



भारतीय सर्वेक्षण विभाग SURVEY OF INDIA

(विज्ञान एवं प्रौद्योगिकी विभाग)
(DEPARTMENT OF SCIENCE & TECHNOLOGY)

वार्षिक रिपोर्ट ANNUAL REPORT

2011 - 2012

भारत के महासर्वेक्षक के आदेश से प्रकाशित

PUBLISHED BY THE ORDER OF THE SURVEYOR GENERAL OF INDIA

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CHARTS

- Status of Topo Maps on 1:25,000 scale
- Status of OSM on 1:50,000 scale, Topo Maps on 1:250,000 & 1:1 M IMW & WAC (ICAO)
- Locations of Survey of India offices

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. 10484 maps have been printed off till 31st March, 2012.

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	...	255
Maps under printing/ processing	...	01
Maps yet to be taken up	...	Nil

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 7334 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-Bangladesh, India-Bhutan and India-Myanmar are continued.

GEODETIC 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 measurements 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 seismicity 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

317 officers including 11 foreign nationals from Bhutan attended various courses while special courses are also conducted for 288 officers from various states and private personnel, at the Indian Institute of Surveying & Mapping, Hyderabad.

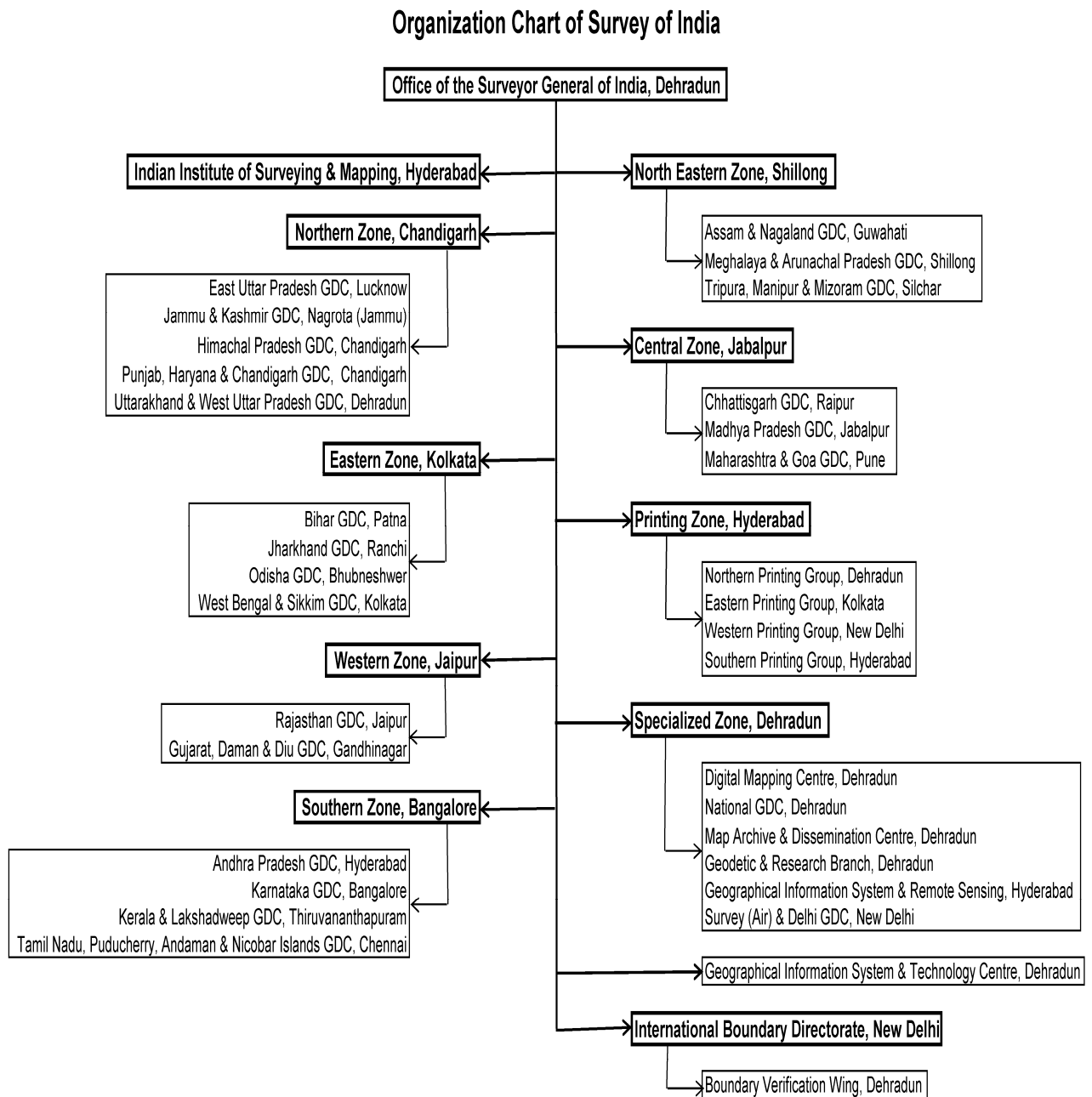
PRINTING

Printing of Topographical Maps, Geographical Maps, Special Purpose Maps, Project Maps, Tourist / Guide Maps and IAF Maps & Charts etc. was continued. 497 maps were printed during the year.

THE ORGANIZATION

Survey of India has been reorganized w.e.f. 15-05-2009* 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 Headquarter 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 Zones, Geo-spatial Data Centres, Special Directorates, and Printing Groups are as under:



GDC - Geo-spatial Data Centre

* SGO's No. W-340 / 709-GDC (Coll 7) dated 15-05-2009

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.

