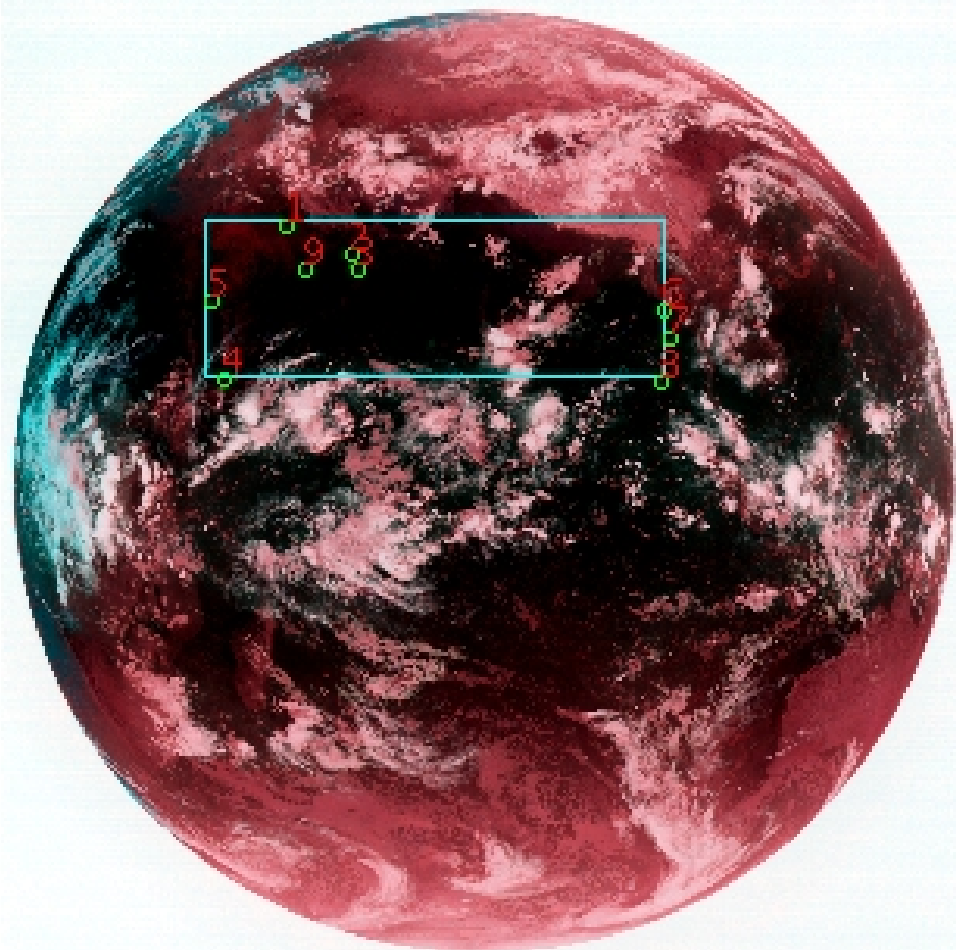


DQE Report: Location Accuracy of INSAT-3DR-IMG STANDARD (FULL DISK) Product 3RIMG_14MAY2018_1545

Satellite INSAT-3DR **No Of Bands** 6 **Product Type** STANDARD
Sensor IMG **LvlOfProcess** L1B **Selected Band** 2-TIR1
DOP/Time 14-05-18/15:45 **Station ID** BES **Field View(deg)** 18.006
Res(Y,X) [Km] (4.0,4.0) **Res(Y,X) [uRad]** (112.0,112.0)

(81.011N,-7.321W)

(81.011N,154.987E)



(-81.067S,-7.321W)

(-81.067S,154.987E)

GCP Distribution overview for 3RIMG14MAY20181545L1BDQE

Image Width: 2805 **Image Height:** 2816 **No Of GCPs:** 9

GCP Coverage(%) 16.03 **(N-S)** 47.13 **(E-W)**

Location Error(E)

Legend — 0Km < E <= 50Km — 50Km < E <= 100Km — E >100Km

Location Error (In IR Pixels)

	Mean	Direction	Stddev	RMS
Along	8.192	N	2.727	8.634
Across	-35.530	W	2.550	35.622

Scale (Km)

	Pixel Size	Stddev	%variation
Average	4.468	0.366	11.705
Along	4.685	0.346	17.135
Across	4.573	0.360	14.336

Internal Distortion (in IR Pixels)

