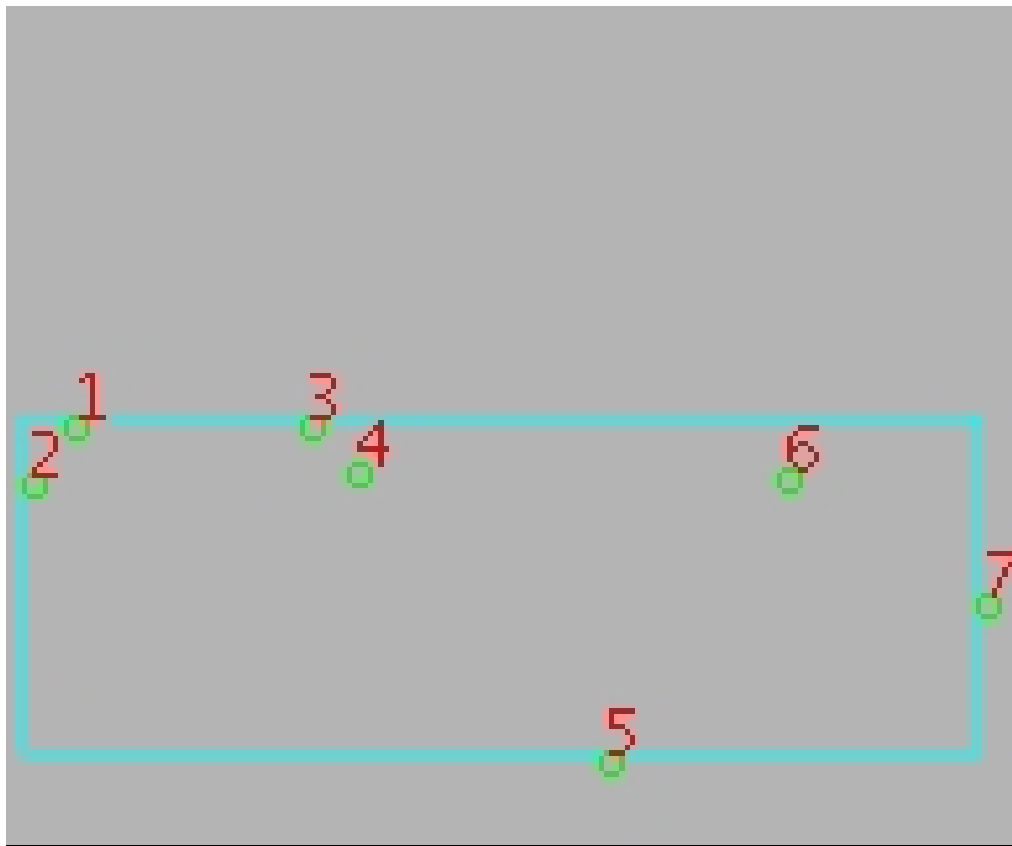


DQE Report: GDQE - Location parameters for INSAT-3DR-SND STANDARD Product 3RSND_25FEB2017_0630

Satellite INSAT-3DR **No Of Bands** 19 **Product Type** STANDARD
Sensor SND **LvlOfProcess** L1B **Selected Band** 2-LWIR3
DOP/Time 25-02-17/06:30 **Station ID** BES **Field View(deg)** 6.136
Res(Y,X) [Km] (10.0,10.0) **Res(Y,X) [uRad]** (280.0,280.0)

(41.418N,53.142W)

(41.418N,103.342E)



(6.907S,53.142W)

(6.907S,103.342E)

GCP Distribution overview for 3RSND25FEB20170630L1BSA1

Image Width: 384 **Image Height:** 320 **No Of GCPs:** 7

GCP Coverage(%) 39.61 **(N-S)** 94.99 **(E-W)**

Location Error(E)

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

Location Error (Km)

	Mean	Direction	Stddev	RMS
Along	12.219	N	7.403	14.286
Across	-11.874	W	7.475	14.031

Radial Error (Km)

Mean	19.665
Min	14.355
Max	24.927
CE90	22.691

Scale (Km)

	Pixel Size	Stddev	%variation
Average	10.548	0.201	5.480
Along	10.616	0.533	6.158
Across	10.568	0.152	5.678

Internal Distortion (in Pixels)

	PeakToPeak	Mean	Stddev	RMS
Along	1.847	1.180	0.57	1.310
Across	2.187	-0.920	0.64	1.123

