

ANNUAL REPORT

2008 - 2009

SURVEY OF INDIA

(DEPARTMENT OF SCIENCE AND TECHNOLOGY)

CONTENTS

	Page
Highlights	2
The Organization & Locations of Geo-Spatial Data Centers	4
Specialized Directorates & Printing Groups	
The Charter of duties	5
Personnel / The Budget	6,7
The Activities	7
Geodetic & Geophysical	7
Special Surveys	9
Aerial Photography	10
Digital Cartography	10
Topographical surveys & mapping	15
International boundaries	15
Scientific Activities	16, 17
Collaborative Scientific Activities	17
Research & development	18
Participation in Indian Scientific Expedition to Antarctica	18
Printing	18, 19
Map Sales	19
Training	19
Publications	19
Conferences/ seminars/ meetings	19, 20
Technical Papers	22
Foreign Visits/ study tours/ deputation	22
Visit to SOI Offices	23
Cultural and educational activities	24
Development surveys	25
Courses run & officers trained	26
Use of Hindi in official work	28
SCs, STs, OBCs & Persons with disabilities	31

HIGHLIGHTS

Survey of India, under the Department of Science & Technology, Govt. of India, has been engaged in production and maintenance of various types of topographical, geographical and many other public series maps on various scales covering India, for the defence and development of the nation. Besides, being grouped under 'Scientific Surveys' the Govt. of India business rule, it has also been called upon extensively to deploy its expertise in the field of geodetic and geophysical surveys, study of seismocity and seismotectonics, environmental and disaster management, participation in Indian scientific expeditions to Antarctica, glaciology programmes and other projects related to digital cartography and digital Photogrammetry etc. to provide basic data for Science & Technology requirements. Highlights of activities during the year are as under:

TOPOGRAPHICAL MAPPING STATUS

Maps on the 1:250,000 and 1:50,000 scales covering the entire country have been published. Revision surveys for updating these maps are done at regular interval in phased manner.

Survey on the scale of 1:25,000 is in progress on need basis. 10175 maps have been printed off till 31st March, 2009.

Survey of India has also taken up the tasks of producing new series of maps (Open Series Maps & Defence Series Maps) based on WGS-84 datum.

AERIAL PHOTOGRAPHY

Whole of the country is covered with aerial photography. Special emulsion photography on various scales were undertaken as and when required.

DISTRICT PLANNING MAPS

The status of District Planning Maps being published by Survey of India is as under:

Total Maps under the jurisdiction of Survey of India	...	256
Maps printed	...	252
Maps under printing/ processing	...	04
Maps yet to be taken up	...	.....

POLITICAL MAP OF INDIA IN REGIONAL LANGUAGES

Publication of the POLITICAL MAP OF INDIA in regional Indian languages is continued. Maps in Bengali, Gujarati, Kannad, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Tamil, Telugu and Sanskrit have been published. Map in Sindhi is under preparation.

DIGITAL CARTOGRAPHY

The digital techniques in cartography and use of Digital Cartographic Data Base (DCDB) for bringing out updated maps were initiated in SOI in early eighties. Maps on 1:250,000 scales covering the entire country have been digitized and updation of these maps is in progress. Digitization of 1:50,000 and 1:25,000 scale maps are in progress. 5060 sheets on 1:50,000 scale and 4965 sheets on 1:25,000 scale have been digitized till date.

INTERNATIONAL BOUNDARIES

Strip surveys, demarcation and construction of boundary pillars on international boundary between India-Pakistan, India-Bhutan, India-Myanmar, India-Bangladesh, India-Nepal and India-China are continued.

GEODETTIC AND GEOPHYSICAL SURVEYS

Geodetic and allied geophysical surveys viz; upgradation and densification of geodetic plan and height control; densification and revision of gravity, geomagnetic, astronomical surveys; tidal observations and prediction of tides for navigational activities, precise surveys for tunnel alignments, crustal movement and dam deformation studies, repetitive geodetic measurements and analysis of result for the study of seismocity and seismotectonic in earthquake prone areas were carried out in various parts of the country.

SURVEYS FOR DEVELOPMENTAL PROJECTS

Large scale surveys and mapping on various scales for National Developmental Projects are continued/ undertaken.

TRAINING

530 officers including 24 foreign nationals from Bhutan and 05 foreign nationals from Oman attended various courses at the Survey Training Institute, Hyderabad.

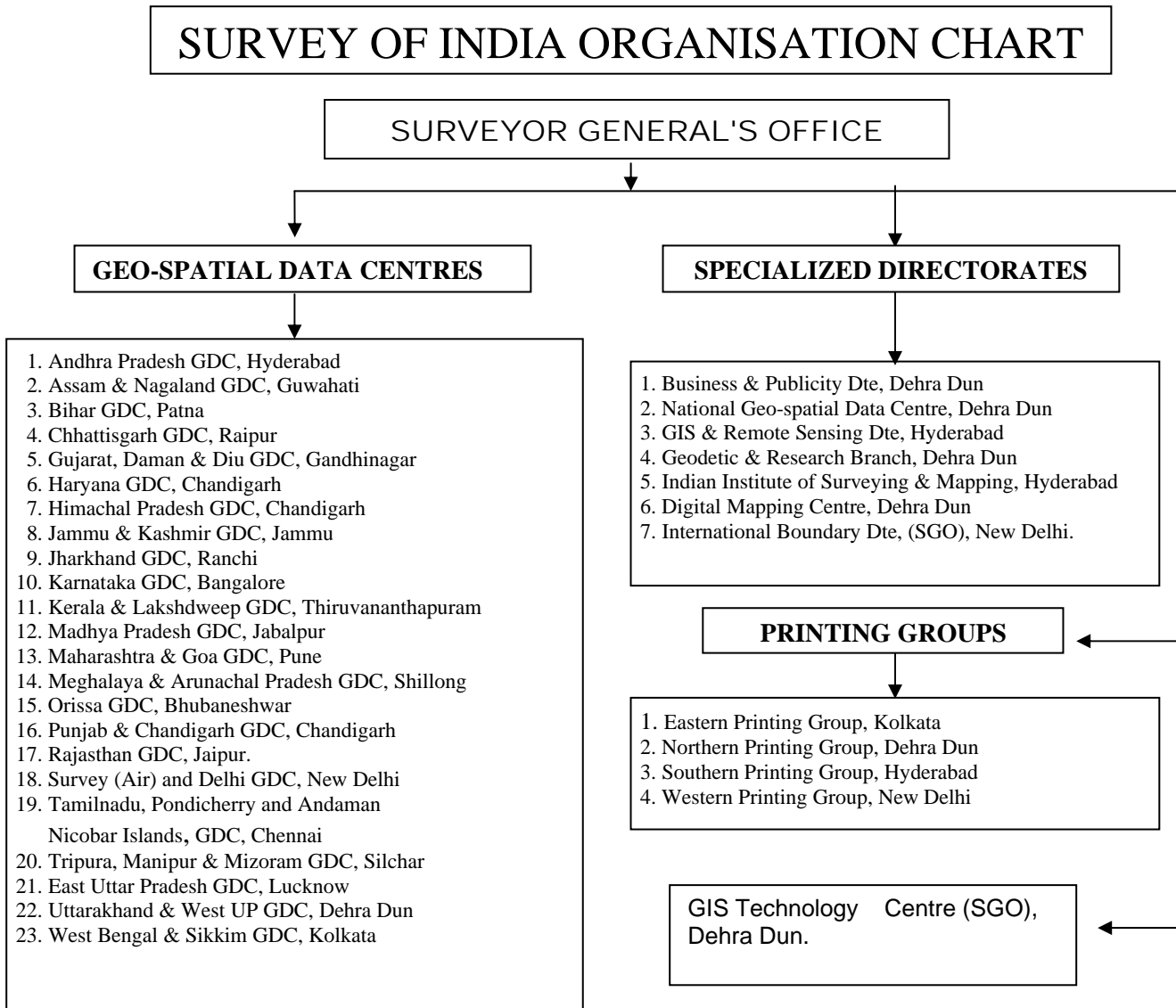
PRINTING

Printing of Topographical Maps, Geographical Maps, Special Purpose Maps, Project Maps, Tourist / Guide Maps and IAF Maps & Charts etc. was continued. 1173 maps were printed during the year.

