Department of the Interior
U.S. Geological Survey

LANDSAT 1-5
MULTISPECTRAL SCANNER (MSS)
CALIBRATION PARAMETER FILE (CPF) DEFINITION

Version 2.0

December 2010

LANDSAT 1-5 MULTISPECTRAL SCANNER (MSS) CALIBRATION PARAMETER FILE (CPF) DEFINITION

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Executive Summary

This document describes the contents of the Calibration Parameter File (CPF) that the Multispectral Scanner (MSS) functionality of the Image Assessment System (IAS) generates. This file is satellite-specific and is updated on an “as needed” basis. The file is sent to the Landsat Archive Manager (LAM) for storage and eventual bundling with outbound Level 0 Reformatted Products (L0Rp). The CPF supplies the radiometric and geometric correction parameters required during Level 1 (L1) processing to create superior products of uniform consistency across the Landsat system.

Document History

Document Number	Document Version	Publication Date	Change Number
IAS-236	Version 1	March 2010	
IAS-236	Version 2.0	December 2010	

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Section 1 Introduction

1.1 Background

The Landsat Multispectral Scanner (MSS) is a multi-band remote sensing image receiver onboard the Landsat satellites one through five. The multi-band sensor acquired images of the earth through red, green, and near infrared (R,G,NIR) filters almost continuously for twenty years – from July 1972 to October 1992. The objective of the Landsat MSS mission was to provide global, seasonally refreshed, high-resolution (79-meter multispectral) imagery of Earth's land areas from a near-polar, sun-synchronous orbit.

During its history, the MSS image format for data in the U.S. Geological Survey (USGS) archive has undergone several changes. The first type of MSS imagery was called MSS-X. This was the product of Landsat 1 and some of Landsat 2 and Landsat 3, and was more of a media type designation than a formal product distinguisher. After transition of the raw compressed data from the Landsat satellite, the data were reformatted from band interleaved by pixel pair (BIP2) to the Band Sequential (BSQ) format called MSS-X. MSS-X data have been radiometrically corrected. MSS-X data are archived on a scene-by-scene basis, and the calibration data are available for viewing.

The second type of MSS imagery, known as Multispectral Scanner – Archive Format (MSS-A), is a data format produced from 1981 until the end of MSS data acquisitions. This format includes all of the MSS imagery from Landsat 4 and Landsat 5. Similar to MSS-X, these data have been radiometrically corrected. MSS-A data are archived on a scene-by-scene basis and the calibration data are available in the image data.

The third type of MSS imagery, known as Multispectral Scanner – Processed Format (MSS-P), is different from MSS-A and MSS-X in that it has been corrected for system, radiometric, and geometric distortion. The MSS-P data have been processed using a National Land Archive Production System (NLAPS)-like program to geo-reference the image and adjust the scan-line offsets. The calibration correction values used to generate the MSS-P product are not stored after product generation. The MSS-P format includes some Landsat 2 and Landsat 3 data and is archived on a scene-by-scene basis.

1.2 Purpose and Scope

This document describes the contents of the MSS Calibration Parameter File (CPF) that the Image Assessment System (IAS) generates. The MSS functionality of the IAS is responsible for offline assessment of MSS image quality. In addition to its assessment functions, the IAS is responsible for the radiometric and geometric calibration of MSS data. A separate MSS CPF is created for each satellite that includes the MSS sensor (Landsat 1 through Landsat 5).

The IAS periodically performs radiometric and geometric calibration and updates the CPF. This file is stamped with an applicability date and is sent to the Landsat Archive Manager (LAM) for storage. The CPF supplies the radiometric and geometric correction parameters required during Level 1 (L1) processing to create superior products of uniform consistency across the Landsat system.

Section 2 File Structure

All parameters are stored as American Standard Code for Information Interchange (ASCII) text using the Object Description Language (ODL) syntax that the NASA Jet Propulsion Laboratory (JPL) developed. ODL is a tagged keyword language developed to provide a human-readable data structure to encode data for simplified interchange. The ODL interpreter that JPL developed may provide, in certain cases, the handling of lexical elements (e.g., building blocks). This is included in the Consultative Committee for Space Data Systems (CCSDS) specification of the Parameter Value Language (PVL), which is a superset of ODL. The IAS CPF is a pure ODL implementation without any PVL extensions.

The body of the file is composed of two statement types:

1. Attribute assignment statement: used to assign values to parameters
2. Group statements: used to aid in file organization and enhance parsing granularity of parameter sets

The Planetary Data System Standards Reference provides ODL details (see References).

2.1 CPF Updates

MSS data have not been collected since 1992. Therefore, quarterly CPF updates are not required. If a CPF update becomes necessary, the same procedure currently used for Thematic Mapper (TM) and Enhanced Thematic Mapper Plus (ETM+) data will be applied and the CPF file version number will change accordingly.

2.1.1 Effective Dates

Each CPF is time-stamped with an effective date range. The third and fourth parameters in the file—Effective_Date_Begin and Effective_Date_End—designate the range of valid acquisition dates and are in yyyy-mm-dd format. EROS maintains a database of CPF names and their effective dates for associating product orders with the appropriate parameter files. The parameter file that accompanies an order contains an effective date range that includes the acquisition date of the ordered image.

2.2 File Naming Conventions

Throughout the mission, a serial collection of CPFs has been generated and sent to the LAM for distribution with L0Rp products. The CPFs need updates when improved calibration parameters for a given period become available or when a file error occurs. The need for unique file version numbers becomes necessary as file contents change. Table 2-1 shows the components comprising the naming convention that the IAS uses for CPF files.

CPF file name: LMXCPF$y_1y_1y_1y_1m_1m_1d_1d_1$_$y_2y_2y_2y_2m_2m_2d_2d_2$.nn			
where	LM	=	Landsat MSS Sensor
	X	=	Mission: 1 = Landsat 1 2 = Landsat 2 3 = Landsat 3 4 = Landsat 4 5 = Landsat 5
	CPF	=	three-letter CPF designator
	$y_1y_1y_1y_1$	=	four-digit effectivity starting year
	m_1m_1	=	two-digit effectivity starting month
	d_1d_1	=	two-digit effectivity starting day
	_	=	effectivity starting / ending date separator
	$y_2y_2y_2y_2$	=	four-digit effectivity ending year
	m_2m_2	=	two-digit effectivity ending month
	d_2d_2	=	two-digit effectivity ending day
	.	=	ending day / sequence number separator
	nn	=	sequence number for this file (starts with 01)

Table 2-1. File Naming Procedure for the CPF

2.3 File Content Description

Table 3-1 lists all CPF parameters. Within this table, each parameter entry is characterized by five attributes:

1. Parameter group: Identifies a related set of parameters.
2. Parameter name: Uniquely identifies and describes the content of each parameter.
3. Value type: Describes the parameter as either static or dynamic. A static value generally remains unchanged over the life of the mission. A dynamic value changes, or has the potential to change, over the life of the mission. Significant changes to dynamic values trigger a CPF update.
4. Data type: Uses a Hierarchical Data Format (HDF) number type nomenclature, type#, where type is given by the descriptors ‘char’ (character), ‘int’ (integer), or ‘float’ (floating point), and # is a decimal count of the number of bits used to represent the data type. The type mnemonics int and char may be preceded by

the letter u, indicating an unsigned value. For example, the data type uint32 refers to an unsigned 32-bit integer value. Table 2-2 describes the data types relevant to the CPF.

Data Type	HDF Nomenclature
8-bit character	char8
8-bit unsigned integer	uint8
16-bit signed integer	int16
32-bit signed integer	int32
32-bit floating point number	float32
64-bit floating point number	float64

Table 2-2. Data Types Relevant to the CPF

5. Description: Briefly describes the parameter and its format. If not specifically stated, the parameter is available for all MSS CPFs (1-5). The valid parameter format for numeric data is described using letters S, N, and E. The letter S stands for the sign and can assume values + or –. If no sign is specified, the + sign is assumed. The letter N stands for any digit between 0 and 9. The letter E is in scientific (exponential) notation to represent the “multiplication by 10 raised to the power” specified by the value following the letter E. For example, the valid format SNNN.NNNNESNN can assume any positive or negative value with a significant ranging from 0.0000 to 999.9999 multiplied by 10 raised to the power of any whole number between –99 and 99.

Section 3 CPF Definition

Table 3-1 lists the Landsat MSS CPF parameters.

