIZES_WORD_29	SPARM	
N/A-CATC2	2.165	2.0-39							CTS_REFS_SIZES_WORD_30	SPARM	
N/A-CATC3	2.165	2.0-39							CTS_REFS_SIZES_WORD_31	SPARM	
N/A-CATC4	2.165	2.0-39							CTS_REFS_SIZES_WORD_32	SPARM	

N/A-CAYXDT			TI	TCAS0					i	CTS_REFS_SIZES_WORD_41	SPARM	
N/A-CAZONE		3.5.2-2	SYSEQ0	KOFB	MPEB	PDOP	SDB2	SYSE Q1	i	CCD6499_SELECT	SPARM	
N/A-CAZONE		3.5.2-2	SYSEQ0	SYSEQ2	TTYD				i		SPARM	
c CBINQ	2.4	2.0-2	TI	TSUB0	TSUB1				r	MTRK_BLD_BINS_RDR	TRACK	TKTRKPRM
N/A-CBUFSZ	2.141	2.0-32										
N/A-CBUF0	2.154	2.0-35										
N/A-CBUF1	2.154	2.0-35										
c CCNTQ	3.54.15	3.0-18	TSITEQ						i	NO_SCAN_UNSUCCESS_CORRELATE	TRACK	TKTRXPRM
N/A-CDCDRMAXQ	3.79	3.0-30	MSITEQ						i	LENGTH_CDR_CRIT_DATA	CRIT	
N/A-CDDTQ	2.147	2.0-33										
N/A-CDERQ	2.146	2.0-33										
N/A-CDIRQ	2.148	2.0-33										
N/A-CDLCQ	2.145	2.0-33										
N/A-CDLTQ	2.144	2.0-32										
N/A-CDR		3.5.2-1	SYSEQ0	ALTRKR	ALTRKR1	CDR	CDRD	CDRP	i	CONTINUOUS_DATA_RECORD	SPARM	
N/A-CDR		3.5.2-1	SYSEQ0	COMA	CRIT	CTIP	IPO	KOFA		CONTINUOUS_DATA_RECORD	SPARM	
N/A-CDR		3.5.2-1	SYSEQ0	KOFB	KOFC	MSAW	MTGA	MTGCT		CONTINUOUS_DATA_RECORD	SPARM	
N/A-CDR		3.5.2-1	SYSEQ0	PDOP	PSRAP	SDB2	SYSEQ1	SYSEQ2		CONTINUOUS_DATA_RECORD	SPARM	
N/A-CDR		3.5.2-1	SYSEQ0	TINIT	TPRED	TPSEC	TPUR	TSUB0		CONTINUOUS_DATA_RECORD	SPARM	
N/A-CDR		3.5.2-1	SYSEQ0	TSUB1	TTYD					CONTINUOUS_DATA_RECORD	SPARM	
N/A-CDRAiQ	3.114	3.0-35	MSITEQ	CDAFT					TA	CDR_ALT_FILTER	CDR	
N/A-CDRBijQ	3.115	3.0-35	MSITEQ	CDBFT	CDBF1T	CDBF2TCD	BF3T		Ti	CDR_BEACON_CODE_FILTER	CDR	
N/A-CDRCBFQ	2.142	2.0-32										
N/A-CDRDiQ	3.116	3.0-35	MSITEQ	CDDFT					Ti	CDR_DISP_FILTER	CDR	
N/A-CDRDKNQ	2.151	2.0-34										
N/A-CDRKiQ	2.150	2.0-34										
N/A-CDRRiFQ	3.117	3.0-36	MSITEQ	CDARFT					TA	CDR_RANGES_FILTER_SELECT	CDR	
N/A-CDRSAFQ	2.149	2.0-34										
N/A-CDRSATQ	2.149	2.0-34										
N/A-CDRSBTQ	2.149	2.0-33										
N/A-CDRSCTQ	2.149	2.0-34										
N/A-CDRSIFQ	2.149	2.0-34										
N/A-CDRSKFQ	2.149	2.0-34										
N/A-CDRSMAQ	2.149	2.0-34										
N/A-CDRSMDQ	2.149	2.0-34										
N/A-CDRSRBQ	2.149	2.0-34										
N/A-CDRSRTQ	2.149	2.0-33										
N/A-CDRSTDQ	2.149	2.0-34										
N/A-CDRZiFQ	3.118	3.0-36	MSITEQ	CDARFT					TA	CDR_AZIMUTHS_FILTER_SELECT	CDR	
N/A-CDT1Q	8.6.1	8.0-26										
N/A-CEPQ	8.4.3	8.0-16										
N/A-CFGLGTH	3.79	3.0-29	MSITEQ	CRIT	CRITD				i	CRIT_LENGTH_CONFIG_TABLES	CRIT	
c CFGNOQ	3.41	3.0-12	MSITEQ	MSMOVE	KOFC	MSAWQ	MSAW2Q	MSAW3Q MSAW4Q	i	NO_CONF_TABLE	SPARM	TKMISC
c CFG1Q	3.41	3.0-12	MSITEQ	CFGT					i	NO_ITEMS_NONSTD_CONF_TABLE	SPARM	TKMISC
c CFG2Q	3.41	3.0-12	MSITEQ	CFGT					i	NO_ITEMS_STD_CONF_TABLE	SPARM	TKMISC
N/A-CFIRMQ	2.5	2.0-2	TI						ebc	MTRK_FIRM_SPEED_CAL	TRACK	
N/A-CFLGT	2.165	2.0-37								CTS_REFS_SIZES_WORD_9	SPARM	
N/A-CGTPDQ	2.44	2.0-8										
N/A-CHPQ	8.4.4	8.0-16										
N/A-CKEYQ	2.152	2.0-35									CDR	
N/A-CLUTALTQ			MSITEQ	CLUTALT						ALT_3600_IN_BCD	DISP	TKMISC
N/A-CLUTDISPQ	3.141	3.0-41	DSITEQ	CLUTDISP							DISP	
N/A-CLUTDISP1Q			DSITEQ	CLUTDISP						2ND_LGA_TOWER_LOCAL_DISPLAY	DISP	
N/A-CLUTDISTQ			MSITEQ	CLUTDIST						DISTANCE_SQUARE	DISP	TKMISC
N/A-CLUTNUMDQ			DSITEQ	CLUTDISP	CLUTRKYB					NO_DISPLAYS_ADAPTED	DISP	

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N/A-CLUTRKYBQ  3.142     3.0-41  DSITEQ   CLUTRKYB                                                    DISP
N/A-CLUTRKYBiQ                   DSITEQ   CLUTRKYB                                  2ND_LGA_TOWER_LOCAL_DISP_ASOC_KYB
N/A-CLUTXPOSiQ                   MSITEQ   CLUTXPOS,pos1,pos2,pos3                Ti  LGA_CLUTTER_X_POS_SENSOR        DISP     TKMISC
N/A-CLUTYPOSiQ                   MSITEQ   CLUTYPOS,pos1,pos2,pos3                Ti  LGA_CLUTTER_Y_POS_SENSOR        DISP     TKMISC
N/A-CNMISQ     3.79      3.0-30  MSITEQ   SPARM   CRIT     CRITD                 i   CRIT_NO_MISC_WORDS              CRIT
N/A-CNTDNQ     3.54.5    3.0-17  MSITEQ   SPARM   KOFA                           i   NO_SCAN_AFTER_HANDOFF           DISP
N/A-CNTDNQ8                      MSITEQ   IFI      SDB1RO                        i   HANDOFF_COUNTDOWN_MONITOR       SPARM
c   COAST                        SDB1                                            i   CST_MAX_SCANS_UNASSOC_BEACON    TRACK    TKTRKPRM
c   COAST                        SDB1                                            i   CST_MAX_SCANS_ASSOC_BEACON      TRACK    TKTRKPRM
c   COAST                        SDB1                                            i   UNASC_RDR_COAST_MAX_SCANS       TRACK    TKTRKPRM
c   COAST                        SDB1                                            i   ASC_RDR_COAST_MAX_SCANS         TRACK    TKTRKPRM
N/A-CONnQ      3.14      3.0-3   DSITEQ   IDAT                                   TA  ARTCC_CONTROL_ID                IFY
N/A-CONLMQ     3.23      3.0-5   DSITEQ                                          A   NYT_CNTRLR_LPOS                 SPARM
N/A-COS A      7.2.1.11  7.0-26
N/A-COS B      7.2.1.12  7.0-27
N/A-CQ         3.41      3.0-12                                                      NO_OF_CONFIGURATIONS
N/A-CRIT                         SYSEQ0   CRIT CRIDT SDB2     SYSEQ1   SYSEQ2    boo CRITICAL_DATA_COLLECT           SPARM
N/A-CRITTIME   3.79      3.0-29  MSITEQ   CRIT                                    i   CRIT_SECONDS_SCALED             CRIT
N/A-CROSSQ     8.5.3     8.0-22
c   CSPEEDQ    2.6       2.0-2   TI       TSUB0  TSUB1                            r   MTRK_VELOC_COMP_LIMIT           TRACK    TKTRKPRM
N/A-CSTNQ      3.119     3.0-37  TI                                              i   DBM_SZ_COAST_TAB_LINES          DBM
N/A-CTSQ       2.165     2.0-39  TI       CDR      KOFC     SDB1RO                i   CTS_WORDS_PER_TRK               SPARM
N/A-CTSST      2.165     2.0-38                                                      CTS_REFS_SIZES_WORD_17          SPARM
N/A-CTST       2.165     2.0-37                                                      CTS_REFS_SIZES_WORD_1           SPARM
N/A-CWAITQ     3.79      3.0-29  MSITEQ   CRIT                                    i   CRIT_WAIT_FACTOR_TO_RECORD      CRIT
N/A-CYCLE      5.2.5     5.0-9
N/A-C1xxQ      3.41      3.0-12           CFGN1T   CFGN2T
N/A-C2xxQ      3.41      3.0-12  CSITEQ   CFGS2T   CFGS1T                         TA  CONF_ITEM
N/A-C3, C4     7.1.1.5   7.0-4
c   DdQ        3.28      3.0-7   DSITEQ FLAGT QLRECT QLRC2T QLRC3T TKRCXT DCONT TA  DISPLAY_CONFIG_TYPE.DDQ         DISP     TTDISPCN
N/A-DADBLQ     2.122     2.0-23  MSITEQ   COMC     TRAD                           i   DBM_ADB_LENGTH                  SPARM
N/A-DADBQ      2.122     2.0-23  MSITEQ   COMC     MPEB     SDB2     TRAD         i   DBM_ALT_DB                      SPARM
N/A-DALT       2.165     2.0-39
    DAZmiQ     3.34      3.0-10  TSITEQ   AZ2RG2   AZ1RG1                Tr AIRPORT_ARRS(.i.).RNG_AZIM_PRIM.AZIM_END TRACK    TTAUTODR
N/A-DBLD       5.1.6     5.0-6
N/A-DBMEND     2.122     2.0-24  MSITEQ                                          i   LAST_DBM_ADDR                   SPARM
N/A-DBMSZQ     2.122     2.0-21  MSITEQ   NUMBCWS  MPSTACK
N/A-DBRiTQ                       MSITEQ   BRDBMA                                  Ti  MSAW_DBM_ADDR_BRITE             MSAW
N/A-DBRiVQ                       MSITEQ   BRDBMA                                  Ti  MSAW_DBM_ADDR_VECTOR            MSAW
N/A-DBRSQ      2.122     2.0-22  TI       MSITEQ                                  i   DSPSZ_TM_BR                     DISP
N/A-DBR1Q      2.122     2.0-24  MSITEQ   COMB     SDB2                           i   BRITE_LIST_1                    SPARM
N/A-DBR2Q      2.122     2.0-24  MSITEQ   COMB     SDB2                           i   BRITE_LIST_2                    SPARM
N/A-DBUG                 3.5.2-2 SYSEQ0   SYSEQ1   SYSEQ2   SYSPAR                 i   DEBUG_AIDS                      SPARM
N/A-DCAIQ                        MSITEQ   KOFB     PDOP     SDB2                   i   CONTROLLER_INHIBIT              SPARM
N/A-DCAPQ      2.143     2.0-32
c   DCMK                         MSITEQ                                          i   DISP_CARMEL                     DISP     TKDISPID
N/A-DCSiQ      2.122     2.0-23  MSITEQ   SDB2 TDOP  KOFC MPEB RCOMR RDBMD RTDOP Ti   KYB_COAST_SUSPEND               SPARM
N/A-DCSSQ      2.122     2.0-21  TI       MSITEQ   RTDOP                          i   DSPSZ_TM_CS                     DISP
c   DDMT1                        MSITEQ                                          i   DISP_MAINT_1                    DISP     TKDISPID
c   DDMT2                        MSITEQ                                          i   DISP_MAINT_2                    DISP     TKDISPID
c   DDSS                         MSITEQ                                          i   DISP_DSS_PHASE_1                DISP     TKDISPID
c   DDSS2                        MSITEQ                                          i   DISP_DSS_PHASE_2                DISP     TKDISPID
N/A-DEDRNUM    2.153     2.0-35
N/A-DEMQ                 2.0-22  MSITEQ   PDOP  RCOMR RDBMD  SDB2                 i   EM_RF_HJ_SA                     SPARM
N/A-DEMQ       2.122     2.0-22
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c	DESAR			MSITEQ		i	DISP_EWR_SAT_ARR_RAD	DISP	TKDISPID
c	DESDR			MSITEQ		i	DISP_EWR_SAT_DEPT_RAD	DISP	TKDISPID
c	DEWRD			MSITEQ		i	DISP_EWR_DEPT_RAD	DISP	TKDISPID
c	DEWRF			MSITEQ		i	DISP_EWR_FINAL_VECTOR	DISP	TKDISPID
c	DEWRL			MSITEQ		i	DISP_EWR_TOWER_LOC_CONTROL	DISP	TKDISPID
c	DEWRM			MSITEQ		i	DISP_EWR_MAINT	DISP	TKDISPID
c	DEWRS			MSITEQ		i	DISP_EWR_SAT	DISP	TKDISPID
c	DEWRT			MSITEQ		i	DISP_EWR_TOWER_TCA	DISP	TKDISPID
N/A-	DFDBLQ	2.122	2.0-23	MSITEQ	COMC LIMD MPEB SDB2 TRAD	i	DBM_FDB_LENGTH	SPARM	
N/A-	DFDBQ	2.122	2.0-23	MSITEQ	COMC LIMD MPEB SDB2 TRAD	i	DBM_FULL_DB (DATA_BLOCK)	SPARM	
c	DHPNA			MSITEQ		i	DISP_HPN_ARR_RAD	DISP	TKDISPID
c	DHPND			MSITEQ		i	DISP_HPN_DEPT_RAD	DISP	TKDISPID
c	DHPNL			MSITEQ		i	DISP_HPN_TOWER_LOC_CONTROL	DISP	TKDISPID
c	DHPNM			MSITEQ		i	DISP_HPN_MAINT	DISP	TKDISPID
c	DILSM			MSITEQ		i	DISP_JFK_ILS_MONITOR	DISP	TKDISPID
N/A-	DISLGTFQ	3.79	3.0-29	MSITEQ	CRITD	i	CRIT_LNGTH_DISP_TABLES	CRIT	
N/A-	DISLGTH	3.79	3.0-29	MSITEQ	CRITD	i	FULL_CRIT_LNGTH_DISP_TABLES	CRIT	
c	DISPE			MSITEQ		i	DISP_ISP_EAST	DISP	TKDISPID
c	DISPI			MSITEQ		i	DISP_ISP_BDR_HVN	DISP	TKDISPID
c	DISPL			MSITEQ		i	DISP_ISP_TOWER_LOC_CONTROL	DISP	TKDISPID
c	DISPM			MSITEQ		i	DISP_ISP_MAINT	DISP	TKDISPID
c	DISPN			MSITEQ		i	DISP_ISP_NORTH	DISP	TKDISPID
c	DISPW			MSITEQ		i	DISP_ISP_WEST	DISP	TKDISPID
c	DISQ	2.126	2.0-26	TI	TINIT TPUR	r	ALLOW_DIST_BTWN_TARG_TRK	TRACK	TKTRKPRM
N/A-	DISWORDS	3.79	3.0-29	MSITEQ		i	CRIT_NO_DISP_TABLES	CRIT	
c	DIS2Q	3.45	3.0-14	TSITEQ		i	MAX_DIFF_XYCOORD_ACQU_SUSP_T	TRACK	TKTRKPRM
c	DJFKD			MSITEQ		i	DISP_JFK_DEPT_RAD	DISP	TKDISPID
c	DJFKF			MSITEQ		i	DISP_JFK_FINAL_VECTOR	DISP	TKDISPID
c	DJFKL			MSITEQ		i	DISP_JFK_TOWER_LOC_CONTROL	DISP	TKDISPID
c	DJFKM			MSITEQ		i	DISP_JFK_MAINT	DISP	TKDISPID
c	DJFKT			MSITEQ		i	DISP_JFK_TOWER_TCA	DISP	TKDISPID
c	DLGAB1			MSITEQ		i	DISP_LGA_TOWER_LOC_CONTROL	DISP	TKDISPID
c	DLGAB2			MSITEQ		i	DISP_LGA_TOWER_TCA	DISP	TKDISPID
c	DLGAD			MSITEQ		i	DISP_LGA_DEPT_RAD	DISP	TKDISPID
c	DLGAF			MSITEQ		i	DISP_LGA_FINAL_VECTOR	DISP	TKDISPID
N/A-	DMDAQ			MSITEQ	SDB2 COMB KOFB KOFC MPEB RDBMD	i		SPARM	
N/A-	DMDBLQ	2.122	2.0-24	MSITEQ	COMC TRAD	i	DBM_MSAW_DB_LENGTH	SPARM	
N/A-	DMDBQ	2.122	2.0-24	MSITEQ	COMC MPEB SDB2 TRAD	i	DBM_MSAW_DB	SPARM	
c	DMIC			MSITEQ		i	DISP_MICKE	DISP	TKDISPID
N/A-	DMRQ	2.122	2.0-22	MSITEQ	PDOP RDBMD RDOP SDB2	i	MEMORY_READOUT	SPARM	
N/A-	DMRSQ	2.122	2.0-22	TI	MSITEQ	i	DSPSZ_TM_MEM_READ	DISP	
c	DNER			MSITEQ		i	DISP_NE_RAMP	DISP	TKDISPID
c	DNWR			MSITEQ		i	DISP_NW_RAMP	DISP	TKDISPID
N/A-	DPBITS			MSITEQ	KIPM	i	DISPLAY_BITS_ENCODED_WD	DISP	
N/A-	DPBITS	3.78	3.0-29						
N/A-	DPBITS1	3.78	3.0-29	MSITEQ	KIPM	i	DISPLAY_BITS_ENCODE_WD_1	DISP	
c	DPDTIQ	3.54.8	3.0-17	MSITEQ	COMA MAT	i	PTD_INCREMENT_FOR_ACID	SPARM	TKMISC
c	DPDTIQX	3.54.9	3.0-17	MSITEQ		i	PTD_INCREMENT_ROLLOVER_CLOCK	SPARM	TKMISC
N/A-	DPRIQ	2.122	2.0-23	MSITEQ	KOFA KOFB KOFC MPEB MTGA MTGCT SDB2	Ti	KYB_READOUT_PREVIEW	SPARM	
N/A-	DPRNCQ	2.175	2.0-42	TI	RDBMQ	i	NUM_RDBM_PREVIEW_CHARS	DISP	
N/A-	DPROFFQ	2.176	2.0-42	TI	RDBMD	i	RDBM_PREVIEW_CHARS_OFFSET_WORDS	DISP	
N/A-	DPRSQ	3.119	3.0-36	TI	MSITEQ	i	DBM_SZ_AB_REDUND_WORDS	DBM	
N/A-	DPSTQ	2.122	2.0-22	MSITEQ	DOP MPEB RCOMR RDBMD	i	PSTACK_ADDRESS	SPARM	
c	DRBV			MSITEQ		i	DISP_RBV_ARR_RAD	DISP	TKDISPID
	DRGmiQ	3.34	3.0-10	TSITEQ	AZ2RG2 AZ1RG1	Tr	AIRPORT_ARRS(.i.).RNG_AZIM_PRIM.RANGE_END	TRACK	TTAUTODR