THE ORGANISATION

Survey of India has been restructured w.e.f. 01.01.2004 to meet the Spatial Data Demands of Users in different states. Now Survey of India has its offices in almost all of the State Capitals of India named as Geo-spatial Data Centres. The Headquarters of Survey of India remains at Dehra Dun. The following chart depicts the entire structure of Survey of India.

Locations of various Surveys of India's GDCs, Special Directorates, and Printing Groups are as under:



THE CHARTER OF DUTIES

The charter of duties and responsibilities of the Survey of India (SOI) are enumerated below:

- (a) Provision and maintenance of geodetic plan and height control network and provision and maintenance of gravimetric and geomagnetic control network.
- (b) Provision of topographical cover in surveying and mapping for the entire country to meet the national requirements, including those of defence forces.
- (c) Collection of tidal data along the coast line and islands and tidal predictions for 44 ports in the Indian Ocean, Arabian Sea and the Bay of Bengal including ports in Myanmar, Iran, Sri Lanka and Sultanate of Oman in the interest of good neighbourly relations.
- (d) Compilation/mapping and production of geographical maps e.g. Railway Map, Road Map, Political Map, Physical Map etc.
- (e) Preparation of the International Map of the World (IMW) series and the World Aeronautical Charts (WAC) series as a commitment to the International Civil Aviation Organization (ICAO).
- (f) Surveys for development projects, e.g., power and irrigation, mineral exploration, urban and rural development etc.
- (g) Surveying and mapping of forest areas, large cities and preparation of guide maps of cities/ towns/ places of interest.
- (h) Surveying and mapping of Cantonments, surveying and mapping for aeronautical maps/ charts for the IAF.
- (i) Standardization of geographical names based on phonetics and participation in the international body set-up by the United Nations for this purpose.
- (j) Demarcation of the external boundary of India, its correct depiction on maps published within the country. Also advising the Government of India on the demarcation of inter-state boundaries.
- (k) Training of officers and staff of the department, trainees from other central and state government departments and trainees from foreign countries.
- (l) Promotion of Research & Developmental activities in the field of geodesy, photogrammetry, cartography and printing techniques etc.
- (m) Introduction of modern technology in the related fields and indigenization of equipment as an aid to import substitution. This includes development of instruments/ materials indigenously to increase self-reliance and reduce the drain on the foreign exchange reserves.

- (n) Co-ordination and control in providing aerial photographic cover for the whole country.
- (o) Collaboration with training organizations, educational institutions and scientific bodies on specific projects to promote research and developmental activities.
- (p) Representation at various international and national conferences to promote the growth of surveying and cartography and to introduce the state-of-the-art technology for optimum results.
- (q) Support to Third World countries e.g., Nigeria, Afghanistan, Kenya, Iraq, Nepal, Sri Lanka, Zimbabwe, Indonesia, Bhutan, Myanmar and Mauritius etc. by providing technical know-how and expertise in various disciplines of surveying and survey education.

Besides above activities, the Surveyor General of India is associated with the under mentioned Expert Groups/ Committees.

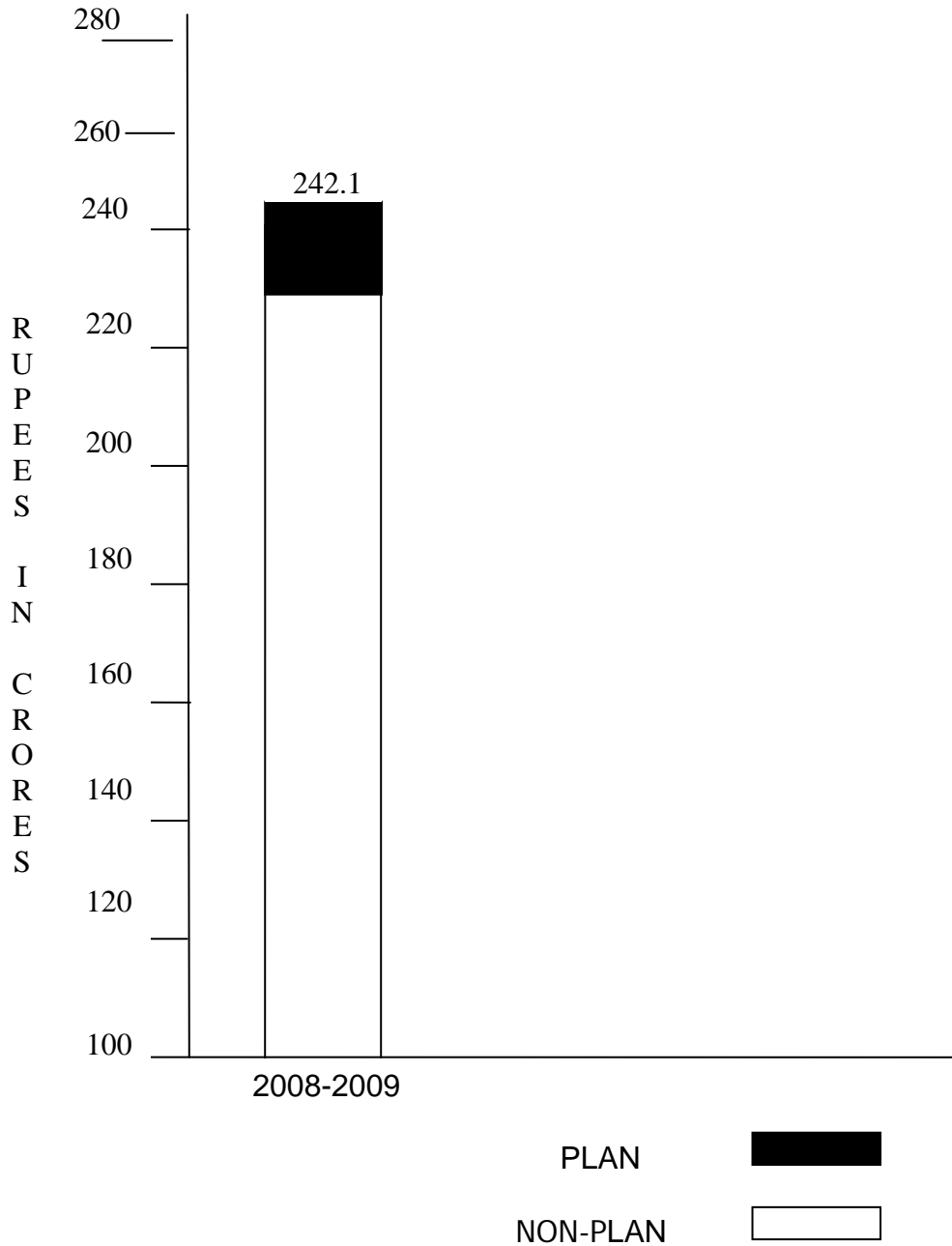
- (i) Member of Executive Board of the Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP) under the auspice of the United Nations Regional Cartographic Congress (UNRCC).
- (ii) Chairman of Standing Committee on Cartography and Mapping under NNRMS Programme, constituted by the Planning Commission.
- (iii) Member of Management of Geological Survey of India.
- (iv) Member of Governing Body of Wadia Institute of Himalayan Geology.

The Surveyor General of India acts as an adviser to various ministries of the Government of India on all surveying and cartographic matters. Survey of India also renders advice on the specifications of surveys and furnishes necessary data/ maps to various central and state government departments for development, planning and defence applications.

PERSONNEL

Groups	Technical	Non-Technical	Total
Group `A'	168 (including Military Officers)	12	180
Group `B'	406	48	454
Group `C' Div.I	898	12	910
Group `C' Div.II	1,584	64	1,648
Ministerial Estt.	-	844	844
Group `D' Estt	-	3,103	3,103

THE BUDGET



THE ACTIVITIES

The main activities of the department have been as under:

GEODETTIC AND GEOPHYSICAL

Geodetic Control

The following tasks were carried out against the projected targets for densification of the geodetic & vertical control, adjustment of second level-net and providing precise planimetric & vertical control for various developmental projects:

a)	GPS Observations for GCP Library	41 174	Stations for Phase I Stations for Phase II
b)	High Precision Levelling for Redefinition of Indian Vertical datum	2668	Lin km
c)	Precision Levelling for Project Surveys	134.4	Lin km
d)	EDM Traverse	46	Lin km
e)	Gravity observation	864	Stations
f)	Geomagnetic repeat observations	42	Stations
g)	Maintenance / Inspection / Installation of Tide Gauges	39	Ports
H)	Secondary Levelling for Ports	58	Lin km (09 Ports)

Geophysical

Continuous Geomagnetic observations of Horizontal Force (H.F.), Vertical Force (V.F.), Declination (D) and their absolute Measurement in order to control the baseline values, throughout the year by Digital Magnetic Instrument installed in Digital Magnetic Observatory Sabhawala, Dehra Dun.