Parameter Groups	Parameter Name	Value Type	Data Type	Description
FILE_ATTRIBUTES	Spacecraft_Name	Static	char8	Descriptor used to identify the spacecraft for which the calibration parameters are applicable. Valid format: Landsat_S, where S = 1,2,3,4, or 5
FILE_ATTRIBUTES	Sensor_Name	Static	char8	Descriptor used to identify the sensor for which the calibration parameters are applicable. Valid format: Multi_Spectral_Scanner
FILE_ATTRIBUTES	Effective_Date_Begin	Dynamic	char8	Effective start date for this file. Valid format: YYYY-MM-DD, e.g., 1972-07-23
FILE_ATTRIBUTES	Effective_Date_End	Dynamic	char8	Effective end date for this file. Valid format: YYYY-MM-DD, e.g., 1983-03-31
FILE_ATTRIBUTES	CPF_File_Name	Dynamic	char8	Original file name that IAS assigned. Valid format: LMSCPFyyyymmdd_yyyymmdd.nn, where S = 1-5, yyyymmdd = effective start date and effective end date, respectively, and nn = incrementing version for respective CPF
EARTH_CONSTANTS	Ellipsoid_Name	Static	char8	Name of the ellipsoid used to represent the semi-major and semi-minor axes of the Earth. Valid format: WGS84
EARTH_CONSTANTS	Semi_Major_Axis	Static	float64	Earth semi-major axis; distance in meters from the center of the Earth to the equator. Valid format: NNNNNNN.NNNN
EARTH_CONSTANTS	Semi_Minor_Axis	Static	float64	Earth semi-minor axis; distance in meters from the center of the Earth to the poles. Valid format: NNNNNNN.NNNN
EARTH_CONSTANTS	Ellipticity	Static	float64	Ratio describing polar flattening or the Earth's deviation from an exact sphere (WGS84 standard). Valid format: N.NNNNNNNNNNNNN
EARTH_CONSTANTS	Eccentricity	Static	float64	Number describing the Earth ellipsoid eccentricity squared (WGS84 standard). Valid format: N.NNNNNNNNNNNNN
EARTH_CONSTANTS	Earth_Spin_Rate	Static	float64	Earth's diurnal spin rate in radians per second. Valid format: NN.NNNNNNNNESNN
EARTH_CONSTANTS	Gravity_Constant	Static	float64	Universal gravitational constant x mass of Earth. This parameter is given in units of meters cubed per second squared (m^3/s^2). Valid format: N.NNNNNNENN
EARTH_CONSTANTS	J2_Earth_Model_Term	Static	float64	Term that describes Earth's spherical harmonic. Valid format: NNNN.NNESNN
ORBIT_PARAMETERS	WRS_Cycle_Days	Static	uint8	Time period, in days, required for the satellite to view the Earth once. Valid format: NN
ORBIT_PARAMETERS	WRS_Cycle_Orbits	Static	uint8	Number of orbits or paths in a complete World Reference System (WRS) cycle. Valid format: NNN
ORBIT_PARAMETERS	Scenes_Per_Orbit	Static	uint8	Number of scenes or row locations per orbit. Valid format: NNN
ORBIT_PARAMETERS	Orbital_Period	Static	float64	Time required, in seconds, to complete one orbit. Valid format: NNNN.NNNN
ORBIT_PARAMETERS	Angular_Momentum	Static	float64	Angular momentum in orbit, specified in meters squared per second (m^2/s). Valid format: NN.NNNNNNEN
ORBIT_PARAMETERS	Orbit_Radius	Static	float64	Nominal distance in kilometers (km) from the Earth's center to the spacecraft track. Valid format: NNNN.NNNN
ORBIT_PARAMETERS	Orbit_Semimajor_Axis	Static	float64	Nominal semi-major axis in km of the satellite's orbit. Valid format: NNNN.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
ORBIT_PARAMETERS	Orbit_Semiminor_Axis	Static	float64	Nominal semi-minor axis in km of the satellite's orbit. Valid format: NNNN.NNNN
ORBIT_PARAMETERS	Orbit_Eccentricity	Static	float64	Nominal eccentricity of the satellite's orbit. Valid format: N.NNNNNNNN
ORBIT_PARAMETERS	Inclination_Angle	Static	float64	Angle in degrees formed by the Earth's equatorial and satellite plane. Valid format: SN.NNNN
ORBIT_PARAMETERS	Argument_Of_Perigee	Static	float32	Nominal angle in degrees of point nearest the Earth in orbit as measured from ascending node in the direction of satellite motion. Valid format: SNN.N
ORBIT_PARAMETERS	Descending_Node_ Row	Static	uint8	Row corresponding to the Earth's equator. Valid format: NNN
ORBIT_PARAMETERS	Long_Path1_Row60	Static	float32	Longitude in degrees west of the point at which path 1 crossed the equator (row 60). Valid format: SN.NN
ORBIT_PARAMETERS	Descending_Node_ Time_Min	Static	char8	Minimum local solar time of descending node in AM hours and minutes. Valid format: HH:MM
ORBIT_PARAMETERS	Descending_Node_ Time_Max	Static	char8	Maximum local solar time of descending node in AM hours and minutes. Valid format: HH:MM
ORBIT_PARAMETERS	Nodal_Regression_ Rate	Static	float64	Rate in degrees per day that the orbital plane rotates with respect to the Earth. Valid format: SN.NNNNNNNNN
SCANNER_ PARAMETERS	Lines_Per_Scan_60	Static	uint8	Number of lines per scan (number of detectors per band). Valid format: N
SCANNER_ PARAMETERS	Scans_Per_Scene	Static	int16	Number of scans per nominal WRS scene. Valid format: NNN
SCANNER_ PARAMETERS	Swath_Angle	Dynamic	float32	Object space angle in radians of scan mirror travel during active scan time. Valid format: SN.NNNN
SCANNER_ PARAMETERS	Scan_Rate	Static	float32	Angular scan velocity in radians per second of the scan mirror. Valid format: N.NNNESN
SCANNER_ PARAMETERS	Dwell_Time_60	Static	float64	Detector sample time in microseconds. Valid format: N.NNNESN
SCANNER_ PARAMETERS	IC_Line_Length_60	Static	int16	Nominal number of detector samples for the internal calibrator. Valid format: NNN
SCANNER_ PARAMETERS	Scan_Line_Length_60	Static	int16	Nominal number of detector samples during active scan time. Valid format: NNNN
SCANNER_ PARAMETERS	Filter_Frequency_60	Static	float32	Bandwidth in kilohertz (kHz) of detector presample filter (defined by 3-dB roll-off point). Valid format: NNNN.NNN
SCANNER_ PARAMETERS	IFOV_B1234	Static	float32	Angle in µrad subtended by a detector when the scanning motion is stopped. Valid format: NN.NESN
SCANNER_ PARAMETERS	IFOV_B1234_ALONG	Static	float 32	Along-scan angle in µrad subtended by a detector when the scanning motion is stopped. Valid format: NN.NESN
SCANNER_ PARAMETERS	IFOV_B1234_ACROSS	Static	float 32	Across-scan angle in µrad subtended by a detector when the scanning motion is stopped. Valid format: NN.NESN
SCANNER_ PARAMETERS	Scan_Period	Static	float64	Time in units of seconds of a complete scan cycle, including forward and reverse scans. Valid format: N.NNNNN
SCANNER_ PARAMETERS	Scan_Frequency	Static	float32	Number of scans in one second (hertz [Hz]). Valid format: NN.NN
SCANNER_ PARAMETERS	Active_Scan_Time	Static	float32	Time in units of seconds required for scan mirror to travel from its scan-line-start to end-of-line (EOL). Valid format: N.NNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
SCANNER_ PARAMETERS	Turn_Around_Time	Static	float32	Time in milliseconds from EOL to the next scan-line-start, during which the scan mirror motion reverses direction. Valid format: NN.NNN
MSS_PROCESSING_ CONSTANTS	Image_Center_Line	Static	float32	Line number of MSS-X data associated with the image center line. Valid format: NNNN.N
MSS_PROCESSING_ CONSTANTS	Image_Center_Sample	Static	float32	Sample number of MSS-X data associated with the image center time. Valid format: NNNN.N
MSS_PROCESSING_ CONSTANTS	Image_Center_Scan	Static	float32	Scan number of MSS-X data associated with the image center time. Valid format: NNN.N
MSS_PROCESSING_ CONSTANTS	Number_Channels	Static	uint8	Number of data channels in the MSS focal plane. Valid format: NN
MSS_PROCESSING_ CONSTANTS	Image_Line_Rate	Static	float64	Along track scan rate of MSS-X. In units of lines per second. Valid format: NN.NNNNNNNN
MSS_PROCESSING_ CONSTANTS	Image_Yaw	Static	float64	Yaw angle of MSS-X focal plane. Valid format: SN.NNNNNNNNN
MSS_PROCESSING_ CONSTANTS	Image_Sample_Slope	Static	float64	Across track scan rate of MSS-X. In units of samples per radian. Valid format: NNNNN.NNNNNNN
MSS_PROCESSING_ CONSTANTS	Image_Frame_Size	Static	float32	Size of projection frame used for MSS-X product framing. Units of meters. Valid format: NNNNNN.N
MSS_PROCESSING_ CONSTANTS	Xcorrect_Delays	Static	float32 (6 values)	MSS detector adjustments used to align MSS-X pixels in the along scan direction. Units of Instantaneous Field of View (IFOVs). Valid format: SN.NN
MIRROR_PARAMETERS	Number_Mirr_Coef	Static	uint8	Number of MSS-X along scan mirror profile coefficients. Valid format: N
MIRROR_PARAMETERS	Time_Mid_Scan	Static	float32	Time associated with the middle of the mirror scan units of seconds. Valid format: N.NNNNNN
MIRROR_PARAMETERS	Mirr_First_Half_Coef	Static	float32 (3 values)	MSS-X first half along scan mirror polynomials. Valid format: SNN.NNN
MIRROR_PARAMETERS	Mirr_Second_Half_Coef	Static	float32 (3 values)	MSS-X second half along scan mirror polynomials. Valid format: SNN.NNN
ATTITUDE_PARAMETERS	Gyro_To_Attitude_Matrix	Static	float32 (9 values)	Matrix describing the relationship of the gyro axis to the attitude control reference axis. Valid format: SN.NNNNEN
ATTITUDE_PARAMETERS	Attitude_To_Sensor_ Matrix	Static	float32 (9 values)	Matrix describing the relationship of the attitude control reference axis to the TM optical axis. Valid format: SN.NNNNEN
ATTITUDE_PARAMETERS	Spacecraft_Roll_Bias	Static	float32	Spacecraft roll bias in radians. Valid format: N.NNNNNNN
ATTITUDE_PARAMETERS	Spacecraft_Pitch_Bias	Static	float32	Spacecraft pitch bias in radians. Valid format: N.NNNNNNN
ATTITUDE_PARAMETERS	Spacecraft_Yaw_Bias	Static	float32	Spacecraft yaw bias in radians. Valid format: N.NNNNNNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Along_Scan_DO _B1	Static	float32 (6 values)	Landsat 4-5 forward along-scan detector offsets in IFOV for each detector in Band 1. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Along_Scan_DO _B1	Static	float32 (6 values)	Landsat 4-5 reverse along-scan detector offsets in IFOV for each detector in Band 1. Valid format: N.NNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Along_Scan_DO _B2	Static	float32 (6 values)	Landsat 4-5 forward along-scan detector offsets in IFOV for each detector in Band 2. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Along_Scan_DO _B2	Static	float32 (6 values)	Landsat 4-5 reverse along-scan detector offsets in IFOV for each detector in Band 2. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Along_Scan_DO _B3	Static	float32 (6 values)	Landsat 4-5 forward along-scan detector offsets in IFOV for each detector in Band 3. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Along_Scan_DO _B3	Static	float32 (6 values)	Landsat 4-5 reverse along-scan detector offsets in IFOV for each detector in Band 3. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Along_Scan_DO _B4	Static	float32 (6 values)	Forward along-scan detector offsets in IFOV for each detector in Band 4. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Along_Scan_DO _B4	Static	float32 (6 values)	Reverse along-scan detector offsets in IFOV for each detector in Band 4. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Along_Scan_DO _B5	Static	float32 (6 values)	Landsat 1-3 forward along-scan detector offsets in IFOV for each detector in Band 5. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Along_Scan_DO _B5	Static	float32 (6 values)	Landsat 1-3 reverse along-scan detector offsets in IFOV for each detector in Band 5. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Along_Scan_DO _B6	Static	float32 (6 values)	Landsat 1-3 forward along-scan detector offsets in IFOV for each detector in Band 6. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Along_Scan_DO _B6	Static	float32 (6 values)	Landsat 1-3 reverse along-scan detector offsets in IFOV for each detector in Band 6. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Along_Scan_DO _B7	Static	float32 (6 values)	Landsat 1-3 forward along-scan detector offsets in IFOV for each detector in Band 7. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Along_Scan_DO _B7	Static	float32 (6 values)	Landsat 1-3 reverse along-scan detector offsets in IFOV for each detector in Band 7. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Across_Scan_D O_B1	Static	float32 (6 values)	Landsat 4-5 forward across-scan detector offsets in IFOV for each detector in Band 1. Valid format: N.NNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Across_Scan_DO_B1	Static	float32 (6 values)	Landsat 4-5 reverse across-scan detector offsets in IFOV for each detector in Band 1. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Across_Scan_DO_B2	Static	float32 (6 values)	Landsat 4-5 forward across-scan detector offsets in IFOV for each detector in Band 2. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Across_Scan_DO_B2	Static	float32 (6 values)	Landsat 4-5 reverse across-scan detector offsets in IFOV for each detector in Band 2. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Across_Scan_DO_B3	Static	float32 (6 values)	Landsat 4-5 forward across-scan detector offsets in IFOV for each detector in Band 3. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Across_Scan_DO_B3	Static	float32 (6 values)	Landsat 4-5 reverse across-scan detector offsets in IFOV for each detector in Band 3. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Across_Scan_DO_B4	Static	float32 (6 values)	Forward across-scan detector offsets in IFOV for each detector in Band 4. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Across_Scan_DO_B4	Static	float32 (6 values)	Reverse across-scan detector offsets in IFOV for each detector in Band 4. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Across_Scan_DO_B5	Static	float32 (6 values)	Landsat 1-3 forward across-scan detector offsets in IFOV for each detector in Band 5. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Across_Scan_DO_B5	Static	float32 (6 values)	Landsat 1-3 reverse across-scan detector offsets in IFOV for each detector in Band 5. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Across_Scan_DO_B6	Static	float32 (6 values)	Landsat 1-3 forward across-scan detector offsets in IFOV for each detector in Band 6. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Across_Scan_DO_B6	Static	float32 (6 values)	Landsat 1-3 reverse across-scan detector offsets in IFOV for each detector in Band 6. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Forward_Across_Scan_DO_B7	Static	float32 (6 values)	Landsat 1-3 forward across-scan detector offsets in IFOV for each detector in Band 7. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: DETECTOR_OFFSETS	Reverse_Across_Scan_DO_B7	Static	float32 (6 values)	Landsat 1-3 reverse across-scan detector offsets in IFOV for each detector in Band 7. Valid format: N.NNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: BAND_OFFSETS	Along_Scan_Band_ Offsets	Static	float32 (4 values)	Nominal displacement in µrad from the center of the focal plane to each Band's optical axis. Valid format: N.NNN
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: BAND_OFFSETS	Across_Scan_Band_ Offsets	Static	float32 (4 values)	Nominal displacement in µrad from the center of the focal plane to each band's scan motion axis. Valid format: N.N
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: BAND_OFFSETS	Forward_Focal_Plane_ Offsets	Static	float32 (4 values)	Offset in IFOVs for focal plane forward scans. Valid format: N.N
GROUP: FOCAL_PLANE_ PARAMETERS GROUP: BAND_OFFSETS	Reverse_Focal_Plane_ Offsets	Static	float32 (4 values)	Offset in IFOVs for focal plane reverse scans. Valid format: N.N
DETECTOR_TIME_SHIFTS	Detector_Time_ Shift_B1	Static	float32 (6 values)	Landsat 4-5 individual detector timing delays for Band 1. Units of IFOVs. Valid format: N.N
DETECTOR_TIME_SHIFTS	Detector_Time_ Shift_B2	Static	float32 (6 values)	Landsat 4-5 individual detector timing delays for Band 2. Units of IFOVs. Valid format: N.N
DETECTOR_TIME_SHIFTS	Detector_Time_ Shift_B3	Static	float32 (6 values)	Landsat 4-5 individual detector timing delays for Band 3. Units of IFOVs. Valid format: N.N
DETECTOR_TIME_SHIFTS	Detector_Time_ Shift_B4	Static	float32 (6 values)	Individual detector timing delays for Band 4. Units of IFOVs. Valid format: N.N
DETECTOR_TIME_SHIFTS	Detector_Time_ Shift_B5	Static	float32 (6 values)	Landsat 1-3 individual detector timing delays for Band 5. Units of IFOVs. Valid format: N.N
DETECTOR_TIME_SHIFTS	Detector_Time_ Shift_B6	Static	float32 (6 values)	Landsat 1-3 individual detector timing delays for Band 6. Units of IFOVs. Valid format: N.N
DETECTOR_TIME_SHIFTS	Detector_Time_ Shift_B7	Static	float32 (6 values)	Landsat 1-3 individual detector timing delays for Band 7. Units of IFOVs. Valid format: N.N
EPHEMERIS_CONSTANTS	Ephemeris_Semi_Major_ Axis	Static	float32	Semi-major axis associate with MSS-X ephemeris ellipsoid model. Units of meters. Valid format: NNNNNNN.N
EPHEMERIS_CONSTANTS	Ephemeris_Semi_Minor_ Axis	Static	float32	Semi-minor axis associated with MSS-X ephemeris ellipsoid model. Units of meters. Valid format: NNNNNNN.N
EPHEMERIS_CONSTANTS	Ephemeris_Flat	Static	float32	MSS-X ellipsoid flattening of ephemeris model. Valid format: NNN.NNNNNNN
EPHEMERIS_CONSTANTS	Ephemeris_ Eccentricity	Static	float32	MSS-X ellipsoid eccentricity of ephemeris model. Valid format: N.NNNNNNNNNN
DETECTOR_STATUS	Status_Band1	Static	char8 (6 values)	Landsat 4-5 health status of Band 1's six detectors. Valid format: ABCDE, where A = 0 (live), 1 (dead), 2 (intermittent) B = 0 (noise in spec), 1 (noisy low signal), 2 (noisy high signal), 3 (both noisy signals) C = 0 (reserved) D = 0 (dynamic range in spec) 1 (fail, high end), 2 (fail, low end), 3 (fail, both ends) E = 0 (reserved)
DETECTOR_STATUS	Status_Band2	Static	char8 (6 values)	Landsat 4-5 health status of Band 2's six detectors. Valid format: ABCDE, as defined above
DETECTOR_STATUS	Status_Band3	Static	char8 (6 values)	Landsat 4-5 health status of Band 3's six detectors. Valid format: ABCDE, as defined above
DETECTOR_STATUS	Status_Band4	Static	char8 (6 values)	Health status of Band 4's six detectors. Valid format: ABCDE, as defined above

