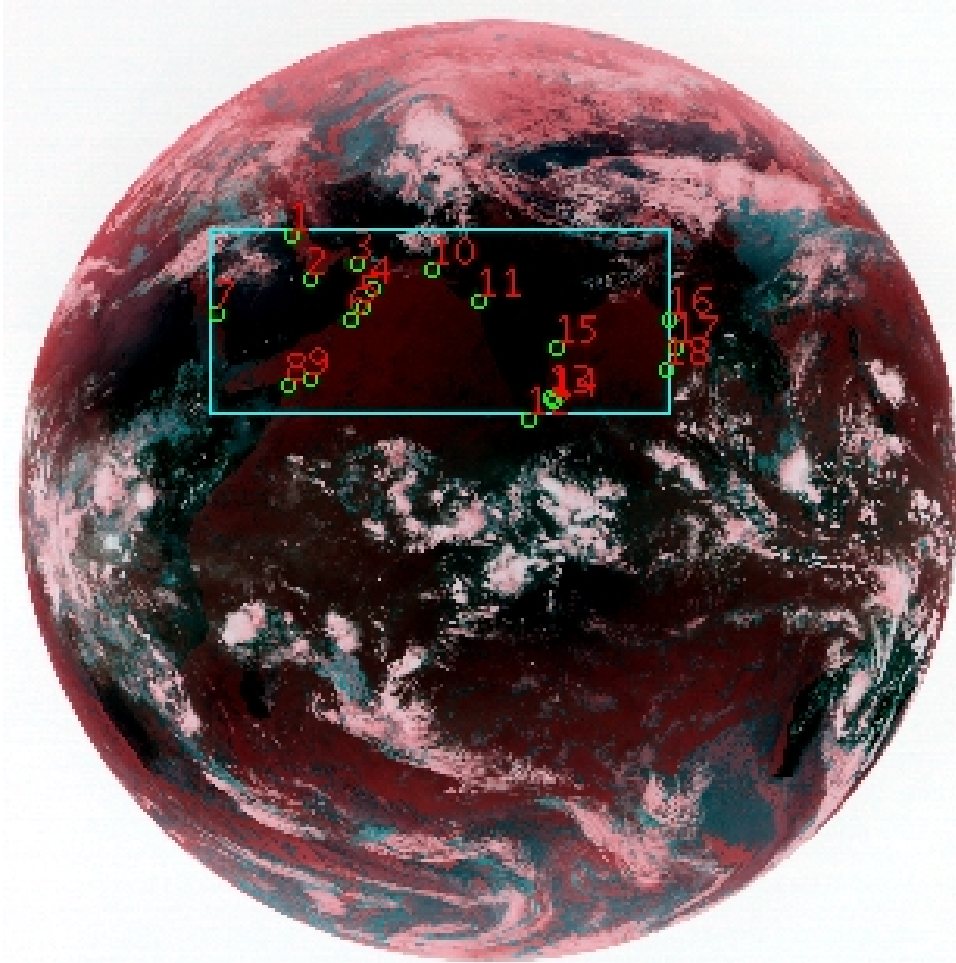


DQE Report: Location Accuracy of INSAT-3DR-IMG STANDARD(FULL DISK) Product 3RIMG_20FEB2018_0615

Satellite	INSAT-3DR	No Of Bands	6	Product Type	STANDARD
Sensor	IMG	LvlOfProcess	L1B	Selected Band	2-TIR1
DOP/Time	20-02-18/06:15	Station ID	BES	Field View(deg)	17.99
Res(Y,X) [Km]	(4.0,4.0)	Res(Y,X) [uRad]	(112.0,112.0)		

(80.975N,-7.036W)

(80.975N,155.2E)



(-81.103S,-7.036W)

(-81.103S,155.2E)

GCP Distribution overview for 3RIMG20FEB20180615L1BDQE

Image Width: 2805 Image Height: 2816 No Of GCPs: 18

GCP Coverage(%) 18.76 (N-S) 47.17 (E-W)

Location Error(E)

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

Location Error (In IR Pixels)

	Mean	Direction	Stddev	RMS
Along	-8.190	S	0.863	8.236
Across	0.796	E	2.198	2.338

Scale (Km)

	Pixel Size	Stddev	%variation
Average	4.349	0.334	8.732
Along	5.067	4.385	26.668
Across	4.451	1.203	11.283

Internal Distortion (in IR Pixels)

	PeakToPeak	Mean	Stddev	RMS
Along	2.407	-1.750	0.67	1.874
Across	4.943	0.925	1.40	1.681

Attitude Residuals (Deg)

