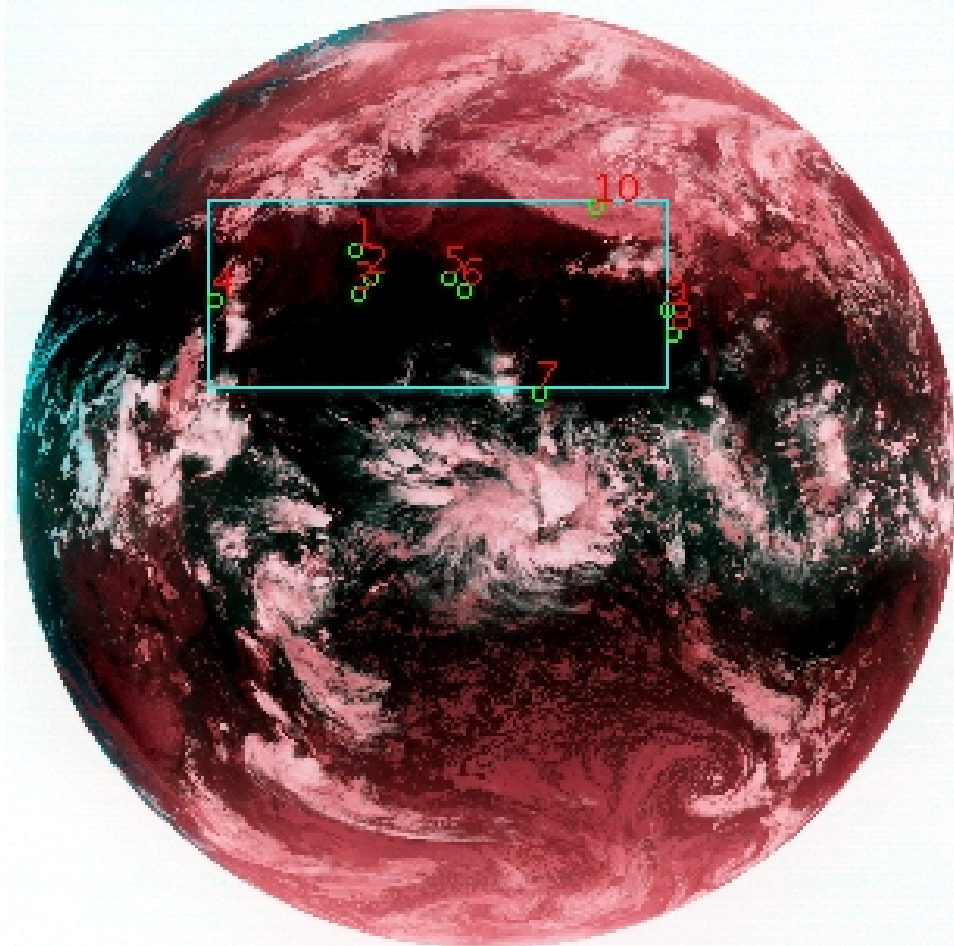


DQE Report: Location Accuracy of INSAT-3DR-IMG STANDARD(FULL DISK) Product 3RIMG_21APR2018_1545

Satellite INSAT-3DR **No Of Bands** 6 **Product Type** STANDARD
Sensor IMG **LvlOfProcess** L1B **Selected Band** 2-TIR1
DOP/Time 21-04-18/15:45 **Station ID** BES **Field View(deg)** 18.006
Res(Y,X) [Km] (4.0,4.0) **Res(Y,X) [uRad]** (112.0,112.0)

(81.053N,-7.204W)

(81.053N,155.065E)



(-81.062S,-7.204W)

(-81.062S,155.065E)

GCP Distribution overview for 3RIMG21APR20181545L1BDQE

Image Width: 2805 **Image Height:** 2816 **No Of GCPs:** 10

GCP Coverage(%) 19.28 **(N-S)** 47.09 **(E-W)**

Location Error(E)

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

Location Error (In IR Pixels)

	Mean	Direction	Stddev	RMS
Along	9.067	N	1.305	9.161
Across	-34.549	W	3.170	34.694

Scale (Km)

	Pixel Size	Stddev	%variation
Average	4.426	0.234	10.645
Along	5.977	9.276	49.424
Across	4.432	0.412	10.795