Geomagnetic

Geomagnetic observations were carried out on 42 repeat stations to analyse Horizontal Force (HF), Vertical Force (VF) and declination (D) in Gujarat, Maharashtra, Madhya Pradesh, Rajasthan, Goa, Kerala and Karnataka.

Tidal Works

Work on modernization and expansion of Indian tide gauge network along the Indian Coast and Islands.

Real time GPS and Tidal data transmission from remote locations through VSAT network as a part of modernization of Indian Tide Gauge network has been undertaken.

Installation and Maintenance of tidal gauges and data acquisition from the various tidal observatories located along the sea coast of India and offshore islands.

Tidal data processing, analysis and tidal predictions for the year 2009-2010 and its publication in the form of Indian Tide Table-2009 and Hugli river Tide table-2009.

SPECIAL SURVEYS

Planimetric and height control for tunnel alignments, crustal movement studies for the following developmental projects as listed below:

Arunachal Pradesh:

Tawang Basin H.E. Project
Large Scale Mapping of Ittanagar Project

Bhutan:

Punatsangchhu HE Project Stage II

Gujarat:

Kalpasar Project

Himachal Pradesh:

Koldam HE Project
Soan Flood Protection Project
Renuka Dam HE Project
Rampur HE Project
Kasang HE Project
Kuddu HE Project

Karnataka:

Nirmala Nagar Project

Meghalaya:

Tura & Barapani Airport Project
NUIS Project – Tura

Punjab:

Ranjit Sagar Dam Project

Uttar Pradesh:

Rihand Dam Deformation Studies Project
Indrapuri Reservoir Project

Uttarakhand:

Koteshwar HE Project
Lohari-Nag-Pala HE Project
Jamrani Dam H.E Project
Tehri Dam HE Project

AERIAL PHOTOGRAPHY

Aerial photography completed during the year in the various parts of the country has been as under:

<u>Scale</u>		<u>Area</u>	<u>covered</u>
1:8,000	... ..	1,669	Sq Km
1:10,000	... ..	12,441	Sq Km
1:15,000	... ..	1,125	Sq Km
1:40,000	... ..	7,651	Sq Km

DIGITAL CARTOGRAPHY

The activities of National Geo-spatial Data Centre, Dehra Dun, GIS & Remote Sensing Directorate, Hyderabad, GIS Technology Centre, Surveyor General's Office (SGO), Dehra Dun and Digitization Cells under various Geo-Spatial Data Centre during the year are enumerated below:

(i) Digitization and Creation of Digital Cartographic Data Base (DCDB)

Departmental

Digitization and creation of Cartographic Data Base on 1:250,000 scale has been completed and updation of these sheets is in progress.

Digitization and creation of Cartographic Data Base on 1:50,000 scale has been completed.

Digitization and creation of Digital Cartographic Data Base of OSM /DSM map sheets on 1:50,000 scales has been completed as under:

Progress of OSM Sheets:

Total Sheets Pertaining to GDC	Status of DTDB	Transformation	Submission of Digital Data for Scrutiny			No. of Sheets Pattered by GDCs	Submitted to M/S Rolta for Patterning	Total Patterning		Submitted for printing	Printed
			NGDC	GIS & Rs	Accepted						
5060	4056	3930	1533	2252	1799	1234	1694	1272		366	242

Progress of DSM Sheets:

Total Sheets	Transformation	Patterning	Submitted to NPG For Scrutiny		ADGMS (GSGS)		Printing	
			Total up to date	Data accepted By NPG	Sheet Submitted	Blue Indent issued	Submitted	Printed off
5060	2761	1371	936	505	327	250	168	98

Digitization and creation of Cartographic Data Base of 5473 sheets on 1:25,000 scales has been completed.

Progress of Important Project:

DSSDI Project: - 3D GIS Solution including generation of large Scale base map for Government of National Capital Territory of Delhi (GNCTD) which has the following work scheduled:

- Extension of framework control, Aerial Triangulation and DEM.
- System design, data modelling, system integration and operations.
- Primary data capture and creation of comprehensive LIS and UIS.
- Generation of 3D Pictorial GIS for entire NCTD.
- GPS control and network adjustment has been completed. Vertical control by Levelling and scanning of photographs has also been completed. Work of aerial triangulation and DEM generation is under process.

NIC Project:

(a) Computer Aided Digital Mapping:

- Digital Base Map (3D - GIS) for 3 cities, Mumbai, Chennai, and Ahmedabad on 1:1,000 scales.
- **Mumbai** – Feature extraction along with attribute data collection, 3D data validation and field attribute attachment to Geo-coded data has been completed and data has been supplied to NIC.
- **Chennai** - Feature extraction and field attribute data collection has been completed. 3D data validation and field attribute attachment to Geo-coded data is under progress. Data pertaining to 47.5 sq.km has been supplied to NIC.
- **Ahmedabad** - Work feature extraction for total area 310 sq.km is completed. Attribute data collection from field is completed for 74 sq.km. And linking attributes data is under progress.

(b) Geo- Referenced imagery of District Head Quarters:

Survey of India has undertaken a project to supply Geo- referenced imagery of 580 District Headquarters to NIC. Geo- referencing of imageries pertaining to 540 cities have been completed and supplied to NIC.

(c) Geo- Referencing of IRS PAN Imagery with limited feature extraction for NIC:

The IRS PAN Imagery as and when received from NIC are to be geo-referenced along with limited feature extraction data to be supplied to NIC. The IRS PAN imagery of 1500 scenes have been geo-referenced along with feature extraction and data have been supplied to NIC.

(d) Village Information System (VIS) Project:

A Project on generation of village Information System (VIS) Involving collection of administrative boundaries up to village level of the country is under progress. 102 Nos. of district have been completed till date. Work of transfer of village boundary on 1:25 K/ 1:50 K map from revenue maps and duly authenticated by the revenue official along with preparation of digital data base is under progress in various GDC's.

NUIS Project:

Survey of India has undertaken the task of mapping of 158 Towns on 1:2000 scale for core area and 1:10,000 for the peripheral areas under National Urban Information Scheme (NIUS), of Ministry of Urban Development.

1:10,000 Scale Survey:

Provision of ground control points for most of the towns have been completed. Satellite imagery of 128 towns have been received and Geo- referenced imagery of 85 towns were sent to NRSA for Thematic Mapping. Thematic Mapping of 17 towns has been completed.

1:2,000 Scale Survey:

Aerial photography of 65 Towns have been received and for 39 towns have been scanned. Ground survey of 2 towns were completed by using Total Station.

1:1,000 Scale (Utility Mapping):

Tender under process.

Redefinition of Indian Vertical Datum:

HP Leveling:

High Precision Levelling in fore & back direction for Redefinition of Indian Vertical Datum has been completed in various parts of the country to form a network of vertical control. Preparation of data set for Levelling adjustment is under progress.

Modernization and Expansion of Indian Tide Gauge Network along Indian Ocean and Island for Disaster Management:

"Modernization of Indian Tide Gauge Network" project is continued. State of the art digital tide gauges co-located with GPS receivers and Real Time Communication facilities through dedicated VSAT have been commissioned at 24 ports along East and West Coast of India and Islands for Early Tsunami Warning System and Disaster management is in progress.

Real Time GPS data from the Tidal Observatories:

Receiving and archiving of real time GPS data at 1 second epoch Interval from different Ports i.e.. Port Blair, Nancowry, Chennai, Minicoy, Cochin, Marmagaon (Goa), Machhlipatnam, Vishakhapatnam, Haldia, Kandla, Paradeep, Kawaratti, Tuticorin, Ennore and Merger of Rinex data at 30 second epoch interval for all the 14 stations, processing for determination of their precise position, comparison of base lines are continued.

GCP Library:

Creation of National Ground Control Points (GCP) library for India, under plan scheme is continuing.

The Project envisages setting of precise & consistent GCP library in a geocentric co-ordinate system (ITRF) for the entire country. The Project will be completed in three phases, In 1st Phase 300 1st order control points at a spacing of 250 to 300 km. apart covering the entire country has already been completed.