Pitch	Roll	Yaw
0.00151	0.05217	-0.00146

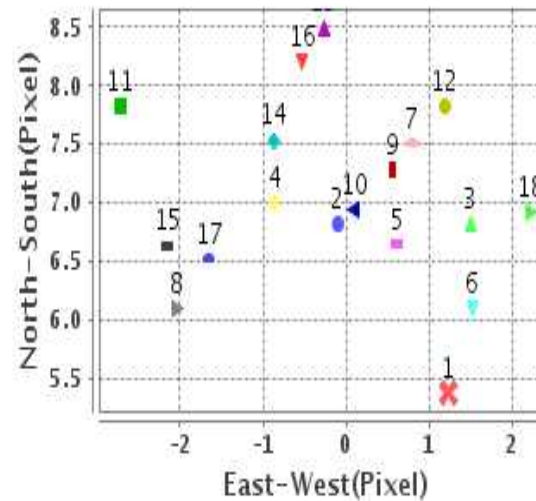
Reference Used

Sensor	Resolution	Projection
ETM	500.00	GGP

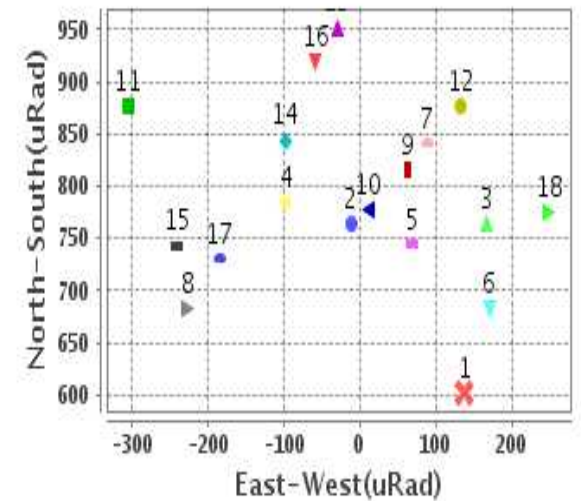
Radial Error (in IR Pixels)

Mean	8.513
Min	6.690
Max	10.211
CE90	9.865

Location Error For GCPs(Pixel)



Location Error For GCPs(uRad)



Detailed Product Information

Ancillary Info

Satellite	INSAT-3DR	Generation Date	20-02-18
Sensor	IMG	DQE Date	27-02-2018
PassType	NONE	Aquisition Date	20-02-18
Imaging Mode	FULL_FRAME	Aquisition Time(GMT)	06:15
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_20FEB20	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)	-0.064
Center Lon(deg)	74.082
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)	80.975
NW_Lon(deg)	-7.036
SW_Lat(deg)	-81.103
SW_Lon(deg)	-7.036
NE_Lat(deg)	80.975
NE_Lon(deg)	155.2
SE_Lat(deg)	-81.103
SE_Lon(deg)	155.2

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 : 3RIMG20FEB20180615L1BDQE

(-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 : 18

	Mean	StdDev	Min	Max	Coverage(in %)
GCP Scan	943.3	150.1	670.2	1198.50	18.76 (N-S)
GCP Pix	1252.2	408.1	599.2	1922.50	47.17 (E-W)