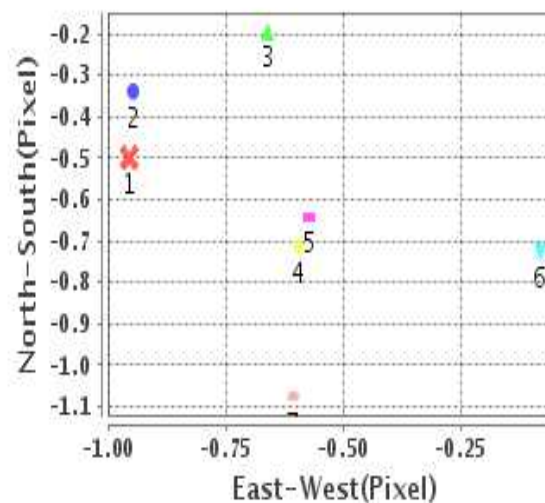
Attitude Residuals (Deg)

Pitch	Roll	Yaw
-0.01553	-0.02251	0.25101

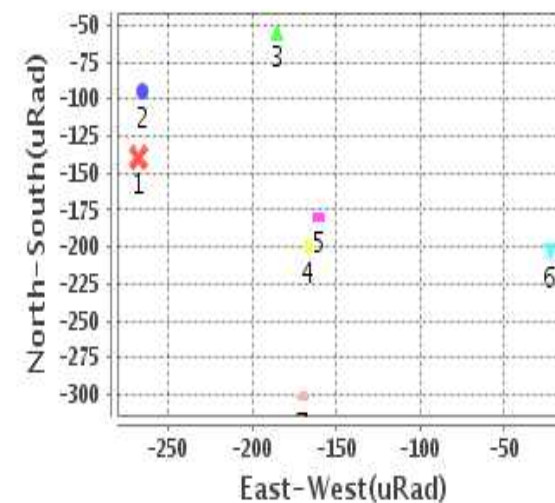
Reference Used

Sensor	Resolution	Projection
ETM	500.00	GGP

Location Error For GCPs(Pixel)



Location Error For GCPs(uRad)



Detailed Product Information

Ancillary Info

Satellite	INSAT-3DR	Generation Date	25-02-17
Sensor	SND	DQE Date	27-02-2017
PassType	NONE	Aquisition Date	25-02-17
Imaging Mode	FULL_FRAME	Aquisition Time(GMT)	06:30
Sat Altitude(m)	3.6E7	Nominal Altitude(Km)	3.6E7
Station	BES	Predicted Altitude(Km)	-1000.0
Sat Location(deg)	0.0 E	Nominal Center Lat(deg)	0.0
Format	hdf5-1.8.8	Nominal Center Lon(deg)	74.0
LvlOfProcessing	STANDARD	Predicted Center Lat(deg)	0.0
DP JobId	3RSND_25FEB20	Predicted Center Lon(deg)	0.0
ProductCode	NONE		
Field View(deg)	6.136		

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)	24.162
Center Lon(deg)	78.242
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)	41.418
NW_Lon(deg)	53.142
SW_Lat(deg)	6.907
SW_Lon(deg)	53.142
NE_Lat(deg)	41.418
NE_Lon(deg)	103.342
SE_Lat(deg)	6.907
SE_Lon(deg)	103.342

Band Wise Details

	Res_AL(Km)	Res_AX(Km)	Image Height	Image Width
LWIR1	10.0	10.0	320	384
LWIR2	10.0	10.0	320	384
LWIR3	10.0	10.0	320	384
LWIR4	10.0	10.0	320	384
LWIR5	10.0	10.0	320	384
LWIR6	10.0	10.0	320	384