Parameter Groups	Parameter Name	Value Type	Data Type	Description
DETECTOR_STATUS	Status_Band5	Static	char8 (6 values)	Landsat 1-3 health status of Band 5's six detectors. Valid format: ABCDE, as defined above
DETECTOR_STATUS	Status_Band6	Static	char8 (6 values)	Landsat 1-3 health status of Band 6's six detectors. Valid format: ABCDE, as defined above
DETECTOR_STATUS	Status_Band7	Static	char8 (6 values)	Landsat 1-3 health status of Band 7's six detectors. Valid format: ABCDE, as defined above
STRIPING	Correction_ Reference_B1	Static	uint8	Landsat 4-5 striping correction methodology flag, relative to the band average or reference detector for Band 1. Valid format: N, where N = 0 (band average), 1 (reference detector), or 2 (no correction)
STRIPING	Correction_ Reference_B2	Static	uint8	Landsat 4-5 striping correction methodology flag, relative to the band average or reference detector for Band 2. Valid format: N, where N = 0 (band average), 1 (reference detector), or 2 (no correction)
STRIPING	Correction_ Reference_B3	Static	uint8	Landsat 4-5 striping correction methodology flag, relative to the band average or reference detector for Band 3. Valid format: N, where N = 0 (band average), 1 (reference detector), or 2 (no correction)
STRIPING	Correction_ Reference_B4	Static	uint8	Striping correction methodology flag, relative to the band average or reference detector for Band 4. Valid format: N, where N = 0 (band average), 1 (reference detector), or 2 (no correction)
STRIPING	Correction_ Reference_B5	Static	uint8	Landsat 1-3 striping correction methodology flag, relative to the band average or reference detector for Band 5. Valid format: N, where N = 0 (band average), 1 (reference detector), or 2 (no correction)
STRIPING	Correction_ Reference_B6	Static	uint8	Landsat 1-3 striping correction methodology flag, relative to the band average or reference detector for Band 6. Valid format: N, where N = 0 (band average), 1 (reference detector), or 2 (no correction)
STRIPING	Correction_ Reference_B7	Static	uint8	Landsat 1-3 striping correction methodology flag, relative to the band average or reference detector for Band 7. Valid format: N, where N = 0 (band average), 1 (reference detector), or 2 (no correction)
GROUP: HISTOGRAM GROUP: DETECTOR_NOISE	Detector_Noise_Level_B1	Static	float32 (6 values)	Landsat 4-5 standard deviation of the image region data for each detector of Band 1. Valid format: N.NNNNN
GROUP: HISTOGRAM GROUP: DETECTOR_NOISE	Detector_Noise_Level_B2	Static	float32 (6 values)	Landsat 4-5 standard deviation of the image region data for each detector of Band 2. Valid format: N.NNNNN
GROUP: HISTOGRAM GROUP: DETECTOR_NOISE	Detector_Noise_Level_B3	Static	float32 (6 values)	Landsat 4-5 standard deviation of the image region data for each detector of Band 3. Valid format: N.NNNNN
GROUP: HISTOGRAM GROUP: DETECTOR_NOISE	Detector_Noise_Level_B4	Static	float32 (6 values)	Standard deviation of the image region data for each detector of Band 4. Valid format: N.NNNNN
GROUP: HISTOGRAM GROUP: DETECTOR_NOISE	Detector_Noise_Level_B5	Static	float32 (6 values)	Landsat 1-3 standard deviation of the image region data for each detector of Band 5. Valid format: N.NNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: HISTOGRAM GROUP: DETECTOR_NOISE	Detector_Noise_Level_B6	Static	float32 (6 values)	Landsat 1-3 standard deviation of the image region data for each detector of Band 6. Valid format: N.NNNNN)
GROUP: HISTOGRAM GROUP: DETECTOR_NOISE	Detector_Noise_Level_B7	Static	float32 (6 values)	Landsat 1-3 standard deviation of the image region data for each detector of Band 7. Valid format: N.NNNNN
GROUP: HISTOGRAM GROUP: REFERENCE_ DETECTORS	Reference_ Detector_B1	Static	uint8	Landsat 4-5 detector used as a reference when computing relative detector gains and biases (least noisy) for Band 1. Valid format: NN
GROUP: HISTOGRAM GROUP: REFERENCE_ DETECTORS	Reference_ Detector_B2	Static	uint8	Landsat 4-5 detector used as a reference when computing relative detector gains and biases (least noisy) for Band 2. Valid format: NN
GROUP: HISTOGRAM GROUP: REFERENCE_ DETECTORS	Reference_ Detector_B3	Static	uint8	Landsat 4-5 detector used as a reference when computing relative detector gains and biases (least noisy) for Band 3. Valid format: NN
GROUP: HISTOGRAM GROUP: REFERENCE_ DETECTORS	Reference_ Detector_B4	Static	uint8	Detector used as a reference when computing relative detector gains and biases (least noisy) for Band 4. Valid format: NN
GROUP: HISTOGRAM GROUP: REFERENCE_ DETECTORS	Reference_ Detector_B5	Static	uint8	Landsat 1-3 detector used as a reference when computing relative detector gains and biases (least noisy) for Band 5. Valid format: NN
GROUP: HISTOGRAM GROUP: REFERENCE_ DETECTORS	Reference_ Detector_B6	Static	uint8	Landsat 1-3 detector used as a reference when computing relative detector gains and biases (least noisy) for Band 6. Valid format: NN
GROUP: HISTOGRAM GROUP: REFERENCE_ DETECTORS	Reference_ Detector_B7	Static	uint8	Landsat 1-3 detector used as a reference when computing relative detector gains and biases (least noisy) for Band 7. Valid format: NN
GROUP: HISTOGRAM GROUP: SATURATION_ THRESHOLDS	Saturation_Bin_Threshold _B1	Static	uint8	Landsat 4-5 minimal number of pixels that a bin must have to test it as a saturation candidate bin for Band 1. Valid format: NNNN
GROUP: HISTOGRAM GROUP: SATURATION_ THRESHOLDS	Saturation_Bin_Threshold _B2	Static	uint8	Landsat 4-5 minimal number of pixels that a bin must have to test it as a saturation candidate bin for Band 2. Valid format: NNNN
GROUP: HISTOGRAM GROUP: SATURATION_ THRESHOLDS	Saturation_Bin_Threshold _B3	Static	uint8	Landsat 4-5 minimal number of pixels that a bin must have to test it as a saturation candidate bin for Band 3. Valid format: NNNN
GROUP: HISTOGRAM GROUP: SATURATION_ THRESHOLDS	Saturation_Bin_Threshold _B4	Static	uint8	Landsat 4-5 minimal number of pixels that a bin must have to test it as a saturation candidate bin for Band 4. Valid format: NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: HISTOGRAM GROUP: SATURATION_ THRESHOLDS	Saturation_Bin_Threshold _B5	Static	uint8	Landsat 1-3 minimal number of pixels that a bin must have to test it as a saturation candidate bin for Band 5. Valid format: NNNN
GROUP: HISTOGRAM GROUP: SATURATION_ THRESHOLDS	Saturation_Bin_Threshold _B6	Static	uint8	Landsat 1-3 minimal number of pixels that a bin must have to test it as a saturation candidate bin for Band 6. Valid format: NNNN
GROUP: HISTOGRAM GROUP: SATURATION_ THRESHOLDS	Saturation_Bin_Threshold _B7	Static	uint8	Landsat 1-3 minimal number of pixels that a bin must have to test it as a saturation candidate bin for Band 7. Valid format: NNNN
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_NUMBER	Adjacent_Bin_ Number_B1	Static	uint8	Landsat 4-5 number of bins adjacent to a possible saturation bin that must have fewer pixels than "adjacent bin threshold" to declare a possible bin as a saturation bin for Band 1. Valid format: N
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_NUMBER	Adjacent_Bin_ Number_B2	Static	uint8	Landsat 4-5 number of bins adjacent to a possible saturation bin that must have fewer pixels than "adjacent bin threshold" to declare a possible bin as a saturation bin for Band 2. Valid format: N
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_NUMBER	Adjacent_Bin_ Number_B3	Static	uint8	Landsat 4-5 number of bins adjacent to a possible saturation bin that must have fewer pixels than "adjacent bin threshold" to declare a possible bin as a saturation bin for Band 3. Valid format: N
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_NUMBER	Adjacent_Bin_ Number_B4	Static	uint8	Number of bins adjacent to a possible saturation bin that must have fewer pixels than "adjacent bin threshold" to declare a possible bin as a saturation bin for Band 4. Valid format: N
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_NUMBER	Adjacent_Bin_ Number_B5	Static	uint8	Landsat 1-3 number of bins adjacent to a possible saturation bin that must have fewer pixels than "adjacent bin threshold" to declare a possible bin as a saturation bin for Band 5. Valid format: N
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_NUMBER	Adjacent_Bin_ Number_B6	Static	uint8	Landsat 1-3 number of bins adjacent to a possible saturation bin that must have fewer pixels than "adjacent bin threshold" to declare a possible bin as a saturation bin for Band 6. Valid format: N
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_NUMBER	Adjacent_Bin_ Number_B7	Static	uint8	Landsat 1-3 number of bins adjacent to a possible saturation bin that must have fewer pixels than "adjacent bin threshold" to declare a possible bin as a saturation bin for Band 7. Valid format: N
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_THRESHOLD	Adjacent_Bin_ Threshold_B1	Static	uint8	Landsat 4-5 number of adjacent bin pixels that cannot be exceeded for the Band 1 candidate saturation bin to be a valid saturation bin. Valid format: NN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_THRESHOLD	Adjacent_Bin_ Threshold_B2	Static	uint8	Landsat 4-5 number of adjacent bin pixels that cannot be exceeded for the Band 2 candidate saturation bin to be a valid saturation bin. Valid format: NN
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_THRESHOLD	Adjacent_Bin_ Threshold_B3	Static	uint8	Landsat 4-5 number of adjacent bin pixels that cannot be exceeded for the Band 3 candidate saturation bin to be a valid saturation bin. Valid format: NN
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_THRESHOLD	Adjacent_Bin_ Threshold_B4	Static	uint8	Number of adjacent bin pixels that cannot be exceeded for the Band 4 candidate saturation bin to be a valid saturation bin. Valid format: NN
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_THRESHOLD	Adjacent_Bin_ Threshold_B5	Static	uint8	Landsat 1-3 number of adjacent bin pixels that cannot be exceeded for the Band 5 candidate saturation bin to be a valid saturation bin. Valid format: NN
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_THRESHOLD	Adjacent_Bin_ Threshold_B6	Static	uint8	Landsat 1-3 number of adjacent bin pixels that cannot be exceeded for the Band 6 candidate saturation bin to be a valid saturation bin. Valid format: NN
GROUP: HISTOGRAM GROUP: ADJACENT_BINS GROUP: BIN_THRESHOLD	Adjacent_Bin_ Threshold_B7	Static	uint8	Landsat 1-3 number of adjacent bin pixels that cannot be exceeded for the Band 7 candidate saturation bin to be a valid saturation bin. Valid format: NN
GROUP: HISTOGRAM GROUP: STARTING_PIXEL	Start_pixel_B1	Static	uint8	Landsat 4-5 left-most pixel in the window to be tested for Band 1. Valid format: N
GROUP: HISTOGRAM GROUP: STARTING_PIXEL	Start_pixel_B2	Static	uint8	Landsat 4-5 left-most pixel in the window to be tested for Band 2. Valid format: N
GROUP: HISTOGRAM GROUP: STARTING_PIXEL	Start_pixel_B3	Static	uint8	Landsat 4-5 left-most pixel in the window to be tested for Band 3. Valid format: N
GROUP: HISTOGRAM GROUP: STARTING_PIXEL	Start_pixel_B4	Static	uint8	Left-most pixel in the window to be tested for Band 4. Valid format: N
GROUP: HISTOGRAM GROUP: STARTING_PIXEL	Start_pixel_B5	Static	uint8	Landsat 1-3 left-most pixel in the window to be tested for Band 5. Valid format: N
GROUP: HISTOGRAM GROUP: STARTING_PIXEL	Start_pixel_B6	Static	uint8	Landsat 1-3 left-most pixel in the window to be tested for Band 6. Valid format: N
GROUP: HISTOGRAM GROUP: STARTING_PIXEL	Start_pixel_B7	Static	uint8	Landsat 1-3 left-most pixel in the window to be tested for Band 7. Valid format: N

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: HISTOGRAM GROUP: WINDOW_WIDTH	Window_Samples_B1	Static	uint8	Landsat 4-5 width of the window, in pixels, to be tested for Band 5. Valid format: NNNN
GROUP: HISTOGRAM GROUP: WINDOW_WIDTH	Window_Samples_B2	Static	uint8	Landsat 4-5 width of the window, in pixels, to be tested for Band 6. Valid format: NNNN
GROUP: HISTOGRAM GROUP: WINDOW_WIDTH	Window_Samples_B3	Static	uint8	Landsat 4-5 width of the window, in pixels, to be tested for Band 7. Valid format: NNNN
GROUP: HISTOGRAM GROUP: WINDOW_WIDTH	Window_Samples_B4	Static	uint8	Width of the window, in pixels, to be tested for Band 4. Valid format: NNNN
GROUP: HISTOGRAM GROUP: WINDOW_WIDTH	Window_Samples_B5	Static	uint8	Landsat 1-3 width of the window, in pixels, to be tested for Band 5. Valid format: NNNN
GROUP: HISTOGRAM GROUP: WINDOW_WIDTH	Window_Samples_B6	Static	uint8	Landsat 1-3 width of the window, in pixels, to be tested for Band 6. Valid format: NNNN
GROUP: HISTOGRAM GROUP: WINDOW_WIDTH	Window_Samples_B7	Static	uint8	Landsat 1-3 width of the window, in pixels, to be tested for Band 7. Valid format: NNNN
CHANNEL_SATURATION	High_Level_B1	Static	uint8 (6 value)	Landsat 4-5 digital count at which the channel saturates at the high end in Band 1; array contains one value per detector. Valid format: NNN
CHANNEL_SATURATION	High_Level_B2	Static	uint8 (6 value)	Landsat 4-5 digital count at which the channel saturates at the high end in Band 2; array contains one value per detector. Valid format: NNN
CHANNEL_SATURATION	High_Level_B3	Static	uint8 (6 value)	Landsat 4-5 digital count at which the channel saturates at the high end in Band 3; array contains one value per detector. Valid format: NNN
CHANNEL_SATURATION	High_Level_B4	Static	uint8 (6 value)	Digital count at which the channel saturates at the high end in Band 4; array contains one value per detector. Valid format: NNN
CHANNEL_SATURATION	High_Level_B5	Static	uint8 (6 value)	Landsat 1-3 digital count at which the channel saturates at the high end in Band 5; array contains one value per detector. Valid format: NNN
CHANNEL_SATURATION	High_Level_B6	Static	uint8 (6 value)	Landsat 1-3 digital count at which the channel saturates at the high end in Band 6; array contains one value per detector. Valid format: NNN
CHANNEL_SATURATION	High_Level_B7	Static	uint8 (6 value)	Landsat 1-3 digital count at which the channel saturates at the high end in Band 7; array contains one value per detector. Valid format: NNN
CHANNEL_SATURATION	Low_Level_B1	Static	uint8 (6 value)	Landsat 4-5 digital count at which the channel saturates at the low end in Band 1; array contains one value per detector. Valid format: N
CHANNEL_SATURATION	Low_Level_B2	Static	uint8 (6 value)	Landsat 4-5 digital count at which the channel saturates at the low end in Band 2; array contains one value per detector. Valid format: N

Parameter Groups	Parameter Name	Value Type	Data Type	Description
CHANNEL_SATURATION	Low_Level_B3	Static	uint8 (6 value)	Landsat 4-5 digital count at which the channel saturates at the low end in Band 3; array contains one value per detector. Valid format: N
CHANNEL_SATURATION	Low_Level_B4	Static	uint8 (6 value)	Digital count at which the channel saturates at the low end in Band 4; array contains one value per detector. Valid format: N
CHANNEL_SATURATION	Low_Level_B5	Static	uint8 (6 value)	Landsat 1-3 digital count at which the channel saturates at the low end in Band 5; array contains one value per detector. Valid format: N
CHANNEL_SATURATION	Low_Level_B6	Static	uint8 (6 value)	Landsat 1-3 digital count at which the channel saturates at the low end in Band 6; array contains one value per detector. Valid format: N
CHANNEL_SATURATION	Low_Level_B7	Static	uint8 (6 value)	Landsat 1-3 digital count at which the channel saturates at the low end in Band 7; array contains one value per detector. Valid format: N
CROSS_CAL_TO_L5	B1_Cross_Cal_Bias_ To_L5	Static	float32	Landsat 4-5 Band 1 cross-calibration statistical bias difference in comparison to Band 1 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B2_Cross_Cal_Bias_ To_L5	Static	float32	Landsat 4-5 Band 2 cross-calibration statistical bias difference in comparison to Band 2 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B3_Cross_Cal_Bias_ To_L5	Static	float32	Landsat 4-5 Band 3 cross-calibration statistical bias difference in comparison to Band 3 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B4_Cross_Cal_Bias_ To_L5	Static	float32	Landsat 4-5 Band 4 cross-calibration statistical bias difference in comparison to Band 4 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
				Landsat 1-3 Band 4 cross-calibration statistical bias difference in comparison to Band 1 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B5_Cross_Cal_Bias_ To_L5	Static	float32	Landsat 1-3 Band 5 cross-calibration statistical bias difference in comparison to Band 2 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B6_Cross_Cal_Bias_ To_L5	Static	float32	Landsat 1-3 Band 6 cross-calibration statistical bias difference in comparison to Band 3 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B7_Cross_Cal_Bias_ To_L5	Static	float32	Landsat 1-3 Band 7 cross-calibration statistical bias difference in comparison to Band 7 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B1_Cross_Cal_Gain_ To_L5	Static	float32	Landsat 4-5 Band 1 cross-calibration statistical gain difference in comparison to Band 1 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B2_Cross_Cal_Gain_ To_L5	Static	float32	Landsat 4-5 Band 2 cross-calibration statistical gain difference in comparison to Band 2 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B3_Cross_Cal_Gain_ To_L5	Static	float32	Landsat 4-5 Band 3 cross-calibration statistical gain difference in comparison to Band 3 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
CROSS_CAL_TO_L5	B4_Cross_Cal_Gain_ To_L5	Static	float32	Landsat 4-5 Band 4 cross-calibration statistical gain difference in comparison to Band 4 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
				Landsat 1-3 Band 4 cross-calibration statistical gain difference in comparison to Band 1 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B5_Cross_Cal_Gain_ To_L5	Static	float32	Landsat 1-3 Band 5 cross-calibration statistical gain difference in comparison to Band 2 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B6_Cross_Cal_Gain_ To_L5	Static	float32	Landsat 1-3 Band 6 cross-calibration statistical gain difference in comparison to Band 3 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B7_Cross_Cal_Gain_ To_L5	Static	float32	Landsat 1-3 Band 7 cross-calibration statistical gain difference in comparison to Band 4 onboard Landsat 5 MSS (W/m^2 sr µm). Valid format: N.NNNN
CROSS_CAL_TO_L5	B1_Cross_Cal_TDF_A_ To_L5	Static	float32	Landsat 4-5 Band 1 regression slope of the gain change versus time model (W/m^2 sr µm). Valid format: N.NNNNN
CROSS_CAL_TO_L5	B2_Cross_Cal_TDF_A_ To_L5	Static	float32	Landsat 4-5 Band 2 regression slope of the gain change versus time model (W/m^2 sr µm). Valid format: N.NNNNN
CROSS_CAL_TO_L5	B3_Cross_Cal_TDF_A_ To_L5	Static	float32	Landsat 4-5 Band 3 regression slope of the gain change versus time model (W/m^2 sr µm). Valid format: N.NNNNN
CROSS_CAL_TO_L5	B4_Cross_Cal_TDF_A_ To_L5	Static	float32	Band 4 regression slope of the gain change versus time model (W/m^2 sr µm). Valid format: N.NNNNN
CROSS_CAL_TO_L5	B5_Cross_Cal_TDF_A_ To_L5	Static	float32	Landsat 1-3 Band 5 regression slope of the gain change versus time model (W/m^2 sr µm). Valid format: N.NNNNN
CROSS_CAL_TO_L5	B6_Cross_Cal_TDF_A_ To_L5	Static	float32	Landsat 1-3 Band 6 regression slope of the gain change versus time model (W/m^2 sr µm). Valid format: N.NNNNN
CROSS_CAL_TO_L5	B7_Cross_Cal_TDF_A_ To_L5	Static	float32	Landsat 1-3 Band 7 regression slope of the gain change versus time model (W/m^2 sr µm). Valid format: N.NNNNN
CROSS_CAL_TO_L5	B1_Cross_Cal_TDF_B_ To_L5	Static	float32	Landsat 4-5 Band 1 bias derived from the regression offset of the gain versus time model (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B2_Cross_Cal_TDF_B_ To_L5	Static	float32	Landsat 4-5 Band 2 bias derived from the regression offset of the gain versus time model (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B3_Cross_Cal_TDF_B_ To_L5	Static	float32	Landsat 4-5 Band 3 bias derived from the regression offset of the gain versus time model (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B4_Cross_Cal_TDF_B_ To_L5	Static	float32	Band 4 bias derived from the regression offset of the gain versus time model (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B5_Cross_Cal_TDF_B_ To_L5	Static	float32	Landsat 1-3 Band 5 bias derived from the regression offset of the gain versus time model (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B6_Cross_Cal_TDF_B_ To_L5	Static	float32	Landsat 1-3 Band 6 bias derived from the regression offset of the gain versus time model (W/m^2 sr µm). Valid format: NNN.NN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
CROSS_CAL_TO_L5	B7_Cross_Cal_TDF_B_ To_L5	Static	float32	Landsat 1-3 Band 7 bias derived from the regression offset of the gain versus time model (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B1_Cross_Cal_TDF_C_ To_L5	Static	float32	Landsat 4-5 Band 1 normalized radiance of the reference site at the cross-calibration time point (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B2_Cross_Cal_TDF_C_ To_L5	Static	float32	Landsat 4-5 Band 2 normalized radiance of the reference site at the cross-calibration time point (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B3_Cross_Cal_TDF_C_ To_L5	Static	float32	Landsat 4-5 Band 3 normalized radiance of the reference site at the cross-calibration time point (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B4_Cross_Cal_TDF_C_ To_L5	Static	float32	Band 4 normalized radiance of the reference site at the cross-calibration time point (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B5_Cross_Cal_TDF_C_ To_L5	Static	float32	Landsat 1-3 Band 5 normalized radiance of the reference site at the cross-calibration time point (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B6_Cross_Cal_TDF_C_ To_L5	Static	float32	Landsat 1-3 Band 6 normalized radiance of the reference site at the cross-calibration time point (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	B7_Cross_Cal_TDF_C_ To_L5	Static	float32	Landsat 1-3 Band 7 normalized radiance of the reference site at the cross-calibration time point (W/m^2 sr µm). Valid format: NNN.NN
CROSS_CAL_TO_L5	T_Launch	Static	float32	Satellite launch date (decimal years). Valid format: NNNN.NNN
ORIGINAL_SCALING_ PARAMETERS	B4a_Lmin_LMax_ PreLaunch	Static	float32 (2 values)	Landsat 3 prelaunch Lmin and Lmax values for Band 4. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B5a_Lmin_LMax_ PreLaunch	Static	float32 (2 values)	Landsat 3 prelaunch Lmin and Lmax values for Band 5. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B6a_Lmin_LMax_ PreLaunch	Static	float32 (2 values)	Landsat 3 prelaunch Lmin and Lmax values for Band 6. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B7a_Lmin_LMax_ PreLaunch	Static	float32 (2 values)	Landsat 3 prelaunch Lmin and Lmax values for Band 7. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B1a_Lmin_LMax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 original Lmin and Lmax values for Band 1 data acquired prior to the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B2a_Lmin_LMax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 original Lmin and Lmax values for Band 2 data acquired prior to the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B3a_Lmin_LMax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 original Lmin and Lmax values for Band 3 data acquired prior to the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B4a_Lmin_LMax_Before_ Proc_Date	Static	float32 (2 values)	Original Lmin and Lmax values for Band 4 data acquired prior to the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B5a_Lmin_LMax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 original Lmin and Lmax values for Band 5 data acquired prior to the processing date, Proc_Date, defined below. Valid format: NNN.N