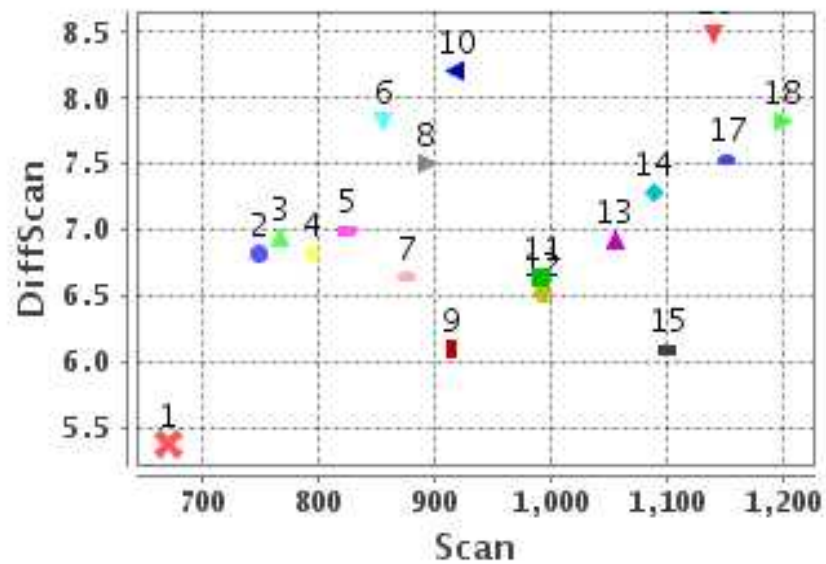
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
1	670.2	818.2	5.4	1.23	31.492	S	17.380	E	Accepted
2	794.2	870.2	6.8	-0.10	34.294	S	7.690	E	Accepted
3	748.8	1001.2	6.8	1.49	38.380	S	13.974	E	Accepted
4	825.0	1050.2	7.0	-0.87	33.253	S	1.839	E	Accepted
5	876.2	1022.0	6.6	0.62	31.186	S	6.299	E	Accepted
6	914.8	989.5	6.1	1.52	30.664	S	12.230	E	Accepted
7	892.0	599.2	7.5	0.79	35.669	S	16.888	E	Accepted
8	1100.2	807.0	6.1	-2.03	25.996	S	6.352	W	Accepted
9	1088.0	868.8	7.3	0.56	29.781	S	8.396	E	Accepted
10	767.5	1221.5	6.9	0.10	35.938	S	4.404	E	Accepted
11	856.0	1353.5	7.8	-2.72	36.342	S	8.651	W	Accepted
12	1198.5	1498.0	7.8	1.19	32.740	S	4.420	E	Accepted
13	1139.5	1563.0	8.5	-0.26	35.490	S	1.323	W	Accepted

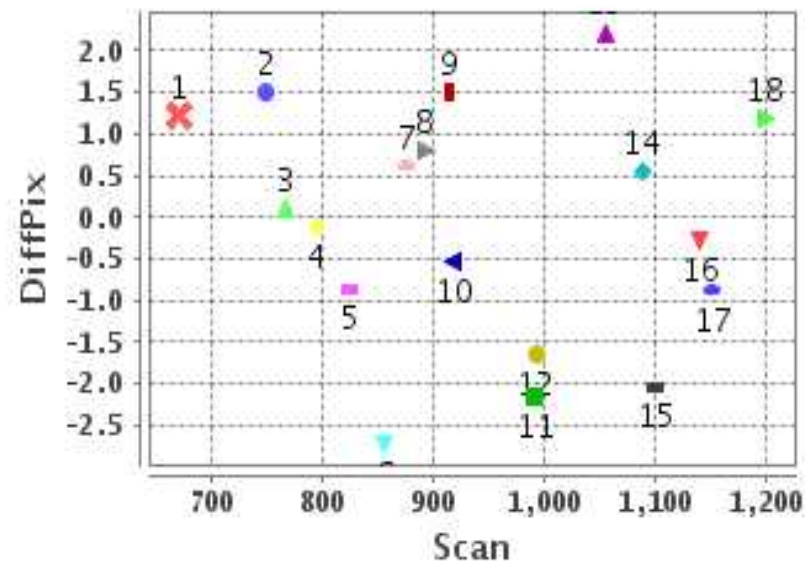
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
14	1151.5	1573.0	7.5	-0.88	31.819	S	3.729	W	Accepted
15	991.2	1583.0	6.6	-2.14	29.235	S	9.865	W	Accepted
16	917.5	1901.5	8.2	-0.52	39.001	S	6.002	W	Accepted
17	992.5	1922.5	6.5	-1.65	29.849	S	9.253	W	Accepted
18	1055.0	1896.5	6.9	2.22	28.567	S	8.970	E	Accepted