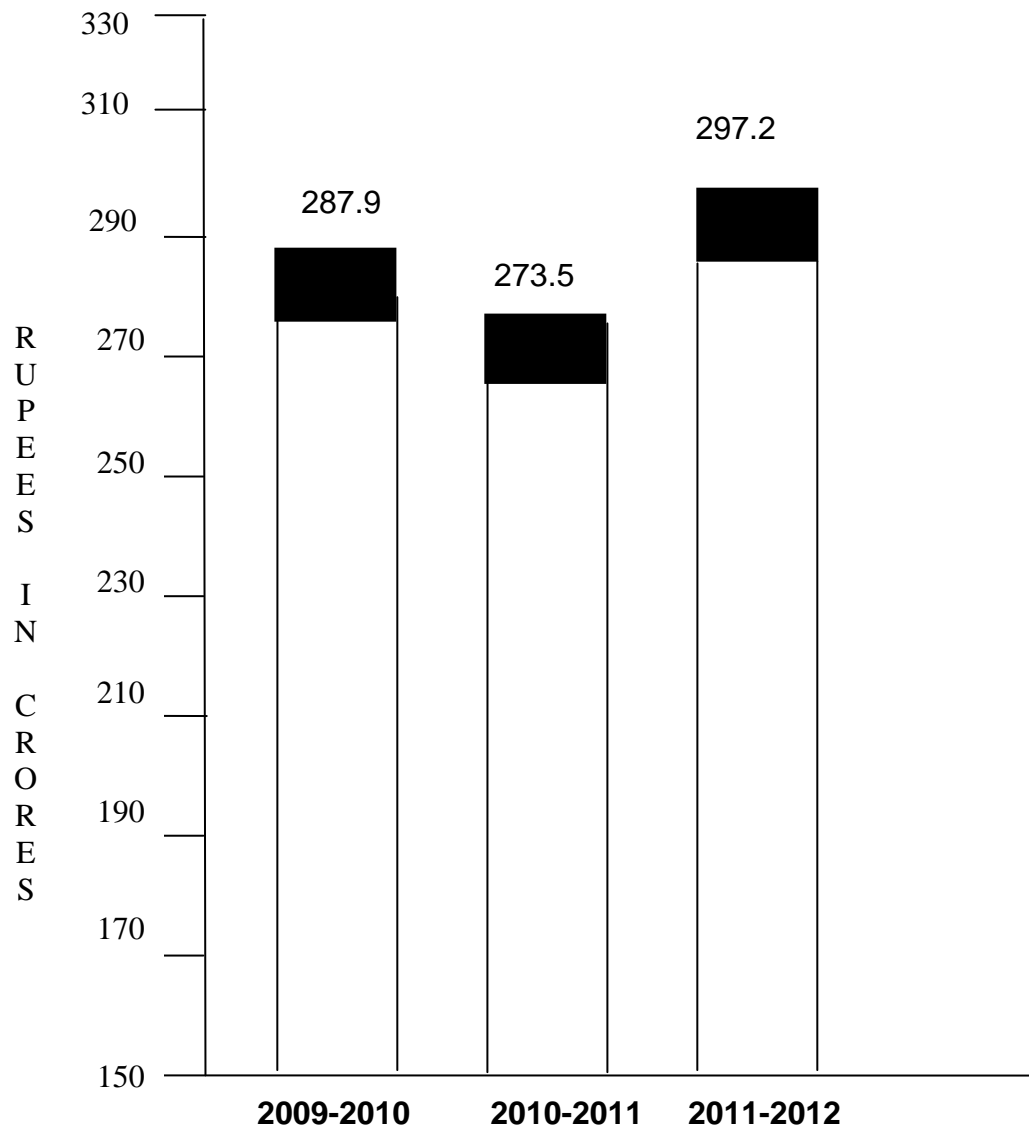
- i) Member of Executive Board of the Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP) under the auspice of the United Nations Regional Cartographic Congress (UNRCC).
- ii) Chairman of Standing Committee on Cartography and Mapping under NNRMS Programme, constituted by the Planning 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	Total
Group `A'	160
Group `B'	603
Group `C' Div.I	1,432
Group `C' Div.II	1,176
Ministerial Estt.	775
Group `D' Estt.	2,560

THE BUDGET



PLAN 
NON-PLAN 

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:

i)	GPS Observation for GCP Library	335 Stations for Phase II
ii)	High Precision Levelling for Redefinition of Indian Vertical datum	92 Lin km
iii)	Precision Levelling for Project Surveys	469 Lin km
iv)	EDM Traverse	46 Lin km
v)	Angular observation for projects	412 Stations
vi)	No. of bases for project surveys	43 bases
vii)	GPS observation for projects	11 Stations
viii)	Gravity observation	105 Stations
ix)	Geomagnetic repeat observations	6 Stations
x)	Levelling to connect Badplate with IMSL	110 Lin km

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 at 6 repeat stations to analyze Horizontal Force (HF), Vertical Force (VF) and declination (D) in Andaman & Nicobar Islands, Lakshadweep Islands and Uttarakhand.

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 2011-2012 and its publication in the form of Indian Tide Table-2012 and Hugli River Tide table 2012.

SPECIAL SURVEYS

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

<u>Out of India</u>	<u>Name of Special Survey</u>
Bhutan	Punatsangchhu HE Project Stage I Punatsangchhu HE Project Stage II

<u>State</u>	<u>Name of Special Survey</u>
Arunachal Pradesh	Attunli H.E. Project
Delhi	Air Strip Survey of Vansthali Vidyapeeth Project
Gujarat	ICZM Project Computer Aided Digital Mapping
Himachal Pradesh	Kauli HE Project Thana-Plaun & Beri – Nichli HE Project Nakthan HE Project Dhola Sidh HE Project
Manipur	Loktak Down Stream HE Project
Punjab	Nara Dam Project
Uttar Pradesh	Kadwan Project Taj Mahal, Agra Project Rihand Dam Project Maudha Dam Project
Uttarakhand	Tapovan Vishnugad Project

AERIAL PHOTOGRAPHY

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

Scale	Area covered	
1:8,000	5,366	Sq. Km.
1:10,000	15,217	Sq. Km.
1:15,000	9,950	Sq. Km.
1:20,000	1,975	Sq. Km.
1:40,000	16,334	Sq. Km.
Total:	48,842	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:

