

# LAPORAN TAHUNAN

*annual report* 2013



**Jabatan Ukur dan Pemetaan Malaysia**  
*Department of Survey and Mapping Malaysia*



# LAPORAN TAHUNAN 2013



# Kandungan

## LAPORAN TAHUNAN 2013

<b>PERUTUSAN KETUA PENGARAH UKUR DAN PEMETAAN MALAYSIA</b>	4
<b>1 MAKLUMAT KORPORAT</b>	5
PENGURUSAN TERTINGGI JABATAN	7
PROFIL PENGURUSAN TERTINGGI	8
KUMPULAN PENGURUSAN JUPEM	14
• Pejabat Ketua Pengarah Ukur dan Pemetaan	
• Bahagian Pemetaan	
• Bahagian Kadaster	
• Bahagian Geospatial Pertahanan	
CARTA ORGANISASI JABATAN	18
LAGU JABATAN	20
DEFINISI LOGO	21
OBJEKTIF DAN FUNGSI   VISI, MISI DAN MOTO	22
<b>2 TADBIR URUS KORPORAT</b>	23
• Piagam Pelanggan   Kod Etika	25
• Pengurusan Sumber Manusia	26
• Kursus dan Latihan	32
• Laman Web JUPEM Geoportal	35
• Penerima Bintang Kebesaran Persekutuan dan Negeri	38
<b>3 LAPORAN PRESTASI 2013</b>	41
INFRASTRUKTUR GEODETIK	
• Ukuran Jaringan dan Kawalan GNSS	43
• MyRTKnet	44
• Cerapan Air Pasang Surut	45
• Jaringan Ukur Aras	46
• Ukuran Graviti	48
• Sistem iFOS	49
• Makmal Kalibrasi Ukur Aras	50
• Astronomi	50

PERSEMPADANAN ANTARABANGSA	
• Persempadanan Darat Malaysia-Thailand	52
• Persempadanan Darat Malaysia-Indonesia	53
• Persempadanan Maritim Malaysia-Indonesia	54
• Persempadanan Maritim Malaysia-Singapura	54
• Persempadanan Maritim Malaysia-Vietnam	55
• Persempadanan Darat Malaysia-Brunei Darussalam	56
PERSEMPADANAN NEGERI	56
SAKSI PAKAR KES-KES DI MAHKAMAH	58
PENERBITAN PETA	
• Penawanan Data	59
• Ukuran Titik Kawal	60
• Pangkalan Data	61
• Pengemaskinian Peta Topografi	61
• Kartografi	62
• Percetakan	63
• Pemetaan Utiliti	70
• Perkhidmatan Pemetaan	72
UKURAN KADASTER	
• Pencapaian Ukuran Hak Milik Tanah	74
• Pencapaian Semakan Kerja Ukuran Hak Milik Tanah Oleh Juruukur Tanah Berlesen (JTB)	76
• Pencapaian Semakan Kerja Ukuran Hak Milik Strata Peringkat I	77
• Pencapaian Semakan Kerja Ukuran Hak Milik Strata Peringkat II	78
• Pencapaian Penandaan Titik Kawalan CRM	79
GEOSPATIAL PERTAHANAN	
• Bantuan Khidmat Teknikal Geospatial Pertahanan	80
• Bantuan Khidmat Teknikal Geospatial Pertahanan di Medan	83
• Penguatkuasaan Pekeliling Arahan Keselamatan Terhadap Dokumen Geospatial Terperingkat	85
<b>4 LAPORAN KEWANGAN</b>	
• Pengurusan Kewangan	89
• Belanja Mengurus	90
• Belanja Pembangunan	92
• Hasil	93
<b>5 ANUGERAH DAN PENGIKTIRAFAN</b>	95
<b>6 RENTETAN PERISTIWA 2013</b>	101
<b>7 DIREKTORI JABATAN</b>	113

## PERUTUSAN

### KETUA PENGARAH UKUR DAN PEMETAAN MALAYSIA

Assalamualaikum WBT dan salam sejahtera,

Segala puji bagi Allah S.W.T kerana memberkati kita semua dengan kesihatan yang baik dan komitmen yang tinggi serta kekuatan fizikal dan moral bagi membolehkan kita menyempurnakan segala tanggungjawab dan kerja yang telah diamanahkan dengan cemerlang dan berkualiti.

Alhamdulillah, saya turut bersyukur ke hadirat Illahi kerana dengan limpah kurnia dan keizinanNya JUPEM telah dapat menerbitkan buku Laporan Tahunan bagi tahun 2013 ini yang bertujuan untuk menjadi sumber rujukan kepada semua di masa-masa yang akan datang.

Naskah penerbitan ini adalah berdasarkan kepada laporan pencapaian prestasi tahun 2013 oleh setiap Bahagian/Seksyen termasuk JUPEM Negeri agar ianya dapat dijadikan rujukan atau penanda aras dalam meningkatkan mutu perkhidmatan jabatan. Saya sangat mengalu-alukan penerbitan ini sebagai salah satu rujukan ringkas dan juga kayu pengukur bagi penerbitan lain di masa-masa akan datang.

Saya juga ingin mengucapkan syabas dan terima kasih kepada Seksyen Perancangan, Penyelidikan dan Pembangunan dan Seksyen Percetakan yang telah bersama-sama berusaha mengambil inisiatif menerbitkan naskah sebegini. Adalah menjadi harapan saya agar usaha murni dan kesepakatan utuh yang telah ditunjukkan oleh sidang pengarang dan penyunting dalam menjayakan penerbitan ini akan terus dipertingkatkan dan diberkatiNya. Semoga penerbitan sebegini akan sentiasa diperbaiki serta dipertingkatkan mutunya dengan lebih kreatif, inovatif dan berinformasi.

Tahun lalu, jabatan telah mencatatkan 1001 kenangan dan pelbagai kejayaan serta pencapaian yang sangat dibanggakan oleh kita semua. Namun, suka untuk saya mengingatkan warga JUPEM semua agar tidak tenggelam dan terus leka dengan kejayaan-kejayaan yang telah dicapai sebelum ini. Kejayaan yang lalu sewajarnya dijadikan sebagai penanda aras untuk kita lebih berusaha bagi mencapai sesuatu yang jauh lebih baik dari sebelumnya. Produktiviti dan kreativiti sebagai seorang penjawat awam perlu sentiasa berada di tahap yang terbaik dan dipertingkatkan.

Akhir kata, sekali lagi saya mengucapkan syabas kepada semua yang terlibat dalam penghasilan naskah Laporan Tahunan 2013 ini. Besarlah harapan saya agar naskah penerbitan ini akan dapat menjadi rujukan maklumat yang bermanfaat khasnya kepada pihak pengurusan jabatan dan umumnya kepada semua. Semoga JUPEM akan terus berjaya di tahun-tahun yang mendatang.

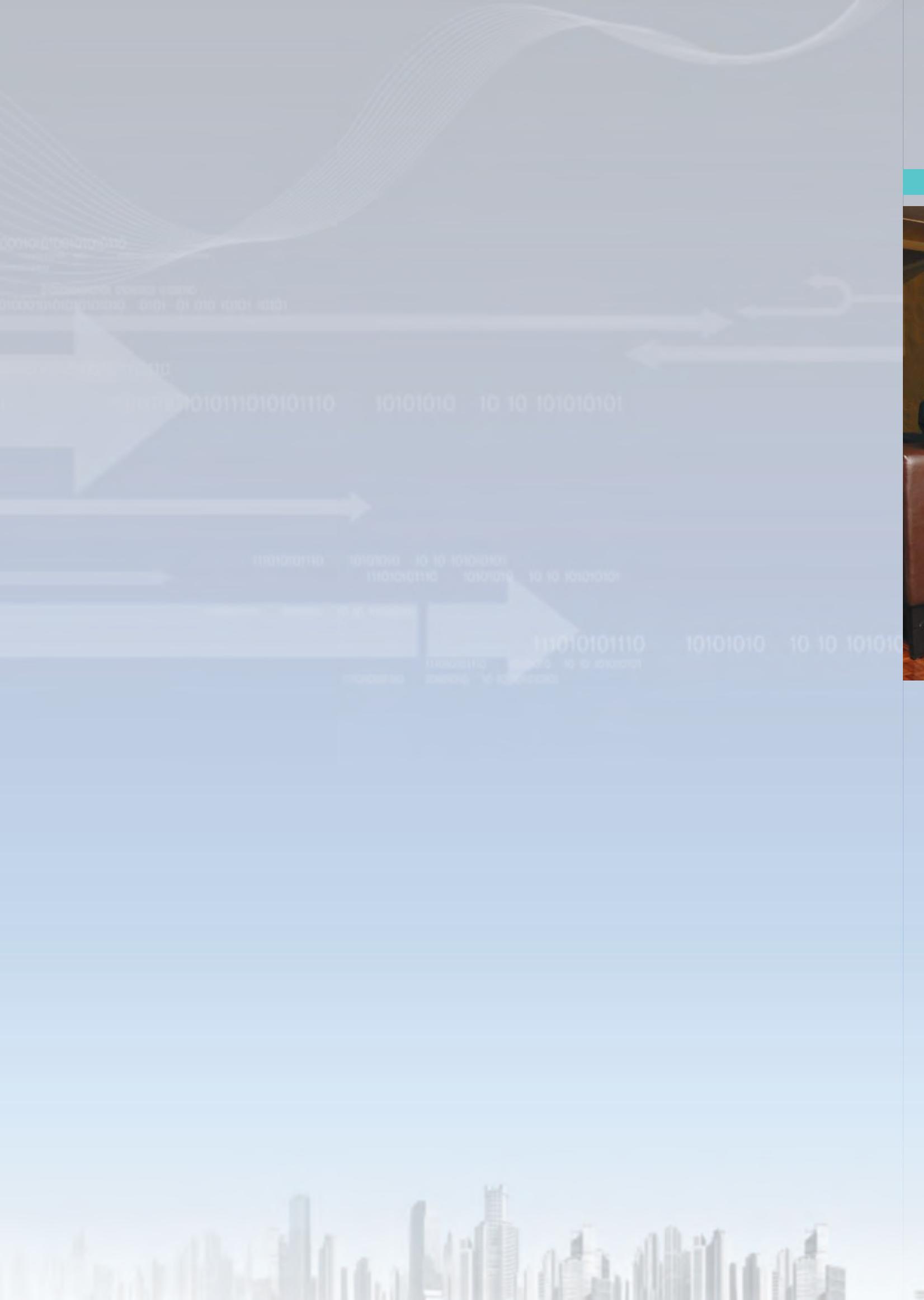
Sekian, salam hormat dan terima kasih.

KETUA PENGARAH UKUR DAN PEMETAAN  
MALAYSIA



# MAKLUMAT KORPORAT





## PENGURUSAN TERTINGGI JABATAN



**1** DATUK PROF. SR DR. ABDUL KADIR BIN TAIB  
Ketua Pengarah Ukur dan Pemetaan Malaysia

**2** SR AHMAD FAUZI BIN NORDIN  
Timbalan Ketua Pengarah Ukur dan Pemetaan I

**3** SR HASAN BIN JAMIL  
Timbalan Ketua Pengarah Ukur dan Pemetaan II

**4** DATO' SR MOHD NOOR BIN ISA  
Pengarah Ukur Bahagian (Pemetaan)

**5** SR DR. TENG CHEE HUA  
Pengarah Ukur Bahagian (Kadaster)

**6** BRIGEDIER JENERAL DATO' ZAHARIN BIN DIN  
Pengarah Bahagian Geospatial Pertahanan (BGSP)



**DATUK PROF. SR DR. ABDUL KADIR BIN TAIB**  
**PJN, DSDK, SDK, KMN**  
**Ketua Pengarah Ukur dan Pemetaan Malaysia**  
**Pengarah Pemetaan Negara**

YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib telah dilantik sebagai Ketua Pengarah Ukur dan Pemetaan Malaysia pada 17 Jun 2009.

Beliau berkelulusan Ijazah Doktor Falsafah Geomatik dari *University New South Wales Australia*, Ijazah Sarjana Sains (Fotogrametri), Diploma Lanjutan Fotogrametri ITC Netherlands dan Ijazah Sarjana Muda Ukur (Tanah) dari Universiti Teknologi Malaysia.

Datuk Prof. Sr Dr. Abdul Kadir pernah bertugas sebagai Jurutera Fotogrametri, Penolong Pengarah Ukur Topografi (Geodesi), Penolong Pengarah Ukur Topografi (Fotogrametri), Timbalan Pengarah Ukur Johor, Ketua Penolong Pengarah Ukur (Ehwal Persempadanan), Pengarah Ukur Bahagian (Pengeluaran Pemetaan) dan Pengarah Ukur Bahagian (Pengurusan dan Pembangunan). Pada 2 September 2002 beliau telah dilantik sebagai Pengarah Ukur Bahagian (Pemetaan) seterusnya sebagai Timbalan Ketua Pengarah Ukur dan Pemetaan mulai 20 Mac 2004 sehingga 16 Jun 2009.

Beliau juga merupakan Pengerusi Lembaga Juruukur Tanah Semenanjung Malaysia (LJT), Presiden JICA *Alumni Society of Malaysia (MyJICA)*, Felo *Royal Institution of Chartered Surveyors (RICS)* U.K, Ahli Persatuan Alumni Universiti Teknologi Malaysia, Profesor Tamu Universiti Teknologi Malaysia (UTM), Felo Pertubuhan Juruukur Diraja Malaysia (RISM) dan seorang Juruukur Tanah Bertauliah. Beliau juga adalah Presiden Pertubuhan Juruukur Diraja Malaysia (RISM) dari Jun 2005 sehingga Jun 2006. Sebagai mengiktiraf penglibatan aktif beliau kepada profesion ukur, beliau telah dinamakan sebagai Juruukur Malaysia Tahun 2011.

Pada 4 Jun 2011 beliau telah dianugerahkan pingat Darjah Kebesaran Panglima Jasa Negara (PJN) sempena Hari Keputeraan Ke Bawah Duli Yang Maha Mulia Seri Paduka Baginda Yang di Pertuan Agong XIII, Al-Wathiqu Billah Tuanku Mizan Zainal Abidin Ibni Al-Marhum Sultan Mahmud Al-Muktafi Billah Shah yang membawa gelaran Datuk.

Sr Ahmad Fauzi bin Nordin telah dilantik sebagai Timbalan Ketua Pengarah Ukur dan Pemetaan Malaysia pada 17 Jun 2009 dan pada 16 November 2010 sebagai Timbalan Ketua Pengarah Ukur dan Pemetaan Malaysia I.

Beliau berkelulusan Ijazah Sarjana Sains (Geoinformatik) dari Universiti Teknologi Malaysia, *Postgraduate Diploma in Geographical Information System (GIS)* daripada ITC, Netherlands dan Ijazah Sarjana Muda Ukur (Tanah) dari Universiti Teknologi Malaysia.

Beliau pernah bertugas sebagai Juruukur Daerah Kuala Kangsar, Penolong Pengarah Ukur Topografi (Wilayah Utara), Timbalan Pengarah Ukur Kedah/Perlis, Penolong Pengarah Ukur Kadaster (RT), Timbalan Pengarah Ukur (Unit Khas) Pahang, Timbalan Pengarah Ukur Perak, Pengarah Ukur Topografi Sarawak, Timbalan Pengarah Ukur 1 Topografi Semenanjung, Pengarah Ukur W.P. Kuala Lumpur, Ketua Penolong Pengarah Ukur (Hak Milik), Pengarah Ukur Selangor dan Pengarah Ukur Bahagian (Ukur Geodetik). Beliau telah dilantik sebagai Pengarah Ukur Bahagian (Kadaster) pada 2 September 2002 dan sebagai Pengarah Ukur Bahagian (Pemetaan) pada 5 April 2004.

Beliau juga adalah Felo Pertubuhan Juruukur Diraja Malaysia (RISM) dan Presiden RISM bagi sesi 2011/2012, Pengerusi *Malaysian Building Industry Presidents Council (BIPC)*, Timbalan Pengerusi Lembaga Juruukur Tanah Semenanjung Malaysia (LJT) dan seorang Juruukur Tanah Bertauliah.



**SR AHMAD FAUZI BIN NORDIN,**  
JSM, SMZ, KMN  
**Timbalan Ketua Pengarah Ukur dan Pemetaan I**



**SR HASAN BIN JAMIL,**  
**JMW, AMN**  
**Timbalan Ketua Pengarah Ukur dan Pemetaan II**

Sr Hasan bin Jamil telah dilantik sebagai Timbalan Ketua Pengarah Ukur dan Pemetaan II pada 16 November 2010.

Beliau berkelulusan Ijazah Sarjana *Geographical Information System (GIS)* dari *University of Edinburgh, United Kingdom* dan Ijazah Sarjana Muda Ukur (Tanah) dari Universiti Teknologi Malaysia.

Beliau pernah bertugas sebagai Juruukur di Jabatan Ukur Terengganu, Penolong Pengarah Ukur Kelantan, Juruukur Daerah Kelantan Selatan Machang, Penolong Pengarah Ukur Topografi Sabah, Pengarah Ukur Topografi Sabah, Penolong Pengarah Ukur Kadaster, Pengarah Ukur Pulau Pinang, Pengarah Ukur W.P. Kuala Lumpur, Pengarah Ukur Selangor, Pengarah Ukur Bahagian (Ukur Geodetik), Pengarah Ukur Seksyen (Ehwal Persempadanan), Pengarah Ukur dan Pemetaan W.P. Kuala Lumpur dan Pengarah Ukur Bahagian (Pemetaan).

Beliau juga adalah Felo Pertubuhan Juruukur Diraja Malaysia (RISM) dan Pengerusi Bahagian Geomatik dan Ukur Tanah, RISM bagi sesi 2010/2013 dan seorang Juruukur Tanah Bertauliah.



YBhg. Dato' Sr Mohd Noor Bin Isa telah dilantik sebagai Pengarah Ukur Bahagian (Pemetaan) pada 16 November 2010.

Beliau berkelulusan Ijazah Sarjana Muda Ukur (Tanah) dari Universiti Teknologi Malaysia dan pernah bertugas sebagai Juruukur Latihan (Jabatan Ukur Perak), Juruukur Daerah Perak Utara, Penolong Pengarah Ukur Pahang, Juruukur Daerah Pahang Barat, Juruukur Urusetia Unit Khas, Penolong Pengarah Ukur (Penyelarasan dan Pembangunan), Ketua Penolong Pengarah Ukur (Latihan) dan Ketua Penolong Pengarah Ukur (Penyelarasan dan Pembangunan).

Beliau juga pernah memegang jawatan sebagai Pengarah Ukur (Perancangan, Penyelidikan dan Pembangunan), Pengarah Ukur dan Pemetaan Pahang dan seterusnya Pengarah Ukur Topografi Sabah.

Beliau juga adalah Felo Pertubuhan Juruukur Diraja Malaysia (RISM) dan seorang Juruukur Tanah Bertauliah.

**DATO' SR MOHD NOOR BIN ISA,  
DIMP, SMP  
Pengarah Ukur Bahagian (Pemetaan)**



**SR DR. TENG CHEE HUA, KMN**  
**Pengarah Ukur Bahagian (Kadaster)**

Sr Dr. Teng Chee Hua memulakan perkhidmatan di Jabatan Ukur dan Pemetaan Malaysia sebagai Penolong Pengarah Ukur pada 10 April 1980 dan dilantik sebagai Pengarah Ukur Bahagian (Kadaster) pada 8 Disember 2010.

Beliau berkelulusan Ijazah Doktor Falsafah dari *University Newcastle Upon Tyne, United Kingdom* (2000), Ijazah Sarjana (Kejuruteraan Ukur) *University of New Brunswick, Canada* (1992), *Postgraduate Diploma in Photogrammetry* (Distinction) dari ITC, Netherlands (1984) dan Ijazah Sarjana Muda Ukur (Tanah) dari Universiti Teknologi Malaysia (1980).

Beliau pernah bertugas sebagai Penolong Pengarah Ukur Topografi Wilayah Barat, Penolong Pengarah Ukur Topografi Sabah, Pengurus CALS Johor, Timbalan Pengarah Ukur Johor, Pengarah Ukur (Geodesi) dan Pengarah Ukur (Penyelarasan dan Dasar Kadaster).

Beliau juga adalah Felo Pertubuhan Juruukur Diraja Malaysia (RISM) serta pernah memegang jawatan sebagai Setiausaha Agong RISM dan seorang Juruukur Tanah Bertauliah.



YBhg. Brig. Jen. Dato' Zaharin bin Din telah dilantik sebagai Pengarah Bahagian Geospasial Pertahanan (BGSP) mulai 3 Mei 2011.

Sebelum memegang jawatan Pengarah BGSP beliau adalah Ketua Pengarah Bahagian Perkhidmatan Kejuruteraan Pertahanan sejak 9 September 2005.

Beliau telah ditauliahkan ke dalam Rejimen Askar Jurutera Diraja pada 25 April 1974. Beliau memegang Diploma Pengajian Pertahanan dan Strategik dari Maktab Pertahanan. Beliau juga telah menghadiri kursus-kursus tertinggi kejuruteraan sivil di Institut Kejuruteraan Medan Tentera Darat di Malaysia dan United Kingdom.

Beliau juga telah terlibat dalam operasi menghapus pergerakan komunis Malaya dari tahun 1974 sehingga tahun 1981. Selain tugas operasi di dalam negara, beliau juga telah berkhidmat dengan misi pengaman Pertubuhan Bangsa-Bangsa Bersatu (PBB) sebagai Ketua Timbalan Pemerhati Tentera di Sierra Leone pada tahun 2002.

**BRIGEDIER JENARAL DATO' ZAHARIN BIN DIN**  
**DIMP, DPKK, JSM, PAT, PCM, ACM, KMN, AMP,**  
**PJM, PNBB, mpat, psc**

**Pengarah Bahagian Geospasial Pertahanan (BGSP)**

## KUMPULAN PENGURUSAN JUPEM



### PEJABAT KETUA PENGARAH UKUR DAN PEMETAAN

1	Pengarah Ukur (Perancangan, Penyelidikan dan Pembangunan)	Sr Haji Ramli bin Nor
2	Pengarah (Pentadbiran dan Perkhidmatan)	Haji Abdul Hamid bin Hasan
3	Pengarah Ukur (Perancangan Gunatenaga)	YM Sr Engku Mohd Adlin bin Engku Habib
4	Pengarah (Pembangunan Sistem)	Azlina binti Haron (mulai 15 Julai 2013) Ahmad Kamil bin Hassan Rabein (sehingga 14 Julai 2013)



### BAHAGIAN PEMETAAN

1	Pengarah Ukur (Ehwal Persempadanan)	Sr Tan Ah Bah
2	Pengarah Ukur (Topografi Semenanjung)	Sr John Elvis Koh
3	Pengarah Ukur (Kartografi)	Sr Haji Ali bin Ahmad
4	Pengarah Ukur (Penawanan Data)	Sr Haji Mohamad Kamali bin Adimin
5	Pengarah Ukur (Topografi Sarawak)	Sr Sohaime bin Rasidi
6	Pengarah Ukur (Perkhidmatan Pemetaan)	Sr Ng Eng Guan
7	Pengarah Ukur (Geodesi)	Sr Dr. Azhari bin Mohamed
8	Pengarah Ukur (Topografi Sabah)	Sr Mohammad Zaki bin Mohd Ghazali
9	Pengarah Ukur (Pemetaan Utiliti)	Sr Zoher bin Nomanbhoy
10	Pengarah (Percetakan Peta)	Haji Muhammad Puzi bin Ahmat
11	Pengarah Ukur (Pangkalan Data)	Ahmad Sanusi bin Che Cob



#### BAHAGIAN KADASTER

1	Pengarah Ukur dan Pemetaan Negeri Sembilan	Sr Haji Hamdani bin Haji Sadiman
2	Pengarah Ukur dan Pemetaan Selangor	Sr Ahamad bin Zakaria
3	Pengarah Ukur dan Pemetaan Kedah	Sr Haji Mohammad Yunus bin Md. Yusoff
4	Pengarah Ukur dan Pemetaan Terengganu	Sr Haji Abd Rahman bin Mohd Don
5	Pengarah Ukur dan Pemetaan Wilayah Persekutuan Kuala Lumpur/Putrajaya	Md. Zaki bin Ad. Wahid
6	Pengarah Ukur dan Pemetaan Perak	Sr Jasni bin A. Rahman
7	Pengarah Ukur dan Pemetaan Kelantan	Sr Dr. Zainal bin A. Majeed
8	Pengarah Ukur (Penyelarasan dan Dasar Kadaster)	Sr Haji Alwi bin Mohd Noor
9	Pengarah Ukur dan Pemetaan Pahang	Sr Abdul Aziz bin Jantan
10	Pengarah Ukur dan Pemetaan Pulau Pinang	Sr Ahmad Azman bin Ghazali
11	Pengarah Ukur dan Pemetaan Johor	Sr Wan Zainuddin bin Wan Yusuff
12	Pengarah Ukur Seksyen (Naziran / Juruukur Berlesen)	Sr Dr. Mohd Yunus bin Mohd Yusoff
13	Pengarah Ukur (Perundangan Kadaster)	Sr Chan Keat Lim
14	Pengarah Ukur dan Pemetaan Perlis	Jamilah binti Ibrahim
15	Pengarah Ukur dan Pemetaan Melaka	Sr Ahmad Tarmizi bin Bastani (mulai 1 April 2013) Sr Kamil bin Arifin (sehingga 31 Mac 2013)
16	Pengarah Ukur dan Pemetaan W.P. Labuan	Sr Mohamad Hashim bin Mat Hassan



**BAHAGIAN GEOSPATIAL PERTAHANAN**

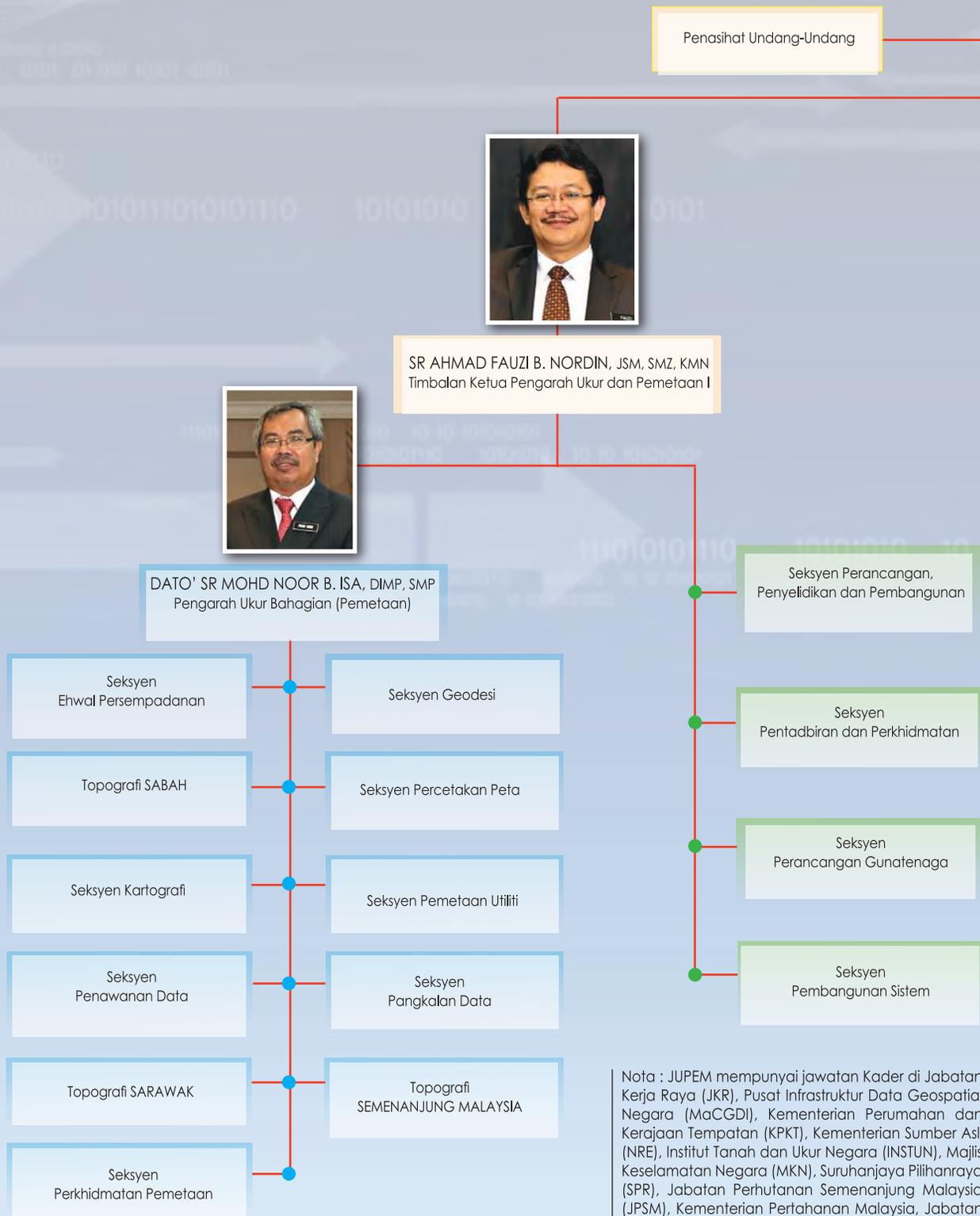
1	Pengarah Seksyen Pembangunan Geospasial	Kol. Sr Dr. Mohd Zambri bin Mohamad Rabab
2	Pengarah Seksyen Pembangunan Maklumat	Lt. Kol. Sr Arifin bin Abdul Rahman
3	Pengarah Seksyen Operasi dan Latihan	Lt. Kol. Sr Muhamad Nadzir bin Mat Isin





010101

## CARTA ORGANISASI



Nota : JUPEM mempunyai jawatan Kader di Jabatan Kerja Raya (JKR), Pusat Infrastruktur Data Geospasial Negara (MaCGDI), Kementerian Perumahan dan Kerajaan Tempatan (KPKT), Kementerian Sumber Asli (NRE), Institut Tanah dan Ukur Negara (INSTUN), Majlis Keselamatan Negara (MKN), Suruhanjaya Pilihanraya (SPR), Jabatan Perhutanan Semenanjung Malaysia (JPSM), Kementerian Pertahanan Malaysia, Jabatan Mineral dan Geosains (JMG), Agensi Remote Sensing Malaysia, Jabatan Laut Semenanjung dan Jabatan Laut Sarawak.



DATUK PROF. SR. DR. ABDUL KADIR B. TAIB,  
PJN, DSDK, SDK, KMN  
Ketua Pengarah Ukur dan  
Pemetaan Malaysia

Unit Integriti



SR HASAN B. JAMIL, JMW, AMN  
Timbalan Ketua Pengarah  
Ukur dan Pemetaan II



SR DR. TENG CHEE HUA, KMN  
Pengarah Ukur  
Bahagian (Kadaster)



BRIG. JEN. DATO' ZAHARIN B. DIN,  
DIMP, DPKK, JSM, PAT, PCM, ACM,  
KMN, AMP, PJM, PNBB, mpat, psc  
Pengarah Bahagian  
Geospatial Pertahanan

Seksyen  
Penyelarasan dan  
Dasar Kadaster

Seksyen  
Perundangan Kadaster

Seksyen Naziran  
Juruukur Berlesen

Seksyen  
Pembangunan Geospatial

Seksyen  
Pembangunan Maklumat

Seksyen  
Operasi dan Latihan

Jabatan Ukur dan Pemetaan  
JOHOR

Jabatan Ukur dan Pemetaan  
NEGERI SEMBILAN

Jabatan Ukur dan Pemetaan  
KEDAH

Jabatan Ukur dan Pemetaan  
W.P. KUALA LUMPUR/PUTRAJAYA

Jabatan Ukur dan Pemetaan  
KELANTAN

Jabatan Ukur dan Pemetaan  
MELAKA

Jabatan Ukur dan Pemetaan  
W.P. LABUAN

Jabatan Ukur dan Pemetaan  
SELANGOR

Jabatan Ukur dan Pemetaan  
PULAU PINANG

Jabatan Ukur dan Pemetaan  
PAHANG

Jabatan Ukur dan Pemetaan  
TERENGGANU

Jabatan Ukur dan Pemetaan  
PERAK

Jabatan Ukur dan Pemetaan  
PERLIS



## LAGU JABATAN

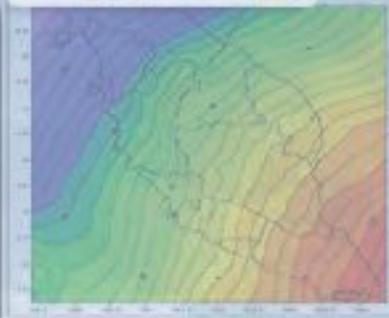
### JUPEM MAJU DAN JAYA

Positif Penuh Beretika  
 Realistik Kita Menuju Satu Wawasan  
 Perkhidmatan Cepak dan Berkesan  
 Kecemerlangan Dijanjikan

Kualiti Teras Perkhidmatan  
 Jabatan Ukur dan Pemetaan Malaysia  
 Kemuafakatan Prihatin dan Peka  
 Iltizam Mulia Visi Jaya

Pengukuran dan Pemetaan  
 Tugas Diamanahkan  
 Adil Saksama dan Layanan Mesra  
 Jadi Amalan

JUPEM Warga Penuh Setia  
 Menabur Bakti Budi dan Jasa  
 Menyumbang Pembangunan Negara  
 Terus Berjaya



## DEFINISI LOGO



- Reka bentuk logo JUPEM terdiri daripada 3 bentuk asas iaitu titik-titik, bulatan gedang dan garisan orbit. Titik-titik ini terpisah dua oleh garisan orbit mencerminkan dua aktiviti utama JUPEM iaitu aktiviti pengukuran kadaster dan aktiviti pengukuran pemetaan.
- Warna oren melambangkan keceriaan, kegemilangan, kepekaan JUPEM kepada kehendak pelanggan dan menyatakan kewujudan dan kepentingan JUPEM kepada masyarakat dan negara.
- Warna hijau adalah warna rasmi jabatan dan dipilih bagi menunjukkan bahawa JUPEM sentiasa prihatin dan memberi perhatian serius kepada aspek alam semula jadi dalam pemeliharaan persekitaran yang sihat.
- Penampilan titik-titik memberi petunjuk bahawa JUPEM menggunakan teknologi elektronik dan sistem jaring untuk memperkasakan maklumat ukur dan pemetaan.
- Garisan orbit pula menitikberatkan betapa pentingnya komunikasi, penyebaran maklumat dan rangkaian.
- Imej baru JUPEM yang ditampilkan pada keseluruhannya adalah lebih energetik, dinamik, progresif serta mampu bersaing dalam menghadapi cabaran-cabaran yang bersifat sejangkit khususnya dalam penyediaan infrastruktur ukur dan pemetaan bagi mendukung Dasar Pembangunan Negara.

## OBJEKTIF

- Memastikan produk dan perkhidmatan ukur kadaster dan pemetaan menepati sistem kualiti serta memenuhi keperluan pelanggan.
- Memastikan pewujudan dan penyelenggaraan Pangkalan Data Ukur Kadaster dan Pemetaan yang kemaskini dan berkualiti bagi memenuhi keperluan infrastruktur data geospasial negara.
- Menjadikan JUPEM pusat kecemerlangan dan rujukan dalam bidang ukur kadaster dan pemetaan.
- Memastikan penentuan, penandaan dan pengukuran sempadan negeri dan antarabangsa memenuhi keperluan pentadbiran negeri serta menjamin kedaulatan negara.

## FUNGSI

- Menasihati Kerajaan dalam bidang ukur kadaster dan pemetaan serta persempadanan negeri dan antarabangsa.
- Menyediakan maklumat ukur kadaster secara lengkap dan kekal untuk tujuan pengeluaran hakmilik tanah, strata dan stratum.
- Menguruskan pangkalan data ukur kadaster dan pemetaan dengan efisien.
- Menerbitkan peta-peta topografi, kadaster, tematik dan utiliti untuk tujuan perancangan, pengurusan sumber asli, pemuliharaan alam sekitar, pembangunan, pemantauan dan keselamatan.
- Menentu, menanda, mengukur dan menyelenggara sempadan-sempadan negeri dan antarabangsa demi menjaga kedaulatan Negara.
- Menyediakan infrastruktur geodetik bagi ukuran kadaster, pemetaan, kejuruteraan dan kajian saintifik.

## VISI

Menjadikan JUPEM terbilang dalam Perkhidmatan Ukur dan Pemetaan serta Pengurusan Data Geospasial bagi memenuhi wawasan negara.

## MISI

Menyediakan Perkhidmatan Ukur dan Pemetaan serta Pengurusan Data Geospasial yang berkualiti melalui sistem terbaik, sumber manusia yang kompeten dan persekitaran kerja yang kondusif.

## MOTO

Pemacu Kesejahteraan Rakyat dan Pembangunan Negara.

# TADBIR URUS KORPORAT





## PIAGAM PELANGGAN

- Menyiapkan kerja ukur kadaster sehingga penyediaan Pelan Akui dalam tempoh tidak melebihi 60 hari dari tarikh penerimaan Permohonan Ukur yang lengkap dan teratur.
- Memastikan penyemakan ke atas kerja-kerja Juruukur Tanah Berlesen (JTB) disiapkan dalam tempoh 60 hari dari tarikh penyerahan dokumen yang lengkap dan teratur.
- Memproses Pelan Strata dalam tempoh 30 hari dan Pelan Akui Strata dalam tempoh 50 hari dari tarikh penerimaan permohonan yang lengkap dan teratur.
- Memastikan pengeluaran nombor-nombor lot dilakukan dalam tempoh tidak melebihi 7 hari dari tarikh permohonan yang lengkap dan teratur daripada Juruukur Tanah Berlesen.
- Menyedia serta membekalkan data-data ukur untuk penyediaan suratan hakmilik ke Pejabat Tanah / Pejabat Pengarah Tanah dan Galian dalam tempoh 7 hari dari penerimaan permohonan yang sempurna dan teratur.
- Memastikan dokumen geospatial terperingkat dibekalkan dalam masa 2 hari selepas menerima kelulusan tapisan keselamatan.
- Memastikan data pasca proses MyRTKnet dapat diurus dan dibekalkan dalam masa 4 jam.
- Memastikan sebarang permohonan pembelian maklumat geodetik tidak terhad dapat diurus dan dibekalkan dalam masa 1 hari.
- Memastikan sebarang permohonan perkhidmatan transformasi koordinat, penukaran koordinat, unjuran peta dan interpolasi geoid dapat diurus dan dibekalkan dalam masa 1 hari.
- Memastikan sebarang permohonan perkhidmatan / pembelian bagi setiap salinan data ukur / peta tidak terhad di kaunter JUPEM dapat diuruskan dalam masa 1 jam.
- Memastikan data-data ukur dapat diakses dan diperolehi melalui e-commerce pada bila-bila masa.
- Membuat pembayaran bil dan invoice tidak melebihi 14 hari dari tarikh penerimaan lengkap diterima.