Parameter Groups	Parameter Name	Value Type	Data Type	Description
ORIGINAL_SCALING_ PARAMETERS	B6a_Lmin_LMax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 original Lmin and Lmax values for Band 6 data acquired prior to the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B7a_Lmin_LMax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 original Lmin and Lmax values for Band 7 data acquired prior to the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B1a_Lmin_LMax_After_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 original Lmin and Lmax values for Band 1 data acquired after the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B2a_Lmin_LMax_After_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 original Lmin and Lmax values for Band 2 data acquired after the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B3a_Lmin_LMax_After_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 original Lmin and Lmax values for Band 3 data acquired after the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B4a_Lmin_LMax_After_ Proc_Date	Static	float32 (2 values)	Original Lmin and Lmax values for Band 4 data acquired after the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B5a_Lmin_LMax_After_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 original Lmin and Lmax values for Band 5 data acquired after the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B6a_Lmin_LMax_After_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 original Lmin and Lmax values for Band 6 data acquired after the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	B7a_Lmin_LMax_After_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 original Lmin and Lmax values for Band 7 data acquired after the processing date, Proc_Date, defined below. Valid format: NNN.N
ORIGINAL_SCALING_ PARAMETERS	Proc_Date	Static	char8	Satellite-specific processing date. Valid format: YYYY-MM-DD, e.g., 1978-06-01
FINAL_SCALING_ PARAMETERS	B1f_Lmin_Lmax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 final Lmin and Lmax values for Band 1 data acquired before the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B2f_Lmin_Lmax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 final Lmin and Lmax values for Band 2 data acquired before the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B3f_Lmin_Lmax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 final Lmin and Lmax values for Band 3 data acquired before the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B4f_Lmin_Lmax_Before_ Proc_Date	Static	float32 (2 values)	Final Lmin and Lmax values for Band 4 data acquired before the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B5f_Lmin_Lmax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 final Lmin and Lmax values for Band 5 data acquired before the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B6f_Lmin_Lmax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 final Lmin and Lmax values for Band 6 data acquired before the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B7f_Lmin_Lmax_Before_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 final Lmin and Lmax values for Band 7 data acquired before the processing date, Proc_Date, defined above. Valid format: NNN.N

Parameter Groups	Parameter Name	Value Type	Data Type	Description
FINAL_SCALING_ PARAMETERS	B1f_Lmin_Lmax_After_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 final Lmin and Lmax values for Band 1 data acquired after the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B2f_Lmin_Lmax_After_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 final Lmin and Lmax values for Band 2 data acquired after the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B3f_Lmin_Lmax_After_ Proc_Date	Static	float32 (2 values)	Landsat 4-5 final Lmin and Lmax values for Band 3 data acquired after the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B4f_Lmin_Lmax_After_ Proc_Date	Static	float32 (2 values)	Final Lmin and Lmax values for Band 4 data acquired after the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B5f_Lmin_Lmax_After_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 final Lmin and Lmax values for Band 5 data acquired after the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B6f_Lmin_Lmax_After_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 final Lmin and Lmax values for Band 6 data acquired after the processing date, Proc_Date, defined above. Valid format: NNN.N
FINAL_SCALING_ PARAMETERS	B7f_Lmin_Lmax_After_ Proc_Date	Static	float32 (2 values)	Landsat 1-3 final Lmin and Lmax values for Band 7 data acquired after the processing date, Proc_Date, defined above. Valid format: NNN.N
L5_ESUN_GROUP	L5B1_Solar_Irradiance	Static	float32	In Landsat 4-5 CPFs, mean solar exoatmospheric spectral irradiance (W/m^2 μm) for Landsat 5 MSS Band 1. Valid format: NNNN.N
L5_ESUN_GROUP	L5B2_Solar_Irradiance	Static	float32	In Landsat 4-5 CPFs, mean solar exoatmospheric spectral irradiance (W/m^2 μm) for Landsat 5 MSS Band 2. Valid format: NNNN.N
L5_ESUN_GROUP	L5B3_Solar_Irradiance	Static	float32	In Landsat 4-5 CPFs, mean solar exoatmospheric spectral irradiance (W/m^2 μm) for Landsat 5 MSS Band 3. Valid format: NNN.N
L5_ESUN_GROUP	L5B4_Solar_Irradiance	Static	float32	In Landsat 4-5 CPFs, mean solar exoatmospheric spectral irradiance (W/m^2 μm) for Landsat 5 MSS Band 4. Valid format: NNNN.N
				In Landsat 1-3 CPFs, mean solar exoatmospheric spectral irradiance (W/m^2 μm) for Landsat 5 MSS Band 1. Valid format: NNNN.N
L5_ESUN_GROUP	L5B5_Solar_Irradiance	Static	float32	In Landsat 1-3 CPFs, mean solar exoatmospheric spectral irradiance (W/m^2 μm) for Landsat 5 MSS Band 2. Valid format: NNNN.N
L5_ESUN_GROUP	L5B6_Solar_Irradiance	Static	float32	In Landsat 1-3 CPFs, mean solar exoatmospheric spectral irradiance (W/m^2 μm) for Landsat 5 MSS Band 3. Valid format: NNNN.N
L5_ESUN_GROUP	L5B7_Solar_Irradiance	Static	float32	In Landsat 1-3 CPFs, mean solar exoatmospheric spectral irradiance (W/m^2 μm) for Landsat 5 MSS Band 4. Valid format: NNN.N
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B1L_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B1L_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B1L_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B1L_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B1L_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B1L_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B2L_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B2L_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B2L_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B2L_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B2L_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B2L_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B3L_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B3L_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B3L_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B3L_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B3L_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B3L_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B4L_Bias_C_Detector_6	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B4L_Bias_C_Detector_5	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B4L_Bias_C_Detector_4	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B4L_Bias_C_Detector_3	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B4L_Bias_C_Detector_2	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B4L_Bias_C_Detector_1	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B5L_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B5L_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B5L_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B5L_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B5L_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B5L_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B6L_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B6L_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B6L_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B6L_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B6L_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B6L_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B7L_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B7L_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B7L_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B7L_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B7L_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_LOW	B7L_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B1H_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B1H_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B1H_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B1H_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B1H_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B1H_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B2H_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B2H_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B2H_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B2H_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B2H_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B2H_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B4H_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B4H_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B4H_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B4H_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B4H_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B4H_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B5H_Bias_C_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 6 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B5H_Bias_C_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 5 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B5H_Bias_C_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 4 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B5H_Bias_C_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 3 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B5H_Bias_C_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 2 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_OFFSET_COEFFS_ HIGH	B5H_Bias_C_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for bias of Detector 1 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B1L_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B1L_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B1L_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B1L_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B1L_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B1L_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 1 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B2L_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B2L_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B2L_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B2L_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B2L_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B2L_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 2 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B3L_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B3L_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B3L_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B3L_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B3L_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B3L_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 3 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B4L_Gain_D_Detector_6	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B4L_Gain_D_Detector_5	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B4L_Gain_D_Detector_4	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B4L_Gain_D_Detector_3	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B4L_Gain_D_Detector_2	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B4L_Gain_D_Detector_1	Static	float32 (6 values)	Prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 4 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B5L_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B5L_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B5L_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B5L_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B5L_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B5L_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 5 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B6L_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B6L_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B6L_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B6L_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B6L_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B6L_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 6 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B7L_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B7L_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B7L_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B7L_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B7L_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_LOW	B7L_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 7 for the low-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B1H_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B1H_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B1H_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B1H_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B1H_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B1H_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 1 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B2H_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B2H_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B2H_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B2H_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B2H_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B2H_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 4-5 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 2 for the high-gain operational mode. Valid format: SN.NNNNNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B4H_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B4H_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B4H_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B4H_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B4H_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B4H_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 4 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B5H_Gain_D_Detector_6	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 6 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B5H_Gain_D_Detector_5	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 5 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B5H_Gain_D_Detector_4	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 4 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B5H_Gain_D_Detector_3	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 3 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B5H_Gain_D_Detector_2	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 2 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_GAIN_COEFFS_HIGH	B5H_Gain_D_Detector_1	Static	float32 (6 values)	Landsat 1-3 prelaunch regression coefficients used to obtain an initial estimate for gain of Detector 1 in Band 5 for the high-gain operational mode. Valid format: SN.NNNNNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B4_Detector_6	Static	float32	Landsat 1-3 multiplicative modifier for Detector 6 in Band 4 used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B4_Detector_5	Static	float32	Landsat 1-3 multiplicative modifier for Detector 5 in Band 4 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B4_Detector_4	Static	float32	Landsat 1-3 multiplicative modifier for Detector 4 in Band 4 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B4_Detector_3	Static	float32	Landsat 1-3 multiplicative modifier for Detector 3 in Band 4 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B4_Detector_2	Static	float32	Landsat 1-3 multiplicative modifier for Detector 2 in Band 4 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B4_Detector_1	Static	float32	Landsat 1-3 multiplicative modifier for Detector 1 in Band 4 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B5_Detector_6	Static	float32	Landsat 1-3 multiplicative modifier for Detector 6 in Band 5 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B5_Detector_5	Static	float32	Landsat 1-3 multiplicative modifier for Detector 5 in Band 5 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B5_Detector_4	Static	float32	Landsat 1-3 multiplicative modifier for Detector 4 in Band 5 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B5_Detector_3	Static	float32	Landsat 1-3 multiplicative modifier for Detector 3 in Band 5 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B5_Detector_2	Static	float32	Landsat 1-3 multiplicative modifier for Detector 2 in Band 5 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B5_Detector_1	Static	float32	Landsat 1-3 multiplicative modifier for Detector 1 in Band 5 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B6_Detector_6	Static	float32	Landsat 1-3 multiplicative modifier for Detector 6 in Band 6 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B6_Detector_5	Static	float32	Landsat 1-3 multiplicative modifier for Detector 6 in Band 6 used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B6_Detector_4	Static	float32	Landsat 1-3 multiplicative modifier for Detector 4 in Band 6 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B6_Detector_3	Static	float32	Landsat 1-3 multiplicative modifier for Detector 3 in Band 6 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B6_Detector_2	Static	float32	Landsat 1-3 multiplicative modifier for Detector 2 in Band 6 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B6_Detector_1	Static	float32	Landsat 1-3 multiplicative modifier for Detector 1 in Band 6 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B7_Detector_6	Static	float32	Landsat 1-3 multiplicative modifier for Detector 6 in Band 7 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B7_Detector_5	Static	float32	Landsat 1-3 multiplicative modifier for Detector 5 in Band 7 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B7_Detector_4	Static	float32	Landsat 1-3 multiplicative modifier for Detector 4 in Band 7 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B7_Detector_3	Static	float32	Landsat 1-3 multiplicative modifier for Detector 3 in Band 7 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B7_Detector_2	Static	float32	Landsat 1-3 multiplicative modifier for Detector 2 in Band 7 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS	M_B7_Detector_1	Static	float32	Landsat 1-3 multiplicative modifier for Detector 1 in Band 7 used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B1L_Detector_6	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 6 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B1L_Detector_5	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 5 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B1L_Detector_4	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 4 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B1L_Detector_3	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 3 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B1L_Detector_2	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 2 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B1L_Detector_1	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 1 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B2L_Detector_6	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 6 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B2L_Detector_5	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 5 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B2L_Detector_4	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 4 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B2L_Detector_3	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 3 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B2L_Detector_2	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 2 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B2L_Detector_1	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 1 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B3L_Detector_6	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 6 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B3L_Detector_5	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 5 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B3L_Detector_4	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 4 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B3L_Detector_3	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 3 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B3L_Detector_2	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 2 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B3L_Detector_1	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 1 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B4L_Detector_6	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 6 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B4L_Detector_5	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 5 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B4L_Detector_4	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 4 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B4L_Detector_3	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 3 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B4L_Detector_2	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 2 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_LOW	M_B4L_Detector_1	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 1 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B1H_Detector_6	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 6 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B1H_Detector_5	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 5 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B1H_Detector_4	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 4 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B1H_Detector_3	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 3 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B1H_Detector_2	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 2 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B1H_Detector_1	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 1 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B2H_Detector_6	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 6 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B2H_Detector_5	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 5 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B2H_Detector_4	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 4 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B2H_Detector_3	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 3 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B2H_Detector_2	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 2 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B2H_Detector_1	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 1 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B3H_Detector_6	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 6 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B3H_Detector_5	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 5 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B3H_Detector_4	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 4 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B3H_Detector_3	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 3 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B3H_Detector_2	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 2 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B3H_Detector_1	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 1 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B4H_Detector_6	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 6 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B4H_Detector_5	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 5 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B4H_Detector_4	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 4 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B4H_Detector_3	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 3 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B4H_Detector_2	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 2 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_MULTIPLICATIVE_ MODIFIERS_HIGH	M_B4H_Detector_1	Static	float 32	Landsat 4-5 multiplicative modifier for Detector 1 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B4_Detector_6	Static	float32	Landsat 1-3 additive modifier for Detector 6 in Band 4 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B4_Detector_5	Static	float32	Landsat 1-3 additive modifier for Detector 5 in Band 4 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B4_Detector_4	Static	float32	Landsat 1-3 additive modifier for Detector 4 in Band 4 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B4_Detector_3	Static	float32	Landsat 1-3 additive modifier for Detector 3 in Band 4 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B4_Detector_2	Static	float32	Landsat 1-3 additive modifier for Detector 2 in Band 4 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B4_Detector_1	Static	float32	Landsat 1-3 additive modifier for Detector 1 in Band 4 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B5_Detector_6	Static	float32	Landsat 1-3 additive modifier for Detector 6 in Band 5 used to refine the basic calibration equation. Valid format: SN.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B5_Detector_5	Static	float32	Landsat 1-3 additive modifier for Detector 5 in Band 5 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B5_Detector_4	Static	float32	Landsat 1-3 additive modifier for Detector 4 in Band 5 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B5_Detector_3	Static	float32	Landsat 1-3 additive modifier for Detector 3 in Band 5 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B5_Detector_2	Static	float32	Landsat 1-3 additive modifier for Detector 2 in Band 5 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B5_Detector_1	Static	float32	Landsat 1-3 additive modifier for Detector 1 in Band 5 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B6_Detector_6	Static	float32	Landsat 1-3 additive modifier for Detector 6 in Band 6 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B6_Detector_5	Static	float32	Landsat 1-3 additive modifier for Detector 5 in Band 6 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B6_Detector_4	Static	float32	Landsat 1-3 additive modifier for Detector 4 in Band 6 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B6_Detector_3	Static	float32	Landsat 1-3 additive modifier for Detector 3 in Band 6 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B6_Detector_2	Static	float32	Landsat 1-3 additive modifier for Detector 2 in Band 6 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B6_Detector_1	Static	float32	Landsat 1-3 additive modifier for Detector 1 in Band 6 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B7_Detector_6	Static	float32	Landsat 1-3 additive modifier for Detector 6 in Band 7 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B7_Detector_5	Static	float32	Landsat 1-3 additive modifier for Detector 5 in Band 7 used to refine the basic calibration equation. Valid format: SN.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B7_Detector_4	Static	float32	Landsat 1-3 additive modifier for Detector 4 in Band 7 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B7_Detector_3	Static	float32	Landsat 1-3 additive modifier for Detector 3 in Band 7 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B7_Detector_2	Static	float32	Landsat 1-3 additive modifier for Detector 2 in Band 7 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS	A_B7_Detector_1	Static	float32	Landsat 1-3 additive modifier for Detector 1 in Band 7 used to refine the basic calibration equation. Valid format: SN.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B1L_Detector_6	Static	float32	Landsat 4-5 additive modifier for Detector 6 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B1L_Detector_5	Static	float32	Landsat 4-5 additive modifier for Detector 5 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B1L_Detector_4	Static	float32	Landsat 4-5 additive modifier for Detector 4 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B1L_Detector_3	Static	float32	Landsat 4-5 additive modifier for Detector 3 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B1L_Detector_2	Static	float32	Landsat 4-5 additive modifier for Detector 2 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B1L_Detector_1	Static	float32	Landsat 4-5 additive modifier for Detector 1 in Band 1, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B2L_Detector_6	Static	float32	Landsat 4-5 additive modifier for Detector 6 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B2L_Detector_5	Static	float32	Landsat 4-5 additive modifier for Detector 5 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B2L_Detector_4	Static	float32	Landsat 4-5 additive modifier for Detector 4 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B2L_Detector_3	Static	float32	Landsat 4-5 additive modifier for Detector 3 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B2L_Detector_2	Static	float32	Landsat 4-5 additive modifier for Detector 2 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B2L_Detector_1	Static	float32	Landsat 4-5 additive modifier for Detector 1 in Band 2, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B3L_Detector_6	Static	float32	Landsat 4-5 additive modifier for Detector 6 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B3L_Detector_5	Static	float32	Landsat 4-5 additive modifier for Detector 5 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B3L_Detector_4	Static	float32	Landsat 4-5 additive modifier for Detector 4 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B3L_Detector_3	Static	float32	Landsat 4-5 additive modifier for Detector 3 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B3L_Detector_2	Static	float32	Landsat 4-5 additive modifier for Detector 2 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B3L_Detector_1	Static	float32	Landsat 4-5 additive modifier for Detector 1 in Band 3, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B4L_Detector_6	Static	float32	Landsat 4-5 additive modifier for Detector 6 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B4L_Detector_5	Static	float32	Landsat 4-5 additive modifier for Detector 5 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B4L_Detector_4	Static	float32	Landsat 4-5 additive modifier for Detector 4 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B4L_Detector_3	Static	float32	Landsat 4-5 additive modifier for Detector 3 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B4L_Detector_2	Static	float32	Landsat 4-5 additive modifier for Detector 2 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_LOW	A_B4L_Detector_1	Static	float32	Landsat 4-5 additive modifier for Detector 1 in Band 4, operating in low-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B1H_Detector_6	Static	float32	Landsat 4-5 additive modifier for Detector 6 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B1H_Detector_5	Static	float32	Landsat 4-5 additive modifier for Detector 5 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B1H_Detector_4	Static	float32	Landsat 4-5 additive modifier for Detector 4 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B1H_Detector_3	Static	float32	Landsat 4-5 additive modifier for Detector 3 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B1H_Detector_2	Static	float32	Landsat 4-5 additive modifier for Detector 2 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B1H_Detector_1	Static	float32	Landsat 4-5 additive modifier for Detector 1 in Band 1, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B2H_Detector_6	Static	float32	Landsat 4-5 additive modifier for Detector 6 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B2H_Detector_5	Static	float32	Landsat 4-5 additive modifier for Detector 5 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B2H_Detector_4	Static	float32	Landsat 4-5 additive modifier for Detector 4 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B2H_Detector_3	Static	float32	Landsat 4-5 additive modifier for Detector 3 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B2H_Detector_2	Static	float32	Landsat 4-5 additive modifier for Detector 2 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B2H_Detector_1	Static	float32	Landsat 4-5 additive modifier for Detector 1 in Band 2, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B3H_Detector_6	Static	float32	Landsat 4-5 additive modifier for Detector 6 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B3H_Detector_5	Static	float32	Landsat 4-5 additive modifier for Detector 5 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B3H_Detector_4	Static	float32	Landsat 4-5 additive modifier for Detector 4 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B3H_Detector_3	Static	float32	Landsat 4-5 additive modifier for Detector 3 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B3H_Detector_2	Static	float32	Landsat 4-5 additive modifier for Detector 2 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B3H_Detector_1	Static	float32	Landsat 4-5 additive modifier for Detector 1 in Band 3, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B4H_Detector_6	Static	float32	Landsat 4-5 additive modifier for Detector 6 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B4H_Detector_5	Static	float32	Landsat 4-5 additive modifier for Detector 5 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B4H_Detector_4	Static	float32	Landsat 4-5 additive modifier for Detector 4 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B4H_Detector_3	Static	float32	Landsat 4-5 additive modifier for Detector 3 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B4H_Detector_2	Static	float32	Landsat 4-5 additive modifier for Detector 2 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN
GROUP CAL_WEDGE_PARAMS GROUP: CAL_ADDITIVE_ MODIFIERS_HIGH	A_B4H_Detector_1	Static	float32	Landsat 4-5 additive modifier for Detector 1 in Band 4, operating in high-gain mode, used to refine the basic calibration equation. Valid format: N.NNNN