Internal Distortion (in IR Pixels)

	PeakToPeak	Mean	Stddev	RMS
Along	2.383	0.892	0.87	1.247
Across	3.252	2.423	0.93	2.595

Attitude Residuals (Deg)

Pitch	Roll	Yaw
-0.21856	-0.05689	-0.09722

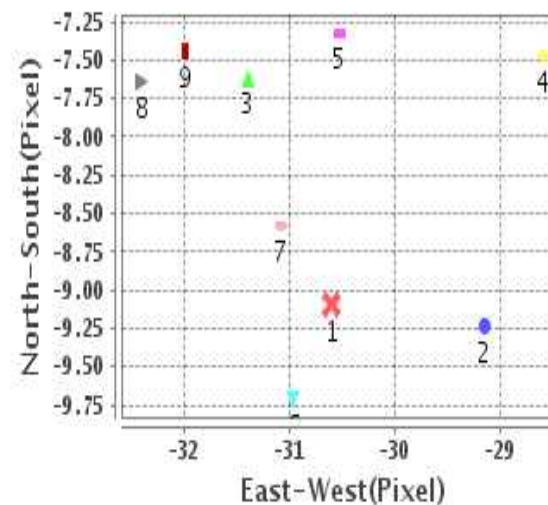
Reference Used

Sensor	Resolution	Projection
ETM	500.00	GGP

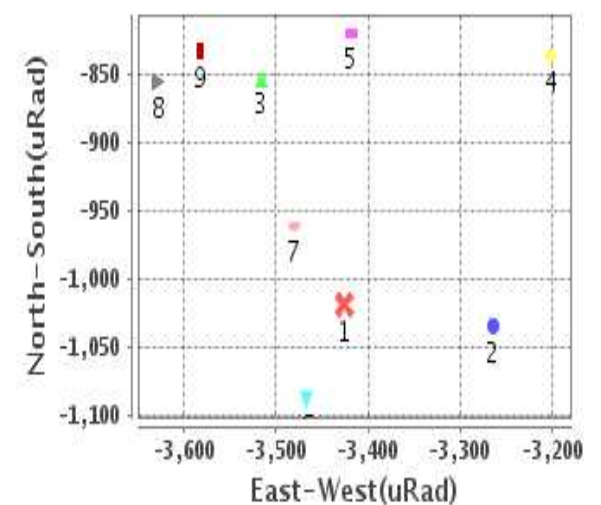
Radial Error (in IR Pixels)

Mean	35.746
Min	31.060
Max	42.089
CE90	38.206

Location Error For GCPs(Pixel)



Location Error For GCPs(uRad)



Detailed Product Information

Ancillary Info

Satellite	INSAT-3DR	Generation Date	21-04-18
Sensor	IMG	DQE Date	25-04-2018
PassType	NONE	Aquisition Date	21-04-18
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(FULL)	Predicted Center Lat(deg)	-999.99
DP JobId	3RIMG_21APR20	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)	-0.0040
Center Lon(deg)	73.93
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)	81.053
NW_Lon(deg)	-7.204
SW_Lat(deg)	-81.062
SW_Lon(deg)	-7.204
NE_Lat(deg)	81.053
NE_Lon(deg)	155.065
SE_Lat(deg)	-81.062
SE_Lon(deg)	155.065

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	Unit	-sigma	SemiMinorAxis(m)	6356752.31	Used Reference Type	REFINSREF
Datum	WGS_84		pixels	Standardparallel1(deg)	17.0		
Zone	Not Applicable			Standardparallel2(deg)	17.0		