DRGUNQ	3.54.12	3.0-17	TSITEQ	UARG	Ti	UNKNOWN_ARR	DISP	TTAUTOD
N/A-DSAQ	2.122	2.0-22	MSITEQ	KOFC MPEB RCOMR RDBMD SDB2	i	SYSTEM_AND_B_WDS	SPARM	
c DSAT			MSITEQ		i	DISP_SATES_ELLIS	DISP	TKDISPID
N/A-DSCODTQ	2.122	2.0-22	MSITEQ	MPEB	i	SELECTED_CODES	SPARM	
N/A-DSFQ	2.122	2.0-22	MSITEQ	MPSTACK				
N/A-DSKMQ	2.100	2.0-18	TI	KOFC	i	DISC_ALLOC_MAX_DRIVE	SPARM	
N/A-DSLVQ	2.122	2.0-22	MSITEQ		i	SYSTEM_LEVEL	SPARM	
c DSNA			MSITEQ		i	DISP_SNA_ARR_RAD	DISP	TKDISPID
N/A-DSORQ	2.122	2.0-24	MSITEQ	MPEB RCOMR RDBMD SDB2	i	START_REFRESH_WD	SPARM	
N/A-DSPKYQ	3.77.1	3.0-28	MSITEQ	DSPKY				
c DSQ	3.54.2	3.0-16	TI	COMA	i	PRE_PTD_FP_CHNG_STOR_DISPL	IFY	TKMISC
N/A-DSSLQ	2.122	2.0-24	MSITEQ	COMC TRAD	i	DBM_SS_LENGTH	SPARM	
N/A-DSSQ	2.122	2.0-24	MSITEQ	COMC MPEB RDBMD SDB2 TRAD	i	DBM_SINGLE_SYMBOLS	SPARM	
N/A-DSTiQ	2.122	2.0-23	MSITEQ	KOFC MPEB RCOMR RDBMD RTDOP SDB2 TDOP	Ti	KYB_STORE_TRACKS	SPARM	
N/A-DSTAGQ			MSITEQ	MPEB SDB2	i	PRP_STAGGER_SUBLIST	SPARM	
N/A-DSTSQ	2.122	2.0-22	TI	MSITEQ RTDOP	i	DSPSZ_TM_ST	DISP	
c DSWD			MSITEQ		i	DISP_SW_DEPART	DISP	TKDISPID
c DSWE			MSITEQ		i	DISP_SWEET_ROBINSVILLE	DISP	TKDISPID
c DSWR			MSITEQ		i	DISP_SW_RAMP	DISP	TKDISPID
N/A-DTADQ	2.104	2.0-18	TI	DTK2				
N/A-DTBQ	2.122	2.0-24	MSITEQ	IFO KIP MPEB RCOMR RDBM SDB2	i	TRACK_BALLS	SPARM	
N/A-DTESTQ	2.122	2.0-24	MSITEQ	PDOP SDB2	i	TEST_TARGET	SPARM	
N/A-DTFDQ	2.105	2.0-19	TI	DTK4				
N/A-DTGQ	2.122	2.0-24	MSITEQ	MTGA MTGCT SDB2	i	TARGET_GEN_TRACKS	SPARM	
N/A-DTGSZQ	2.122	2.0-22	TI	MSITEQ	i	DSPSZ_TM_TG_SIZE	DISP	
N/A-DTIMQ	2.122	2.0-22	MSITEQ	KOFC MTGA MTGCT PDOP	i	SYSTEM_TIME	SPARM	
N/A-DTMDQ	2.106	2.0-19	TI	DTK3				
c DTSQ	3.54.2	3.0-16	TI	COMA	i	PRE_PTD_DEPFLT_TEMP_TO_CTS	IFY	TKMISC
c DXYDOTQ	3.94	3.0-32	TSITEQ	DELXYDOT	i	I_FIL_MAX_VELOCITY_RDR_ONLY	DISP	TKTRKPRM
N/A-DZIMQ	8.2.2	8.0-1						
N/A-EDIS	7.2.1.9	7.0-23						
N/A-EDIU	7.2.1.10	7.0-24						
N/A-EDOS	7.1.1.14	7.0-11						
N/A-EDOS	7.2.1.13	7.0-28						
N/A-EDOS	7.3.1.13	7.0-35						
N/A-EDOU	7.2.1.14	7.0-29						
N/A-EDOU	7.3.1.14	7.0-36						
N/A-EDO4	7.1.1.15	7.0-12						
N/A-ELDDDTQ			MSITEQ	ELDDDT		TIME_BTWN_DATA_LOSS_MSGS		
c EMBQ	2.123	2.0-24	TI	COMA COMB PSRAP TSUB0 TSUB1	ebc	EMGNCY_BEACON_CODE_ALLOC	SPARM	TKMISC
N/A-EMCTQ	2.123	2.0-25	TI	COMB	i	EMGNCY_COUNTDOWN_CODE	SPARM	
N/A-END	5.1.7	5.0-7						
c EQTYQ	3.50	3.0-15	MSITEQ	COMA KOFA KOFC SCTME	b	AIRCRAFT_TYPE_DISP	DISP	TKMISC
N/A-ES	7.1.1.14	7.0-11	7.2.1.13 7.0-28	7.3.1.13 7.0-35				
c EWR	3.124	3.0-37	MSITEQ	TEXEC	i	SNSR_1_EWR	TRACK	TKAPTID
N/A-EWRnIi	7.4.1	7.0-41	7.4.2	7.0-42				
c EWRA			MSITEQ		i	EWR_ARR_AIRPORT_V	TRACK	TKAPTID
c EWRD			MSITEQ		i	EWR_DEPT_AIRPORT_V	TRACK	TKAPTID
N/A-EZULUQ	2.155	2.0-35	TI	CRIT KOFC	i	TIME_EXEC_STORE_LOC_ZULU	SPARM	
c Faaa	3.138	3.0-40			TA	CONF_FIX		TKFIXID
N/A-FBDTQ			TI		i	TMSHR_DT_FBD_PARM	DISP	
N/A-FDBMQ	3.119	3.0-36	MSITEQ		i	NO_FULL_DB	DBM	
N/A-FDIG		3.5.2-1	SYSEQ0	SYSEQ1 SYSEQ2	i	FULL_DIGITAL_DISP	SPARM	
c FIFRQ	3.20	3.0-4	DSITEQ	VICDT VICIXT	ebc	FIRST_IFR_CODE	IFY	TTBCNBNK
N/A-FILT	2.165	2.0-38						

N/A-FIL1T	2.165	2.0-38												
c FIRMT			SDB1RO								Ti	FIRMNESS_TABLE	TRACK	TTFIRM
N/A-FIRMTQ	8.5.5	8.0-23												
N/A-FIRM1Q	2.126	2.0-26	TI								i	MTRK_FIRM_1	TRACK	
N/A-FIRM1Q	8.5.4	8.0-22	TI								i	MTRK_FIRM_1	TRACK	
c FIRM2Q	2.126	2.0-26	TI	TPUR							ebc	TPUR_FIRMNESS	TRACK	TKTRKPRM
c FIXnQ	3.43	3.0-13	DSITEQ	FIXCVT							Ti	SS_FIX_TYPE	IFY	TTSSAFIX
c FIXCNQ	3.43	3.0-13	DSITEQ	FIXCVT							i	NO_FIX_DEFIN_N_AIRPT	IFY	TKRANGE
c FLUSQ	3.54.6	3.0-17	MSITEQ	KOFC							i	MANUAL_STORE_TRK_STOP_TIME	TRACK	TKMISC
c FRDRQ	2.161	2.0-36	TI	COMA	COMB						ebc	MTRK_SCANS_RDR_FLASH	TRACK	TKTRKPRM
c FVFRiQ	3.20	3.0-5	DSITEQ	VICDT	VICIXT						Ti	CODE_INFO.FVFR	IFY	TTBCNBNK
c FVFRQ	3.20	3.0-4	DSITEQ	VICDT	VICIXT						i	CODE_INFO	IFY	TTBCNBNK
N/A-GAMMQ	2.40	2.0-8												
N/A-GHALTQ	3.55.20	3.0-25												
N/A-GLALTQ	3.55.20	3.0-25												
N/A-GTAijQ	3.55.10	3.0-22a												
N/A-GTALiQ	3.55.10	3.0-22a												
N/A-GTRijQ	3.55.10	3.0-22a												
N/A-HDEVQ	2.33	2.0-6												
N/A-HIGHQ	3.55.18	3.0-25												
c HJBQ	2.123	2.0-25	TI	COMA	COMB	PSRAP	TSUB0	TSUB1			ebc	HIJACK_BEACON_CODE_ALLOC	SPARM	TKMISC
N/A-HJCTQ	2.123	2.0-25	TI	COMB							ebc	HIJACK_COUNTDOWN_CODE	SPARM	
c HPN	3.124	3.0-37	MSITEQ	TEXEC							i	SNSR_3_HPN	TRACK	TKAPTID
c HPNA			MSITEQ								i	HPN_ARR_AIRPORT_X	TRACK	TKAPTID
c HPND			MSITEQ								i	HPN_DEPT_AIRPORT_X	TRACK	TKAPTID
c HTBQ	3.121	3.0-37	MSITEQ	KOFA	RCOMB	RDBMD					i	HOME_TRK_X	SPARM	TKMISC
c HTBQ	3.121	3.0-37	MSITEQ	KOFA	RCOMB	RDBMD					i	HOME_TRK_Y	SPARM	TKMISC
c IAAEQ	3.44	3.0-14	TSITEQ	IFI							i	IFY_AUTO_ACQU_ENABLE	IFY	TKTRKPRM
N/A-IAIQ	3.16	3.0-3	MSITEQ	IDAT							i	IFY_ACK_TIMEOUT_INTERVAL	IFY	
N/A-ICAPWQ	2.45	2.0-8												
N/A-ICGTWQ	2.47	2.0-9												
N/A-ICRA	2.167	2.0-40	TI	IDAT	IFI	IFO					i	CMC_IFY_RECEIVE	IFY	
N/A-ICTA	2.167	2.0-40	TI	IDAT	IFI	IFO					i	CMC_IFY_TRANSMIT	IFY	
N/A-IENT	5.1.5.1	5.0-5												
N/A-IFQ	3.7	3.0-2	MSITEQ	INIFC							enum	ARTCC_CAPABILITY	IFY	
N/A-IFREFQ	7.6.1	7.0-45												
N/A-IFXMQ	2.19	2.0-4	TI	IDAT							i	IFL_SECONDS_SCALED_0	IFY	
N/A-IITSQ	2.156	2.0-35	TI	IDAT	IFI						i	IFL_INTRPT_STAT_TBL_SIZE	IFY	
N/A-ILPQ	8.4.5	8.0-17												
N/A-IMMEFQ	3.15	3.0-3	MSITEQ	IFO							i	IFY_MSG_EXCHANGE_PARAM	IFY	
N/A-INHBQ	2.159	2.0-36	TI								b	DBM_WD_FDB_MSAW_INHIBIT	DISP	
N/A-INIBQ	2.54	2.0-10												
N/A-INITRQ	3.134	3.0-40	DSITEQ	RCOMB	RDBMD	RDOP					i	INIT_RDBM_RANGE_FILTER	RDBM	
N/A-INPBQ	2.157	2.0-35	TI	IDAT	IFI	TTYD					i	IFL_NO_INPRINT_BUFFERS	IFY	
N/A-INTBCNQ			TI								i	AUT_INT_BEACON	TRACK	
N/A-INTRADQ			TI								i	AUT_INT_RADAR	TRACK	
N/A-IOPFQ	3.125	3.0-38												
N/A-IOP1Q	3.125	3.0-38												
N/A-IOP2Q	3.125	3.0-38												
N/A-IPAPWQ	2.46	2.0-9												
N/A-IPGTWQ	2.48	2.0-9												
N/A-IPJGTWQ	2.49	2.0-9												
c ISP	3.124	3.0-37	MSITEQ	TEXEC							i	SNSR_2_ISP	TRACK	TKAPTID
c ISPA			MSITEQ								i	ISP_ARR_AIRPORT_X	TRACK	TKAPTID
c ISPD			MSITEQ								i	ISP_DEPT_AIRPORT_X	TRACK	TKAPTID