Digitization and Creation of Digital Cartographic Data Base (DCDB)

Departmental

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

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

Progress of OSM Sheets:

Total Sheets	DTDB updated	Submission of digital data for scrutiny		International Bdy. Coastal line verification		Patterning (F POP prep)			Final Printing				Remarks
		NGDC	GIS & RS	Submitted	Cleared	By GDC itself	By M/S Rolta	Total	English version		Hindi version		
									Submitted	Printed off	Submitted	Printed off	
5060	4673	2126	2545	622	419	1691	2703	4394	4124	1422	208	13	

Progress of DSM Sheets:

Total Sheets	Transformation	Patterning	Int.Bdy/ Coastal line Ver. Bdy by Bdy.Ver. Wing		ADGMS(GSGS)		Data archival in NGDC/	Printing	
			Submitted	Cleared	Sheet Submitted	Blue indent issued		Submitted	Printed off
5060	3918	3254	362	237	2670	2384	2167	1098	263

Digitization and creation of Cartographic Data Base of 7,334 sheets on 1:25,000 scales has been completed.

Progress of Important Project:

DSSDI Project:

Creation of Delhi State Spatial Data Infrastructure for GNCTD-3D GIS solution including of large scale base map.

Framework control, Aerial Triangulation, Digital Elevation Model & Ortho Photo has been completed and procurement of RFID devices under process.

Project Procedure documents, Data Modelling, System Integration and Operations: Equipment installed and Commissioned for 8 Monitoring centres has been completed and 2 in progress. Control centres are functional. Delhi Geo-Portal for DSSDI project is completed and testing is in progress. Capacity Building, Level 1, Level 2 and Level 3 are completed for all 29 departments.

3D Photogrammetric data captured (excluding buildings) are completed for all 9 districts. Ground Validation, Over Ground Utility Survey and creation of topographical data base are completed. Final data of 7 districts has been accepted and final checking of remaining 2 districts is in progress.

3D topology, generation, texturing, rendering & visualization is completed for all 9 districts (1424 sq km) except restricted area.

NUIS Project:

Survey of India has undertaken the task of mapping of 152 towns on 1:2000 scales for core area and 1:10,000 scale for the peripheral areas under National Urban Information Scheme (NUIS), of Ministry of Urban Development.

1:10,000 Scale Survey:

Satellite Imagery of 152 towns has been received scanning has been done for 151 towns for thematic mapping.

Thematic mapping of 132 towns have been completed and final product of 100 towns has been sent to State Nodal Agency after obtaining security clearance from GSGS.

1:2,000 Scale Surveys:

Aerial Photography of 133 towns received and scanned. Control points of 126 towns have been completed. 2D feature extraction of 94 towns has been completed so far. Ground survey of 4 towns, using total station has been completed. Data pertaining to 89 towns has been sent to State Nodal Agency.

Mapping and Delineation of Hazard Line:

The objective of the project is to delineate, map and benchmark the coastal hazard line all along the mainland coast of India under World Bank Assisted "Integrated Coastal Zone Management (ICZM) project, where SOI has to generate a 0.5 meter elevation contour map on 1:10,000 scale as base map to delineate the Hazard Line for the entire mainland coast of India upto the maximum width of 7 Km from shore line on the landward side.

Tidal data pertaining to 40 years (as available with G&RB) for extraction of maximum annual elevation and extra-pullation for 100 years pertaining to 20 various ports (converted to M.S.L. heights as compiled by G&RB) has been submitted to MoEF.

Provision of primary GPS control points (GCPs):-

Secondary GPS Control:

DT Levelling lines:- Along coast 12715.6 lin km & 7 Km apart 3263 lin km.

ST Levelling lines:- 5338.8 lin km.

Construction of pillars and GPS observation for 138 stations completed.

Redefinition of Indian Vertical Datum:-

Computation of Levelling Network observed for densification and Earth Quake Study under the project "Redefinition of Indian Vertical Datum" is in progress. Comparisons checking of triangulation and gravity values used for computation of various levelling lines are in progress.

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

Implementation of the project for "Modernization and Expansion of Tide Gauge Network along Indian coast & Island" is continued. Modernization of 28 Ports is completed out of 36 proposed under star Network. Maintenance of Tide Gauge Cabin at Port Blair, Aerial Bay, Campbell Bay & Nancowry has been completed.

Receiving & Archiving of Real Time GPS Data from Tidal observatories:

Real Time data being received from 7 ports Khandala, Marmagao, New Mangalore, Haldia, Compbell Bay, Port Blair and Nancowry Islands, processing of RTDT data is in process.

GCP Library:

The project envisages setting of precise & consistent GCP Library in a Geocentric Coordinate system for the entire country. The Project will be completed in three phases, In the 1st phase, 300 1st order control points at 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. Recce / Site selection of 2262 points, construction of 2247 pillars and GPS observation at 1784 stations has been completed so far. Processing of GPS data collected as a part of GCP Library phase-II is in progress.

Coal Mine Project:

Preparation of updated Topographical maps of major Indian Coal fields based on remote sensing technique.

Aerial photography of 10 Coal fields (priority-I area) (Bisrampur, Lakhanpur Korba, Chirimiri, Sonhat, Sohagpur, Talcher, Hasda, Arand, I.B. Valley & Mandi – Raigarh) has been completed, checking in respect of area coverage is in progress.

Field for providing control point (plan & height) is under progress. Construction and 12 hrs. GPS observation for all 114 & 134 primary BMs/ GPS pillars is completed and 2810.5 lin. Km. DT Levelling has been completed to connect BMs/ GPS pillars. 2 hrs GPS observation for 178 plan and 163 height model points has been completed.

GIS based Mapping of Cities/towns (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.

Survey of India has completed Ward wise mapping of 28 towns/ cities and data has been supplied to RGI.

