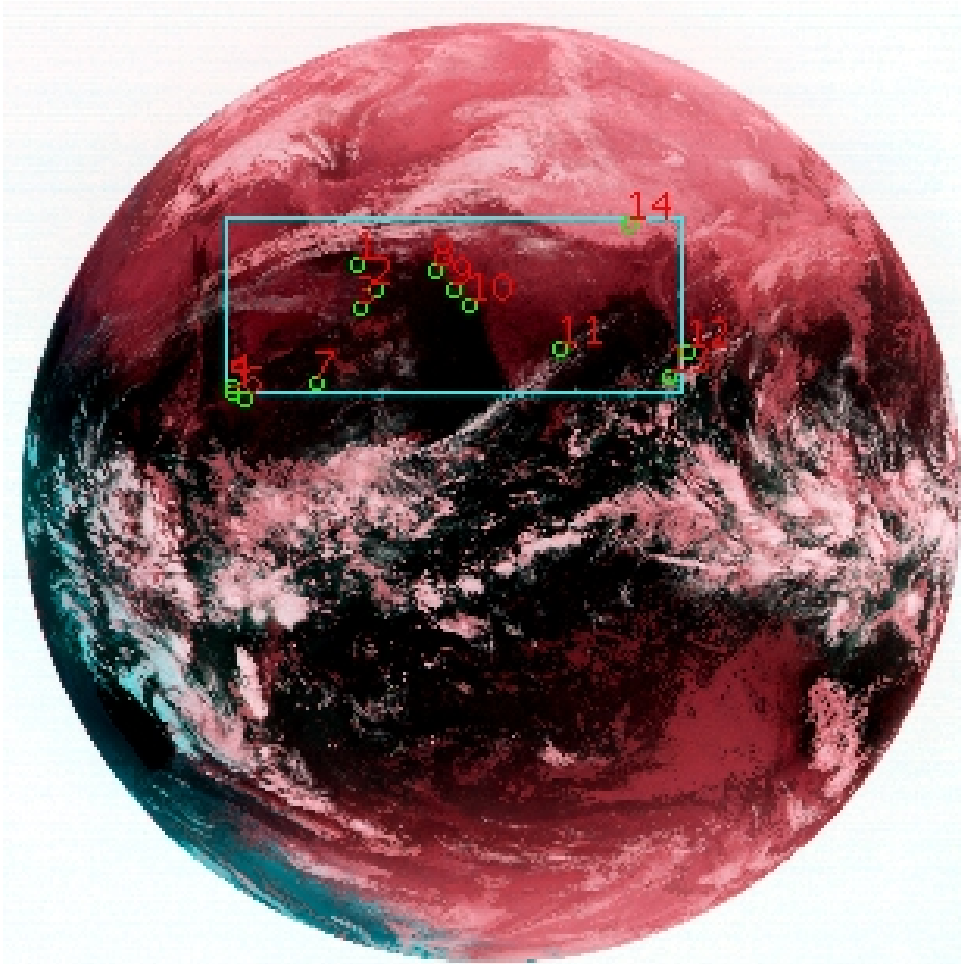


DQE Report: Location Accuracy of INSAT-3DR-IMG STANDARD (FULL DISK) Product 3RIMG_15JAN2019_1545

Satellite INSAT-3DR **No Of Bands** 6 **Product Type** STANDARD
Sensor IMG **LvlOfProcess** L1B **Selected Band** 2-TIR1
DOP/Time 15-01-19/15:45 **Station ID** BES **Field View(deg)** 17.99
Res(Y,X) [Km] (4.0,4.0) **Res(Y,X) [uRad]** (112.0,112.0)

(80.862N,-7.216W)

(80.862N,155.049E)



(-80.934S,-7.216W)

(-80.934S,155.049E)

GCP Distribution overview for 3RIMG15JAN20191545L1BDQE

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

GCP Coverage(%) 17.68 **(N-S)** 46.93 **(E-W)**

Location Error(E)

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

Location Error (In IR Pixels)

	Mean	Direction	Stddev	RMS
Along	-2.846	S	0.945	2.998
Across	5.193	E	1.135	5.315

Scale (Km)

	Pixel Size	Stddev	%variation
Average	4.289	0.212	7.231
Along	4.978	4.567	24.440
Across	4.470	1.680	11.762

Internal Distortion (in IR Pixels)