In Phase- II Densification of first order network at a spacing of 30 to 40 km apart is under progress.

- Total no. of GCP Pillars	-	2340
- Recce	-	645
- Constructions of Pillars	-	518
- GPS observations	-	42

Large scale mapping of cities/town (Census Project):

Survey of India has taken up a project with Registrar General of India (RGI) for supply of large scale maps, generated from high resolution satellite imagery for 441 towns in phased manner. In the 1st phase the state capitals will be completed. These maps will be used for next census operation.

Geo-Referenced Quick bird/ IKONOS satellite imageries on 1:4,000 scale, pertaining to 20 cities / towns have been supplied to the Registrar General of India (RGI).

Progress of field verification

Scale	Total No. of Sheets	Sheets already verified		Total Sheets verified up to 31 st March, 2009	Remarks
		Up to 31 st March.08	During 2008-09		
1:50,000	5,060	4,507	39	4,546	
1:25,000	19,393	587	89	676	

Scrutiny & verification of private publishers / State Govt. / Central Govt. by Boundary Verification Wing:

Scrutiny	=	1,633	maps
Certification	=	1,210	maps
Released	=	261	maps
(Boundary - Description)	=	18	maps
IAF Maps	=	20	maps
Forest Maps	=	Nil	maps
<u>TOTAL</u>	=	<u>3,142</u>	<u>maps</u>

(a)	Amount received from Forest Department	=	Nil
(b)	Amount received from State Government	=	Rs. 2,12,400.00
(c)	Amount received from Private Publishers	=	Rs. 28,46,672.00
(d)	Amount received from Central Government	=	Rs. 8,300.00
<u>Total</u>		=	<u>Rs. 30,67,372.00</u>

Sales of Maps & Value by MRIO

<u>Description</u>	<u>Maps</u>	<u>Price</u>
Defence	27,186	4, 62,178.00
Central Govt.	14,377	9, 68,189.00
State Govt.	10,576	3, 25,080.00
	52,139	17,55,447.00

Digital Data Supplied = Rs. 1, 18, 47,360.00

TOPOGRAPHICAL SURVEYS AND MAPPING:

The details of topographical surveys and mapping have been as under:

Sl.	Activity	Scale	Area (sq km)	Distance (Lin km)
1.	Control Surveys			
	Topo Triangulation		-	Nil sq km
	Traverse		-	673 lin km
	Leveling		-	1,814 lin km
	Aerial Triangulation		-	Nil sq. km.
2.	Detailed Surveys			
	Digital photogram metric Surveys (on various scales)		-	Nil sq km
	Ground Survey (on various scales)		-	26,430 sq km
	Topographical Sheets		-	368 sheets
3.	Fair Drawing			
	Topographical (on various scales)		-	Nil sheets
	Digital Mapping (DCDB for OSM) on 1:50,000		-	1,272 maps
4.	Printing			
	Topographical & others (on various scales)		-	1,173 maps

INTERNATIONAL BOUNDARIES

India – Nepal boundary

Dr. M.C Tiwari, Deputy Surveyor General, International Boundary Directorate (SGO) attended 30th J.T.C meeting Kathmandu (Nepal) from 24-09-2008 to 25-09-2008.

India – Bangladesh boundary

Maj. Gen. Shamsher Singh, Additional Surveyor General, Surveyor General's Office attended Maritime Boundary Meet at Dhaka (Bangladesh) from 15-09-2008 to 17-09-2008.

Director, West Bengal & Sikkim GDC and Director, Settlement & Land Revenue (Ex-officio) Mizoram (India) attended 37th India – Bangladesh boundary conference for Mizoram Sector from 03-11-2008 to 04-11-2008 in Kolkata.

Director, West Bengal & Sikkim GDC and Director, Settlement & Land Revenue (Ex- officio) Tripura (India) attended 78th India –Bangladesh boundary conference for Tripura Sector from 07-11-2008 to 08-11-2008 at Agartala (Arunachal Pradesh).

India – Bhutan boundary

Director, Assam & Nagaland GDC attended meeting with Chief Secretaries of Assam and Meghalaya on Interstate boundary dispute held on 20-11-2008 at Bymihat, Meghalaya.

India – China boundary

Maj. Gen. S.K Pathak, Additional Surveyor General, International Boundary Directorate (SGO) attended meeting for procurement of world view satellite imagery covering India-China Boundary (Sikkim Sector) with Director, (China EA) MEA at South Block, New Delhi on 17-02-2009.

India – Myanmar boundary

Maj. Gen. S.K Pathak, Additional Surveyor General, International Boundary Directorate (SGO) attended 16th Sectorial level meeting between India – Myanmar at Yangon, Myanmar from 28-03-2009 to 29-03-2009.

India – Pakistan boundary

Brig. A.K.Padha Additional Surveyor General, North Western Zone & Director Punjab & Chandigarh GDC inspected Indo-Pak boundary demarcation work at J.C.P Hussainiwala (Pak side) on 3-04-2008 & (India side) on 5-04-2008.

Sh. Iqbal Singh, Superintending Surveyor, Punjab & Chandigarh GDC attended the meeting of Surveyors / Engineers at J.C.P, Wagah (Pak side) regarding Indo-Pak boundary demarcation work at 14-05-2008.

Sh. Iqbal Singh, Superintending Surveyors, Punjab & Chandigarh GDC attended the Joint India Pakistan Surveyors / Engineers meeting on 27-08-2008 at J.C.P (Attari) Amritsar (India side) & Sh. Neeraj Kumar, Superintending Surveyor Rajasthan GDC attended quarterly Indo-Pak boundary meeting regarding boundary pillar No.814 M (India side) on 28-08-2008.

Maj. Gen. Tavindra Paul, Additional Surveyor General, Surveyor General's Office attended Indo-Pak biannual meeting in Lahore (Pakistan) from 13-10-2008 to 16-10-2008.

Sh. Iqbal Singh Superintending Surveyor, Punjab & Chandigarh GDC attended India-Pakistan Joint Director's Inspection of Indo-Pak boundary survey on 16-03-2009 (India side) & 18-03-2009 (Pakistan side).

SCIENTIFIC ACTIVITIES

Geodetic activities undertaken in Geodetic & Research Branch, Survey of India during the period under report include the following major disciplines:

- (a) Establishment of primary planimetric and height control for National Control Framework, its densification for mapping.
- (b) Geophysical surveys i.e. Gravimetric, Geomagnetic & Astronomical Surveys.
- (c) Retrieval and storage of GPS data being recorded at thirty-three Permanent stations established at Almora. Aizawal (Mizo. Univ.), Bangalore (CMMACS), Bhatwari, Bhopal (R.R. L.AB), Bomdila (Tex. Uni.), Bhubaneshwar (SOI), Dehra Dun (SOI), (WIHG), Delhi, Dhanbad (WIHG), Guwahati (Univ.), Gangtok (GBPHED). Hanley (IIA), Imphal (Manipur Univ.), Jabalpur (GIS), Kanpur (IIT), Kothi (WIHG), Kodai Kanal (IIA), Leh (IAOH), Lucknow (GIS), Kukchung (NU), Munsiri (WIHG), Mumbai (IITB), Naddi (WIHG), Pananik (WIHG), Pithoragarh (WIHG), Pune, Shillong, Thiruvananthapuram (SOI), Tezpur (Tez. Univ.) , Lumani (Tex. Univ.), Chitrakut (IIT Kanpur), maintained by SOI and other organizations.
- (d) Sea level observations to establish the mean sea level. These observations are required to establish the datum for height control and tide predictions used by port authorities for navigational purpose.
- (e) Modernization of Tide Gauge Network of India.
- (f) Provision of Geodetic & Geophysical control for developmental projects within the country and also in adjacent countries.
- (g) Central Store Maintenance Wing (CSMW) has the role of repair, production, calibration, quality control of surveying instruments. CSMW also undertakes the manufacturing of analogue survey pattern tide gauge as and when required.
- (h) Geodetic studies for monitoring the crustal movement, dam deformation, checking of verticality of archaeological structures, earthquake studies etc.

- (i) National/International collaborative activities in the field of Geodesy and Geophysics.
- (j) Mapping of Antarctica (Maitri & Environs) region.
- (k) Research & Development Programme in Sea level studies, Glaciology, Earthquake prediction etc.