Progress of GCP Library phase-II

Total no. of GCP Pillars - 2266
 Recce - 2262
 Constructions of Pillars - 2247
 GPS observations - 1784

Progress of Field Verification

Scale	Total No. of Sheets	Sheets already verified		Total Sheets verified up to Date	Remarks
		Up to 31 st March. 11	During 2011-12		
1:50,000	5060	4766	141	4907	
1:25,000	19,393	725	22	747	

Scrutiny & Verification of Private Publishers / State Govt. / Central Govt. by Boundary Verification Wing:

Scrutiny	=	1367 maps
Certification	=	882 maps
Released	=	45 maps
Boundary Description/ Verification	=	84 maps
IAF Maps	=	Nil maps
Total		= 2378 maps

(a)	Amount received from Forest Department	=	Nil
(b)	Amount received from State Government	=	₹ 2,25,800
(c)	Amount received from Central Government	=	₹ 7,16,980
(d)	Amount received from Private Publishers	=	₹ 1,81,579
Total		=	₹ 11,24,359

SALES OF MAPS & VALUE BY MRIO

Sl. No.	Description	No. of copies	Price (₹)
1	Defence	1,24,868	72,42,344
2	Central Govt.	7,725	5,71,757
3	State Govt.	4,310	3,55,625
4	Misc.	15,037	12,88,905
	Total	1,51,940	94,58,631
	Digital Data Supplied		2,26,96,900

TOPOGRAPHICAL SURVEYS AND MAPPING:

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

Sl. No.	Activity	Area (sq km) Distance (lin km)
1.	<u>Control Surveys</u>	
	Topo Triangulation	3345 sq km
	Traverse	216 lin km
	Levelling	15,177 lin km
	Aerial Triangulation	
		82 lin km
2.	<u>Detailed Surveys</u>	
	Digital Photogrammetric Surveys	Nil
	Ground Survey	277 sq km
	Verification Topo Sheet	163 sheets
3.	<u>Fair Drawing</u>	
	Digital Mapping (DCDB for OSM) on 1:50,000	4,673 maps
4.	<u>Printing</u>	
	Topographical & others	497 maps

INTERNATIONAL BOUNDARIES - CONFERENCES/ MEETINGS:

India – Myanmar Boundary

18th Sectoral Level meeting between India-Myanmar was held at Mandalay (Myanmar) from 13.05.2011 to 14.05.2011. Maj. Gen. Umesh Chander, Additional Surveyor General, International Boundary Directorate (SGO) attended the meeting.

Meeting of heads of Survey Departments between India and Myanmar was held from 28.11.2011 to 30.11.2011 at Yangon (Myanmar), attended by Maj. Gen. Umesh Chander, Additional Surveyor General, International Boundary Directorate (SGO).

India – Bangladesh Boundary

A joint 69th India-Bangladesh Tripura sector boundary conference was held in Kolkata from 12.07.2011 to 13.07.2011 between the Director, Settlement & land records (Ex-officio), Tripura (India) and the Director General, Department of Land Records and Surveys, Bangladesh. Indian delegation was led by Shri N.R. Biswal, Director, Settlement & Land Records (Ex-officio), Tripura & Director, West Bengal & Sikkim.

A joint 39th India-Bangladesh Mizoram sector boundary conference was held in Kolkata from 19.07.2011 to 20.07.2011 between the Director, Settlement & land records (Ex-officio), Mizoram (India) and the Director General, Department of Land Records and Surveys, Bangladesh. Indian delegation was led by Shri N.R. Biswal, Director, Settlement & Land Records (Ex-officio), Mizoram & Director, West Bengal & Sikkim.

India – Pakistan Boundary

Surveyors/ Engineers meeting regarding boundary pillars along India-Pak boundary was held at Attari (Punjab) on 12.05.2011. Shri Pankaj Mishra, Superintending, Surveyor, Punjab, Haryana & Chandigarh GDC attend the meeting.

India – Pakistan Delegation Level Talks on Sir-Creek was held in Islamabad (Pakistan) from 20.05.2011 to 21.05.2011. Dr. Swarna Subba Rao, Surveyor General of India alongwith, Maj. Gen. Umesh Chander, Additional Surveyor General and Shri C.K. Pant, SS, International Boundary Directorate (SGO), attended the meeting.

SCIENTIFIC ACTIVITIES

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

Establishment of primary planimetric and height control for National Control Framework, its densification for mapping.

Geophysical surveys i.e. Gravimetric, Geomagnetic & Astronomical Surveys.

Retrieval and storage of GPS data being recorded at thirty-three Permanent stations established at Almora. Aizawl (Mizo. Univ.), Bangalore (CMMACS), Bhatwari, Bhopal (R.R. L.AB), Bomdila (Tex. Uni.), Bhubaneshwar (SOI), Dehra Dun (SOI), Delhi (WIHG), Dhanbad (WIHG), Guwahati (Univ.), Gangtok (GBPHED). Hanle (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.

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 purposes.

Modernisation of Tide Gauge Network of India.

Provision of Geodetic & Geophysical control for developmental projects within the country and also in adjacent countries.

Geodetic studies for monitoring the crustal movement, dam deformation, checking of verticality of archaeological structures, earthquake studies etc.

National/International collaborative activities in the field of Geodesy and Geophysics.

Mapping of Antarctica (Maitri & Environs) region.

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 has been supplied regularly to IIG, Mumbai and also supplied to World Data Centre when ever it required.

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.

RESEARCH AND DEVELOPMENT

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

Processing/ analysis of pre & post Tsunami GPS data of Antarctica for crustal deformation & seismotectonic movement studies.

Backup and archival of data received from permanent GPS stations.

Downloading of precise ephemeris of IGS stations from web sites using internet.

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

Data processing/ analysis and tidal predictions for year 2011 and 2012.

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 XXXIth Indian Scientific Expedition to Antarctica and carried out the following task:

Original Survey of 2.0 sq km in Sahirmachev Oasis, Maitri on the scale 1:5,000 with C.I. 5 m was completed by SOI team.

Seven days GPS observation in campaign mode was carried out at Maitri stations to carry out plate movement studies of Antarctic plate with respect to Indian plate.

