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# **Landsat 7 Calibration Parameter File Release Version Description Document**

**01 January 2002**



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Earth Resource Observation Systems  
Data Center  
Sioux Falls, South Dakota

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# Landsat 7 Calibration Parameter File Release Version Description Document

2 January 2002

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## **1 Preface**

This Calibration Parameter File (CPF) Change Description Document is controlled by the Landsat 7 Data Handling Facility (DHF) Change Control Board (L7 DCCB) and accompanies the release of CPFs for the 1st Quarter of 2002.

Comments and questions regarding this document should be directed to:

Landsat 7 Image Assessment System  
Satellite Systems Branch  
USGS EROS Data Center  
Sioux Falls, SD 57198

## 2 Overview

This document details the Calibration Parameter Files (CPFs) released for the quarter beginning 01 January 2002 and the changes made to them.

## 3 Reason for CPF Issuance and Changes

This release is a routine quarterly release for the 1Q2002 CPF. Changes to the Detector Gains differ for Pre January 1, 2001 and Post January 1, 2001. The SOLAR\_SPECTRAL\_IRRADIANCES of 14 previous CPFs as well as the new CPF were updated as well. Standard changes to the CPF attributes and the UT1 Parameters were made.

## 4 List of CPFs in Effect

The following table shows the CPFs in effect at the end of the 4th Quarter 2001 and those valid for the 1st Quarter of 2002.

Period Covered	2Q2001 CPF Name	3Q2001
1 January – 31 March 2002	N/A	L7CPF20020101_20020331.01 (NEW)
1 October – 31 December 2001	L7CPF20011001_20011231.01	L7CPF20011001_20011231.02 (NEW)
01 July 2001 - 30 September 2001	L7CPF20010701_20010930.02	L7CPF20010701_20010930.03 (NEW)
01 April 2001 - 30 June 2001	L7CPF20010401_20010630.03	L7CPF20010401_20010630.04 (NEW)
01 January 2001 – 31 March 2001	L7CPF20010101_20010331.04	L7CPF20010101_20010331.05 (NEW)
01 October – 31 December 2000	L7CPF20001001_20001231.05	L7CPF20001001_20001231.06 (NEW)
19 July - 30 September 2000	L7CPF20000719_20000930.07	L7CPF20000719_20000930.08 (NEW)
01 July - 18 July 2000	L7CPF20000701_20000718.06	L7CPF20000701_20000718.07 (NEW)
01 April - 30 June 2000	L7CPF20000401_20000630.06	L7CPF20000401_20000630.07 (NEW)
01 January - 31 March 2000	L7CPF20000101_20000331.08	L7CPF20000101_20000331.09 (NEW)
09 December - 31 December 1999	L7CPF19991209_19991231.09	L7CPF19991209_19991231.10 (NEW)
24 November - 08 December 1999	L7CPF19991124_19991208.09	L7CPF19991124_19991208.10 (NEW)
01 October – 23 November 1999	L7CPF19991001_19991123.09	L7CPF19991001_19991123.10 (NEW)
01 July - 30 September 1999	L7CPF19990701_19990930.12	L7CPF19990701_19990930.13 (NEW)
01 April - 30 June 1999	L7CPF19990401_19990630.15	L7CPF19990401_19990630.16 (NEW)

## **5 List of Changed Units**

### **5.1 New Additions to CPF File Structures:**

There were no changes to the CPF file structure with any of the CPFs released this quarter.

### **5.2 Modifications to Existing CPF Values**

The following changes were made to those CPFs newly generated or modified this quarter.

#### **5.2.1 File: L7CPF20020101\_20020331.01**

This is an initial version of this CPF to cover the new quarter. The contents are based on the CPF file from 2Q2001 (File: L7CPF20001401\_20010630.01) with the following changes:

##### **5.2.1.1 GROUP=DETECTOR\_GAINS**

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

##### **5.2.1.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES**

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

##### **5.2.1.3 GROUP=UT1\_TIME\_PARAMETERS**

UT1 parameters have been based on estimated values as computed at the Naval Observatory

##### **5.2.1.4 GROUP=FILE\_ATTRIBUTES**

Routine changes to show new filename and effectivity dates.