## KOD ETIKA

- Amanah dan jujur dalam melaksanakan tugas yang dipertanggungjawabkan tanpa menyalahgunakan kuasa dan kedudukan.
- Sentiasa sabar, tenang dan cekal dalam semua situasi.
- Benar, tulus dan ikhlas dalam menjalankan sebarang urusan.
- Berdisiplin dan berhemah tinggi.
- Yakin, tepat, adil dan konsisten dalam membuat sebarang keputusan.
- Sentiasa mengamalkan ciri-ciri kreatif, inovatif, bermotivasi, berdaya saing dan akauntabiliti.
- Menjalinkan semangat kerjasama, muhibah dan kasih sayang pada semua peringkat.
- Berbangga menjadi warga JUPEM dan sentiasa berusaha meninggikan martabat dan imej jabatan.
- Memberi perkhidmatan yang efisien dan berkualiti.
- Berusaha memastikan produk-produk jabatan adalah berkualiti dan memenuhi kehendak pelanggan.
- Sentiasa berwaspada dalam pengendalian maklumat tanpa membocori rahsia Negara kepada pihak yang tidak berhak menerimanya.

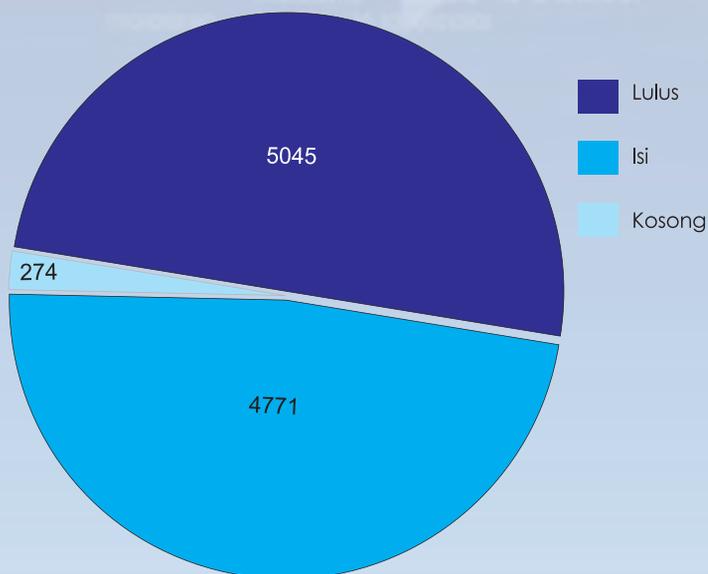
## PENGURUSAN SUMBER MANUSIA

### Perjawatan

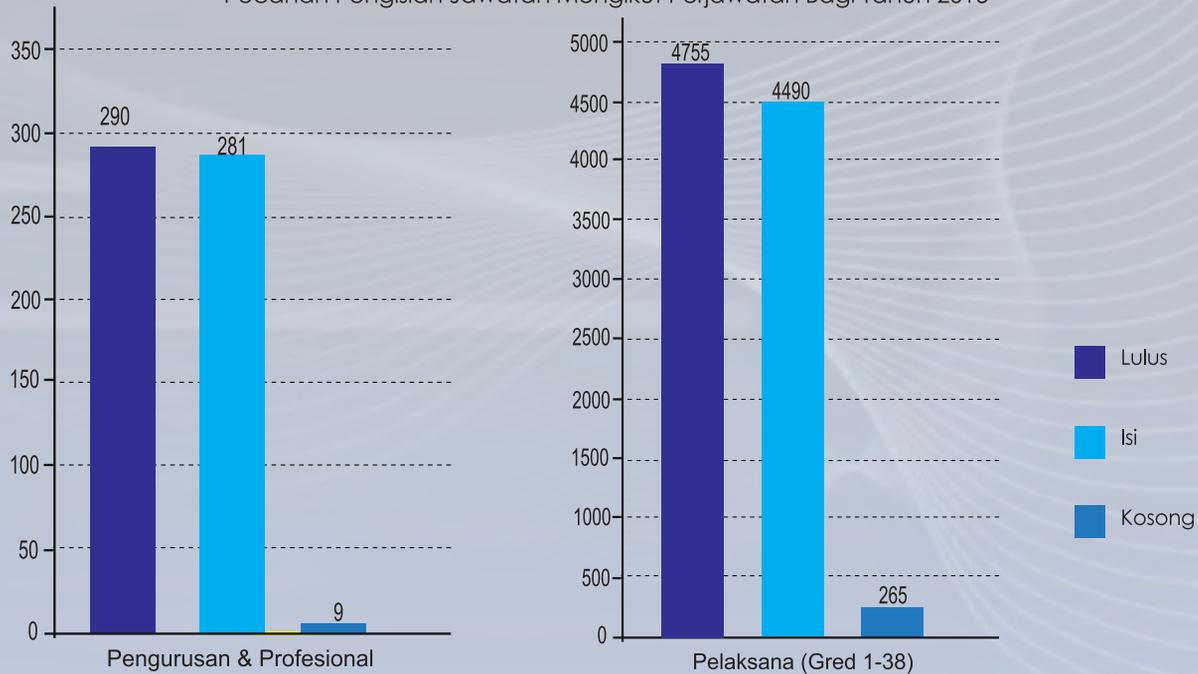
Mengikut Waran Perjawatan JUPEM Tahun 2013, JUPEM mempunyai jumlah perjawatan yang diluluskan sebanyak 5,045 jawatan berbanding perjawatan JUPEM tahun 2012 iaitu sebanyak 5,049 jawatan. Darpada jumlah tersebut, sebanyak 4,771 jawatan telah diisi mengikut kekosongan dan keutamaan meliputi kumpulan pengurusan tertinggi, kumpulan pengurusan dan profesional dan kumpulan pelaksana.

KUMPULAN	GRED	LULUS	ISI	KOSONG
GRED UTAMA	(JUSA A, B, C & JUSA C (KUP))	6	6	0
	54	21	21	0
PENGURUSAN & PROFESIONAL	48-52	66	64	2
	41-44	197	190	7
PELAKSANA	17-38	2,344	2,213	131
	1-16	2,411	2,277	134
<b>JUMLAH</b>		<b>5,045</b>	<b>4,771</b>	<b>274</b>

Pecahan Pengisian Jawatan Mengikut Perjawatan Bagi Tahun 2013



Pecahan Pengisian Jawatan Mengikut Perjawatan Bagi Tahun 2013



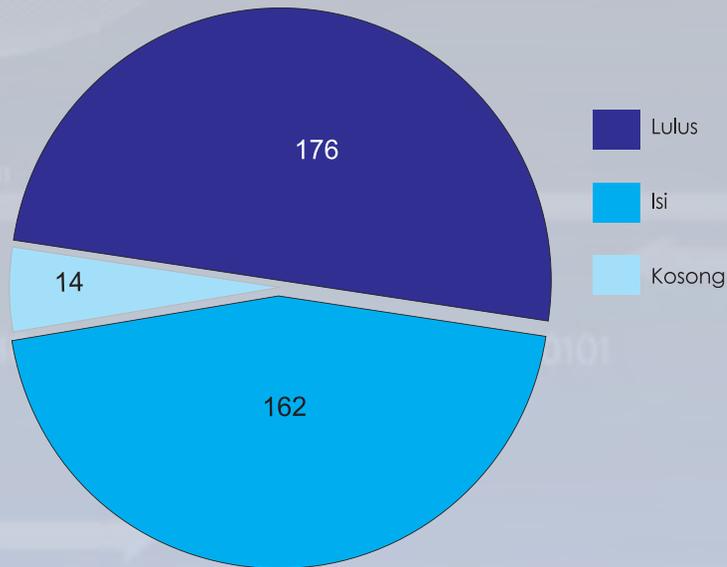
### Perjawatan Kader

JUPEM juga mempunyai sebanyak 176 perjawatan kader di pelbagai agensi kerajaan yang lain seperti di Kementerian Sumber Asli dan Alam Sekitar (NRE), Jabatan Kerja Raya (JKR), Pusat Infrastruktur Data Geospasial Negara (MaCGDI), Institut Tanah dan Ukur Negara (INSTUN), Kementerian Perumahan dan Kerajaan Tempatan (KPKT), Majlis Keselamatan Negara (MKN), Suruhanjaya Pilihan Raya (SPR), Kementerian Pertahanan, Jabatan Mineral dan Geosains (JMG), Jabatan Perhutanan Semenanjung Malaysia (JPSM), Jabatan Laut Semenanjung Malaysia, Jabatan Laut Sarawak, Jabatan Penerbangan Awam (DCA) dan Agensi Remote Sensing Malaysia.

Jumlah keseluruhan jawatan kader JUPEM di agensi kerajaan adalah seperti berikut:

BIL.	KEMENTERIAN/JABATAN	LULUS	ISI	KOSONG
1	Kementerian Sumber Asli dan Alam Sekitar (NRE)	1	1	0
2	Pusat Infrastruktur Data Geospasial Negara (MaCGDI)	35	33	2
3	Jabatan Kerja Raya (JKR)	22	22	0
4	Institut Tanah dan Ukur Negara (INSTUN)	29	26	3
5	Kementerian Perumahan & Kerajaan Tempatan (KPKT)	16	16	0
6	Majlis Keselamatan Negara (MKN)	2	2	0
7	Suruhanjaya Pilihan Raya (SPR)	1	1	0
8	Jabatan Mineral dan Geosains (JMG)	38	37	1
9	Jabatan Perhutanan Semenanjung Malaysia (JPSM)	5	4	1
10	Jabatan Laut Semenanjung Malaysia (JLSM)	2	2	0
11	Jabatan Laut Sarawak	11	8	3
12	Jabatan Penerbangan Awam (DCA)	1	1	0
13	Agensi Remote Sensing	10	7	3
14	Kementerian Pertahanan	3	2	1
<b>JUMLAH</b>		<b>176</b>	<b>162</b>	<b>14</b>

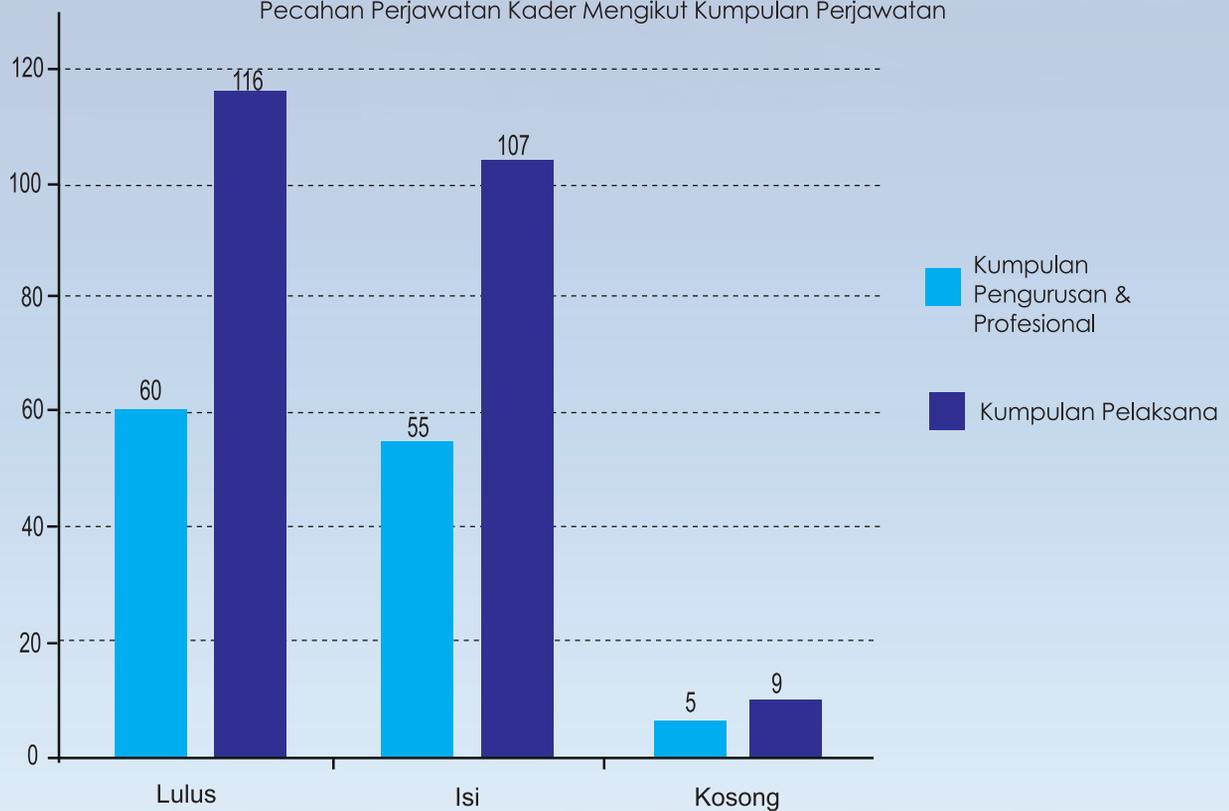
Pecahan Pengisian Jawatan Kader Bagi Tahun 2013



Pecahan perjawatan kader mengikut kumpulan adalah seperti berikut:

Kumpulan	Lulus	Isi	Kosong
Pengurusan & Profesional	60	55	5
Pelaksana	116	107	9
<b>JUMLAH</b>	<b>176</b>	<b>162</b>	<b>14</b>

Pecahan Perjawatan Kader Mengikut Kumpulan Perjawatan



Pecahan terperinci perjawatan Kader mengikut kumpulan adalah seperti berikut:

BIL.	JAWATAN (PENGURUSAN & PROFESSIONAL)	GRED	LULUS	ISI	KOSONG
1	Juruukur	J52	4	3	1
2	Juruukur	J48	9	9	0
3	Juruukur	J44	13	13	0
4	Juruukur	J41	33	29	4
5	Jurugeospatial	J41	1	1	0
<b>JUMLAH</b>			<b>60</b>	<b>55</b>	<b>5</b>

BIL.	JAWATAN (PELAKSANA)	GRED	LULUS	ISI	KOSONG
1	Penolong Juruukur	J38	2	1	1
2	Penolong Juruukur	J36	7	7	0
3	Penolong Juruukur	J29/J36 (KUP)	34	30	4
4	Juruteknik Ukur	J26	3	1	2
5	Juruteknik Ukur	J22	15	14	1
6	Juruteknik Ukur	J17/J22 (KUP)	55	54	1
<b>JUMLAH</b>			<b>116</b>	<b>107</b>	<b>9</b>

### Kenaikan Pangkat

Urusan pemangkuan / kenaikan pangkat telah dilakukan sepanjang tahun 2013. Ini melibatkan 81 orang pegawai yang terdiri daripada 29 orang pegawai daripada Kumpulan Pengurusan dan Profesional, 52 orang pegawai Kumpulan Pelaksana.

### Lembaga Kenaikan Pangkat : Kumpulan Pengurusan & Profesional

SKIM PERKHIDMATAN	KENAIKAN PANGKAT/ PEMANGKUAN KE GRED	KENAIKAN PANGKAT	PEMANGKUAN	JUMLAH
Juruukur Gred J52	J54	1	0	1
Juruukur Gred J48	J52	0	1	1
Juruukur Gred J44	J48	11	1	12
Juruukur Gred J41	J44	12	3	15
<b>JUMLAH</b>		<b>24</b>	<b>5</b>	<b>29</b>

### Lembaga Kenaikan Pangkat: Kumpulan Pelaksana

SKIM PERKHIDMATAN	KENAIKAN PANGKAT/ PEMANGKUAN KE GRED	KENAIKAN PANGKAT	PEMANGKUAN	JUMLAH
Penolong Juruukur, J36	J38	1	0	1
Penolong Juruukur, J29	J36	3	0	3
Penolong Juruukur, J29 (KUP)	J36	5	0	5
Juruteknik Ukur, J22	J26	3	0	3
Juruteknik Ukur, J17	J22	19	0	19
Pembantu Am Pejabat, N1 (KUP)	N4	13	0	13
Pemandu Kenderaan, R3 (KUP)	R6	2	0	2
Pekerja Am, R1	R4	6	0	6
<b>JUMLAH</b>		<b>52</b>		<b>52</b>

### Persaraan

Sepanjang tahun 2013 seramai 117 pegawai dan kakitangan daripada pelbagai gred telah bersara yang meliputi bersara paksa, bersara pilihan, bersara atas sebab kesihatan dan meninggal dunia dalam perkhidmatan. Data keseluruhan persaraan adalah seperti berikut:

### Bersara Paksa

BIL	GRED JAWATAN	JUMLAH
1	J36	1
2	J26	1
3	J22	5
4	J17	2
5	N32	1
6	N28	1
7	N22	2
8	N17	2
9	R4	29
10	KP11	1
	<b>JUMLAH</b>	<b>45</b>

## Bersara Pilihan

BIL	GRED JAWATAN	JUMLAH
1	J52	2
2	J48	1
3	J38	1
4	J36	2
5	J22	13
6	W22	1
7	N22	4
8	N17	6
9	J17	1
10	N1	2
11	R1	26
12	A17	1
<b>JUMLAH</b>		<b>60</b>

## Meninggal Dunia Dalam Perkhidmatan

BIL	NAMA	GRED JAWATAN	NEGERI / SEKSYEN
1	Nor Hamiza binti Zahid Shaghia	N1	JUPEM Pahang
2	Ris Kaharudin bin Mohamed	R1	JUPEM Kedah
3	Halimariana binti Halim	J17	Seksyen Pangkalan Data
4	Mohamad Nor bin Ahmad	N4	JUPEM WPKL/ Putrajaya
5	Fadzil bin Md Sharif	R4 (KUP)	JUPEM Kedah
6	Mohd Supiya bin Ali	R1	JUPEM Terengganu
7	Biden bin Abdul Rahim	J29	JUPEM Johor
8	Kamaruddin bin Hamzah	J22 (KUP)	JUPEM Terengganu
9	Nasaruddin bin Sain @ Saim	J29	Seksyen Geodesi
10	Anuar bin Mohamad	J22	Seksyen Topografi Semenanjung
11	Ahmad Munsif bin Abdul Aziz	R1	Seksyen Topografi Semenanjung
12	Mohd Affendi Bin Hashim	J29	JUPEM Perak

## Tindakan Tatatertib

Pengurusan Tindakan Tatatertib Jabatan merupakan satu tatacara pengendalian mengawal disiplin pegawai dan kakitangan JUPEM yang melibatkan hukuman-hukuman amaran, denda, lucut hak emolumen, tangguh pergerakan gaji, turun gaji, turun pangkat dan buang kerja. Jabatan sentiasa peka terhadap salah laku yang dilakukan oleh pegawai dan kakitangan dan mengambil tindakan yang sesuai berdasarkan Peraturan-Peraturan Pegawai Awam (Kelakuan dan Tatatertib) 1993.

Pada tahun 2013, sebanyak 18 kes tindakan tatatertib telah diambil tindakan, manakala 4 kes masih dalam tindakan Lembaga Tatatertib Kumpulan Pengurusan (No. 2) dan Lembaga Tatatertib Kumpulan Sokongan (No. 1 dan No. 2) yang merupakan kes-kes baru dan kes-kes yang dibicarakan di mahkamah.

Kesalahan dan status kes pada tahun 2013 adalah seperti berikut:

### Pengurusan Kes Tindakan Tatatertib

JENIS/BENTUK KESALAHAN	KES SELESAI		KES MASIH DALAM TINDAKAN	
	Kumpulan Pengurusan & Profesional	Kumpulan Pelaksana	Kumpulan Pengurusan & Profesional	Kumpulan Pelaksana
Tidak Hadir Bertugas	-	18	-	4
<b>JUMLAH</b>	<b>-</b>	<b>18</b>	<b>-</b>	<b>4</b>

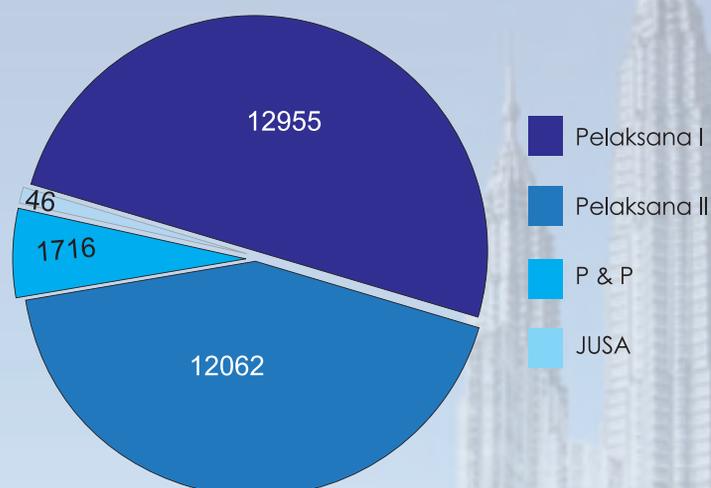
## KURSUS DAN LATIHAN

Latihan yang berterusan telah dilaksanakan bagi meningkatkan kemahiran dan pengetahuan kakitangan JUPEM. Peluang seluas-luasnya telah diberikan kepada setiap pegawai dan kakitangan untuk mengikuti latihan, baik di peringkat akademik mahupun latihan dalam perkhidmatan yang memfokuskan kepada peningkatan kemahiran bersesuaian dengan pemodenan jabatan dan perubahan persekitaran. Melalui kaedah ini, JUPEM dapat melahirkan tenaga pakar dan mahir dari kalangan kakitangan sendiri untuk mengendalikan dan menguruskan maklumat geospasial dan juga dalam bidang pengurusan yang lain.

Bilangan Hari Kursus/ Latihan Yang Dihadiri Kakitangan Bagi Tahun 2013

BIL	BIDANG KURSUS	KEHADIRAN (BILANGAN HARI)				JUMLAH
		JUSA	P&P	PELAKSANA I	PELAKSANA II	
1.	Kursus Wajib (Induksi Umum & Khusus)	0	6	20	0	26
2.	Kursus Kenegaraan	0	0	0	0	0
3.	Pengurusan Ukur dan Pemetaan	19	526	2189	782	3516
4.	Pengurusan Sumber Manusia	13	750	5549	6616	12928
5.	Pengurusan Kewangan	6	63	607	330	1006
6.	Kualiti dan Produktiviti	0	106	1092	995	2193
7.	Teknologi Maklumat dan Komunikasi (ICT)	2	68	422	218	710
8.	Pembangunan Kendiri	6	197	3073	3121	6397
9.	Bahasa dan Komunikasi	0	0	3	0	3
<b>JUMLAH</b>		<b>46</b>	<b>1716</b>	<b>12955</b>	<b>12062</b>	<b>26779</b>

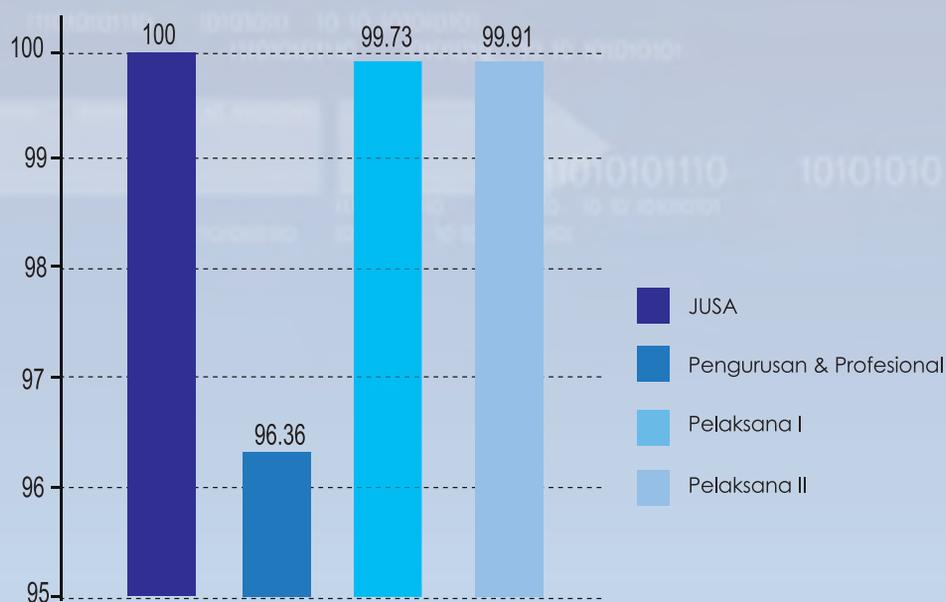
Pecahan Bilangan Hari Kursus/ Latihan Yang Dihadiri Kakitangan Bagi Tahun 2013



Bilangan Pegawai - Pegawai JUPEM Yang Menghadiri 7 Hari Berkursus

BIL.	GRED/ KUMPULAN	BILANGAN PERJAWATAN	BILANGAN PENGISIAN	KURSUS PENDEK			BILANGAN ANGGOTA YANG HADIR KURSUS PANJANG > 3 BULAN
				BILANGAN ANGGOTA YANG HADIR > 7 HARI SETAHUN	BILANGAN ANGGOTA YANG HADIR < 7 HARI SETAHUN	BILANGAN ANGGOTA YANG TIDAK BERKURSUS	
1	JUSA	6	6	6	0	0	0
2	Pengurusan & Profesional	284	275	265	1	0	9
3	Pelaksana I	2344	2213	2207	1	0	5
4	Pelaksana II	2411	2277	2275	2	0	0
<b>JUMLAH</b>		<b>5045</b>	<b>4771</b>	<b>4753</b>	<b>4</b>	<b>0</b>	<b>14</b>

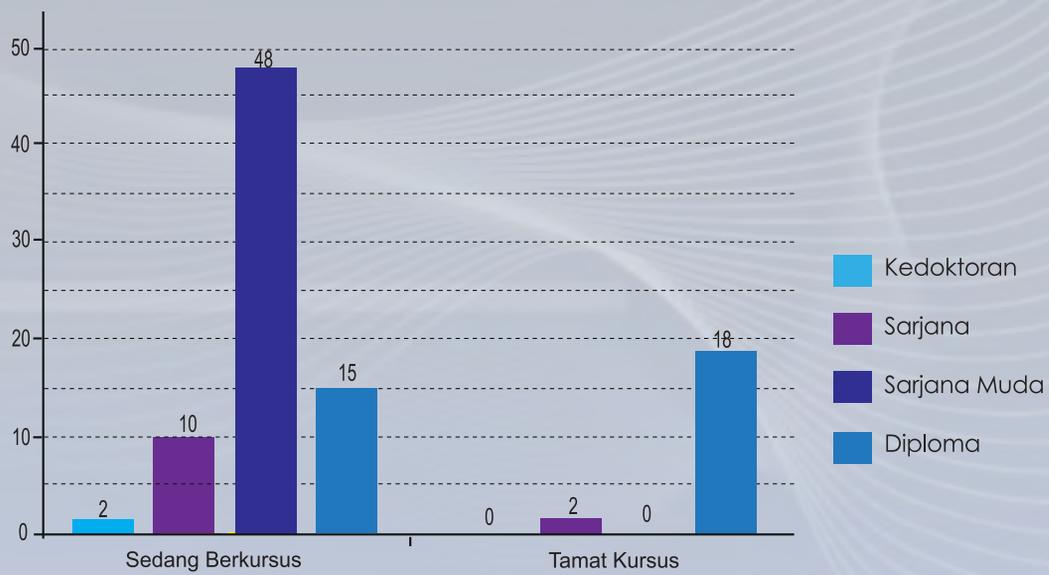
Pecahan Peratusan Pegawai-Pegawai JUPEM Yang Menghadiri 7 hari Berkursus



Bilangan Kakitangan Yang Melanjutkan Pelajaran Bagi Tahun 2013

BIL	TAHAP AKADEMIK	SEDANG BERKURSUS		TAMAT BERKURSUS		JUMLAH
		Sepuluh Masa	Sepuluh Masa	Sepuluh Masa	Sepuluh Masa	
1	Kedoktoran	0	2	0	0	2
2	Sarjana	0	10	0	2	12
3	Sarjana Muda	47	1	0	0	48
4	Diploma	12	3	18	0	33
<b>JUMLAH</b>						<b>95</b>

Pecahan Kakitangan Yang Melanjutkan Pelajaran Dalam Tahun 2013



#### LAMAN WEB JUPEM GEOPORTAL

Laman web [www.jupem.gov.my](http://www.jupem.gov.my) yang dikenali sebagai JUPEM Geoportal, sentiasa dikemaskini dari semasa ke semasa merupakan medium penting yang menghubungkan JUPEM dengan pelanggan-pelanggannya. Ia merupakan satu langkah ke hadapan bagi memastikan urus tadbir korporat JUPEM lebih efisien dan sentiasa memenuhi kehendak pelanggan. Melalui portal, JUPEM dapat memenuhi hasrat Negara dan pelanggan dengan menyediakan pelbagai maklumat geospasial JUPEM secara berpusat bagi tujuan:

- Menyediakan sistem pengurusan dan penyebaran maklumat geospasial secara atas talian;
- Merealisasikan konsep e-Kerajaan dan transaksi penyebaran maklumat secara e-Dagang; dan
- Menyediakan kemudahan *back up* atas talian.



Blog Rasmi Ketua Pengarah Ukur dan Pemetaan Malaysia



Laman Facebook Jabatan Ukur dan Pemetaan Malaysia



### Laman Twitter Jabatan Ukur dan Pemetaan Malaysia



### Bilangan Transaksi Perkhidmatan Atas Talian 2013

Produk	BILANGAN TRANSAKSI												JUMLAH
	Jan	Feb	Mac	April	Mei	Jun	Julai	Ogos	Sept	Okt	Nov	Dis	
Kadaster	8	0	2	0	0	2	0	0	1	3	4	28	48
Pemetaan	5485	4126	4839	5273	5024	5231	5441	4531	4916	5571	4631	1199	56267
Geodetik	205	202	199	212	192	212	169	232	263	237	205	100	2428
<b>JUMLAH</b>	<b>5698</b>	<b>4328</b>	<b>5040</b>	<b>5485</b>	<b>5216</b>	<b>5445</b>	<b>5610</b>	<b>4763</b>	<b>5180</b>	<b>5811</b>	<b>4840</b>	<b>1327</b>	<b>58743</b>



## PENERIMA BINTANG KEBESARAN PERSEKUTUAN DAN NEGERI

### Kumpulan Gred Utama

BIL.	NAMA PEGAWAI	JAWATAN	SEKSYEN / NEGERI	ANUGERAH DITERIMA
1	Sr Ahmad Fauzi bin Nordin	Timbalan Ketua Pengarah Ukur dan Pemetaan I (JUSA B)	Timbalan Ketua Pengarah Ukur dan Pemetaan I	Darjah Setia Sultan Mizan Zainal Abidin Terengganu Yang Amat Terpilih (S.M.Z)
2	Sr Hasan bin Jamil	Timbalan Ketua Pengarah Ukur dan Pemetaan II (JUSA C)	Timbalan Ketua Pengarah Ukur dan Pemetaan II	Johan Mahkota Wilayah (J.M.W)

### Kumpulan Pengurusan dan Profesional

BIL.	NAMA PEGAWAI	JAWATAN	SEKSYEN / NEGERI	ANUGERAH DITERIMA
1	Sr Hj. Hamdani bin Sadiman	Pengarah Ukur dan Pemetaan J54	JUPEM Negeri Sembilan	Kesatria Mangku Negara (K.M.N)
2	Sr Chan Keat Lim	Pengarah Ukur Seksyen J52	Bahagian Kadaster	Ahli Mangku Negara (A.M.N)
3	Sr Kamil bin Ariffin	Timbalan Pengarah Ukur J52	Seksyen Topografi Semenanjung	Ahli Mahkota Perlis (A.M.P)
4	Hanin bin Hashim	Jurugeospacial J44 (KUP)	Seksyen Percetakan Peta	Ahli Mangku Negara (A.M.N)

## Kumpulan Pelaksana

BIL.	NAMA PEGAWAI	JAWATAN	SEKSYEN / NEGERI	ANUGERAH DITERIMA
1	Mohamad Yusof bin Abu Aman	Penolong Juruukur, J38	Seksyen Topografi Sabah	Bintang Setia Kinabalu (B.S.K)
2	Ahmad Sabri bin Shaari	Penolong Juruukur, J36	JUPEM Kedah	Pingat Perkhidmatan Cemerlang Kedah (P.C.K)
3	Azahar bin Ahmad	Penolong Juruukur, J36	JUPEM Pulau Pinang	Pingat Jasa Kebaktian (P.J.K)
4	En Mohd Nazir bin Ahmad	Juruteknik Ukur, J22	JUPEM Perlis	Pingat Jasa Baik (P.J.B)
5	Baba bin Che Ros	Juruteknik Ukur, J22	JUPEM Perlis	Pingat Jasa Baik (P.J.B)
6	Siti Norain bin Sinusi	Juruteknik Ukur, J22	JUPEM Pulau Pinang	Pingat Jasa Kebaktian (P.J.K)
7	Haji Awang bin Che Amat	Juruteknik Ukur, J22	Seksyen Percetakan Peta	Bentara Setia Diraja (B.S.D)
8	Mohamed Ghani bin Mohd Ibrahim	Juruteknik Ukur, J22	JUPEM Pulau Pinang	Pingat Jasa Kebaktian (P.J.K)
9	Leang Yoot Ooi	Juruteknik Ukur, J22	JUPEM Pulau Pinang	Pingat Jasa Kebaktian (P.J.K)
10	Mathavi a/p Tannimalai	Pembantu Tadbir, N17	JUPEM Pulau Pinang	Pingat Jasa Kebaktian (P.J.K)
11	Johari bin Mat	Pembantu Tadbir, N17	JUPEM Selangor	Pingat Jasa Kebaktian (P.J.K)
12	Abdul Latif bin Yen	Pekerja Awam, R4	JUPEM Selangor	Pingat Perkhidmatan Cemerlang Selangor (P.P.C)
13	Osman bin Kamaruddin	Pekerja Awam, R4	JUPEM Selangor	Pingat Perkhidmatan Cemerlang Selangor (P.P.C)
14	Mohamed Zuber bin Rose	Pekerja Awam, R1	JUPEM Pulau Pinang	Pingat Jasa Kebaktian (P.J.K)



# PRESTASI 2013





0101010101010101110

0101010101010101110

0101010101010101110

0101010101010101110 0101 01 010 1001 1001

0101010101010101110

0101010101010101110 10101010 10 10 101010101

11010101110 10101010 10 10 1010101  
11010101110 10101010 10 10 1010101

11010101110 10101010 10 10 1010101

11010101110 10101010 10 10 1010101

11010101110 10101010 10 10 1010101  
11010101110 10101010 10 10 1010101



## INFRASTRUKTUR GEODETIK

### Ukuran Jaringan dan Kawalan GNSS

Kaedah pengukuran menggunakan Sistem Navigasi Satelit Global atau GNSS (*Global Navigation Satellite System*) adalah kaedah yang efisien, efektif dan terkini untuk mendapatkan kedudukan sesuatu titik di permukaan bumi.

Kaedah yang menggunakan rujukan silang pada satelit ini telah mula digunakan di JUPEM sejak awal 1990-an lagi.

Dengan perkembangan teknologi dan pemodenan sistem GNSS, prestasi dan kualiti kerja pengukuran dapat dipertingkatkan bagi memberi kemudahan kepada pengguna.



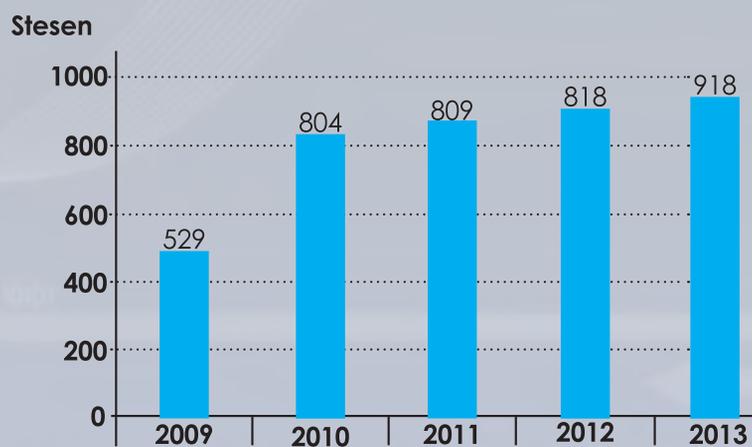
Bagi tahun 2013, kerja-kerja pengukuran GNSS melibatkan perancangan cerapan ke atas 800 stesen yang mana turut melibatkan ukuran bagi menambahbaik jaringan *Cadastral Reference Mark (CRM)* untuk ukuran kadaster.