COLLABORATIVE SCIENTIFIC ACTIVITIES

Following collaborative scientific activities in the field of Geodesy and Geophysics were continued:

Magnetic data was supplied regularly to IIG, Mumbai and also supplied to World Data Centre when ever required it.

Supply of Mean Sea Level data of 18 Indian ports to International Permanent Service for Mean Sea Level (IPSMML), U.K. for various scientific studies by the International Geodetic Community.

Field work and processing of data for transformation parameters between WGS-84 Datum and Everest Spheroid completed.

RESEARCH AND DEVELOPMENT

The main thrust of the research and developmental activities of the Geodetic & Research Branch during the period under report has been focussed towards:

Processing / analysis of pre & post Tsunami GPS data of Andaman & Nicobar Islands for crustal deformation & tectonic movement studies.

Backup and archival of data received from permanent GPS stations.

Downloading of precise ephemerides of IGS stations from web sites through internet.

Adjustment of Second Level Net in India (data compilation).

Data processing/ analysis and tidal predictions for year 2007 and 2008.

As a sequel to above programs, the following activities were initiated/ Completed.

Data acquisition with Global Positioning System in static relative mode to obtain transformation parameters between the Everest Spheroid and WGS-84.

Gravity data acquired for equal for crustal movement studies across faults/ thrust zones as well as for Geodetic and Geophysical studies for International Geodynamics projects is being restructured and formatted, so as to meet the requirements (of redesigned mathematical model).

PARTICIPATION IN INDIAN SCIENTIFIC EXPEDITION TO ANTARCTICA

Two officers were deputed for 28th Indian Scientific Expedition to Antarctica and carried out the following task:

- (i) Original P.T. Survey on scale 1:5,000 with C.I. 5 metres and 5 m C.I. in Larsemann Hill and Schirmacher Oasis, Maitri.
- (ii) Seven days GPS observations in campaign mode was carried out at Larsemann Hill and Maitri stations to carry out plate movement studies of Antarctic plate with respect to Indian plate.
- (iii) Assistance to other scientific teams participating in the expedition to help in perusing their scientific jobs through survey and allied work.

PRINTING

The following maps were printed during the year:

Maps.			Nos.
1:25,000	...	...	80
1:50,000	...	...	517
1:250,000	...	...	08
Geographical Maps & Indices	...	...	14
Miscellaneous Maps/ Indices/ Charts etc.	...	...	Nil

SPECIAL PURPOSE MAPS

The following special purpose maps were also printed during the year:

Maps.		Nos.
District Planning Maps	...	00
Project Maps	...	03
Miscellaneous Maps / Indices / Charts etc.	...	551

MAP SALES

Maps, Digital data supplied/ sold to the Ministry of Defence, Central and State Government and other users agencies.

TRAINING

530 trainees including 54 extra-departmental, 33 private and 29 foreign candidates are undergoing training in various courses run by Survey Training Institute, Hyderabad as per details given in Appendix 'A'.

PUBLICATIONS

The following publications were brought out during the period under report

Indian Tide Tables 2009

Hugli River Tide Tables 2009

Magnetic Bulletin of Sabhawala Magnetic Observatory for the year 2007-08.

CONFERENCES/ SEMINARS/ MEETINGS

Brig. Girish Kumar, Deputy Surveyor General, International Boundary Directorate (SGO) along with Sh. J.K.Rath, Director, West Bengal & Sikkim GDC attended in-house meeting of Indian delegation at Kolkata on 01-04-2008 in connection with forthcoming Indo-Bangladesh DG Level Co-ordination conference to be held in Delhi from 07-04-2008 to 12-04-2008.

Brig. R.S.Tanwar, Surveyor General of India attended meeting with Secretary DST, he also held discussions with Kalyani Networks & NSDI officials at New Delhi from 03-04-2008 to 04-04-2008.

Brig. (Dr.) B.Nagarajan, Additional Surveyor General, G&RB attended meeting at MOGSGS regarding the restriction policy of gravity data & map projection system for Defence Services from 25-04-2008 to 26-04-2008.

Maj. Gen. R.S.Tanwar, Surveyor General of India, along with Maj. Gen., Shamsheer Singh, Additional Surveyor General & Sh. Vipin Chandra, Director, Admn. & Finance, Surveyor General's office attended plan fund meeting in DST, New Delhi on 22-05-2008.

Sh. A.S.Chauhan, Superintending Surveyor, Surveyor General's Office, attended meeting / discussion with Secretary, D.S.T, New Delhi in respect of report on 6th Central Pay Commission on 22-05-2008.

Smt. Bindu Manghat, Superintending Surveyor, Survey (Air) & Delhi GDC, attended a workshop on "Development of Crime Mapping Software in India" organized by Bureau of Police Research & Development at New Delhi on 24-05-2008.

The secretary, Department of science & Technology addressed a conference attended by Maj. Gen. R.S.Tanwar Surveyor General of India along with senior officers from Survey of India at the United Services Institution (USI), Delhi Cantt. On 26-05-2008.

Brig. Girish Kumar, Director, International Boundary Directorate (SGO) attended meeting/discussion with the Army Commander, Eastern Command, Kolkata on 19-06-2008.

Brig, G.S.Chandela, Director, Survey (Air) & Delhi GDC participated in the meeting for DST's, Expert Committee at HP Agriculture University, Palampur Himachal Pradesh from 19-06-2008 to 21-06-2008.

Sh. Vipin Chandra, Director, Admn. & Finance, Surveyor General's office held discussion on financial powers of Zonal Additional. Surveyor General & cadre restructuring from 03-07-2008 to 04-07-2008.

Sh. Ram Prakash, Deputy Surveyor General, Surveyor General's office attended Vigilance Officer's meeting at Indian Institute of Science Campus, Bangalore from 06-07-2008 to 07-07-2008.

Sh. R.M.Tripathi, Director, Assam & Nagaland GDC attended meeting with chief secretaries of Assam & Meghalaya regarding inter state boundary dispute held on 31-07-2008 at Guwahati.

Sh. Iqbal Singh, Superintending Surveyor, Punjab & Chandigarh GDC attended meeting of boundary pillars survey/construction job at MEA, New Delhi on 04-08-2008.

Sh. N.Samantray, Superintending Surveyor, Surveyor General's Office attended meeting regarding procurement of aerial photographs at DST, New Delhi on 07-08-2008.

Brig. V.P.Srivastava, Director, G&RB visited Hyderabad for discussion at INCOIS, Hyderabad regarding ongoing project of Modernization of Indian T.G Network and meeting with officials of ECIL, Hyderabad regarding the establishment of mesh network from 13-08-2008 to 14-08-2008.

Brig. Girish Kumar, Director, International Boundary Directorate (SGO) attended DSSDI review meeting called by Hon'able Minister of Science & Technology on 19-09-2008 at New Delhi.

Dr. Prithvish Nag, Surveyor General of India along with Major General Shamsheer Singh, Additional Surveyor General (Tech) & Sh. Chandra Pal, Director, Haryana GDC attended ceremony of release of OSM/DSM data pertaining to Himachal Pradesh. The data released by Hon'able Governor Himachal Pradesh on 04-10-2008 at Shimla.

Dr. Prithvish Nag, Surveyor General of India held discussion with Revenue Secretary, Govt. of Kerala at Delhi on 24-10-2008.

Sh. S.V.Singh, Deputy Director, Surveyor General's office attended meeting at TCPO for NUIS Project at New Delhi on 18-11-2008.

Sh. Naveen Tomar, Deputy Surveyor General, Surveyor General's office visited DST, New Delhi & held discussion at DST/ Controller of Accounts, on 26-11-2008.

Seminar on "GIS Envision Series" Conducted by ESRI India, was attended by Maj. Gen. S.V.Chinnaver, Additional Surveyor General & Sh. F.M.Panigrahi, Superintending Surveyor, Indian Institute of Surveying & Mapping at Hyderabad on 10-11-2008

Maj. Gen. G.S.Chandela, Director, Survey (Air) & Delhi GDC attended "3rd Meeting of Expert Committee to look into all aspects of preparation of topographical maps on scale 1: 10K using high resolution satellite imagery" on 12-12-2008 at NSSDI New Delhi.