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	...	...	Nil
1:50,000	...	...	194
1:250,000	...	...	03
Geographical Maps & Indices	...	...	03
Miscellaneous Maps / Indices/ Charts etc.	...	...	11

SPECIAL PURPOSE MAPS

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

Maps		Nos.
District Planning Maps	...	Nil
Project Maps	...	Nil
Miscellaneous Maps/ Indices / Charts etc.	...	286

MAP SALES

Maps, Digital data supplied/ sold to the Ministry of Defence, Central and State Governments and other user's agencies.

TRAINING

317 trainees including 122 extra-departmental, 19 private and 11 foreign candidates are undergoing training in various courses run by Indian Institute of Surveying & Mapping, Hyderabad as per details given in Appendix 'A'.

PUBLICATIONS

The following publications were brought out during the period under report:

Indian Tide Tables 2012

Hugli River Tide Tables 2012

Magnetic Bulletin of Sabhawala Magnetic Observatory for the Year 2009 Completed and for the year 2010 is in progress.

Magnetic Declination on chart epoch 2010 under progress.

CONFERENCES / SEMINARS / MEETINGS

Shri R.M. Tripathi, Addl. Surveyor General, SGO attended meeting in MOGSGS on Military Grid at New Delhi.

Dr. Swarna Subba Rao, Surveyor General of India attended seminar on "Issues of Accuracies and standards for large scale mapping from High Resolution Satellite Imageries at Hyderabad on 11.04.2011.

Dr. Swarna Subba Rao, Surveyor General of India attended meeting with Secretary, DST/ JS (PIA) and MEA, New Delhi.

Shri R.M. Tripathi, Addl. Surveyor General, SGO, NCSCM meeting at SICOM, New Delhi.

Dr. Swarna Subba Rao, Surveyor General of India attended meeting of NDMA, New Delhi.

Dr. Swarna Subba Rao, Surveyor General of India attended the presentation on DSSDI project to Hon'ble Minister Shri Kamal Nath, Minister of Urban Development in Delhi Secretariat.

Maj Gen. K.S. Kaliprasad, Addl. Surveyor General (SGO) attended meeting at DST, New Delhi.

Dr. Swarna Subba Rao, Surveyor General of India attended meeting with Secretary, Rural Development on NCRMP in New Delhi.

Maj Gen. K.S. Kaliprasad, Addl. Surveyor General attended meeting in DST, New Delhi regarding “Google Earth”.

Maj. Gen. (Dr.) B.Nagarajan, Additional Surveyor General, IIS&M attended 5th meeting NNRMS Standing Committee on “Training & Technology” at ISRO Headquarter, Bangalore and made a presentation on “Capacity Building on Digital Cartography and Digital Photogrammetry”.

Dr. Swarna Subba Rao, Surveyor General of India attended meeting on “Creation of Kerala Mapping” partly by Google at INSA, New Delhi and also attended NNRMS-SC Cartography meeting at NRSC, Hyderabad.

Dr. Swarna Subba Rao, Surveyor General of India held discussion at DST and also attended HPSC meeting of DSSDI at New Delhi.

Dr. Swarna Subba Rao, Surveyor General of India attended National Annual convention on Geo-spatial Technologies & Application – Geo Summit 2011 at Sathyabama University, Chennai.

Maj Gen. K.S. Kaliprasad, Addl. Surveyor General, Surveyor General's Office, attended meeting in DST, New Delhi regarding Data Dissemination Policy.

Maj. General Umesh Chander, Additional Surveyor General, International Boundary Directorate (SGO) attended meeting with Secretary Border Management, MHA, New Delhi to discuss the agenda points for 7th Indo-Bhutan Secretary level meeting on border management and to be held in New Delhi.

Shri Ashok Prim, Additional Surveyor General, IIS&M, Hyderabad along with other Senior officers from SOI participated in workshop on Bentley Map V8i – Geo-spatial Enabler for Infrastructure professionals held at Hyderabad.

Shri U.N. Mishra, Director, G&RB attended meeting at Bhabha Automatic Research Centre, Mumbai regarding MoU between BARC & SOI for “Electronic Information sharing in respect of Sea surface measurement data along Indian coast.

Shri D.K. Kar, SS attended the workshop for Web Mapping Service (WMS) held at IIS&M.

Shri Sanjay Kumar, Director, East UP GDC inspected the survey team working for Punatsangchu HE Project, Stage-I, Bhutan.

Maj Gen S. K. Pathak, Addl. Surveyor General attended a meeting of the “Core Technical Advisory Group” under the National Land Records Modernization Programme (NLRMP) at the committee room of department of Land Resources, New Delhi.

TECHNICAL PAPERS

Shri U.N. Mishra, Director, G&RB, presented a paper titled "Redefining the Horizontal & Vertical control in India, GCPs Datum transformation, updation of Land Records, contribution of SOI" at Gurgaon.

Shri U.N. Mishra, Director, G&RB, attended the GNSS user meet at Bangalore and also presented a paper titled "The use of GPS / GAGAN for survey application and requirement of SOI".

FOREIGN VISITS / STUDY TOURS / DEPUTATION

Dr. Swarna Subba Rao, Surveyor General of India visited New York (USA) to participate in "Third preparatory meeting of the proposed United Nations Committee of Experts on Global Geospatial Information Management" from 04.04.2011 to 06.04.2011.

Dr. Swarna Subba Rao, Surveyor General of India visited Paris (France) to participate in International Cartographic Association's General Assembly in conjunction International Cartographic Conference from 03.07.2011 to 08.07.2011.

VISIT TO SOI OFFICES:

Northern Printing Group, Dehra Dun

30 students and 2 teachers from International Institute Engr. & Technology Samini Distt. Kurukshetra visited on 11.05.2011.

47 students and 4 staff members from Union World School, Kirshali Groush, Mussoorie visited on 13-05-2011.

A group of 44 students from IIRS, Dehra Dun visited on 20-06-2011.