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 : 3RSND25FEB20170630L1BSA1

(-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

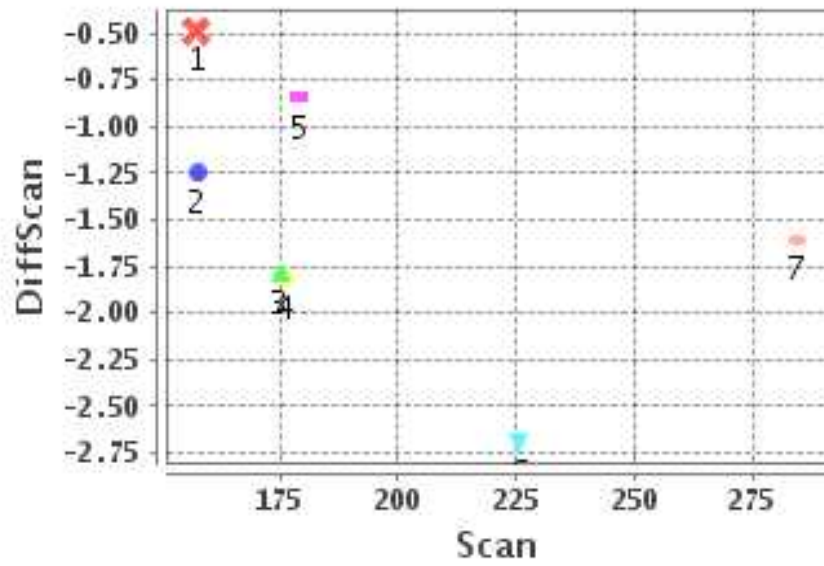
Image Width (pixels) : 384 Image Height (pixels) : 320 No of GCPs : 7

	Mean	StdDev	Min	Max	Coverage(in %)
GCP Scan	193.7	42.5	157.5	284.25	39.61 (N-S)
GCP Pix	166.7	126.9	6.8	371.50	94.99 (E-W)

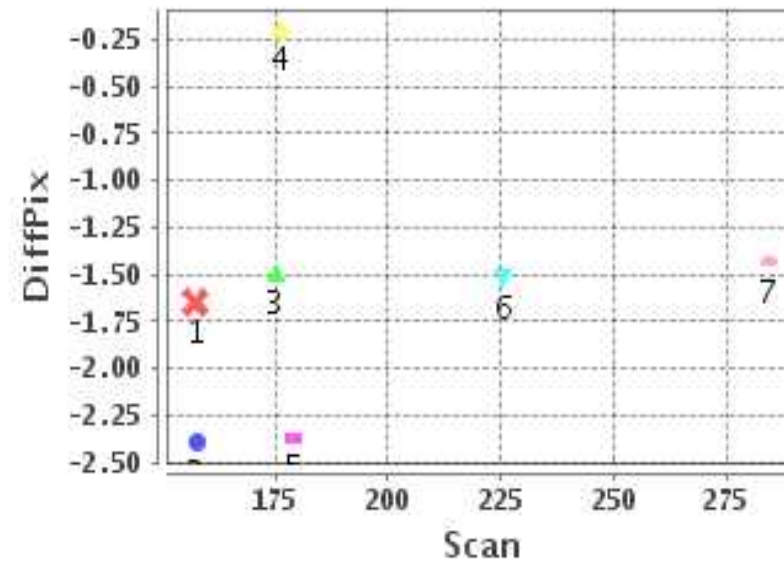
Identified Control Point details : (Differences are Reference - Product)

No	Scan	Pix	DiffScan (line)	DiffPix (pixel)	DifLat (Km)	Dir	DifLon (Km)	Dir	Status
1	157.8	22.5	-1.3	-2.39	6.710	N	21.676	W	Accepted
2	179.2	6.8	-0.8	-2.37	7.067	N	19.466	W	Accepted
3	157.5	112.2	-0.5	-1.65	0.214	N	14.914	W	Accepted
4	175.2	131.2	-1.8	-1.49	17.311	N	14.168	W	Accepted
5	284.2	227.8	-1.6	-1.43	13.129	N	5.805	W	Accepted
6	176.2	295.0	-1.8	-0.20	17.637	N	1.322	E	Accepted
7	225.5	371.5	-2.7	-1.52	23.465	N	8.410	W	Accepted