	PeakToPeak	Mean	Stddev	RMS
Along	2.901	0.072	0.93	0.930
Across	3.236	-0.677	0.82	1.064

Attitude Residuals (Deg)

Pitch	Roll	Yaw
0.03147	0.01868	-0.03732

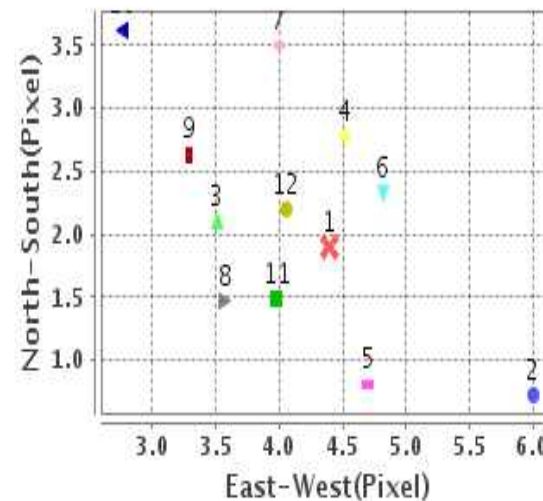
Reference Used

Sensor	Resolution	Projection
ETM	500.00	GGP

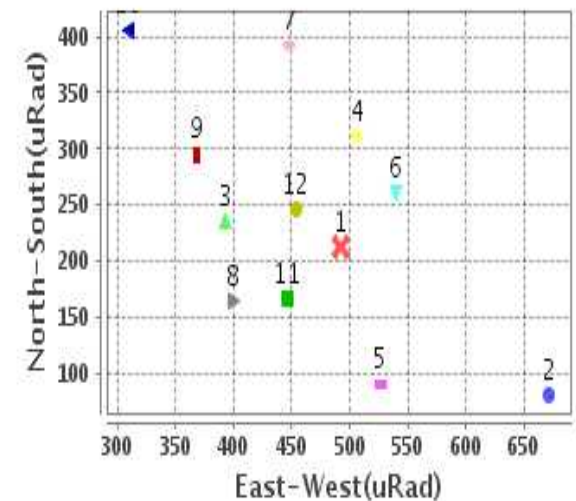
Radial Error (in IR Pixels)

Mean	6.049
Min	4.836
Max	7.196
CE90	6.828

Location Error For GCPs(Pixel)



Location Error For GCPs(uRad)



Detailed Product Information

Ancillary Info

Satellite	INSAT-3DR	Generation Date	15-01-19
Sensor	IMG	DQE Date	16-01-2019
PassType	NONE	Aquisition Date	15-01-19
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_15JAN20	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)	-0.036
Center Lon(deg)	73.917
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)	80.862
NW_Lon(deg)	-7.216
SW_Lat(deg)	-80.934
SW_Lon(deg)	-7.216
NE_Lat(deg)	80.862
NE_Lon(deg)	155.049
SE_Lat(deg)	-80.934
SE_Lon(deg)	155.049

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	pixels	Standardparallel1(deg)	17.0		
Zone	Not Applicable			Standardparallel2(deg)	17.0		

* -999.99 : Not Applicable/Not Available

References

JobId : 3RIMG15JAN20191545L1BDQE

(-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	934.1	154.2	637.2	1135.25	17.68 (N-S)
GCP Pix	1213.3	436.7	640.5	1957.00	46.93 (E-W)