Pencapaian aktiviti pengukuran yang melibatkan GNSS sehingga 31 Disember 2013 adalah sebanyak 918 stesen (115%) berbanding 800 stesen yang ditetapkan dan pecahan aktiviti adalah seperti berikut :

Bil	Aktiviti	Stesen
1	Cerapan GNSS bagi penubuhan Jaringan Ukur Kawalan Bersama Malaysia-Brunei Darussalam	54
2	Cerapan GNSS untuk <i>GPS Levelling</i>	106
3	Cerapan GNSS bagi projek <i>Height Modernization System (HMS)</i>	441
4	Cerapan GNSS untuk <i>Cadastral Reference Mark (CRM)</i>	308
5	Cerapan <i>Marine Geodetic Infrastructure In Malaysia Water (Magic)</i>	9
<b>Jumlah</b>		<b>918</b>

Prestasi pencapaian untuk tempoh lima (5) tahun bagi aktiviti jaringan pengukuran yang melibatkan GNSS adalah seperti berikut :

Tahun	Stesen
2009	529
2010	804
2011	809
2012	818
2013	918



## MyRTKnet

Lanjutan dari perkembangan teknologi GNSS, sistem MyRTKnet (*Malaysian Real Time Kinematic Network*) telah dibangunkan sejak 2003.

Kaedah pengukuran menggunakan *Real Time Kinematic* merupakan inovasi terkini dalam penentuan kedudukan relatif sesuatu titik.

Dengan jumlah stesen sebanyak 78 buah iaitu 50 stesen di Semenanjung dan masing-masing 14 stesen di Sabah dan Sarawak, sistem ini mampu memberikan hasil kerja pengukuran yang tepat dan jitu.

Pencapaian aktiviti MyRTKnet sehingga 31 Disember 2013 adalah seperti berikut :

Bil	Aktiviti	SKT 2013	Pencapaian
1.	Pengoperasian dan Penyelenggaraan Stesen MyRTKnet	100 kali	100 kali (100%)
2.	Pengurusan Data GPS Stesen MyRTKnet	628,617 jam data	628,617 jam data (100%)
3.	Pemprosesan Data GPS Stesen MyRTKnet Harian	26, 192 set data	26, 192 set data (100%)
4.	Pemprosesan Data GPS Stesen MyRTKnet Mingguan & Tahunan	3, 732 set data	3, 732 set data (100%)



Perisian Pemprosesan Data GNSS Stesen MyRTKnet

## Cerapan Air Pasang Surut

Pengoperasian 21 buah stesen tolok air pasang surut (STAPS) yang terdiri daripada 12 buah stesen di Semenanjung: (1) Jeti Telok Ewa Pulau Langkawi, Kedah, (2) Penang Yacht Club George Town, Pulau Pinang, (3) Pangkalan TLDM Lumut, Perak, (4) Dermaga 25 Pelabuhan Utara Pelabuhan Kelang, Selangor, (5) Jeti Tanjung Bruas Tanjung Keling, Melaka, (6) Jeti Kukup, Johor, (7) Jeti Kastam Johor Bahru, Johor, (8) Kompleks LKIM Tanjung Sedili, Johor, (9) Jeti Berjaya Beach Resort Pulau Tioman, Pahang, (10) Pelabuhan Kuantan Tanjung Gelang, Pahang, (11) Kompleks LKIM Cendering, Terengganu dan (12) Kompleks LKIM Geting, Kelantan, manakala 6 buah stesen terletak di Sabah: (1) Pelabuhan Kota Kinabalu, (2) Kudat, (3) Pelabuhan Sandakan, (4) Lahad Datu, (5) Pelabuhan Tawau dan (6) Pulau Labuan dan 3 buah stesen lagi terletak di Sarawak: (1) Sejingkat, Kuching, (2) Pelabuhan Bintulu, Bintulu dan (3) Marina Park Miri, untuk mendapatkan bacaan nilai aras purata laut yang akan digunakan sebagai datum tegak yang jitu dan seterusnya akan digunakan sebagai rujukan asas kerja-kerja pengukuran aras.



Pencapaian aktiviti cerapan air pasang surut sehingga 31 Disember 2013 adalah seperti berikut :

Lokasi	Jumlah Stesen	SKT 2013	Pencapaian
Semenanjung	12	144 set	144 set (100%)
Sabah	6	72 set	72 set (100%)
Sarawak	3	36 set	36 set (100%)

Buku Rekod Cerapan Air Pasang Surut dan Buku Jadual Ramalan Air Pasang Surut diterbitkan daripada data-data cerapan yang telah diproses. Buku-buku yang diterbitkan ini merangkumi data-data cerapan bagi keseluruhan 21 buah STAPS di seluruh negara.

Sehingga 31 Disember 2013, penerbitan Buku Rekod Cerapan Air Pasang Surut untuk tahun 2012 bagi 21 stesen STAPS di seluruh Malaysia telah disiapkan sepenuhnya. Manakala Buku Jadual Ramalan Air Pasang Surut bagi tahun 2015 juga telah disiapkan untuk keseluruhan 21 stesen STAPS.

Pencapaian	Buku Rekod Cerapan Air Pasang Surut	Buku Jadual Ramalan Air Pasang Surut
SKT 2012	1 buku	1 buku
Pencapaian 2012	1 buku (100%)	1 buku (100%)
SKT 2013	1 buku	1 buku
Pencapaian 2013	1 buku (100%)	1 buku (100%)

## Jaringan Ukur Aras

Pengukuran aras dijalankan bagi mendapatkan nilai ketinggian sesuatu titik di atas permukaan bumi. JUPEM telah menjalankan dua jenis ukuran aras iaitu Ukuran Aras Jitu dan Ukuran Aras Kelas Kedua. Pengukuran dan pemprosesan data ukuran aras ini meliputi kerja-kerja yang dijalankan di Semenanjung, Sabah dan Sarawak.

Laluan-laluan yang telah dibuat pemprosesan data ukur aras jitu bagi tahun 2013 di Semenanjung adalah laluan Mersing ke Tg. Penawar (Desaru) melalui Jemaluang hingga Tenggara Bandar Mas, laluan Pekan ke Nenasi, laluan Nenasi ke Leban Chondong, laluan Leban Chondong ke Padang Endau, laluan Kuala Kangsar ke Gerik, laluan Bahau ke Gemas, laluan Pengkalan Hulu ke Gerik, laluan Kuala Kangsar melalui Manong, Tg. Belanja, Bota Kiri, Seberang Perak, Simpang Sitiawan hingga ke Teluk Intan dan laluan Chemor melalui Tanjung Rambutan dan Tambun sehingga Ipoh. Di Sarawak pula adalah laluan simpang Sibul/Pangkalan Feri ke simpang Tanjung Manis Pangkalan Feri Sg. Nai dan simpang Selangau/Sibu/Bintulu ke simpang Mukah/Balingian. Manakala, di Sabah merangkumi laluan Ranau ke simpang Tambunan/Kota Kinabalu sehingga Penampang.



Pencapaian kerja-kerja ukuran aras sehingga 31 Disember 2013 adalah seperti berikut :

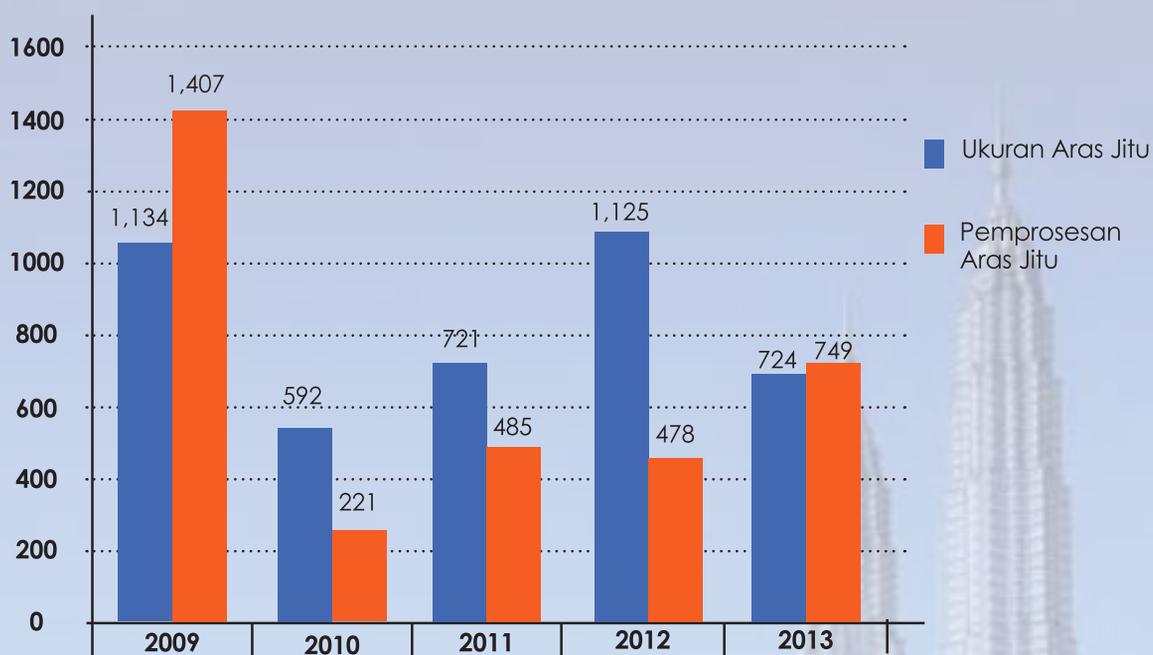
Aktiviti	Pencapaian
Ukuran Aras Jitu	724 stesen
Ukuran Aras Kelas Kedua	0 stesen
Pemprosesan Data Ukuran Aras Jitu	749 stesen
Pemprosesan Data Ukuran Aras Kelas Kedua	104 stesen

Pencapaian SKT aktiviti kerja-kerja ukuran aras jitu sehingga 31 Disember 2013 :

Ukuran Aras Jitu		Pemprosesan Data Aras Jitu	
SKT 2013	Pencapaian 2013	SKT 2013	Pencapaian 2013
482 stesen	724 stesen (150 %)	600 stesen	749 stesen (124 %)

Pencapaian aktiviti kerja-kerja ukuran aras jitu bagi tempoh lima (5) tahun terakhir adalah seperti berikut:

Tahun	Ukuran Aras Jitu (stesen)	Pemprosesan Data Aras Jitu (stesen)
2013	724	749
2012	1,125	478
2011	721	485
2010	592	221
2009	1,134	1,407



Pencapaian SKT aktiviti kerja-kerja ukuran aras kelas kedua sehingga 31 Disember 2013 dijadualkan seperti berikut :

Ukuran Aras Kelas Kedua		Pemprosesan Aras Kelas Kedua	
SKT 2013	Pencapaian 2013	SKT 2013	Pencapaian 2013
0 stesen	0 stesen (145%)	100 stesen	104 stesen (104%)

Pencapaian aktiviti kerja-kerja ukuran aras kelas kedua bagi tempoh lima tahun terakhir :

Tahun	Ukuran Aras Kelas Kedua (stesen)	Pemprosesan Data Aras Kelas Kedua (stesen)
2013	0	104
2012	145	143
2011	205	183
2010	1,205	201
2009	890	1,369

Nota: Ukuran Aras Kelas Kedua tidak dijalankan bagi tahun 2013 kerana memberi penumpuan kepada Aktiviti Pemetaan Peta Topografi dan Peta Tematik.

Pencapaian aktiviti kerja-kerja ukuran aras kelas kedua bagi tempoh lima (5) tahun terakhir :



## Ukuran Graviti

Pengukuran graviti di Malaysia telah dijalankan sejak tahun 1970-an. Di Malaysia, JUPEM telah memainkan peranan utama dalam menjalankan pengukuran graviti bagi tujuan mendapatkan pembetulan ketinggian ortometrik. Ketinggian ortometrik ini akan digunakan sebagai rujukan bagi kerja-kerja pemetaan, kejuruteraan, penyelidikan saintifik dan sebagainya.

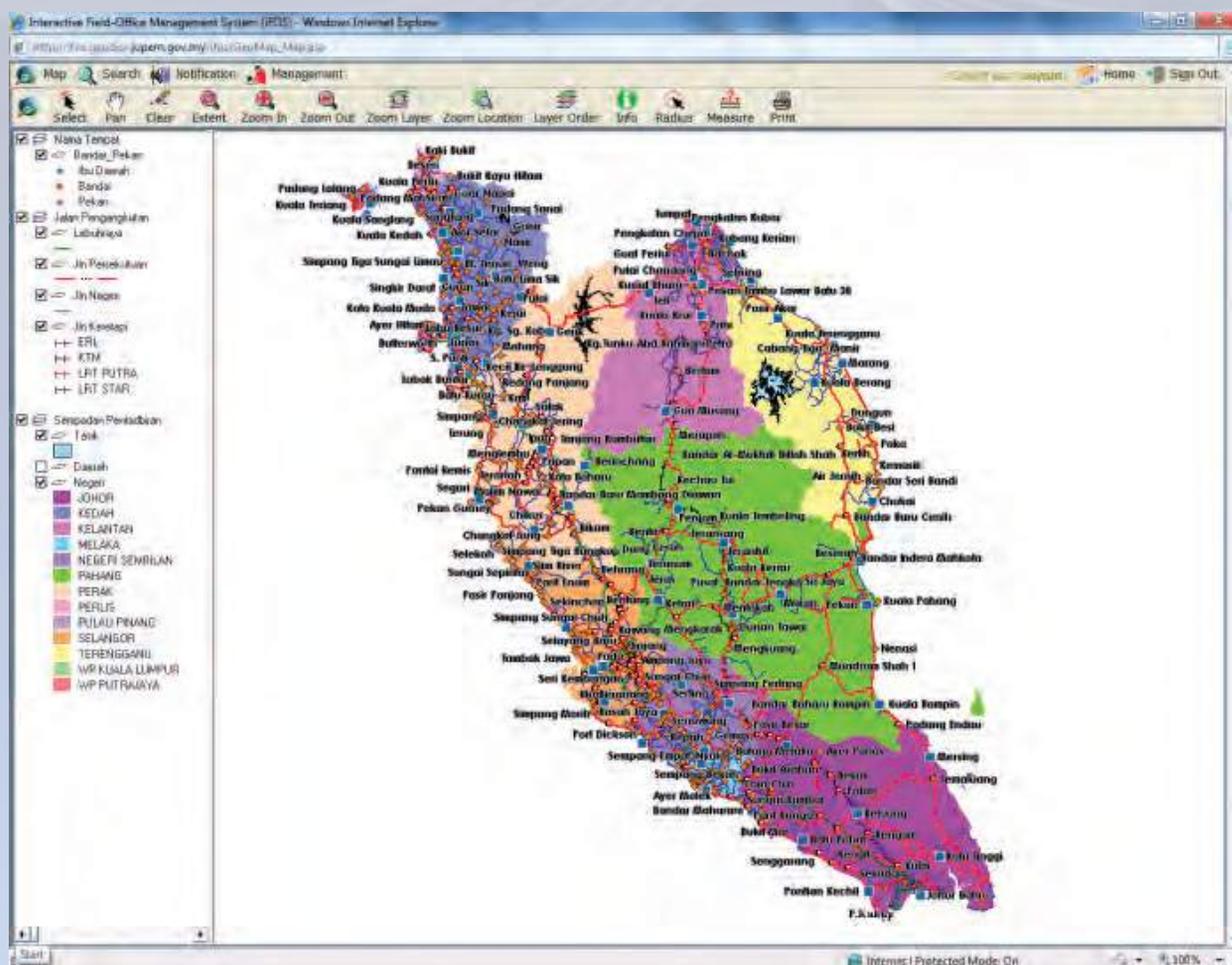


Bagi tahun 2013, perancangan telah dibuat untuk menyiapkan 800 stesen bagi cerapan Graviti Tertib Ketiga di Negeri Perak dan Pahang Darul Makmur.

Pencapaian tahunan pengukuran graviti sehingga 31 Disember 2013 adalah seperti berikut :

SKT 2012	Pencapaian 2012	SKT 2013	Pencapaian 2013
800 stesen	845 stesen (106%)	800 stesen	802 stesen (100%)

### Sistem iFOS



Sistem 'Interactive Field-Office Management System For Geodetic Measurement' (iFOS) telah dibangunkan khas untuk membantu proses perancangan, pelaksanaan dan pemerhatian kerja-kerja ukur geodetik. Sistem ini berupaya melaksanakan proses kompilasi, kerjalar topografi dan suntingan untuk pengemaskinian data geodetik di antara Seksyen Geodesi dan Seksyen Topografi Semenanjung yang terbahagi mengikut Wilayah iaitu Kuala Lumpur bagi Wilayah Barat, Segamat bagi Wilayah Selatan, Taiping bagi Wilayah Utara dan di Kuantan untuk Wilayah Timur.

Sepanjang tahun 2013, sebanyak 48 kali aktiviti menyelenggara dan ujian sistem telah berjaya dijalankan seperti di jadual:

SKT 2012	Pencapaian 2012	SKT 2013	Pencapaian 2013
48 kali	48 kali (100%)	48 kali	48 kali (100%)

## Makmal Kalibrasi Ukur Aras

Makmal kalibrasi ukur aras diwujudkan bagi membolehkan kalibrasi dibuat terhadap pelbagai jenis setaf aras berbarkod dan peralatan aras yang digunakan oleh JUPEM. Makmal ini terletak di bangunan Seksyen Percetakan Peta. Penyelenggaraan makmal ini dibuat secara berkala bagi memastikan kelengkapan, peralatan dan sistem di makmal berkenaan sentiasa berada dalam keadaan baik dan terjamin serta beroperasi dengan lancar. Sepanjang tahun 2013, sebanyak 24 kali aktiviti kalibrasi ke atas setaf aras berjaya dilakukan dan ini merupakan kejayaan 100% pencapaian berdasarkan SKT yang ditetapkan.



## Astronomi

JUPEM merupakan sebuah agensi yang terlibat secara langsung dalam bidang astronomi khususnya dalam penyediaan data rukyah dan hilal. Dengan menganggotai Majlis Kebangsaan bagi Hal Ehwal Islam Negeri-negeri, JUPEM telah memainkan peranannya dengan memberikan perkhidmatan kepada orang awam terutama dalam penyediaan kalendar Islam, penentuan arah kiblat, cerapan rukyah dan hilal bagi penentuan tarikh-tarikh penting di dalam kalendar Islam seperti penentuan awal Ramadhan dan Syawal.

Pencapaian aktiviti berkaitan astronomi sehingga 31 Disember 2013 adalah seperti berikut:

Bil	Aktiviti	SKT 2013	Pencapaian
1.	Pengiraan Astronomi Rukyah dan Hilal	29 stesen	29 stesen (100%)
2.	Cerapan Hilal di Balai Cerap Teluk Kemang bagi tujuan Kajian Semula Kriteria-kriteria Imkanur Rukyah	9 kali	9 kali (100%)
3.	Cerapan Kajian Cerahan Langit	6 kali	6 kali (100%)

Pada tahun 2013, penyediaan data dalam penentuan awal bulan Ramadhan, Syawal dan Zulhijjah bagi tahun 1434 Hijrah telah dijalankan di 29 stesen cerapan hilal iaitu: (1) Kuala Sungai Baru Simpang Empat, Perlis, (2) Menara Telekom, Alor Setar, Kedah, (3) Pulau Sayak, Kuala Muda, Kedah, (4) Pemandangan Indah, Langkawi, Kedah, (5) Pantai Acheh, Pulau Pinang, (6) Pantai Pasir Panjang, Perak, (7) Bukit Malawati, Kuala Selangor, Selangor, (8) Balai Cerap Selangor, Bandar Nakhoda Omar, Selangor, (9) Bukit Jugra, Selangor, (10) Menara Kuala Lumpur, (11) PICC Putrajaya, (12) Telok Kemang, Negeri Sembilan, (13) Tanjung Bidara, Melaka, (14) Pontian Kechil, Johor, (15) Bukit Tanjung Batu, Nenasi, Pekan, Pahang, (16) Bukit Pelindung, Kuantan, Pahang, (17) Gunung Berinchang, Cameron Highlands, Pahang, (18) Bukit Geliga, Kemaman, Terengganu, (19) Bukit Besar, Kuala Terengganu, Terengganu, (20) Merang, Setiu, Terengganu, (21) Pulau Perhentian, Besut, Terengganu, (22) Menara Bangunan SEDC, Kota Bharu, Kelantan, (23) Bukit Peraksi, Pasir Puteh, Kelantan, (24) Bukit Kampung Tembeling, Kuala Krai, Kelantan, (25) Tanjung Dumpil, Putatan, Sabah, (26) Menara Universiti Malaysia Sabah, Labuan, (27) Tanjung Lobang, Miri, Sarawak, (28) Tanjung Batu, Bintulu, Sarawak dan (29) Teluk Bandung, Kuching, Sarawak.

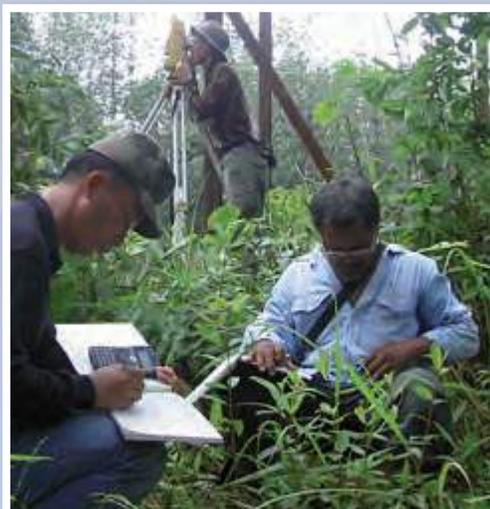
Lokasi Stesen Cerapan Hilal di Seluruh Malaysia



## PERSEMPADAN ANTARABANGSA

### Persempadanan Darat Malaysia - Thailand

Projek penentuan, penandaan dan pengukuran sempadan antara Malaysia - Thailand yang berukuran sepanjang 551.5 km telah dimulakan pada 6 Julai 1973 dan telah siap pada 26 September 1985. Projek ini telah dilaksanakan secara bersama dengan *Royal Thai Survey Department (RTSD)*. Pada masa ini, aktiviti-aktiviti yang sedang dijalankan di bawah projek ini adalah Ukuran Pelbagai iaitu Ukuran Siasatan, Tanam Pastian dan kerja-kerja Penyelenggaraan Sempadan Bersama Antarabangsa Malaysia -Thailand.



Pencapaian aktiviti-aktiviti yang telah selesai dijalankan bagi Kawasan Keutamaan IXA (BP27-BP29) dan Kawasan Keutamaan IXB (BP29-BP33) sehingga 31 Disember 2013 adalah seperti berikut:

Kawasan	SKT 2013 (KM)	Pencapaian (%)
Seksyen A- IXA (BP27-BP29)	5.0	5.0 km (100%)
Seksyen B- IXA (BP27-BP29)	4.7	4.7 km (100%)
Seksyen C- IXA (BP27-BP29)	4.8	4.8 km (100%)
Seksyen D- IXA (BP27-BP29)	4.3	4.3 km (100%)
Seksyen A- IXB (BP27-BP33)	6.0	6.0 km (100%)
Seksyen B- IXB (BP27-BP33)	4.8	4.8 km (100%)
<b>Jumlah</b>		<b>29.60 km</b>

### Persempadanan Darat Malaysia – Indonesia

Pada 22 - 24 November 2012 telah diadakan mesyuarat ke-37 Jawatankuasa Bersama Sempadan Malaysia - Indonesia bagi membincangkan Projek Pengukuran Sempadan Antarabangsa Sarawak - Kalimantan Barat dan Sempadan Antarabangsa Sabah - Kalimantan Timur di Miri, Sarawak, Malaysia. Kedua-dua pihak telah bersetuju menjalankan kerja ukuran siasatan, kerja tanam pastian dan kerja-kerja penyelenggaraan (IRM) di kawasan keutamaan II (G-H) dari G524 - G594, Sarawak – Kalimantan Barat dengan jarak 14.7 km dan Sub Sektor A200 - A500, kawasan keutamaan I (A-B) Sabah – Kalimantan Timur sejauh 9.4 km yang berjaya diselesaikan pada penghujung Jun 2013.



Pencapaian aktiviti ukuran siasatan, tanam pastian dan kerja-kerja penyelenggaraan sehingga 31 Disember 2013 adalah seperti berikut :

KAWASAN	SKT 2013	PENCAPAIAN 2013
Sarawak-Kalimantan Barat (KALBAR)	14.4 km	14.7 km (102%)
Sabah-Kalimantan Timur (KALTIM)	9.4 km	9.4 km (100%)

### Persempadanan Maritim Malaysia – Indonesia

Mesyuarat Penentuan Persempadanan Maritim antara Malaysia dan Indonesia telah dilaksanakan mengikut perancangan, yang mana JUPEM merupakan ahli kepada Jawatankuasa Teknikal bagi Pembatasan Sempadan Maritim Malaysia-Indonesia yang telah diwujudkan pada Mac 2005 dan diketuai oleh Kementerian Luar Negeri.

Di samping itu, satu Kumpulan Kerja Teknikal yang diketuai oleh Pengarah Ukur Seksyen (Ehwal Persempadanan) telah ditubuhkan di bawah jawatankuasa tersebut bagi membincangkan isu-isu teknikal berkaitan perbatasan sempadan maritim antara Malaysia dan Indonesia. Mesyuarat-mesyuarat berkaitan persempadanan antara Malaysia dan Indonesia yang telah diadakan dan dihadiri oleh jabatan dalam tahun 2013 seperti berikut:



BIL	PERBINCANGAN	TARIKH
1.	Mesyuarat Persediaan bagi <i>25<sup>th</sup> Technical Meeting On Maritime Boundaries Delimitation Between Malaysia And The Republic Indonesia</i> di Wisma Putra, Putrajaya.	26 Ogos 2013
2.	Mesyuarat Ke-25 Jawatankuasa Teknikal Mengenai Pembatasan Sempadan Maritim antara Malaysia dan Republik Indonesia di Manado, Indonesia.	10-12 September 2013
3.	Mesyuarat Persediaan bagi <i>26<sup>th</sup> Technical Meeting On Maritime Boundaries Delimitation Between Malaysia And The Republic of Indonesia</i> di Wisma Putra, Putrajaya.	10 Oktober 2013
4.	Mesyuarat Ke-26 Jawatankuasa Teknikal Mengenai Pembatasan Sempadan Maritim antara Malaysia dan Republik Indonesia di Johor Bahru, Johor.	18-20 Oktober 2013

### Persempadanan Maritim Malaysia – Singapura

Kerja-Kerja Ukuran Bersama antara Malaysia dan Singapura telah dijalankan sebagai persiapan awal terhadap kerja-kerja penentuan persempadanan maritim di sekitar Pulau Batu Puteh, Batuan Tengah dan Tubir Selatan. Seksyen Ehwal Persempadanan JUPEM juga terlibat sebagai urus setia bersama dalam mesyuarat persempadanan. Sehingga 31 Disember 2013, sebanyak empat (4) Mesyuarat Jawatankuasa Kecil Mengenai Kerja-Kerja Ukuran Bersama Malaysia - Singapura di sekitar Pulau Batu Puteh, Batuan Tengah dan Tubir Selatan telah diadakan dan adalah seperti berikut :



BIL	MESYUARAT / PERBINCANGAN	TARIKH
1.	Mesyuarat membincangkan Terma-terma Rujukan (TOR) bagi Jawatankuasa Kecil Persempadanan Maritim Batu Puteh dan Batuan Tengah di Wisma Putra, Putrajaya.	4 November 2013
2.	Mesyuarat Persediaan antara Agensi bagi menghadapi Mesyuarat Ke-7 Jawatankuasa Teknikal Bersama Malaysia-Singapura di Wisma Putra, Putrajaya.	11 November 2013
3.	Perbincangan Khusus mengenai Persempadanan Maritim antara Batu Puteh dan Batuan Tengah di Wisma Putra, Putrajaya.	20 November 2013
4.	Mesyuarat Ke-7 Jawatankuasa Teknikal Bersama Malaysia-Singapura Mengenai Pembatasan Maritim di Singapura.	28-29 November 2013

#### Persempadanan Maritim Malaysia – Vietnam

JUPEM juga terlibat dengan perbincangan persempadanan maritim Malaysia-Vietnam. Berikut adalah mesyuarat yang membincangkan isu-isu berkaitan Malaysia dan Vietnam mengenai *Commercial Arrangement Area* bagi tahun 2013:

BIL	MESYUARAT / PERBINCANGAN	TARIKH
1.	Mesyuarat Membincangkan Isu Berkaitan Malaysia - Vietnam <i>Commercial Arrangement Area</i> (PM3 CAA) di Ho Chi Minh City, Vietnam.	18 - 20 Mac 2013
2.	Taklimat Anjuran Talisman Malaysia Mengenai PM3 <i>Commercial Arrangement Area Production Sharing Contract</i> (PM3 CAA PSC) antara Malaysia dan Vietnam di Ampang, K.Lumpur.	8 April 2013
3.	Mesyuarat Antara Agensi bagi Membincangkan Isu-Isu Berkaitan Malaysia - Vietnam <i>Commercial Arrangement Area Production Sharing Contract</i> (PM3 CAA PSC) di Wisma Putra, Putrajaya.	16 April 2013
4.	Mesyuarat Ke-2 bagi Membincangkan Isu Berkaitan Malaysia - Vietnam <i>Commercial Arrangement Area</i> ( PM3CAA) di Genting Highland, Pahang.	7-8 Mei 2013
5.	Mesyuarat Ke-3 bagi Membincangkan Isu Berkaitan Malaysia - Vietnam <i>Commercial Arrangement Area</i> (PM3 CAA) di Hanoi, Vietnam.	10-11 Disember 2013

## Persempadanan Darat Malaysia – Brunei Darussalam

Dalam Mesyuarat ke-8 Jawatankuasa Teknikal Sempadan Darat Malaysia-Brunei yang diadakan di Johor Bahru, Johor pada 19 – 21 Mac 2013, perancangan kerja pengukuran telah dipinda dari sebahagian Sektor (E-F) ke sebahagian Sektor (A-B) dengan jarak 13 km. Sehingga 31 Disember 2013, penandaan dan pengukuran bagi sebahagian daripada Sektor (A-B) dengan jarak 13 km tidak dapat dijalankan kerana tanda-tanda lama (IP1 - IP19) belum dapat dibuktikan kedudukannya. Sehubungan dengan itu, Mesyuarat ke-9 Jawatankuasa Teknikal Sempadan Darat yang diadakan di Bandar Seri Begawan, Brunei Darussalam pada 9 – 11 September 2013 memutuskan supaya pembuktian tanda lama diteruskan sehingga ke Bukit Teraja sebelum tindakan seterusnya dibuat. Kerja-kerja awalan dan persediaan sebelum memulakan penandaan dan pengukuran sempadan antarabangsa Malaysia-Brunei Darussalam telah dilakukan bersama pihak Brunei dengan kerjasama Seksyen Geodesi, JUPEM.

Bagi tahun 2013, Mesyuarat dan Aktiviti Persempadanan Antarabangsa Darat antara Malaysia dan Brunei Darussalam yang melibatkan Seksyen Ehwat Persempadanan JUPEM adalah seperti berikut:

BIL	MESYUARAT / PERBINCANGAN	TARIKH
1.	Mesyuarat Ke-8 Jawatankuasa Teknikal Bersama Persempadanan Darat antara Malaysia dan Brunei Darussalam di Johor Bahru, Johor.	19-21 Mac 2013
2.	Mesyuarat Ke-9 Jawatankuasa Teknikal Bersama Persempadanan Darat antara Brunei Darussalam dan Malaysia di Brunei Darussalam.	9-11 September 2013
3.	Mesyuarat Pengarah-Pengarah Projek Bersama Sempadan Darat Antarabangsa Malaysia -Brunei Darussalam di Kota Kinabalu, Sabah.	1-3 Oktober 2013
4.	Mesyuarat Dua Hala Ke-13 Berhubung Pelaksanaan EoL Antara Brunei Darussalam dan Malaysia di Brunei.	6-7 Disember 2013
5.	Majlis Perasmian Jambatan Persahabatan Brunei Darussalam-Malaysia (Sg. Pandaruan)	8 Disember 2013

## PERSEMPADANAN NEGERI

### Projek Penandaan dan Pengukuran Sempadan Bersama antara Negeri-Negeri Semenanjung Malaysia

Pencapaian aktiviti penandaan dan pengukuran sempadan bersama antara negeri Terengganu dan Kelantan serta negeri Kedah dan Perlis sehingga 31 Disember 2013 adalah seperti berikut:

SEMPADAN TERENGGANU-KELANTAN	SKT 2013	PENCAPAIAN 2013
Kawasan Keutamaan II; Stesen Trig. Bukit Yong – Stesen Trig. Gunung Kambing.	50 km	19.8 km (40%)
Kawasan Keutamaan III; Stesen Trig. Gunung Kambing – Stesen Trig. Gunung Kachang.		59.8 km (120%)

SEMPADAN KEDAH-PERLIS	SKT 2013	PENCAPAIAN 2013
Daripada Kuala Sungai Sanglang ke Kampung Kerbau Laga.	5.6 km*	-

Nota: \* Dalam proses semakan deraf *Memorandum of Understanding (MoU)* oleh kedua-dua negeri berkenaan.



Berikut merupakan senarai mesyuarat sepanjang tahun 2013 yang berkaitan dengan sempadan antara negeri-negeri yang dihadiri oleh jabatan:

BIL	PERBINCANGAN	TARIKH
1.	Mesyuarat Jawatankuasa Kumpulan Wang Amanah Projek Penandaan dan Pengukuran Sempadan Bersama di antara Negeri-Negeri di Semenanjung Malaysia Bil. 1/2013 di Kementerian Sumber Asli dan Alam Sekitar, Putrajaya	10 Januari 2013
2.	Mesyuarat Bagi Membincangkan Pemuktamadan Memorandum Persefahaman (MoU) Serta Cadangan Mengadakan Majlis Menandatangani (MoU) Penandaan dan Pengukuran Sempadan Bersama Antara Negeri Kedah dan Negeri Perlis di Wisma Sumber Asli, NRE, Putrajaya	28 Mei 2013
3.	Mesyuarat Jawatankuasa Teknikal bagi Penandaan dan Pengukuran Sempadan Wilayah Persekutuan K.Lumpur dan Putrajaya dengan Negeri Selangor di PTG WPKL, K.Lumpur	5 Jun 2013
4.	Mesyuarat Jawatankuasa Bersama Teknikal (JBT) Penandaan dan Pengukuran Sempadan Negeri Melaka dan Johor di Muar, Johor	5-6 Jun 2013
5.	Mesyuarat Jawatankuasa Kumpulan Wang Amanah Projek Penandaan dan Pengukuran Sempadan Bersama di antara Negeri-negeri Semenanjung Malaysia, Bil.2/2013 di Wisma JUPEM, K.Lumpur	9 Julai 2013
6.	Mesyuarat Persediaan bagi Mesyuarat Jawatankuasa Kebangsaan Penandaan dan Pengukuran Sempadan Bersama Negeri-negeri (JKPPSBN) Bil.1/2013 di Wisma Sumber Asli, NRE, Putrajaya	5 September 2013

7.	Mesyuarat Jawatankuasa Bersama Teknikal Penandaan dan Pengukuran Sempadan Bersama Antara Negeri Selangor dan Negeri Perak di PTG Selangor, Shah Alam	9 September 2013
8.	Mesyuarat Jawatankuasa Kebangsaan Penandaan dan Pengukuran Sempadan Bersama Negeri-negeri (JKPPSBN) Bil.1/2013 di Wisma Sumber Asli, NRE, Putrajaya	12 September 2013
9.	Mesyuarat Penyelarasan Isu Teknikal dan Analisa Penggunaan Sistem Koordinat Sempadan Bersama Antara Negeri Melaka dan Johor di Wisma JUPEM, K.Lumpur	12-13 September 2013
10.	Mesyuarat Persediaan bagi Majlis Menandatangani Perjanjian Sempadan dan MoU Penandaan dan Pengukuran Sempadan bagi Negeri Sembilan - Pahang & Negeri Sembilan – Melaka di Wisma Sumber Asli, NRE, Putrajaya	2 Oktober 2013
11.	Mesyuarat Penyelarasan Isu Teknikal Persempadanan Negeri Johor-Melaka dan Penyelarasan Data NDCDB di Sempadan Johor-Melaka di Wisma JUPEM, K.Lumpur	16 Oktober 2013

#### SAKSI PAKAR KES-KES DI MAHKAMAH

Pegawai-pegawai JUPEM telah dipanggil sebagai saksi pakar dalam perbicaraan kes-kes tangkapan nelayan dan kapal asing yang menceroboh perairan Malaysia. Sehingga 31 Disember 2013, sebanyak sepuluh (10) kes perbicaraan telah dihadiri bagi membuat pengesahan kedudukan sesuatu lokasi pencerobohan perairan negara yang telah berjaya ditangkap oleh Agensi Penguatkuasa Maritim Malaysia (APMM). Perbicaraan yang telah dihadiri adalah seperti berikut:



BIL	PERBICARAAN	TARIKH
1.	Kes Mahkamah berkaitan Repot Polis No.002226/2011 di Mahkamah Majistret Kangar, Perlis	5 Mac 2013
2.	Kes Mahkamah berkaitan Kes No.SDK-83-1688/12-2012 di Mahkamah Sandakan, Sabah	26-27 Mac 2013
3.	Kes Mahkamah berkaitan Repot Polis No.CJB001849 di Mahkamah Seksyen Kota Tinggi, Johor	1-3 April 2013
4.	Kes Mahkamah berkaitan Kes No.SDK-83-1688/12-2012 di Mahkamah Sandakan, Sabah	10-11 Jun 2013

5.	Kes Mahkamah berkaitan Kes No.SDK-83-1688/12-2012 di Mahkamah Sandakan, Sabah	8-9 Julai 2013
6.	Kes Mahkamah berkaitan Repot Polis di Mahkamah Majistret Yan, Kedah	22 Julai 2013
7.	Kes Mahkamah berkaitan Kes No.SDK-83-1688/12-2012 di Mahkamah Sandakan, Sabah	25-26 Julai 2013
8.	Kes Mahkamah berkaitan Kes Sapina 801927 berkait Repot Polis GITA/006732/13 di Mahkamah Majistret Kuching, Sarawak	26-30 Ogos 2013
9.	Kes Mahkamah berkaitan Kes Sapina 801930 berkait Repot Polis GITA/005996/13 di Mahkamah Majistret Kuching, Sarawak	29-30 Ogos 2013
10.	Kes Mahkamah berkaitan Kes Sapina 801945 berkait Repot Polis GITA/006732/13 di Mahkamah Majistret Kuching, Sarawak	30 September 2013

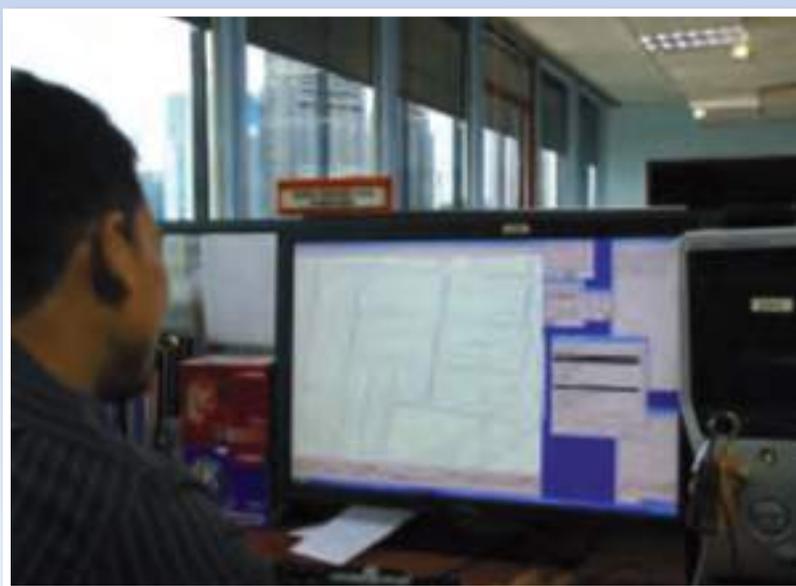
## PENERBITAN PETA

Sebagai agensi yang terlibat secara langsung dengan penerbitan dan pengeluaran produk-produk pemetaan seperti peta topografi, fotografi udara dan sebagainya, beberapa aktiviti melibatkan pengukuran dan pemrosesan data dilakukan sebelum sesuatu peta dihasilkan. Aktiviti-aktiviti ini melibatkan kerja-kerja pengutipan data di padang dan pemrosesan data ukuran.