Error(Pixels) Vs. GCPScan



Error(Pixels) Vs. GCPScan



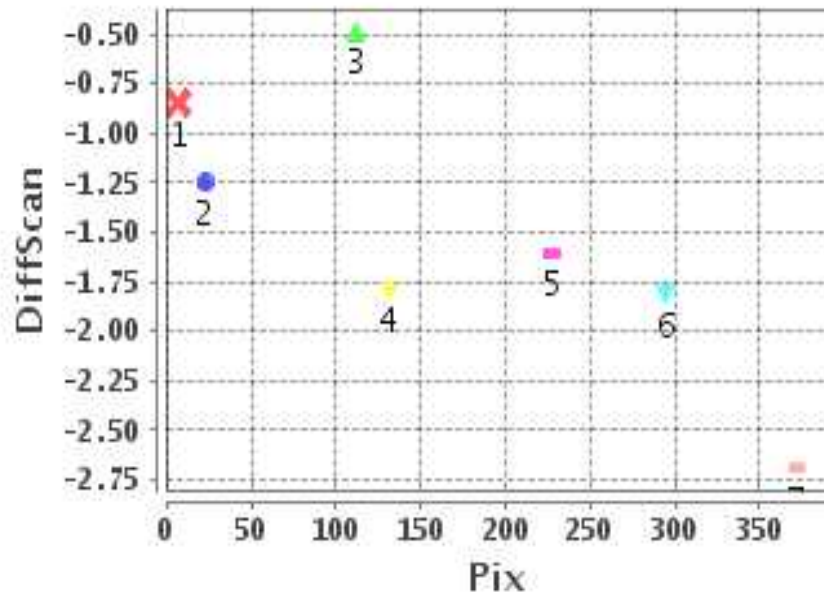
Number Of Points

North	7
South	0
East	1
West	6

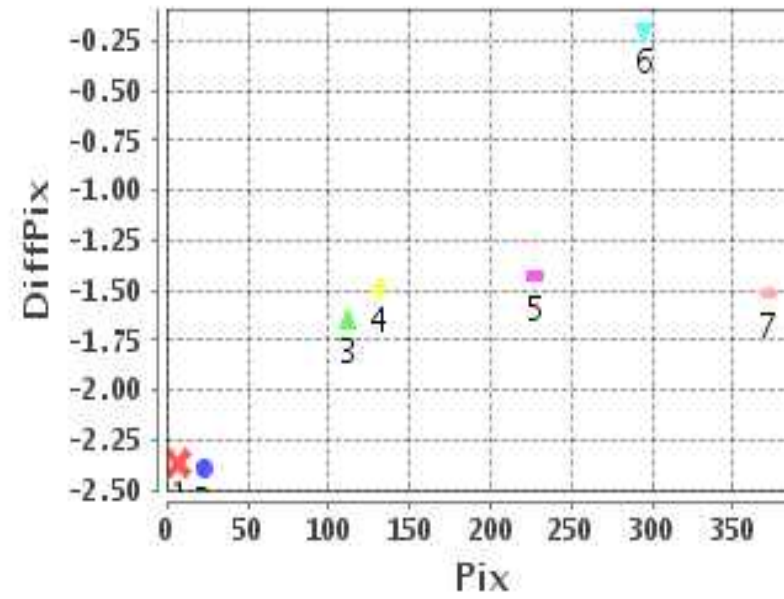
Radial Error (Km)

Mean	19.665
Min	14.355
Max	24.927
CE90	22.691

Error(Pixels) Vs. GCPPix



Error(Pixels) Vs. GCPPix



Location Accuracy

	Mean	StdDev	RMS	Dir	* MinRMS	* MaxRMS
Along(Km)	12.219	7.403	14.286	N	12.098	15.431
Across (Km)	-11.874	7.475	14.031	W	12.303	15.146

Block-Wise Geo location Error Statistics

Location Accuracy,Scale,ID

Scan Range-0-105; Pix Range-0-127		
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-0-105; Pix Range-127-255		
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-0-105; Pix Range-255-384		
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-105-212; Pix Range-0-127		
Number of GCPs	3	
Location Error(Km)		
Along(Mean,Dir)	4.66667	N
Across(Mean,Dir)	-18.68	W
Scale(Km)		
Average Scale (Mean,%Variation)	10.74	7.41
Internal Distortion(Pixel)		
Along(Mean,Stddev)	0.56	0.20
Across(Mean,Stddev)	-0.35	0.37

Scan Range-105-212; Pix Range-127-255		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	17.31	N
Across(Mean,Dir)	-14.17	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-105-212; Pix Range-255-384		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	17.63	N
Across(Mean,Dir)	1.32	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-212-320; Pix Range-0-127		
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-212-320; Pix Range-105-255		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	13.13	N
Across(Mean,Dir)	-5.80	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-212-320; Pix Range-255-384		
Number of GCPs	1	
Location Error(Km)		
Along(Mean,Dir)	23.47	N
Across(Mean,Dir)	-8.41	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

*-999 : no gcp available

* -999.99 : values are not computed