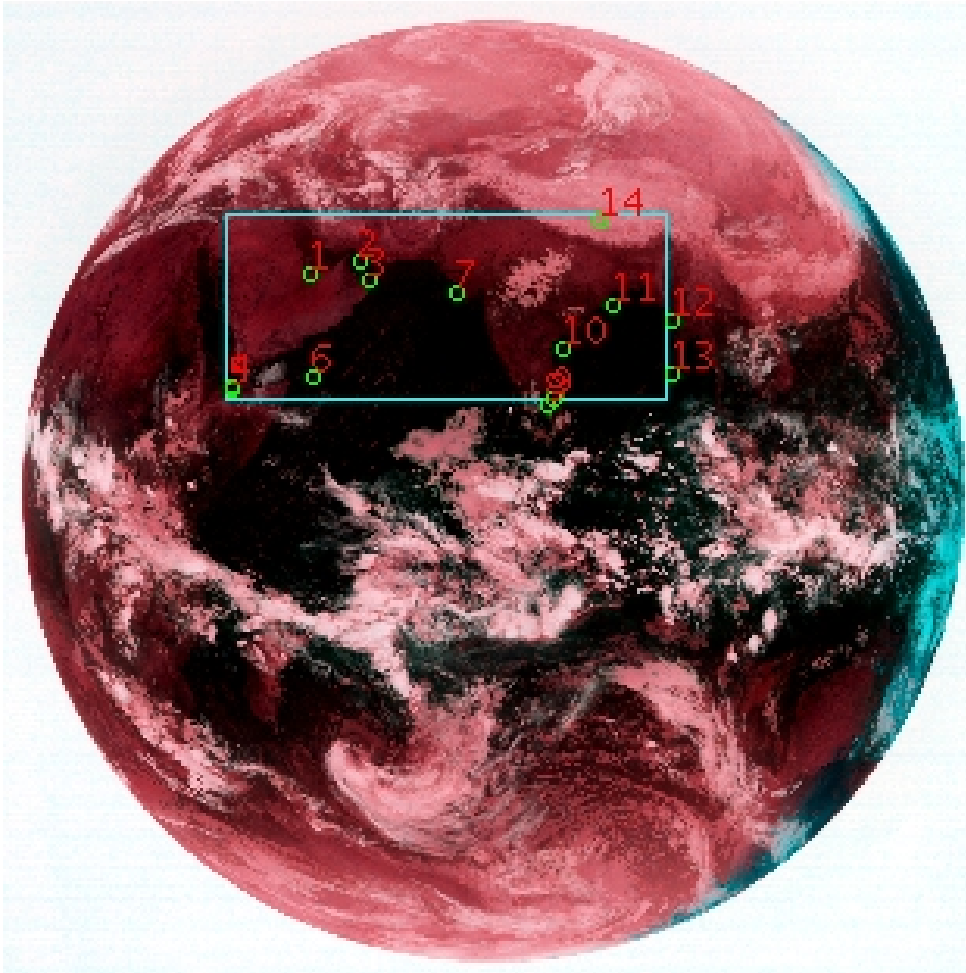


DQE Report: Location Accuracy of INSAT-3DR-IMG STANDARD(FULL DISK) Product 3RIMG_07MAR2018_2145

Satellite INSAT-3DR **No Of Bands** 6 **Product Type** STANDARD
Sensor IMG **LvlOfProcess** L1B **Selected Band** 2-TIR1
DOP/Time 07-03-18/21:45 **Station ID** BES **Field View(deg)** 17.99
Res(Y,X) [Km] (4.0,4.0) **Res(Y,X) [uRad]** (112.0,112.0)

(80.86N,-7.275W)

(80.86N,155.021E)



(-81.039S,-7.275W)

(-81.039S,155.021E)