* -999.99 : Not Applicable/Not Available

References

JobId : 3RIMG21APR20181545L1BDQE

(-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

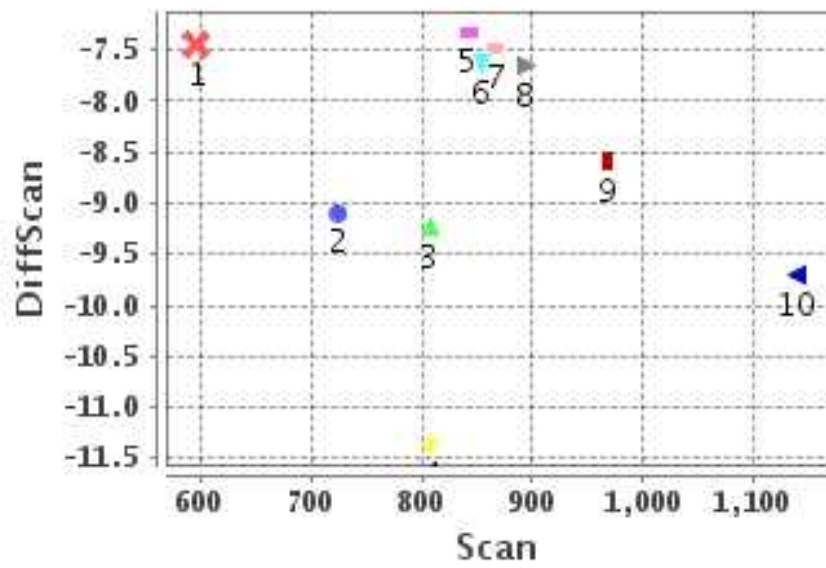
Image Width (pixels) : 2805 Image Height (pixels) : 2816 No of GCPs : 10

	Mean	StdDev	Min	Max	Coverage(in %)
GCP Scan	850.4	135.5	596.5	1139.50	19.28 (N-S)
GCP Pix	1329.4	409.2	597.2	1918.00	47.09 (E-W)

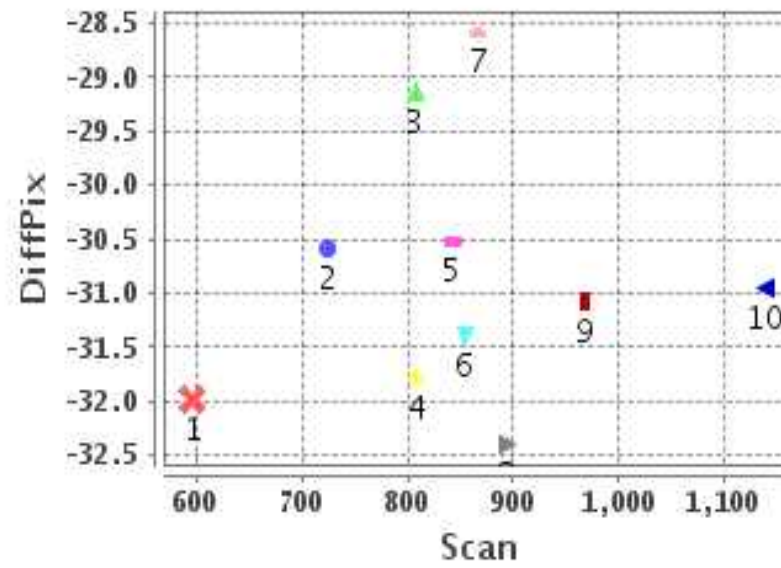
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
1	724.8	1001.8	-9.1	-30.59	44.663	N	144.246	W	Accepted
2	808.0	1046.5	-9.2	-29.14	44.719	N	130.115	W	Accepted
3	854.2	1009.5	-7.6	-31.39	35.493	N	139.173	W	Accepted
4	866.5	597.2	-7.5	-28.59	37.449	N	164.137	W	Accepted
5	808.8	1274.5	-11.4	-31.79	49.605	N	133.912	W	Rejected
6	842.5	1320.8	-7.3	-30.52	30.872	N	124.691	W	Accepted
7	1139.5	1534.5	-9.7	-30.96	36.270	N	118.830	W	Accepted
8	968.5	1918.0	-8.6	-31.08	32.262	N	135.572	W	Accepted
9	894.5	1899.8	-7.6	-32.40	28.786	N	138.444	W	Accepted
10	596.5	1692.0	-7.4	-31.99	35.905	N	148.548	W	Accepted