	PeakToPeak	Mean	Stddev	RMS
Along	6.400	-0.273	1.95	1.968
Across	5.096	1.456	1.73	2.261

Attitude Residuals (Deg)

Pitch	Roll	Yaw
-0.22149	-0.05020	-0.06973

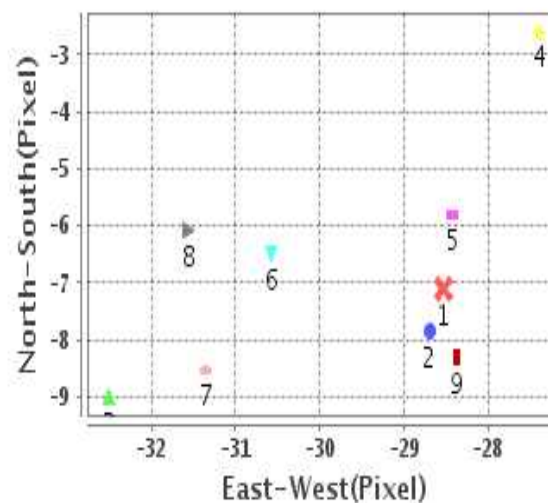
Reference Used

Sensor	Resolution	Projection
ETM	500.00	GGP

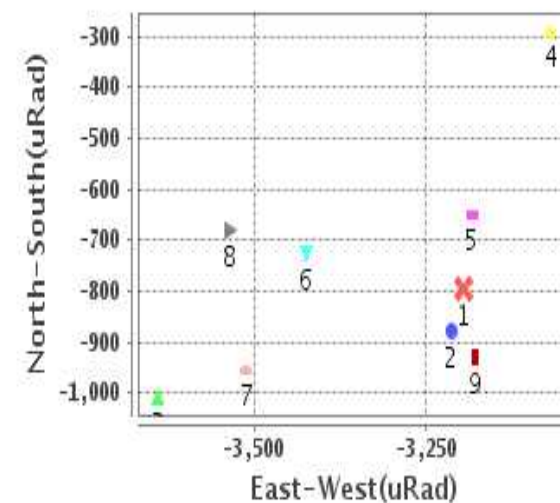
Radial Error (in IR Pixels)

Mean	36.546
Min	33.504
Max	40.888
CE90	40.863

Location Error For GCPs(Pixel)



Location Error For GCPs(uRad)



Detailed Product Information

Ancillary Info

Satellite	INSAT-3DR	Generation Date	14-05-18
Sensor	IMG	DQE Date	16-05-2018
PassType	NONE	Aquisition Date	14-05-18
Imaging Mode	FULL_FRAME	Aquisition Time(GMT)	15:45
Sat Altitude(m)	3.6E7	Nominal Altitude(Km)	3.6E7
Station	BES	Predicted Altitude(Km)	-999.99
Sat Location(deg)	-999.99 E	Nominal Center Lat(deg)	0.0
Format	hdf5-1.8.8	Nominal Center Lon(deg)	74.0
LvlOfProcessing	STANDARD	Predicted Center Lat(deg)	-999.99
DP JobId	3RIMG_14MAY2	Predicted Center Lon(deg)	-999.99
ProductCode	NONE		
Field View(deg)	18.006		

Projection Parameters

Projection	None
Ellipsoid	WGS_84
Datum	WGS_84
Zone	NotAvail
Semi_Major_Axis(Km)	6378.14
Semi_Minor_Axis(Km)	6356.75
Standard_Parallel1(deg)	-999.99
Standard_Parallel2(deg)	-999.99
Projection_Origin_Lon(deg)	-999.99
Projection_Origin_Lat(deg)	-999.99
Projection_False_Easting(Km)	-999.99
Projection_False_Northing(Km)	-999.99

Scene Center Desc

Centre Lat(deg)	-0.028
Center Lon(deg)	73.833
Centre Roll(deg)	-999.0
Centre Pitch(deg)	-999.0
Center Yaw(deg)	-999.0
SunElevation(deg)	-999.99
SunAzimuth(deg)	-999.99
SatElevation(deg)	-999.99
SatAzimuth(deg)	-999.99

Scene Corner Desc

NW_Lat(deg)	81.011
NW_Lon(deg)	-7.321
SW_Lat(deg)	-81.067
SW_Lon(deg)	-7.321
NE_Lat(deg)	81.011
NE_Lon(deg)	154.987
SE_Lat(deg)	-81.067
SE_Lon(deg)	154.987