Parameter Groups	Parameter Name	Value Type	Data Type	Description
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_DECOMPRESSION_ TABLES	B1_Decompression_Table	Static	uint8 (64 values)	Landsat 4-5 decompression table used to linearize Band 1 data and rescale to 7-bit dynamic range. Valid format: NNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_DECOMPRESSION_ TABLES	B2_Decompression_Table	Static	uint8 (64 values)	Landsat 4-5 decompression table used to linearize Band 2 data and rescale to 7-bit dynamic range. Valid format: NNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_DECOMPRESSION_ TABLES	B3_Decompression_Table	Static	uint8 (64 values)	Landsat 4-5 decompression table used to linearize Band 3 data and rescale to 7-bit dynamic range. Valid format: NNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_DECOMPRESSION_ TABLES	B4_Decompression_Table	Static	uint8 (64 values)	Landsat 1-3 decompression table used to linearize Band 4 data and rescale to 7-bit dynamic range. Valid format: NNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_DECOMPRESSION_ TABLES	B5_Decompression_Table	Static	uint8 (64 values)	Landsat 1-3 decompression table used to linearize Band 5 data and rescale to 7-bit dynamic range. Valid format: NNN
GROUP: CAL_WEDGE_PARAMS GROUP: CAL_DECOMPRESSION_ TABLES	B6_Decompression_Table	Static	uint8 (64 values)	Landsat 1-3 decompression table used to linearize Band 6 data and rescale to 7-bit dynamic range. Valid format: NNN
GROUP: CAL_WEDGE_PARAMS	scale_factor	Static	uint8	Factor used to scale the calibrated data over the desired dynamic range. Valid format: NNN

Table 3-1. Landsat MSS CPF Parameters

Section 4 CPF ODL

4.1 Introduction to ODL Syntax

The ODL syntax employs the following conventions:

- The parameter definition is in the form of parameter = value.
- The value can be either a scalar or an array. Array values are enclosed in parentheses and are separated by commas.
- Parameter arrays can and do exist on multiple lines.
- A carriage return <CR> and line feed <LF> end each line in the file.
- Blank spaces and lines are ignored.
- Each line of comments must begin with /* and end with */, including comments embedded on the same line as a parameter definition.
- Quotation marks are required for values that are text strings, including single characters. The exceptions to this rule are the GROUP and END_GROUP identifiers or values, which do not use quotation marks. The third and fourth parameters in the file, Effective_Date_Begin and Effective_Date_End, also do not have quotation marks. ODL recognizes dates if they follow prescribed formats.
- In general, case is not significant for the ODL. For the CPF, however, the case is significant for keyword and group names. Keywords are mixed case letters and group names are all uppercase letters.
- Indentation is not significant but is used for readability.
- The reserve word END concludes the file.

4.2 Sample MSS CPF ODL Files

The following is a prototype of CPF files that contain valid parameter values for the Landsat 2 MSS satellite and Landsat 5 MSS satellite. These files were selected to show examples of WRS 1 and WRS 2 CPFs.

Landsat MSS 2 CPF ODL File

```
GROUP = FILE_ATTRIBUTES
  Spacecraft_Name = "Landsat_2"
  Sensor_Name = "Multi_Spectral_Scanner"
  Effective_Date_Begin = 1975-01-01
  Effective_Date_End = 1982-02-28
  CPF_File_Name = "LM2CPF19750101_19820228.05"
END_GROUP = FILE_ATTRIBUTES
GROUP = EARTH_CONSTANTS
  Ellipsoid_Name = "WGS84"
  Semi_Major_Axis = 6378137.0000
  Semi_Minor_Axis = 6356752.3142
  Ellipticity = 0.00335281066474
  Eccentricity = 0.00669437999013
  Earth_Spin_Rate = 72.921158553E-06
  Gravity_Constant = 3.986005E14
```

```
  J2_Earth_Model_Term = 1082.63E-06
END_GROUP = EARTH_CONSTANTS
GROUP = ORBIT_PARAMETERS
  WRS_Cycle_Days = 18
  WRS_Cycle_Orbits = 251
  Scenes_Per_Orbit = 248
  Orbital_Period = -1000
  Angular_Momentum = -1000
  Orbit_Radius = 7295.14
  Orbit_Semimajor_Axis = 7289.60
  Orbit_Semiminor_Axis = 7281.28
  Orbit_Eccentricity = -1000
  Inclination_Angle = -1000
  Argument_Of_Perigee = -1000
  Descending_Node_Row = -1000
  Long_Path1_Row60 = -1000
  Descending_Node_Time_Min = "08:45"
  Descending_Node_Time_Max = "09:45"
  Nodal_Regression_Rate = -1000
END_GROUP = ORBIT_PARAMETERS
GROUP = SCANNER_PARAMETERS
  Lines_Per_Scan_60 = 6
  Scans_Per_Scene = 390
  Swath_Angle = 0.2007
  Scan_Rate = 9.958e-6
  Dwell_Time_60 = 9.958e-6
  IC_Line_Length_60 = 100
  Scan_Line_Length_60 = 3240
  Filter_Frequency_60 = 0.0
  IFOV_B1234 = 86.0e-6
  IFOV_B1234_ALONG = 86.0e-6
  IFOV_B1234_ACROSS = 86.0e-6
  Scan_Period = 0.07342
  Scan_Frequency = 13.62
  Active_Scan_Time = 0.032130
  Turn_Around_Time = 10.719
END_GROUP = SCANNER_PARAMETERS
GROUP = MSS_PROCESSING_CONSTANTS
  Image_Center_Line = 1170.0
  Image_Center_Sample = 1620.0
  Image_Center_Scan = 195.0
  Number_Channels = 25
  Image_Line_Rate = 81.72160174
  Image_Yaw = -0.000584133
  Image_Sample_Slope = 16039.2641185
  Image_Frame_Size = 268000.0
  Xcorrect_Delays = (0.20,0.12,0.04,-0.04,-0.12,-0.20)
END_GROUP = MSS_PROCESSING_CONSTANTS
GROUP = MIRROR_PARAMETERS
  Number_Mirr_Coef = 3
  Time_Mid_Scan = 0.016035
  Mirr_First_Half_Coef = (-76.976,224.763,-141.956)
  Mirr_Second_Half_Coef = (-76.976,224.763,-141.956)
END_GROUP = MIRROR_PARAMETERS
GROUP = ATTITUDE_PARAMETERS
```

```
  Gyro_To_Attitude_Matrix = (+1.0000E0,+0.0000E0,+0.0000E0, +0.0000E0,+1.0000E0,+0.0000E0,
+0.0000E0,+0.0000E0,+1.0000E0)
  Attitude_To_Sensor_Matrix = (+1.0000E0,+0.0000E0,+0.0000E0, +0.0000E0,+1.0000E0,+0.0000E0,
+0.0000E0,+0.0000E0,+1.0000E0)
  Spacecraft_Roll_Bias = 0.0000000
  Spacecraft_Pitch_Bias = 0.0000000
  Spacecraft_Yaw_Bias = 0.0000000
END_GROUP = ATTITUDE_PARAMETERS
GROUP = FOCAL_PLANE_PARAMETERS
  GROUP = DETECTOR_OFFSETS
    Forward_Along_Scan_DO_B4 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Along_Scan_DO_B4 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Along_Scan_DO_B5 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Along_Scan_DO_B5 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Along_Scan_DO_B6 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Along_Scan_DO_B6 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Along_Scan_DO_B7 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Along_Scan_DO_B7 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Across_Scan_DO_B4 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Across_Scan_DO_B4 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Across_Scan_DO_B5 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Across_Scan_DO_B5 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Across_Scan_DO_B6 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Across_Scan_DO_B6 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Across_Scan_DO_B7 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Across_Scan_DO_B7 = (0.000,0.000,0.000,0.000,0.000,0.000)
  END_GROUP = DETECTOR_OFFSETS
  GROUP = BAND_OFFSETS
    Along_Scan_Band_Offsets = (0.0,172.0,344.0,516.0)
    Across_Scan_Band_Offsets = (0.0,0.0,0.0,0.0)
    Forward_Focal_Plane_Offsets = (0.0,2.0,4.0,6.0)
    Reverse_Focal_Plane_Offsets = (0.0,2.0,4.0,6.0)
  END_GROUP = BAND_OFFSETS
END_GROUP = FOCAL_PLANE_PARAMETERS
GROUP = DETECTOR_TIME_SHIFTS
  Detector_Time_Shift_B4 = (0.0,2.0,4.0,6.0,8.0,10.0)
  Detector_Time_Shift_B5 = (0.0,2.0,4.0,6.0,8.0,10.0)
  Detector_Time_Shift_B6 = (0.0,2.0,4.0,6.0,8.0,10.0)
  Detector_Time_Shift_B7 = (0.0,2.0,4.0,6.0,8.0,10.0)
END_GROUP = DETECTOR_TIME_SHIFTS
GROUP = EPHEMERIS_CONSTANTS
  Ephemeris_Semi_Major_Axis = 6378206.4
  Ephemeris_Semi_Minor_Axis = 6356583.8
  Ephemeris_Flat = 294.9786982
  Ephemeris_Eccentricity = 0.0067686580
END_GROUP = EPHEMERIS_CONSTANTS
GROUP = DETECTOR_STATUS
  Status_Band4 = ("00000","00000","00000","00000","00000","00000")
  Status_Band5 = ("00000","00000","00000","00000","00000","00000")
  Status_Band6 = ("00000","00000","00000","00000","00000","00000")
  Status_Band7 = ("00000","00000","00000","00000","00000","00000")
END_GROUP = DETECTOR_STATUS
GROUP = STRIPING
  Correction_Reference_B4 = 0
  Correction_Reference_B5 = 0
  Correction_Reference_B6 = 0
```

```
  Correction_Reference_B7 = 0
END_GROUP = STRIPING
GROUP = HISTOGRAM
  GROUP = DETECTOR_NOISE
    Detector_Noise_Level_B4 = (0.00000,0.00000,0.00000,0.00000,0.00000,0.00000)
    Detector_Noise_Level_B5 = (0.00000,0.00000,0.00000,0.00000,0.00000,0.00000)
    Detector_Noise_Level_B6 = (0.00000,0.00000,0.00000,0.00000,0.00000,0.00000)
    Detector_Noise_Level_B7 = (0.00000,0.00000,0.00000,0.00000,0.00000,0.00000)
  END_GROUP = DETECTOR_NOISE
  GROUP = REFERENCE_DETECTORS
    Reference_Detector_B4 = 01
    Reference_Detector_B5 = 01
    Reference_Detector_B6 = 01
    Reference_Detector_B7 = 01
  END_GROUP = REFERENCE_DETECTORS
  GROUP = SATURATION_THRESHOLDS
    Saturation_Bin_Threshold_B4 = 1000
    Saturation_Bin_Threshold_B5 = 1000
    Saturation_Bin_Threshold_B6 = 1000
    Saturation_Bin_Threshold_B7 = 1000
  END_GROUP = SATURATION_THRESHOLDS
  GROUP = ADJACENT_BINS
    GROUP = BIN_NUMBER
      Adjacent_Bin_Number_B4 = 2
      Adjacent_Bin_Number_B5 = 2
      Adjacent_Bin_Number_B6 = 2
      Adjacent_Bin_Number_B7 = 2
    END_GROUP = BIN_NUMBER
    GROUP = BIN_THRESHOLD
      Adjacent_Bin_Threshold_B4 = 10
      Adjacent_Bin_Threshold_B5 = 10
      Adjacent_Bin_Threshold_B6 = 10
      Adjacent_Bin_Threshold_B7 = 10
    END_GROUP = BIN_THRESHOLD
  END_GROUP = ADJACENT_BINS
  GROUP = STARTING_PIXEL
    Start_pixel_B4 = 1
    Start_pixel_B5 = 1
    Start_pixel_B6 = 1
    Start_pixel_B7 = 1
  END_GROUP = STARTING_PIXEL
  GROUP = WINDOW_WIDTH
    Window_Samples_B4 = 3200
    Window_Samples_B5 = 3200
    Window_Samples_B6 = 3200
    Window_Samples_B7 = 3200
  END_GROUP = WINDOW_WIDTH
END_GROUP = HISTOGRAM
GROUP = CHANNEL_SATURATION
  High_Level_B4 = (127,127,127,127,127,127)
  High_Level_B5 = (127,127,127,127,127,127)
  High_Level_B6 = (127,127,127,127,127,127)
  High_Level_B7 = (127,127,127,127,127,127)
  Low_Level_B4 = (0,0,0,0,0,0)
  Low_Level_B5 = (0,0,0,0,0,0)
  Low_Level_B6 = (0,0,0,0,0,0)
```

```
  Low_Level_B7 = (0,0,0,0,0,0)
END_GROUP = CHANNEL_SATURATION
GROUP = CROSS_CAL_TO_L5
  B4_Cross_Cal_Bias_To_L5 = 0.0000
  B5_Cross_Cal_Bias_To_L5 = -7.2141
  B6_Cross_Cal_Bias_To_L5 = -8.9049
  B7_Cross_Cal_Bias_To_L5 = 0.0000
  B4_Cross_Cal_Gain_To_L5 = 1.0806
  B5_Cross_Cal_Gain_To_L5 = 1.0737
  B6_Cross_Cal_Gain_To_L5 = 1.0552
  B7_Cross_Cal_Gain_To_L5 = 1.0134
  B4_Cross_Cal_TDF_A_To_L5 = 0.56709
  B5_Cross_Cal_TDF_A_To_L5 = 0.53916
  B6_Cross_Cal_TDF_A_To_L5 = 0.0
  B7_Cross_Cal_TDF_A_To_L5 = 0.0
  B4_Cross_Cal_TDF_B_To_L5 = 144.85
  B5_Cross_Cal_TDF_B_To_L5 = 168.11
  B6_Cross_Cal_TDF_B_To_L5 = 1.0
  B7_Cross_Cal_TDF_B_To_L5 = 1.0
  B4_Cross_Cal_TDF_C_To_L5 = 147.72
  B5_Cross_Cal_TDF_C_To_L5 = 170.85
  B6_Cross_Cal_TDF_C_To_L5 = 1.0
  B7_Cross_Cal_TDF_C_To_L5 = 1.0
  T_Launch = 1975.06
END_GROUP = CROSS_CAL_TO_L5
GROUP = ORIGINAL_SCALING_PARAMETERS
  B4_Lmin_Lmax_Before_Proc_Date = (10.0,210.0)
  B5_Lmin_Lmax_Before_Proc_Date = (7.0,156.0)
  B6_Lmin_Lmax_Before_Proc_Date = (7.0,140.0)
  B7_Lmin_Lmax_Before_Proc_Date = (5.0,138.0)
  B4_Lmin_Lmax_After_Proc_Date = (8.0,263.0)
  B5_Lmin_Lmax_After_Proc_Date = (6.0,176.0)
  B6_Lmin_Lmax_After_Proc_Date = (6.0,152.0)
  B7_Lmin_Lmax_After_Proc_Date = (4.0,130.0)
  Proc_Date = "1975-07-16"
END_GROUP = ORIGINAL_SCALING_PARAMETERS
GROUP = FINAL_SCALING_PARAMETERS
  B4_Lmin_Lmax_Before_Proc_Date = (11.0,230.8)
  B5_Lmin_Lmax_Before_Proc_Date = (0.4,162.9)
  B6_Lmin_Lmax_Before_Proc_Date = (-1.5,138.8)
  B7_Lmin_Lmax_Before_Proc_Date = (5.1,139.8)
  B4_Lmin_Lmax_After_Proc_Date = (8.6,288.8)
  B5_Lmin_Lmax_After_Proc_Date = (-0.8,184.6)
  B6_Lmin_Lmax_After_Proc_Date = (-2.6,151.5)
  B7_Lmin_Lmax_After_Proc_Date = (4.1,131.7)
END_GROUP = FINAL_SCALING_PARAMETERS
GROUP = L5_ESUN_GROUP
  L5B4_Solar_Irradiance = 1824.0
  L5B5_Solar_Irradiance = 1570.0
  L5B6_Solar_Irradiance = 1249.0
  L5B7_Solar_Irradiance = 853.4
END_GROUP = L5_ESUN_GROUP
GROUP = CAL_WEDGE_PARAMS
  GROUP = CAL_OFFSET_COEFFS_LOW
    B4L_Bias_C_Detector_6 = (-0.120850,-0.046143,0.076416,0.125244,0.201172,0.257324)
    B4L_Bias_C_Detector_5 = (-0.158691,-0.057861,0.098145,0.163086,0.260498,0.334961)
```