GCP Distribution overview for 3RIMG07MAR20182145L1BDQE

Image Width: 2805 **Image Height:** 2816 **No Of GCPs:** 14

GCP Coverage(%) 19.05 **(N-S)** 45.18 **(E-W)**

Location Error(E)

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

Location Error (In IR Pixels)

	Mean	Direction	Stddev	RMS
Along	-5.416	S	1.227	5.554
Across	1.476	E	1.357	2.005

Scale (Km)

	Pixel Size	Stddev	%variation
Average	4.327	0.212	8.179
Along	5.013	3.249	25.320
Across	4.316	0.551	7.894

Internal Distortion (in IR Pixels)

	PeakToPeak	Mean	Stddev	RMS
Along	4.464	0.431	1.32	1.392
Across	5.984	0.090	1.33	1.329

Attitude Residuals (Deg)

Pitch	Roll	Yaw
0.00915	0.03474	-0.04000

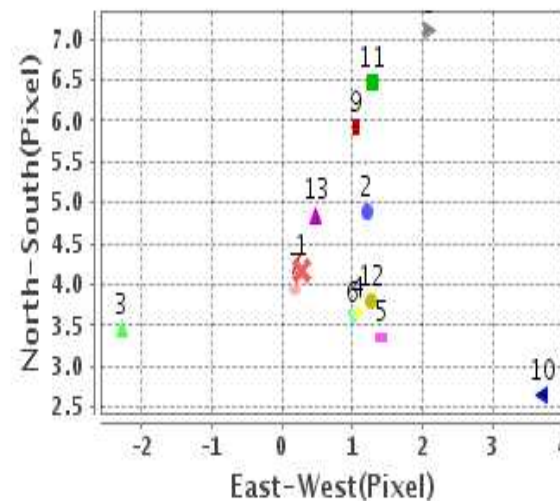
Reference Used

Sensor	Resolution	Projection
ETM	500.00	GGP

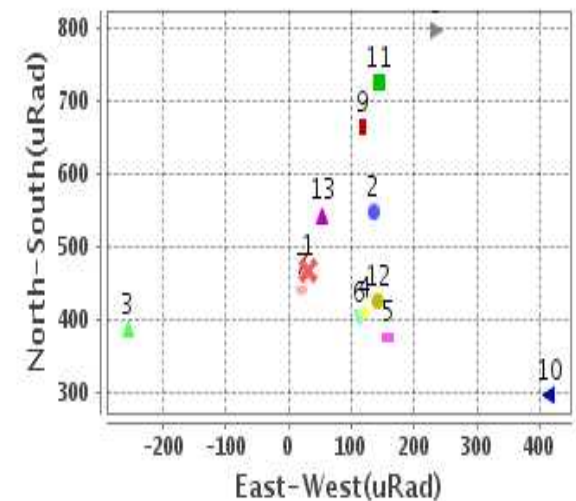
Radial Error (in IR Pixels)

Mean	5.800
Min	4.289
Max	7.508
CE90	7.079

Location Error For GCPs(Pixel)



Location Error For GCPs(uRad)



Detailed Product Information

Ancillary Info

Satellite	INSAT-3DR	Generation Date	08-03-18
Sensor	IMG	DQE Date	15-03-2018
PassType	NONE	Aquisition Date	07-03-18
Imaging Mode	FULL_FRAME	Aquisition Time(GMT)	21:45
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(FULL)	Predicted Center Lat(deg)	-999.99
DP JobId	3RIMG_07MAR2	Predicted Center Lon(deg)	-999.99
ProductCode	NONE		
Field View(deg)	17.99		

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)	-0.089
Center Lon(deg)	73.873
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)	80.86
NW_Lon(deg)	-7.275
SW_Lat(deg)	-81.039
SW_Lon(deg)	-7.275
NE_Lat(deg)	80.86
NE_Lon(deg)	155.021
SE_Lat(deg)	-81.039
SE_Lon(deg)	155.021