N/A-ITESTQ	SYSEQ0	3.5.2-1	DAT IFI	IFO RDBMD SDB2	SYSEQ1 SYSEQ2 TTYD		i	IFY_TEST_PROGM	SPARM	
N/A-ITRQ	2.20	2.0-4	TI	IFI			i	IFL_DX_RETRNSMIT_PARM	IFY	
N/A-ITUIQ	3.53	3.0-15	DSITEQ	IDAT			i	IFY_TRK_UPDATE_TIMEOUT	IFY	
N/A-JDCTHQ			TI	ALTRKR ALTRKR1			i	JUMP_THRESHOLD	TRACK	
c JFK	3.124	3.0-37	MSITEQ	TEXEC			i	SNSR_0_JFK	TRACK	TKAPTID
c JFKA			MSITEQ				i	JFK_ARR_AIRPORT_U	TRACK	TKAPTID
c JFKD			MSITEQ				i	JFK_DEPT_AIRPORT_U	TRACK	TKAPTID
c KkQ	3.26	3.0-6	DSITEQ	SYMT PAIRT			TA	KYB_TYPE.KYB_DD_TYPE	KBD	TTKBYBRD
N/A-KCdQ	2.124	2.0-25	TI	IFO KIP			i	KIP_INT_PRE_CHANNEL_SWITCH	KBD	
c KCMK			MSITEQ				i	KYB_CARMEL	KBD	TKKYBID
c KCMKH			MSITEQ				i	KYB_CARMEL_HO	KBD	TKKYBID
c KDISMTij			MSITEQ				Ti	MAINT_KYB_DISP	KBD	TKDISKYB
c KDSS			MSITEQ				i	KYB_DSS_PHASE_1	KBD	TKDISKYB
c KDSS2			MSITEQ				i	KYB_DSS_PHASE_2	KBD	TKDISKYB
N/A-KEDQ	2.124	2.0-25	TI				i	KIP_RAD_OUT_PAR_INTRUP	KBD	
c KELL			MSITEQ				i	KYB_ELLIS	KBD	TKKYBID
N/A-KENTQ	2.124	2.0-25	TI				i	KIP_TIME_BTWN_ED_EE	KBD	
c KESAR			MSITEQ				i	KYB_EWR_SAT_ARR_RAD	KBD	TKKYBID
c KESARH			MSITEQ				i	ARR_RAD_HO_KYB_EWR_SAT	KBD	TKKYBID
c KESDR			MSITEQ				i	KYB_EWR_SAT_DEPT_RAD	KBD	TKKYBID
c KESDRH			MSITEQ				i	DEPT_RAD_HO_SAT_EWR_KYB	KBD	TKKYBID
c KEWRD			MSITEQ				i	KYB_EWR_DEPT_RAD	KBD	TKKYBID
c KEWRDH			MSITEQ				i	DEPT_RAD_HO_EWR_KYB	KBD	TKKYBID
c KEWRF			MSITEQ				i	KYB_EWR_FINAL_VECTOR	KBD	TKDISKYB
c KEWRFH			MSITEQ				i	FINAL_VECTOR_HO_KYB_EWR	KBD	TKDISKYB
c KEWRLCL			MSITEQ				i	KYB_EWR_TOWER_LOCAL	KBD	TKDISKYB
c KEWRM			MSITEQ				i	KYB_EWR_MAINT	KBD	TKDISKYB
c KEWRSi			MSITEQ				Ti	KYB_EWR_SAT_i	KBD	TKDISKYB
c KEWRTCA			MSITEQ				i	KYB_EWR_TOWER_TCA	KBD	TKDISKYB
N/A-KEYLGTFQ	3.79	3.0-29	MSITEQ	CRITD			i	FULLUP_LNGTH_KYB_TABLES	CRIT	
N/A-KEYLGTH	3.79	3.0-29	MSITEQ	CRIT			i	CRIT_LNGTH_KEY_TABLES	CRIT	
N/A-KEYWORDS	3.79	3.0-29	MSITEQ	CRIT			i	CRIT_NO_KYB_TABLES	CRIT	
c KHPNA			MSITEQ				i	KYB_HPN_ARR_RAD	KBD	TKKYBID
c KHPND			MSITEQ				i	KYB_HPN_DEPT_RAD	KBD	TKKYBID
c KHPNDH			MSITEQ				i	KYB_HPN_ARR_DEPT_HO	KBD	TKKYBID
c KHPNLCL			MSITEQ				i	KYB_HPN_TOWER_LOCAL	KBD	TKDISKYB
c KHPNM			MSITEQ				i	KYB_HPN_MAINT	KBD	TKDISKYB
N/A-KICQ	2.124	2.0-25	TI	DOP IFO KIP	SDB2		i	KIP_INT_STATUS_TABLE_SIZE	KBD	
c KILSM1			MSITEQ				i	KYB_MONITOR_1_JFK_ILS	KBD	TKDISKYB
c KILSM3			MSITEQ				i	KYB_MONITOR_3_JFK_ILS	KBD	TKDISKYB
N/A-KIPKYQ	3.77.1	3.0-28	MSITEQ	KIPKY						
c KISPE			MSITEQ				i	KYB_ISP_EAST	KBD	TKKYBID
c KISPEH			MSITEQ				i	KYB_ISP_EAST_HO	KBD	TKKYBID
c KISPI			MSITEQ				i	KYB_ISP_BDR_HVN	KBD	TKKYBID
c KISPIH			MSITEQ				i	KYB_ISP_BDR_HVN_HO	KBD	TKKYBID
c KISPLCL			MSITEQ				i	KYB_ISP_TOWER_LOCAL	KBD	TKDISKYB
c KISPM			MSITEQ				i	KYB_ISP_MAINT	KBD	TKDISKYB
c KISPN			MSITEQ				i	KYB_ISP_NORTH	KBD	TKKYBID
c KISPNH			MSITEQ				i	KYB_ISP_NORTH_HO	KBD	TKKYBID
c KISPW			MSITEQ				i	KYB_ISP_WEST	KBD	TKKYBID
c KISPWH			MSITEQ				i	KYB_ISP_WEST_HO	KBD	TKKYBID
c KJFKD			MSITEQ				i	KYB_JFK_DEPT_RAD	KBD	TKKYBID
c KJFKDH			MSITEQ				i	KYB_JFK_DEPT_RAD_HO	KBD	TKKYBID
c KJFKF			MSITEQ				i	KYB_JFK_FINAL_VECTOR	KBD	TKDISKYB
c KJFKLCL			MSITEQ				i	KYB_JFK_TOWER_LOCAL	KBD	TKDISKYB

c	KJPKM			MSITEQ							i	KYB_JFK_MAINT	KBD	TKDISKYB
c	KJFKTCA			MSITEQ							i	KYB_JFK_TOWER_TCA	KBD	TKDISKYB
c	KLGAD			MSITEQ							i	KYB_LGA_DEPT_RAD	KBD	TKKYBID
c	KLGADH			MSITEQ							i	KYB_LGA_DEPT_RAD_HO	KBD	TKKYBID
c	KLGAF			MSITEQ							i	KYB_LGA_FINAL_VECTOR	KBD	TKKYBID
c	KLGALCL			MSITEQ							i	KYB_LGA_TOWER_LOCAL	KBD	TKDISKYB
c	KLGATCA			MSITEQ							i	KYB_LGA_TOWER_TCA	KBD	TKDISKYB
N/A-	KMDBMiAQ	3.122	3.0-37	MSITEQ	KIPM						Ti	DISP_A_BIT_ENCODED	KBD	
N/A-	KMDBMiQ	3.122	3.0-37	MSITEQ	KIPM						Ti	DISP_BIT_ENCODED	KBD	
c	KMIC			MSITEQ							i	KYB_MICKE	KBD	TKKYBID
c	KMICH			MSITEQ							i	KYB_MICKE_HO	KBD	TKKYBID
c	KNERi			MSITEQ							Ti	KYB_NE_RAMP_i	KBD	TKDISKYB
c	KNWRi			MSITEQ							Ti	KYB_NW_RAMP_i	KBD	TKDISKYB
c	KRBV			MSITEQ							i	KYB_RBV_ARR_RAD	KBD	TKKYBID
c	KRBVH			MSITEQ							i	KYB_RBV_ARR_RAD_HO	KBD	TKKYBID
c	KSAT			MSITEQ							i	KYB_SATES	KBD	TKKYBID
c	KSATH			MSITEQ							i	KYB_SATES_HO	KBD	TKKYBID
c	KSNA			MSITEQ							i	KYB_SNA_ARR_RAD	KBD	TKKYBID
c	KSNAH			MSITEQ							i	KYB_SNA_ARR_RAD_HO	KBD	TKKYBID
c	KSWD			MSITEQ							i	KYB_SW_DEPT_RAD	KBD	TKDISKYB
c	KSWDH			MSITEQ							i	KYB_SW_DEPT_HO	KBD	TKDISKYB
c	KSWE			MSITEQ							i	SWEET_ROBINVL_KYB	KBD	TKKYBID
c	KSWEH			MSITEQ							i	KYB_HO_SWEET_ROBINVL	KBD	TKKYBID
c	KSWRi			MSITEQ							Ti	KYB_SW_RAMP_i	KBD	TKDISKYB
N/A-	KYBMQ	3.119	3.0-37	MSITEQ							i	KYB_PER_DISP	DBM	
N/A-	LALT			TI	ALTRKR	ALTRKR1	CATU	COMA	RTQCC		i	CTS_REPS_SIZES_WORD_45	SPARM	
N/A-	LAT	5.2.1	5.0-7											
c	LATTQ	2.103	2.0-18	TI	KOPA	MAT					i	TIME_LATTICE_ADVANCE	SPARM	TKTRKPRM
N/A-	LCONLQ	3.23	3.0-5	DSITEQ	COMA	KOPA	KOPB				A	NYT_CONTROLLER_LOWEST_POS	SPARM	
N/A-	LCWDQ			DSITEQ	MISTG							LAST_C_WD		
N/A-	LDAQ	8.2.3	8.0-2											
N/A-	LEVIZO	8.2.4	8.0-2											
c	LGAA			MSITEQ							i	LGA_ARR_AIRPORT_Y	IFY	TKAPTID
c	LGAD			MSITEQ							i	LGA_DEPT_AIRPORT_Y	IFY	TKAPTID
N/A-	LGCT	2.165	2.0-38											
N/A-	LINCON	8.2	8.0-1											
N/A-	LK2Q	7.2.1.6	7.0-19											
c	LLAQ	3.54.2	3.0-16	TI	COMA						i	ARTCC_LOW_TIME_DIF_DEP_ARIV_TRKTRACK		TKTRKPRM
c	LLKQ	3.54.2	3.0-16	TI	COMA						i	NOART_LOW_TIME_DIF_DEP_ARIV_TRKTRACK		TKTRKPRM
N/A-	LMDIMQ	8.2.5	8.0-3											
c	LMTDBQ	3.123	3.0-37	MSITEQ	COMA	COMB					i	ADB_BCON_CODES_DISP	DISP	TKMISC
c	LNKCTQ	1.126	2.0-28	TI	COMA	SLINK					i	MTRK_NO_LINK_FAIL	TRACK	TKTRKPRM
N/A-	LNKT	2.165	2.0-38											
N/A-	LNK1T	2.165	2.0-38											
N/A-	LNK2T	2.165	2.0-38											
N/A-	LSEP	7.2.1.6	7.0-19											
c	LSPDiQ	2.126	2.0-27	TI	TPUR	SPEEDP					Ti	SENSOR_SPEED.LOWER_SPEED	TRACK	TTSENSOR
N/A-	MmQ	3.83	3.0-30	DSITEQ	DISTRT	MBUFI					TA	MDBM_DISP_NO_PARAM	SPARM	
N/A-	MACHQ	2.30	2.0-6											
N/A-	MAXALRQ	8.6.2	8.0-26											
c	MAXBBiQ	3.127	3.0-38	MSITEQ							Ti	SENSOR_TYPE.MAX_BCON_RPTS	TRACK	TTSENSOR
N/A-	MAXCWQ	2.50	2.0-9											
N/A-	MAXIQ	7.1.1.1	7.0-1											
c	MAXRBiQ	3.127	3.0-38	MSITEQ							Ti	SENSOR_TYPE.MAX_RAD_RPTS	TRACK	TTSENSOR
N/A-	MAZiQ	3.55.22	3.0-26											