### Penawanan Data

Aktiviti-aktiviti penawaran data melibatkan kerja-kerja seperti fotografi udara dan penyediaan cetak lekap, pemilihan titik kawal, penyediaan dataset penyudahan padang dan penyediaan peta ortofoto.

Peta pulau-pulau yang telah disiapkan adalah Pulau Bohayan (merangkumi Pulau Tagabua, Pulau Tanah, Pulau Malundang, dan Pulau Manjinkil), Pulau Tabawan dan Pulau Silumpat, Pulau Tagabua, Pulau Selakan, Pulau Gatahan dan Pulau Bait.



Selain daripada itu, aktiviti penawaran data juga melibatkan kerja-kerja penyediaan data ortorektifikasi imej satelit dan penyediaan data bagi pihak Angkatan Tentera Malaysia, pengguna awam dan lain-lain jabatan serta agensi swasta.

Pencapaian aktiviti penawanan data sehingga 31 Disember 2013 adalah seperti berikut:

Aktiviti	SKT2012 (Lembar)	Pencapaian 2012 (Lembar)	SKT 2013 (Lembar)	Pencapaian 2013 (Lembar)
Fotografi Udara, Perolehan Imej Satelit dan Data InSAR	63	117 (186%)	145	148 (102%)
Pemilihan Titik Kawal	51	59 (116%)	114	156 (137%)
Penyediaan Dataset Penyudahan Padang	112	136 (121%)	174	180(103%)
Penyediaan Peta Ortofoto	99	99 (100%)	100	124 (124%)
Penyediaan Data DTM	-	-	85	85 (100%)
Penyediaan Data Ortorektifikasi Imej Satelit	37	79 (214%)	180	180 (100%)
Penyediaan Data Bagi Pihak Angkatan Tentera Malaysia, Pengguna Awam dan Lain-lain Jabatan / Agensi	70	144 (206%)	70	100 (143%)
Penyediaan Peta Pulau-Pulau	5	5 (100%)	5	6 (120%)

#### Ukuran Titik Kawal

Ukuran titik kawal dijalankan untuk mendapatkan maklumat koordinat planimetri dan ketinggian titik kawal yang akan digunakan sebagai kawalan model pada alat pemplot stereo.

Nilai titik kawal penting dalam kerja-kerja pengukuran fotogrametri di mana pelarasan penyegitigaan udara dapat dilakukan dengan menggunakan maklumat tersebut.



Pencapaian aktiviti ukuran titik kawal sehingga 31 Disember 2013 adalah seperti berikut:

Siri Peta	SKT 2013 (Lembar)	Pencapaian 2013 (Lembar)
MY502A (SEM)	6	6 (100%)
MY512A (SWK)	2	2 (100%)
MY701T (SEM)	9	19 (211%)
MY711T (SWK)	2	9 (450%)
MY711T (SBH)	20	37 (185%)
<b>JUMLAH</b>	<b>39</b>	<b>73</b>

## Pangkalan Data



Seiring dengan keperluan pemetaan dan Sistem Maklumat Geografi, JUPEM telah mewujudkan dua jenis pangkalan data iaitu pangkalan data topografi dan pangkalan data kartografi. Pangkalan data topografi adalah berskala 1:5,000, 1:10,000 dan 1:25,000 dan dihasilkan melalui kaedah fotogrametri dan kerja ukur di lapangan. Pangkalan data topografi akan digunakan semula dalam proses ulangan peta atau *map revision* dan merupakan sumber data digital terkini yang boleh diperolehi di JUPEM. Manakala pangkalan data kartografi pula dijana daripada pangkalan data topografi dan diterbitkan sebagai peta

bercetak pada skala 1:10,000 dan 1:50,000.

Dalam proses penghasilan pangkalan data topografi dan kartografi, suntingan perlu dijalankan ke atas dataset topografi dengan menggunakan perisian *Gothic Lamps2* sebelum dibuat proses validasi dan *seamless* dengan perisian *Radius Studio*. Seterusnya dataset berskala 1:25,000 akan melalui proses generalisasi kepada skala 1:50,000 dengan menggunakan perisian *Radius Clarity*. Seterusnya hasil proses generalisasi iaitu dataset kartografi akan disusun dalam bentuk peta dan bersedia untuk penyediaan pruf cetak.

Data Topografi yang dihasilkan adalah mengikut Malaysian Standard MS1759 – *Feature and Attribute Codes* yang mana JUPEM adalah merupakan *custodian* bagi kategori *Built-Environment*, *Demarcation*, *Hypsography* dan *Utility* selain juga menjadi agensi tunjak bagi kategori *Aeronautical*, *Geology*, *Hydrography*, *Transportation*, *Vegetation* dan *General*.

Pencapaian aktiviti pembangunan pangkalan data sehingga 31 Disember 2013 adalah seperti berikut:

Aktiviti	SKT 2012 (Lembar)	Pencapaian 2012 (Lembar)	SKT 2013 (Lembar)	Pencapaian 2013 (Lembar)
Penyediaan Pangkalan Data Skala 1:50,000	180	165 (92%)	165	166 (100%)
Penyediaan Pangkalan Data Skala 1:25,000	320	299 (93%)	320	324 (101%)
Penyediaan Pangkalan Data Skala 1:5,000 & 1:10,000	120	69 (58%)	100	100 (100%)
Penyediaan Data Seamless Siri MY701T, MY711T dan L808	-	-	68	68 (100%)
Penyediaan Data Seamless Siri MY601T	127	189 (149%)	200	273 (137%)

## Pengemaskinian Peta Topografi

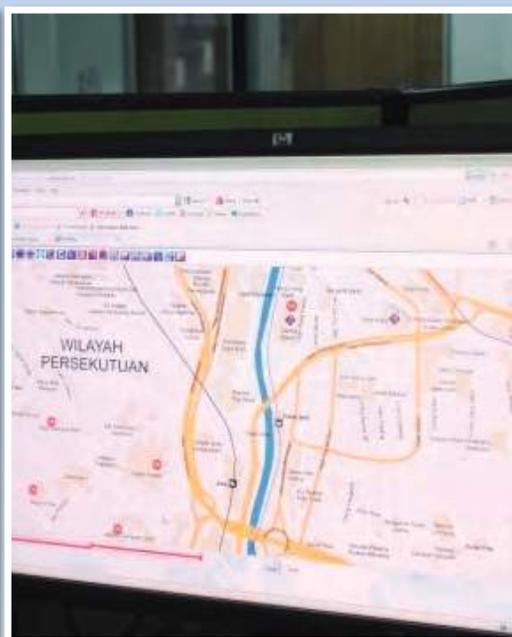
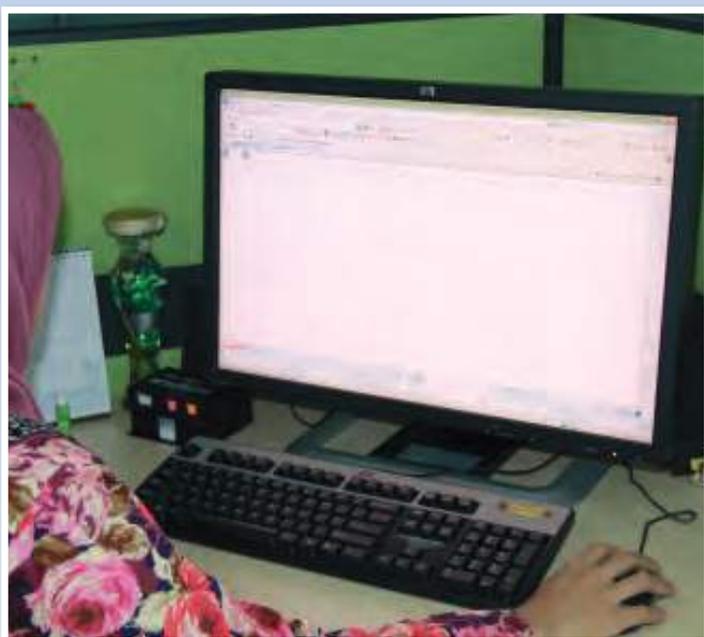
Aktiviti ini dijalankan bertujuan mengemaskini maklumat topografi pada lembaran peta melalui kerja ukuran penyudahan padang. Kerja-kerja mengemaskini melibatkan pelbagai siri peta iaitu MY501T, MY701T, L808, MY511T dan MY711T.

Pencapaian aktiviti Ukuran Penyudahan Padang sehingga 31 Disember 2013 adalah seperti berikut :

Siri Peta	SKT 2012 (Lembar)	Pencapaian 2012(Lembar)	SKT 2013 (Lembar)	Pencapaian 2013 (Lembar)
L 808	15	11 (73%)	12	12 (100%)
MY501T	45	46 (102%)	-	-
MY602A	-	-	50	50 (100%)
MY511T (Sabah)	40	40 (100%)	-	-
MY512A (Sabah)	-	-	40	35 (87%)
MY512A (Sarawak)	73	73 (100%)	63	58 (92%)
MY511T (Sarawak)	73	73 (100%)	-	-
MY701T (Semenanjung)	32	35 (109 %)	48	53 (110%)
MY711T (Sabah)	22	22 (100%)	22	25 (113%)
MY711T (Sarawak)	15	15 (100%)	19	19 (100%)
Joint Border Mapping (Sarawak)	5	5 (100%)	-	5 (100%)
<b>JUMLAH</b>	<b>320</b>	<b>320</b>	<b>254</b>	<b>257</b>

### Kartografi

Aktiviti kartografi melibatkan kerja-kerja seperti reka bentuk dan penyediaan data cetak bagi Peta Topografi dan Peta Tematik. Selain daripada penerbitan peta bercetak, aktiviti kartografi melibatkan kerja-kerja reka bentuk dan menghasilkan peta berbentuk digital seperti Peta Elektronik (eMap) dan Webmap yang mana turut melibatkan penyediaan elemen-elemen multimedia seperti foto, video dan animasi.



Pencapaian aktiviti kartografi sehingga 31 Disember 2013 adalah seperti berikut :

Aktiviti	SKT 2012 (Lembar)	Pencapaian 2012 (Lembar)	SKT 2013 (Lembar)	Pencapaian 2013 (Lembar)
Penyediaan Pruf Semak Peta Topografi Pelbagai Siri	350	400 (114%)	350	420 (120%)
Penyediaan Data Cetak Peta Topografi Pelbagai Siri	350	400 (114%)	350	355 (101%)
Penyediaan Pruf Semak Peta Tematik Pelbagai Siri	50	57 (114%)	22	26 (118%)
Penyediaan Data Cetak Peta Tematik Pelbagai Siri	50	52 (104%)	22	25 (114%)
Cetak Ulang	16	16 (100%)	16	21 (131%)
Penerbitan Peta Elektronik	25	29 (116%)	25	29 (116%)
Penerbitan Webmap	3	3 (100%)	3	3 (100%)

### Percetakan

Kerja-kerja percetakan di JUPEM melibatkan 3 aktiviti utama iaitu aktiviti pencetakan, pracetak dan pascacetak.

Selain daripada menerbitkan peta-peta bercetak, aktiviti percetakan juga melibatkan kerja-kerja reka bentuk, memproses dan mencetak pelbagai dokumen seperti Berita Ukur, Laporan Tahunan, Kompendium, watakah, dokumen keselamatan dan produk-produk bukan peta yang lain.



Peta-peta topografi yang telah dicetak sepanjang tahun 2013 adalah seperti berikut:

No Siri	Negeri	Nama Lembar
L7030 – Cetak Ulang	N.Sembilan	Rembau, Titi, Kuala Pilah
	Perak	Behrang, Batu Kurau, Belum, Selama
	Kedah	Pulau Langkawi, Nami, Sg. Petani
	Terengganu	Dungun, Cukai, Manir
	Johor	Kulai, Kg. Sungai Rengit, Kg. Gajah, Pontian Kechil
	Pahang	Raub, Kg. Balai Padang, Sg. Lembing
	Perlis	Kangar
	Kelantan	Kg. Lubuk Bongor
MY501A	Selangor	Hulu Langat
	Terengganu & Pahang	Sg. Jengai
	Pahang	Kg. Kuala Tahan, Kg. Bantal, Gunung Mandi Angin
	Selangor	Semenyih
	Perak	Kg. Bota Kanan
MY501T	Kedah	Yan Besar
	Terengganu & Pahang	Sg. Jengai
	Pahang	Kg. Kuala Tahan, Kg. Bantal, Gunung Mandi Angin
	Selangor	Semenyih
	Perak	Kg. Bota Kanan
MY502A	Kedah	Yan Besar
	Kedah	Sik, Gunung Palas, Kuala Nerang, Gunung Batu Putih, Bedong, Kulim, Nami, Pendang, Bukit Gajah Hutan
	Pahang	Kg. Sentang, Muadzam Shah, Kuala Lipis, Cegar Perah, Felda Keratong Enam, Sg. Tekai, Sg. Koyan 3, Kuala Rompin, Pos Lanai
	Johor	Labis
	Selangor	Simpang Ampat
N.Sembilan	Port Dickson	

	Terengganu	Seri Bandi, Kg. Menerung, Marang, Al-Muktafi Billah Shah, Pulau Tenggol, Kuala Berang, Pekan Sri Langkap, Bukit Besi
	Perak	Kg. Sg. Kerang, Teluk Intan, Kg. Sg. Banum, Kg. Jalong, Bersia, Sg. Kenarong, Bagan Datuk, Pekan Gurney, Lumut, Bandar Baru Kampung Gajah, Kg. Sungai Tiang
	Kelantan	Dabong, Kg. Raja, Tasik Pergau, Fort Hua, Kg. Bertam Baru, Kg. Kabong, Kg. Pasir Tumboh, Kg. Tunku Abd. Rahman, Gua Musang, Pos Gob, Gunong Badong
	P.Pinang	George Town
	Kelantan, Terengganu & Pahang	Gunung Gagau
	Perak & Kelantan	Kg. Jarau
	Pahang & Kelantan	Sg. Tahan, Merapoh
	Kelantan & Terengganu	Kesedar Chalil
	N.Sembilan & Melaka	Gemencheh
	Kedah & Kelantan	Fort Kemar
	Perak, Kedah & P.Pinang	Parit Buntar
	Perak & Kedah	Selama
	Kedah & Perlis	Arau
MY511A	Sarawak	Long Anap, Kg. Biawak, Nanga Entawau, Sundar
	Sabah	Kinarut
MY511T	Sarawak	Long Anap, Kg. Biawak, Nanga Entawau, Sundar
	Sabah	Kinarut
MY512A	Sarawak	Nanga Gaat, Balai Ringin, Sg. Puro, Kg. Muara Tuang, Kg. Kendaie, Jimbong, Bukit Raya, Bukit Long, Sg. Mengiong, Bukit Tasu, Bakun Township, Seberang Nibong, Long Banga, Punah Bah, Sg. Entuloh Baleh, Sg. Penjelai, Nanga Bangkit, Kg. Belawai, Nanga Mujong, Nanga Melinau, Dewa Layang, Kampung Sijjak, Sg. Melatai, Bekenu, Gunung Sengayoh, Sg. Serikin, Kg. Long Adang, Daro, Bukit Entemu, Batu Lintang, Sg. Tiyut, Kg. Kepayang, Nanga Entalau, Sg. Kajang, Bukit Batu Bora, Kg. Kuala Nyalau, Long Semutut, Mukah,

	Sarawak	Bukit Ulu Tutong, Likau, Bukit Dulit, Sekuau, Oya, Nanga Telawan, Sebuyau, Kg. Data Kakus, Kg. Hilir, Bukit Selidang, Kg. Telok Melano, Kg. Pandan, Pekan Tepus, Tanjong Manis, Kg. Kekan, Long Beyak, Pulau Burung
	Sabah	Kg. Binanun, Telupid, Danum, Pulau Ligitan, Kg. Bakapit, Kg. Kuamut, Tambunan, Kg. Paris Satu, Pulau Tiga, Kg. Sungai-sungai, Kg. Mansud, Pulau Tabawan, Kg. Bun-Bun, Kg. Mangkabau, Papar, Kg. Bait, Kg. Pulau Mabul, Kg. Pulau Mabul, Kg. Mansiat, Bandar Labuk, Karakit, Kg. Merapok, Pulau Lankayan, Pulau Bohayan, Keningau, Sadong Jaya, Pulau Libaran, Kg. Bukit Indah, Kg. Lung Manis, Kg. Kuala Sapi, Kg. Pensiangan
MY701A	N.Sembilan	Kg. Durian Daun, Bandar Chembong, Pekan Chengkau, Pekan Rembau, Bandar Seremban, Pekan Senawang, Pekan Pedas
	P.Pinang	Kaws. Perusahaan Prai, Bandar Prai, Tmn. Mak Mandin, Tmn. Jawa, Kg. Sg. Nujur, Bandar Baru Sbg. Jaya, Kg. Sama Gagah, Kg. Sg. Lokan, Kg. Contoh
	WP Putrajaya	Presint 8, Tmn. Presint II Fasa 3
	WPKL	Tmn. Tun Dr. Ismail
	Selangor	Kg. Org Asli Bukit Damar, Kg. Pulau Sebok, Sg. Penchala
	Perak	Kg. Makmur, Tmn. Cempaka
	Pahang	Kg. Semambu, Kg. Pdg Polo, Kg. Pengsenam, Pekan, Temerloh, Kg. Sg. Gau, Bandar Baru Peramu Jaya, Keledang, Kampong Permatang, Kg. Ketapang, Beserah
	Melaka	Pekan Batu Berendam, Pekan Ayer Molek
	Johor	Kg. Seri Pantai, Kg. Tengah
MY701T	N.Sembilan	Kg. Durian Daun, Pekan Chengkau, Bandar Chembong, Pekan Rembau, Pekan Pedas, Bandar Seremban, Pekan Senawang
	P.Pinang	Bandar Prai, Kaws. Perusahaan Prai, Tmn. Mak Mandin, Tmn. Jawa, Kg. Sg. Nujur, Bandar Baru Sbg. Jaya, Kg. Sama Gagah, Kg. Sg. Lokan, Kg. Contoh
	Selangor	Kg. Org Asli Bukit Damar, Kg. Pulau Sebok, Sg. Penchala
	WP Putrajaya	Presint 8

	Perak	Kg. Makmur, Tmn. Cempaka
	Melaka	Pekan Batu Berendam, Pekan Ayer Molek
	Pahang	Kg. Semambu, Kg. Pdg Polo, Kg. Pengsenam, Pekan, Bandar Baru Peramu Jaya, Temerloh, Kg. Permatang Keledang, Kg. Sg. Gau, Kg. Ketapang, Beserah
	Johor	Kg. Seri Pantai, Kg. Tengah
	Selangor & WP	Universiti Lim Kok Wing
	WP	Tmn. Presint II Fasa 3
	WPKL	Tmn. Tun Dr. Ismail
MY711A	Sabah	Kg. Tagas, Bandar Lubok Jaya, Papar, Nabawan, Sg. Marawali, Kg. Jaya Baru, Kg. Kipovo, Kg. Bukit Lalang, Kg. Bubul Baru, Kg. Patiu, Kg. Bahagia, Tmn. Nikmat, Kg. Mengkabung, Tauran, Kota Belud, Kg. Pangkalan, Kg. Sabah Baru, Keningau, Kg. Bambangan, Kg. Kinasaraban, Kg. Bulot, Pekan Baru Pitas, Bukit Minudut, Kg. Timbuk, Bandar Kim Fung, Kg. Piasau, Kg. Bolong, Bingkor, Kg. Tagudon Baru, Bandau, Kg. Damai, Kg. Kenangan, Kg. Bukit Bendera, Kalumpang, Kg. Kuari, Kg. Kologon, Kg. Kabogan Barat, Tanjung Sebat, Desa Kencana, Kg. Nagalang, Kg. Mainawo, Sipitang, Kg. Kusilad, Kg. Cina, Kg. Timbang Batu, Kg. Tambalugu, Kuala Tongod, Kg. Kiandut, Kg. Kiandongo Barat, Kg. Gayang, Kg. Kindali, Kg. Panaitan, Lahat Datu, Felda Sahabat 05, Kg. Tuarid Taud, Kg. Pengkalan, Kg. Beaufort Selatan, Kg. Marakau, Telupid, Kg. Tenom Baru, Kg. Sinarut Baru, Kg. Gersik Baru (WP Labuan)
	Sarawak	Kg. Tanah Puteh, Kg. Rayang, Kg. Baru, Kg. Melayu, Gunung Stunggang, Betong, Sg. Sampari, Kg. Sebala Tamat, Serian, Kg. Sg. Maong, Tmn. Matang Ria, Kg. Malaysia Jaya, Kg. Sijjak, Sg. Labuk, Kg. Hijrah, Long Daah Uma Aging, Kg. Sg. Dalam, Kg. Rimba Stapok, Kg. Pulau Melayu, Tmn. Matang Jaya, Ladang Linau Mewah, Sungai Miri, Sg. Padang Liku, Kg. Siol Kandis, Sg. Dalam
	Perak	Tanjung Malim
MY711T	Sabah	Kg. Tagas, Bandar Lubok Jaya, Papar, Nabawan, Sg. Marawali, Kg. Bahagia, Kg. Jaya Baru, Kg. Kipovo, Kg. Bukit Lalang, Kg. Patiu, Kg. Bubul Baru, Tmn. Nikmat, Kg. Mengkabung, Tauran, Kg. Pangkalan, Kota Belud, Kg. Sabah Baru,

MY711T	Sabah	Keningau, Kg. Bambangan, Kg. Kinasaraban, Kg. Bulot, Bukit Minudut, Pekan Baru Pitas, Kampung Piasau, Kg. Timbuk, Kg. Bolong, Bandar Kim Fung, Bingkor, Kg. Tagudon Baru, Kg. Damai, Kg. Kenangan, Kg. Bukit Bendera, Bandau, Kalumpang, Kg. Kologon, Kg. Kabogan Barat, Tanjung Sebat, Kg. Marakau, Desa Kencana, Kg. Nagalang, Kg. Mainawo, Sipitang, Kg. Kusilad, Kg. Cina, Kg. Timbang Batu, Kg. Tambalugu, Kuala Tongod, Kg. Kiandongo Barat, Kg. Gayang, Kg. Kuari, Kg. Panaitan, Kg. Kinali, Lahat Datu, Felda Sahabat 05, Kg. Pengkalan, Kg. Tuarid Taud, Kg. Beaufort Selatan, Kg. Tenom Baru, Telupid, Kg. Sinarut Baru, Kg. Gersik Baru (WP Labuan)
	Sarawak	Kg. Tanah Puteh, Kg. Melayu, Kg. Rayang, Gunung Stunggang, Kg. Baru, Betong, Sg. Sampari, Serian, Kg. Sebala Tarat, Kg. Sg. Maong, Tmn. Matang Ria, Kg. Malaysia Jaya, Kg. Kiandut, Sg. Labuk, Sg. Padang Liku, Kg. Hijrah, Long Daah Uma Aging, Kg. Sg. Dalam, Tmn. Matang Jaya, Ladang Linau Mewah, Kg. Pulau Melayu, Kg. Rimba Stapok, Sg. Miri, Kg. Siol Kandis, Sg. Dalam
	Perak	Tanjung Malim
T738 – Cetak Ulang	Sabah	Long Sukang, Kg. Kuala Karamuak
	Sarawak	Sg. Serani, Bario, Kg. Pueh

Peta-peta tematik yang telah dicetak sepanjang tahun 2013 adalah seperti berikut:

No Siri	Negeri	Nama Lembar
MY91001R	Sabah	Ranau, Beufort, Peta Daerah Kuala Penyu, Tongod, Kota Marudu, Sipitang, Sandakan, Keningau, Papar, Kudat, Kunak, Pensiangan, Tenom
	Perak	Kampar, Kinta
	Sarawak	Peta Daerah Dalat, Peta Daerah Sarikei, Peta Daerah Kanowit, Limbang, Betong, Peta Daerah Matu, Julau
	Kelantan	Gua Musang
	Johor	Kota Tinggi, Johor Bahru

-	-	Peta SPR Sarawak – Cetak Ulang
DNMM9101 – Cetak Ulang	-	Sabah dan Sarawak
MY90005R	-	Negeri Sembilan, Selangor Selatan, Selangor Utara, Kelantan, Johor Barat, Johor Timur, Pahang Timur, Kedah Utara, Pahang Barat & Kedah Selatan
-	-	Peta TPC (BGSP)
-	-	Peta Geologi – Belum – Hala Transect
-	-	Peta Geologi – Gajah Terom
-	-	JMG – Peta Geologi Maran
-	-	Mencetak Dokumen MoU & ToR JMG – Peta Sumber Mineral Negeri Johor JMG – Peta Sumber Mineral Negeri Pahang JMG – Peta Sumber Mineral Negeri Perak
MY90011		Pulau Batu Gajah, Pulau Setindan, Pulau Sepol, Pulau Ceben, Pulau Tulai dan Pulau Pemanggil
-	Sarawak	Peta Geologi
MY91008	-	Sabah & Sarawak
MY92001	-	Malaysia – Politik dan Fizikal

Pencapaian aktiviti percetakan sehingga 31 Disember 2013 adalah seperti berikut:

Aktiviti	SKT 2012	Pencapaian 2012	SKT 2013	Pencapaian 2013
Cetak Peta Topografi	400	381 (95%)	350	452 (129%)
Cetak Peta Tematik	65	45 (69%)	40	63 (158%)
Cetak Bukan Peta	160	203 (128%)	160	160 (100%)

Aktiviti pracetak melibatkan kerja-kerja reka bentuk dan susun atur sebagai persediaan bahan cetak serta penyediaan prof dan plat cetak

Pencapaian aktiviti pracetak sehingga 31 Disember 2013 adalah seperti berikut:

Aktiviti	SKT 2012	Pencapaian 2012	SKT 2013	Pencapaian 2013
DTP (bil kerja)	160	129 (81%)	160	160 (100%)
Prof (keping)	465	530 (114%)	390	515 (132%)
Plat (keping)	2,200	1,670 (76%)	2,200	2,880 (131%)

Aktiviti pascacetak melibatkan kerja-kerja penyudahan selepas proses pencetakan dijalankan.

Pencapaian aktiviti pascacetak sehingga 31 Disember 2013 adalah seperti berikut:

Aktiviti	SKT 2012	Pencapaian 2012	SKT 2013	Pencapaian 2013
Penjilidan (unit)	50,000	36,590 (73%)	70,000	102,409 (146%)

### Pemetaan Utiliti

Pemetaan utiliti melibatkan proses memperolehi dan mengenalpasti jenis pemasangan dan perkhidmatan utiliti kemudahan awam yang tertanam di bawah tanah dan menyediakan maklumat dan kedudukan utiliti dalam bentuk digital atau salinan cetak.

Maklumat kedudukan pemasangan utiliti yang lengkap dan tepat diperlukan bagi membantu mengurangkan dan mengelakkan berlakunya masalah gangguan perkhidmatan yang diakibatkan oleh kerosakan pemasangan utiliti semasa pelaksanaan kerja-kerja pengorekan. Kekerapan berlakunya kerosakan ini juga menyebabkan kualiti hidup penduduk terjejas dan memberi impak negatif kepada ekonomi negara.



Pencapaian aktiviti pemetaan utiliti sehingga 31 Disember 2013 adalah seperti berikut :

Aktiviti	SKT 2012	Pencapaian 2012	SKT 2013	Pencapaian 2013
Perolehan Data dan Maklumat Utiliti daripada semua agensi pemilik utiliti (TNB, TM, IWK, Gas Malaysia dan Syarikat Bekalan Air Negeri)	4 daerah	4 Daerah (100%) Hulu Selangor, Port Dickson, Rembau dan Kuala Pilah.	4 daerah iaitu Jelebu, Tampin, Jempol dan Labuan	100% Data Telekom Malaysia 75% Data IWK kecuali Labuan Tiada data diterima dari SAINS, Gas Malaysia dan TNB.  Kemajuan = 44% (TNB tiada data bagi kawasan tersebut)
Pengisian Data Utiliti dan Data Peta Asas ke Pangkalan Data Utiliti Kebangsaan (Data utiliti yang diterima dimuatkan)	4 daerah	4 Daerah (100%) Hulu Selangor, Port Dickson, Rembau dan Kuala Pilah.	4 daerah iaitu Jelebu, Tampin, Jempol dan Labuan	100% Data Telekom Malaysia 75% Data IWK kecuali Labuan Tiada data diterima dari SAINS, Gas Malaysia dan TNB.  Kemajuan = 44% (TNB tiada data bagi kawasan tersebut)
Pengesanan, Pengukuran dan Verifikasi Pemasangan Utiliti Bawah Tanah dilapangan	112km	122.5km (101%) Kerja ukuran melibatkan kawasan Putrajaya dan Negeri Selangor	112km Kerja ukuran melibatkan kawasan Shah Alam	Sebanyak 113.6km telah siap dijalankan ukuran pengesanan, pengukuran dan verifikasi  Shah Alam = 100.4 km Putrajaya = 3.9 km Petaling Jaya = 9.3 km Kemajuan = 101%
Penyediaan Peta Asas Skala 1:500	550 lembar	550 lembar (100%) Suntingan dan pendigitan butiran topografi dari ortofoto bagi Putrajaya, Shah Alam dan Petaling Jaya	550 Lembar Suntingan dan pendigitan butiran topografi dari ortofoto bagi Putrajaya, Petaling Jaya dan Sepang	Sebanyak 550 lembar telah didigit butiran topografi.  Petaling Jaya = 75 lembar Putrajaya = 375 lembar Sepang = 100 lembar  Kemajuan = 100%
Penerbitan Peta Utiliti	37 lembar	39 lembar (105%) Membuat suntingan kartografi & penerbitan peta utiliti atas permintaan/ <i>print on demand</i> bagi Putrajaya dan Cyberjaya	46 Lembar Membuat suntingan kartografi & penerbitan peta utiliti atas permintaan/ <i>print on demand</i> bagi Putrajaya dan Cyberjaya	Sebanyak 50 lembar telah siap suntingan, penilaian kartografi dan siap sedia untuk cetakan Peta Utiliti  Putrajaya = 34 lembar Cyberjaya = 16 lembar  Kemajuan = 109%

Pencapaian aktiviti Penyediaan Peta Asas Skala 1:500 bagi tempoh lima (5) tahun terakhir :

Tahun	SKT	Pencapaian (Lembar)					Jumlah
		Putrajaya	Cyberjaya	Kuala Selangor	Shah Alam	Sepang	
2009	550	291	259	-	-	-	550
2010	550	245	-	305	-	-	550
2011	550	-	-	55	495	-	550
2012	550	25	-	-	193	-	332
2013	550	375	-	-	-	100	550
<b>JUMLAH</b>		<b>936</b>	<b>259</b>	<b>360</b>	<b>688</b>	<b>100</b>	<b>2750</b>

Pencapaian aktiviti Penerbitan Peta Utiliti bagi tempoh lima (5) tahun terakhir adalah seperti berikut :

Tahun	SKT (Lembar)	Pencapaian (Lembar)	Kawasan
2009	35	44	Putrajaya
2010	35	37	Putrajaya
2011	37	37	Putrajaya & Cyberjaya
2012	37	39	Putrajaya & Cyberjaya
2013	46	50	Putrajaya & Cyberjaya
<b>JUMLAH</b>		<b>207</b>	

### Perkhidmatan Pemetaan

Perkhidmatan Pemetaan terdiri daripada 3 komponen utama iaitu Pusat Maklumat dan Jualan Data Geospasial Negara (PMJDGN), Stor Pusat Peta Negara dan Perpustakaan Peta Negara.

Pusat Maklumat dan Jualan Data Geospasial Negara (PMJDGN) berperanan menguruskan perkhidmatan membekalkan serta menjual produk-produk pemetaan yang dihasilkan oleh JUPEM. PMJDGN juga berperanan membuat tapisan keselamatan bagi mana-mana permohonan untuk mendapatkan produk atau data yang berklasifikasi terhad.





Stor Pusat Peta Negara merupakan pusat penyimpanan peta-peta yang diterbitkan oleh JUPEM. Peta-peta ini akan disimpan secara pukal sebelum diedar kepada pihak-pihak tertentu terutamanya Angkatan Tentera Malaysia (ATM). Ia juga berfungsi membekalkan peta-peta yang dijual melalui Pusat Maklumat dan Jalan Data Geospasial Negara (PMJDGN).

Perpustakaan Peta Negara pula berperanan menyediakan sumber atau bahan rujukan dalam bidang ukur dan pemetaan, khususnya kepada kakitangan JUPEM dan orang awam amnya. Perpustakaan Peta Negara menyediakan pelbagai koleksi buku, jurnal teknikal dan bahan-bahan terbitan lain yang berkaitan dengan ukur dan pemetaan.

Pencapaian aktiviti perkhidmatan pemetaan sehingga 31 Disember 2013 adalah seperti berikut:

Aktiviti	SKT 2012	Pencapaian 2012	SKT 2013	Pencapaian 2013
Semakan Pruf (lembar)	350	450 (129%)	370	446 (120%)
Memproses Permohonan Bahan Pemetaan, Lesen Hakcipta dan Permit Cetak Semula (permohonan)	650	792 (122%)	700	752 (107%)
Perkhidmatan Perpustakaan (perolehan peta, buku dll) (naskhah)	4,000	5,374 (134%)	4,500	4,505 (100%)
Pendokumentasian Koleksi Perpustakaan (jilid)	2,500	3,716 (149%)	3,000	3,305 (110%)
Pengedaran Bahan Terbitan JUPEM (naskhah)	18,000	31,059 (172%)	25,000	36,842 (147%)
Penerimaan Peta oleh Stor Pusat Peta (keping)	350,000	249,000 (71%)	250,000	495,818 (198%)
Pembekalan Peta oleh Stor Pusat Peta (keping)	220,000	141,559 (64%)	150,000	171,662 (114%)

## UKURAN KADASTER

Di bawah Ukuran Kadaster, laporan adalah merangkumi pencapaian aktiviti-aktiviti utama JUPEM Negeri bagi Ukuran Hak Milik Tanah, Semakan Kerja Juruukur Tanah Berlesen (JTB), Semakan Kerja Ukuran Hak Milik Strata Peringkat I dan Semakan Kerja Ukuran Hak Milik Strata Peringkat II.

Kejayaan Jabatan Ukur dan Pemetaan Malaysia (JUPEM) membangun dan melaksanakan sistem eKadaster telah memberi kesan yang baik terhadap pencapaian prestasi keseluruhan di Bahagian Kadaster. Sistem berkenaan juga telah berjaya memendekkan proses pengukuran dan penyediaan pelan hakmilik tanah sekali gus dapat menghasilkan impak yang besar kepada pembangunan negara yang pesat berkembang.

Penggunaan teknologi jalur lebar tanpa wayar, teknologi komunikasi dan maklumat (ICT), Sistem Maklumat Geografi (GIS), sistem navigasi satelit global dan sistem ukur terkini adalah ciri-ciri yang terdapat dalam sistem eKadaster. Ia juga bagi mewujudkan *National Digital Cadastral Database* (NDCDB) melalui pembangunan infrastruktur Kawalan Ukur Kadaster (CCI) supaya NDCDB yang berasaskan *Survey Accurate Coordinate* dapat menggantikan Pangkalan Data Ukur Kadaster Negeri (PDUK) yang tidak homogen. Kerja-kerja ukuran hak milik strata yang selama ini dibuat kaedah manual kini diproses secara digital dan disimpan ke dalam Pangkalan Data Ukur Strata / Stratum / Marin (PDUSSM).