Error(Pixels) Vs. GCPScan



Error(Pixels) Vs. GCPScan



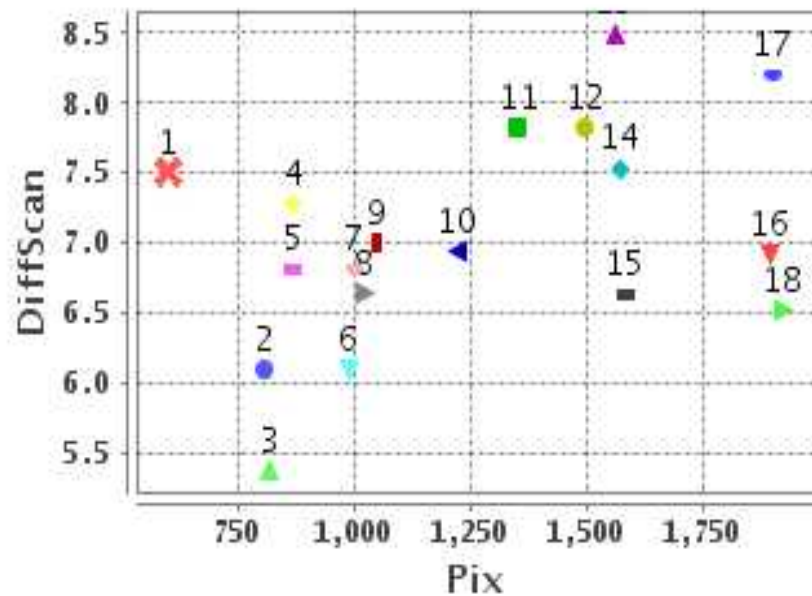
Number Of Points

North	0
South	18
East	11
West	7

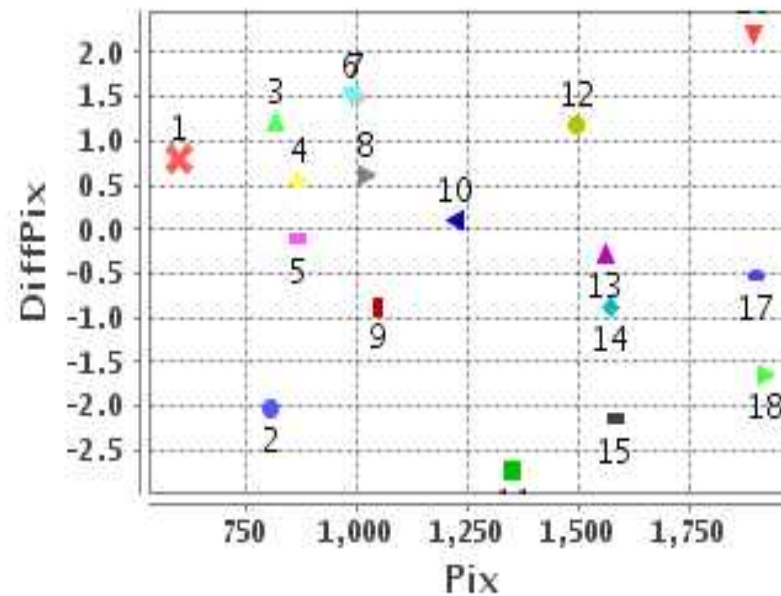
Radial Error (Km)

Mean	8.513
Min	6.690
Max	10.211
CE90	9.865

Error(Pixels) Vs. GCPPix



Error(Pixels) Vs. GCPPix



Location Accuracy

	Mean	StdDev	RMS	Dir	* MinRMS	* MaxRMS
Along(Km)	-8.190	0.863	8.236	S	8.138	8.326
Across (Km)	0.796	2.198	2.338	E	2.163	2.404

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) -33.82 S Across(Mean,Dir) 13.99 E Scale(Km) Average Scale (Mean,%Variation) 4.97 24.26 Internal Distortion(Pixel) Along(Mean,Stddev) -1.79 0.35 Across(Mean,Stddev) 0.23 0.66	Scan Range-0-937; Pix Range-934-1869 Number of GCPs 6 Location Error(Km) Along(Mean,Dir) -34.295 S Across(Mean,Dir) 5.02 E Scale(Km) Average Scale (Mean,%Variation) 4.40 9.91 Internal Distortion(Pixel) Along(Mean,Stddev) -0.09 0.57 Across(Mean,Stddev) 1.79 1.44	Scan Range-0-937; Pix Range-1869-2805 Number of GCPs 1 Location Error(Km) Along(Mean,Dir) -39.0 S Across(Mean,Dir) -6.00 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 2 Location Error(Km) Along(Mean,Dir) -27.89 S Across(Mean,Dir) 1.02 E Scale(Km) Average Scale (Mean,%Variation) 4.50 12.38 Internal Distortion(Pixel) Along(Mean,Stddev) 1.19 0.00 Across(Mean,Stddev) -2.59 0.00	Scan Range-937-1876; Pix Range-934-1869 Number of GCPs 4 Location Error(Km) Along(Mean,Dir) -32.3198 S Across(Mean,Dir) -2.62 W Scale(Km) Average Scale (Mean,%Variation) 3.96 1.11 Internal Distortion(Pixel) Along(Mean,Stddev) -1.31 0.41 Across(Mean,Stddev) 2.28 0.78	Scan Range-937-1876; Pix Range-1869-2805 Number of GCPs 2 Location Error(Km) Along(Mean,Dir) -29.21 S Across(Mean,Dir) -0.14 W Scale(Km) Average Scale (Mean,%Variation) 4.35 8.67 Internal Distortion(Pixel) Along(Mean,Stddev) -0.40 0.00 Across(Mean,Stddev) 3.87 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