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N/A-MBDTQ                          TI                                          i    TMSHR_DT_MBD_PARM                 DISP
N/A-MBMi        2.166     2.0-40   TI       MSITEQ                             Ti   NUM_MDBM_PERIPHERAL               PSRAP
c   MCDIQ       3.54.16   3.0-18   DSITEQ   TEXEC                              tim  NO_MODE_C_DISP_INDICATOR          DISP     TKBCMSEL
N/A-MDBNQ       3.119     3.0-37   MSITEQ   DSLIMT
N/A-MEMQ        3.1       3.0-1    MSITEQ   KOFB     TTYD                      i    MAX_LEVEL_ADDRE                   SPARM
N/A-MFIRMQ      8.2.7     8.0-4
N/A-MFMAMS      8.3       8.0-9
N/A-MFSEPA      7.1.1.11  7.0-8  7.2.1.10 7.0-24    7.3.1.10 7.0-33
N/A-MFSEPB      7.1.1.15  7.0-12 7.2.1.14 7.0-29    7.3.1.14 7.0-36
N/A-MFZALQ      8.3.6     8.0-11
N/A-MF1SEQ      8.3.5     8.0-11
N/A-MINCHQ      2.114     2.0-20   TI       ICHPNT
N/A-MINDTQ      2.107     2.0-19   TI                                          i    DEDS_MIN_DEAD_TIME                DISP
N/A-MISCAQ      2.34      2.0-7
N/A-MISCGQ      2.42      2.0-8
N/A-MISPAQ      2.35      2.0-7
N/A-MISPGQ      2.43      2.0-8
N/A-MLO         5.1.4     5.0-4
N/A-MNLDTQ                         DSITEQ                                      i    MIN_LARGE_DISP_DEAD_TIME          DISP     TKBCMSEL
N/A-MNRELQ      8.2.8     8.0-5
N/A-MNRNGQ      3.134     3.0-40   DSITEQ   RCOMR          RDOP     SDB2       i    MIN_RDBM_RANGE_FLITER             RDBM
c   MOCQ        3.35      3.0-10   TSITEQ   TINIT                               i    MODE_C_OVER_CHECK                 TRACK    TKMISC
N/A-MPREVQ      2.116     2.0-20   TI                                          i    MBUFF_MX_PRVAREA_CHAR             KBD
N/A-MRDKYQ      3.77.2    3.0-29   MSITEQ   MRDKY
N/A-MREADQ      2.115     2.0-20   TI       IFO KIP        MTGA     MTGCT    SDB2 i    MBUFF_MX_RDOUT_CHAR               KBD
N/A-MRGiQ       3.55.22   3.0-26   TSITEQ   AAFXP                               TA                                     TRACK
    MRGSiQ      3.33      3.0-9                                                     ARRIVAL_FIX_AREA.RANGE                 TTAUTOAQ
N/A-MRONQ       3.119     3.0-37   TI                                          i    DBM_SZ_MEM_RDOUT_LINE             DBM
N/A-MSiQ        3.55.13   3.0-23   DSITEQ   MSWDAB                             TA   MSAW_DISP_AREA                    MSAW
N/A-MSAW                  3.5.2-2  SYSEQ0   ALTRKR ALTRKRT CDR     COMB     KOFA i    MSAW_ALT_TRK                      SPARM
N/A-MSAW                  3.5.2-2  SYSEQ0   KOFB   KOFC    MSAW    MSAWD    MSAWQ i                                      SPARM
N/A-MSAW                  3.5.2-2  SYSEQ0   MSAW2D MSAW2Q  MSAW3D  MSAW3Q   MSAW4D i                                      SPARM
N/A-MSAW                  3.5.2-2  SYSEQ0   MSAW4Q SDB1    SDB1RO  SDB2     SYSEQ1 i                                      SPARM
N/A-MSAW                  3.5.2-2  SYSEQ0   SYSEQ2 TMAP    TMP     TTYD           i                                      SPARM
N/A-MSDSZQ                         TI       MSITEQ                             i    DBM_SZ_MSAW_CA_TAB_LIST           DISP
N/A-MSW(A-D)    2.166     2.0-40
N/A-MSWA                  2.0-40   TI       COMB COMC      MSAW                i    MSAW_PERIPHERAL_NUMBER_A          MSAW
N/A-MSWB                  2.0-40   TI                                          i    MSAW_PERIPHERAL_NUMBER_B          MSAW
N/A-MSWC                  2.0-40   TI                                          i    MSAW_PERIPHERAL_NUMBER_C          MSAW
N/A-MSWD                  2.0-40   TI                                          i    MSAW_PERIPHERAL_NUMBER_D          MSAW
N/A-MSWKYQ      3.77.2    3.0-28   MSITEQ   MSWKY
N/A-MTDCBL      2.96      2.0-17   TI       MTP                                i    DSC_READ_BUFFER                   KBD
N/A-MTDCBLA     2.95      2.0-17   TI       MTP                                i    DSC_BUFFER_WORDS                  KBD
N/A-MTDCEA      2.99      2.0-18   TI       MTP                                i    DSC_EFW_READ                      KBD
N/A-MTFLP       2.98      2.0-17   TI       MTP                                i    DSC_WORD_ADDRESS                  KBD
N/A-MTGNQ       3.119     3.0-37   TI                                          i    DBM_SZ_TARGET_GEN_TRKS            DBM
N/A-MTNMI       2.97      2.0-17
N/A-MTNM1                          TI                                          i    DSC_21_FLT_PLANS                  SPARM
N/A-MTRECQ      3.54.3    3.0-16   MSITEQ   MTSTP
N/A-MWALQ       8.6.3     8.0-26
N/A-MXALQ       7.1.1.6   7.0-5    7.2.1.5  7.0-18
N/A-MXCTQ       2.108     2.0-19   TI                                          i    DEDS_C_WORD_DISP_TIME             DISP
N/A-MXRNGQ      3.134     3.0-40   DSITEQ   RDOP                               i    MAX_RDBM_RANGE_FILTER             DBM
N/A-MXSDTQ                         DSITEQ                                      i    MAX_SMALL_DISP_DEAD_TIME          DISP     TKBCMSEL
N/A-M1CAQ       8.2.6     8.0-4
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N/A-M2CAQ	8.3.3	8.0-10										
N/A-M3CAQ	8.3.4	8.0-10										
N/A-M4CAQ	8.4.6	8.0-17										
N/A-M5CAQ	8.4.7	8.0-18										
N/A-NiOPQ	3.63	3.0-27										
N/A-NmQ	3.84	3.0-30	DSITEQ	PRIPHT					TA	MDBM_PERIPH_NO_PARAM	DISP	
N/A-NxxxQ	3.42	3.0-13		NCNT								
N/A-NAAQ		3.0-38	MSITEQ	MSAW3D MSAW4D MSMOVE SDB1							MSAW	
N/A-NAAQ	3.129	3.0-38	MSITEQ	COMB	MSAWD	MSAWQ	MSAW2D MSAW2Q		i	NO_MSAW_AURAL_ALARM	MSAW	
N/A-NADBQ			TI	DTK2						NO_WDS_PER_ADB		
N/A-NAPijQ	3.55.2	3.0-19										
N/A-NARTCQ	3.13	3.0-3	DSITEQ	IDAT			KOFA		A	NO_ARTCC_CONTROL_POSITION	IFY	
N/A-NARTSQ	3.8	3.0-2	DSITEQ	IDAT		IFI	KOFA		A	IFY_NO_ARTS_FACILITY_ADAPTED	IFY	
N/A-NAUTDQ			TI	AUT					i	TIME_AUTO_OFFSET_DISPLAY	DISP	
N/A-NCDRBFQ	2.139	2.0-32										
N/A-NCDRDFQ	2.140	2.0-32										
N/A-NDBMDQ	3.73	3.0-28	MSITEQ	TTYD					i	NO_DISPS_REFRESHED	DISP	
N/A-NDCPEQ	2.185	2.0-44	TI	RDBMD					i	RDBM_CTA_A_B_PARITY_ERROR	DISP	
N/A-NDDSAQ	2.185	2.0-44	TI	RDBMD					i	RDBM_CRA_DATA_SET_ALARM	DISP	
N/A-NDITQ	2.185	2.0-45	TI	RDBMD					i	RDBM_CRA_INPUT_TIMING_ERROR	DISP	
N/A-NDNDDQ	2.185	2.0-44	TI	RDBMD					i	RDBM_NO_DATA_RECV_FROM_DPS	DISP	
N/A-NDODPQ	2.185	3.0-44	TI	RDBMD					i	OUT_DATA_PARITY_RDBM_DISPLAY	DISP	
N/A-NDOSQ	2.185	2.0-45	TI	RDBMD					i	OUT_OF_SYNCH_RDBM_DISPLAY	DISP	
N/A-NDOSQ	2.185	2.0-45	TI	RDBMD					i	RDBM_CRA_OUT_OF_SYNCH	DISP	
N/A-NDOTQ	2.185	2.0-45	TI	RDBMD					i	RDBM_CTA_OUTPUT_TIMING_ERROR	DISP	
N/A-NORADARQ	3.126	3.0-38										
N/A-NDRIPQ	2.185	2.0-45	TI	RDBMD					i	INPUT_PARITY_RDBM_DISPLAY	DISP	
N/A-NDROPQ	2.185	2.0-45	TI	RDBMD					i	OUT_PARITY_RDBM_DISPLAY	DISP	
N/A-NDTPEQ	2.185	2.0-44	TI	RDBMD					i	RDBM_TSR_PARITY_ERROR	DISP	
N/A-NDUQ	3.128	3.0-38	MSITEQ	SDB2		TRT			i	NO_DISP_BK_TRT	SPARM	
N/A-NENT	5.1.5.2	5.0-5										
N/A-NFDBQ	2.113	2.0-20	TI	COMA COMB SDB2					i	DBM_WD_FOR_FDB	DISP	
c NGCWDQ			DSITEQ	MISTG						NO_C_WDS		TKBCNSEL
c NIFRQ	3.20	3.0-4	DSITEQ	VIALT VICIXT VICDT					i	CODE_INFO(IFB)	IFY	TTBCNBNK
N/A-NIOPFQ			MSITEQ						i	NO_IOPS_FULL_LEVEL	SPARM	
N/A-NIOPQ			MSITEQ	MTGA	SDB1	SDB1RO SDB2		TMP	i	NO_IOPS	SPARM	
N/A-NIOP1Q			MSITEQ						i	NO_IOPS_LEVEL_1	SPARM	
N/A-NIOP2Q			MSITEQ						i	NO_IOPS_LEVEL_2	SPARM	
N/A-NLEGS	7.1.1.7	7.0-6										
N/A-NMDBMQ	3.71	3.0.28	MSITEQ	TTYD KIPM MBUF MINBUF SDB1RO SDB2					i	NO_OF_MDBMS	SPARM	
N/A-NMDBQ			TI	DTK3						NO_WDS_PER_MDB		
N/A-NNDIDQ	2.185	2.0-44	TI	RDBMD					i	RDBM_NO_INPUT_DATA_DSPLY	DISP	
N/A-NNDODQ	2.185	2.0-44	TI	RDBMD					i	RDBM_NO_OUTPUT_DATA_DSPLY	DISP	
N/A-NOCTSWRDS	3.79	3.0-29	MSITEQ	CRIT		CRITD			i	CRIT_NO_WORDS_PER_TRK	CRIT	
N/A-NORADARQ			MSITEQ						i	NO_SCAN_RAD_DEL_TIME	SPARM	
N/A-NORADQ	3.126	3.0-38	MSITEQ	SDB1RO		SUBS	TTYD		i	TILB_EFFECT_NO_SCAN_RAD_DEL	SPARM	
N/A-NPSWQ	3.119	3.0-36	MSITEQ	MPEB		SDB2			i	NO_SUBLISTS_DBM	DBM	
N/A-NRBFQ	2.180	2.0-43	TI						i	NO_OUTPUT_BUFF_BY_BIT	DISP	
N/A-NRBUFQ	2.174	2.0-42	DSITEQ	RCOMB		RDBMD	RDOP		i	NO_OUTPUT_BUFFER	SPARM	
N/A-NRBUFQ	2.174	2.0-42	TI	MSITEQ		RCOMB	RDBMD	RDOP	i	NUM_RDBM_OUTPUT_BUFFERS	DISP	
N/A-NRDBMDQ	3.72	3.0-28	MSITEQ	RCOMB	RDBMD	SDB1RO	SDB2		i	NO_OF_RDBMS	SPARM	
N/A-NRECBQ	2.184	2.0-44	TI	RDBMD					i	CRA_LBC_CRC_ERROR	DISP	
N/A-NREDSAQ	2.184	2.0-44	TI	RDBMD					i	CRA_DATA_SET_ALARM	DISP	
N/A-NREITQ	2.184	2.0-44	TI	RDBMD					i	CRA_INPUT_TIMING_ERROR	DISP	
N/A-NREOSQ	2.184	2.0-44	TI	RDBMD					i	CRA_OUT_OF_SYCNH	DISP	

N/A-NREPEQ	2.184	2.0-43	TI	RDBMD	i	CRA_PARITY_ERROR	DISP	
c NSECLQ	2.128	2.0-30	TI	SUBS TEXEC	i	TRK_SUBPGM_NSECT_LNGT	TRACK	TKTRKPRM
c NSENSQ		3.0-1	MSITEQ	MSAWD MSAWQ MSAW2D MSAW2Q MSAW3D		NO_SNSRS	SPARM	TKRANGE
c NSENSQ		3.0-1	MSITEQ	MSAW3Q MSAW4D MSAW4Q MSMOVE MTGA		NO_SNSRS	SPARM	TKRANGE
c NSENSQ		3.0-1	MSITEQ	MTGCT RDBMD RTQCC SDB1 SDB1RO		NO_SNSRS	SPARM	TKRANGE
c NSENSQ		3.0-1	MSITEQ	SDB2 SUBS TRT TTYD		NO_SNSRS	SPARM	TKRANGE
c NSENSQ	3.2	3.0-1	MSITEQ	CDAT CDRD CRIT CRITD DBAT	i	NO_SNSRS	SPARM	TKRANGE
c NSTAGQ			MSITEQ	MPEB RDBMD SDB2	i	NO_STAG	SPARM	TKMISC
N/A-NSTNQ			MSITEQ	SDB2 TRT	i	NO_TRKS_PER_DISP	SPARM	
N/A-NTRDSAQ	2.183	2.0-43	TI	RDBMD	i	CTA_DATA_SET_ALARM	DISP	
N/A-NTRNGQ	3.130	3.0-39	MSITEQ	TNGACT				
N/A-NTROSQ	2.183	2.0-43	TI	RDBMD	i	CTA_OUT_OF_SYNCH	DISP	
N/A-NTROUTQ	2.183	2.0-43	TI	RDBMD	i	CTA_OUTPUT_TIMING_ERROR	DISP	
N/A-NTRPEQ	2.183	2.0-43	TI	RDBMD	i	CTA_PARITY_ERROR	DISP	
c NUMICBQ	3.111	3.0-35	TSITEQ	SIPNCA	Ti	SENSOR_TYPE.NO_CLUTTER_BIN..	SPARM	TTSENSOR
N/A-NUMDFQ	3.79	3.0-29	MSITEQ	CRITD	i	CRIT_NO_DISPLAY_LO	CRIT	
c NUMDQ	3.57	3.0-26	MSITEQ	KIFM KOFB MTGA MTGCT RTDOP	i	NO_DISPS		TKRANGE
c NUMDQ	3.57	3.0-26	MSITEQ	SDB1RO SDB2 TRT	i	NO_DISPS		
N/A-NUMKFQ	3.79	3.0-29	MSITEQ	CRITD SDB2	i	CRIT_NO_KYB_LO	CRIT	
c NUMKQ	3.4	3.0-1	MSITEQ	KOFB SDB1RO SDB2	i	NO_KEYBDS	KBD	TKRANGE
N/A-NUMTRKS	3.79	3.0-29	MSITEQ	CRIT CRITD	i	CRIT_NO_ASSC_TRK_IN_FULL	CRIT	
N/A-NUM2	7.1.1.6	7.0-5						
N/A-NVASIQ	3.112	3.0-35						
c NVFRIQ	3.20	3.0-4	DSITEQ	VIALT VICIXT VICDT	Ti	CODE_INFO.NVFR	IFY	TTBCNBNK
c NVFRQ	3.20	3.0-4	DSITEQ	VIALT VICIXT VICDT	i	CODE_INFO	IFY	TTBCNBNK
N/A-NWADBQ			TI		i	DSP_SZ_ADB	DISP	
N/A-NWFDBQ			TI		i	DSP_SZ_FDB	DISP	
N/A-NWMDBQ			TI		i	DSP_SZ_MDB	DISP	
N/A-NWSSQ			TI		i	DSP_SZ_SS	DISP	
N/A-N1CAQ	8.2.6	8.0-4						
N/A-N2CAQ	8.3.3	8.0-10						
N/A-N3CAQ	8.3.4	8.0-10						
N/A-N4CAQ	8.4.6	8.0-17						
N/A-N5CAQ	8.4.7	8.0-18						
N/A-OLCORQ	8.5.1	8.0-21						
N/A-OLDATQ	8.2.9	8.0-5						
N/A-OLDYX			TI	TCAS0	i	CTS_REFS_SIZES_WORD_43	SPARM	
N/A-OLDYXD			TI	TCAS0	i	CTS_REFS_SIZES_WORD_44	SPARM	
c OVALTQ	3.49	3.0-15	TSITEQ	TPRED	i	MIN_OVFLT_ALT_ARR	TRACK	TKMISC
c OVER	3.139	3.0-40	MSITEQ	TTYD	i	OVERFLIGHT	DISP	TKAPTID
N/A-OVLS		3.5.2-2	SYSEQ0	SYSEQ1 SYSEQ2	i	OVERLOAD_SENSING	SPARM	
N/A-OVRQ	2.122	2.0-22	MSITEQ	PDOP SDB1RO	i	OVERLOAD_SENSING	SPARM	
c PADQ	3.136	3.0-40	DSITEQ		TA	DISPLAY_CONFIG_TYPE.PADQ	DISP	TTDISP
N/A-PALT	2.165	2.0-39						
N/A-PALTIQ	3.55.12	3.0-23						
N/A-PARALQ	8.2.10	8.0-6						
N/A-PARINQ	8.5.9	8.0-25						
N/A-PARMS	8.0	8.0-1						
N/A-PAZIQ	3.55.12	3.0-23						
N/A-PCTIMQ	2.36	2.0-7						
N/A-PDAIQ	3.55.11	3.0-23						
N/A-PDB1T	2.165	2.0-39						
N/A-PDB2T	2.165	2.0-39						
N/A-PDN	7.2.1.8	7.0-22						
N/A-PDP	7.2.1.8	7.0-22						