### Pencapaian Ukuran Hak Milik Tanah

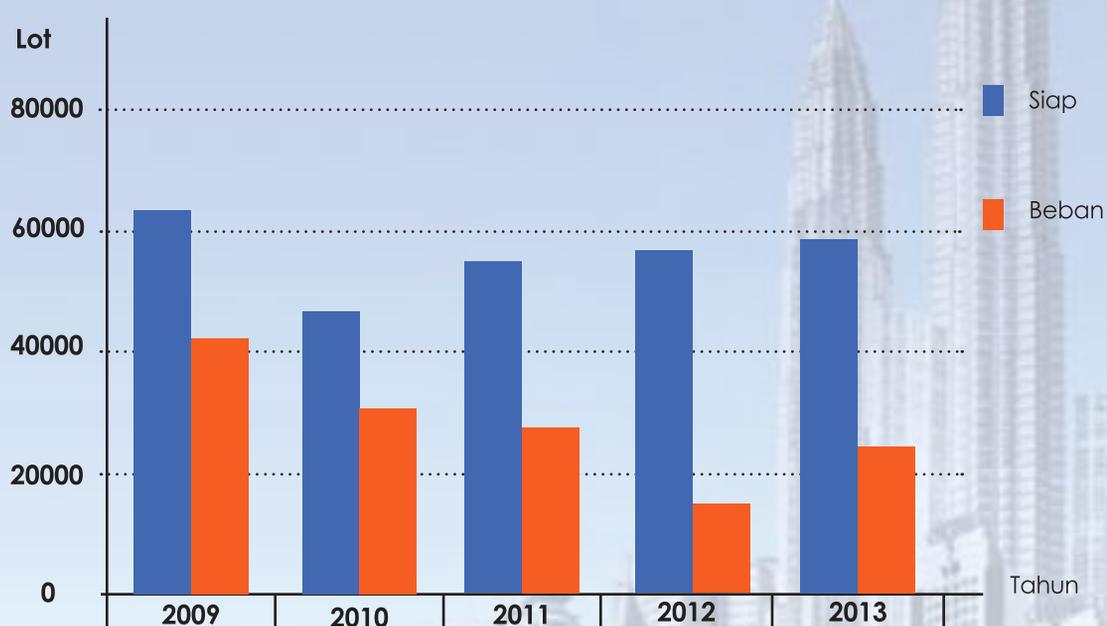
Kemajuan yang dicapai bagi aktiviti Ukuran Hak Milik Tanah tahun 2013 adalah berjumlah 55,764 lot atau 102% daripada sasaran yang ditetapkan iaitu sebanyak 54,700 lot. Perincian ke atas pencapaian dan beban kerja mengikut JUPEM Negeri adalah seperti di jadual :



NEGERI	SKT 2013	PRESTASI 2013		BEBAN KERJA
	(Lot)	(Lot)	%	(Lot)
Johor	8,200	8,560	104	6,983
Kedah	6,700	5,939	89	1,227
Kelantan	7,200	6,490	90	3,035
Melaka	1,600	2,107	132	474
Negeri Sembilan	3,800	3,441	91	763
Pahang	5,700	5,757	101	647
Perak	6,600	7,248	110	1,164
Perlis	1,800	2,219	123	1,456
Pulau Pinang	1,300	692	53	59
Selangor	4,000	3,919	98	4,296
Terengganu	6,100	8,990	147	4,854
W.P. Kuala Lumpur/ Putrajaya	1,600	253	16	34
W.P.Labuan	100	149	149	4
<b>JUMLAH</b>	<b>54,700</b>	<b>55,764</b>	<b>102</b>	<b>24,996</b>

Perbandingan Prestasi dan Beban Kerja Untuk Pengukuran Hak Milik Tanah Bagi Tempoh Lima (5) Tahun :

TAHUN	2009 (Lot)	2010 (Lot)	2011 (Lot)	2012 (Lot)	2013 (Lot)
Siap	63,471	44,567	54,730	55,007	55,764
Beban Akhir Tahun	40,601	32,825	28,303	17,151	24,996



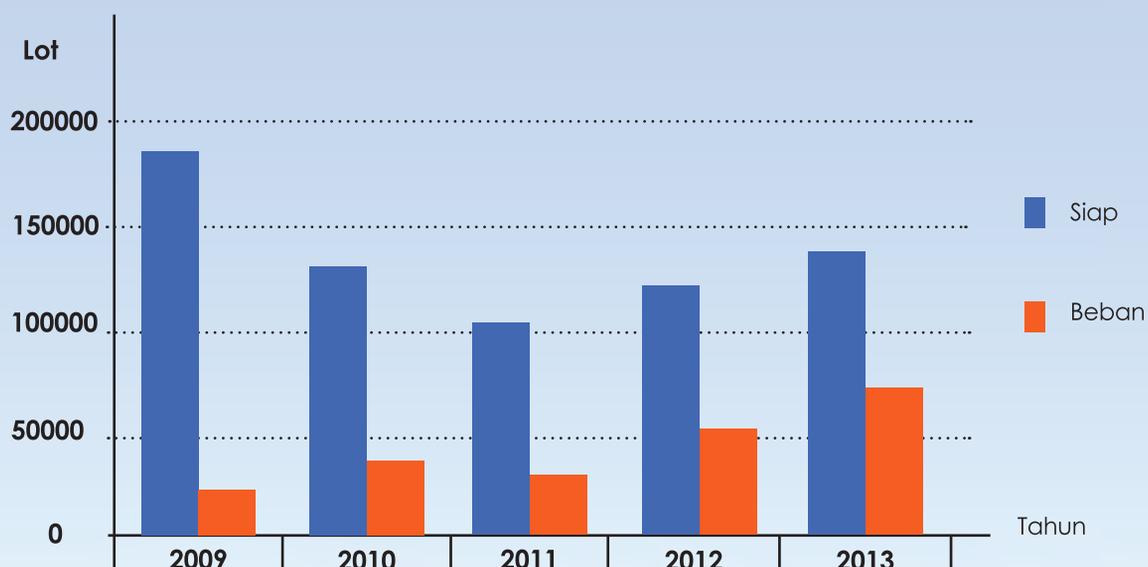
### Pencapaian Semakan Kerja Ukuran Hak Milik Tanah oleh Juruukur Tanah Berlesen (JTB)

Kemajuan yang dicapai bagi aktiviti Semakan Kerja Ukuran Hak Milik Tanah oleh JTB bagi 2013 adalah berjumlah 143,324 lot atau 131% daripada sasaran yang ditetapkan sebanyak 109,000 lot. Pencapaian keseluruhan mengikut negeri-negeri adalah seperti di jadual :

NEGERI	SKT 2013 (Lot)	PRESTASI 2013 (Lot)	%	BEBAN KERJA (Lot)
Johor	21,100	21,226	101	17,397
Kedah	12,000	15,774	131	6,050
Kelantan	11,000	14,933	136	3,450
Melaka	3,000	4,210	140	1,534
Negeri Sembilan	6,000	8,889	148	1,844
Pahang	8,000	13,219	165	2,764
Perak	10,980	18,338	167	4,175
Perlis	1,200	1,522	127	290
Pulau Pinang	4,000	5,150	129	1,264
Selangor	20,000	21,862	109	24,079
Terengganu	9,700	17,106	176	4,039
W.P. Kuala Lumpur/ Putrajaya	2,000	996	50	595
W.P.Labuan	20	99	495	0
<b>JUMLAH</b>	<b>109,000</b>	<b>143,324</b>	<b>131</b>	<b>67,481</b>

Perbandingan Prestasi dan Beban Kerja Untuk Pengukuran Hak Milik Tanah Bagi Tempoh Lima (5) Tahun:

TAHUN	2009 (Lot)	2010 (Lot)	2011 (Lot)	2012 (Lot)	2013 (Lot)
Siap	193,070	140,440	114,165	135,566	143,324
Beban Akhir Tahun	25,469	42,564	37,220	51,759	67,481



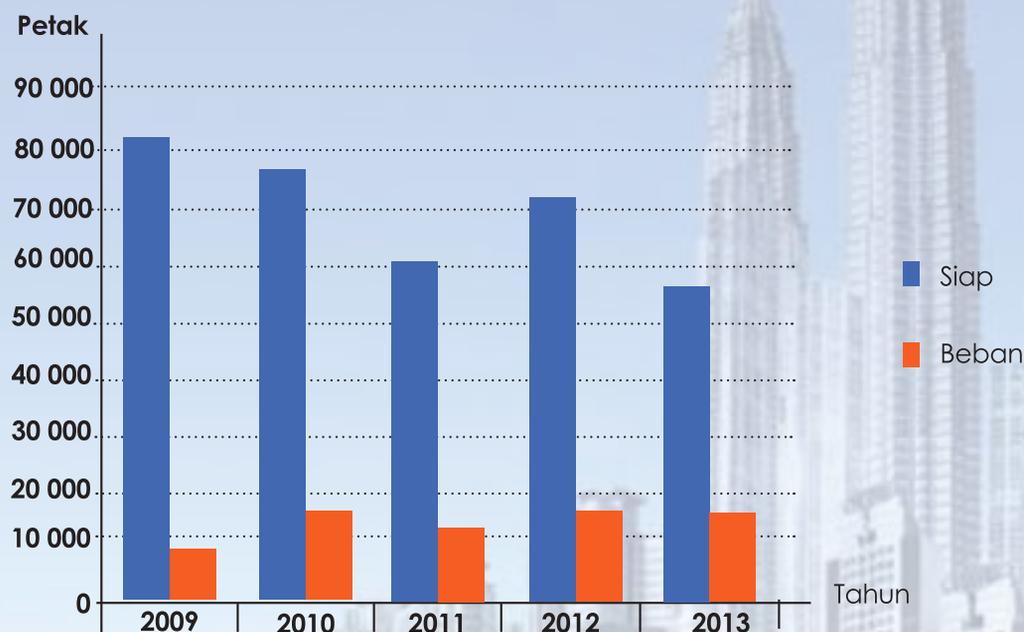
## Pencapaian Semakan Kerja Ukuran Hak Milik Strata Peringkat I

Pencapaian tahun 2013 untuk Semakan Kerja Ukuran Hak Milik Strata Peringkat I, berjumlah 57,585 petak iaitu 139% daripada sasaran yang ditetapkan sebanyak 41,270 petak. Perincian ke atas pencapaian dan beban kerja mengikut JUPEM Negeri adalah seperti di jadual berikut:

NEGERI	SKT 2013	PRESTASI 2013		BEBAN KERJA
	(Lot)	(Lot)	%	(Lot)
Johor	3,000	3,772	126	335
Kedah	0	0	0	0
Kelantan	0	0	0	246
Melaka	300	543	181	333
Negeri Sembilan	150	445	297	0
Pahang	500	923	185	97
Perak	320	367	115	0
Perlis	0	0	0	0
Pulau Pinang	4,000	7,614	190	1,430
Selangor	22,000	25,195	115	7,476
Terengganu	0	12	0	0
W.P. Kuala Lumpur/ Putrajaya	11,000	18,714	170	3,720
W.P.Labuan	0	0	0	0
<b>JUMLAH</b>	<b>41,270</b>	<b>57,585</b>	<b>139</b>	<b>13,637</b>

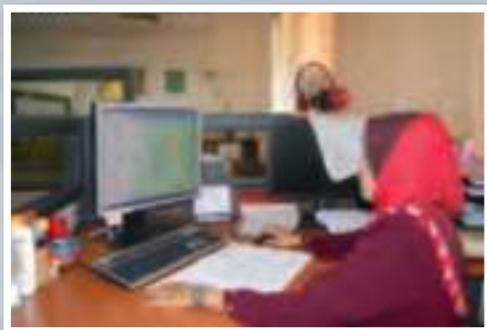
Perbandingan Prestasi dan Beban Kerja semakan kerja ukuran hak milik strata peringkat I bagi tempoh lima (5) tahun:

TAHUN	2009 (Petak)	2010 (Petak)	2011 (Petak)	2012 (Petak)	2013 (Petak)
Siap	81,902	77,670	60,426	71,149	57,585
Beban Akhir Tahun	9,666	16,428	11,985	13,850	13,637



## Pencapaian Semakan Kerja Ukuran Hak Milik Strata Peringkat II

Peringkat II melibatkan semakan Pelan Akui Strata dan Penyediaan Surat Hak Milik Strata. Penyediaan Surat Hak Milik Strata bagi tahun 2013 telah mencapai 72,205 petak iaitu 106% daripada matlamat tahunan berjumlah 68,000 petak.



Semakan Strata Peringkat 1



Semakan Strata Peringkat 2



Penyediaan Surat Hak Milik

Perincian ke atas pencapaian dan beban kerja mengikut JUPEM Negeri adalah seperti di jadual:

NEGERI	SKT 2013 (Lot)	PRESTASI 2013 (Lot)	%	BEBAN KERJA (Lot)
Johor	6,050	6,137	101	0
Kedah	550	268	49	0
Kelantan	0	0	0	0
Melaka	500	335	67	0
Negeri Sembilan	1,000	682	68	0
Pahang	900	1,305	145	0
Perak	1,000	1,480	148	0
Perlis	0	0	0	0
Pulau Pinang	15,000	11,930	80	0
Selangor	28,000	23,480	84	0
Terengganu	0	157	0	0
W.P. Kuala Lumpur/ Putrajaya	15,000	26,431	176	441
W.P.Labuan	0	0	0	0
<b>JUMLAH</b>	<b>68,000</b>	<b>72,205</b>	<b>106</b>	<b>441</b>

Perbandingan Prestasi dan Beban Kerja semakan kerja ukuran hak milik strata peringkat II bagi tempoh lima (5) tahun:

TAHUN	2009 (Petak)	2010 (Petak)	2011 (Petak)	2012 (Petak)	2013 (Petak)
Siap	205,537	87,381	80,001	74,069	72,205
Beban Akhir Tahun	33,923	15,306	12,076	16,189	441



#### Pencapaian Penandaan Titik Kawalan CRM

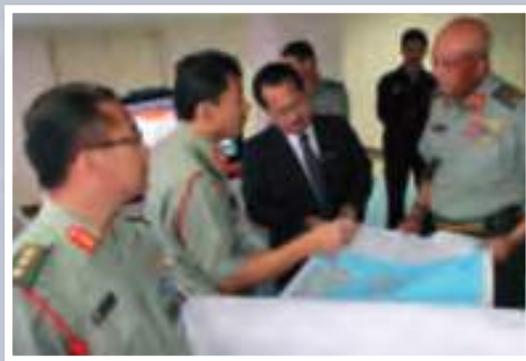
Cerapan titik kawal CRM (*Cadastral Reference Mark*) dilaksanakan adalah bertujuan untuk memantapkan lagi ketepatan dan kejituan NDCDB (*National Digital Cadastral Database*) di semua JUPEM Negeri. Pencapaian cerapan adalah seperti:

NEGERI	Titik Kawal CRM	
	Fail	Titik Kawal
Johor	1542	6,008
Kedah	752	1,064
Kelantan	369	966
Melaka	120	416
N.Sembilan	600	2,055
Pahang	505	1,762
Perak	409	1,404
Perlis	198	585
Pulau Pinang	175	365
Selangor	481	2,314
Terengganu	97	392
W.P. KL/ Putrajaya	108	304
W.P. Labuan	12	36
<b>JUMLAH</b>	<b>5,368</b>	<b>17,671</b>

## GEOSPATIAL PERTAHANAN

### Bantuan Khidmat Teknikal Geospasial Pertahanan

Bahagian Geospasial Pertahanan (BGSP) berperanan memberi bantuan khidmat nasihat teknikal geospasial pertahanan kepada sistem-sistem pertahanan dan persenjataan Angkatan Tentera Malaysia (ATM) yang menggunakan perkhidmatan geospasial.



### Program uGeo for Defence

Melalui pelaksanaan program ini, BGSP terlibat secara langsung di dalam menyediakan maklumat dan perkhidmatan geospasial pertahanan kepada ATM. Di antara skop-skop program *uGeo for Defence* difasa permulaan untuk aktiviti ini ialah:

- Integrasi *Defence Geographic Information System*.
- Program *Outreach*.
- Program Pembangunan Geospasial Pertahanan.
- Doktrin Geospasial Pertahanan.
- Mesyuarat Jawatankuasa Pemetaan Tentera.

Kemajuan semua program ini sehingga 31 Disember 2013 adalah seperti berikut:

BIL	AKTIVITI	SKT 2013	Pencapaian 2013
1	<i>Integrasi Defence Geographic Information System (DGIS)</i> melalui projek <i>Network Centric Operation (NCO)</i> ATM	Rekabentuk-Fasa 2 Pelaksanaan-Fasa 1	100%
2	Program <i>Outreach</i>	10 Sesi	18 Sesi (180%)
3	Seminar Geospasial	3 Kali	2 Kali (67%)
4	Program Pembangunan Geospasial Pertahanan	5 Program	100%
5	Penyiapan Doktrin a. Doktrin Aplikasi <i>Geospasial Mobile System (GSMS)</i> .	Fasa 3, 4 & 6	100%
	b. Doktrin Kejuruteraan Geospasial.	Fasa 1 & 2	100%
6	Mesyuarat Jawatankuasa Pemetaan Tentera	1 Kali	1 Kali

### Khidmat Nasihat Teknikal Kepada ATM

BGSP berperanan memberi bantuan khidmat nasihat teknikal geospasial pertahanan kepada sistem-sistem pertahanan dan persenjataan moden ATM yang menggunakan perkhidmatan geospasial. SKT Tahun 2013 mensasarkan kepada tiga (3) sistem di mana pelaksanaannya mengikut fasa-fasa berikut:

- Projek *Eurocopter*.
- Projek *Armoured Personnel Carrier (APC8X8)*.
- Sistem Olah Perang Berkomputer Tentera Darat.

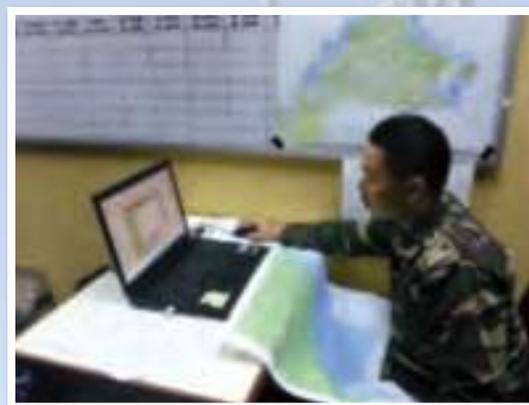
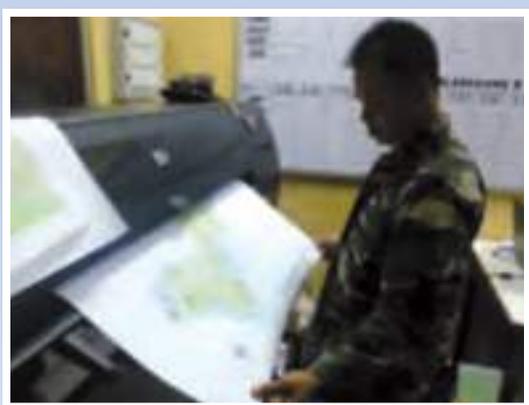
Kemajuan keseluruhan aktiviti ini sehingga 31 Disember 2013 adalah seperti berikut:

Bil	Aktiviti	SKT 2013	Pencapaian 2013
1.	Memantau dan memberi khidmat nasihat teknikal kepada perolehan sistem-sistem pertahanan ATM berkenaan keperluan data geospasial pertahanan	3 Sistem	100%

### Pembangunan Maklumat Geospasial Pertahanan

Skop program *uGeo for Defence* fasa permulaan untuk aktiviti pembangunan maklumat geospasial pertahanan merangkumi penyediaan data geospasial pertahanan yang menjurus kepada pembangunan dataset berskala 1:50,000 bagi *Vector Smart Map (VMAP) Level 2* dan *Vector Interim Terrain Data (VITD)*. Sumber utama data diperolehi daripada Seksyen Pangkalan Data JUPEM yang merangkumi Pangkalan Data Kartografi dan Topografi.

SKT 2013 memfokuskan produk-produk geospasial pertahanan dalam bentuk *hardcopy* dan *softcopy* bagi menerbitkan Peta Topografi versi tentera iaitu *Topographic Line Map (TLM)* dan *Common Operation Map (COM)* yang berskala 1:50,000, Peta Lapang Sasar dan menyediakan spesifikasi peta TLM.



Di antara skop dan aktiviti pembangunan maklumat ialah:

1. Penyediaan Data Vektor Geospasial Pertahanan.
2. Memperluaskan Pangkalan Data Geospasial Pertahanan.
3. Produk Geospasial Pertahanan Untuk Kegunaan ATM.
4. Buku Panduan Produk Geospasial Pertahanan.

Kemajuan kesemua skop-skop tersebut sehingga 31 Disember 2013 adalah seperti berikut:

Bil	Aktiviti	SKT 2013	Pencapaian 2013
1.	Mewujudkan data "asas" VITD dan VMAP daripada data geospasial keluaran DPNM	Sabah dan Sarawak Siri T 738 (278 lembar) Fasa C dan D	100%
2.	Mengemaskinkan data "asas" VITD dan VMAP daripada data geospasial Siri MY501T	Semenanjung Malaysia Siri MY501T (98 lembar) Fasa C dan D	100%
3.	Mengemaskini Deraf Arahan Pemetaan 1/96	1 kali	100%
4.	Mengemaskinkan Deraf Dasar Stok Peta Topografi dan Carta Udara untuk ATM	1 kali	100%
5.	Spesifikasi Peta TLM	1 kali	100%
6.	Mengeluarkan produk geospasial pertahanan		
	a. <i>Topographic Line Map</i>	30 lembar	100%
	b. <i>Common Operation Map</i>	4 lapang sasaran	100%
	c. Lapang sasaran	2 lapang sasaran	100%
7.	Mengeluarkan peta <i>hardcopy</i> COM untuk Ops PASIR		
	a. Peta COM berskala 1:50,000	28 lembar (pesisir pantai Sabah)	100%
	b. Peta COM Sabah berskala 1:750,000	1 lembar (Keperluan untuk pusat-pusat penempatan sector A dan B Ops PASIR)	100%
8.	Peta berskala 1:100,000 untuk kegunaan PUTD	4 lembar (Semenanjung Malaysia)	1 Lembar (25%) (Hanya 1 lembar di laksanakan kerana kelewatan penerimaan perisian berkaitan)
9.	Peta dalam format GeoPDF	40 lembar	100%

## Bantuan Khidmat Geospasial Pertahanan di Medan

### 1. Penglibatan BGSP Dalam Latihan dan Operasi

BGSP melaksanakan aktiviti latihan bagi memberi pendedahan kepada pegawai dan staf dalam situasi sebenar di medan perang. Aktiviti latihan yang telah dijalankan adalah dalam bentuk bantuan penyediaan data dan juga khidmat nasihat geospasial pertahanan.

Bagi aktiviti operasi, BGSP telah terlibat di dalam Ops Daulat yang dilancarkan oleh kerajaan Malaysia susulan pencerobohan pengganas di Lahad Datu, Sabah dari 10 Mac 2013 hingga 12 Jun 2013. Di dalam operasi ini, BGSP telah terlibat secara langsung dalam memberi perkhidmatan geospasial pertahanan kepada semua elemen keselamatan dan pertahanan (ATM, PDRM, APMM, MKN dan ESSCOM) seperti khidmat nasihat pemetaan, pembesaran peta, analisa foto udara dan satelit melalui bantuan daripada JUPEM Sabah, Agensi Remote Sensing Malaysia dan Jabatan Tanah dan Ukur Sabah.

BGSP juga telah mengeluarkan peta *Collateral Damage* bagi memetakan penempatan dan kawasan yang rosak dan musnah serta maklumat pemilik dan gambar sebagai rekod secara spatial untuk kegunaan di masa hadapan. Selain itu, BGSP juga telah menyediakan perkhidmatan web untuk bantuan kemanusiaan dan bencana alam semasa Ops Banjir pada awal Januari 2013.





Kemajuan sehingga 31 Disember 2013 adalah seperti berikut:

Bil	Aktiviti	SKT 2013	Pencapaian 2013
1.	Exercise Bersama ATM	5 Kali	6 Kali (120%)
2.	Operasi	1 Kali	1 Kali
3.	Perkhidmatan Web Untuk Bantuan Kemanusiaan dan Bencana Alam	1 Kali	1 Kali

## 2. Instalasi Data Geospasial Pertahanan

Aktiviti instalasi data dilaksanakan selepas sesuatu sistem pertahanan dan persenjataan ditauliahkan dan diterima masuk dalam inventori dan perkhidmatan ATM. Pada tahun 2013, tiga (3) sistem telah dibuat proses instalasi dan pencapaian sehingga 31 Disember 2013 adalah seperti berikut:

Bil	Aktiviti	SKT 2013	Pencapaian 2013
1.	Melaksanakan proses instalasi kepada projek ATM	3 Sistem a. Mortar 120MM 2R2M. b. Extended Air Defence Simulator (EADSIM). c. Ground Navigation Equipment (GNE).	100%

## 3. Pembesaran Peta

Aktiviti ini bergantung kepada permintaan dari Markas Formasi bagi tujuan latihan terutamanya yang melibatkan *Command Post Exercise* dan perancangan operasi. Selain itu BGSP juga mengeluarkan peta pelbagai tema untuk kegunaan tentera di kawasan-kawasan yang diperlukan seperti imej daripada satelit, *unmanned ariel vehicle* dan foto udara.

Kemajuan sehingga 31 Disember 2013 adalah seperti berikut:

Bil	Aktiviti	SKT 2013	Pencapaian 2013
1.	Pembesaran Peta untuk Markas Formasi	50 lembar	72 lembar (144%)
2.	Percetakan Peta Pelbagai Tema	1000 lembar	1050 lembar (105%)

## Penguatkuasaan Pekeliling Arahan Keselamatan Terhadap Dokumen Geospasial Terperingkat

### Permohonan Permit Penggambaran/Pemetaan Udara dan Permit Aktiviti Pengutipan Data Di Lapangan

BGSP melaksanakan tapisan keselamatan terhadap semua individu dan agensi awam/swasta yang memohon untuk melaksanakan aktiviti penggambaran udara/pemetaan dan pengutipan data di lapangan kecuali ATM dan PDRM (Merujuk kepada Para 12 Arahan Keselamatan Bil 1 Tahun 2007). Kemajuan sehingga 31 Disember 2013 adalah seperti berikut:

Bil	Aktiviti	SKT 2013	Pencapaian 2013
1.	Pengeluaran permit kutipan data pemetaan dan spasial.	100 Permit	146 Permit (146%)

### Tapisan Keselamatan Ke Atas Dokumen Geospasial Terperingkat

Aktiviti ini merangkumi data dari agensi awam dan swasta seperti Agensi Remote Sensing dan Syarikat Mk Survey. Ia bagi memastikan pembekalan dokumen geospasial terperingkat kepada pengguna bebas daripada sekatan R dan Y sepertimana yang termaktub dalam Pekeliling Arahan Keselamatan Terhadap Dokumen Geospasial Terperingkat. Kemajuan sehingga 31 Disember 2013 adalah seperti berikut:

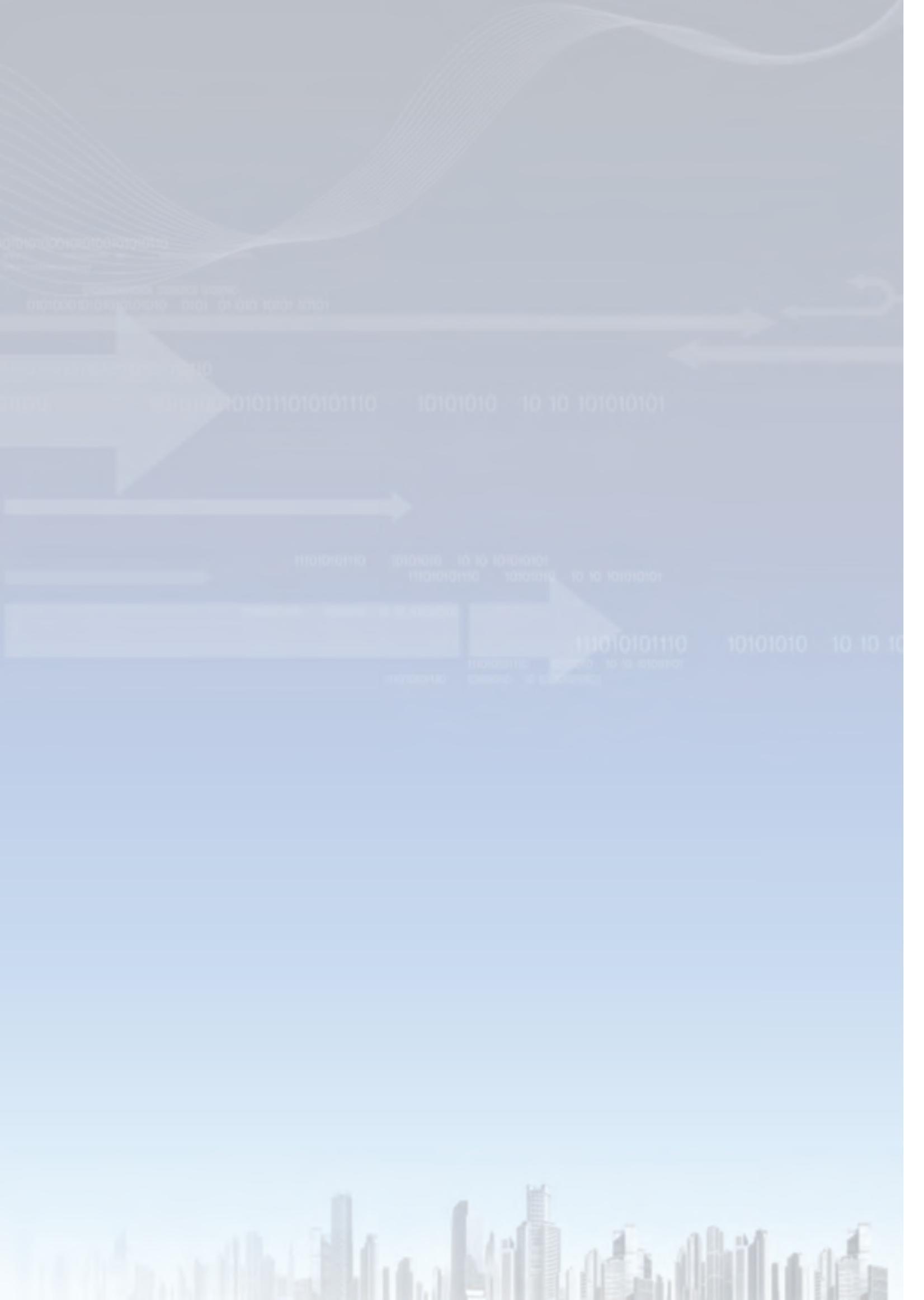
Bil	Aktiviti	SKT 2013	Pencapaian 2013
1.	Tapisan Keselamatan Ke Atas Dokumen Geospasial Terperingkat	100 Permohonan	326 permohonan (326%)
2.	Semakan prof data geospasial yang dikeluarkan oleh DPNM	250 Prof	205 Prof (82%)

### Pemantauan Terhadap Agensi Yang Terlibat Dalam Penyimpanan Dokumen Geospasial Terperingkat

Pemantauan kepada agensi awam dan swasta dilaksanakan bagi memastikan agensi-agensi yang menyimpan dokumen geospasial terperingkat mematuhi syarat-syarat penyimpanan dan penjagaan Dokumen Geospasial Terperingkat. Manakala aktiviti pemantauan ke atas ATM pula dilaksanakan bagi memastikan penyimpanan dan pelupusan dokumen geospasial terperingkat dilaksanakan mengikut prosedur yang ditetapkan disamping pihak BGSP dapat memaklumkan berhubung perkembangan terkini produk geospasial yang boleh digunakan oleh ATM.

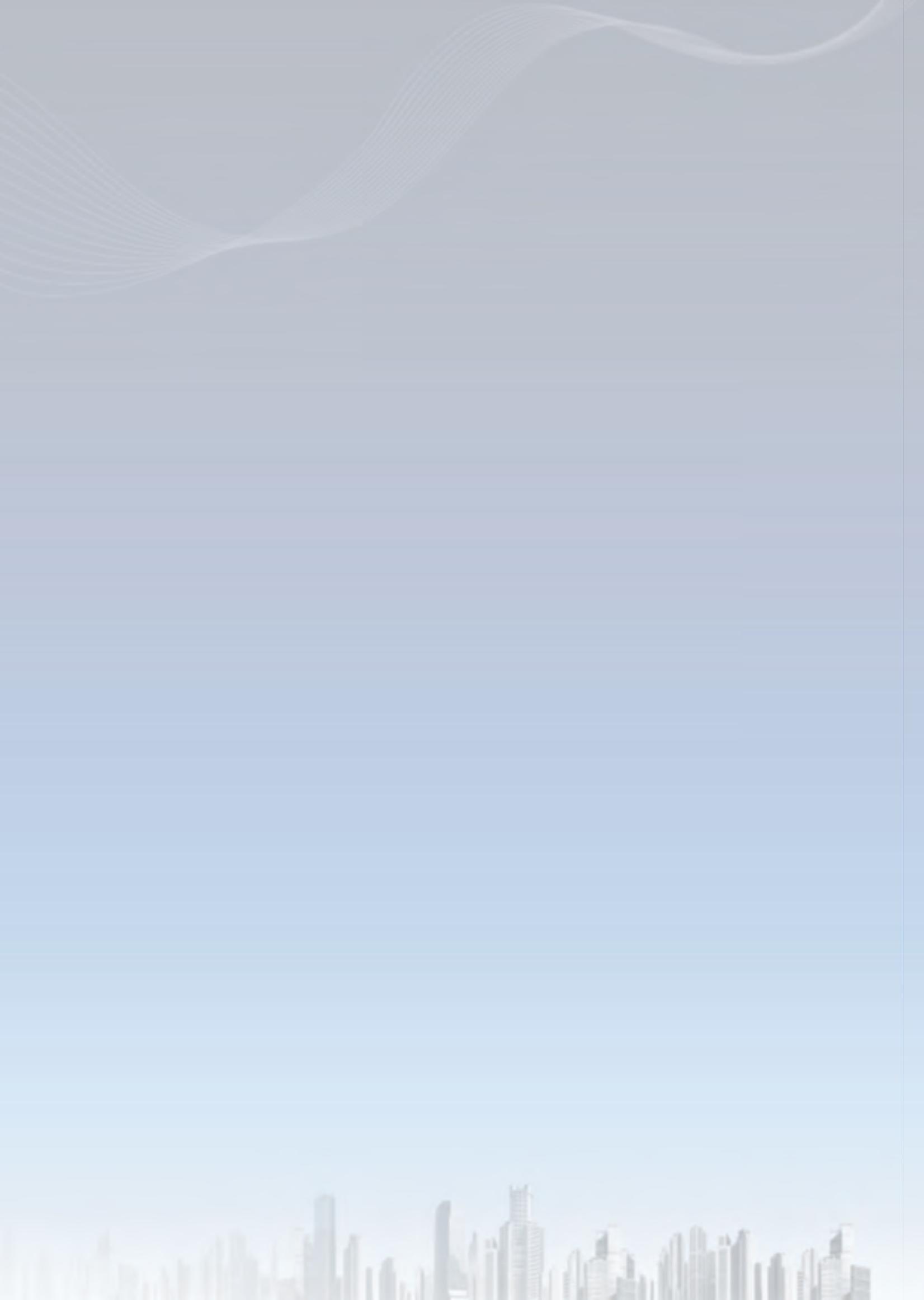
Pencapaian sehingga 31 Disember 2013 bagi aktiviti ini adalah seperti berikut:

Bil	Aktiviti	SKT 2013	Pencapaian 2013
1.	Pemantauan terhadap agensi awam dan swasta.	15 Agensi	22 Agensi (146%)
2.	Pemantauan terhadap pasukan ATM.	34 Pasukan	25 Pasukan (73%)



# LAPORAN KEWANGAN





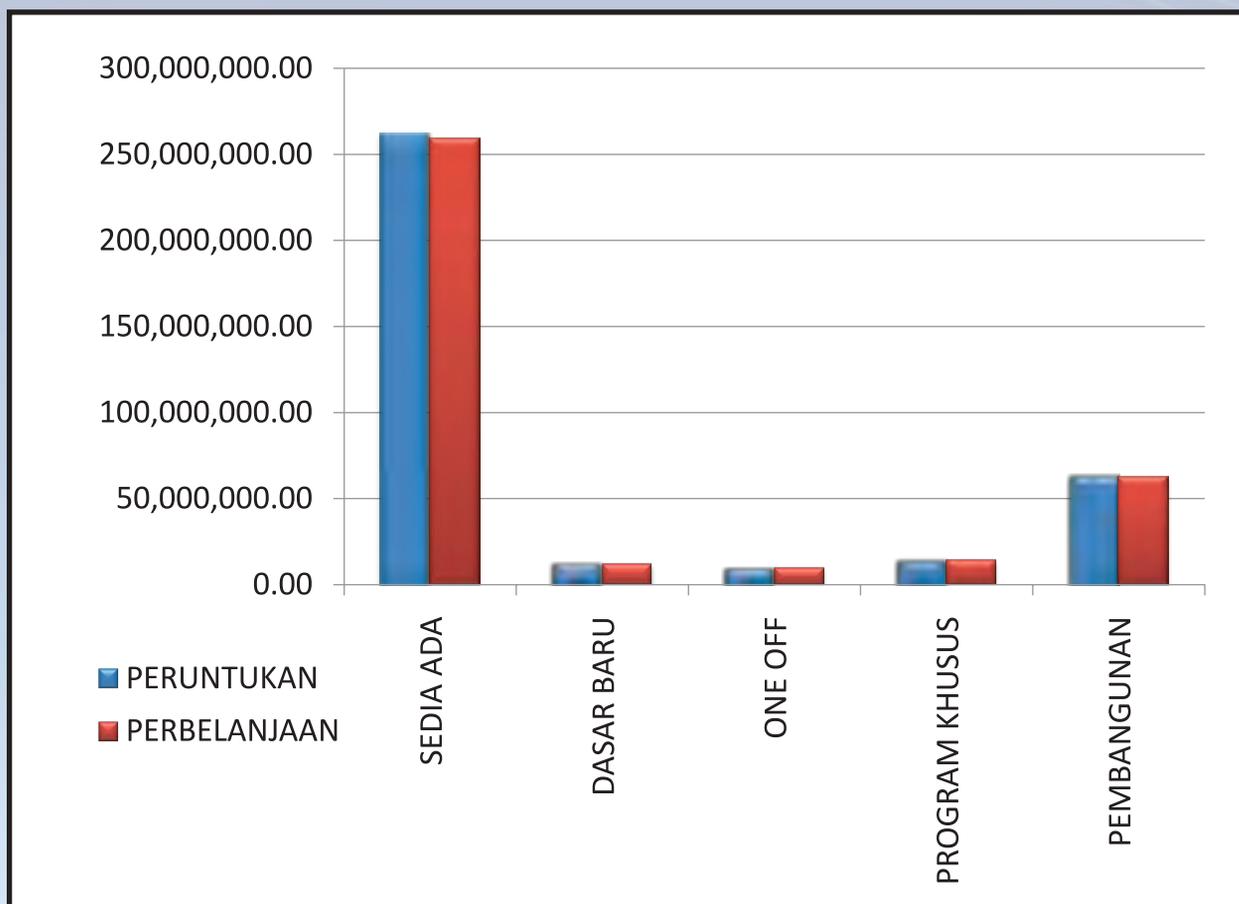
## PENGURUSAN KEWANGAN

JUPEM telah menerima peruntukan kewangan sebanyak RM 328,077,999.00 bagi tahun 2013 yang meliputi Belanja Mengurus (RM 264,863,999.00) dan Belanja Pembangunan (RM 63,214,000.00). Daripada jumlah tersebut dan sehingga 31 Disember 2013 sebanyak RM 325,050,517.25 (99.08%) telah dibelanjakan.

