

Supported Sensor Models

ERDAS IMAGINE & LPS 2010

Sensor	Model Type	Supported Metadata Formats
ADS40/80 family	Mixed Sensor	.sup, .ads, .cam, .adjcam, .odf, .adjodf
ALOS PRISM	Orbital Pushbroom	*VOL*, *LED*, *TRL* & *SUP*
ALOS PRISM with RPC	Rational Functions (RPC)	*RPC*
ASTER	Orbital Pushbroom	Image header
CARTOSAT-1	Rational Functions (RPC)	*RPC.TXT
Digital Camera (RCD, Applanix, DMC, UltraCam, Tactical/UAV, etc.)	Frame Camera (Metric)	ASCII
DPPDB	Rational Functions (RPC)	*.NTF
EROS A	Orbital Pushbroom	*.PASS and/or *.TQR
EROS B	Orbital Pushbroom	*.PASS and/or *.TQR
FORMOSAT2	Orbital Pushbroom	METADATA.DIM
Frame Camera (scanned aerial frame with fiducials)	Frame Camera (Metric)	ASCII
GeoEye-I	Rational Functions (RPC)	*.PVL or *RPC.TXT or *.NTF
GeoEye-I ¹	Orbital Pushbroom	For NCDRD: *.NTF For others: *.PVL, *.EPH & *.ATT
IKONOS	Rational Functions (RPC)	*.NTF, *RPC.TXT
IND High Res with RPC	Rational Functions (RPC)	*RPC_ORG.TXT
IRS-1C ²	Polynomial-based Pushbroom	Image header
IRS-1D (PAN and LISS sensors)	Polynomial-based Pushbroom	Image header
KOMPSAT	Rational Functions (RPC)	*.RPC
Landsat MSS	Polynomial-based Pushbroom	Image header
Landsat TM	Polynomial-based Pushbroom	Image header

¹ Due to format changes before release, the GeoEye-I Orbital Pushbroom support requires LPS/ERDAS IMAGINE 9.3.2 AND LPS/ERDAS IMAGINE 9.3.2 fix C09081 for correct functionality. The implementation announced previously was based on simulated data and will not work correctly with released data.

When using the NITF NCDRD format for Orbital Pushbroom and the .PVL, .EPH, and .ATT files are present in the same directory as the NITF file, the sensor model metadata will be read from these files in both LPS and ERDAS IMAGINE.

When using the NITF NCDRD format in the IMAGINE Geometric Correction Tool, if only the .NTF file is present, an error will be shown saying that metadata display is not supported. This error can be ignored; the model has been correctly initialized internally. To view the metadata, use ImageInfo or the NITF MetadataViewer.

² IRS-1C Linear Imaging Self Scanning System (LISS) data, which has rectangular pixels, cannot be used with the IRS-1C Pushbroom sensor model provided by LPS Project Manager.

Landsat7 ETM+	Polynomial-based Pushbroom	Image header
Non-Metric Camera (generic snapshot sensor array – handheld, Tactical, FMV frame)	Frame Camera (Non-Metric)	ASCII
NTM ³	Rational Functions (RPC) and Rigorous	*.NTF, TFRD (included and separate metadata), AMSD
OrbView-2	Projective Transform	HDF
OrbView-3	Rational Functions (RPC)	*.NTF, *.PVL or *RPC.TXT
QuickBird	Rational Functions (RPC)	*.NTF or *.RPB
QuickBird	Orbital Pushbroom	For NCDRD: *.NTF For others: *.IMD, *.GEO, *.EPH & *.ATT
RapidEye	Rational Functions (RPC)	*.NTF
RESOURCESAT	Rational Functions (RPC)	*RPC.TXT
SPOT 1 - 4	Polynomial-based Pushbroom	Image Header
SPOT 5	Orbital Pushbroom	METADATA.DIM SPOT 5 (SPOT 5 DIM format data older than 2002 is not supported.)
THEOS 1	Orbital Pushbroom	METADATA.DIM
Video Camera (Frame grabs)	Frame Camera (Non-metric)	ASCII
WorldView-1, WorldView-2 ⁴	Orbital Pushbroom	For NCDRD: *.NTF For others: *.IMD, *.GEO, *.EPH & *.ATT
WorldView-1, WorldView-2	Rational Functions (RPC)	*.NTF or *.RPB
Multiple	Mixed Sensor: Allows combination of calibrated/oriented images with different sensor models into a single photogrammetric block. All operations except triangulation are supported.	Multiple

³ NTM support for LPS and ERDAS IMAGINE requires the Defense Productivity Module (DPM). RPC and orthographic models are supplied internally with the DPM. Rigorous sensor models (except MC&G, which is also internal) are supplied by CSM plug-ins.

⁴ When using the NITF NCDRD format for Orbital Pushbroom and the .IMD, .GEO, .EPH, and .ATT files are present in the same directory as the NITF file, the sensor model metadata will be read from those files in both LPS and ERDAS IMAGINE.

When using the NITF NCDRD format in IMAGINE Geometric Correction Tool, if only the .NTF file is present, an error will be shown saying that metadata display is not supported. This error can be ignored; the model has been correctly initialized internally. To view the metadata, use ImageInfo or the NITF MetadataViewer.

For using WorldView-2, a format change requires a minor metadata modification to some multi-spectral images. In the "bandId" field of the .IMD file, the entry must be changed to read "Multi." Without this change, the software will crash when trying to initiate the model. This will be corrected in ERDAS IMAGINE/LPS 10.1 Note this change is not necessary if ONLY the NITF file is present.

Synthetic Aperture Radar (SAR) Data

Synthetic Aperture Radar (SAR) data from these satellite sensors can be processed using tools for change detection, orthorectification, interferometry, filtering, and calibration available in IMAGINE Radar Mapping Suite.

For most of these sensors, a direct read capability (raster DLL) allows visualization and analysis of imagery without importing.

For sensors without a dedicated importer or direct read DLL, the SAR Node tool can be used to create and attach the metadata files needed to support Radar Mapping Suite processing and information extraction.

For all sensors, the extracted metadata is used to populate the SAR Node and create a radar-specific imaging model.

Sensor	Data Ingest	Supported Metadata Formats
Alaska SAR Facility	Raster DLL for multiple formats	*.L
ALOS PALSAR ERSDAC CEOS	Raster DLL	PASL *.lea
ALOS PaISAR ERSDAC Vexcel	Raster DLL	PASL *.SLC
ALOS PaISAR JAXA CEOS	Raster DLL	LED*
COSMO-SkyMed	Raster DLL, based on HDF5	CSKS*.h5
Envisat ASAR	Raster DLL	*.N1*
ERS-1, -2	Importers for CEOS-PAF: CRISP, Conae, D-, H-, I-, TROMSO, TelAviv.	LEA_01.001
Radarsat-1	Importers for CEOS: ACRES, JAXA, Vancouver, W. Freugh	lea_01.001
Radarsat-2	Raster DLL	product.xml
TerraSAR-X	Raster DLL	tsx1*.xml