Maj. Gen. S.K.Pathak, Director, International Boundary Directorate Surveyor General's office and Sh. R.K. Meena, Deputy Surveyor General, Survey (Air) & DGDC participated in meeting of the project sanctioning and monitoring committee under the centrally sponsored scheme of National Land Records Modernization Programme (NLRMP) on 18-12-2008 at New Delhi.

Lt. Gen. Mohan Pandey (Retd.), consultant (DST) along with Sh. Neeraj Kela, Director, (SMP) visited Indian Institute of Surveying & Mapping Hyderabad from 28-01-2009 to 29-01-2009. They also held discussion with Additional Surveyor General and other faculty heads and also discussed issues connected with the institute and reviewed the training programme.

Maj. Gen. S.K.Pathak, Additional Surveyor General, International Boundary Directorate (SGO) attended Inter-Ministerial-Maritime base line in Ministry of External Affairs, Joint Secretary (PAI) South Block, New Delhi on Sir Creek issue on 04-02-2009.

Maj. Gen. Tavinder Paul, Additional Surveyor General, along with Sh. Naveen Tomar, Deputy Surveyor General, Surveyor General's Office made a presentation in D.S.T., New Delhi on 20-02-2009.

Sh. Ram Prakash, Deputy Surveyor General, Surveyor General's office attended the hearing at Central Information Commission office, New Delhi on 24-02-2009.

Sh. S.V. Singh, Deputy Director, Surveyor General's office attended meeting in NRSC for NUIS Project at Hyderabad on 18-03-2009.

Maj. Gen. S.K.Pathak, Additional Surveyor General, International Boundary Directorate, Surveyor General's Office attended meeting of Steering Committee (Geo-Physical Hazards) at NDMA, New Delhi on 25-03-2009.

Maj. Gen. S.V.Chinnawar, Additional Surveyor General (SGO) attended meeting at NIC, New Delhi on 27-03-2009

Sh. Vipin Chandra, Director, Admn. & Finance, Surveyor General's Office attended budget meeting with Secretary, D.S.T., New Delhi on 27-03-2009.

TECHNICAL PAPERS

Sh. Sreedhar Sahu, Superintending Surveyor, Kerala & Lakshdweep GDC attended INCA Conference at Ahmedabad and presented paper on cadastral survey project of Kavaratti..

Shri P.V. Rajshekhar, Director, J&K GDC presented a technical paper in the Map World Forum at Hyderabad.

Sh. P. Nagendra Prasad, Deputy Surveyor General, IIS&M, Hyderabad. made a presentation on "Survey training Institute's contribution towards capacity building in Geo-Spatial Technology" at Jawaharlal Nehru Technological University, Hyderabad on 10.05.2008.

Maj. Gen. V.P. Shrivastava Additional Surveyor General, G&RB made a presentation at DST, New Delhi on 16-01-2009.

Sh. G.C. Nayak, Superintending Surveyor, IIS&M, Hyderabad made a presentation on "Large scale mapping from CARTOSAT – I Stereo Data an evolution" at NRSC, Hyderabad.

FOREIGN VISITS/ STUDY TOURS/ DEPUTATION

Sh. Vipin Chandra, Director, Admn. & Finance, Surveyor General's Office participated in Map Middle East 2008 – 4th Annual Conferences and Exhibition in Dubai 08-04-2008 to 10-04-2008.

Sh. G.Varuna Kumar Superintending Surveyor, G&RB visited National Tidel Centre, Kent Town, Australia to attend Training on Indian Ocean Tsunami Warning System from 30-05-2008 to 31-05-2008.

Dr. Prithvish Nag, Surveyor General of India, visited Norwegian Geo investigation Institute, Norway from 06-08-2008 to 12-08-2008 and also attended International Congress.

Maj. Gen. R.S.Tanwar, Additional Surveyor General, Surveyor General's Office visited Malaysia from 19-08-2008 to 22-08-2008 and attended 14th PCGIAP meeting and International Seminar on land administration at Kuala Lumpur (Malaysia).

Maj. Gen. Shamsheer Singh, Additional Surveyor General, Surveyor General's Office, visited Dhaka (Bangladesh) to attend Maritime boundary meet from 15-09-2008 to 17-09-2008.

Dr.M.C Tiwari, Deputy Surveyor General, International Boundary Directorate (SGO) visited Kathmandu (Nepal) to attend 30th JTC meeting regarding India-Nepal boundary survey from 22-09-2008 to 25-09-2008.

Maj.Gen Tavinder Paul Additional Surveyor general, Surveyor General's Office visited Pakistan to attend Indo-Pak biannual meeting at Lahore from 13-10-2008 to 16-10-2008.

Maj.Gen V.P Srivastava, Director G&RB visited Bhutan from 20-11-2008 to 22-11-2008 to inspect the detachment of Survey of India working in Punatsangchhu HE Project and also discussed with the project authorities.

Maj.Gen S.K Pathak, Additional Surveyor General, International Boundary Directorate (SGO) visited Xangon, Myanmar from 28-03-2009 to 29-03-2009 to attend 16th Secretarial Level Meeting between India and Myanmar.

VISIT TO SOI OFFICES

Northern Printing Group, Dehra Dun

- 55 Students and staff members from, Khun – Khungi Girls Degree College, Lucknow on 04-04-2008.
- 3845 Students and staff members from Samta, Degree College Sadat, Gajipur on 10-06-2008.
- 27 Students and staff members from Jawaharlal Nehru, Smarak P.G. College, Maharajganj U.P. on 14-07-2008.
- 30 Cadets and staff members from R.B.Sanya College, Dehra Dun Cantt. on 31-07-2008.
- A group of 62 students from Ranbir Inter College, Amethi, Sultanpur on 09-09-2008.
- A team of students from National Institute of Technology, Hamirpur on 06-03-2009.
- A Group of students from Prof. K.K.Wagh, Institute of Engineering, Nasik on 18-03-2009.
- 20 students and staff members from Prof. Bangalore University, Bangalore on 12-03-2009.
- A Group of students from Prof. University, New Delhi on 18-03-2009.
- 16 students and staff members from Prof. Cept University, Ahmedabad on 25-03-2009.

National Geo-spatial Data Centre, Dehra Dun

- Dr. S.S. Singh and students of DCSK P.G. College, Maunath Bhajan, Man (U.P.) on 23-05-2008.
- Maj. (Dr.) A.K.Singh, Head, Geography Deptt. and 72 students of Sh. Baldev P.G. College Baragoan, Varanasi on 12-06-2008.
- Mr. R.Thamil Selven, Ms. Neelam Kaushik and 30 Cadets of Rastriya Indian Military College (RIMC) Dehra Dun on 31-07-2008.
- Lt. Gen. P.C.Katoch, UYSM, AVSM, SC, Director General of Infosys on 14-08-2008.
- Two Professors and 49 students of Deptt. of Geography, University of Burdwan, Golapbag Burdwan (WB) on 23-11-2008.

CULTURAL AND EDUCATIONAL ACTIVITIES

To commemorate the birthday of Moulana Abdul Kalam Azad, a great freedom fighter and eminent educationist and the 1st Union Minister of Education, National Education Day was celebrated at Indian Institute of Surveying & Mapping, Hyderabad on 11-11-2008. As a part of celebration, an essay writing competition was organized in the institute, in which officers and staff from Group 'A' to 'D' of this institute participated. The officers of this institute had also organized lectures on map appreciation in the school for student / staff.

NATIONAL SCIENCE DAY

National Science Day was celebrated in all the offices of Survey of India on 28-02-2009 as a part of the Country wide celebration. Open days were organized on 27th & 28th February, 2009 and celebrated by displaying the exhibits and demonstration of various modern instruments related to Surveying and Mapping. The students and teachers from different schools & institutes and general public visited the exhibitions. The theme of the celebration was " Expanding Horizons of Science".

On this occasion a film was screened at Geodetic & Research Branch of Survey of India, Dehra Dun based on the life of surveyors, which gives the knowledge about the instruments, equipments and survey work carried out in various part of the country.

DEVELOPMENT SURVEYS

The following project surveys were continued/ carried out during the year 2007-2008.