Band Wise Details

	Res_AL(Km)	Res_AX(Km)	Image Height	Image Width
MIR	4.0	4.0	2816	2805
SWIR	1.0	1.0	11264	11220
TIR1	4.0	4.0	2816	2805
TIR2	4.0	4.0	2816	2805
VIS	1.0	1.0	11264	11220
WV	8.0	8.0	1408	1402

GDQE Computation Base

Projection	MER	Wildpoint Rejection Threshold	2.60	SemiMajorAxis(m)	6378137.00	Mode Of Computation	grid
Ellipsoid	WGS_84		-sigma	SemiMinorAxis(m)	6356752.31	Used Reference Type	REFINSREF
Datum	WGS_84	Unit	meters	Standardparallel1(deg)	17.0		
Zone	Not Applicable			Standardparallel2(deg)	17.0		

* -999.99 : Not Applicable/Not Available

References

JobId : 3RIMG14MAY20181545L1BDQE

(-999.99 - Not Available/Not Computed)

Ref.No	Source	File Name	Resolution (m)	Projection
1	ETM	world_Band1.img	500.0	GGP

Location Accuracy

GCP Distribution Statistics

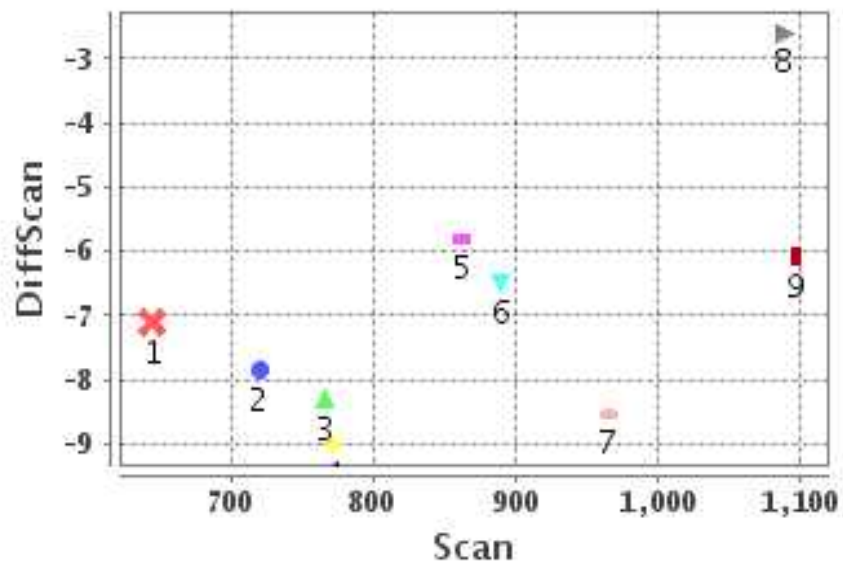
Image Width (pixels) : 2805 Image Height (pixels) : 2816 No of GCPs : 9

	Mean	StdDev	Min	Max	Coverage(in %)
GCP Scan	867.1	149.7	644.5	1096.00	16.03 (N-S)
GCP Pix	1183.5	526.6	597.5	1919.50	47.13 (E-W)

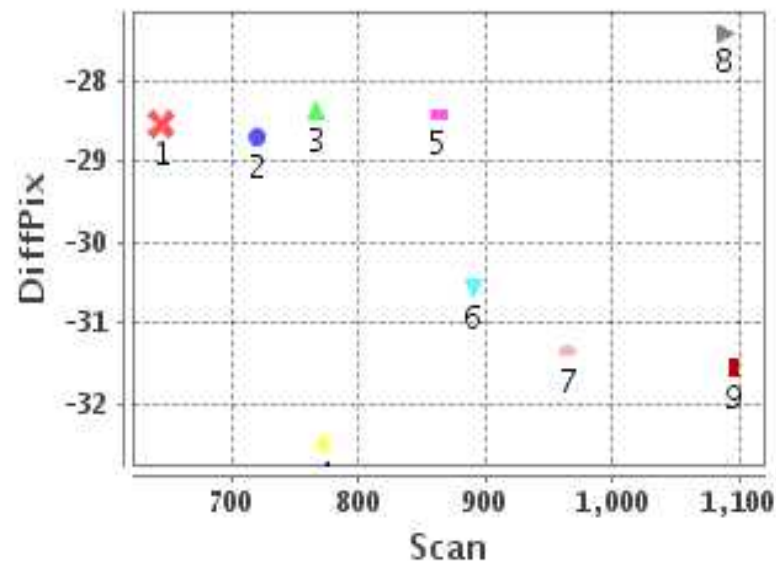
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
1	644.5	818.5	-7.1	-28.54	43.337	N	157.705	W	Accepted
2	720.2	1000.5	-7.8	-28.70	40.656	N	135.949	W	Accepted
3	772.0	1025.5	-9.0	-32.50	46.139	N	148.539	W	Accepted
4	1088.2	631.2	-2.6	-27.40	12.276	N	135.087	W	Accepted
5	862.2	597.5	-5.8	-28.42	30.691	N	160.543	W	Accepted
6	889.5	1899.0	-6.5	-30.57	23.434	N	134.629	W	Accepted
7	964.5	1919.5	-8.5	-31.35	32.032	N	134.064	W	Accepted
8	1096.0	1892.5	-6.1	-31.56	23.030	N	132.023	W	Accepted
9	766.2	867.5	-8.3	-28.37	43.334	N	140.547	W	Accepted