30 officers and teachers from RIMC, Dehra Dun Cantt.

30 students and 2 staff members from IIRS, Anna University, Chennai visited on 29-08-2011.

56 students and 4 staff members from Shri Ranbeer Inter College, Amati, Chhatrapati Shauji Maharaj Nagar visited on 13-10-2011.

35 students and 2 staff persons from Shivaji University, Kolhapur, Maharashtra visited on 02-12-2011.

4 staff persons from National Power Training Institute, NTPC Complex, Sector -33 Faridabad visited on 27-12-2011.

14 students and 1 Instructor from SSB Academy, Srinagar Garhwal visited on 14.12.2011.

32 students and 2 teachers from Unison World School, 21 New Cantt. Road, Dehra Dun visited on 10.02.2012.

76 students and 4 staff members from Swami Sahajanand Janta P.G. Institute Hareya, Ajamgarh (UP) visited on 14-02-2012.

35 students from Geography Department, Hindu College, Moradabad visited on 28-02-2012.

18 students and 5 teachers from Govt. College, Babal Rebadi, Haryana visited on 07-03-2012.

32 students and 3 teachers from Govt. P.G. College, New Tehri, Tehri Garhwal visited on 16-03-2012.

22 students, 3 faculty & 2 office staff from the Dean University School of Environment Management Guru Gobind Singh, Indraprastha University, visited on 20-03-2012.

National Geo-spatial Data Centre, Dehra Dun

A group of course trainees (NNRMS) from IIRS, Kalidas Raod, Dehra Dun visited the centre on 07.06.2011.

Shri Tharya Nand Sharma with a group of 38 (30 trainees, 5 staff members and 3 teachers) from 62 Cavalry c/o 56 APO visited the centre on 10.06.2011.

A group from Brigadier General Staff Headquarters, School of Artillery c/o 56 APO visited the centre on 11.07.2011.

Maj Neeraj Negi with the group of 32 persons (30 cadets and 2 teachers) from RIMC, Dehra Dun Cantt. visited the centre on 29.07.2011.

A group of 22 students and 3 staff members from School of Earth and Atmospheric Science, Madurai Kamaraj University, Madurai visited the centre on 07.10.2011.

ADG Military Survey (GSGS), New Delhi visited the centre on 14.11.2011

A group of 35 members (students with their staff) from Government Intermediate College, Bhagdwari Khadi, Raipur visited the centre on 14.02.2012.

CULTURAL AND EDUCATIONAL ACTIVITIES

“INCA – National Map Quiz” programme participated by the students of various schools of Shillong & surrounding.

Hindi Pakhwada was celebrated in various offices in Survey of India located at different cities from 14.09.2012 to 30.09.2012 to encourage the officers and staff to work in “Rajbhasha Hindi” Hindi essay writing, noting – drafting and quiz competition was also organized during this period.

NATIONAL SCIENCE DAY

As a part of the country wide celebration of National Science Day on 28-02-2012. Indian Institute of Surveying & Mapping with other Directorates stationed at Hyderabad organized an Open Day at Survey of India, Uppal Campus on 28.02.2012. Displaying the exhibits and demonstration are surveying and mapping were made for the student and teachers.

The exhibition was inaugurate by Shri Ashok Prim, Deputy Surveyor General , Indian Institute of Surveying & Mapping as the Chief guest. More than 1000 students from different schools visited the exhibition. The theme of the celebration was “CLEAN ENERGY OPTIONS AND NUCLEAR SAFETY”.

DEVELOPMENT SURVEYS

The following project surveys were continued/ carried out during the year 2011 – 2012 -

<u>Out of India</u>	<u>Name of Project</u>
Bhutan	Punatsangchhu HE Project Stage I Punatsangchhu HE Project Stage II

<u>State</u>	<u>Name of Project</u>
Arunachal Pradesh	Attuni HE Project
Chhattisgarh	Coal Mine Project
Delhi	Central Water Commission Air Strip Survey of Vanasthali Vidhyapeeth DSSDI Project
Jharkhand	Coal Mine Project ICZM Project
Gujarat	ICZM Project Computer Aided Digital Mapping (Ahmadabad city)
Haryana	Haryana-UP Boundary Work Project Relaying of Bhakhra Grid Junction point in seven village of Haryana Project
Himachal Pradesh	Dhaura Sidh HE Project Nakthan HE Project Thana-Plaun and Beri Nichli HE Project Kauli HE Project.
Karnataka	Nirmala Nagar Project ICZM Project Police Location & Maps Project RGI Project
Maharashtra	Coal Mine Project ICZM Project Computer Aided Digital Mapping (Mumbai city)
Meghalaya	Coal Mine Project
Manipur	Loktak Down Stream HE Project
Orissa	Coal Mine Project ICZM Project

<u>State</u>	<u>Name of Project (contd.)</u>
Punjab	Nara Dam HE Project
Tamil Nadu	ICZM Project Computer Aided Digital Mapping (Chennai city)
Uttar Pradesh	Rihand Dam Project Indrapuri Reservoir HE Project Maudha Dam Project Kadwan Project Kendriya Vidyalaya Project
Uttarakhand	Tapovan Vishnugad HE Project
West Bengal	Interlinking of Rivers Farakka Sunderban Link Puruliya Cadastral Project Coal Mine Project RGI Project

Courses conducted and No. of Officers trained through Regular/ Scheduled Courses at IIS&M, Uppal, Hyderabad -