<u>State</u>	<u>Name of Project</u>
--------------	------------------------

Arunachal Pradesh:

Tawan Basin H.E. Project
Large Scale Mapping of Ittanagar Project

Bhutan:

Punatsangchhu HE Project Stage II

Gujarat:

Kalpasar Project

Himachal Pradesh:

Koldam HE Project
Soan Flood Protection Project
Renuka Dam HE Project
Rampur HE Project
Kasang HE Project
Kuddu HE Project

Karnataka:

Nirmala Nagar Project

Meghalaya:

Tura & Barapani Airport Project
NUIS Project – Tura

Punjab:

Ranjit Sagar Dam Project

Uttar Pradesh:

Rihand Dam Deformation Project
Indrapuri Reservoir Project

Uttarakhand:

Koteshwar HE Project
Lohari-Nag-Pala HE Project
Jamrani Dam H.E. Project
Tehri Dam HE Project

COURSES RUN AND OFFICERS TRAINED
REGULAR/ SCHEDULED COURSES

SL. NO.	COURSE NO.	NOMENCLATURE	DEPTL.	EXTRA DEPTL.	FOREIGN	OTHERS	TOTAL
1	115.17	Office Management	07	-	-	-	07
2	150.83 #	Surveying Technician	17	-	-	-	17
3	150.84 #	Surveying Technician	10	-	-	-	10
4	340.34	Digitization of Cartographic Documents	09	-	-	-	09
5	340.35	Digitization of Cartographic Documents	21	-	-	-	21
6	340.36	Digitization of Cartographic Documents	19	-	-	-	19
7	400.83#	Surveying Supervisor	06	-	02	-	08
8	400.84(A) #	Surveying Supervisor	38	-	-	-	38
9	400.84(B) #	Surveying Supervisor	23	-	-	-	23
10	400.85 #	Surveying Supervisor	23	-	-	-	23
11	400.86(A)	Surveying Supervisor	41	-	02	-	43
12	400.86(B)	Surveying Supervisor	42	01	-	-	43
13	400.87	Surveying Supervisor	11	-	-	-	11
14	400.88	Surveying Supervisor	29	-	-	-	29
15	400.89	Surveying Supervisor	03	-	-	-	03
16	415.01	Use of Total Station in Cadastral Survey		18	-	-	18
17	440.14	GIS Applications	13	01	-	01	15
18	445.89	Photogram metric Operator	04	-	-	-	04
19	480.18#	Digital Photogrammetry & Remote Sensing	02	02	-	04	08
20	480.19	Digital Photogrammetry & Remote Sensing	05	09	-	01	15
21	480.20	Digital Photogrammetry & Remote Sensing	08	-	-	07	15
22	480.21	Digital Photogrammetry & Remote Sensing	18	-	-	02	20
23	495.18	Fundamentals of Survey Engineering	15	-	-	-	15
24	560.67#	Surveying Engineer	-	-	10	-	10
25	560.68#	Surveying Engineer	-	-	09	-	09
26	560.69	Surveying Engineer	03	-	06	01	10
27	585.03	Map updation using Mobile Mapping System	19	-	-	-	19
28	690.14	Control & Detail Survey by GPS & total station	02	07	-	04	13
29	690.15	Control & Detail Survey by GPS & total station	03	06	-	02	11
30	700.19	Advanced Geodesy	03	-	-	-	03
31	710.27	Advanced Photogrammetry & Remote Sensing	07	-	-	-	07
32	740.06	Advanced Course on GIS	10	10	-	07	27
33	770.01#	Advanced Geomatics	04	-	-	-	04
34	770.02	Advanced Geomatics	03	-	-	-	03
		TOTAL	414	54	29	33	530

*Courses continuing from previous year.

SPECIAL COURSES FOR SPECIFIC USERS

SL. NO.	COURSE NO.	NOMENCLATURE	DEPTL.	EXTRA DEPTL.	FOREIGN	OTHERS	TOTAL
1	Spl.	Special course on GIS for Indian Meteorological Staff	-	03	-	-	03
2	Spl.#	Special course in Cadastral Survey for Mizoram Staff	-	24	-	-	24
3	Spl.#	Capacity Building Programme for Working Level Officers of TCPO	-	36	-	-	36
4	Spl.	Vocational Practical training for Engineering student	-	-	-	27	27
5	Spl.	Practical Use of photogrammetry in preparation of Cadastral Maps	-	14	-	-	14
6	Spl.	Mobile Mapping and Use of Total Station For NATMO Officials	-	06	-	-	06
7	Spl.	Latest Survey Techniques for Power Grid Officials	-	15	-	-	15
8	Spl.	Special Course for Kerala Staff on Cadastral Surveying – 1 st Batch	-	30	-	-	30
9	Spl.	Special Course for Kerala Staff on Cadastral Surveying – 2 nd Batch	-	30	-	-	30
10	Spl.	Special Course for Kerala Staff on Cadastral Surveying – 3 rd Batch	-	30	-	-	30
11	Spl.	Refresher Training Programme for the Staff of Singareni Collieries	-	16	-	-	16
12	Spl.	Training in Cadastral Survey to Executive Officers to State of Government	-	19	-	-	19
13	Spl.	Advanced Investigation Techniques in Surveying & Mapping for I&CAD Department of Andhra Pradesh	-	30	-	-	30
14	Spl.	Advanced Investigation Techniques in Surveying & Mapping for I&CAD Department of Andhra Pradesh	-	30	-	-	30
15	Spl.	Special Course on Surveying for Trainees of Sikkim Government	-	07	-	-	07
16	Spl.	Special Course on Geo-referencing & Vectorisation for trainees of Kerala Government	-	30	-	-	30
17	Spl.	Tailor made Course on Cadastral Survey for Official of Orissa Government	-	17	-	-	17
18	Spl.	Training on Land Information System (NLRMP)	-	13	-	-	13
19	Spl.	Training on Land Information System (NLRMP)	-	18	-	-	18
20	Spl.	Training on GPS & Total Station for trainees of Kerala Government (IV th Batch)	-	30	-	-	30
		TOTAL	-	398	-	27	425

SHORT TERM AWARENESS COURSES

SL. NO.	COURSE NO.	NOMENCLATURE	DEPTL.	EXTRA DEPTL.	FOREIGN	OTHERS	TOTAL
1	-	Seminar on GIS and other Modern Trends in Mapping	05	30	-	-	35
2	-	GPS & Total station concept & Application	-	35	-	-	35
3	-	Datum Co-ordinates & Map Projection- Concept for Advanced Map user	-	23	-	-	23
4	-	Photogrammetry & Remote Sensing an over view for policy maker	-	23	-	-	23
5	-	Modern Survey Instruments & Techniques	-	14	-	-	14
TOTAL			05	125	-	-	130

Appendix - D**ACADEMIC COURSES**

SL. NO.	COURSE NO.	NOMENCLATURE	DEPTL.	EXTRA DEPTL.	FOREIGN	OTHERS	TOTAL
01.	Academic	M.Tech (Geomatics) - 2006 - 08 #	-	01	-	10	11
02.	Academic	M.Tech (Geomatics) - 2007 - 09 #	-	-	-	12	12
03.	Academic	M.Tech (Geomatics) - 2008 - 10 #	-	-	-	12	12
TOTAL			-	01	-	34	35

*Courses continuing from previous year.

USE OF HINDI IN OFFICIAL WORK

In accordance with the Official Languages Rules, 1976, 15 Geo-Spatial Data Centres/ Directorates/ Printing groups including Headquarter of Survey of India are located in Region 'A' while 5 Geo-Spatial Data Centre in Region 'B' and 14 Geo-Spatial Data Centres/ Training Institutes/ Printing groups are in Region 'C'. The position regarding the use of Hindi in the Department for the year 2008-2009 remained as under:-

Correspondence

During the year 2008-2009 intensive measures were taken for transacting the official work of the Union in Hindi by the various offices of the department. 5,766 documents were issued bilingually under section 3(3) of the Official Languages Act, 1963. Letters received in Hindi were replied to in Hindi. Region wise position regarding correspondence in Hindi remained as under:-

- 1) Correspondence in Hindi by the offices located in Region 'A'
 - With 'A' and 'B' Region – 78.2 %
 - With 'C' Region – 67.4 %
- 2) Correspondence in Hindi by the offices located in Region 'B'
 - With 'A' and 'B' Region – 71.4 %
 - With 'C' Region – 64.4%
- 3) Correspondence in Hindi by the offices located in Region 'C'
 - With 'A', 'B' and 'C' Region – 26.1 %

Training

During the period under report 32 officers/employees passed Hindi Prabodh, Praveen and Pragma examination and 07 LDC's passed Hindi Typing examination, under Hindi Teaching Scheme.