Error(Pixels) Vs. GCPScan



Error(Pixels) Vs. GCPScan



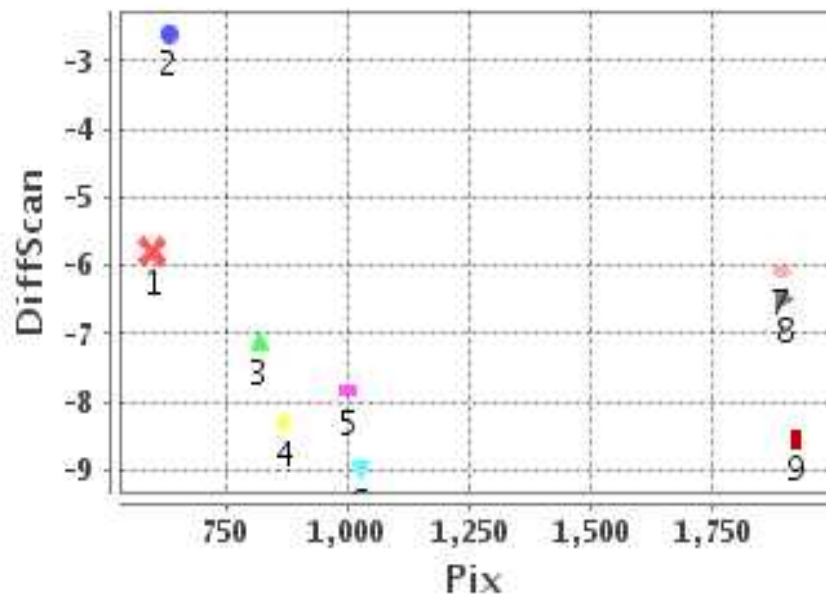
Number Of Points

North	9
South	0
East	0
West	9

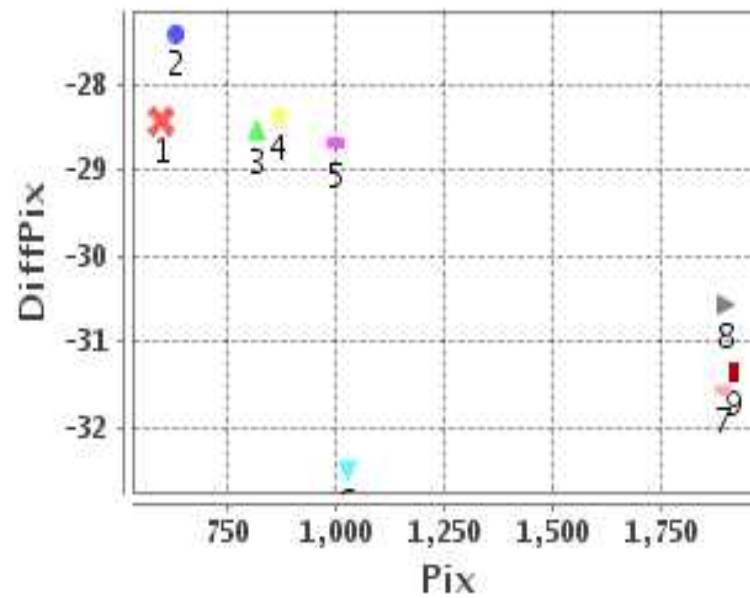
Radial Error (Km)