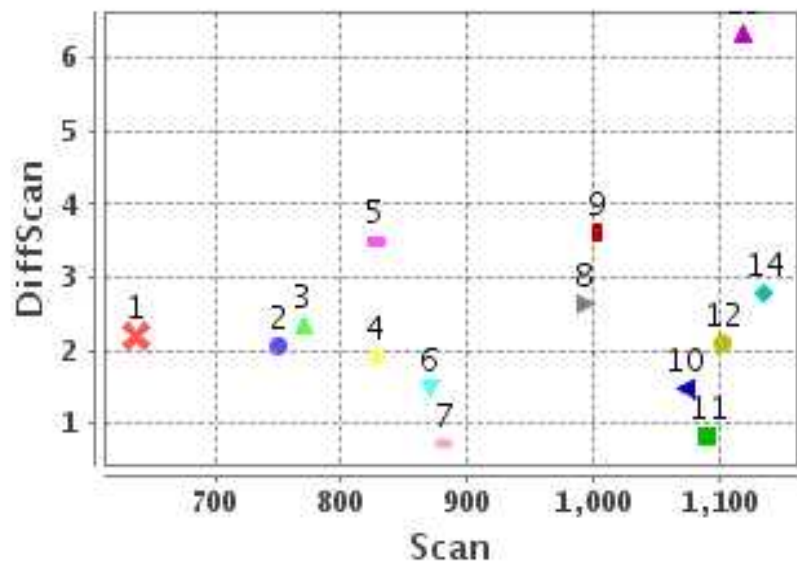
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
1	750.5	1007.2	2.1	6.41	13.636	S	32.520	E	Rejected
2	827.2	1055.8	1.9	4.39	11.012	S	23.580	E	Accepted
3	881.2	1008.2	0.7	6.00	5.541	S	28.194	E	Accepted
4	1102.0	640.8	2.1	3.51	9.135	S	22.606	E	Accepted
5	1118.8	640.5	6.3	5.09	28.942	S	32.317	E	Rejected
6	1135.2	677.5	2.8	4.52	13.048	S	25.659	E	Accepted
7	1089.8	888.8	0.8	4.70	6.482	S	23.511	E	Accepted
8	769.5	1227.0	2.3	4.82	13.729	S	22.285	E	Accepted
9	827.2	1280.8	3.5	4.00	18.354	S	20.227	E	Accepted
10	870.5	1328.5	1.5	3.57	10.080	S	17.334	E	Accepted
11	993.0	1586.5	2.6	3.28	11.613	S	15.470	E	Accepted
12	1002.5	1957.0	3.6	2.76	17.057	S	10.502	E	Accepted
13	1072.5	1904.8	1.5	3.98	7.538	S	20.150	E	Accepted

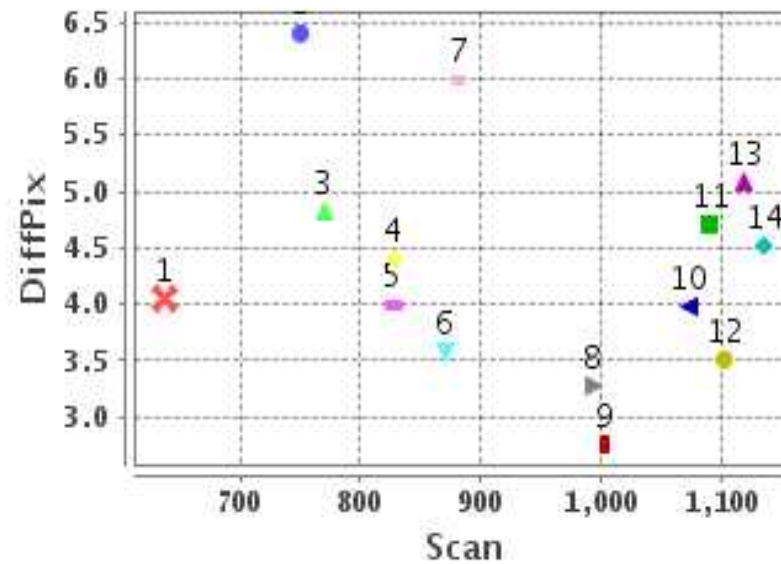
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
14	637.2	1782.5	2.2	4.05	13.000	S	19.732	E	Accepted