Perincian agihan peruntukan dan perbelanjaan keseluruhan adalah seperti berikut:

AGIHAN PERUNTUKAN	PERUNTUKAN RM	PERBELANJAAN RM	(%)
Sedia Ada	261,739,800.00	259,408,229.21	99.11
Dasar Baru	1,000,000.00	1,000,000.00	100.00
One-Off	879,700.00	877,735.00	99.78
Program Khusus	1,244,499.00	1,097,669.27	88.20
Pembangunan	63,214,000.00	62,666,883.77	99.13
<b>JUMLAH KESELURUHAN</b>	<b>328,077,999.00</b>	<b>325,050,517.25</b>	<b>99.08</b>

Pencapaian kewangan tahun 2013 adalah seperti berikut:



## BELANJA MENGURUS

Jumlah peruntukan RM 264,863,999.00 di bawah Belanja Mengurus diluluskan pada tahun 2013 untuk perbelanjaan bagi emolumen, perkhidmatan dan bekalan, pemberian dan kenaikan tetap serta perbelanjaan lain. Disamping itu peruntukan juga diluluskan untuk perolehan aset dan perbelanjaan dibawah one-off.

Perincian peruntukan dan perbelanjaan belanja mengurus tahun 2013 adalah seperti berikut:

### SEDIA ADA

OBJEK AM	PERUNTUKAN	PERBELANJAAN	
	(RM)	(RM)	(%)
Emolumen	180,817,900.00	179,088,882.14	99.04
Perkhidmatan & Bekalan	80,277,310.00	79,679,771.69	99.26
Aset	495,340.00	495,340.00	100.00
Pemberian Dan Kenaan Tetap	65,898.00	65,533.38	99.45
Perbelanjaan Lain	78,692.00	78,692.00	100.00
<b>JUMLAH</b>	<b>261,739,800.00</b>	<b>259,408,229.21</b>	<b>99.11</b>

### DASAR BARU

OBJEK AM	PERUNTUKAN	PERBELANJAAN	
	(RM)	(RM)	(%)
Perkhidmatan & Bekalan	1,000,000.00	1,000,000.00	100.00
<b>JUMLAH</b>	<b>1,000,000.00</b>	<b>1,000,000.00</b>	<b>100.00</b>

### ONE-OFF

OBJEK AM	PERUNTUKAN	PERBELANJAAN	
	(RM)	(RM)	(%)
Perkhidmatan & Bekalan	100,000.00	100,000.00	100.00
Aset	779,700.00	777,735.00	99.75
<b>JUMLAH</b>	<b>879,700.00</b>	<b>877,735.00</b>	<b>99.78</b>

### PROGRAM KHUSUS

OBJEK AM	PERUNTUKAN	PERBELANJAAN	
	(RM)	(RM)	(%)
Emolumen	380,099.00	237,348.79	62.40
Perkhidmatan dan Bekalan	864,400.00	860,320.48	99.53
<b>JUMLAH</b>	<b>1,244,499.00</b>	<b>1,097,669.27</b>	<b>88.20</b>

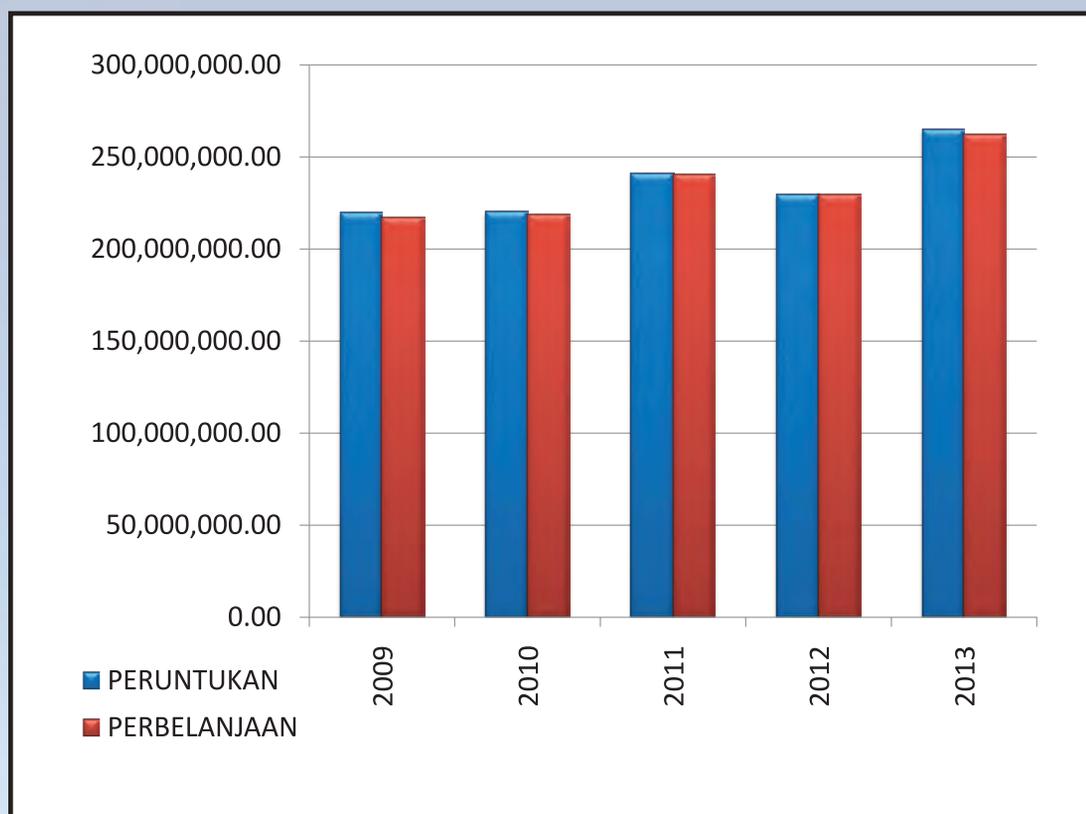
Pencapaian keseluruhan peruntukan aktiviti belanja mengurus adalah seperti berikut:

AKTIVITI	PERUNTUKAN (RM)	PERBELANJAAN (RM)	PERBELANJAAN (%)
Sedia Ada	261,739,800.00	259,408,229.21	99.11
Dasar Baru	1,000,000.00	1,000,000.00	100.00
One-Off	879,700.00	877,735.00	99.78
Program Khusus	1,244,499.00	1,097,669.27	88.20
<b>JUMLAH KESELURUHAN</b>	<b>264,863,999.00</b>	<b>262,383,633.48</b>	<b>99.06</b>

Pencapaian aktiviti belanja mengurus bagi tempoh lima (5) tahun adalah seperti berikut:

TAHUN	PERUNTUKAN	PERBELANJAAN	PERATUS (%)
2013	264,863,999.00	262,383,633.48	99.06
2012	229,609,050.00	229,544,487.01	99.98
2011	241,327,070.00	240,697,761.25	99.74
2010	220,353,440.00	219,164,637.15	99.46
2009	219,684,770.00	217,090,016.58	98.82

Carta dibawah menunjukkan jumlah peruntukan dan perbelanjaan bagi tempoh lima (5) tahun:



## BELANJA PEMBANGUNAN

Sebanyak RM 63,214,000.00 telah diperuntukkan bagi menjayakan projek-projek pembangunan dibawah Rolling Plan Kedua, Rancangan Malaysia Ke-10.

Senarai projek, peruntukan dan perbelanjaan adalah seperti berikut:

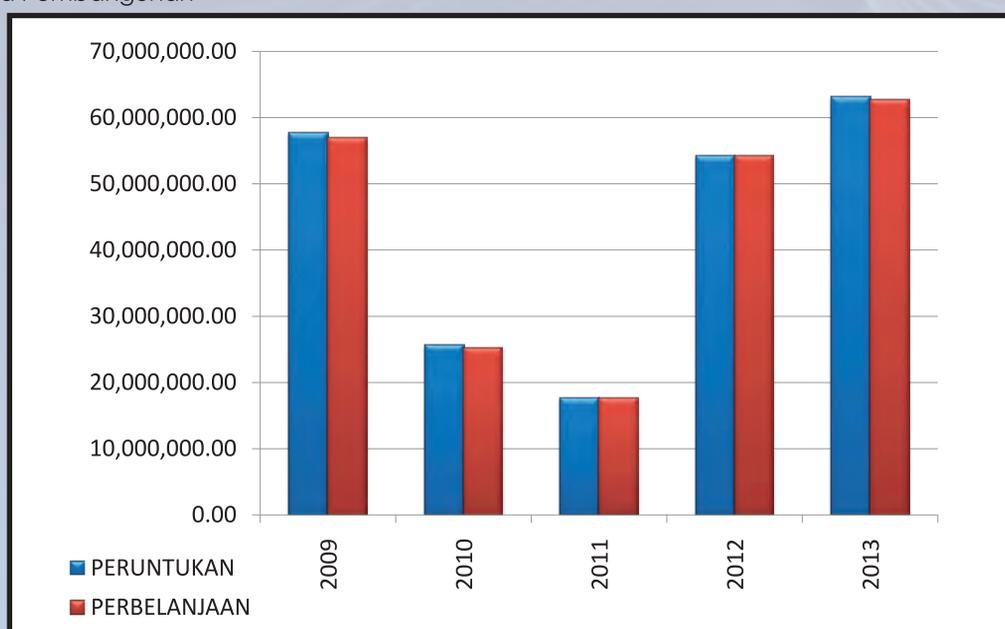
BUTIRAN/NAMA PROJEK	PERUNTUKAN	PERBELANJAAN	
	(RM)	(RM)	(%)
Penentuan dan Pengukuran Sempadan Antarabangsa (Darat dan Maritim) Malaysia Dengan Negara-Negara Jiran	6,000,000.00	5,792,188.70	96.54
Pemeriksaan Pangkalan Data Kadaster Digital Kebangsaan	8,434,518.00	8,434,517.55	100.00
ICT Enterprise Intergrated System Bagi JUPEM	2,866,750.00	2,866,750.00	100.00
e-Pemetaan	34,912,732.00	34,909,812.87	99.99
Marine Geodetic Infrastructure In Malaysia Waters	7,500,000.00	7,474,780.00	99.66
Sistem Pangkalan Data Geodetik (SPDG) Sub-Projek Tolok Air Pasang Surut Telemetry Negara	1,000,000.00	984,365.00	98.44
Projek Meneruskan Keupayaan Sistem Pembangunan Maklumat Geospatial Untuk Keselamatan	1,500,000.00	1,494,250.00	99.62
Pembinaan Pejabat Baru Pejabat Topografi Cawangan Wilayah Selatan, Segamat, Seksyen Topografi Semenanjung	1,000,000.00	710,219.65	71.02
<b>JUMLAH</b>	<b>63,214,000.00</b>	<b>62,666,883.77</b>	<b>99.13</b>

Pencapaian aktiviti belanja pembangunan bagi tempoh lima (5) tahun adalah seperti berikut:

TAHUN	PERUNTUKAN	PERBELANJAAN	PERATUS (%)
2013	63,214,000.00	62,666,883.77	99.13
2012	54,284,000.00	54,232,243.35	99.90
2011	17,695,525.00	17,660,229.65	99.80
2010	25,645,960.00	25,260,310.30	98.50
2009	57,780,860.00	56,974,372.13	98.60

Carta dibawah menunjukkan jumlah peruntukan dan perbelanjaan bagi tempoh lima (5) tahun:

Belanja Pembangunan



## HASIL

Dalam tahun 2013, JUPEM telah berjaya mengutip pendapatan sejumlah RM 6,983,862.32 melalui penjualan peta, pelan akui, foto udara, data-data geodetik dan astronomi, bayaran upah ukur, serta lain-lain perkhidmatan termasuk bayaran lesen atau permit dari penjualan data berdigit. Walau bagaimanapun daripada jumlah tersebut sejumlah RM 5,276,162.57 sahaja hasil yang dapat dipungut manakala sejumlah RM 1,707,699.75 adalah hasil yang tidak dapat dipungut dan dikategorikan sebagai pendapatan daripada perkhidmatan yang dikecualikan bayarannya oleh peruntukan undang-undang.

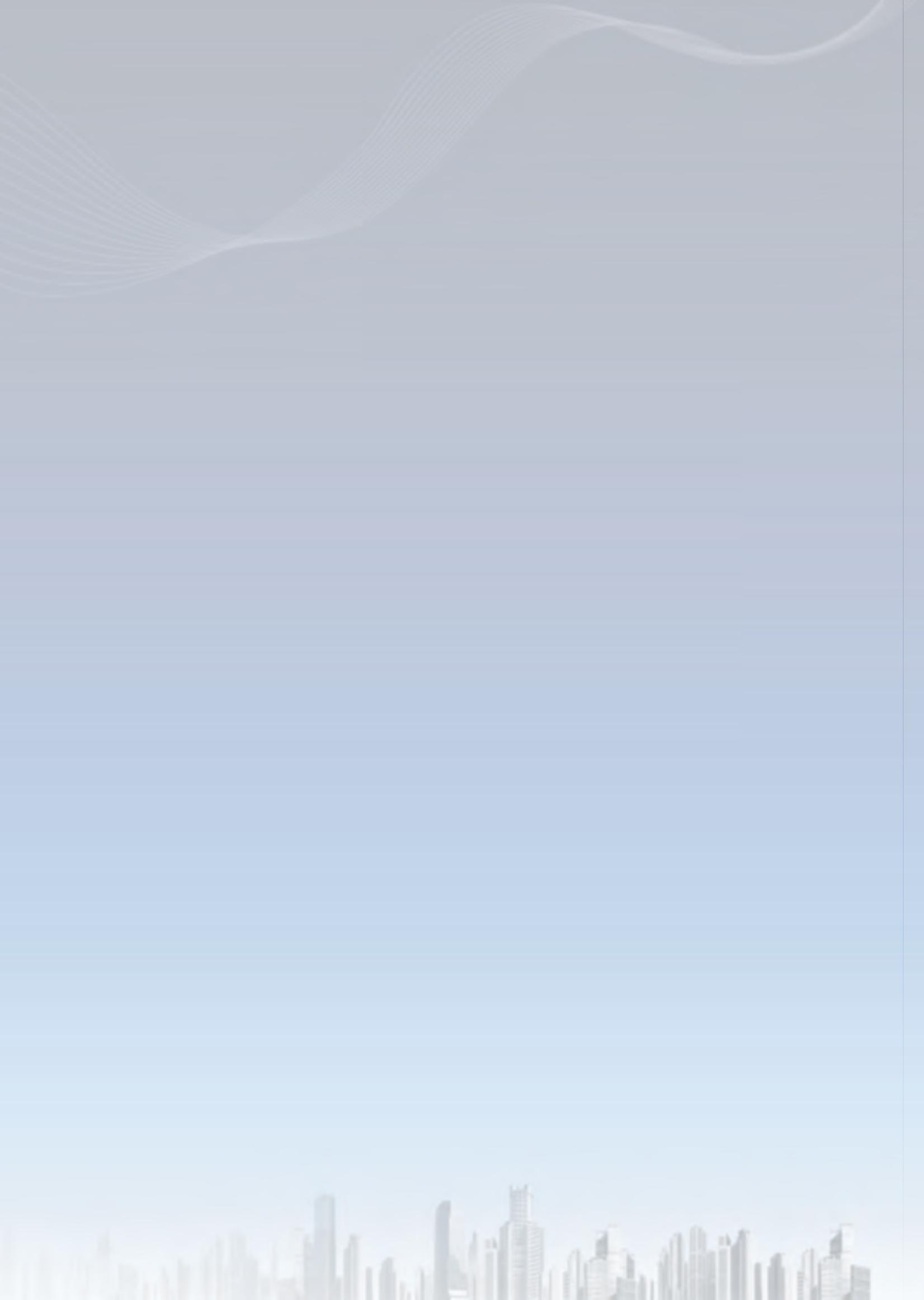
Butir-butir kutipan hasil bagi keseluruhan JUPEM Ibu Pejabat dan JUPEM Negeri untuk tiga (3) tahun kebelakangan:

Tahun	Hasil yang dipungut	Hasil yang tidak dipungut	Jumlah
2011	9,495,794.90	11,367,195.18	20,862,990.08
2012	5,040,601.41	13,425,495.25	18,466,096.66
2013	5,276,162.57	1,707,699.75	6,983,862.32



# ANUGERAH DAN PENGIKTIRAFAN





## ANUGERAH DAN PENGIKTIRAFAN

Sepanjang tahun 2013, JUPEM telah menerima beberapa anugerah di atas pencapaiannya dalam pelbagai bidang. Pencapaian dan pengiktirafan sepanjang tahun 2013 merupakan manifestasi dan komitmen semua warga JUPEM kepada jabatan khususnya dan perkhidmatan awam amnya.

Antara anugerah dan pengiktirafan yang diperolehi JUPEM adalah:

BIL.	KATEGORI	PERINGKAT
1	Pensijilan MS ISO 9001:2008 oleh SIRIM	Kebangsaan
2	Kejohanan Sukan Dwi Tahunan kali ke-5, Kementerian Sumber Asli dan Alam Sekitar (NRE)	Kementerian (Naib Johan)
3	Anugerah Kumpulan Inovatif dan Kreatif (KIK) Kategori Teknikal Kumpulan GEN XY – JUPEM Pahang bertajuk “Proses Pembuatan Batu Sempadan Yang Tidak Efisen Di JUPEM Pahang” di Peringkat Jabatan/Agensi Di bawah NRE Sempena Hari Inovasi 1 NRE Tahun 2013	Kementerian (Johan)
4	Anugerah Kumpulan Inovatif dan Kreatif (KIK) Kategori Pengurusan Kumpulan GiGEO – Bahagian Geospatial Pertahanan (Ibu Pejabat JUPEM) bertajuk “Masalah Penggunaan Peta Lembar Di Dalam Angkatan Tentera Malaysia (ATM)” di Peringkat Jabatan/Agensi Di bawah NRE Sempena Hari Inovasi 1 NRE Tahun 2013	Kementerian (Johan)
5	Pensijilan ISO/IEC 27001 : 2005 & MS ISO/IEC 27001 : 2007 oleh SIRIM & IQNET- Sistem Pengurusan Keselamatan Maklumat	Kebangsaan
6	Anugerah Cemerlang di atas Pencapaian Penarafan 5 Bintang di dalam <i>Malaysia Government Portals and Websites Assesment (MGPWA) 2013</i> oleh Multimedia Development Corporation (MDEC)	Kebangsaan
7	Pensijilan Amalan 5S oleh MPC	Kebangsaan

### Naib Johan Di Kejohanan Sukan Dwi Tahunan Kali Ke-5, Kementerian Sumber Asli dan Alam Sekitar (NRE)



**Anugerah Kumpulan Inovatif dan Kreatif (KIK) Peringkat Jabatan/Agensi di bawah NRE Sempena Hari Inovasi 1 NRE Tahun 2013**



Johan Kategori Teknikal Kumpulan GEN XY – JUPEM Pahang



Johan Kategori Pengurusan: Kumpulan GiGEO – Bahagian Geospasial Pertahanan (Ibu Pejabat JUPEM)

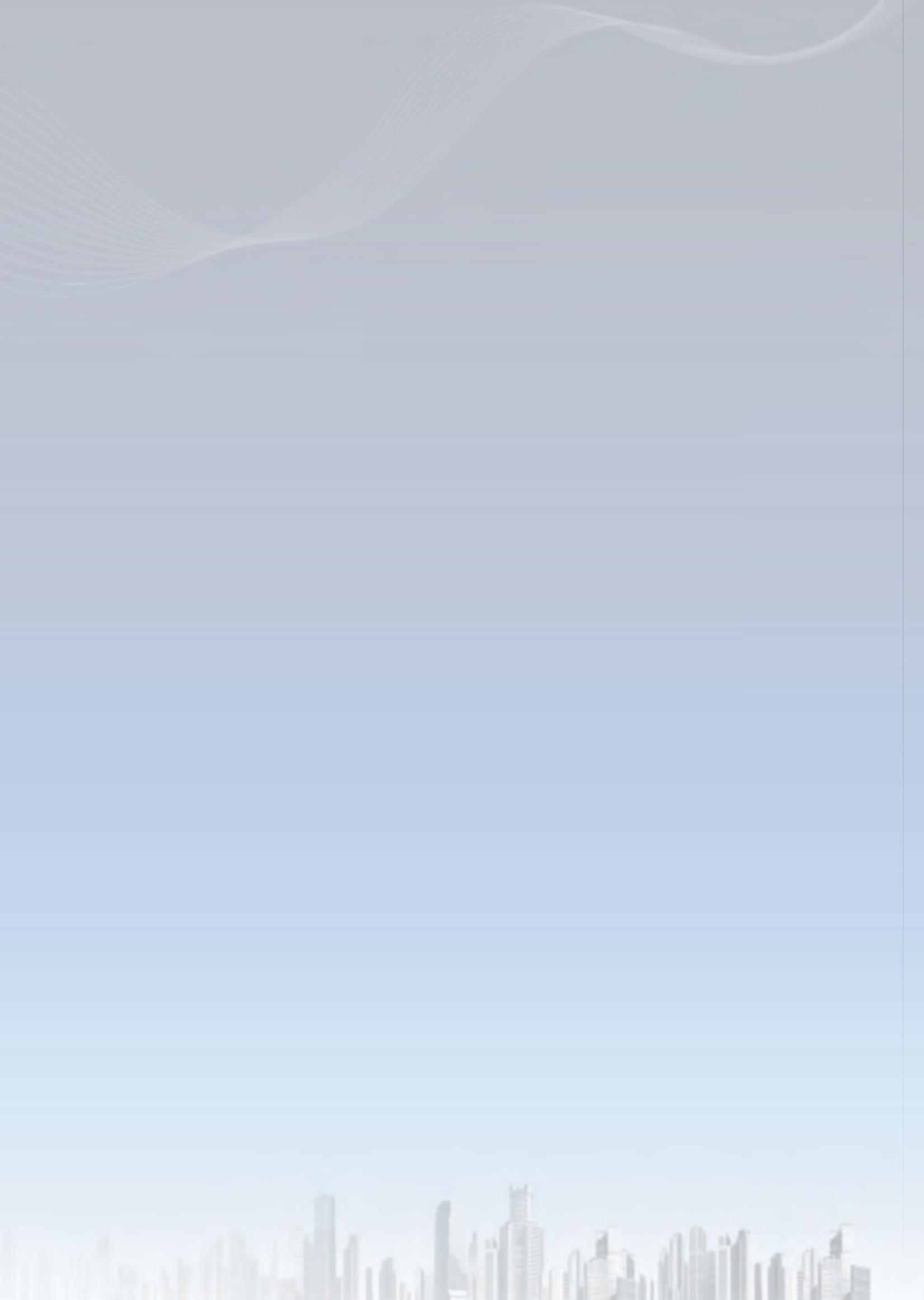


Pensijilan ISO/IEC 27001 : 2005 & MS ISO/IEC 27001 : 2007 oleh SIRIM & IQNET- Sistem Pengurusan Keselamatan Maklumat



# RENTETAN PERISTIWA 2013





## RENTETAN PERISTIWA 2013

01

JANUARI



**8 Januari 2013**

Majlis Amanat Tahun Baru 2013 di Dewan Ukur, Ibu Pejabat JUPEM, Kuala Lumpur.



**8 – 9 Januari 2013**

Mesyuarat Pengurusan JUPEM Bil. 1/2013 di Prince Hotel, Kuala Lumpur yang dipengerusikan oleh YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib, Ketua Pengarah Ukur dan Pemetaan Malaysia.



**24 Januari 2013**

JUPEM sertai Perarakan Maulidurasul peringkat kebangsaan di Dataran Putrajaya.



### 28 Februari 2013

PUSPANITA JUPEM mengadakan Mesyuarat Agung di Dewan Ukur, Ibu Pejabat, Kuala Lumpur yang dipengerusikan oleh Datin Normah binti Mohammad, Pengerusi PUSPANITA JUPEM.

### 14 – 17 Mac 2013

Program *Team Building* dan *Brain Storming* di Mutiara Taman Negara Resort, Kuala Tahan, Pahang. Seramai 31 orang peserta mengikuti program ini terdiri dari pegawai Kumpulan Pengurusan Tertinggi serta Kumpulan Pengurusan dan Profesional JUPEM.



### 22 – 24 Mac 2013

Seramai 80 orang peserta di kalangan Juruteknik Ukur serta Bengkel Tranformasi Jati Diri dan Pengukuhan Organisasi di Hotel Seri Malaysia, Port Dickson, Negeri Sembilan.

**4 April 2013**

Majlis Dialog Ketua Pengarah Ukur dan Pemetaan Malaysia bersama kakitangan Gred 27 hingga 38 di Dewan Ukur, Ibu Pejabat, Kuala Lumpur.

**16 April 2013**

Seramai 8 orang pegawai dan kakitangan JUPEM telah menerima Anugerah Khusus sempena perhimpunan bulanan Kementerian Sumber Asli dan Alam Sekitar, di Dewan Baiduri, Wisma Sumber Asli, Putrajaya.

**23 April 2013**

Lawatan Kerja Seksyen Penawanan Data ke Agensi Angkasa Negara (ANGKASA) di Sungai Lang, Banting, Selangor.

**14 – 16 Mei 2013**

Program Pemantapan dan Pentauliahan AKRAB JUPEM di Suria Cherating Beach Resort, Kuantan, Pahang.



**20 Mei 2013**

Majlis Penyampaian Anugerah Perkhidmatan Cemerlang (APC) di Hotel Renaissance, Kuala Lumpur.



**28 – 30 Mei 2013**

Bengkel KIK di Suria City Hotel, Johor Bahru.

06 \_\_\_\_\_

\_\_\_\_\_ JUN



**22 – 24 Jun 2013**

Lawatan dan Pemantauan Projek *Marine Geodetic Infrastructures In Malaysian Waters (MAGIC)* di Pulau Layang-Layang serta persekitarannya.



#### 2 Julai 2013

Lawatan rasmi Menteri Sumber Asli dan Alam Sekitar (NRE), YB Datuk Seri G.Palanivel berserta YBhg. Dato' Zool Azha Yusof, Ketua Setiausaha NRE ke JUPEM.



#### 4 Julai 2013

Mesyuarat Pengurusan JUPEM Bil. 2/2013 di Pulau Springs Resort, Johor Bahru, Johor dipengerusikan oleh YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib, Ketua Pengarah Ukur dan Pemetaan Malaysia.



#### 29 Julai 2013

Lawatan Delegasi NEPAL ke JUPEM.



#### 20 Ogos 2013

Majlis Sambutan Hari Raya Aidil Fitri JUPEM di perkarangan letak kereta Bangunan Ukur, Kuala Lumpur dihadiri Timbalan Menteri Sumber Asli dan Alam Sekitar (NRE), YB Dato' Sri Dr. James Dawos Mamit.



**29 Ogos 2013**

Seminar Pemetaan Utiliti Kebangsaan 2013 di Mahkota Ballroom II, Hotel Istana, Kuala Lumpur. Majlis telah dirasmikan oleh Menteri Sumber Asli dan Alam Sekitar (NRE).

09

SEPTEMBER



**6 – 12 September 2013**

Kursus Peningkatan Jati Diri dan Kerja Berpasukan di Kompleks Sukan Paroi, Seremban, Negeri Sembilan.



**13 – 15 September 2013**

JUPEM sertai temasya sukan Dwi Tahunan NRE Ke-5 di Kompleks Sukan UPM, Serdang, Selangor. Majlis di rasmikan oleh YB Datuk Seri G.Palanivel, Menteri Sumber Asli dan Alam Sekitar.

**8 - 10 Oktober 2013**

Bengkel Taklimat Pemantapan dan Penyediaan Laporan Projek Kumpulan Inovatif dan Kreatif (KIK) Siri 2 di Hotel Impiana Cherating, Pahang.

**20 Oktober 2013**

Program Jelajah Mesra Rakyat Rakan Alam Sekitar 1Malaysia di Tanah Rata, Cameron Highlands, sempena sambutan Minggu Alam Sekitar Malaysia Peringkat Kebangsaan.

**21 – 22 Oktober 2013**

Taklimat Pengurusan Pegawai Rekod Kualiti di Hotel Puteri Resort, Ayer Keroh, Melaka.

**27 – 30 Oktober 2013**

Bengkel *Retreat* dan *Team Building* ahli AKRAB JUPEM di Persona Village Resort, Kuala Tahan, Pahang.



**30 Oktober 2013**

JUPEM dinobatkan sebagai juara dalam pertandingan Kumpulan Inovatif dan Kreatif (KIK), peringkat kementerian, kategori Pengurusan dan Teknikal di Dewan Baiduri, NRE, Putrajaya.

11

**NOVEMBER**



**4 November 2013**

JUPEM sertai Forum Khas sempena sambutan Maal Hijrah 1435H di Masjid Negara, Kuala Lumpur, telah disiarkan secara langsung di TV1.



**15 November 2013**

JUPEM telah menerima pengiktirafan di bawah skim Pensijilan Sistem Pengurusan Keselamatan Maklumat daripada SIRIM QAS International Sdn. Bhd. dalam satu majlis di Grand Lagoon Ballroom, Sunway Resort Hotel & SPA, Bandar Sunway, Petaling Jaya, Selangor.

12

**DISEMBER**



**3 – 6 Disember 2013**

Bengkel Memuktamadkan Deraf Kriteria Sistem *Star Rating* (SSR) JUPEM di Best Western Prima Inland Sea Resort Port Dickson, Negeri Sembilan.



#### 4 – 6 Disember 2013

Konvensyen KIK JUPEM di Hotel Grand Blue Wave, Shah Alam, Selangor dirasmikan oleh Ketua Pengarah Ukur dan Pemetaan Malaysia, YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib.



#### 9 – 10 Disember 2013

Persidangan Pengarah-pengarah Ukur 2013 di Holiday Inn, Melaka dirasmikan oleh Ketua Pengarah Ukur dan Pemetaan Malaysia, YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib.



#### 31 Disember 2013

Dua orang delegasi dari *National Survey Authority (NSA)*, Sultanate of Oman telah mengadakan lawatan ke Ibu Pejabat JUPEM, Kuala Lumpur. Beliau ialah *Air Commodore Yaqoob Al-Toobi, Head of NSA, Ministry of Defence* dan *Mr. Saleem Al-Hashmi, Director of Geospatial Information, NSA, Ministry of Defence*.



# DIREKTORI JABATAN





A	IBU PEJABAT JUPEM	No. Tel.	No. Faks.
1	Pejabat Ketua Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Malaysia Tingkat 11, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170811	03-26917457
2	Pejabat Timbalan Ketua Pengarah Ukur dan Pemetaan I Jabatan Ukur dan Pemetaan Malaysia Tingkat 10, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170812	03-26970221
3	Pejabat Timbalan Ketua Pengarah Ukur dan Pemetaan II Jabatan Ukur dan Pemetaan Malaysia Tingkat 10, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170871	03-26987114
4	Pejabat Pengarah Ukur Bahagian (Pemetaan) Jabatan Ukur dan Pemetaan Malaysia Tingkat 11, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170841	03-26917457
5	Pejabat Pengarah Ukur Bahagian (Kadaster) Jabatan Ukur dan Pemetaan Malaysia Tingkat 10, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170871	03-26170727
6	Pejabat Bahagian Geospatial Pertahanan Jabatan Ukur dan Pemetaan Malaysia Tingkat 2, Bangunan Ukur Jalan Semarak 50578 KUALA LUMPUR	03-26170941	03-26980505

<b>B</b>	<b>JUPEM NEGERI</b>	<b>No. Tel.</b>	<b>No. Faks.</b>
1	Jabatan Ukur dan Pemetaan Johor Tingkat 7, 8 dan 9 Blok A, Wisma Persekutuan Jalan Ayer Molek 80000 Johor Bahru JOHOR	07-2231224	07-2238535
2	Jabatan Ukur dan Pemetaan Kedah 1187 Jalan Raya 09000 Kulim KEDAH	04-4906166	04-4904223
3	Jabatan Ukur dan Pemetaan Kelantan Jalan Hospital 15000 Kota Bharu KELANTAN	09-7481588	09-7443923
4	Jabatan Ukur dan Pemetaan Melaka Jalan Hospital Taming Sari 75578 MELAKA	06-2822844	06-2847319
5	Jabatan Ukur dan Pemetaan Negeri Sembilan Jalan Dato' Abdul Kadir 70000 Seremban NEGERI SEMBILAN	06-7623882	06-7620158
6	Jabatan Ukur dan Pemetaan Pahang Jalan Tengku Muhamad 25050 Kuantan PAHANG	09-5668511	09-5668503
7	Jabatan Ukur dan Pemetaan Perak Jalan Dato' Seri Ahmad Said Greentown 30450 Ipoh PERAK	05-2417181	05-2417151
8	Jabatan Ukur dan Pemetaan Perlis Tingkat 6, Bangunan Persekutuan Kangar Persiaran Jubli Emas 01000 Kangar PERLIS	04-9772128	04-9772131

9	Jabatan Ukur dan Pemetaan Pulau Pinang Tingkat 39, KOMTAR 10000 Georgetown PULAU PINANG	04-2611762	04-2835884
10	Jabatan Ukur dan Pemetaan Selangor Tingkat 16-02 dan 17, Plaza Maslam No. 2 Jalan Tengku Ampuan Zabedah E9/E 40578 Shah Alam SELANGOR	03-55132616	03-55132613
11	Jabatan Ukur dan Pemetaan Terengganu Tingkat 7 & 8, Wisma Persekutuan Jalan Sultan Ismail 20578 Kuala Terengganu TERENGGANU	09-6221144	09-6237188
12	Jabatan Ukur dan Pemetaan Malaysia Wilayah Persekutuan Kuala Lumpur/ Putrajaya Tingkat 3 & 4, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170600	03-26938740
13	Jabatan Ukur dan Pemetaan Labuan Tingkat 7, Blok 4 Kompleks Ujana Kewangan Peti Surat 86 87008 WILAYAH PERSEKUTUAN LABUAN	087-412068	087-417401
14	Jabatan Ukur dan Pemetaan Malaysia (Seksyen Topografi Sabah) Blok B, Tingkat 2, 3 & 4 Bangunan KWSP Karung Berkunci 2083, Jalan Karamunsing 88840 Kota Kinabalu SABAH	088-538351	088-231243
15	Jabatan Ukur dan Pemetaan Malaysia (Seksyen Topografi Sarawak) Tingkat 7, Bangunan Sultan Iskandar Jalan Simpang Tiga 93578 Kuching SARAWAK	082-420763	082-245420

C	AGENSI-AGENSI LAIN (KADER)	No. Tel.	No. Faks.
1	Pengarah Cawangan Pangkalan Udara dan Maritim Tingkat 8, Blok F Ibu Pejabat JKR Malaysia Jalan Sultan Salahuddin 50582 KUALA LUMPUR	03-26108888	03-26988187
2	Pengarah Pusat Infrastruktur Data Geospasial Negara (MaCGDI) Kementerian Sumber Asli dan Alam Sekitar (NRE) Aras 7, Lot 4G3, Presint 4 Pusat Pentadbiran Kerajaan Persekutuan Putrajaya 62574 PUTRAJAYA	03-88861111	03-88894851
3	Pengarah Institut Tanah dan Ukur Negara (INSTUN) Kementerian Sumber Asli dan Alam Sekitar (NRE) 35950 Tanjung Malim, PERAK	05-4542825	05-4542837
4	Penolong Pengarah Kanan Kementerian Perumahan dan Kerajaan Tempatan Bahagian Pelaksanaan dan Penyelenggaraan Projek Unit Ukur Tanah Aras 8, No. 51 Persiaran Perdana, Presint 4 62100 PUTRAJAYA	03-88915000	03-88913182
5	Penolong Setiausaha (Ukur) Kementerian Sumber Asli dan Alam Sekitar (NRE) Aras 7, Lot 4G3, Presint 4 Pusat Pentadbiran Kerajaan Persekutuan Putrajaya 62574 PUTRAJAYA	03-88861111	03-88892672
6	Penolong Setiausaha Majlis Keselamatan Negara (MKN) Jabatan Perdana Menteri Bahagian Keselamatan dan Kedaulatan Maritim Aras 2, Bangunan Perdana Putra Pusat Pentadbiran Kerajaan Persekutuan Putrajaya 62502 PUTRAJAYA	03-88726817	03-88883021
7	Ketua Pengarah Agensi Remote Sensing Malaysia Kementerian Sains Teknologi dan Inovasi No. 13, Jalan Tun Ismail 50480 KUALA LUMPUR	03-26973400	03-26973350

8	Ketua Setiausaha Kementerian Pertahanan Bahagian Pengurusan Sumber Manusia Cawangan Khidmat Awam Tingkat 2, Wisma Pertahanan Jalan Padang Tembak 50634 KUALA LUMPUR	03-20715656	03-26917217
9	Ketua Pengarah Jabatan Mineral dan Geosains (JMG) Ibu Pejabat, Lantai 20, Bangunan Tabung Haji Jalan Tun Razak 50658 KUALA LUMPUR	03-21611033	03-21611036
10	Ketua Pengarah Jabatan Perhutanan Semenanjung Malaysia (JPSM) Seksyen Pentadbiran dan Kewangan Jalan Sultan Salahuddin 50650 KUALA LUMPUR	03-26164488	03-26925657
11	Ketua Pengarah Jabatan Laut Malaysia Peti Surat 12, Jalan Limbungan 42007 Pelabuhan Kelang SELANGOR	03-33467777	03-31685289
12	Ketua Pengarah Jabatan Penerbangan Awam Bahagian Khidmat Pengurusan Aras 1-4, Blok Podium No. 27, Persiaran Perdana Presint 4 Pusat Pentadbiran Kerajaan Persekutuan 62618 PUTRAJAYA	03-88714000	03-88901640
13	Setiausaha Suruhanjaya Pilihan Raya Malaysia (SPRM) Bahagian Pengurusan Sumber Manusia Aras 4-5, Blok C, Kompleks C Pusat Pentadbiran Kerajaan Persekutuan 62502 PUTRAJAYA	03-88724802	03-88880743
14	Pengarah Jabatan Laut Sarawak Kompleks Jabatan Laut Sarawak Lot 683, Section 66, Jalan Utama, Tanah Puteh 93619 Kuching SARAWAK	082-484335/159	082-331778

### **Pertanyaan**

Untuk sebarang pertanyaan lanjut sila hubungi:

Urus Setia  
Seksyen Perancangan, Penyelidikan dan Pembangunan  
Jabatan Ukur dan Pemetaan Malaysia  
Tingkat 13, Wisma JUPEM  
Jalan Semarak  
50578 Kuala Lumpur  
MALAYSIA  
TEL : 03 - 26170800  
FAKS : 03 - 26170990

### **Penafian**

Semua maklumat adalah tepat pada masa cetakan.  
Data dan maklumat yang terkandung dalam laporan ini  
tidak boleh dijadikan sebagai bukti kepada apa jua bentuk tindakan perundangan

# ANNUAL REPORT 2013



# Content

## ANNUAL REPORT 2013

<b>MESSAGE FROM THE DIRECTOR GENERAL OF SURVEY AND MAPPING MALAYSIA</b>	124
<b>1 CORPORATE PROFILE</b>	125
DEPARTMENT'S TOP MANAGEMENT	127
TOP MANAGEMENT PROFILE	128
JUPEM'S MANAGEMENT TEAM	134
• Office of the Director General of Survey and Mapping	
• Mapping Division	
• Cadastre Division	135
• Defence Geospatial Division	136
DEPARTMENT'S ORGANISATION CHART	138
JUPEM SONG	140
LOGO DEFINITION	141
OBJECTIVE & FUNCTION   VISION, MISSION & MOTTO	142
<b>2 CORPORATE GOVERNANCE</b>	
• Client's Charter   Code of Ethics	145
• Human Resource Management	146
• Courses and Training	152
• JUPEM GeoPortal Website	155
• Federal and State Honorary Awards Recipients	158
<b>3 2013 PERFORMANCE</b>	161
GEODETTIC INFRASTRUCTURE	
• GNSS Network Control and Measure	163
• MyRTKnet	164
• Tidal Observation	165
• Network Levelling	166
• Gravity Measurement	168
• iFOS System	169
• Levelling Calibration Laboratory	170
• Astronomy	170

INTERNATIONAL BOUNDARIES	
• Malaysia-Thailand Land Border	172
• Malaysia-Indonesia Land Border	173
• Malaysia-Indonesia Maritime Border	174
• Malaysia-Singapura Maritime Border	174
• Malaysia-Vietnam Maritime Border	175
• Malaysia-Brunei Darussalam Land Border	176
STATE BOUNDARIES	176
COURT CASE EXPERT WITNESS	178
MAP PUBLISHING	
• Data Acquisition	179
• Control Point Survey	180
• Database	181
• Topographic Map Updating	181
• Cartography	182
• Printing	183
• Utility Mapping	190
• Mapping Services	192
CADASTRAL SURVEY	
• Land Titles Survey Performance	194
• Verification of Land Titles Survey by Licensed Land Surveyors (LLS) Performance	196
• Verification of Level I Strata Titles Survey Performance	197
• Verification of Level II Strata Titles Survey Performance	198
• CRM Control Points Establishment Performance	199
DEFENCE GEOSPATIAL	
• Defence Geospatial Technical Services Assistance	200
• Enforcement of Security Instructions Circular On Geospatial Classified Documents	205
<b>4 FINANCIAL REPORT</b>	
• Financial Management	209
• Operating Expenditure	210
• Development Expenditure	212
• Revenue	213
<b>5 AWARDS AND RECOGNITION</b>	215
<b>6 SEQUENCE OF EVENTS IN 2013</b>	221
<b>7 JUPEM DIRECTORY</b>	233

## MESSAGE FROM THE DIRECTOR GENERAL OF SURVEY AND MAPPING, MALAYSIA

Assalamualaikum WBT and greetings,

With all the highest gratitude to Allah S.W.T and for His grace have giving us good health, high level of commitment, and also physical and moral strength to enable us to complete the responsibilities and work that has been entrusted to us with impeccable quality.