Error(Pixels) Vs. GCPScan



Error(Pixels) Vs. GCPScan



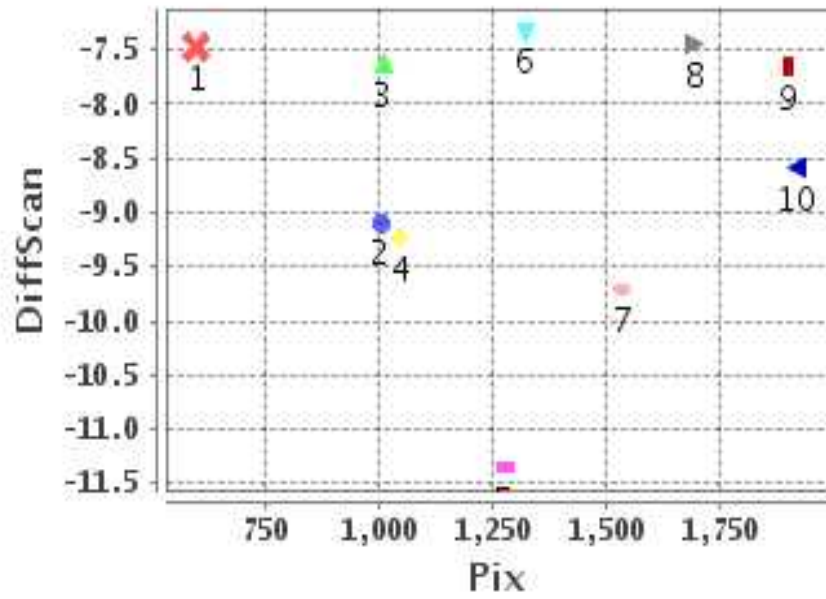
Number Of Points

North	9
South	0
East	0
West	9

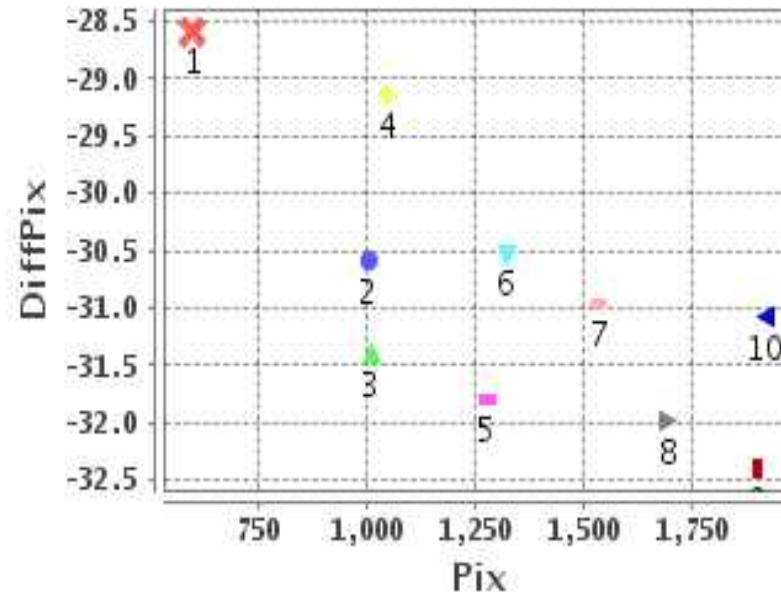
Radial Error (Km)

Mean	35.746
Min	31.060
Max	42.089
CE90	38.206

Error(Pixels) Vs. GCPPix



Error(Pixels) Vs. GCPPix



Location Accuracy

	Mean	StdDev	RMS	Dir	* MinRMS	* MaxRMS
Along(Km)	9.067	1.305	9.161	N	8.876	9.377
Across (Km)	-34.549	3.170	34.694	W	33.818	35.268

Block-Wise Geo location Error Statistics

Location Accuracy,Scale,ID

Scan Range-0-937; Pix Range-0-934		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	37.45	N
Across(Mean,Dir)	-164.14	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-0-937; Pix Range-934-1869		
Number of GCPs	5	
Location Error(Km)		
Along(Mean,Dir)	38.33	N
Across(Mean,Dir)	-137.36	W
Scale(Km)		
Average Scale (Mean,%Variation)	4.59	14.75
Internal Distortion(Pixel)		
Along(Mean,Stddev)	0.87	0.85
Across(Mean,Stddev)	0.17	1.07

Scan Range-0-937; Pix Range-1869-2805		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	28.78	N
Across(Mean,Dir)	-138.45	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	-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-934-1869		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	36.268	N
Across(Mean,Dir)	-118.83	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-1869-2805		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	32.26	N
Across(Mean,Dir)	-135.57	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-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