N/A-PDBiQ	3.55.11	3.0-23											
N/A-PE	7.2.1.14	7.0-29											
c PEAMXQ	2.7	2.0-2	TI	TSUB0	TSUB1				r	MTRK_MX_ERR_AZI_BINS	TRACK	TKTRKPRM
N/A-PENT	5.1.5.3	5.0-6										
c PERBT									T	PERBT_TABLE	TRACK	TTPERBT
N/A-PFSEQ	8.5.2	8.0-21										
N/A-PJTIMQ	2.37	2.0-7										
N/A-PO	7.2.1.14	7.0-29										
N/A-POST	5.2.4	5.0-9										
N/A-POTiQ			TI						Ti	DSP_BRIGHTNESS	DISP	
N/A-PPRI	5.2.6	5.0-9										
N/A-PRGiQ	3.55.12	3.0-23										
N/A-PROCON	8.4	8.0-15										
N/A-PROJX			TI	CALTO	TCASO	TSUB0	TSUB1	TUDCA	i	CTS_REFS_SIZES_WORD_37	SPARM	
N/A-PROJY			TI	CALTO	TCASO	TSUB0	TSUB1	TUDCA	i	CTS_REFS_SIZES_WORD_38	SPARM	
N/A-PRTNMQ			TI						i	MTRK_ALLOC_PRTNM	TRACK	
c PSENSQ	3.65	3.0-27	MSITEQ	SDB1	SDB1RO				i	NO_PSRAP	SPARM	TKRANGE
N/A-PSFLQ	3.54.4	3.0-17	MSITEQ	RCNP								
N/A-PTA1Q	8.4.9	8.0-19										
N/A-PTA2Q	8.4.10	8.0-19										
N/A-PTHo1U	7.1.1.13	7.0-10										
N/A-PTHO1S	7.1.1.12	7.0-9										
N/A-PTHO2S	7.1.1.14	7.0-11										
N/A-PTHO24	7.1.1.15	7.0-12										
N/A-PTHO1H	7.2.1.12	7.0-27										
N/A-PTHO1S	7.2.1.11	7.0-26	7.3.1.11	7.0-34								
N/A-PTHO1U	7.3.1.12	7.0-34										
N/A-PTHO2S	7.2.1.13	7.0-28	7.3.1.13	7.0-35								
N/A-PTHO2U	7.2.1.14	7.0-29	7.3.1.14	7.0-36								
N/A-PTH1S	7.2.1.7	7.0-20										
N/A-PTH1U	7.2.1.8	7.0-22										
N/A-PTH2S	7.2.1.9	7.0-23										
N/A-PTH2U	7.2.1.10	7.0-24										
N/A-PTIMEQ	2.32	2.0-6										
N/A-PTSQ	7.1.1.10	7.0-8	7.2.1.9	7.0-23	7.3.1.9	7.0-32						
c PURTOQ	2.164	2.0-37	TI	TPUR					tim	TPUR_MAX_EXECUT_TIME	PSRAP	TKTRKPRM
N/A-PVPADQ	2.31	2.0-6										
N/A-PWDQ	2.118	2.0-21	TI	IFO KIP	KOFA	KOFC	MPEB		i	MEM_PREV_BUFF_NO_WORDS	SPARM	
N/A-PWDQ	2.118	2.0-21	TI	MTGA MTGCT	RKIP	SDB2					SPARM	
N/A-P2SQQ	8.4.8	8.0-18										
N/A-QA	7.1.1.6	7.0-5										
N/A-RiQ	3.133	3.0-40	DSITEQ	TASTO TTASTO	VIALT VICDT	MPSTACK			TA	RDBM_DISP_NO_PARAM	DISP	
N/A-RAijkQ	3.55.6	3.0-21										
N/A-RADiQ	3.132	3.0-39										
N/A-RADBCNQ			TI						i	AUTO_INT_RADAR_REINFORCE	TRACK	
N/A-RALTVQ	2.29	2.0-6										
c RATLENiQ	3.127	3.0-38	MSITEQ	RATXIT RATAi	ENDRAT	TRAT	RATiT	RATAiT	Ti	SENSOR_TYPE.RATIT_LNGTH	SPARM	TTSENSOR
N/A-RAXiQ	3.135	3.0-40	DSITEQ	RDBMD		SDB2			Ti	COORD_X_RANGE_FILTER_CENTER	RDBM	
N/A-RAYiQ	3.135	3.0-40	DSITEQ	RDBMD		SDB2			Ti	COORD_Y_RANGE_FILTER_CENTER	RDBM	
N/A-RBijkQ	3.55.3	3.0-19a										
N/A-RBEAT	2.165	2.0-37										
c RBHTiQ	3.102	3.0-33	TSITEQ	RBMSHT					Ti	SENSOR_TYPE.RB_NO_HIT_INIT	TRACK	TTSENSOR
N/A-RBMRi	2.168	2.0-40	TI	RDBMD					Ti	RDBM_RECEIVER_ADAPTER	DISP	
c RBMSiQ	3.105	3.0-33	TSITEQ	RBMSHT					Ti	SENSOR_TYPE.RB_NO_MISS_PUR	TRACK	TTSENSOR
N/A-RBMTi	2.167	2.0-40	TI	RDBMD					Ti	RDBM_TRANSMITTER_ADAPTER	DISP	

c RBWLiQ	3.108	3.0-34	TSITEQ	RBSHFT					Ti	SENSOR_TYPE.RB_SLIDE_WINDO_LENGTH	TRACK	TTSENSOR
N/A-RCijkQ	3.55.4	3.0-20										
N/A-RDijkQ	3.55.5	3.0-20a										
N/A-RDSP		3.5.2-1	SYSEQ0	COMA COMB	COMC	DOP	IFI		i	RMT_DISP	SPARM	
N/A-RDSP		3.5.2-1	SYSEQ0	KOFA KOFB	KOFC	MPEB	MSAW		i		SPARM	
N/A-RDSP		3.5.2-1	SYSEQ0	MSAWQ MSAW2Q	MSITEQ	MTGA	MTGCT		i		SPARM	
N/A-RDSP		3.5.2-1	SYSEQ0	QLOOK RCOMR	RDBMD	RDOP	RKIP		i		SPARM	
N/A-RDSP		3.5.2-1	SYSEQ0	RTDOP SDB1	SLINK	SYSEQ1	SYSEQ2		i		SPARM	
N/A-RDSP		3.5.2-1	SYSEQ0	TRAD					i		SPARM	
N/A-REC	5.2.3	5.0-8										
N/A-RECRT	2.165	2.0-38										
c RELiQ			MSITEQ						i	REL_snsr		TKMISC
N/A-RENAM	5.2.2	5.0-7										
N/A-REOMTQ	2.177	2.0-42	TI	RCOMR					i	RDBM_EXPECTED_EOM_TIMEOUT	DISP	
c REPOSQ	2.18	2.0-4	TI	KOFB					i	TIME_20_REPOSITION_mil_secs	KBD	tktrkprm
N/A-RERRCTQ	2.178	2.0-42	TI	RCOMR					i	RDBM_CLR_ERROR_CNT_DLTA_TIME	DISP	
c RFBQ	2.123	2.0-25	TI	COMA COMB	PSRAP	TSUB0	TSUB1		ebc	RAD_FAL_BEACON_CODE_ALLOC	SPARM	TKMISC
N/A-RFCTQ	2.123	2.0-25	TI	COMB					ebc	RAD_FAL_COUNTDOWN_CODE	SPARM	
N/A-RGAZT	2.165	2.0-37										
N/A-RGBijQ	3.110	3.0-34	TSITEQ	RNGBIN					TA	RANGE_BIN_AREA	SPARM	
N/A-RGCHEKQ	2.162	2.0-36	TI						r	AUT_INT_RNG_CHECK	TRACK	
N/A-RIBTRQ	2.179	2.0-42	TI	RDOP					i	DLTA_TIME_BTWN_INIT_BUFFERS	TRACK	
N/A-RINTQ	2.181	2.0-43	TI	RDBMD					i	RDBM_INPUT_BUFF_LNGTH	DISP	
N/A-RMijkQ	3.55.7	3.0-21										
N/A-RMAijkQ	3.131	3.0-39										
N/A-RNGMP	2.39	2.0-7										
c ROHTiQ	3.101	3.0-33	TSITEQ	ROMSHT					Ti	SENSOR_TYPE.RDR_NO_HIT_INIT	TRACK	TTSENSOR
c ROMSiQ	3.104	3.0-33	TSITEQ	ROMSHT					Ti	SENSOR_TYPE.RDR_NO_MISS_PUR	TRACK	TTSENSOR
c ROQ	2.160	2.0-36	TI	TSUB0 TSUB1					i	MTRK_SCANS_CDR_SET	TRACK	TKTRKPRM
N/A-RORP/RCRP		3.5.2-2	SYSEQ0	CDR KOFB	KOFC	MSITEQ	MTGCT		i	RDR_ONLY_RPT_PROCESS	SPARM	
N/A-RORP/RCRP		3.5.2-2	SYSEQ0	PDOP PSRAP	SDB1	SDB1RO	SUBS		i	RDR_ONLY_RPT_PROCESS	SPARM	
N/A-RORP/RCRP		3.5.2-2	SYSEQ0	SYSEQ1 SYSEQ2	TEXEC	TI	TPUR		i	RDR_ONLY_RPT_PROCESS	SPARM	
N/A-RORP/RCRP		3.5.2-2	SYSEQ0	TTYD					i	RDR_ONLY_RPT_PROCESS	SPARM	
c ROTiQ	3.76	3.0-28	TSITEQ	ENDROT		ROTiT			Ti	SENSOR_TYPE.SIZE_ROT	TRACK	TTSENSOR
c ROTSPDiQ	3.93	3.0-32	TSITEQ	ROTSPD1Q					Ti	SENSOR_TYPE.ROT_SPEED	TRACK	TTSENSOR
c ROTSPED			TSITEQ						Ti	SENSOR_TYPE.RDR_O_CLUTTER_MAX..	TRACK	TTSENSOR
c ROWLiQ	3.106	3.0-34	TSITEQ	ROSHFT					Ti	SENSOR_TYPE.RDR_SLIDE_WINDO..	TRACK	TTSENSOR
N/A-RRHQ	1.126	2.0-28	TI						i	MTRK_RRH	TRACK	
N/A-RSAAQ	2.126	2.0-27	TI						i	MTRK_RSAA	TRACK	
N/A-RSALQ	2.126	2.0-27	TI						i	MTRK_RSAL	TRACK	
N/A-RSNAQ	2.126	2.0-27	TI						i	MTRK_RSNA	TRACK	
N/A-RSNLQ	2.126	2.0-27	TI						i	MTRK_RSNL	TRACK	
N/A-RSTAGQ			MSITEQ						i	NO_WORDS_STAGGER	SPARM	
N/A-RSWRECQ	2.173	2.0-41	TI	RDBMD					i	RDBM_CRA_STAT_WORD_TBL_LNGTH	DISP	
N/A-RSWTRAQ	2.172	2.0-41	TI	RDBMD					i	RDBM_CTA_STAT_WORD_TBL_LNGTH	DISP	
N/A-RTCQ	2.101	2.0-18	TI	ALTRKR ALTRKR1	AUT	BRATS	CALERT		i	TIME_REALTIME_CLOCK_ADDR	SPARM	
N/A-RTCQ	2.101	2.0-18	TI	CALTRK CATU CDR		COMA	COMB				SPARM	
N/A-RTCQ	2.101	2.0-18	TI	COMC CRIT DOP		IFI	IFO				SPARM	
N/A-RTCQ	2.101	2.0-18	TI	KIPM KOFA KOFB		KOFC	MAT				SPARM	
N/A-RTCQ	2.101	2.0-18	TI	MSAW MTGA MTGCT		PDOP	PSRAP				SPARM	
N/A-RTCQ	2.101	2.0-18	TI	QLOOK RCOMR RDOP		RKIP	RTQCC				SPARM	
N/A-RTCQ	2.101	2.0-18	TI	SLINK SWABS TEXEC		TINIT	TPUR				SPARM	
N/A-RTCQ	2.101	2.0-18	TI	TSUB0 TSUB1 TUDCA							SPARM	
N/A-RTMOUTQ			TI	RDOP					i	RDBM_INIT_TIMEOUT_SECS	DISP	
N/A-RTNI	2.182	2.0-43	TI	RKIP					i	NO_RDBM_INPUT_TIMEOUT_VALUE	DISP	