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 : 3RIMG07MAR20182145L1BDQE

(-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 : 14

	Mean	StdDev	Min	Max	Coverage(in %)
GCP Scan	943.1	165.5	624.0	1160.50	19.05 (N-S)
GCP Pix	1312.2	439.8	645.2	1912.50	45.18 (E-W)

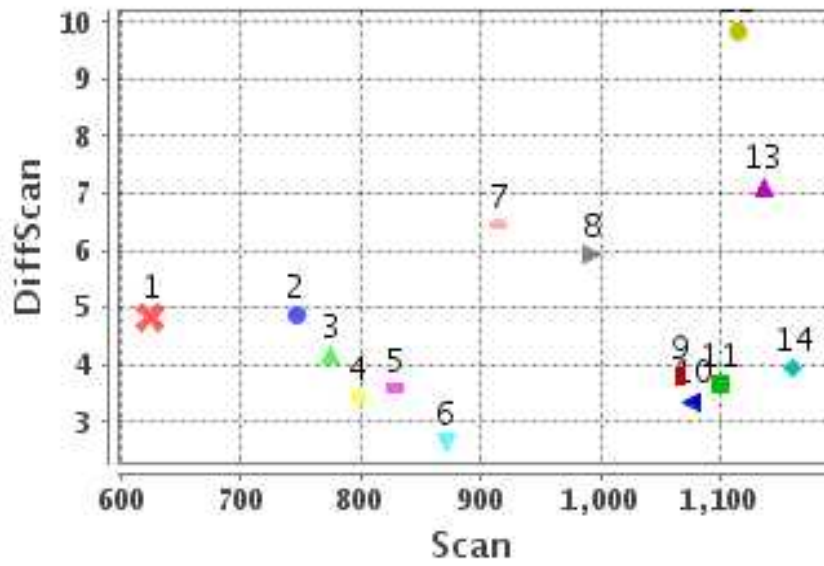
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
1	774.5	865.2	4.2	0.28	23.889	S	6.962	E	Accepted
2	746.0	1014.8	4.9	1.21	24.679	S	13.575	E	Accepted
3	798.0	1039.5	3.4	-2.28	16.206	S	5.627	W	Accepted
4	1099.8	645.2	3.7	1.07	18.874	S	9.384	E	Accepted
5	1114.2	645.5	9.9	2.29	42.529	S	19.539	E	Rejected
6	1076.8	879.5	3.4	1.42	17.251	S	10.884	E	Accepted
7	828.5	1287.0	3.6	1.01	19.625	S	5.363	E	Accepted
8	1160.5	1549.5	3.9	0.19	17.743	S	2.564	E	Accepted
9	1136.2	1574.2	7.1	2.10	28.810	S	8.482	E	Accepted
10	992.2	1595.2	5.9	1.06	26.045	S	4.508	E	Accepted
11	870.5	1743.0	2.7	3.70	14.277	S	14.100	E	Accepted
12	915.0	1912.5	6.5	1.28	28.028	S	4.025	E	Accepted
13	1067.5	1912.2	3.8	1.27	17.953	S	4.399	E	Accepted

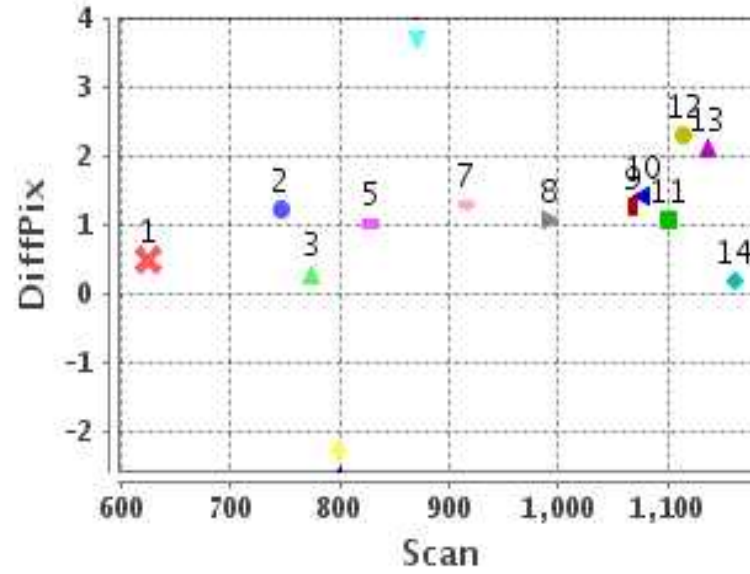
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
14	624.0	1708.0	4.8	0.48	28.270	S	1.866	W	Accepted