Alhamdulillah, I am also thankful to the Almighty for His grace and gratitude JUPEM is able to publish the 2013 Annual Report that can be as a source of reference for all in the near future.

Copy of this publication based on the 2013 performance reported by each Division/Section inclusive of JUPEMs' states department so that it can be used as a reference or benchmarking to improve the department's service quality. I strongly welcome to use this publication as a brief reference and yardstick for other publications in the future.

I would like to express my gratitude and thank you to the Planning, Research and Development Section and the Map Printing Section that strive together to take the initiative in publishing this report. It is my hope that the noble and strong consensus shown by the editorial board and its editors in the success of making this publication shall improve continuously. May this kind of publication will always be improved and enhanced in its quality to be more creative, innovative and informative.

Last year, the department has recorded 1001 memories of various successes and achievements that we are all proud of. However, I would like to remind all JUPEM staff not to be complacent with the success achieved in the past. The past successes should serve as a benchmark for us to put more effort in order to achieve something much better than before. Productivity and creativity as a public servant must always be at the best level and shall enhance.

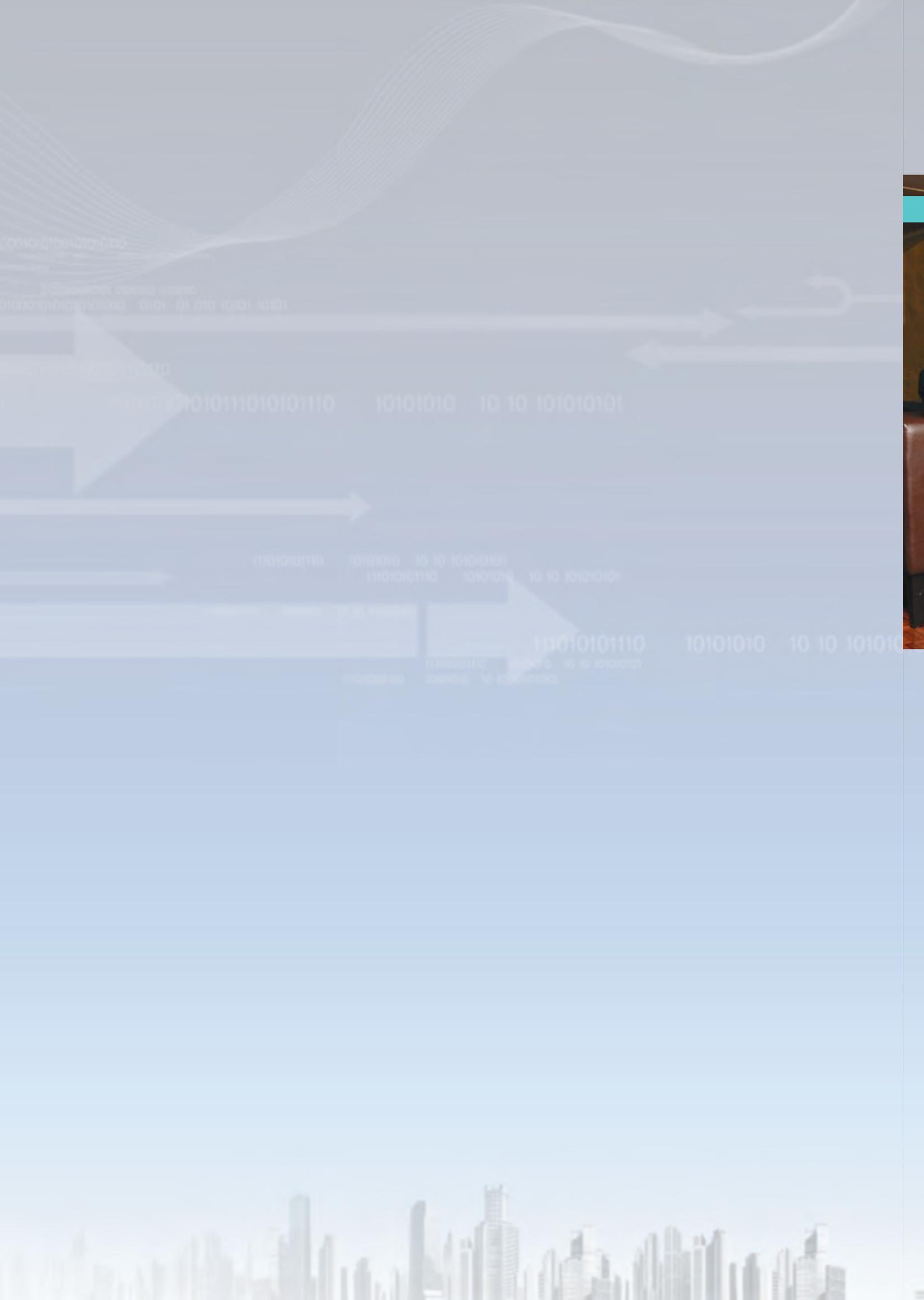
Finally, once again I would like to congratulate all those involved in the making of this 2013 Annual Report publication. So great is my hope that this publication will be a useful reference primarily to the department's top management and generally to all. I hope that JUPEM will continue to succeed in the years ahead. Thank you and best regards.

From;  
DIRECTOR GENERAL OF SURVEY AND MAPPING  
MALAYSIA



# CORPORATE PROFILE





## DEPARTMENT'S TOP MANAGEMENT



**1** DATUK PROF. SR DR. ABDUL KADIR BIN TAIB  
Director General of Survey and Mapping Malaysia

**2** SR AHMAD FAUZI BIN NORDIN  
Deputy Director General of Survey and Mapping I

**3** SR HASAN BIN JAMIL  
Deputy Director General of Survey and Mapping II

**4** DATO' SR MOHD NOOR BIN ISA  
Director of Survey Division (Mapping)

**5** SR DR. TENG CHEE HUA  
Director of Survey Division (Cadastre)

**6** BRIGEDIER JENERAL DATO' ZAHARIN BIN DIN  
Director of Defence Geospatial Division (DGD)



**DATUK PROF. SR DR. ABDUL KADIR BIN TAIB**  
**PJN, DSDK, SDK, KMN**  
**Director General of Survey and Mapping, Malaysia**  
**Director of National Mapping**

YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib appointed as the Director General of Survey and Mapping Malaysia on 17<sup>th</sup> June 2009.

He holds a PhD in Geomatics from the University of New South Wales, Australia, Master of Science in Photogrammetry, Photogrammetry Advanced Diploma from ITC Netherlands, and Bachelor of Surveying (Land) from Universiti Teknologi Malaysia.

Datuk Prof. Sr Dr. Abdul Kadir had served as a Photogrammetry Engineer, Assistant Director of Survey (Geodesy), Assistant Director of Topographic Survey (Photogrammetry), Deputy Director of Survey Johor, Principal Assistant Director of Survey (Boundary Affairs), Director of Survey Division (Map Production) and Director of Survey Division (Management and Development). He was appointed as the Director of Survey Division (Mapping) on 2<sup>nd</sup> September 2002 and later as the Deputy Director General of Survey and Mapping beginning 20<sup>th</sup> March 2004 until 16<sup>th</sup> June 2009.

He is also the Chairman of the Land Surveyors Board Peninsular Malaysia (LSB), President of the JICA Alumni Society of Malaysia (MyJICA), Fellow of the Royal Institution of Chartered Surveyors (RICS) UK, Member of the Universiti Teknologi Malaysia Alumni Association, Universiti Teknologi Malaysia (UTM) Visiting Professor, Fellow of the Royal Institution of Surveyors Malaysia (RISM) and a Registered Land Surveyor. He is also the President of the Royal Institution of Surveyors Malaysia (RISM) from June 2005 until June 2006. In recognition of his active involvement with the surveying profession, he was named the Malaysian Surveyor of the Year 2011.

On 4<sup>th</sup> June 2011 he has been bestowed the Darjah Kebesaran Panglima Jasa Negara (PJN) by His Royal Highness Yang di Pertuan Agong XIII, Al-Wathiqu Billah Tuanku Mizan Zainal Abidin, the son of the late Sultan Mahmud Al-Muktafi Billah Shah in conjunction with His Royal Highness Yang di Pertuan Agong Birthday which carries the title Datuk.

Sr Ahmad Fauzi bin Nordin appointed as Deputy Director General of Survey and Mapping Malaysia on 17<sup>th</sup> June 2009 and on 16<sup>th</sup> November 2010 as Deputy Director General of Survey and Mapping Malaysia I.

He graduated with a Master in Geoinformatics from Universiti Teknologi Malaysia, Postgraduate Diploma in Geographical Information System (GIS) from ITC, Netherlands and Bachelor of Surveying (Land) from Universiti Teknologi Malaysia.

He served as Kuala Kangsar District Surveyor, Assistant Director of Topographic Survey (Northern Region), Deputy Director of Survey Kedah/Perlis and Assistant Director of Cadastral Survey (RT) and Deputy Director of Survey (Special Unit) Pahang. He also served as Deputy Director of Survey Perak, Director of Topographic Survey Sarawak and Deputy Director of Topographic Survey 1 Peninsular. Not forgetting he served as Director of Survey F.T. Kuala Lumpur, Principle Assistant Director of Survey (Land Titles), Director of Survey Selangor and Director of Survey Division (Geodetic Survey). Finally yet importantly, he appointed as Director of Survey Division (Cadastre) on 2 September 2002 and as Director of Survey Division (Mapping) on 5<sup>th</sup> April 2004.

He is also a Fellow of the Royal Institution of Surveyors Malaysia (RISM) and RISM President for the 2011/2012 session, Chairman of the Malaysian Building Industry Presidents Council (BIPC), Deputy Chairman of the Licensed Surveyors Board Peninsular Malaysia (LSB) and a Registered Land Surveyor.



**SR AHMAD FAUZI BIN NORDIN,  
JSM, SMZ, KMN  
Deputy Director General of Survey and Mapping I**



**SR HASAN BIN JAMIL,**  
**JMW, AMN**  
**Deputy Director General of Survey and Mapping II**

Sr Hasan bin Jamil appointed as Deputy Director General of Survey and Mapping II on 16<sup>th</sup> November 2010.

He holds a Master in Geographical Information System (GIS) from the University of Edinburgh, United Kingdom and a Bachelor of Surveying (Land) from Universiti Teknologi Malaysia.

He served as Surveyor in the Terengganu Survey Department, Assistant Director of Survey in Kelantan and Kelantan District Surveyor for Southern Machang. He also served as Assistant Director of Topographic Survey Sabah, Director of Topographic Survey Sabah and Assistant Director of Cadastral Survey. Not forgetting he served as Director of Survey Pulau Pinang, Director of Survey F.T. Kuala Lumpur and Director of Survey Selangor. Finally yet importantly, he also served as Director of Survey Division (Geodetic Survey), Director of Survey Section (Boundary Affairs), Director of Survey and Mapping F.T. Kuala Lumpur and Director of Survey Division (Mapping).

He is also a Fellow of the Royal Institution of Surveyors Malaysia (RISM) and Chairman of the Geomatics and Land Surveying Division, RISM for the 2010/2013 session and a Registered Land Surveyor.



**DATO' SR MOHD NOOR BIN ISA,**  
**DIMP, SMP**  
**Director of Survey Division (Mapping)**

YBhg. Dato' Sr Mohd Noor bin Isa was appointed as Director of Survey Division (Mapping) on 16<sup>th</sup> November 2010.

He holds a Bachelor of Surveying (Land) from Universiti Teknologi Malaysia. He served as Trainee Surveyor (Perak Survey Department), District Surveyor for Northern Perak, Assistant Director of Survey Pahang and District Surveyor for Western Pahang. He also served as Surveyor Secretariat of the Special Unit, Assistant Director of Survey (Coordination & Development), Principal Assistant Director of Survey (Training) and Principal Assistant Director of Survey (Coordination and Development).

Not forgetting he also served as Director of Survey (Planning, Research and Development), Director of Survey and Mapping Pahang and then, Director of Topographic Survey Sabah.

He is also a Fellow of the Royal Institution of Surveyors Malaysia (RISM) and a Registered Land Surveyor.



**SR DR. TENG CHEE HUA, KMN**  
**Director of Survey Division (Cadastre)**

Sr Dr. Teng Chee Hua began his service in the Department of Survey and Mapping Malaysia as Assistant Director of Survey on 10<sup>th</sup> April 1980 and appointed as Director of Survey Division (Cadastre) on 8<sup>th</sup> December 2010.

He holds a PhD from the University of Newcastle Upon Tyne, United Kingdom (2000), Masters (Surveying Engineering) from University of New Brunswick, Canada (1992), Postgraduate Diploma in Photogrammetry (Distinction) from ITC, Netherlands (1984) and a Bachelor of Surveying (Land) from Universiti Teknologi Malaysia (1980).

He served as Assistant Director of Topographic Survey Western Region, Assistant Director of Topographic Survey Sabah, Johor CALS Manager and Deputy Director of Survey Johor. He also served as Director of Survey (Geodesy) and Director of Survey (Cadastre Coordination and Policy).

He is also a Fellow of the Royal Institution of Surveyors Malaysia (RISM) and he had served before as Secretary-General of RISM and a Registered Land Surveyor.



YBhg. Brig Gen Dato' Zaharin bin Din was appointed as Director of Defence Geospatial Division (DGD) beginning 3<sup>rd</sup> May 2011.

Prior to holding the post of DGD Director, he was the Director General of the Defence Engineering Services Division since 9<sup>th</sup> September 2005.

He commissioned into the Royal Army Engineers Regiment on 25<sup>th</sup> April 1974. He holds a Diploma in Defence and Strategic Studies from the College of Defence. He has also attended the highest courses in civil engineering at the Army Institute of Engineering in Malaysia and the United Kingdom.

He was also involved in the operation of removing the communist movement from Malaya between 1974 to 1981. In addition to operational duties in the country, he has also served on peacekeeping missions of the United Nations (UN) as Deputy Chief Military Observer in Sierra Leone in 2002.

**BRIGEDIER JENERAL DATO' ZAHARIN BIN DIN**  
**DIMP, DPKK, JSM, PAT, PCM, ACM, KMN, AMP,**  
**PJM, PNBB, mpat, psc**  
**Director of Defence Geospatial Division**  
**(DGD)**

## JUPEM'S MANAGEMENT TEAM



### OFFICE OF THE DIRECTOR GENERAL OF SURVEY AND MAPPING

1	Director of Survey (Planning, Research and Development)	Sr Haji Ramli bin Nor
2	Director (Administration and Services)	Haji Abdul Hamid bin Hasan
3	Director of Survey (Manpower Planning)	YM Sr Engku Mohd Adlin bin Engku Habib Azlena binti Haron (starting 15 <sup>th</sup> July 2013)
4	Director (System Development)	Ahmad Kamil bin Hassan Rabein (until 14 <sup>th</sup> July 2013)



### MAPPING DIVISION

1	Director of Survey (Boundary Affairs)	Sr Tan Ah Bah
2	Director of Survey (Peninsular Topography)	Sr John Elvis Koh
3	Director of Survey (Cartography)	Sr Haji Ali bin Ahmad
4	Director of Survey (Data Acquisition)	Sr Haji Mohamad Kamali bin Adimin
5	Director of Survey (Sarawak Topography)	Sr Sohaime bin Rasidi
6	Director of Survey (Mapping Services)	Sr Ng Eng Guan
7	Director of Survey (Geodesy)	Sr Dr. Azhari bin Mohamed
8	Director of Survey (Sabah Topography)	Sr Mohammad Zaki bin Mohd Ghazali
9	Director of Survey (Utility Mapping)	Sr Zoher bin Nomanbhoy
10	Director of Survey (Map Printing)	Haji Muhammad Puzi bin Ahmat
11	Director of Survey (Database)	Ahmad Sanusi bin Che Cob



#### CADASTRE DIVISION

1	Director of Survey and Mapping Negeri Sembilan	Sr Haji Hamdani bin Haji Sadiman
2	Director of Survey and Mapping Selangor	Sr Ahamad bin Zakaria
3	Director of Survey and Mapping Kedah	Sr Haji Mohammad Yunus bin Md. Yusoff
4	Director of Survey and Mapping Terengganu	Sr Haji Abd Rahman bin Mohd Don
5	Director of Survey and Mapping Wilayah Persekutuan Kuala Lumpur/Putrajaya	Md. Zaki bin Ad. Wahid
6	Director of Survey and Mapping Perak	Sr Jasni bin A. Rahman
7	Director of Survey and Mapping Kelantan	Sr Dr. Zainal bin A. Majeed
8	Director of Survey (Cadastre Coordination and Policy)	Sr Haji Alwi bin Mohd Noor
9	Director of Survey and Mapping Pahang	Sr Abdul Aziz bin Jantan
10	Director of Survey and Mapping Pulau Pinang	Sr Ahmad Azman bin Ghazali
11	Director of Survey and Mapping Johor	Sr Wan Zainuddin bin Wan Yusuff
12	Director of Survey Section (Inspectorate Licensed Land Surveyors)	Sr Dr. Mohd Yunus bin Mohd Yusoff
13	Director of Survey (Cadastre Legislation)	Sr Chan Keat Lim
14	Director of Survey and Mapping Perlis	Jamilah binti Ibrahim
15	Director of Survey and Mapping Melaka	Sr Ahmad Tarmizi bin Bastani (starting 1 <sup>st</sup> April 2013) Sr Kamil bin Arifin (until 31 <sup>st</sup> Mac 2013)
16	Director of Survey and Mapping W.P. Labuan	Sr Mohamad Hashim bin Mat Hassan



**DEFENCE GEOSPATIAL DIVISION**

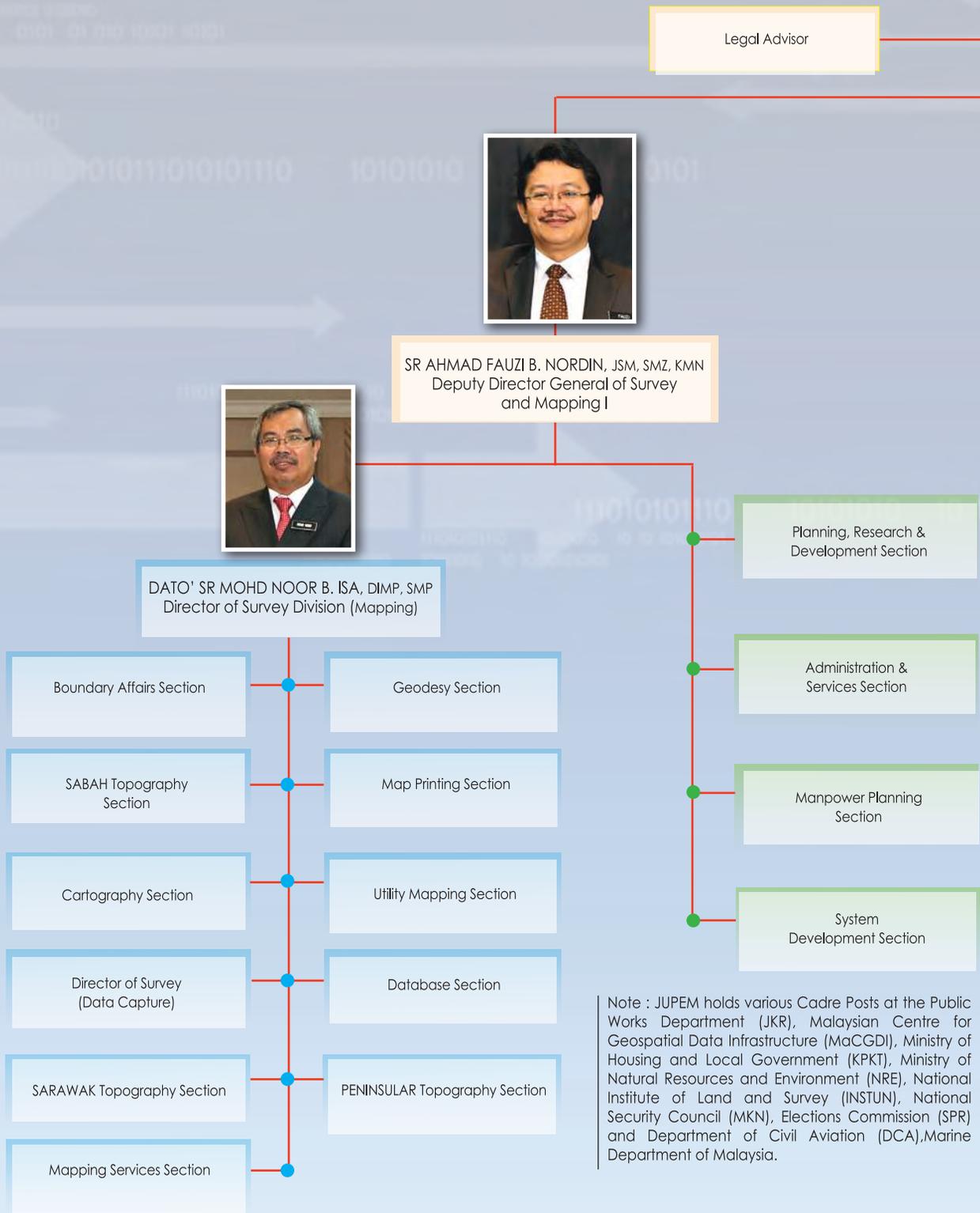
1	Director of Section, Geospatial Development	Kol. Sr Dr. Mohd Zambri bin Mohamad Rabab
2	Director of Section, Information Development	Lt. Kol. Sr Arifin bin Abdul Rahman
3	Director of Section, Operations and Training	Lt. Kol. Sr Muhamad Nadzir bin Mat Isin





010101

## DEPARTMENT'S ORGANISATION CHART





DATUK PROF. SR DR. ABDUL KADIR B. TAIB,  
PJN, DSDK, SDK, KMN  
Director General of Survey and  
Mapping Malaysia

Integrity Unit



SR HASAN B. JAMIL, JMW, AMN  
Deputy Director General of  
Survey and Mapping II



SR DR. TENG CHEE HUA, KMN  
Director of Survey Division  
(Cadastral)

Cadastral Coordination  
and Policy Section

Cadastral Legislation  
Section

Inspectorate/Licensed  
Surveyor Section



BRIG. JEN. DATO' ZAHARIN B. DIN,  
DIMP, DPKK, JSM, PAT, PCM, ACM,  
KMN, AMP, PJM, PNBB, mpat, psc  
Director of Defence  
Geospatial Division (BGSP)

Geospatial Development  
Section

Information Development  
Section

Operations and Training  
Section

Department of Survey and  
Mapping JOHOR

Department of Survey and  
Mapping NEGERI SEMBILAN

Department of Survey and  
Mapping KEDAH

Department of Survey and Mapping  
W.P. KUALA LUMPUR/PUTRAJAYA

Department of Survey and  
Mapping KELANTAN

Department of Survey and  
Mapping MELAKA

Department of Survey and  
Mapping W.P. LABUAN

Department of Survey and  
Mapping SELANGOR

Department of Survey and  
Mapping PULAU PINANG

Department of Survey and  
Mapping PAHANG

Department of Survey and  
Mapping TERENGGANU

Department of Survey and  
Mapping PERAK

Department of Survey and  
Mapping PERLIS



## JUPEM SONG

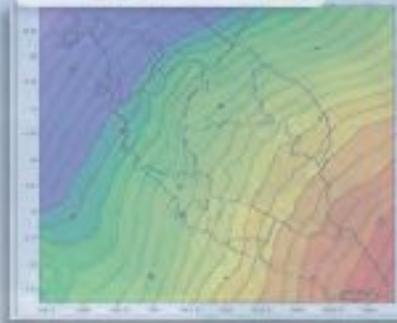
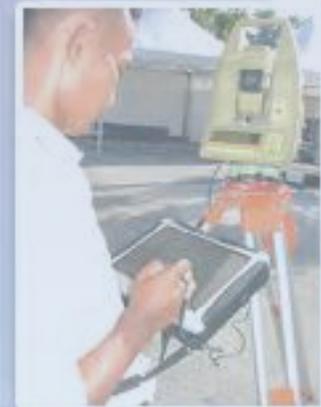
### JUPEM MAJU DAN JAYA

Positif Penuh Beretika  
 Realistik Kita Menuju Satu Wawasan  
 Perkhidmatan Cepak dan Berkesan  
 Kecemerlangan Dijanjikan

Kualiti Teras Perkhidmatan  
 Jabatan Ukur dan Pemetaan Malaysia  
 Kemuafakatan Prihatin dan Peka  
 Iltizam Mulia Visi Jaya

Pengukuran dan Pemetaan  
 Tugas Diamanahkan  
 Adil Saksama dan Layanan Mesra  
 Jadi Amalan

JUPEM Warga Penuh Setia  
 Menabur Bakti Budi dan Jasa  
 Menyumbang Pembangunan Negara  
 Terus Berjaya



## LOGO DEFINITION



- JUPEM's logo design consists of three basic forms of dots, circles and orbit line. These points are separated in two by the orbit line that reflects JUPEM's two main activities, which are the cadastral survey and mapping survey activities.
- The orange colour signifies joy, glory and JUPEM's sensitivity to customer's need and acknowledges the existence and importance of JUPEM to the nation and community.
- The green colour is the official colour of the department and has chosen to reflect JUPEM as always caring and giving serious attention to the aspects of nature in the preservation of a healthy environment.
- The dots appearance gives an indication that JUPEM is using electronic technology, networking system to enhance its survey, and mapping information.
- The orbit line is emphasizing the importance of communication, information dissemination and networking.
- Overall new image of JUPEM is displayed as more energetic, dynamic, progressive and able to compete universal challenges, especially in the provision of survey and mapping infrastructure to support the National Development Policy.

## OBJECTIVE

- Ensure that the cadastral survey and mapping products and services meet the quality system as well as the needs of the customers.
- Ensure the establishment and maintenance of a high quality and updated Cadastral Survey and Mapping Database to meet the needs of the national geospatial data infrastructure.
- Make JUPEM a centre of excellence and reference in the field of cadastral survey and mapping.
- Ensure the determination, demarcation and surveying of state and international boundaries meet the needs of the state administration as well as safeguards the nation's sovereignty.

## FUNCTION

- Advising the government in the field of cadastral survey and mapping as well as the state and international boundaries.
- Providing complete and conclusive cadastral survey information for the purpose of issuing land titles, strata and stratum.
- Managing the cadastral survey and mapping database efficiently.
- Publishing topographic, cadastral, thematic and utility maps for planning, natural resource management, environmental conservation, development, monitoring and security purposes.
- Determining, demarcating, surveying and maintaining the state and international boundaries in order to protect national sovereignty.
- Providing geodetic infrastructure for cadastral surveying, mapping, engineering and scientific research purposes.

## VISION

Making JUPEM eminent in the provision of survey and mapping services as well as geospatial data management in order to meet the nation's aspiration.

## MISSION

Providing quality survey and mapping services as well as geospatial data management through the best systems, competent workforce and conducive work environment.

## MOTTO

The catalyst for national development and citizen's prosperity.

# CORPORATE GOVERNANCE

010121





## CLIENT'S CHARTER

- Completing the cadastral survey work up to the preparation of the Certified Plan within a period not exceeding 60 days from the date of receipt of a complete and orderly Requisition of Survey.
- Ensuring that the verification of the work performed by the Licensed Land Surveyors (LLS) be completed within 60 days from the date of submission of a complete and orderly document.
- Processing of Strata Plan within 30 days and Certified Strata Plan within 50 days from the date of receipt of a complete and orderly application.
- Ensuring that the issuance of lot numbers are done in a period not exceeding 7 days from the date of receipt of a complete and orderly application from Licensed Land Surveyors.
- Preparing and providing survey data for the preparation of land title documents to the Land Office / Office of the Director of Lands and Mines within 7 days from the receipt of a complete and orderly application.
- Ensuring that classified geospatial documents are supplied within 2 days from the receipt of security clearance.
- Ensuring that MyRTKnet post-processed data can be managed and supplied within 4 hours.
- Ensuring that any application to purchase unrestricted geomatics information can be managed and supplied within 1 day.
- Ensuring that any coordinate transformation, coordinate conversion, map projection and geoid interpolation service application can be managed and supplied within 1 day.
- Ensuring that all application services / purchase of each copy of the survey / non-restricted map data at the JUPEM counter can be managed within 1 hour.
- Ensuring that survey data can be accessed and obtained through e-commerce at any time.
- Making payments of bills and invoices not exceeding 14 days from the date of receipt of completed applications.

## CODE OF ETHICS

- Trustworthy and honest in the discharge of duties and responsibilities without abusing power and position.
- Always patient, calm and steadfast in all situation.
- Truthful, transparent and sincere in carrying out any duties.
- Disciplined and with high integrity.
- Confident, accurate, fair and consistent in decision-making.
- Always practice the characteristics of creativity, innovativeness, motivation, competitiveness and accountability.
- Foster a spirit of cooperation, goodwill and affection at all levels.
- Proud to be a denizen of JUPEM and always striving to promote the dignity and image of the department.
- Provide efficient and quality services.
- Strive to ensure that the department's products are of quality and fulfils customer requirements.
- Vigilant in the handling of confidential information without exposing national secrets to parties unauthorised to receive it.

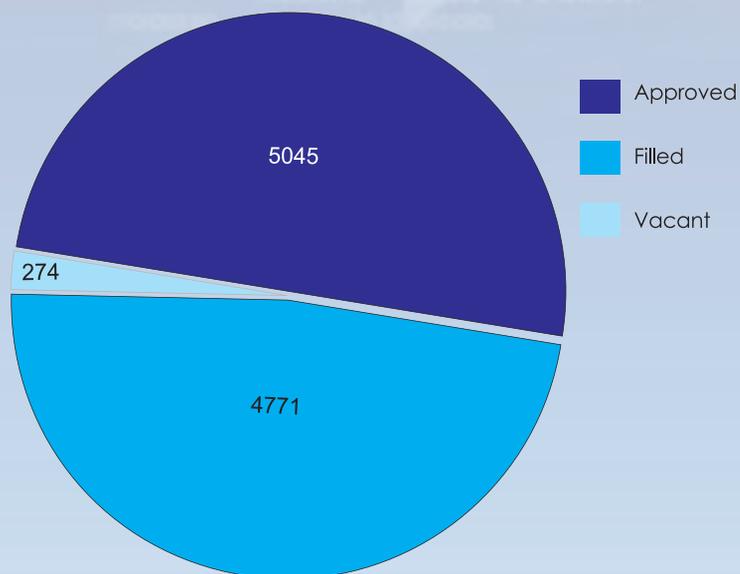
## HUMAN RESOURCE MANAGEMENT

### Personnel

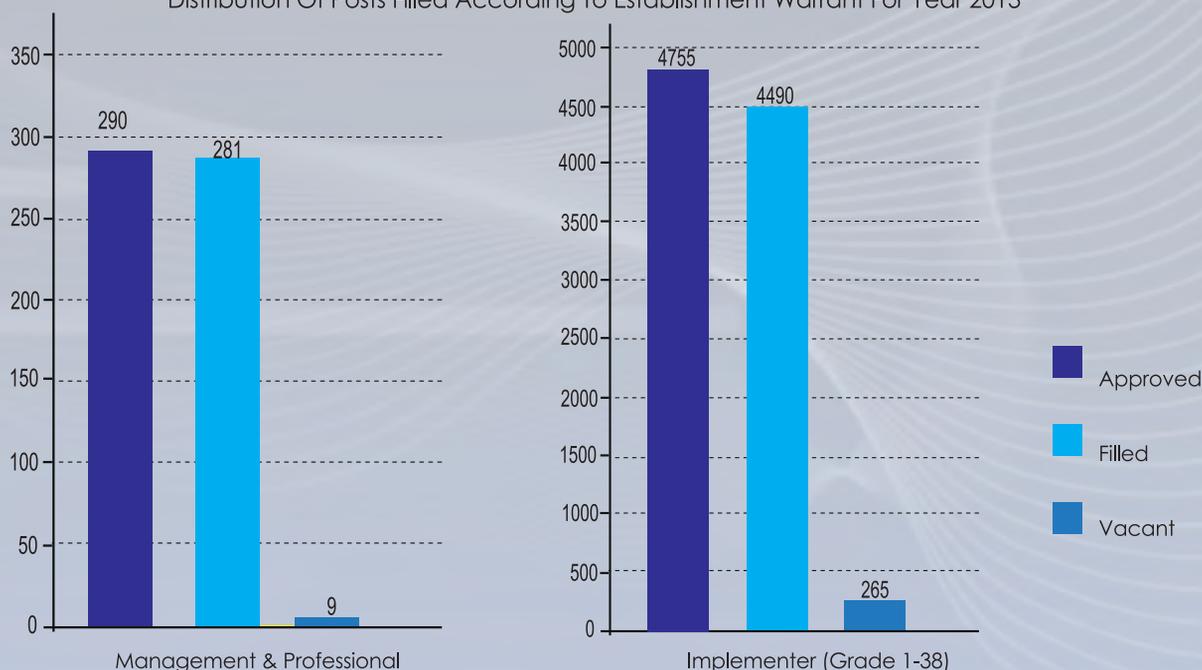
According to the JUPEM Establishment Warrant Year 2013, JUPEM has 5,045 posts as compared to 5,049 posts in 2012. As of 31 December 2013, 4,771 posts had been filled for Top Management Group, Management and Professional Group and the Implementer Group.