B4L_Bias_C_Detector_4 = (-0.174561,-0.077148,0.101562,0.169922,0.286865,0.375000)
B4L_Bias_C_Detector_3 = (-0.168213,-0.078613,0.100342,0.166992,0.286621,0.373779)
B4L_Bias_C_Detector_2 = (-0.194092,-0.078369,0.114990,0.192871,0.322021,0.420410)
B4L_Bias_C_Detector_1 = (-0.151123,-0.062256,0.093018,0.154053,0.252441,0.326172)
B5L_Bias_C_Detector_6 = (-0.053711,-0.025635,0.032715,0.062256,0.097656,0.123291)
B5L_Bias_C_Detector_5 = (-0.089600,-0.045898,0.058694,0.098145,0.158936,0.200196)
B5L_Bias_C_Detector_4 = (-0.088379,-0.045898,0.047119,0.094482,0.152832,0.197266)
B5L_Bias_C_Detector_3 = (-0.083740,-0.042480,0.052002,0.077881,0.155273,0.198730)
B5L_Bias_C_Detector_2 = (-0.094727,-0.048828,0.055176,0.106445,0.167725,0.214600)
B5L_Bias_C_Detector_1 = (-0.149902,-0.074707,0.090332,0.168213,0.264648,0.336670)
B6L_Bias_C_Detector_6 = (-0.176758,-0.090332,0.103027,0.174316,0.287354,0.348877)
B6L_Bias_C_Detector_5 = (-0.106934,-0.051768,0.060059,0.101807,0.171387,0.207764)
B6L_Bias_C_Detector_4 = (-0.135010,-0.069824,0.072998,0.123047,0.214844,0.261719)
B6L_Bias_C_Detector_3 = (-0.103027,-0.055176,0.058594,0.096680,0.168701,0.205811)
B6L_Bias_C_Detector_2 = (-0.120605,-0.065430,0.072021,0.115967,0.199463,0.243652)
B6L_Bias_C_Detector_1 = (-0.064941,-0.031006,0.038574,0.062988,0.105713,0.128418)
B7L_Bias_C_Detector_6 = (-0.473877,-0.219971,0.075928,0.363281,0.634277,0.903320)
B7L_Bias_C_Detector_5 = (-0.709473,-0.353760,0.076416,0.500244,0.922363,1.354980)
B7L_Bias_C_Detector_4 = (-0.490479,-0.245361,0.041504,0.321045,0.616943,0.934570)
B7L_Bias_C_Detector_3 = (-0.644775,-0.333008,0.059570,0.427490,0.824463,1.232422)
B7L_Bias_C_Detector_2 = (-0.363525,-0.180176,0.039795,0.256104,0.477295,0.704834)
B7L_Bias_C_Detector_1 = (-0.535400,-0.263916,0.066895,0.377686,0.713867,1.056885)
END_GROUP = CAL_OFFSET_COEFFS_LOW
GROUP = CAL_OFFSET_COEFFS_HIGH
B4H_Bias_C_Detector_6 = (-0.229248,-0.053955,0.050781,0.266625,0.427734,0.539795)
B4H_Bias_C_Detector_5 = (-0.229248,-0.051514,0.050537,0.263918,0.427246,0.539795)
B4H_Bias_C_Detector_4 = (-0.225586,-0.070313,0.049072,0.265695,0.437256,0.547363)
B4H_Bias_C_Detector_3 = (-0.220459,-0.069092,0.046584,0.261476,0.434814,0.545166)
B4H_Bias_C_Detector_2 = (-0.222900,-0.056396,0.045410,0.262451,0.434326,0.537598)
B4H_Bias_C_Detector_1 = (-0.225095,-0.057861,0.048584,0.262695,0.434570,0.537598)
B5H_Bias_C_Detector_6 = (-0.454102,-0.202881,0.057373,0.310059,0.520020,0.769775)
B5H_Bias_C_Detector_5 = (-0.449219,-0.215088,0.038330,0.345947,0.514648,0.765869)
B5H_Bias_C_Detector_4 = (-0.482422,-0.217285,0.043945,0.333498,0.521729,0.800781)
B5H_Bias_C_Detector_3 = (-0.444824,-0.205322,0.062246,0.327148,0.504395,0.766846)
B5H_Bias_C_Detector_2 = (-0.450195,-0.207764,0.053711,0.322266,0.510742,0.771484)
B5H_Bias_C_Detector_1 = (-0.502197,-0.233398,0.065186,0.393311,0.496826,0.780762)
END_GROUP = CAL_OFFSET_COEFFS_HIGH
GROUP = CAL_GAIN_COEFFS_LOW
B4L_Gain_D_Detector_6 = (1.124023,0.710205,0.031738,-0.238770,-0.658203,-0.968018)
B4L_Gain_D_Detector_5 = (1.268066,0.786377,0.040283,-0.269287,-0.734131,-1.090332)
B4L_Gain_D_Detector_4 = (1.088379,0.720459,0.045166,-0.212646,-0.654053,-0.986572)
B4L_Gain_D_Detector_3 = (1.113770,0.760010,0.050537,-0.211426,-0.684082,-1.027832)
B4L_Gain_D_Detector_2 = (1.145996,0.736572,0.051025,-0.224121,-0.680176,-1.028076)
B4L_Gain_D_Detector_1 = (1.114502,0.723877,0.039307,-0.229248,-0.661865,-0.985596)
B5L_Gain_D_Detector_6 = (1.049561,0.735107,0.073975,-0.256592,-0.656494,-0.944824)
B5L_Gain_D_Detector_5 = (1.221924,0.872559,0.036621,-0.276367,-0.761963,-1.090820)
B5L_Gain_D_Detector_4 = (0.979004,0.697754,0.080666,-0.230713,-0.615479,-0.910400)
B5L_Gain_D_Detector_3 = (0.978027,0.706299,0.074219,-0.237305,-0.614502,-0.832520)
B5L_Gain_D_Detector_2 = (0.938721,0.672607,0.065918,-0.231689,-0.586914,-0.858643)
B5L_Gain_D_Detector_1 = (0.975586,0.689941,0.058105,-0.238037,-0.604980,-0.879883)
B6L_Gain_D_Detector_6 = (1.194580,0.831787,0.018555,-0.278809,-0.753662,-1.011475)
B6L_Gain_D_Detector_5 = (1.132324,0.766002,0.022948,-0.251953,-0.713379,-0.955811)
B6L_Gain_D_Detector_4 = (1.133545,0.787598,0.025146,-0.240723,-0.728271,-0.976807)
B6L_Gain_D_Detector_3 = (1.043213,0.740967,0.020752,-0.219727,-0.675293,-0.908936)
B6L_Gain_D_Detector_2 = (1.046875,0.750244,0.011230,-0.224609,-0.673340,-0.909180)
B6L_Gain_D_Detector_1 = (1.156250,0.782959,0.014160,-0.255127,-0.724854,-0.973145)