Sl. No.	COURSE No.	NOMENCLATURE	DEPTL.	EXTRA DEPTL.	FORE IGN	OTHERS	TOTAL
1	115.19	Office Management	08	--	--	--	08
2	320.02	Dual Trade-Digitization of Cartographic Documents	--	05	--	--	05
3	340.42	Digitization of Cartographic Documents	05	13	--	--	18
4	340.43	Digitization of Cartographic Documents	14	11	--	--	25
5	400.90#	Surveying Supervisor	02	--	--	--	02
6	400.91#	Surveying Supervisor	--	--	07	--	07
7	415.02	Use of Total Station in Cadastral Survey	--	17	--	--	17
8	440.17#	GIS Application	04	05	--	--	09
9	440.18	GIS Application	03	06	--	01	10
10	440.19	Digital Cartography & GIS Applications	08	05	--	--	13
11	465.01	Mid Career Advance Course on GIS Applications	--	06	--	--	06
12	480.29#	Digital Photogrammetry & Remote Sensing	14	01	--	01	16
13	480.30	Digital Photogrammetry & Remote Sensing	07	02	--	02	11
14	480.31	Digital Photogrammetry & Remote Sensing	06	03	--	01	10
15	480.32	Digital Photogrammetry & Remote Sensing	03	05	--	01	09
16	480.33	Digital Photogrammetry & Remote Sensing	10	04	--	--	14
17	485.021	Mid Career Course for DSS/Surveyor	02	06	--	--	08
18	495.19	Fundamental Survey Engineering	13	--	--	--	13
19	496.02	Refresher Course for Officer Surveyors/ surveyors	09	08	--	--	17
20	500.70#	Surveying Engineer	02	--	--	--	02
21	500.71#	Surveying Engineer	--	--	04	--	04
22	500.72	Surveying Engineer	01	--	--	--	01
23	585.06	Map updation using Mobile Mapping System	11	07	--	--	18
24	690.21	Control and Detail Survey by GPS & total station	03	--	--	06	09
25	690.22	Control and Detail Survey by GPS & total station	08	15	--	--	23
26	690.23	Control and Detail Survey by GPS & total station	07	--	--	07	14
27	700.21#	Advanced Geodesy	04	--	--	--	04
28	700.22	Advanced Geodesy	03	--	--	--	03
29	710.28#	Advanced Photogrammetry & Remote Sensing	04	02	--	--	06
30	710.29	Advanced Photogrammetry & Remote Sensing	05				05
31	740.08	Advanced Course on Digital Cartography & GIS	06	--	--	--	06
32	780.01	Refresher Course on GPS, Total station, Mobile Mapping, GIS and Digital Photogrammetry	02	01	--	--	03
		Total:	165	122	11	19	317

Courses continuing from previous year.

Special Courses for Specific users organized at IIS&M, Uppal, Hyderabad -

SL NO.	COURSE NO.	NOMENCLATURE	DEPTL.	EXTRA DEPTL.	FOREIGN	OTHERS	TOTAL
1	Spl.#	NLRMP training programme for working level officers for Revenue / Survey/ Settlement of State Government.	--	26	--	--	26
2	Spl.	Training on GPS & Total Station for staff of Survey and Land Records, Kerala – (10 th Batch).	--	31	--	--	31
3	Spl.	NLRMP training on Land Information System for Working level officers of Revenue / Survey/ Settlement of UT/ State Governments.	--	21	--	--	21
4	Spl.	Training on Digitization Techniques for staff of Survey & Settlement, Tamilnadu.	--	15	--	--	15
5	Spl.	Course on Modern Trends in Surveying for student of Mahatma Gandhi Chitrakoot Gramodaya Viswavidhyalaya, Chitrakoot.	--	--	--	11 Student	11 Student
6	Spl.	Training on Modern Survey Techniques for Revenue/ Survey officials of Lakshdweep.	--	09	--	--	09
7	Spl.	Training on Digitization Techniques for staff of Survey & Settlement, Tamilnadu.	--	16	--	--	16
8	Spl.	Special Course on Transmission Line Survey for APTRANSCO officials of Andhra Pradesh	--	22	--	--	22
9	Spl.	Advance Training on Co—ordinate System and GNSS for ONGC Officials	--	25	--	01	26
10	Spl.	Training on Modern Survey Techniques using GPS & Total Station for officials of Tamilnadu.	--	16	--	--	16
11	Spl.	Training on Digital Photogrammetry and Remote Sensing to Students of Anna University, Chennai.	--	--	--	08 Student	08 Student
12	Spl.	Training on Modern Survey Techniques using GPS & Total Station for officials of Tamilnadu.	--	16	--	--	16
13	Spl.	Course on Survey/ Re-survey using Modern Techniques for officials of Cantonment Board.	--	21	--	--	21
14	Spl.	Training on vetting of 1:2,000 scale data base under NUIS scheme.	--	18	--	--	18
15	Spl.	Training on vetting of 1:2,000 scale data base under NUIS scheme.	--	18	--	--	18
16	Spl.	Training on vetting of 1:2,000 scale data base under NUIS scheme.	--	14	--	--	14
			--	268	--	20	288

Appendix - C

Short Term Awareness Courses organized at IIS&M, Uppal, Hyderabad -

SL. NO.	COURSE NO.	NOMENCLATURE	DEPTL.	EXTRA DEPTL.	FOREIGN	OTHERS	TOTAL
1	-	Short Course on GPS & Total Station Concept & Application	--	28	--	--	28
2	-	Short Course on Datum Co-ordinates and Map Projection Concept for Advanced Map user	--	25	--	--	25
3	-	Short Course on Digital Photogrammetry & Remote Remote Sensing		12	--	--	12
		Total :	--	65	--	--	65

Appendix - D

Long Term Educational Courses conducted at IIS&M, Uppal, Hyderabad -

SL. NO.	COURSE NO.	NOMENCLATURE	DEPTL.	EXTRA DEPTL.	FOREIGN	OTHERS	TOTAL
1	Academic	M.Tech (Geomatics)- 2009-11 #	--	--	--	14	14
2	Academic	M.Tech (Geomatics)- 2010-12 #	--	--	--	17	17
3	Academic	M.Tech (Geomatics)- 2011-13	--	--	--	16	16
		Total :	--	--	--	47	47

Courses continuing from previous year.