Error(Pixels) Vs. GCPScan



Error(Pixels) Vs. GCPScan



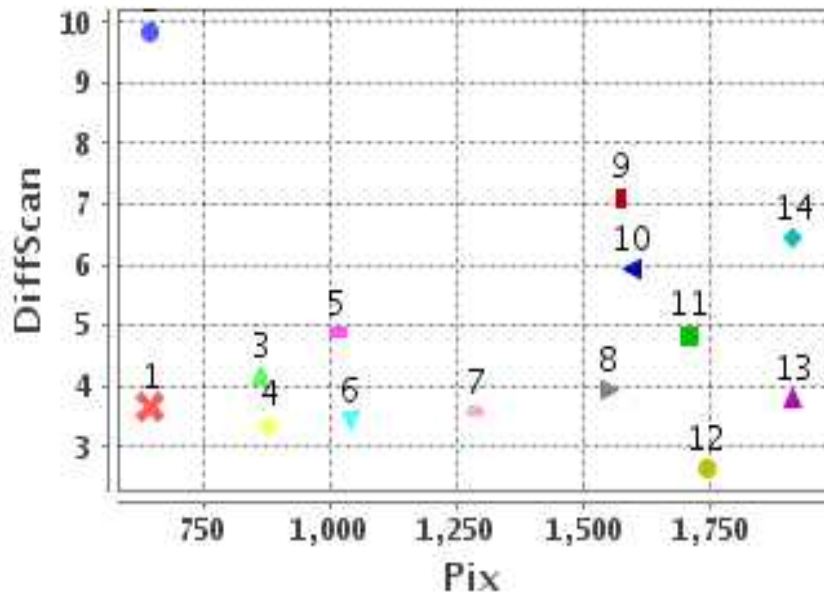
Number Of Points

North	0
South	13
East	11
West	2

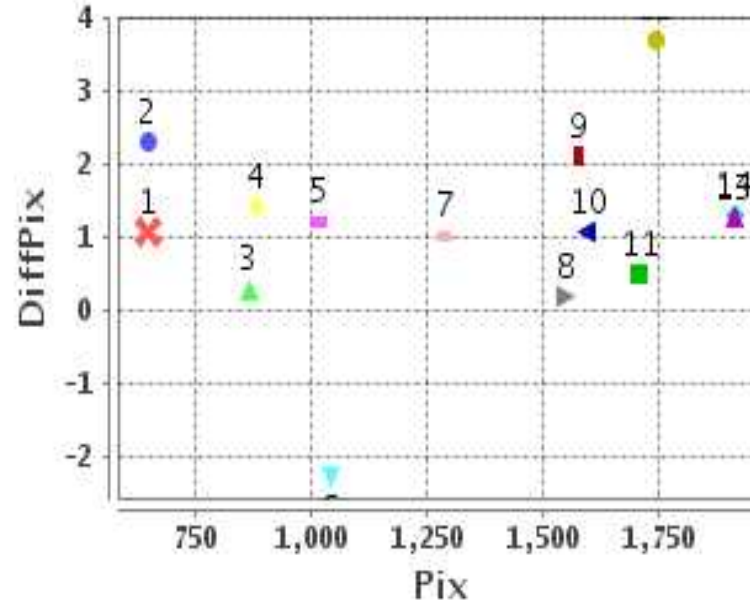
Radial Error (Km)