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  B7L_Gain_D_Detector_6 = (1.763672,1.112793,0.352539,-0.383057,-1.077881,-1.767334)
  B7L_Gain_D_Detector_5 = (1.740234,1.126709,0.383301,-0.348389,-1.077148,-1.823730)
  B7L_Gain_D_Detector_4 = (1.468262,0.944336,0.330078,-0.266113,-0.898926,-1.576660)
  B7L_Gain_D_Detector_3 = (1.533936,1.005615,0.340576,-0.281494,-0.953857,-1.644287)
  B7L_Gain_D_Detector_2 = (1.455811,0.942383,0.322998,-0.280762,-0.900635,-1.539063)
  B7L_Gain_D_Detector_1 = (1.612305,1.044922,0.352539,-0.296143,-1.002197,-1.714844)
END_GROUP = CAL_GAIN_COEFFS_LOW
GROUP = CAL_GAIN_COEFFS_HIGH
  B4H_Gain_D_Detector_6 = (0.930420,0.518555,0.272461,-0.231934,-0.612793,-0.875732)
  B4H_Gain_D_Detector_5 = (1.061279,0.585205,0.311523,-0.260254,-0.697998,-0.999023)
  B4H_Gain_D_Detector_4 = (0.822266,0.496828,0.246094,-0.200928,-0.566406,-0.797119)
  B4H_Gain_D_Detector_3 = (0.867920,0.528320,0.264404,-0.212402,-0.600098,-0.847412)
  B4H_Gain_D_Detector_2 = (0.919189,0.526611,0.286133,-0.225586,-0.630859,-0.874756)
  B4H_Gain_D_Detector_1 = (0.892334,0.511475,0.268799,-0.218202,-0.609619,-0.843994)
  B5H_Gain_D_Detector_6 = (1.280273,0.762451,0.225342,-0.295654,-0.728271,-1.243408)
  B5H_Gain_D_Detector_5 = (1.460693,0.905518,0.304443,-0.424805,-0.624707,-1.420410)
  B5H_Gain_D_Detector_4 = (1.158203,0.685303,0.218750,-0.297363,-0.633301,-1.130859)
  B5H_Gain_D_Detector_3 = (1.156738,0.703857,0.216553,-0.303467,-0.638184,-1.134521)
  B5H_Gain_D_Detector_2 = (1.137939,0.690918,0.206252,-0.266865,-0.634521,-1.114990)
  B5H_Gain_D_Detector_1 = (1.321289,0.709527,0.200439,-0.447266,-0.661855,-1.212402)
END_GROUP = CAL_GAIN_COEFFS_HIGH
GROUP = CAL_MULTIPLICATIVE_MODIFIERS
  M_B4_Detector_6 = 1.0080
  M_B4_Detector_5 = 1.0040
  M_B4_Detector_4 = 1.0040
  M_B4_Detector_3 = 0.9960
  M_B4_Detector_2 = 1.0040
  M_B4_Detector_1 = 0.9800
  M_B5_Detector_6 = 1.0000
  M_B5_Detector_5 = 1.0000
  M_B5_Detector_4 = 0.9960
  M_B5_Detector_3 = 0.9920
  M_B5_Detector_2 = 1.0040
  M_B5_Detector_1 = 1.0040
  M_B6_Detector_6 = 1.0000
  M_B6_Detector_5 = 1.0200
  M_B6_Detector_4 = 0.9960
  M_B6_Detector_3 = 0.9920
  M_B6_Detector_2 = 1.0000
  M_B6_Detector_1 = 0.9880
  M_B7_Detector_6 = 1.0000
  M_B7_Detector_5 = 0.9960
  M_B7_Detector_4 = 1.0040
  M_B7_Detector_3 = 0.9920
  M_B7_Detector_2 = 0.9920
  M_B7_Detector_1 = 1.0160
END_GROUP = CAL_MULTIPLICATIVE_MODIFIERS
GROUP = CAL_ADDITIVE_MODIFIERS
  A_B4_Detector_6 = -0.2100
  A_B4_Detector_5 = -0.1400
  A_B4_Detector_4 = 0.1600
  A_B4_Detector_3 = -0.2600
  A_B4_Detector_2 = -0.0900
  A_B4_Detector_1 = 0.3800
  A_B5_Detector_6 = -0.0900
  A_B5_Detector_5 = -0.0200
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   A_B5_Detector_4 = -0.0200
   A_B5_Detector_3 = 0.1400
   A_B5_Detector_2 = -0.2200
   A_B5_Detector_1 = 0.1700
   A_B6_Detector_6 = -0.0200
   A_B6_Detector_5 = -0.8000
   A_B6_Detector_4 = 0.3100
   A_B6_Detector_3 = 0.1500
   A_B6_Detector_2 = 0.1200
   A_B6_Detector_1 = 0.2600
   A_B7_Detector_6 = 0.0600
   A_B7_Detector_5 = -0.0500
   A_B7_Detector_4 = 0.0800
   A_B7_Detector_3 = 0.0300
   A_B7_Detector_2 = 0.0900
   A_B7_Detector_1 = -0.2100
  END_GROUP = CAL_ADDITIVE_MODIFIERS
  GROUP = CAL_DECOMPRESSION_TABLES
   B4_Decompression_Table =
(0,1,1,2,3,4,5,6,7,8,9,10,11,12,13,15,16,17,18,20,22,23,25,26,28,30,32,34,35,37,39,41,43,45,47,49,51,53,55,58,60,6
3,66,68,71,74,77,80,84,87,90,92,95,98,101,104,108,111,114,117,120,123,125,127)
   B5_Decompression_Table =
(0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,17,18,19,20,22,23,25,26,28,30,32,34,35,37,39,41,42,45,47,49,52,54,56,58,60,
63,66,69,72,74,77,80,83,86,89,92,95,98,101,104,107,110,113,116,119,122,125,127)
   B6_Decompression_Table =
(0,1,1,2,3,4,5,6,7,8,9,10,11,12,13,15,16,17,18,20,22,23,25,26,28,30,32,34,35,37,39,41,43,45,47,49,51,53,55,58,60,6
3,66,68,71,74,77,80,84,87,90,92,95,98,101,104,108,111,114,117,120,123,125,127)
  END_GROUP = CAL_DECOMPRESSION_TABLES
  scale_factor = 127
END_GROUP = CAL_WEDGE_PARAMS
END
```

Landsat MSS 5 CPF ODL File

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GROUP = FILE_ATTRIBUTES
  Spacecraft_Name = "Landsat_5"
  Sensor_Name = "Multi_Spectral_Scanner"
  Effective_Date_Begin = 1984-11-09
  Effective_Date_End = 1995-12-31
  CPF_File_Name = "LM5CPF19841109_19951231.01"
END_GROUP = FILE_ATTRIBUTES
GROUP = EARTH_CONSTANTS
  Ellipsoid_Name = "WGS84"
  Semi_Major_Axis = 6378137.0000
  Semi_Minor_Axis = 6356752.3142
  Ellipticity = 0.00335281066474
  Eccentricity = 0.00669437999013
  Earth_Spin_Rate = 72.921158553E-06
  Gravity_Constant = 3.986005E14
  J2_Earth_Model_Term = 1082.63E-06
END_GROUP = EARTH_CONSTANTS
GROUP = ORBIT_PARAMETERS
  WRS_Cycle_Days = 16
  WRS_Cycle_Orbits = 233
  Scenes_Per_Orbit = 248
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  Orbital_Period = 5933.0472
  Angular_Momentum = 53.136250E9
  Orbit_Radius = 7083.4457
  Orbit_Semimajor_Axis = 7083.4457
  Orbit_Semiminor_Axis = 7083.4408
  Orbit_Eccentricity = 0.00117604
  Inclination_Angle = 98.2096
  Argument_Of_Perigee = 90.0
  Descending_Node_Row = 60
  Long_Path1_Row60 = -64.6
  Descending_Node_Time_Min = "09:10"
  Descending_Node_Time_Max = "10:15"
  Nodal_Regression_Rate = 0.985647366
END_GROUP = ORBIT_PARAMETERS
GROUP = SCANNER_PARAMETERS
  Lines_Per_Scan_60 = 6
  Scans_Per_Scene = 390
  Swath_Angle = 0.2007
  Scan_Rate = 9.958e-6
  Dwell_Time_60 = 9.958e-6
  IC_Line_Length_60 = 100
  Scan_Line_Length_60 = 3240
  Filter_Frequency_60 = 0.0
  IFOV_B1234 = 86.0e-6
  IFOV_B1234_ALONG = 86.0e-6
  IFOV_B1234_ACROSS = 86.0e-6
  Scan_Period = 0.07342
  Scan_Frequency = 13.62
  Active_Scan_Time = 0.032130
  Turn_Around_Time = 10.719
END_GROUP = SCANNER_PARAMETERS
GROUP = MSS_PROCESSING_CONSTANTS
  Image_Center_Line = 1170.0
  Image_Center_Sample = 1620.0
  Image_Center_Scan = 195.0
  Number_Channels = 25
  Image_Line_Rate = 81.72160174
  Image_Yaw = -0.000584133
  Image_Sample_Slope = 16039.2641185
  Image_Frame_Size = 268000.0
  Xcorrect_Delays = (0.20,0.12,0.04,-0.04,-0.12,-0.20)
END_GROUP = MSS_PROCESSING_CONSTANTS
GROUP = MIRROR_PARAMETERS
  Number_Mirr_Coef = 3
  Time_Mid_Scan = 0.016035
  Mirr_First_Half_Coef = (-76.976,224.763,-141.956)
  Mirr_Second_Half_Coef = (-76.976,224.763,-141.956)
END_GROUP = MIRROR_PARAMETERS
GROUP = ATTITUDE_PARAMETERS
  Gyro_To_Attitude_Matrix = (+1.0000E0,+0.0000E0,+0.0000E0,
+0.0000E0,+1.0000E0,+0.0000E0, +0.0000E0,+0.0000E0,+1.0000E0)
  Attitude_To_Sensor_Matrix = (+1.0000E0,+0.0000E0,+0.0000E0,
+0.0000E0,+1.0000E0,+0.0000E0, +0.0000E0,+0.0000E0,+1.0000E0)
  Spacecraft_Roll_Bias = 0.0000000
  Spacecraft_Pitch_Bias = 0.0000000
  Spacecraft_Yaw_Bias = 0.0000000
END_GROUP = ATTITUDE_PARAMETERS
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GROUP = FOCAL_PLANE_PARAMETERS
  GROUP = DETECTOR_OFFSETS
    Forward_Along_Scan_DO_B1 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Along_Scan_DO_B1 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Along_Scan_DO_B2 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Along_Scan_DO_B2 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Along_Scan_DO_B3 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Along_Scan_DO_B3 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Along_Scan_DO_B4 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Along_Scan_DO_B4 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Across_Scan_DO_B1 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Across_Scan_DO_B1 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Across_Scan_DO_B2 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Across_Scan_DO_B2 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Across_Scan_DO_B3 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Across_Scan_DO_B3 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Forward_Across_Scan_DO_B4 = (0.000,0.000,0.000,0.000,0.000,0.000)
    Reverse_Across_Scan_DO_B4 = (0.000,0.000,0.000,0.000,0.000,0.000)
  END_GROUP = DETECTOR_OFFSETS
  GROUP = BAND_OFFSETS
    Along_Scan_Band_Offsets = (0.0,172.0,344.0,516.0)
    Across_Scan_Band_Offsets = (0.0,0.0,0.0,0.0)
    Forward_Focal_Plane_Offsets = (0.0,2.0,4.0,6.0)
    Reverse_Focal_Plane_Offsets = (0.0,2.0,4.0,6.0)
  END_GROUP = BAND_OFFSETS
END_GROUP = FOCAL_PLANE_PARAMETERS
GROUP = DETECTOR_TIME_SHIFTS
  Detector_Time_Shift_B1 = (0.0,2.0,4.0,6.0,8.0,10.0)
  Detector_Time_Shift_B2 = (0.0,2.0,4.0,6.0,8.0,10.0)
  Detector_Time_Shift_B3 = (0.0,2.0,4.0,6.0,8.0,10.0)
  Detector_Time_Shift_B4 = (0.0,2.0,4.0,6.0,8.0,10.0)
END_GROUP = DETECTOR_TIME_SHIFTS
GROUP = EPHEMERIS_CONSTANTS
  Ephemeris_Semi_Major_Axis = 6378206.4
  Ephemeris_Semi_Minor_Axis = 6356583.8
  Ephemeris_Flat = 294.9786982
  Ephemeris_Eccentricity = 0.0067686580
END_GROUP = EPHEMERIS_CONSTANTS
GROUP = DETECTOR_STATUS
  Status_Band1 = ("00000","00000","00000","00000","00000","00000")
  Status_Band2 = ("00000","00000","00000","00000","00000","00000")
  Status_Band3 = ("00000","00000","00000","00000","00000","00000")
  Status_Band4 = ("00000","00000","00000","00000","00000","00000")
END_GROUP = DETECTOR_STATUS
GROUP = STRIPING
  Correction_Reference_B1 = 0
  Correction_Reference_B2 = 0
  Correction_Reference_B3 = 0
  Correction_Reference_B4 = 0
END_GROUP = STRIPING
GROUP = HISTOGRAM
  GROUP = DETECTOR_NOISE
    Detector_Noise_Level_B1 =
(0.00000,0.00000,0.00000,0.00000,0.00000,0.00000)
    Detector_Noise_Level_B2 =
(0.00000,0.00000,0.00000,0.00000,0.00000,0.00000)
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    Detector_Noise_Level_B3 =
(0.00000,0.00000,0.00000,0.00000,0.00000,0.00000)
    Detector_Noise_Level_B4 =
(0.00000,0.00000,0.00000,0.00000,0.00000,0.00000)
  END_GROUP = DETECTOR_NOISE
  GROUP = REFERENCE_DETECTORS
    Reference_Detector_B1 = 01
    Reference_Detector_B2 = 01
    Reference_Detector_B3 = 01
    Reference_Detector_B4 = 01
  END_GROUP = REFERENCE_DETECTORS
  GROUP = SATURATION_THRESHOLDS
    Saturation_Bin_Threshold_B1 = 1000
    Saturation_Bin_Threshold_B2 = 1000
    Saturation_Bin_Threshold_B3 = 1000
    Saturation_Bin_Threshold_B4 = 1000
  END_GROUP = SATURATION_THRESHOLDS
  GROUP = ADJACENT_BINS
    GROUP = BIN_NUMBER
      Adjacent_Bin_Number_B1 = 2
      Adjacent_Bin_Number_B2 = 2
      Adjacent_Bin_Number_B3 = 2
      Adjacent_Bin_Number_B4 = 2
    END_GROUP = BIN_NUMBER
    GROUP = BIN_THRESHOLD
      Adjacent_Bin_Threshold_B1 = 10
      Adjacent_Bin_Threshold_B2 = 10
      Adjacent_Bin_Threshold_B3 = 10
      Adjacent_Bin_Threshold_B4 = 10
    END_GROUP = BIN_THRESHOLD
  END_GROUP = ADJACENT_BINS
  GROUP = STARTING_PIXEL
    Start_pixel_B1 = 1
    Start_pixel_B2 = 1
    Start_pixel_B3 = 1
    Start_pixel_B4 = 1
  END_GROUP = STARTING_PIXEL
  GROUP = WINDOW_WIDTH
    Window_Samples_B1 = 3200
    Window_Samples_B2 = 3200
    Window_Samples_B3 = 3200
    Window_Samples_B4 = 3200
  END_GROUP = WINDOW_WIDTH
END_GROUP = HISTOGRAM
GROUP = CHANNEL_SATURATION
  High_Level_B1 = (127,127,127,127,127,127)
  High_Level_B2 = (127,127,127,127,127,127)
  High_Level_B3 = (127,127,127,127,127,127)
  High_Level_B4 = (127,127,127,127,127,127)
  Low_Level_B1 = (0,0,0,0,0,0)
  Low_Level_B2 = (0,0,0,0,0,0)
  Low_Level_B3 = (0,0,0,0,0,0)
  Low_Level_B4 = (0,0,0,0,0,0)
END_GROUP = CHANNEL_SATURATION
GROUP = CROSS_CAL_TO_L5
  B1_Cross_Cal_Bias_To_L5 = 0.0000
  B2_Cross_Cal_Bias_To_L5 = 0.0000
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  B3_Cross_Cal_Bias_To_L5 = 0.0000
  B4_Cross_Cal_Bias_To_L5 = 0.0000
  B1_Cross_Cal_Gain_To_L5 = 1.0000
  B2_Cross_Cal_Gain_To_L5 = 1.0000
  B3_Cross_Cal_Gain_To_L5 = 1.0000
  B4_Cross_Cal_Gain_To_L5 = 1.0000
  B1_Cross_Cal_TDF_A_To_L5 = 0.0
  B2_Cross_Cal_TDF_A_To_L5 = 0.0
  B3_Cross_Cal_TDF_A_To_L5 = 0.0
  B4_Cross_Cal_TDF_A_To_L5 = 0.0
  B1_Cross_Cal_TDF_B_To_L5 = 1.0
  B2_Cross_Cal_TDF_B_To_L5 = 1.0
  B3_Cross_Cal_TDF_B_To_L5 = 1.0
  B4_Cross_Cal_TDF_B_To_L5 = 1.0
  B1_Cross_Cal_TDF_C_To_L5 = 1.0
  B2_Cross_Cal_TDF_C_To_L5 = 1.0
  B3_Cross_Cal_TDF_C_To_L5 = 1.0
  B4_Cross_Cal_TDF_C_To_L5 = 1.0
  T_Launch = 1984.167
END_GROUP = CROSS_CAL_TO_L5
GROUP = ORIGINAL_SCALING_PARAMETERS
  B1a_Lmin_Lmax_Before_Proc_Date = (0.0,0.0)
  B2a_Lmin_Lmax_Before_Proc_Date = (0.0,0.0)
  B3a_Lmin_Lmax_Before_Proc_Date = (0.0,0.0)
  B4a_Lmin_Lmax_Before_Proc_Date = (0.0,0.0)
  B1a_Lmin_Lmax_After_Proc_Date = (3.0,268.0)
  B2a_Lmin_Lmax_After_Proc_Date = (3.0,179.0)