USE OF HINDI IN OFFICIAL WORK

In accordance with the Official Languages Rules, 1976, 16 Geo-Spatial Data Centers/ Directorates/ Printing groups including headquarter of Survey of India are located in Region 'A' while 6 Geo-Spatial Data Centre in Region 'B' and 21 Geo-Spatial Data Centers/ Training Institute/ Printing groups / Zonal Offices are in Region 'C'. The position regarding the use of Hindi in the department for the year 2011-2012 remained as under:-

Correspondence

During the year 2011-2012 intensive measures were taken for transacting the official work of the union in Hindi by the various offices of the department. 5,649 documents were issued bilingually under section 3(3) of the Official Languages Act, 1963. Letters received in Hindi were replied 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 – 78.5%
 - With 'C' Region – 60.1%

- 2) Correspondence in Hindi by the offices located in Region 'B'
 - With 'A' and 'B' Region – 83.5%
 - With 'C' Region – 75.2%

- 3) Correspondence in Hindi by the offices located in Region 'C'
 - With 'A', 'B' and 'C' Region – 37.7 %

Training

During the period under report 25 officers/employees passed Hindi Prabodh, Praveen and Pragya examination and 08 LDC's passed Hindi Typing examination, under Hindi Teaching Scheme.

Hindi workshop/ Seminar

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; Punjab, Haryana & Chandigarh GDC, Chandigarh, Andhra Pradesh GDC, Hyderabad and Kerala & Lakshadweep GDC, Thiruvananthapuram.

Incentive Scheme

During the year 2011-2012 incentive schemes for noting and drafting for doing official work in Hindi, Hindi typing and Hindi stenography remained continued. Till now 35 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 Vijayanti Running Shield was given to the Establishment -1 section for doing maximum work in Hindi in Surveyor General's Office, Dehra Dun. On this occasion 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	---	Sarvekshan Darpan
2. Uttarakhand & West Uttar Pradesh GDC, Dehra Dun--		Prayas
3. Northern Zone, Chandigarh	---	Jagriti
4. Chhattisgarh GDC, Raipur	---	Pratibimb 36 Garh
5. Andhra Pradesh GDC, Hyderabad	---	Kala Kal
6. Kerala & Lakshadweep GDC, Thiruvananthapuram	---	Sampreshan
8. Maharashtra & Goa GDC, Pune	---	Sahyadree
9. Assam & Nagaland GDC, Guwahati	---	Samvedana

Meetings

During the year 2011-12 quarterly meetings of the officials Language Implementation Committee were held in almost all the GDCs and Directorates etc. In these meeting discussions were held to achieve the targets given in the Annual Programmes issued by the Govt. for transacting the official work of the union in Hindi.

Inspection

During this period, Shri Dhoom Singh, Assistant Director (OL), Surveyor General's Office, Dehra Dun carried out the inspection regarding the use of Hindi in Surveyor General's Office, Dehra Dun.

SCs, STs, OBCs & Persons with disabilities

SC/ST/REPORT- I

ANNUAL STATEMENT SHOWING THE REPRESENTATION OF SC's, ST's AND OBC's AS ON 01-01-2012 AND NUMBER OF APPOINTMENTS MADE DURING THE PRECEDING CALENDAR YEAR- 2011

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

Groups	Representation of SCs/STs/OBCs (As on 01-01-2011)				Number of appointments made during the calendar year 2010									
					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	151	11	7	5	1	-	-	1	1	-	-	-	-	-
Group B	506	80	60	18	-	-	-	-	20	10*	2*	-	-	-
Group C	3,283	661	221	196	17	2	1	6	96	11*	8*	-	-	-
Group D (Excluding Sweepers)	2,430	713	125	78	-	-	-	-	-	-	-	-	-	-
Group D (Sweepers)	102	82	03	2	-	-	-	-	-	-	-	-	-	-
Total	6472	1547	416	299	18	2	1	7	117	21	10	-	-	-

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

SC/ST/OBC REPORT-II

ANNUAL STATEMENT SHOWING THE REPRESENTATION OF SC's, ST's AND OBC's IN VARIOUS GROUP 'A' SERVICES AS ON FIRST JANUARY, 2012 AND NUMBER OF APPOINTMENTS MADE IN VARIOUS GRADE IN THE PRECEDING CALENDAR YEAR -2011

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

Groups	Grade Pay in Rupees	Representation of SCs/STs/OBCs (As on 01-01-2011)				Number of appointments made during the calendar year 2010									
						By Direct Recruitment				By Promotion			BY Other Method		
		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	16
8000-13500 New=15600-39100	..... 5400	21	2	1	-	1	-	-	1	-	-	-	-	-	-
10000-15200 New=15600-39100	..... 6600	74	3	1	3	-	-	-	-	-	-	-	-	-	-
12000-16500 New=15600-39100	..... 7600	4	-	-	-	-	-	-	-	1	-	-	-	-	-
14300-18300 New=37400-67000	..... 8700	31	5	4	2	-	-	-	-	-	-	-	-	-	-
16400-20000 New=37400-67000	..... 8900	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18400-22400 New=37400-67000	..... 10000	20	1	1	-	-	-	-	-	-	-	-	-	-	-
New=75500 (Annual increment @ 3%)	..... Nil	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		151	11	7	5	1	0	0	1	1	0	0	0	0	0

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

**ANNUAL STATEMENT SHOWING THE REPRESENTATION OF THE
PERSONS WITH DISABILITY IN SERVICES
(As on 01-01-2012)**

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	151	-	-	-	-
Group B	506	1	-	-	1
Group C	3283	35	-	-	35
Group D	2532	-	-	-	-
Total	6472	36	-	-	36

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**STATEMENT SHOWING THE NUMBER OF PERSONS WITH
DISABILITIES APPOINTED DURING THE YEAR
(FOR THE YEAR-2012)**

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	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
GROUP A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GROUP B	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GROUP C	-	-	-	-	-	-	-	-	-	4	2	-	-	2
GROUP D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	4	2	-	-	2

Abbreviation: VH - Visually Handicapped (persons suffering from blindness or low vision)
HH - Hearing Handicapped (persons suffering from hearing impairment)
OH - Orthopedically Handicapped (persons suffering from locomotors disability or cerebral palsy).

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