Error(Pixels) Vs. GCPScan



Error(Pixels) Vs. GCPScan



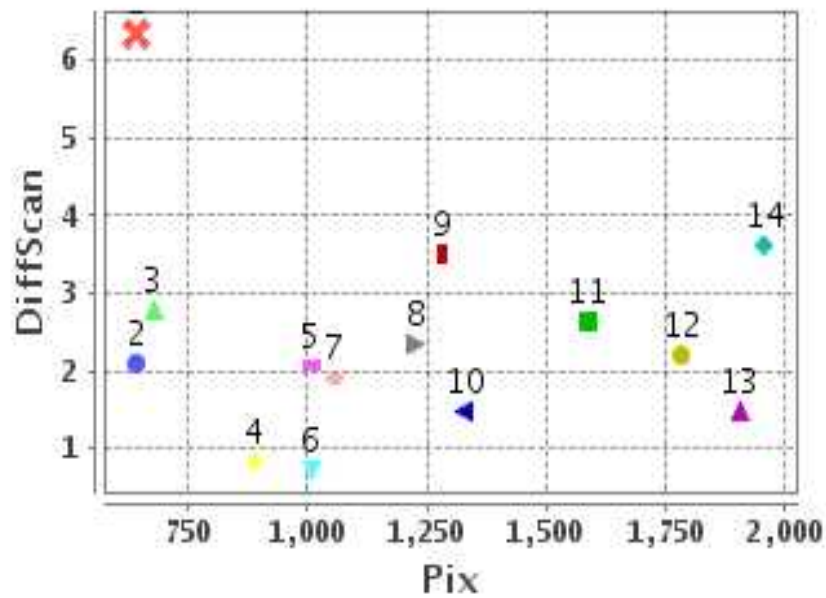
Number Of Points

North	0
South	12
East	12
West	0

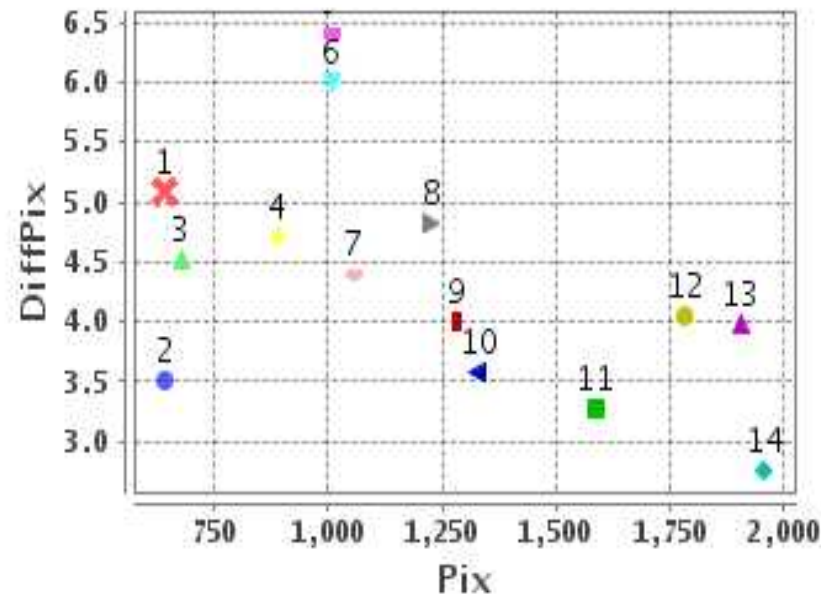
Radial Error (Km)

Mean	6.049
Min	4.836
Max	7.196
CE90	6.828

Error(Pixels) Vs. GCPPix



Error(Pixels) Vs. GCPPix



Location Accuracy

	Mean	StdDev	RMS	Dir	* MinRMS	* MaxRMS
Along(Km)	-2.846	0.945	2.998	S	2.810	3.104
Across (Km)	5.193	1.135	5.315	E	5.129	5.495

Block-Wise Geo location Error Statistics

Location Accuracy,Scale,ID

Scan Range-0-937; 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-0-937; Pix Range-934-1869		
Number of GCPs	6	
Location Error(Km)		
Along(Mean,Dir)	-11.955	S
Across(Mean,Dir)	21.89	E
Scale(Km)		
Average Scale (Mean,%Variation)	4.42	10.62
Internal Distortion(Pixel)		
Along(Mean,Stddev)	0.21	0.93
Across(Mean,Stddev)	1.83	0.42

Scan Range-0-937; 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

Scan Range-937-1876; Pix Range-0-934		
Number of GCPs	3	
Location Error(Km)		
Along(Mean,Dir)	-9.55333	S
Across(Mean,Dir)	23.93	E
Scale(Km)		
Average Scale (Mean,%Variation)	4.70	17.54
Internal Distortion(Pixel)		
Along(Mean,Stddev)	-1.62	0.34
Across(Mean,Stddev)	-1.10	0.09

Scan Range-937-1876; Pix Range-934-1869		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	-11.61	S
Across(Mean,Dir)	15.47	E
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)	-12.295	S
Across(Mean,Dir)	15.33	E
Scale(Km)		
Average Scale (Mean,%Variation)	4.42	10.61
Internal Distortion(Pixel)		
Along(Mean,Stddev)	2.15	0.00
Across(Mean,Stddev)	1.22	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