  B3a_Lmin_Lmax_After_Proc_Date = (5.0,148.0)
  B4a_Lmin_Lmax_After_Proc_Date = (3.0,123.0)
  Proc_Date = "1972-07-22"
END_GROUP = ORIGINAL_SCALING_PARAMETERS
GROUP = FINAL_SCALING_PARAMETERS
  B1f_Lmin_Lmax_Before_Proc_Date = (0.0,0.0)
  B2f_Lmin_Lmax_Before_Proc_Date = (0.0,0.0)
  B3f_Lmin_Lmax_Before_Proc_Date = (0.0,0.0)
  B4f_Lmin_Lmax_Before_Proc_Date = (0.0,0.0)
  B1f_Lmin_Lmax_After_Proc_Date = (3.0,268.0)
  B2f_Lmin_Lmax_After_Proc_Date = (3.0,179.0)
  B3f_Lmin_Lmax_After_Proc_Date = (5.0,148.0)
  B4f_Lmin_Lmax_After_Proc_Date = (3.0,123.0)
END_GROUP = FINAL_SCALING_PARAMETERS
GROUP = L5_ESUN_GROUP
  L5B1_Solar_Irradiance = 1824.0
  L5B2_Solar_Irradiance = 1570.0
  L5B3_Solar_Irradiance = 1249.0
  L5B4_Solar_Irradiance = 853.4
END_GROUP = L5_ESUN_GROUP
GROUP = CAL_WEDGE_PARAMS
  GROUP = CAL_OFFSET_COEFFS_LOW
    B1L_Bias_C_Detector_6 = (-0.05044050,-
0.02074160,0.00846760,0.03403190,0.51373140,0.51495150)
    B1L_Bias_C_Detector_5 = (-0.04896130,-
0.01938700,0.00774470,0.03452540,0.51237920,0.51369880)
    B1L_Bias_C_Detector_4 = (-0.04889510,-
0.01909270,0.00701670,0.03240320,0.51355590,0.51501270)
    B1L_Bias_C_Detector_3 = (-0.04896040,-
0.01941010,0.00730540,0.03306160,0.51314280,0.51486010)
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    B1L_Bias_C_Detector_2 = (-0.04955080,-
0.02222870,0.00953270,0.03481040,0.51269500,0.51474140)
    B1L_Bias_C_Detector_1 = (-0.04973960,-
0.01888300,0.00796110,0.03248670,0.51322930,0.51494550)
    B2L_Bias_C_Detector_6 = (-0.05544900,-
0.01940160,0.01182860,0.04251390,0.50862710,0.51188080)
    B2L_Bias_C_Detector_5 = (-0.05443910,-
0.01916970,0.01063320,0.03967680,0.50986750,0.51343050)
    B2L_Bias_C_Detector_4 = (-0.05335200,-
0.01817020,0.01165940,0.03866120,0.50908450,0.51211670)
    B2L_Bias_C_Detector_3 = (-0.05441640,-
0.01823660,0.01291340,0.04082070,0.50803260,0.51088560)
    B2L_Bias_C_Detector_2 = (-0.05380060,-
0.01977140,0.01027140,0.04085980,0.50946330,0.51297680)
    B2L_Bias_C_Detector_1 = (-0.05412580,-
0.01990290,0.00992610,0.04152150,0.50942310,0.51315740)
    B3L_Bias_C_Detector_6 = (-0.05704220,-
0.02197540,0.00842300,0.03960200,0.51324970,0.51774330)
    B3L_Bias_C_Detector_5 = (-0.05796830,-
0.02231510,0.00827520,0.03914950,0.51417110,0.51868670)
    B3L_Bias_C_Detector_4 = (-0.05926110,-
0.02706710,0.00411550,0.03753270,0.52006830,0.52461070)
    B3L_Bias_C_Detector_3 = (-0.06022840,-
0.02476510,0.00752620,0.03826340,0.51731030,0.52189270)
    B3L_Bias_C_Detector_2 = (-0.05873130,-
0.02233320,0.00803440,0.03840870,0.51492430,0.51969520)
    B3L_Bias_C_Detector_1 = (-0.05866450,-
0.02347670,0.00884060,0.03874310,0.51493910,0.51961750)
    B4L_Bias_C_Detector_6 = (-0.08950200,-0.04144460,-
0.00395170,0.03990730,0.54677160,0.54822120)
    B4L_Bias_C_Detector_5 = (-0.08913090,-0.04259440,-
0.00207010,0.03881090,0.54638960,0.54859710)
    B4L_Bias_C_Detector_4 = (-0.08683630,-0.03995820,-
0.00112650,0.03891670,0.54373020,0.54527510)
    B4L_Bias_C_Detector_3 = (-0.08828550,-0.04554920,-
0.00276330,0.04064930,0.54713930,0.54881220)
    B4L_Bias_C_Detector_2 = (-0.08513990,-0.04298810,-
0.00074280,0.03921280,0.54410990,0.54554780)
    B4L_Bias_C_Detector_1 = (-0.08418970,-0.04236670,-
0.00032460,0.03645530,0.54427150,0.54615470)
  END_GROUP = CAL_OFFSET_COEFFS_LOW
  GROUP = CAL_OFFSET_COEFFS_HIGH
    B1H_Bias_C_Detector_6 = (-0.05034660,-
0.02014560,0.00956990,0.03634670,0.50902370,0.51555020)
    B1H_Bias_C_Detector_5 = (-0.04696410,-
0.01757830,0.01402540,0.03933630,0.50183560,0.50934310)
    B1H_Bias_C_Detector_4 = (-0.04951040,-
0.02031000,0.00976100,0.03898490,0.50693160,0.51414200)
    B1H_Bias_C_Detector_3 = (-0.04863200,-
0.91837630,0.01167500,0.03824920,0.50499750,0.51208570)
    B1H_Bias_C_Detector_2 = (-0.04772620,-
0.01728000,0.01305800,0.03843440,0.50311910,0.51039380)
    B1H_Bias_C_Detector_1 = (-0.04818700,-
0.01804520,0.01234110,0.03968050,0.50312670,0.51108310)
    B2H_Bias_C_Detector_6 = (-0.04978410,-
0.01379920,0.02319780,0.05015760,0.49147150,0.49875520)
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    B2H_Bias_C_Detector_5 = (-0.04786690,-
0.00549920,0.02722291,0.04969290,0.48500600,0.49144170)
    B2H_Bias_C_Detector_4 = (-0.04764340,-
0.00608500,0.03098510,0.05721700,0.48036720,0.48515870)
    B2H_Bias_C_Detector_3 = (-0.04595430,-
0.01156960,0.02572820,0.05119340,0.48716230,0.49343900)
    B2H_Bias_C_Detector_2 = (-0.04826260,-
0.01290520,0.02150040,0.04753510,0.49267700,0.49945340)
    B2H_Bias_C_Detector_1 = (-0.04813180,-
0.00968410,0.02116110,0.04747740,0.49101130,0.49816510)
  END_GROUP = CAL_OFFSET_COEFFS_HIGH
  GROUP = CAL_GAIN_COEFFS_LOW
    B1L_Gain_D_Detector_6 = (0.4066399,0.3510138,0.2963050,0.2484233,-
0.6500483,-0.6523336)
    B1L_Gain_D_Detector_5 = (0.4174407,0.3601867,0.3076617,0.2558161,-
0.6692752,-0.6718299)
    B1L_Gain_D_Detector_4 = (0.4083158,0.3518636,0.3024074,0.2543204,-
0.6570740,-0.6598334)
    B1L_Gain_D_Detector_3 = (0.4205451,0.3629122,0.3108079,0.2605745,-
0.6757452,-0.6790944)
    B1L_Gain_D_Detector_2 = (0.4177801,0.3649877,0.3036175,0.2547755,-
0.6686032,-0.6725572)
    B1L_Gain_D_Detector_1 = (0.4202252,0.3603066,0.3081800,0.2605552,-
0.6729670,-0.6762997)
    B2L_Gain_D_Detector_6 = (0.3761566,0.3151097,0.2622208,0.2102647,-
0.5791156,-0.5846258)
    B2L_Gain_D_Detector_5 = (0.3768380,0.3167271,0.2659329,0.2164330,-
0.5849292,-0.5910016)
    B2L_Gain_D_Detector_4 = (0.3771513,0.3168435,0.2657101,0.2194242,-
0.5869656,-0.5921633)
    B2L_Gain_D_Detector_3 = (0.3847621,0.3217964,0.2675844,0.2190160,-
0.5940966,-0.5990620)
    B2L_Gain_D_Detector_2 = (0.3696881,0.3126266,0.2622496,-0.2109577,-
0.5748152,-0.5807067)
    B2L_Gain_D_Detector_1 = (0.3807511,0.3217345,0.2702951,0.2158096,-
0.5910753,-0.5975148)
    B3L_Gain_D_Detector_6 = (0.4055327,0.3419647,0.2868595,0.2303389,-
0.8282750,-0.6364208)
    B3L_Gain_D_Detector_5 = (0.4074523,0.3427829,0.2872969,0.2312958,-
0.6303183,-0.6385089)
    B3L_Gain_D_Detector_4 = (0.4143347,0.3552930,0.2981066,0.2368220,-
0.6481126,-0.6564431)
    B3L_Gain_D_Detector_3 = (0.4272965,0.3605108,0.2996986,0.2418133,-
0.6603447,-0.6689745)
    B3L_Gain_D_Detector_2 = (0.4306794,0.3611317,0.3031066,0.2450689,-
0.6654352,-0.6745509)
    B3L_Gain_D_Detector_1 = (0.4225129,0.3565332,0.2959356,0.2398664,-
0.6530377,-0.6618102)
    B4L_Gain_D_Detector_6 = (0.4161379,0.3380703,0.2771646,0.2059172,-
0.6174682,-0.6198230)
    B4L_Gain_D_Detector_5 = (0.4322807,0.3536371,0.2851537,0.2160676,-
0.6417043,-0.6454350)
    B4L_Gain_D_Detector_4 = (0.4192705,0.3417387,0.2775145,0.2112885,-
0.6236283,-0.6261835)
    B4L_Gain_D_Detector_3 = (0.4478498,0.3727786,0.2976214,0.2213627,-
0.6683377,-0.6712764)
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    B4L_Gain_D_Detector_2 = (0.4754781,0.3958642,0.3161137,0.2406665,-
0.7127149,-0.7154302)
    B4L_Gain_D_Detector_1 = (0.4599492,0.3832669,0.3061812,0.2387447,-
0.6923453,-0.6957984)
  END_GROUP = CAL_GAIN_COEFFS_LOW
  GROUP = CAL_GAIN_COEFFS_HIGH
    B1H_Gain_D_Detector_6 = (0.4393915,0.3782430,0.3180776,0.2638616,-
0.6931777,-0.7063921)
    B1H_Gain_D_Detector_5 = (0.4459089,0.3845716,0.3186063,0.2657746,-
0.6995937,-0.7152642)
    B1H_Gain_D_Detector_4 = (0.4415793,0.3819324,0.3205073,0.2608126,-
0.6950506,-0.7097797)
    B1H_Gain_D_Detector_3 = (0.4504787,0.3871738,0.3242962,0.2686936,-
0.7079045,-0.7227359)
    B1H_Gain_D_Detector_2 = (0.4419056,0.3791494,0.3166170,0.2643114,-
0.6934940,-0.7084886)
    B1H_Gain_D_Detector_1 = (0.4475009,0.3847212,0.3214320,0.2644894,-
0.7007846,-0.7173566)
    B2H_Gain_D_Detector_6 = (0.4471573,0.3728172,0.2963855,0.2406913,-
0.6710020,-0.6860487)
    B2H_Gain_D_Detector_5 = (0.4527151,0.3633089,0.2942579,0.2468412,-
0.6717733,-0.6853501)
    B2H_Gain_D_Detector_4 = (0.4620484,0.3724492,0.2925267,0.2359710,-
0.6763325,-0.6866624)
    B2H_Gain_D_Detector_3 = (0.4537220,0.3803466,0.3007549,0.2464138,-
0.6839200,-0.6973141)
    B2H_Gain_D_Detector_2 = (0.4394034,0.3671185,0.2967794,0.2435538,-
0.6664988,-0.6803529)
    B2H_Gain_D_Detector_1 = (0.4532148,0.3720921,0.3070097,0.2514838,-
0.6843521,-0.6994466)
  END_GROUP = CAL_GAIN_COEFFS_HIGH
  GROUP = CAL_MULTIPLICATIVE_MODIFIERS_LOW
    M_B1L_Detector_6 = 0.9310
    M_B1L_Detector_5 = 0.9210
    M_B1L_Detector_4 = 0.9160
    M_B1L_Detector_3 = 0.9130
    M_B1L_Detector_2 = 0.9190
    M_B1L_Detector_1 = 0.9160
    M_B2L_Detector_6 = 0.9900
    M_B2L_Detector_5 = 0.9940
    M_B2L_Detector_4 = 1.0050
    M_B2L_Detector_3 = 0.9860
    M_B2L_Detector_2 = 1.0200
    M_B2L_Detector_1 = 1.0030
    M_B3L_Detector_6 = 0.8670
    M_B3L_Detector_5 = 0.8700
    M_B3L_Detector_4 = 0.8630
    M_B3L_Detector_3 = 0.8600
    M_B3L_Detector_2 = 0.8550
    M_B3L_Detector_1 = 0.8630
    M_B4L_Detector_6 = 0.9910
    M_B4L_Detector_5 = 1.0120
    M_B4L_Detector_4 = 0.9950
    M_B4L_Detector_3 = 1.0050
    M_B4L_Detector_2 = 0.9870
    M_B4L_Detector_1 = 1.0090
  END_GROUP = CAL_MULTIPLICATIVE_MODIFIERS_LOW
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GROUP = CAL_MULTIPLICATIVE_MODIFIERS_HIGH
  M_B1H_Detector_6 = 0.9989
  M_B1H_Detector_5 = 1.0080
  M_B1H_Detector_4 = 0.9908
  M_B1H_Detector_3 = 0.9915
  M_B1H_Detector_2 = 1.0140
  M_B1H_Detector_1 = 0.9961
  M_B2H_Detector_6 = 0.9938
  M_B2H_Detector_5 = 1.0000
  M_B2H_Detector_4 = 1.0050
  M_B2H_Detector_3 = 0.9943
  M_B2H_Detector_2 = 1.0090
  M_B2H_Detector_1 = 0.9989
  M_B3H_Detector_6 = 0.8670
  M_B3H_Detector_5 = 0.8700
  M_B3H_Detector_4 = 0.8630
  M_B3H_Detector_3 = 0.8600
  M_B3H_Detector_2 = 0.8550
  M_B3H_Detector_1 = 0.8630
  M_B4H_Detector_6 = 0.9910
  M_B4H_Detector_5 = 1.0120
  M_B4H_Detector_4 = 0.9950
  M_B4H_Detector_3 = 1.0050
  M_B4H_Detector_2 = 0.9870
  M_B4H_Detector_1 = 1.0090
END_GROUP = CAL_MULTIPLICATIVE_MODIFIERS_HIGH
GROUP = CAL_ADDITIVE_MODIFIERS_LOW
  A_B1L_Detector_6 = 0.1210
  A_B1L_Detector_5 = 0.0930
  A_B1L_Detector_4 = 0.0200
  A_B1L_Detector_3 = 0.1560
  A_B1L_Detector_2 = 0.1060
  A_B1L_Detector_1 = 0.0370
  A_B2L_Detector_6 = 0.0660
  A_B2L_Detector_5 = 0.1260
  A_B2L_Detector_4 = 0.3110
  A_B2L_Detector_3 = 0.0750
  A_B2L_Detector_2 = 0.2690
  A_B2L_Detector_1 = 0.0260
  A_B3L_Detector_6 = 0.8480
  A_B3L_Detector_5 = 0.4840
  A_B3L_Detector_4 = 0.0790
  A_B3L_Detector_3 = 0.6200
  A_B3L_Detector_2 = 0.0070
  A_B3L_Detector_1 = 0.1440
  A_B4L_Detector_6 = 0.1360
  A_B4L_Detector_5 = 0.1580
  A_B4L_Detector_4 = 0.2620
  A_B4L_Detector_3 = 0.0430
  A_B4L_Detector_2 = 0.8000
  A_B4L_Detector_1 = 0.1760
END_GROUP = CAL_ADDITIVE_MODIFIERS_LOW
GROUP = CAL_ADDITIVE_MODIFIERS_HIGH
  A_B1H_Detector_6 = 0.4803
  A_B1H_Detector_5 = 0.6869
  A_B1H_Detector_4 = 0.2802
  A_B1H_Detector_3 = 0.1141
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    A_B1H_Detector_2 = 0.0369
    A_B1H_Detector_1 = 0.4105
    A_B2H_Detector_6 = 0.4768
    A_B2H_Detector_5 = 0.8926
    A_B2H_Detector_4 = 1.2940
    A_B2H_Detector_3 = 0.0670
    A_B2H_Detector_2 = 1.0350
    A_B2H_Detector_1 = 0.5394
    A_B3H_Detector_6 = 0.8480
    A_B3H_Detector_5 = 0.4840
    A_B3H_Detector_4 = 0.0790
    A_B3H_Detector_3 = 0.6200
    A_B3H_Detector_2 = 0.0070
    A_B3H_Detector_1 = 0.1440
    A_B4H_Detector_6 = 0.1360
    A_B4H_Detector_5 = 0.1580
    A_B4H_Detector_4 = 0.2620
    A_B4H_Detector_3 = 0.0430
    A_B4H_Detector_2 = 0.8000
    A_B4H_Detector_1 = 0.1760
  END_GROUP = CAL_ADDITIVE_MODIFIERS_HIGH
  GROUP = CAL_DECOMPRESSION_TABLES
    B1_Decompression_Table =
(0,1,1,2,3,4,5,6,7,8,9,10,11,12,13,14,16,17,18,19,21,22,24,25,27,29,31,32,34,
36,38,40,42,44,46,48,50,52,54,56,59,61,64,67,70,72,75,78,81,84,87,90,93,96,99
,102,105,108,111,114,117,120,123,127)
    B2_Decompression_Table =
(0,1,2,2,3,4,5,6,7,8,9,10,11,12,13,15,16,17,18,19,21,22,24,25,27,29,31,32,34,
36,38,40,42,44,46,48,49,51,53,56,59,61,64,67,70,73,76,78,81,84,87,90,93,96,99
,102,105,108,111,114,117,120,123,127)
    B3_Decompression_Table =
(0,1,1,2,3,4,5,6,7,8,9,10,11,12,13,14,16,17,18,19,21,22,24,25,27,29,31,32,34,
36,38,40,42,44,46,48,50,52,54,56,59,61,64,67,70,72,75,78,81,84,87,90,93,96,99
,102,105,108,111,114,117,120,123,127)
  END_GROUP = CAL_DECOMPRESSION_TABLES
  scale_factor = 127
END_GROUP = CAL_WEDGE_PARAMS
END
```

References

Please see http://landsat.usgs.gov/tools_acronyms_ALL.php for a list of acronyms.

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