N/A-RWDQ	2.119	2.0-21	TI	IFO KIP KOFA KOFB KOFC	i	MEM_RDOUT_BUFF_NO_WORD	SPARM		
N/A-RWDQ	2.119	2.0-21	TI	MPEB MTGA MTGCT SDB2			SPARM		
N/A-SdQ	3.29	3.0-8	DSITEQ	DCONT DFLAGT SDABT MSWDAB TKRCIT	TA	DISP_SYS_DATA_PARAM	DISP		
N/A-SiDT1Q	3.29	3.0-8	3.59	3.0-27 MDTSK DTP	Ti	SS_DISP_DEAD_TIME_1	DISP		
N/A-SiDT2Q	3.59	3.0-27		MDTSK DTP	Ti	SS_DISP_DEAD_TIME_2	DISP		
c SABQ	2.123	2.0-25	TI	KOFA KOFB KOFC PSRAP TINI TSUB0 TSUB1	T ebc	SUS_AIR_BEACON_CODE	SPARM	TKMISC	
N/A-SACTQ	2.123	2.0-25	TI	COMB	ebc	SUS_AIR_COUNTDOWN_CODE	SPARM		
N/A-SALT	2.165	2.0-39							
N/A-SALTijQ	3.55.16	3.0-24							
N/A-SALTiQ	3.55.17	3.0-25							
N/A-SATiQ	3.54.19	3.0-18	MSITEQ	MSAWD MSAWQ MTGA MTGCT	Ti	NO_SATELLITE	SPARM		
c SATHQ	3.54.11	3.0-17	MSITEQ	IFI MTP	i	CTS_PERCENT_TRANSFER_FP	SPARM	TKMISC	
c SATQ	3.54.10	3.0-17	MSITEQ	TTYD	i	CTS_PERCENT_CNTL_TRK_CAPACITY	TRACK	TKTRKPRM	
N/A-SAZijQ	3.55.16	3.0-24							
c SAZQ	2.9	2.0-3	TI	TSUB0 TSUB1	r	MTRK_SEC_AZI_BIN_MULT	TRACK	TKTRKPRM	
N/A-SBAOTQ	2.70	2.0-13	TI	SBAOT					
N/A-SBBAAQ	2.73	2.0-13	TI	SBBAA					
N/A-SBBFDTQ	2.68	2.0-12	TI	SBBFDT					
N/A-SBBFOQ	2.76	2.0-14	TI	SBBFO					
N/A-SBBMAQ	2.75	2.0-14	TI	SBBMA					
N/A-SBBRAQ	2.74	2.0-13	TI	SBBRA					
N/A-SBBRPQ	2.67	2.0-12	TI	SBBRP					
N/A-SBDFOQ	2.77	2.0-14	TI	SBDFO					
N/A-SBHCTQ	2.89	2.0-16	TI	SBHCT					
N/A-SBIEQ	2.71	2.0-13	TI	SBIE					
N/A-SBRCWOQ	2.69	2.0-13	TI	SBRCWO					
N/A-SBTOQ	2.66	2.0-12	TI	SBTO					
N/A-SBTTNDQ	2.72	2.0-13	TI	SBTTND					
N/A-SCbQ	3.40	3.0-11	DSITEQ	SCT	Ti	BCON_INIT_SELCT	IFY		
c SCANiQ	3.19	3.0-4	MSITEQ	MTGA MTGCT SDB1 SDB1RO	Ttim	SENSOR_TYPE.SNSR_SCAN_TIME	SPARM	TTSENSOR	
N/A-SCTLGTH	3.79	3.0-29	MSITEQ	CRIT CRITD	i	CRIT_LNGTH_SELECT_CODE_TABLE	CRIT		
N/A-SCWDQ	2.120	2.0-21	TI	MPEB SDB2	i	MEM_SELCT_CODE_BUFF_WORDS	KBD		
N/A-SECTOLQ	2.134	2.0-31	TI	PSRAP	tim	PSRAP_SECTR_MRK_0_MAX_DLTA_WAIT	PSRAP		
N/A-SFIFOQ	2.133	2.0-31	TI		i	SRAP_OUTPUT_FIFO_NUM_WORDS	PSRAP		
N/A-SFIRMQ	2.126	2.0-26	TI		i	MTRK_FIRM_SFIRM	TRACK		
N/A-SILLQ	2.84	2.0-15	TI	SBIC					
c SIMSMTQ	2.91	2.0-16	TI	PSRAP SDB1	i	SRAP_SECTR_MRK_ERROR_THRESHLD	PSRAP	TKMISC	
N/A-SIPBLQ	2.168	2.0-41	TI	PSRAP SDB1 SDB1RO	i	SRAP_INPUT_BUFFER_LNGTH	PSRAP		
N/A-SIPCSMQ	2.136	2.0-31	TI	PSRAP	i	MIN_SECTR_MRKS_FOR_PSRAP_SYNCH	PSRAP		
N/A-SIPDERQ	2.138	2.0-32	TI	PSRAP	i	PSRAP_THRESHLD_FOD_ILLEGAL_IDS	PSRAP		
N/A-SIPIDERQ		2.0-32	TI		i	SRAP_ID_FAIL_NUM_WORDS	PSRAP		
N/A-SIPIPQ	2.131	2.0-30	TI	PSRAP	i	MX_SRAP_INP_PARITY_PRE_FAILURE	PSRAP		
N/A-SIPIPBSQ	2.137	2.0-31	TI	PSRAP	i	PSRAP_SYNCH_CNSECTIV_ID_POS_PAR	PSRAP		
N/A-SIPLWIQ	2.135	2.0-31	TI	PSRAP	i	PSRAP_EXECS_WOUT_PSRAP_INP_FAIL	PSRAP		
N/A-SIPPMTQ	2.92	2.0-16	TI	PSRAP SDB1	i	SRAP_CLR_THRESHLD_VALU_DLTA_TIM	PSRAP		
N/A-SIPPTLQ	2.169	2.0-41	TI	PSRAP SDB1	i	SRAP_SCAN_TIME_STOR_TBL_LNGTH	PSRAP		
N/A-SIPROTQ	2.171	2.0-41	TI	PSRAP SDB1 SDB1RO	i	OUTPUT_TIME_RPT_STOR_OVFLOW_MSG	PSRAP		
N/A-SIPSTLQ	2.129	2.0-30	TI	PSRAP	i	PSRAP_LNGTH_INTRUP_STATUS_TABLE	PSRAP		
N/A-SIPTFQ		2.0-30	TI	PSRAP	i	SRAP_TIME_DELAY_BTWN_FAILUREBLE	PSRAP		
N/A-SIPTIMEQ	2.130	2.0-30	TI	PSRAP	i	PSRAP_STARTUP_TIME	PSRAP		
N/A-SIPTOSFQ	2.170	2.0-41	TI	PSRAP	i	OUTPUT_TIME_FOR_SENSR_FAIL_MSG	PSRAP		
c SLEVQ	3.62	3.0-27	MSITEQ	KOFB SDB2	i	NO_PROG_LEVEL	SPARM	TKMISC	
N/A-SLIDT	2.165	2.0-38							
c SMOOT					T	SMOOTHING_TABLE	TRACK	TTSMOOT	
N/A-SMPOFFQ	2.83	2.0-15	TI	SMPOFF					

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N/A-SMPRBSQ	2.80	2.0-14	TI	SMPRBS					
N/A-SMPRDFQ	2.79	2.0-14	TI	SMPRDF					
N/A-SMPRTQ	2.81	2.0-15	TI	SMPRT					
N/A-SMPSFQ	2.78	2.0-14	TI	SMPSF					
N/A-SMPTOQ	2.82	2.0-15	TI	SMPTO					
N/A-SNFTTQ	2.90	2.0-16	TI	SIPTTF					
N/A-SNRORPQ	3.120	3.0-37	TI	SNRORP					
c SPDIQ	3.54.17	3.0-18	DSITEQ	TEXEC		tim	NO_SCRATCH_PAD_INDICATOR	DISP	TKBCNSEL
N/A-SPDN	7.2.1.7	7.0-20							
N/A-SPDP	7.2.1.7	7.0-20							
N/A-SPEEDQ	2.10	2.0-3	TI			r	MTRK_RATE_TURN_SPEED	TRACK	
N/A-SRAOTQ	2.60	2.0-11	TI	SRAOT					
N/A-SRGijQ	3.55.16	3.0-24							
c SRGQ	2.11	2.0-3	TI	TSUB0 TSUB1		r	MTRK_SEC_RNG_BIN_MULT	TRACK	TKTRKPRM
N/A-SRMAXQ	8.3.7	8.0-12							
N/A-SRPA	2.166	2.0-40	TI	SIPRAC SRAPNT					
N/A-SRPB	2.166	2.0-40	TI	SIPSBIN1 SIPRIC SIPICIN SIPE SIPD SI PTIO SRAPNT					
N/A-SRPC	2.166	2.0-40	TI	SIPSBIN2 SRAPNT					
N/A-SRPD	2.166	2.0-40	TI	SRAPNT					
N/A-SRPE	2.166	2.0-40	TI	SIPSBIN3 SRAPNT					
N/A-SRPF	2.166	2.0-40	TI	SRAPNT					
N/A-SRPG	2.166	2.0-40	TI	SIPSBIN4 SRAPNT					
N/A-SRPH	2.166	2.0-40	TI	SRAPNT					
N/A-SRPKYQ	3.77.1	3.0-28	MSITEQ	SRPKY					
N/A-SRRDAAQ	2.56	2.0-10	TI	SRRDAA					
N/A-SRRDEQ	2.59	2.0-11	TI	SRRDE					
N/A-SRRDQ	2.65	2.0-12							
N/A-SRRDRAQ	2.57	2.0-11	TI	SRRDRA					
N/A-SRRDTQ	2.61	2.0-11	TI	SRRDT					
N/A-SRRFOQ	2.55	2.0-10	TI	SRRFO					
N/A-SRRRPQ	2.63	2.0-12	TI	SRRRP					
N/A-SRRSDTQ	2.62	2.0-11	TI	SRRSDT					
N/A-SRRTOQ	2.64	2.0-12	TI	SRRTO					
N/A-SRTTNDQ	2.58	2.0-11	TI	SRTTND					
N/A-SRUSE	5.1.3	5.0-3							
N/A-SSA1Q	2.112	2.0-20	TI			i	DBM_SS_A_WORD_PROC	DISP	
N/A-SSA2Q	2.112	2.0-20	TI			i	DBM_SS_A_WORD_NO_PROC	DISP	
N/A-SSBQ	2.109	2.0-19	TI			i	DEDS_SS_WORD_DISP_TIME	DISP	
N/A-SSDTQ			TI			i	TMSHR_DT_SS_PARM	DISP	
N/A-SSSNQ	3.119	3.0-37	MSITEQ	DSLIMT					
N/A-STAGQ	3.58	3.0-26	TSITEQ			i	PRF_ASR7_STAGGER	MSAW	
N/A-STDISQ	2.53	2.0-10							
N/A-STRNQ	3.119	3.0-37	TI			i	DBM_SZ_STORE	DBM	
N/A-STTALLQ	2.88	2.0-16	TI	STTAZM					
N/A-STTAULQ	2.87	2.0-16	TI	STTAZM					
N/A-STTRLLQ	2.86	2.0-15	TI	STTRNG					
N/A-STTRULQ	2.85	2.0-15	TI	STTRNG					
N/A-SUBQ	3.12	3.0-3	DSITEQ	IFI		A	IFY_COORD_SENSOR	IFY	
c SUPiV	3.22	3.0-5	DSITEQ	COUNT		b	KYB_TYPE.SUPKQ		TKKEYBD
c SUPKYQ	3.77.2	3.0-29	MSITEQ	SUPKY			SUPERVISORY_ENABLE		TKMISC
c SUPLEGAL	3.90	3.0-31	MSITEQ	KOFC		i	SUPERVISORY_LEGAL_FLAG	SPARM	TKMISC
N/A-SWABiQ	3.142	3.0-42	DSITEQ	BSCFRT		Ti	SENSOR_DEF_FOR_SWAB	KBD	
N/A-SYSLVQ	2.1	2.0-1	TI	DOP		i	CURRENT_SYSTEM_LEVEL	SPARM	
N/A-S1CbQ	3.40	3.0-11	DSITEQ	SCT1		Ti	INIT_SELCT_1_BEACON	IFY	
N/A-TiEPQ	7.6.3	7.0-46							

N/A-TiPNQ	3.67	3.0-27		MSITEQ					TA	NO_TRACK_FILE_CTS	TRACK	
N/A-TxQ	2.93	2.0-17										
c TABBQ			TI	MSITEQ					i	DEDS_TAB_B_WORD_DISP_TIME	DISP	TKMISC
N/A-TAB1T	2.165	2.0-40										
N/A-TAB2T	2.165	2.0-40										
N/A-TAB3T	2.165	2.0-40										
N/A-TAB4T	2.165	2.0-40										
c TADAQiQ	3.81	3.0-30	DSITEQ	AQLRCT TRACK					Ti	DISPLAY_CONFIG_TYPE.TADAQDQ	DISP	TTDISP
N/A-TADRNGiQ	3.80	3.0-30	DSITEQ	AQLRNGT					Ti	TRACK_ADAPTED_RANGE	SPARM	
N/A-TALSECQ	2.128	2.0-30	TI						i	TRK_SUBPGM_ALT_TRK	TRACK	
N/A-TANCAQ	2.38	2.0-7										
N/A-TAPiQ	3.91	3.0-32	MSITEQ	MSAW MSAWQ MSMOVE		MTGA		MTGCT	Ti	TOTAL_NO_APPROACH	ETG	
N/A-TAQ		2.0-17	TI	CATU CDR	CDRD	COMA		COMB	i	TI_CODE_A		
N/A-TAQ		2.0-17	TI	DOP IFI	IFO	KIP		KIPM				
N/A-TAQ		2.0-17	TI	KOFA KOFB	KOFC	MSAW		MSAWQ				
N/A-TAQ		2.0-17	TI	MSAW2Q MSAW3Q MSAW4Q		MSITEQ		MTP				
N/A-TAQ		2.0-17	TI	PDOP RDBMD	SDB2	TRAD						
N/A-TASQ	3.68	3.0-27										
N/A-TASTLGTH	3.79	3.0-29	MSITEQ	CRIT	CRITD				i	CRIT_LNGTH_SYS_TIME_PER_DATA	CRIT	
N/A-TASTQ			TI	COMA COMB	IFI	KOFA		KOFB	i	TI_CDE_ASTERISK	SPARM	
c TBBSQ	2.3	2.0-2	TI	KOFA KOFB	KOFC				r	TRACKBALL_BIN_SIZE	KBD	TKtrkprm
N/A-TBCNTQ	2.102	2.0-18	TI	TBCNT						NO_REFS_BTWN_EXECS_M	TRACK	
N/A-TBPSIZ	2.121	2.0-21	TI	CRIT SDB2					i	MEM_TBPRET_KBD_NO_WORDS	KBD	
N/A-TBQ		2.0-17	TI	CDRD COMA	KOFA	KOFB		MSAWQ	i	TI_CODE_B		
N/A-TBQ		2.0-17	TI	MSAW2Q MSAW3Q MSAW4Q		MSITEQ		PDOP				
N/A-TBQ		2.0-17	TI	SDB1 SDB2								
N/A-TCARQ			TI						i	TI_CDE_CARET		
N/A-TCASECQ			TI						i	SCTR_TRK_CA	TRACK	
c TCFCQ	3.54.7	3.0-17	TSITEQ	IFY KOFA KOFC TSUB0 TSUB1					i	TBL_1_ARR_TRK_RENTENT	TRACK	TKTRKPRM
c TCFC1Q	3.54.20	3.0-18	TSITEQ	TPRED					i	TBL_1_LIST_ARR_TRK_RENTENT	SPARM	TKTRKPRM
c TCIDQ	3.70	3.0-28	MSITEQ	CRIT CRITD IDAT IFI IFO					i	MAX_TRACK_FILES_ASSOC_IFY	TRACK	TKMISC
N/A-TCNQ			TI						i	MTRK_TCN	TRACK	
N/A-TCPERQ			TI						i	TI_CDE_CENTERED_DOT	SPARM	
N/A-TCQ		2.0-17	TI	CDR CDRD	COMA	COMB		DOP	i	TI_CODE_C		
N/A-TCQ		2.0-17	TI	IFO KIP	KOFA	KOFB		KOFC				
N/A-TCQ		2.0-17	TI	MSAWQ MSAW2Q MSAW3Q MSAW4Q				MSITEQ				
N/A-TCQ		2.0-17	TI	PDOP RDBMD RKIP	SDB2			TRAD				
N/A-TCRQ			TI	COMA COMB IFO	KIP			KIPM	i	TI_CDE_LFEED_CRG_RTN		
N/A-TCRQ			TI	KOFA KOFB KOFC	MPEB			MSITEQ				
N/A-TCRQ			TI	PDOP RDBMD RKIP	SDB1			SDB2				
N/A-TCRQ			TI	TPRED TRAD								
c TCRSECQ	2.128	2.0-29	TI	TCBSS					i	SCTR_TRK_XREF	TRACK	TKTRKPRM
N/A-TDARQ			TI						i	TI_CDE_DOWN_ARROW	SPARM	
N/A-TDMDQ			TI						i	TI_CDE_DIAMOND	SPARM	
N/A-TDQ		2.0-17	TI	CDR CDRD COMA	COMB			IFO	i	TI_CODE_D		
N/A-TDQ		2.0-17	TI	KIP KIFM KOFA	KOFB			KOFC				
N/A-TDQ		2.0-17	TI	MSAWQ MSAW2Q MSAW3Q MSAW4Q				MSITEQ				
N/A-TDQ		2.0-17	TI	RDBMD SDB1 SDB2								
c TEBA			MSITEQ						i	TEB_ARR_AIRPORT_Z	IFY	TKAPTID
c TEBD		MSITEQ							i	TEB_DEPT_AIRPORT_Z	IFY	TKAPTID
N/A-TECTQ	2.128	2.0-30								(see TSECTQ)		
N/A-TEDCQ		3.5.2-1	SYSEQ0	SYSEQ1	SYSEQ2	TEDCRS		TPSEC	i	TEDC_IN_SYS	SPARM	
c TEDSECQ	2.128	2.0-29	TI	TEDC					i	SCTR_TRK_DSC_CORR	TRACK	TKTRKPRM
c TEDTOQ	2.163	2.0-36	TI	TEDC					tim	SCTR_TRK_TEDC_TMOUT	TRACK	TKTRKPRM
N/A-TEOMQ			TI						i	TI_CDE_EOM	SPARM	