Mean	36.546
Min	33.504
Max	40.888
CE90	40.863

Error(Pixels) Vs. GCPPix



Error(Pixels) Vs. GCPPix



Location Accuracy

	Mean	StdDev	RMS	Dir	* MinRMS	* MaxRMS
Along(Km)	8.192	2.727	8.634	N	8.200	9.094
Across (Km)	-35.530	2.550	35.622	W	35.016	35.935

Block-Wise Geo location Error Statistics

Location Accuracy,Scale,ID

Scan Range-0-937; Pix Range-0-934 Number of GCPs 3 Location Error(Km) Along(Mean,Dir) 39.11669999 N Across(Mean,Dir) -152.93 W Scale(Km) Average Scale (Mean,%Variation) 4.95 23.64 Internal Distortion(Pixel) Along(Mean,Stddev) -0.05 1.25 Across(Mean,Stddev) 0.04 0.08	Scan Range-0-937; Pix Range-934-1869 Number of GCPs 2 Location Error(Km) Along(Mean,Dir) 43.4 N Across(Mean,Dir) -142.24 W Scale(Km) Average Scale (Mean,%Variation) 4.95 23.77 Internal Distortion(Pixel) Along(Mean,Stddev) 1.16 0.00 Across(Mean,Stddev) 3.80 0.00	Scan Range-0-937; Pix Range-1869-2805 Number of GCPs 1 Location Error(Km) Along(Mean,Dir) 23.44 N Across(Mean,Dir) -134.62 W Scale(Km) Average Scale (Mean,%Variation) -999.99 -999.9 Internal Distortion(Pixel) Along(Mean,Stddev) -999.99 -999.99 Across(Mean,Stddev) -999.99 -999.99
Scan Range-937-1876; Pix Range-0-934 Number of GCPs 1 Location Error(Km) Along(Mean,Dir) 12.27 N Across(Mean,Dir) -135.09 W Scale(Km) Average Scale (Mean,%Variation) -999.99 -999.9 Internal Distortion(Pixel) Along(Mean,Stddev) -999.99 -999.99 Across(Mean,Stddev) -999.99 -999.99	Scan Range-937-1876; Pix Range-934-1869 Number of GCPs -999 Location Error(Km) Along(Mean,Dir) -999.99 NotAvail Across(Mean,Dir) -999.99 NotAvail Scale(Km) Average Scale (Mean,%Variation) -999.99 -999.9 Internal Distortion(Pixel) Along(Mean,Stddev) -999.99 -999.99 Across(Mean,Stddev) -999.99 -999.99	Scan Range-937-1876; Pix Range-1869-2805 Number of GCPs 2 Location Error(Km) Along(Mean,Dir) 27.53 N Across(Mean,Dir) -133.04 W Scale(Km) Average Scale (Mean,%Variation) 4.35 8.84 Internal Distortion(Pixel) Along(Mean,Stddev) -2.43 0.00 Across(Mean,Stddev) -0.21 0.00
Scan Range-1876-2816; Pix Range-0-934 Number of GCPs -999 Location Error(Km) Along(Mean,Dir) -999.99 NotAvail Across(Mean,Dir) -999.99 NotAvail Scale(Km) Average Scale (Mean,%Variation) -999.99 -999.9 Internal Distortion(Pixel) Along(Mean,Stddev) -999.99 -999.99 Across(Mean,Stddev) -999.99 -999.99	Scan Range-1876-2816; Pix Range-937-1869 Number of GCPs -999 Location Error(Km) Along(Mean,Dir) -999.99 NotAvail Across(Mean,Dir) -999.99 NotAvail Scale(Km) Average Scale (Mean,%Variation) -999.99 -999.9 Internal Distortion(Pixel) Along(Mean,Stddev) -999.99 -999.99 Across(Mean,Stddev) -999.99 -999.99	Scan Range-1876-2816; Pix Range-1869-2805 Number of GCPs -999 Location Error(Km) Along(Mean,Dir) -999.99 NotAvail Across(Mean,Dir) -999.99 NotAvail Scale(Km) Average Scale (Mean,%Variation) -999.99 -999.9 Internal Distortion(Pixel) Along(Mean,Stddev) -999.99 -999.99 Across(Mean,Stddev) -999.99 -999.99

*-999 : no gcp available

* -999.99 : values are not computed