#### **5.2.2 File: L7CPF20011001\_20011231.02**

Changes made to the .01 version of this CPF include the following groups:

##### **5.2.2.1 GROUP=DETECTOR\_GAINS**

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

##### **5.2.2.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES**

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

##### **5.2.2.3 GROUP=UT1\_TIME\_PARAMETERS**

UT1 parameters have been based on estimated values as computed at the Naval Observatory

##### **5.2.2.4 GROUP=FILE\_ATTRIBUTES**

Routine changes to show new filename and effectivity dates.

#### **5.2.3 File: L7CPF20010701\_20010930.03**

This is an initial version of this CPF to cover the new quarter. The contents are based on the CPF file from 2Q2001 (File: L7CPF20001401\_20010630.01) with the following changes:

5.2.3.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

5.2.3.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

5.2.3.3 GROUP=UT1\_TIME\_PARAMETERS

UT1 parameters have been based on estimated values as computed at the Naval Observatory

5.2.3.4 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

5.2.4 File L7CPF20010401\_20010630.04

Changes made to the .01 version of this CPF include the following groups:

5.2.4.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

5.2.4.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

5.2.4.3 GROUP=UT1\_TIME\_PARAMETERS

UT1 parameters have been based on estimated values as computed at the Naval Observatory

5.2.4.4 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

5.2.5 File L7CPF20010101\_20010331.05

Changes made to the .02 version of this CPF include the following groups:

5.2.5.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

5.2.5.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

5.2.5.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

5.2.6 File L7CPF20001001\_20001231.06

Changes made to the .03 version of this CPF include the following groups:

5.2.6.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

5.2.6.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

5.2.6.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

5.2.7 File L7CPF20000719\_20000930.07

Changes made to the .05 version of this CPF include the following groups:

5.2.7.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

5.2.7.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

5.2.7.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

5.2.8 File L7CPF20000701\_20000718.07

Changes made to the .04 version of this CPF include the following groups:

5.2.8.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

5.2.8.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

5.2.8.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

5.2.9 File L7CPF20000401\_20000630.07

Changes made to the .04 version of this CPF include the following groups:

5.2.9.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

5.2.9.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

### 5.2.9.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

### 5.2.10 File L7CPF20000101\_20000331.09

Changes made to the .06 version of this CPF include the following groups:

#### 5.2.10.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

#### 5.2.10.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

#### 5.2.10.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

### 5.2.11 File L7CPF19991209\_19991231.10

Changes made to the .07 version of this CPF include the following groups:

#### 5.2.11.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

#### 5.2.11.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

#### 5.2.11.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

### 5.2.12 File L7CPF19991124\_19991208.10

Changes made to the .07 version of this CPF include the following groups:

#### 5.2.12.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

#### 5.2.12.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

#### 5.2.12.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

### 5.2.13 File L7CPF19991001\_19991123.10

Changes made to the .07 version of this CPF include the following groups:

#### 5.2.13.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

#### 5.2.13.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

#### 5.2.13.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

#### 5.2.14 File L7CPF19990701\_19990930.12

Changes made to the .10 version of this CPF include the following groups:

##### 5.2.14.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

##### 5.2.14.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

##### 5.2.14.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

#### 5.2.15 File L7CPF19990401\_19990630.16

Changes made to the .13 version of this CPF include the following groups:

##### 5.2.15.1 GROUP=DETECTOR\_GAINS

Detector Gains have been refined based upon analysis from the Landsat 7 Science Office. DETECTOR\_GAINS is the affected parameter.

##### 5.2.15.2 GROUP= SOLAR\_SPECTRAL\_IRRADIANCES

Solar spectral irradiances have been refined based upon analysis from the Landsat 7 Science Office. SOLAR\_SPECTRAL\_IRRADIANCES is the affected parameter.

##### 5.2.15.3 GROUP=FILE\_ATTRIBUTES

Routine changes to show new filename and effectivity dates.

## 6 Operational Changes to be expected with New CPFs

There are no major changes to operations or performance expected due to these CPFs.

Slightly improved radiometric accuracy may be noticed with the update of the detector gains group.

The solar spectral irradiances will affect calibration activities only, by improving PAC glint processing.