N/A-TEQ		2.0-17	TI	COMA DOP IFI	KIPM	KOFA		i	TI_CODE_E		
N/A-TEQ		2.0-17	TI	KOFB KOFC MSAWQ	MSAW2Q	MSAW3Q					
N/A-TEQ		2.0-17	TI	MSAW4Q MSITEQ PDOP RDBMD	SDB1						
N/A-TEQ		2.0-17	TI	SDB2							
N/A-TEQUQ			TI					i	TI_CDE_EQUAL_SIGN		
N/A-TFiQ	3.69	3.0-28	MSITEQ	TRKXT SDB1RO				Ti	CURRENT_NO_TRACK_FILE_CTS	TRACK	
N/A-TFxxxQ			MSITEQ	SDB1RO				Ti	TRACK_FILE_RUN_TOT_NO	TRACK	
N/A-TFQ		2.0-17	TI	CDRD COMA COMB	IFI	IFO		i	TI_CODE_F		
N/A-TFQ		2.0-17	TI	KIP KOFA KOFB	KOFC	MSAW3Q					
N/A-TFQ		2.0-17	TI	MSITEQ PDOP RDBMD RKIP	SDB1	SDB2					
N/A-TGCRQ			TI	SDB2				i	TI_CDE_CARRIG_RTRN		
N/A-TGQ		2.0-17	TI	KOFA KOFB KOFC	MSAWQ	MSAW2Q		i	TI_CODE_G		
N/A-TGQ		2.0-17	TI	MSAW3Q MSAW4Q MSITEQ RDBMD	SDB2						
N/A-TGSAQ	2.126	2.0-27	TI					i	MTRK_TGSA	TRACK	
N/A-TGSLQ	2.126	2.0-27	TI					i	MTRK_TGSL	TRACK	
N/A-THD									CTS_THREAD_POINTER_MACRO	TRACK	
N/A-THEXQ			TI					i	TI_CDE_HEXAGON		
N/A-THQ		2.0-17	TI	COMA IFI IFO	KIP	KOFA		i	TI_CODE_H		
N/A-THQ		2.0-17	TI	KOFB KOFC MSAW3Q	MSITEQ	PDOP					
N/A-THQ		2.0-17	TI	RDBMD SDB2							
N/A-THREDX			TI	CALTO CDR COMS	KOFA	PAUS		i	CTS_REFS_SIZES_WORD_36	SPARM	
N/A-THREDX			TI	TCASO TRAD TUD	TUDCA					SPARM	
N/A-THRET	2.165	2.0-38									
N/A-TIPMQ	3.86	3.0-31	MSITEQ					i	SHIFT_INDEX_FOR_NO_TRACK	TRACK	
c TIMED								T	TIMED_TABLE	TRACK	TTTIMED
N/A-TIMET	2.165	2.0-37									
c TIMLiQ	3.54.22	3.0-18	TSITEQ	TIMK				Ttim	SENSOR_TYPE.LIMT_LOW_TARGET..	TRACK	TTSENSOR
c TIMUiQ	3.54.23	3.0-18	TSITEQ	TIMK				Ttim	SENSOR_TYPE.LIMT_UP_TARGET...	TRACK	TTSENSOR
c TINTOQ			TI	TINIT				i	SCTR_TRK_TINIT_TMOUT	TRACK	TKTRKPRM
N/A-TIQ		2.0-17	TI	CDRD COMA COMB	IFO	KIP		i	TI_CODE_I		
N/A-TIQ		2.0-17	TI	KIPM KOFA KOFB	KOFC	MSAWQ					
N/A-TIQ		2.0-17	TI	MSAW2Q MSAW3Q MSITEQ RDBMD	SDB2						
N/A-TJQ		2.0-17	TI	COMA MSITEQ PDOP	SDB2			i	TI_CODE_J		
N/A-TKQ		2.0-17	TI	CDRD IFO KIP	KOFA	KOFB		i	TI_CODE_K		
N/A-TKQ		2.0-17	TI	MSAW3Q MSITEQ RDBMD SDB2							
N/A-TLARQ			TI					i	TI_CDE_LEFT_ARROW		
N/A-TLB		3.5.2-1	SYSEQ0	MSITEQ SYSEQ1	SYSEQ2	TTYD		i	TRA_FULL_UP	SPARM	
N/A-TLQ		2.0-17	TI	COMA COMB DOP	IFO	KIP		i	TI_CODE_L		
N/A-TLQ		2.0-17	TI	KOFA KOFB KOFC	MSAWQ	MSAW2Q					
N/A-TLQ		2.0-17	TI	MSAW3Q MSAW4Q MSITEQ RDBMD	SDB1						
N/A-TLQ		2.0-17	TI	SDB2 TRAD							
N/A-TMDFQ	8.5.7	8.0-24									
N/A-TMDFIQ	8.5.6	8.0-23									
N/A-TMINQ			TI					i	TI_CDE_MINUS		
N/A-TMQ		2.0-17	TI	CDRD COMA IFO	KIP	KOFA		i	TI_CODE_M		
N/A-TMQ		2.0-17	TI	KOFB KOFC MSAWQ	MSAW2Q	MSAW3Q					
N/A-TMQ		2.0-17	TI	MSAW4Q MSITEQ PDOP RDBMD	RKIP						
N/A-TMQ		2.0-17	TI	SDB2							
N/A-TMSSECQ	2.128	2.0-30	TI	MSAW				i	SCTR_TRK_MSAW	TRACK	
N/A-TNMS1Q	2.126	2.0-26	TI	AUT BRATS CATU	CDR	COMA		i	MTRK_TRK_NUM_MASK	SPARM	
N/A-TNMS1Q	2.126	2.0-26	TI	COMC IFI KOFA	KOFB	KOFC				SPARM	
N/A-TNMS1Q	2.126	2.0-26	TI	MSAW QLOOK SCTME	SLINK	SWABS				SPARM	
N/A-TNMS1Q	2.126	2.0-26	TI	TDOP TEDCRS TINIT	TPRED	TPSEC				SPARM	
N/A-TNMS1Q	2.126	2.0-26	TI	TPUR TRAD TRDUT	TSUB0	TSUB1				SPARM	
N/A-TNMS1Q	2.126	2.0-26	TI	TUD TUDS						SPARM	

N/A-TNMS2Q	2.126	2.0-26	TI	AUT BRATS COMA	CRIT	IPI	i	MTRK_FIELD_MASK	SPARM		
N/A-TNMS2Q	2.126	2.0-26	TI	IFO KOFA KOFB	KOFC	MTGA			SPARM		
N/A-TNMS2Q	2.126	2.0-26	TI	MTGCT PDOP SCTME	SDB2	SLINK			SPARM		
N/A-TNMS2Q	2.126	2.0-26	TI	SMOTH TDOP TINIT	TPRED	TPSEC			SPARM		
N/A-TNMS2Q	2.126	2.0-26	TI	TPUR TSUBO TUD	TUDS				SPARM		
N/A-TNPT	2.165	2.0-38									
N/A-TNQ		2.0-17	TI	CATU CDRD COMA	COMB	IPI	i	TI_CODE_M			
N/A-TNQ		2.0-17	TI	KIPM KOFA KOFB	KOFC	MSAWQ					
N/A-TNQ		2.0-17	TI	MSAW2Q MSAW3Q MSAW4Q MSITEQ PDOP							
N/A-TNQ		2.0-17	TI	RDBMD SDB2							
N/A-TNT	2.165	2.0-38									
N/A-TOCIMQ	8.2.12	8.0-7									
N/A-TOMIMQ	8.2.13	8.0-8									
N/A-TOQ		2.0-17	TI	COMA COMB IFO	KIP	KIPM	i	TI_CODE_O			
N/A-TOQ		2.0-17	TI	KOFA KOFB KOFC	MSAW3Q	MSAW4Q					
N/A-TOQ		2.0-17	TI	SDB1 SDB2							
N/A-TORAIQ	7.6.6	7.0-47									
N/A-TPADQ			TI	CDR COMA COMB	DOP	IPI	i	TI_CDE_PAD			
N/A-TPADQ			TI	IFO KIP KIPM	KOFA	KOFB					
N/A-TPADQ			TI	KOFC MAT MPEB	MSITEQ	MTP					
N/A-TPADQ			TI	PDOP RCOMR RDBMD	RDOP	RKIP					
N/A-TPADQ			TI	SDB1 SDB2 TPRED	TRAD						
c TPDSECQ	2.128	2.0-29	TI	BRATS MTGA MTGCT	TPRED		i	SCTR_TRK_PREDICTION	TRACK	TKTRKPRM	
N/A-TPERQ			TI	IPI IFO KIP	KOFA	KOFB	i	TI_CDE_PERIOD			
N/A-TPERQ			TI	KOFC MSITEQ RKIP	SDB2						
N/A-TPLUSQ			TI	COMA COMB IPI	KOFB	KOFC	i	TI_CDE_PLUS			
N/A-TPQ		2.0-17	TI	IPI IFO KIP	KIPM	KOFA	i	TI_CODE_P			
N/A-TPQ		2.0-17	TI	KOFB KOFC MSAW3Q	RDBMD	SDB2					
c TPRSECQ	2.128	2.0-29	TI	TPUR			i	SCTR_TRK_PROC_UN_REP	TRACK	TKTRKPRM	
c TPSSECQ	2.128	2.0-29	TI	TPSEC			i	SCTR_TRK_PRISC_CORR	TRACK	TKTRKPRM	
N/A-TQ	3.3	3.0-1	MSITEQ	CTS SDB1 SDB1RO SDB2 TTYD			i	TOT_TRACK_SLOTS	SPARM		
c TQK1							i	TRIAL_TRACK_NUMBER_MAX	TRACK	TKTRKPRM	
c TQK2							i	NORMAL_TRACK_NUMBER_MAX	TRACK	TKTRKPRM	
N/A-TQQ		2.0-17	TI	SDB2			i	TI_CODE_Q			
N/A-TRARQ			TI				i	TI_CDE_RIGHT_ARROW			
N/A-TRING			TI	KOFC RDBMD							
N/A-TRINGQ			TI	COMA COMB IPI	KOFA	KOFB	i	TI_CDE_TRIANGLE			
N/A-TRNGIQ	3.130	3.0-39	MSITEQ	ATRNGD							
N/A-TRQ		2.0-17	TI	CDRD COMA COMB	DOP	IPI	i	TI_CODE_R			
N/A-TRQ		2.0-17	TI	IFO KIP KIPM	KOFA	KOFB					
N/A-TRQ		2.0-17	TI	KOFC MSAW3Q MSAW4Q MSITEQ		PDOP					
N/A-TRQ		2.0-17	TI	RDBMD SDB1 SDB2							
c TRSIQ	3.88	3.0-31	TSITEQ	MTGCT SDB1 SDB1RO	SUBS		Ti	SENSOR_TYPE.NO_REPORT	SPARM	TTSENSOR	
c TRSEC1Q	2.128	2.0-29	TI	TROUT			i	PASS1_SCTR_TRK_DISP	TRACK	TKTRKPRM	
c TRSEC2Q	2.128	2.0-29	TI	TROUT			i	PASS2_SCTR_TRK_DISP	TRACK	TKTRKPRM	
c TRSEC3Q	2.128	2.0-29	TI	TROUT			i	PASS3_SCTR_TRK_DISP	TRACK	TKTRKPRM	
c TRSEC4Q		2.0-29	TI	TROUT			i	PASS4_SCTR_TRK_DISP	TRACK	TKTRKPRM	
N/A-TRSMS1Q	2.126	2.0-26	TI	TPSEC			i	MTRK_TRST_INDX_MASK	TRACK		
N/A-TRSMS2Q	2.126	2.0-26	TI	TPSEC SMOTH			i	MTRK_TRST_FIELD_MASK	TRACK		
c TRSTIQ	3.74	3.0-28	TSITEQ	PSRAP			Ti	SENSOR_TYPE.TRS_SIZE	SPARM	TTSENSOR	
N/A-TRVL1Q			TI				i	MTRK_TRVL1	TRACK		
N/A-TRVL2Q			TI				i	MTRK_TRVL2	TRACK		
N/A-TSATQ			TI	KOFC PDOP SDB1					SPARM		
N/A-TSBQ			TI	COMA PDOP TRAD			i	TI_CDE_START_BLINK			
c TSECTQ			TI	TROUT			i	SCTR_TRK_TROUT_SECS	TRACK	TKTRKPRM	