Hindi workshop

With a view to acquaint with the Official Language orders/rules and the target laid down in the Annual Programme Hindi workshops were organized in Surveyor General's Office, Dehra Dun, Central Zone, Jabalpur and Digital Mapping Centre, Dehra Dun. 77 officers/employees received training in these workshops. Hindi workshops were organized in Kerala & Lakshdweep, GDC, Thiruvanthpuram located in Region 'C' on 12-08-2008 to 14-08-2008. In this workshop Sh. Doom Singh, Assistant Director (Official Language) Surveyor General's Office, Dehra Dun, delivered a lecture on the policy of official language of the union Sh. Nand Kumar Tiwari, Assistant, Surveyor General's Office presented the paper on "MANSIK TANAV & YOGA" on 11-11-2008 in defence Research & Development Establishment, Dehra Dun for all India scientist and technical Hindi seminar.

Incentive Scheme

During the year 2008-2009 incentive schemes for noting and drafting for doing official work in Hindi, Hindi typing and Hindi stenography remained continued. Till now 64 employees of the Department have been awarded under the incentive scheme for noting and drafting in Hindi.

Hindi Day / Fortnight / Function

During the year Hindi day/Hindi fortnight/Hindi functions were organized in the month of September in various offices of the department. To encourage the use of Hindi various competitions pertaining to Hindi were organized on this occasion and the winners were awarded. Chal Vaijanti running shield was given to the L.A.P section for during maximum work in Hindi in Surveyor General's Office, Dehra Dun. On the occasion of Prize distribution ceremony Hindi quiz competition was also organized besides recitation of poems in Hindi.

Publication of in-house Magazine in Hindi

The following offices published in-house magazines in Hindi during the period under report:-

1. Surveyor General's Office, Dehra Dun	-	सर्वेक्षण दर्पण
2. Business & Publicity, Dehra Dun	-	दृश्यांतर
3. Uttarankhand GDC, Dehra Dun	-	प्रयास
4. Andhra Pradesh GDC, Hyderabad	-	कलाकल
5. Punjab and Chandigarh GDC, Chandigarh	-	जागृति
6. Survey Training Institute, Hyderabad	-	प्रतिबिम्ब
7. Geographical Information System & Remote Sensing Directorate, Hyderabad	-	पुष्पांजली
8. Southern Printing Group, Hyderabad	-	प्रेरणा
9. Himachal Pradesh GDC, Chandigarh	-	हिमशिखर
10. Haryana GDC, Chandigarh	-	दिव्य ज्योति
11. Western Printing Group, Delhi	-	मुद्रण दीपिका
12. Jharkhand GDC, Ranchi	-	अभिव्यक्ति

Meetings

During the year 2008-2009 quarterly meetings of the Official Language Implementation Committee were held in almost all the Geo-Spatial Data Centres / Directorates etc. of the Department located in Region 'A', 'B' and 'C'. In these meetings discussions were held to achieve the targets given in the Annual Programme issued by the Govt. of India for transacting the Official work of the union in Hindi.

Town Official Language Implementation Committee, Dehra Dun awarded a shield and letter of appreciation to Surveyor General's Office, Dehra Dun for achieving second position, for the implementation of Official Language Policy during the year 2008-2009.

Inspection

During this period Sh. Doom Singh, Asstt. Director (O.L.) Surveyor General's Office, Dehra Dun was carried out the inspection regarding the use of Hindi in Kerala & Lakshdweep GDC located in Region 'C' Thiruvanthpuram on 13-08-2008 & 14-08-2008.

ANNUAL STATEMENT SHOWING THE REPRESENTATION OF SC's, ST's AND OBC's IN VARIOUS GROUP 'A' SERVICE AS ON 01-01-2009 AND NUMBER OF APPOINTMENTS MADE IN THE SERVICE IN VARIOUS GRADE IN THE PRECEDING CALENDAR YEAR- 2008

SERVICE: MINISTRY/DEPARTMENT /ATTACHED /SUBORDINATE OFFICE: - SURVEY OF INDIA

Groups	Representation of SCs/STs/OBCs (As on 01-01-2009)				Number of appointments made during the calendar year 2008									
					By Direct Recruitment				By Promotion			BY Deputation/Absorption		
	Total Number of Employees	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Group A	208	21	12	7	-	-	-	-	-	-	-	-	-	-
Group B	559	86	63	10	-	-	-	-	19	9*	2*	-	-	-
Group C	3,741	684	259	189	133	21	8	40	120	35*	13*	-	-	-
Group D (Excluding Sweepers)	3,033	808	120	72	-	-	-	-	-	-	-	-	-	-
Group D (Sweepers)	124	120	2	-	-	-	-	-	-	-	-	-	-	-
Total	7665	1719	456	278	133	21	8	40	139	44	15	-	-	-

NOTE: If scales of pay in any service are different, applicable scales in the service may be indicated in column 1.

SC/ST/OBC REPORT-II

ANNUAL STATEMENT SHOWING THE REPRESENTATION OF SC's, ST's AND OBC's AS ON 01-01-2009 AND NUMBER OF APPOINTMENTS MADE DURING PRECEDING CALENDAR YEAR -2008

SERVICE: MINISTRY/DEPARTMENT /ATTACHED /SUBORDINATE OFFICE: - SURVEY OF INDIA

Groups	Representation of SCs/STs/OBCs (As on 01-01-2009)				Number of appointments made during the calendar year 2008									
					By Direct Recruitment				By Promotion			BY Deputation/Absorption		
	Total Number of Employees	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
8000-13500	12	1	2	-	-	-	-	-	1	-	1	-	-	-
10000-15200	90	5	2	2	-	-	-	-	-	-	-	-	-	-
12000-16500	5	-	-	-	-	-	-	-	-	-	-	-	-	-
14300-18300	27	8	3	-	-	-	-	-	-	-	-	-	-	-
16400-20000	5	-	-	-	-	-	-	-	1	-	-	-	-	-
18400-22400	15	-	-	-	-	-	-	-	2	-	-	-	-	-
22400-24500 & above	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	155	14	7	2	0	0	0	0	4	0	1	0	0	0

* No Other SC/ST candidates are available even in the extended zone of consideration.

**ANNUAL STATEMENT SHOWING THE REPRESENTATION OF THE
PERSONS WITH DISABILITY IN SERVICES
(As on 01-01-2009)**

MINISTRY/DEPARTMENT: Ministry of Science & Technology
ATTACHED/SUBORDINATE OFFICE: Survey of India

GROUP	Number of Employees				
	Total	In Identified Posts	VH	HH	OH
1	2	3	4	5	6
Group A	208	1	-	-	1
Group B	559	6	-	-	6
Group C	3741	42	-	-	42
Group D	3157	3	-	-	3
Total	7665	52	-	-	52

Note: (I) VH Stands for Visually Handicapped (persons suffering from blindness or low vision)
(II) HH Stands for Hearing Handicapped (persons suffering from hearing impairment)
(III) OH stands for Orthopaedically Handicapped (persons suffering from locomotor Disability or cerebral palsy)

**STATEMENT SHOWING THE NUMBER OF PERSONS WITH
DISABILITIES APPOINTED DURING THE YEAR
(FOR THE YEAR-2008)**

MINISTRY/DEPARTMENT: Ministry of Science & Technology
ATTACHED/SUBORDINATE OFFICE: Survey of India

GROUP	DIRECT RECRUITMENT									PROMOTION						
	No. of vacancies reserved			No. of Appointments Made						No. of vacancies reserved			No. of Appointments Made			
	VH	HH	OH	Total	In Identified Posts	VH	HH	OH	VH	HH	OH	Total	In Identified Posts	VH	HH	OH
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
GROUP A	-	-	-	-	-	-	-	-	NIL	NIL	NIL	-	-	-	-	-
GROUP B	-	-	-	-	-	-	-	-	NIL	NIL	NIL	-	-	-	-	2
GROUP C	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	4
GROUP D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	6

Note: (I) VH Stands for Visually Handicapped (persons suffering from blindness or low vision)
(II) HH Stands for Hearing Handicapped (persons suffering from hearing impairment)
(III) OH stands for Orthopaedically Handicapped (persons suffering from locomotor Disability or cerebral palsy)
(IV) There is no reservation for the persons with disabilities in case of promotion to Group A And B Posts. However, persons with disabilities can be promoted to such posts, provided the Concerned post is identified suitable for persons with disabilities.