Mean	5.800
Min	4.289
Max	7.508
CE90	7.079

Error(Pixels) Vs. GCPPix



Error(Pixels) Vs. GCPPix



Location Accuracy

	Mean	StdDev	RMS	Dir	* MinRMS	* MaxRMS
Along(Km)	-5.416	1.227	5.554	S	5.394	5.688
Across (Km)	1.476	1.357	2.005	E	1.822	2.083

Block-Wise Geo location Error Statistics

Location Accuracy,Scale,ID

<p>Scan Range-0-937; Pix Range-0-934</p> <p>Number of GCPs 1</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -23.89 S</p> <p>Across(Mean,Dir) 6.96 E</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) -999.99 -999.9</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) -999.99 -999.99</p> <p>Across(Mean,Stddev) -999.99 -999.99</p>	<p>Scan Range-0-937; Pix Range-934-1869</p> <p>Number of GCPs 5</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -20.61 S</p> <p>Across(Mean,Dir) 5.11 E</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) 4.56 13.89</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) 1.20 0.80</p> <p>Across(Mean,Stddev) 0.48 2.12</p>	<p>Scan Range-0-937; Pix Range-1869-2805</p> <p>Number of GCPs 1</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -28.02 S</p> <p>Across(Mean,Dir) 4.03 E</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) -999.99 -999.9</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) -999.99 -999.99</p> <p>Across(Mean,Stddev) -999.99 -999.99</p>
<p>Scan Range-937-1876; Pix Range-0-934</p> <p>Number of GCPs 2</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -18.06 S</p> <p>Across(Mean,Dir) 10.14 E</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) 4.59 14.70</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) -0.30 0.00</p> <p>Across(Mean,Stddev) -0.35 0.00</p>	<p>Scan Range-937-1876; Pix Range-934-1869</p> <p>Number of GCPs 3</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -24.2 S</p> <p>Across(Mean,Dir) 5.18 E</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) 4.04 0.99</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) 0.39 1.59</p> <p>Across(Mean,Stddev) -1.39 0.52</p>	<p>Scan Range-937-1876; Pix Range-1869-2805</p> <p>Number of GCPs 1</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -17.95 S</p> <p>Across(Mean,Dir) 4.40 E</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) -999.99 -999.9</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) -999.99 -999.99</p> <p>Across(Mean,Stddev) -999.99 -999.99</p>
<p>Scan Range-1876-2816; Pix Range-0-934</p> <p>Number of GCPs -999</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -999.99 NotAvail</p> <p>Across(Mean,Dir) -999.99 NotAvail</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) -999.99 -999.9</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) -999.99 -999.99</p> <p>Across(Mean,Stddev) -999.99 -999.99</p>	<p>Scan Range-1876-2816; Pix Range-937-1869</p> <p>Number of GCPs -999</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -999.99 NotAvail</p> <p>Across(Mean,Dir) -999.99 NotAvail</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) -999.99 -999.9</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) -999.99 -999.99</p> <p>Across(Mean,Stddev) -999.99 -999.99</p>	<p>Scan Range-1876-2816; Pix Range-1869-2805</p> <p>Number of GCPs -999</p> <p>Location Error(Km)</p> <p>Along(Mean,Dir) -999.99 NotAvail</p> <p>Across(Mean,Dir) -999.99 NotAvail</p> <p>Scale(Km)</p> <p>Average Scale (Mean,%Variation) -999.99 -999.9</p> <p>Internal Distortion(Pixel)</p> <p>Along(Mean,Stddev) -999.99 -999.99</p> <p>Across(Mean,Stddev) -999.99 -999.99</p>

*-999 : no gcp available

* -999.99 : values are not computed