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N/A-TSEPQ                          TI                                          i   TI_CDE_SEP
N/A-TSPCQ                          TI      CATU COMA COMB    DOP      IFI      i   TI_CDE_SPACE
N/A-TSPCQ                          TI      IFO KIP  KIPM     KOFA     KOFB
N/A-TSPCQ                          TI      KOFC MAT MPEB     MTP      PDOP
N/A-TSPCQ                          TI      RDBMD RKIP SCTME  SDB1     SDB2
N/A-TSPCQ                          TI      TPRED TRAD
N/A-TSPLQ                          TI                                          i   TI_CHAR_CODE_SMALL_PLUS
N/A-TSQ                  2.0-17    TI      COMA COMB IFO     KIP      KIPM     i   TI_CODE_S
N/A-TSQ                  2.0-17    TI      KOFA KOFB KOFC    MSAWQ    MSAW2Q
N/A-TSQ                  2.0-17    TI      MSAW3Q MSAW4Q MSITEQ PDOP  RDBMD
N/A-TSQ                  2.0-17    TI      SDB1 SDB2
N/A-TSQQ                           TI      COMB LIMD PDOP    SDB1               i   TI_CDE_SQUARE
N/A-TSTKYQ       3.77.2  3.0-29    MSITEQ  TSTKY
N/A-TSWSECQ      2.128   2.0-30    TI                                          i   SCT_TRK_SWABS                    TRACK
c   TTdQ         3.39    3.0-11    DSITEQ  ALFLT                               TA  DISPLAY_CONFIG_TYPE.TTDQ         DISP     TTDISP
N/A-TTCAPQ       3.87    3.0-31    TSITEQ  COMA                                i   NO_TRK_LEFT_BEFORE_PURG          TRACK
N/A-TTCNQ                          TI                                          i   MTRK_TTCN                        TRACK
N/A-TTGT                 3.5.2-2   SYSEQ0  KOFB KOFC  PDOP     PSRAP    SDB1   i   TEST_TARGET_DISP                 SPARM
N/A-TTGT                 3.5.2-2   SYSEQ0  SYSEQ1 SYSEQ2 TTYD                    i                                    SPARM
c   TTISECQ      2.128   2.0-29    TI      TINIT                               i   SCTR_TRK_INITIAL                 TRACK    TKTRKPRM
N/A-TTQ                  2.0-17    TI      CDRD COMA    COMB     DOP      IFI  i   TI_CODE_T
N/A-TTQ                  2.0-17    TI      IFO KIP  KIPM     KOFA     KOFB
N/A-TTQ                  2.0-17    TI      KOFC MSAW3Q MSAW4Q MSITEQ  PDOP
N/A-TTQ                  2.0-17    TI      RDBMD RKIP SDB1   SDB2
N/A-TUARQ                          TI                                          i   TI_CDE_UP_ARROW
N/A-TUBTRQ                         TI                                          i   TRI_TI_CDE_UNDRBAR
N/A-TUBXQ                          TI                                          i   BOX_TI_CDE_UNDRBAR
N/A-TUCRQ                          TI      TRAD                                i   TI_CDE_UPEED_CRG_RTN
N/A-TUQ                  2.0-17    TI      IFI KIPM KOFA     KOFB     KOFC     i   TI_CODE_U
N/A-TUQ                  2.0-17    TI      MSITEQ RDBMD SDB2
N/A-TURNFQ       8.5.8   8.0-24
N/A-TVIRGQ                         TI      COMB DOP IFI      KOFA     KOFB     i   TI_CDE_VIRGULE
N/A-TVIRGQ                         TI      KOFC RDBMD SDB2   TRAD
N/A-TVQ                  2.0-17    TI      COMA COMB IFI     KOFB     MSAWQ    i   TI_CODE_V
N/A-TVQ                  2.0-17    TI      MSAW2Q MSAW3Q MSAW4Q MSITEQ SDB1
N/A-TVQ                  2.0-17    TI      SDB2
N/A-TWALiQ       7.6.7   7.0-47
N/A-TWDQ                           TI      KOFA KOFB KOFC    MPEB     MTGA     i   MEM_TBRDOUT_BUFF_WORDS           KBD
N/A-TWDQ                           TI      MTGCT SDB2                              MEM_TBRDOUT_BUFF_WORDS           KBD
N/A-TWQ                  2.0-17    TI      IFI KOFA MSAWQ    MSAW2Q   MSAW3Q   i   TI_CODE_W
N/A-TWQ                  2.0-17    TI      MASW4Q MSITEQ SDB2
c   TXijQ        3.5     3.0-1     MSITEQ  TRAX1P TRN1T SDB1RO SDB2            Ti  SENSOR_DIFF.DELTA_X              SPARM    TTSENSOR
N/A-TXQ                  2.0-17    TI      CATU COMA KOFB    MSITEQ   SDB2     i   TI_CODE_X
c   TYijQ        3.5     3.0-1     MSITEQ  TRAY1P  TRN1T  SDB1RO SDB2          Ti  SENSOR_DIFF.DELTA_Y              SPARM    TTSENSOR
c   TYPDISPiQ    3.52    3.0-15    MSITEQ  TYP     SDB2                        Ti  FORCE_TYPE_DISP                  SPARM    TKMISC
c   TYPDISIiQ    3.51    3.0-15    MSITEQ  TYI     SDB2                        Tr  SENSOR_TYPE.RANGE_TYPE_DISP..    SPARM    TTSENSOR
N/A-TYQ                  2.0.17    TI      MSAW3Q MSAW4Q MSITEQ SDB2
N/A-TYQ                  2.0-17    TI      IFO KIP  KOFA     MSAWQ    MSAW2Q   i   TI_CODE_Y
c   TYSECQ       3.54.18 3.0-18    MSITEQ  KOFA                                i   NO_SCANS_DISP_AIRCRAFT_TYPE      SPARM    TTMISC
N/A-TZMQ         8.3.8   8.0-12
N/A-TZQ                  2.0-17    TI      CATU COMA IFI     KOFA     KOFB     i   TI_CODE_Z
N/A-TZQ                  2.0-17    TI      KOFC MSAW MSITEQ  SDB2
N/A-TOFNQ        3.67    3.0-27
N/A-TOQ                  2.0-17    TI      KOFA KOFB KOFC    MSAW     MSAWQ    i   TI_CODE_O
N/A-TOQ                  2.0-17    TI      MSAW2Q MSAW3Q MSAW4Q MSITEQ SDB2
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c   T1ADAQiQ   3.81      3.0-30   DSITEQ   AQLR2T                                   Ti   DISPLAY_CONFIG_TYPE.TADAQDQ    DISP     TTDISP
N/A-T1FNQ                         MSITEQ                                            A    NO_TRACK_FILE_CTS_1            TRACK
N/A-T1LB                 3.5.2-1  SYSEQ0   KOFB MSITEQ MTGCT   PSBAP    SDB1BO      i    TRA_LVL1_BKUP                  SPARM
N/A-T1LB                 3.5.2-1  SYSEQ0   SYSEQ1 SYSEQ2 TI    TTYD                 i                                   SPARM
N/A-T1Q                                                                                CTS_1_CURRENT_NO_TRACK_FILE    TRACK
N/A-T1Q                  2.0-17   TI       KOFB KOFC MSAWQ   MSAW2Q   MSAW3Q      i    TI_CODE_1
N/A-T1Q                  2.0-17   TI       MSAW4Q MSITEQ PDOP SDB2
N/A-T10FNQ                        MSITEQ                                            A    CTS_10_CURRENT_NO_TRACK_FILE   TRACK
N/A-T11FNQ                        MSITEQ                                            A    CTS_11_CURRENT_NO_TRACK_FILE   TRACK
N/A-T12FNQ                        MSITEQ                                            A    CTS_12_CURRENT_NO_TRACK_FILE   TRACK
N/A-T13FNQ                        MSITEQ                                            A    CTC_13_CURRENT_NO_TRACK_FILE   TRACK
N/A-T14FNQ                        MSITEQ                                            A    CTS_14_CURRENT_NO_TRACK_FILE   TRACK
N/A-T15FNQ                        MSITEQ                                            A    CTS_15_CURRENT_NO_TRACK_FILE   TRACK
N/A-T16FNQ                        MSITEQ                                            A    CTS_16_CURRENT_NO_TRACK_FILE   TRACK
N/A-T17FNQ                        MSITEQ                                            A    CTS_17_CURRENT_NO_TRACK_FILE   TRACK
N/A-T18FNQ                        MSITEQ                                            A    CTS_18_CURRENT_NO_TRACK_FILE   TRACK
N/A-T19FNQ                        MSITEQ                                            A    CTS_19_CURRENT_NO_TRACK_FILE   TRACK
c   T2ADAQiQ   3.81      3.0-30   DSITEQ   AQLR3T                                   Ti   DISPLAY_CONFIG_TYPE.TADAQDQ    DISP     TTDISP
N/A-T2FNQ                         MSITEQ                                            A    CTS_2_CURRENT_NO_TRACK_FILE    TRACK
N/A-T2LB                 3.5.2-2  SYSEQ0   TTYD DOP MSITEQ SYSEQ1 SYSEQ2 TI         i    TRA_LVL2_BKUP                  SPARM
N/A-T2PSEQ   8.2.11      8.0-6
N/A-T2Q                  2.0-17   TI       KOFB KOFC    MSAWQ    MSAW2Q   MSAW3Q i    TI_CODE_2
N/A-T2Q                  2.0-17   TI       MSAW4Q MSITEQ PDOP    SDB2
N/A-T20FNQ                        MSITEQ                                            A    CTS_20_CURRENT_NO_TRACK_FILE   TRACK
N/A-T21FNQ                        MSITEQ                                            A    CTS_21_CURRENT_NO_TRACK_FILE   TRACK
N/A-T22FNQ                        MSITEQ                                            A    CTS_22_CURRENT_NO_TRACK_FILE   TRACK
N/A-T23FNQ                        MSITEQ                                            A    CTS_23_CURRENT_NO_TRACK_FILE   TRACK
N/A-T24FNQ                        MSITEQ                                            A    CTS_24_CURRENT_NO_TRACK_FILE   TRACK
c   T3ADAQiQ   3.81      3.0-30   DSITEQ   QLRC4T                                   Ti   DISPLAY_CONFIG_TYPE.TADAQDQ    DISP     TTDISP
N/A-T3ASEQ   7.3.1.15    7.0-37
N/A-T3FNQ                         MSITEQ                                            A    CTS_3_CURRENT_NO_TRACK_FILE    TRACK
N/A-T3LKAQ   7.3.1.16    7.0-38
N/A-T3LSEQ   7.3.1.17    7.0-38
N/A-T3PSEQ   7.3.1.18    7.0-39
N/A-T3Q                  2.0-17   TI       MSAWQ MSAW2Q MSAW3Q MSAW4Q MSITEQ        i    TI_CODE_3
N/A-T3Q                  2.0-17   TI       PDOP SDB2
N/A-T4FNQ                         MSITEQ                                            A    CTS_4_CURRENT_NO_TRACK_FILE    TRACK
N/A-T4Q                  2.0-17   TI       KOFB MSAWQ MSAW2Q MSAW3Q   MSAW4Q        i    TI_CODE_4
N/A-T4Q                  2.0-17   TI       MSITEQ PDOP SDB2
N/A-T5FNQ                         MSITEQ                                            A    CTS_5_CURRENT_NO_TRACK_FILE    TRACK
N/A-T5Q                  2.0-17   TI       KOFB KOFC MSAWQ   MSAW2Q   MSAW3Q      i    TI_CODE_5
N/A-T5Q                  2.0-17   TI       MSAW4Q MSITEQ PDOP SDB2
N/A-T6FNQ                         MSITEQ                                            A    CTS_6_CURRENT_NO_TRACK_FILE    TRACK
N/A-T6Q                  2.0-17   TI       SDB2 MSAWQ MSAW2Q MSAW3Q MSAW4Q MSIT EQ i   TI_CODE_6                      SPARM
N/A-T7FNQ                         MSITEQ                                            A    CTS_7_CURRENT_NO_TRACK_FILE    TRACK
N/A-T7Q                  2.0-17   TI       KOFA KOFB KOFC    MSAWQ    MSAW2Q      i    TI_CODE_7
N/A-T7Q                  2.0-17   TI       MSAW3Q MSAW4Q MSITEQ SDB2
N/A-T8FNQ                         MSITEQ                                            A    CTS_8_CURRENT_NO_TRACK_FILE    TRACK
N/A-T8Q                  2.0-17   TI       MSAWQ MSAW2Q MSAW3Q MSAW4Q MSITEQ        i    TI_CODE_8
N/A-T9FNQ                         MSITEQ                                            A    CTS_9_CURRENT_NO_TRACK_FILE    TRACK
N/A-T9Q                  2.0-17   TI       KOFB KOFC MSAWQ   MSAW2Q   MSAW3Q      i    TI_CODE_9
N/A-T9Q                  2.0-17   TI       MSAW4Q MSITEQ SDB2 TRAD
N/A-UCADVQ   2.51        2.0-10
c   ULAQ     3.54.2      3.0-16   TI       COMA                                     i    ARTCC_UPR_TIME_DIF_DEP_ARIV_TRKIFY     TKTRKPRM
c   ULKQ     3.54.2      3.0-16   TI       COMA                                     i    NOART_UPR_TIME_DIF_DEP_ARIV_TRKIFY     TKTRKPRM
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N/A-WR9	7.3.1.10	7.0-33									
N/A-WR9Ii	7.1.1.11	7.0-8									
N/A-WR9IiJj	7.2.1.10	7.0-24									
N/A-XkQ	3.27	3.0-7	DSITEQ	SYMT	TABBT	TBPRET	FIXCVT	MRF	TA	KYB_ARR_DEP_PREV_LOC_PARAM	KBD
N/A-XxQ	2.94	2.0-17									
N/A-XALRiQ	7.6.4	7.0-46									
N/A-XASCIQ			TI						i	ASCI_CD_ALPHA_ADD	SPARM
N/A-XASTRQ			TI						i	ASCI_CD_ASTERISK	SPARM
N/A-XBLANQ			TI						i	ASCI_CD_BLANK	SPARM
N/A-XBQ			TI						i	ASCI_CD_B	SPARM
N/A-XCOLNQ			TI						i	ASCI_CD_COLON	SPARM
N/A-XCONAQ			TI						i	ASCI_CD_ALPHA_FROM_TI	SPARM
N/A-XCONNQ			TI						i	ASCI_CD_NUMERIC_FROM_TI	SPARM
N/A-XCORT	2.165	2.0-37									
N/A-XCQ			TI						i	ASCI_CD_C	SPARM
N/A-XCRQ			TI						i	ASCI_CD_CR	SPARM
N/A-XDECMQ			TI						i	ASCI_CD_DECIMAL	SPARM
N/A-XEQULQ			TI						i	ASCI_CD_EQUAL	SPARM
N/A-XLFQ			TI						i	ASCI_CD_LF	SPARM
N/A-XMINUQ			TI						i	ASCI_CD_MINUS	SPARM
N/A-XMQ			TI						i	ASCI_CD_M	SPARM
N/A-XNULQ			TI						i	ASCI_CD_NULL	SPARM
N/A-XONEQ			TI						i	ASCI_CD_ONE	SPARM
N/A-XPLUSQ			TI						i	ASCI_CD_PLUS	SPARM
N/A-XPQ			TI						i	ASCI_CD_P	SPARM
N/A-XRQ			TI						i	ASCI_CD_R	SPARM
N/A-XSIQ			TI						i	ASCI_CD_TTY_ENABLE	SPARM
N/A-XTQ			TI						i	ASCI_CD_T	SPARM
N/A-XVIRGQ			TI						i	ASCI_CD_VURGULE	SPARM
N/A-XYDIFiQ	3.17	3.0-4	MSITEQ	IDAT					TA	COORD_CONVER_FACTOR	IFY
N/A-XYDOT	2.165	2.0-37									
N/A-YALRiQ	7.6.5	7.0-46									
N/A-YCORT	2.165	2.0-37									
N/A-ZMIF1Q	8.3.9	8.0-13									
N/A-ZMIF2Q	8.3.10	8.0-14									
N/A-ZONEQ	1.126	2.0-28	TI						i	MTRK_ZONE	TRACK

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