GROUP	GRADE	APPROVED	FILLED	VACANT
PREMIER GRADE	(JUSA A, B, C & JUSA C (KUP))	6	6	0
	54	21	21	0
MANAGEMENT & PROFESSIONAL	48-52	66	64	2
	41-44	197	190	7
IMPLEMENTER	17-38	2,344	2,213	131
	1-16	2,411	2,277	134
<b>TOTAL</b>		<b>5,045</b>	<b>4,771</b>	<b>274</b>

Distribution Of Filled Posts For Year 2013



Distribution Of Posts Filled According To Establishment Warrant For Year 2013



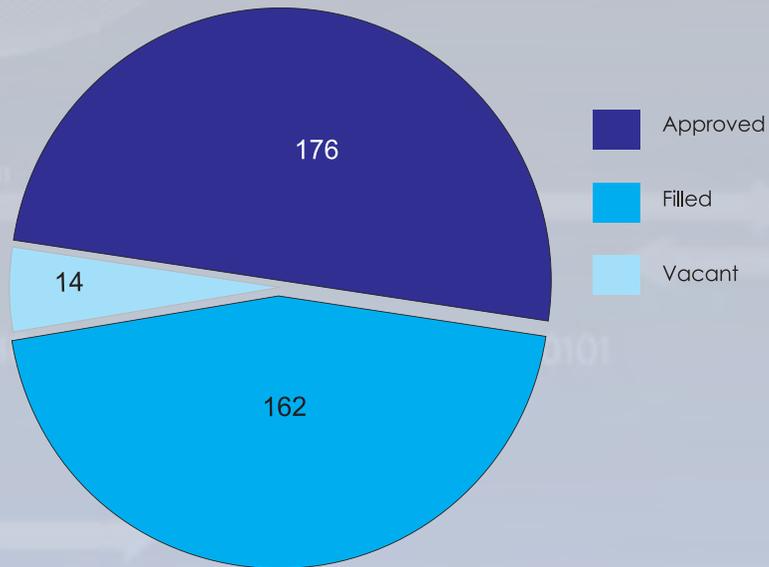
### Cadre Staffing

JUPEM has 176 cadre posts in various government agencies positioned in Ministry of Natural Resources and Environment (NRE), Public Works Department (PWD), National Centre for Geospatial Data Infrastructure (MaCGDI) and National Institute of Land and Survey (INSTUN), Ministry of Housing and Local Government (MHLG), National Security Council (NSC), Election Commission (EC), Ministry of Defence and Department of Mineral and Geoscience (DMG), Peninsular Malaysia Forestry Department (PMFD), Peninsular Malaysia Marine Department, Sarawak Marine Department, Department of Civil Aviation (DCA) and Malaysian Remote Sensing Agency.

The number of JUPEM cadre posts in government agencies is as follows:

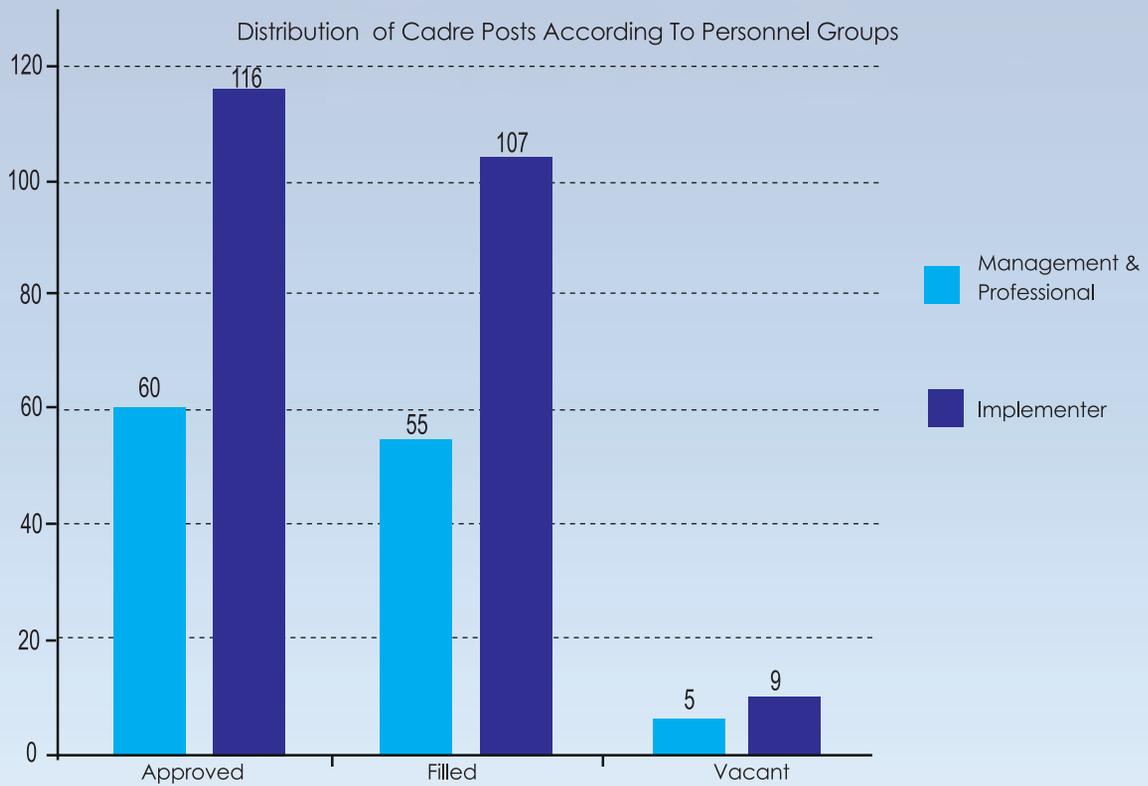
NO.	MINISTRY / DEPARTMENT	APPROVED	FILLED	VACANT
1	Ministry of Natural Resources and Environment (NRE)	1	1	0
2	National Centre for Geospatial Data Infrastructure (MaCGDI)	35	33	2
3	Public Works Department (PWD)	22	22	0
4	National Institute of Land and Survey (INSTUN)	29	26	3
5	Ministry of Housing and Local Government (MHLG)	16	16	0
6	National Security Council (NSC)	2	2	0
7	Election Commission (EC)	1	1	0
8	Department of Mineral and Geoscience (DMG)	38	37	1
9	Peninsular Malaysia Forestry Department (PMFD)	5	4	1
10	Peninsular Malaysia Marine Department (PMMD)	2	2	0
11	Sarawak Marine Department	11	8	3
12	Department of Civil Aviation (DCA)	1	1	0
13	Malaysian Remote Sensing Agency	10	7	3
14	Ministry of Defence	3	2	1
<b>TOTAL</b>		<b>176</b>	<b>162</b>	<b>14</b>

Distribution Of Cadre Posts For Year 2013



The distribution of the cadre posts according to groups is as follows:

Group	Approved	Filled	Vacant
Management & Professional	60	55	5
Implementer	116	107	9
<b>TOTAL</b>	<b>176</b>	<b>162</b>	<b>14</b>



The detail distribution of cadre posts according to groups is as follows :

NO.	POST (MANAGEMENT & PROFESSIONAL)	GRADE	APPROVED	FILLED	VACANT
1	Surveyor	J52	4	3	1
2	Surveyor	J48	9	9	0
3	Surveyor	J44	13	13	0
4	Surveyor	J41	33	29	4
5	Geospatialist	J41	1	1	0
<b>TOTAL</b>			<b>60</b>	<b>55</b>	<b>5</b>

NO.	POST (IMPLEMENTER)	GRADE	APPROVED	FILLED	VACANT
1	Assistant Surveyor	J38	2	1	1
2	Assistant Surveyor	J36	7	7	0
3	Assistant Surveyor	J29/J36 (KUP)	34	30	4
4	Survey Technicians	J26	3	1	2
5	Survey Technicians	J22	15	14	1
6	Survey Technicians	J17/J22 (KUP)	55	54	1
<b>TOTAL</b>			<b>116</b>	<b>107</b>	<b>9</b>

### Promotions

Acting/promotion exercised throughout year 2013 involved 81 staff comprising 29 from the Management and Professional Group and 52 from the Implementer.

### Promotion Board: Management and Professional Group

SCHEME OF SERVICE	PROMOTION/ ACTING TO GRADE	PROMOTION	ACTING	TOTAL
Surveyor Grade J52	J54	1	0	1
Surveyor Grade J48	J52	0	1	1
Surveyor Grade J44	J48	11	1	12
Surveyor Grade J41	J44	12	3	15
<b>TOTAL</b>		<b>24</b>	<b>5</b>	<b>29</b>

### Promotion Board : Implementer Group

SCHEME OF SERVICE	PROMOTION/ ACTING TO GRADE	PROMOTION	ACTING	TOTAL
Assistant Surveyor, J36	J38	1	0	1
Assistant Surveyor, J29	J36	3	0	3
Assistant Surveyor, J29 (KUP)	J36	5	0	5
Survey Technicians, J22	J26	3	0	3
Survey Technicians, J17	J22	19	0	19
General Office Assistant, N1 (KUP)	N4	13	0	13
Driver, R3 (KUP)	R6	2	0	2
General Worker, R1	R4	6	0	6
<b>TOTAL</b>		<b>52</b>		<b>52</b>

### Retirement

Throughout year 2013, a total of 117 staff of various grades had retired covering compulsory retirement, optional retirement and died in service. The details are as shown in the table below:

#### Compulsory Retirement

NO	POST GRADE	TOTAL
1	J36	1
2	J26	1
3	J22	5
4	J17	2
5	N32	1
6	N28	1
7	N22	2
8	N17	2
9	R4	29
10	KP11	1
<b>TOTAL</b>		<b>45</b>

## Optional Retirement

NO.	POST GRADE	TOTAL
1	J52	2
2	J48	1
3	J38	1
4	J36	2
5	J22	13
6	W22	1
7	N22	4
8	N17	6
9	J17	1
10	N1	2
11	R1	26
12	A17	1
<b>TOTAL</b>		<b>60</b>

## Died In Service

NO	NAME	POST GRADE	STATE / SECTION
1	Nor Hamiza binti Zahid Shaghia	N1	JUPEM Pahang
2	Ris Kaharudin bin Mohamed	R1	JUPEM Kedah
3	Halimariana binti Halim	J17	Data Acquisition Section
4	Mohamad Nor bin Ahmad	N4	JUPEM F.T. KL/ Putrajaya
5	Fadzil bin Md Sharif	R4 (KUP)	JUPEM Kedah
6	Mohd Supiya bin Ali	R1	JUPEM Terengganu
7	Biden bin Abdul Rahim	J29	JUPEM Johor
8	Kamaruddin bin Hamzah	J22 (KUP)	JUPEM Terengganu
9	Nasaruddin bin Sain @ Saim	J29	Geodesy Section
10	Anuar bin Mohamad	J22	Peninsular Topography Section
11	Ahmad Munsif bin Abdul Aziz	R1	Peninsular Topography Section
12	Mohd Affendi Bin Hashim	J29	JUPEM Perak

## Disciplinary Action

The Department's Disciplinary Action Management is an operating procedure meant to control the discipline of JUPEM staff that involves warnings, fines, forfeiture of emoluments, deferment of salary movement, reduction of salary, demotion and dismissal. The Department is always cognizant of the misconduct committed by the staff, and take appropriate action based on the Public Officers Regulations 1993 (Conduct and Discipline).

In the year 2013, 18 disciplinary cases were taken action against, while 4 cases are still pending in the Management Group Disciplinary Board (No. 2) and Support Group Disciplinary Board (No. 1 and No. 2) which consists of new cases or cases being tried in court.

The following is the type of offences and case status throughout year 2013:

### Disciplinary Action Case Management

TYPE/Form OF OFFENCE	SETTLED CASES		CASES STILL IN ACTION	
	MANAGEMENT & PROFESSIONAL GROUP	IMPLEMENTER GROUP	MANAGEMENT & PROFESSIONAL GROUP	IMPLEMENTER GROUP
Absent from work		18		4
<b>TOTAL</b>	-	<b>18</b>	-	<b>4</b>

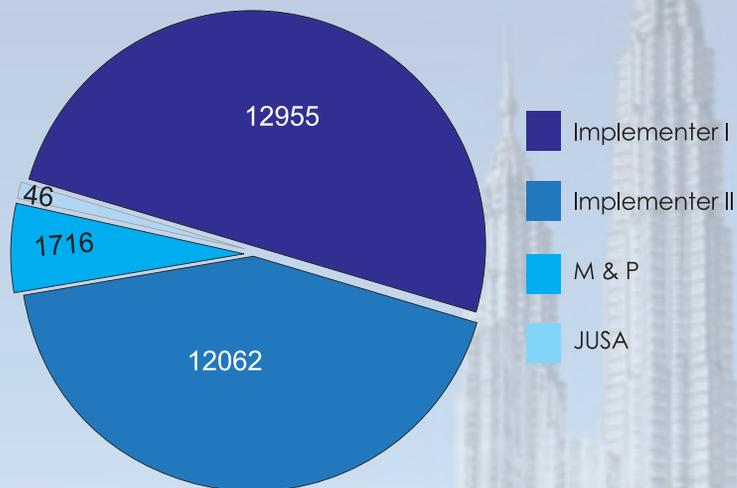
## COURSES AND TRAINING

Continuous training implemented to improve the skills and knowledge of JUPEM's staff. Many opportunities were provided to staff for training, be it at the academic level or in-service training that focuses on the enhancement of skills in line with the department's modernisation and rapid-changing environment. Through this method, JUPEM would be able to produce expert and skilled workforce from amongst its own staff to handle and manage geospatial information as well as in other areas of management.

Numbers of Man-Days Attending Courses/Training For The Year 2013

NO	COURSE FIELD	NUMBER OF DAYS				TOTAL
		JUSA	M&P	IMPLEMENTER I	IMPLEMENTER II	
1.	Compulsory Course (General & Specific Induction)	0	6	20	0	26
2.	Civic Course	0	0	0	0	0
3.	Survey and Mapping Management	19	526	2189	782	3516
4.	Human Resource Management	13	750	5549	6616	12928
5.	Financial Management	6	63	607	330	1006
6.	Quality and Productivity	0	106	1092	995	2193
7.	Information Technology and Communication (ICT)	2	68	422	218	710
8.	Self-Development	6	197	3073	3121	6397
9.	Language and Communication	0	0	3	0	3
<b>TOTAL</b>		<b>46</b>	<b>1716</b>	<b>12955</b>	<b>12062</b>	<b>26779</b>

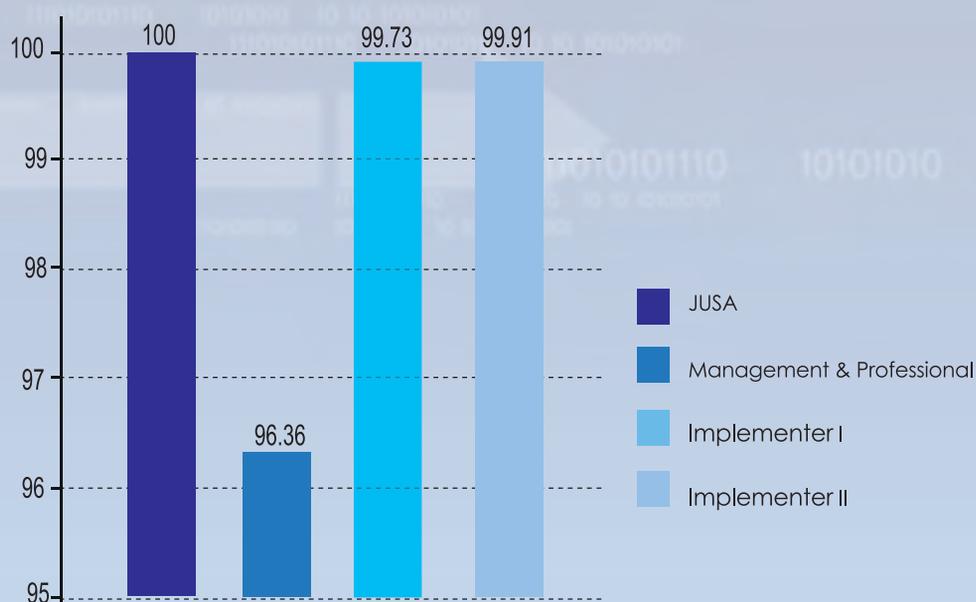
Distribution of the Numbers of Man-Days Attending Courses/Training For The Year 2013



Number of Staff Attending Courses For 7 Days

NO.	GRADE/ GROUP	NUMBER OF POSTS	NUMBER OF POSTS FILLED	SHORT COURSE			NUMBER OF STAFF ATTENDING LONG COURSES > 3 MONTHS
				NUMBER OF STAFF ATTENDING > 7 DAYS A YEAR	NUMBER OF STAFF ATTENDING < 7 DAYS A YEAR	NUMBER OF STAFF NOT ATTENDING COURSES	
1	JUSA	6	6	6	0	0	0
2	Management & Professional	284	275	265	1	0	9
3	Implementer I	2344	2213	2207	1	0	5
4	Implementer II	2411	2277	2275	2	0	0
<b>TOTAL</b>		<b>5045</b>	<b>4771</b>	<b>4753</b>	<b>4</b>	<b>0</b>	<b>14</b>

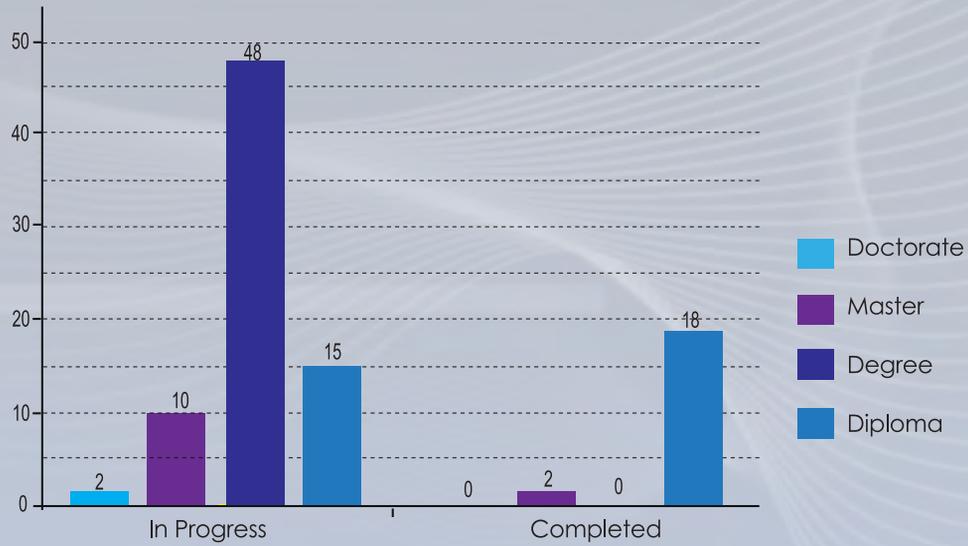
Distribution of Staff Attending Courses For 7 Days



Number of Staff Furthering Studies In 2013

NO.	ACADEMIC LEVEL	IN PROGRESS		COMPLETED		TOTAL
		Part Time	Full Time	Part Time	Full Time	
1	Doctorate	0	2	0	0	2
2	Master	0	10	0	2	12
3	Degree	47	1	0	0	48
4	Diploma	12	3	18	0	33
<b>TOTAL</b>						<b>95</b>

Distribution of Staff Furthering Studies In 2013



### JUPEM GEOPORTAL WEBSITE

JUPEM website [www.jupem.gov.my](http://www.jupem.gov.my) known as the JUPEM Geoportal constantly updated from time to time and is an important medium that connects JUPEM with its customers. The JUPEM Geoportal is a step forward in ensuring that JUPEM's corporate governance is more efficient and consistently meeting customer's requirements.

Through the portal, JUPEM can fulfil the Nation and customer's aspirations by providing centralised JUPEM geospatial information for the purpose:

- Providing a geospatial data management and dissemination of information system online;
- Realising the concept of e-government and information dissemination transaction through e-commerce; and
- Online backup facility providing.



Official Blog of the Director General of Survey and Mapping Malaysia



Department of Survey and Mapping Malaysia Facebook Page



## Department of Survey and Mapping Malaysia Twitter Page



## Number of Online Transactions 2013

Product	NUMBER OF TRANSACTIONS												JUMLAH
	Jan	Feb	Mac	April	Mei	Jun	Julai	Ogos	Sept	Okt	Nov	Dis	
Cadastre	8	0	2	0	0	2	0	0	1	3	4	28	48
Mapping	5485	4126	4839	5273	5024	5231	5441	4531	4916	5571	4631	1199	56267
Geodetic	205	202	199	212	192	212	169	232	263	237	205	100	2428
<b>TOTAL</b>	<b>5698</b>	<b>4328</b>	<b>5040</b>	<b>5485</b>	<b>5216</b>	<b>5445</b>	<b>5610</b>	<b>4763</b>	<b>5180</b>	<b>5811</b>	<b>4840</b>	<b>1327</b>	<b>58743</b>



## FEDERAL AND STATE HONORARY AWARDS RECIPIENTS

### Premier Grade Group

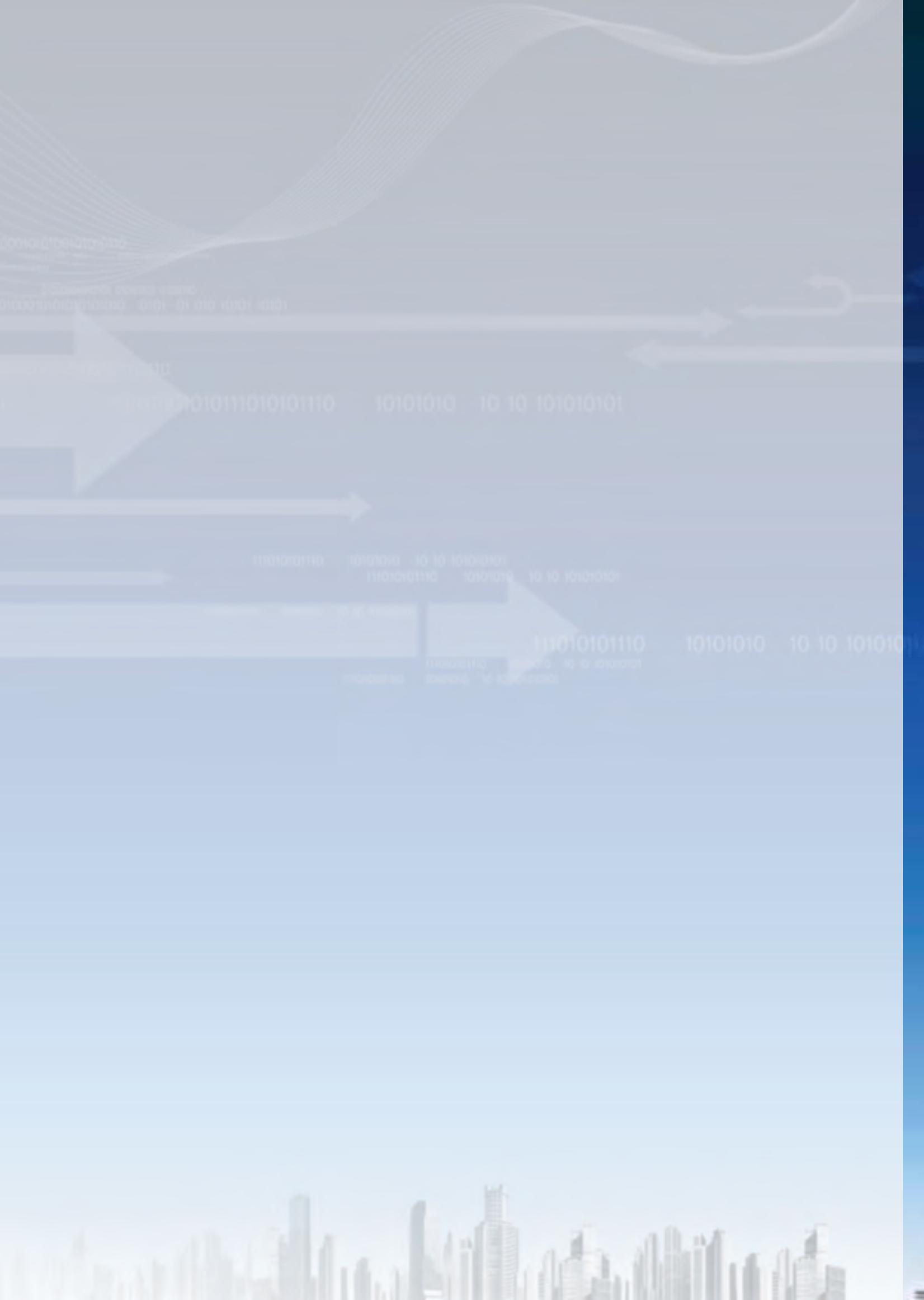
BIL.	NAME OF OFFICER	POST / GRADE	DIVISION / SECTION / STATE	AWARD RECEIVED
1	Sr Ahmad Fauzi bin Nordin	Deputy Director General of Survey and Mapping I (JUSA B)	Deputy Director General of Survey and Mapping I	<i>Darjah Setia Sultan Mizan Zainal Abidin Terengganu Yang Amat Terpilih (S.M.Z)</i>
2	Sr Hasan bin Jamil	Deputy Director General of Survey and Mapping II (JUSA C)	Deputy Director General of Survey and Mapping II	<i>Johan Mahkota Wilayah (J.M.W)</i>

### Management and Professional Group

NO	NAME OF OFFICER	POST / GRADE	DIVISION / SECTION / STATE	AWARD RECEIVED
1	Sr Hj. Hamdani bin Sadiman	Director of Survey and Mapping J54	JUPEM Negeri Sembilan	<i>Kesatria Mangku Negara (K.M.N)</i>
2	Sr Chan Keat Lim	Director of Survey Section J52	Cadastre Division	<i>Ahli Mangku Negara (A.M.N)</i>
3	Sr Kamil bin Ariffin	Deputy Director of Survey and Mapping J52	Peninsular Topography Section	<i>Ahli Mahkota Perlis (A.M.P)</i>
4	Hanin bin Hashim	Geospatial Surveyor J44 (KUP)	Map Printing Section	<i>Ahli Mangku Negara (A.M.N)</i>

## Implementer Group

BIL.	NAME OF OFFICER	POST / GRADE	DIVISION / SECTION / STATE	AWARD RECEIVED
1	Mohamad Yusof bin Abu Aman	Assistant Surveyor, J38	Sabah Topography Section	<i>Bintang Setia Kinabalu (B.S.K)</i>
2	Ahmad Sabri bin Shaari	Assistant Surveyor, J36	JUPEM Kedah	<i>Pingat Perkhidmatan Cemerlang Kedah (P.C.K)</i>
3	Azahar bin Ahmad	Assistant Surveyor, 36	JUPEM Pulau Pinang	<i>Pingat Jasa Kebaktian (P.J.K)</i>
4	En Mohd Nazir bin Ahmad	Survey Technician, J22	JUPEM Perlis	<i>Pingat Jasa Baik (P.J.B)</i>
5	Baba bin Che Ros	Survey Technician, J22	JUPEM Perlis	<i>Pingat Jasa Baik (P.J.B)</i>
6	Siti Norain bin Sinusi	Survey Technician, J22	JUPEM Pulau Pinang	<i>Pingat Jasa Kebaktian (P.J.K)</i>
7	Haji Awang bin Che Amat	Survey Technician, J22	Map Printing Section	<i>Bentara Setia Diraja (B.S.D)</i>
8	Mohamed Ghani bin Mohd Ibrahim	Survey Technician, J22	JUPEM Pulau Pinang	<i>Pingat Jasa Kebaktian (P.J.K)</i>
9	Leang Yoot Ooi	Survey Technician, J22	JUPEM Pulau Pinang	<i>Pingat Jasa Kebaktian (P.J.K)</i>
10	Mathavi a/p Tannimalai	Administrative Assistant, N17	JUPEM Pulau Pinang	<i>Pingat Jasa Kebaktian (P.J.K)</i>
11	Johari bin Mat	Administrative Assistant, N17	JUPEM Selangor	<i>Pingat Jasa Kebaktian (P.J.K)</i>
12	Abdul Latif bin Yen	General Worker, R4	JUPEM Selangor	<i>Pingat Perkhidmatan Cemerlang Selangor (P.P.C)</i>
13	Osman bin Kamaruddin	General Worker, R4	JUPEM Selangor	<i>Pingat Perkhidmatan Cemerlang Selangor (P.P.C)</i>
14	Mohamed Zuber bin Rose	General Worker, R1	JUPEM Pulau Pinang	<i>Pingat Jasa Kebaktian (P.J.K)</i>



# PERFORMANCE 2013





## GEODETIC INFRASTRUCTURE

### GNSS Network Control And Measurement

The measurement method using a Global Satellite Navigation System or GNSS is an efficient, effective and up to date method for obtaining the position of a point on the earth's surface.

JUPEM has used the method that utilises cross-referencing on satellite since the early 90s.

With technological development and modernisation of the GNSS systems, the performance and quality of measurement work improved to benefit the user.



For the year 2013, GNSS survey works involved in planning observations on 800 stations, which also includes measurement to improve the Cadastral Reference Mark (CRM) network for cadastral survey.

The achievement of measurement activities involving GNSS until 31 December 2013 was 918 stations (115%) compared to 800 stations set and the breakdown of activities is as follows:

No	Activity	Station
1	GNSS Observations for the establishment of the Malaysia-Brunei Darussalam Survey Control Network	54
2	GNSS Observations for the GPS Levelling	106
3	GNSS Observations for the Height Modernization System (HMS) project	441
4	GNSS Observations for the Cadastral Reference Mark (CRM)	308
5	Marine Geodetic Infrastructure In Malaysia Water (Magic) Observations	9
<b>Total</b>		<b>918</b>

The five (5) years period performance results for measurement activities involving GNSS is as follows:

Year	Station
2009	529
2010	804
2011	809
2012	818
2013	918



## MyRTKnet

Subsequent to the GNSS technology development, the MyRTKnet (Malaysian Real Time Kinematic Network) system has developed since 2003.

The measurement method utilising Real Time Kinematic is the latest innovation in the determination of a point's relative position.

There are 78 stations with 50 stations in the Peninsular and 14 stations each in Sabah and Sarawak, this system is able to provide precise and accurate measurement work.

The achievement for MyRTKnet activities until 31 December 2013 is as follows:

No	Activity	AWT 2013	Achievement
1.	Operation and Maintenance of MyRTKnet Station	100 times	100 times (100%)
2.	GPS Data Management of MyRTKnet Station	628,617 data hours	628,617 data hours (100%)
3.	Daily GPS Data Processing of MyRTKnet Station	26, 192 data set	26, 192 data set (100%)
4.	Weekly & Yearly GPS Data Processing of MyRTKnet Station	3, 732 data set	3, 732 data set (100%)



The Data Processing Software for GNSS MyRTKnet

## Tidal Observations

The operation of 21 tidal gauge stations (STAPS) amongst which consists of 12 stations in the Peninsular: (1) Jeti Telok Ewa Pulau Langkawi, Kedah, (2) Pulau Pinang Yacht Club George Town, Pulau Pinang, (3) Pangkalan TLDM Lumut, Perak, (4) Dermaga 25 Pelabuhan Utara Pelabuhan Kelang, Selangor, (5) Jeti Tanjung Bruas Tanjung Keling, Melaka, (6) Jeti Kukup, Johor, (7) Jeti Kastam Johor Bahru, Johor, (8) Kompleks LKIM Tanjung Sedili, Johor, (9) Jeti Berjaya Beach Resort Pulau Tioman, Pahang, (10) Pelabuhan Kuantan Tanjung Gelang, Pahang, (11) Kompleks LKIM Cendering, Terengganu and (12) Kompleks LKIM Getting, Kelantan, while 6 stations in Sabah:



(1) Pelabuhan Kota Kinabalu, (2) Kudat, (3) Pelabuhan Sandakan, (4) Lahad Datu, (5) Pelabuhan Tawau, and (6) Pulau Labuan and another 3 stations located in Sarawak: (1) Sejingkat, Kuching, (2) Pelabuhan Bintulu, Bintulu and (3) Marina Park Miri, is to measure the mean sea level that will be used as an accurate vertical datum and utilised as a basic reference for level measurement work.



The achievement for tidal observations activities until 31 December 2013 is as follows:

Location	Total Station	AWT 2013	Achievement
Peninsular	12	144 set	144 set (100%)
Sabah	6	72 set	72 set (100%)
Sarawak	3	36 set	36 set (100%)

The data collected will be processed and published in the form of a book that is the Tidal Observations Record Book and Tidal Forecast Schedule Book. These published books include observation data for all the 21 STAPS in the whole country.

Until 31 December 2013, the publication of the Tidal Observations Record Book for 2012 for 21 STAPS stations throughout Malaysia is fully completed. Meanwhile, the Tidal Forecast Schedule Book for the year 2015 has also been completed for 21 STAPS stations.

Achievement	Tidal Observations Record Book	Tidal Forecast Schedule Book
AWT 2012	1 book	1 book
2012 Achievement	1 book (100%)	1 book (100%)
AWT 2013	1 buku	1 book
2013 Achievement	1 book (100%)	1 book (100%)

## Network Levelling

Levelling measurements are to obtain the height of a point on the surface of the earth. JUPEM has conducted two types of levelling measurements that are the Precise Levelling and Second Class Levelling. The measurement and processing of levelling data cover the works carried out in the Peninsular, Sabah and Sarawak.



Routes that have made precise levelling data processing for 2013 in the Peninsular are the Mersing route to Tg. Penawar (Desaru) through Jemaluang till Tenggara Bandar Mas, Pekan till Nenasi route, Nenasi route to Leban Chondong, Leban Chondong route to Padang Endau, Kuala Kangsar route to Gerik, Bahau route to Gemas, Pengkalan Hulu route to Gerik, Kuala Kangsar route through Manong, Tg. Belanja, Bota Kiri, Seberang Perak, Simpang Sitiawan up to Teluk Intan and Chemor route through Tanjung Rambutan and Tambun up to Ipoh. In Sarawak includes the Sibul/Pangkalan Feri junction route to Tanjung Manis Pangkalan Feri Sg. Nai junction and Selangau/Sibu/Bintulu junction to Mukah/Balingian junction. While in Sabah this includes Ranau route to Tambunan/Kota Kinabalu junction up to Penampang.

The achievement of levelling works until 31 December 2013 is as follows:

Activity	Achievement
Precise Levelling	724 stations
Second Class Levelling	0 station
Precise Levelling Data Processing	749 stations
Second Class Levelling Data Processing	104 stations

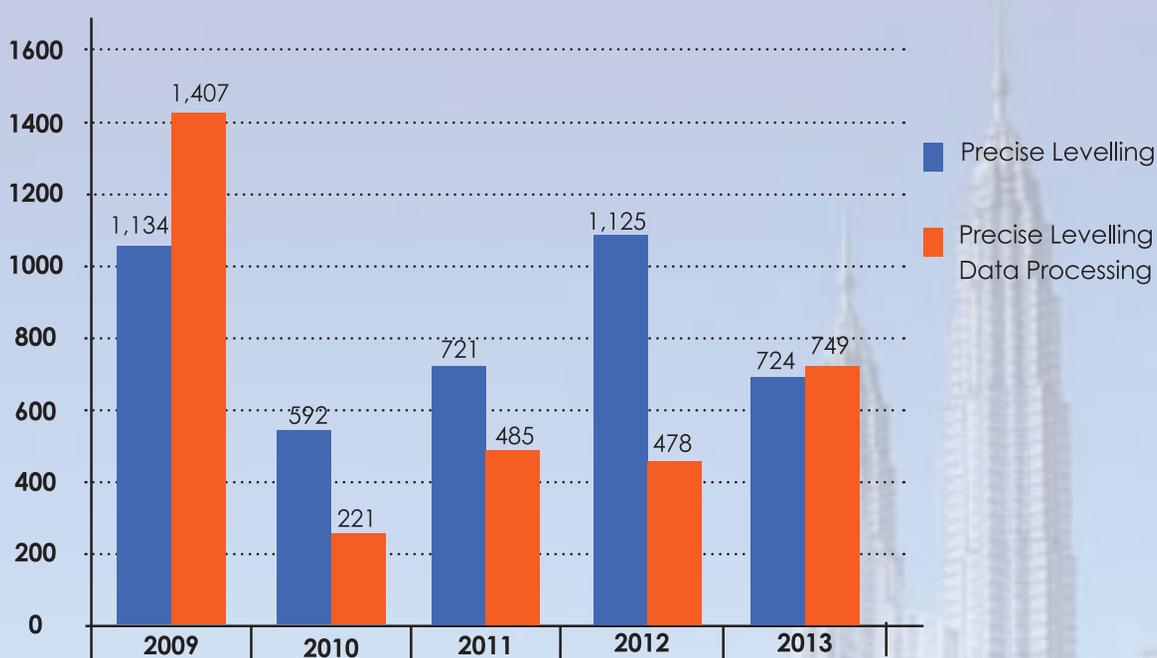
The AWT achievement for precise levelling work activities until 31 December 2013 is as follows:

Precise Levelling		Precise Levelling Data Processing	
AWT 2013	2013 Achievement	AWT 2013	2013 Achievement
482 stations	724 stations (150%)	600 stations	749 stations (124%)

The five (5) years period achievements for precise levelling work activities is as follows:

Year	Precise Levelling Station	Precise Levelling Data Processing (station)
2013	724	749
2012	1,125	478
2011	721	485
2010	592	221
2009	1,134	1,407

The five (5) years period achievements for precise levelling work activities is as follows:



The AWT achievement for second class levelling work activities until 31 December 2013 is as follows:

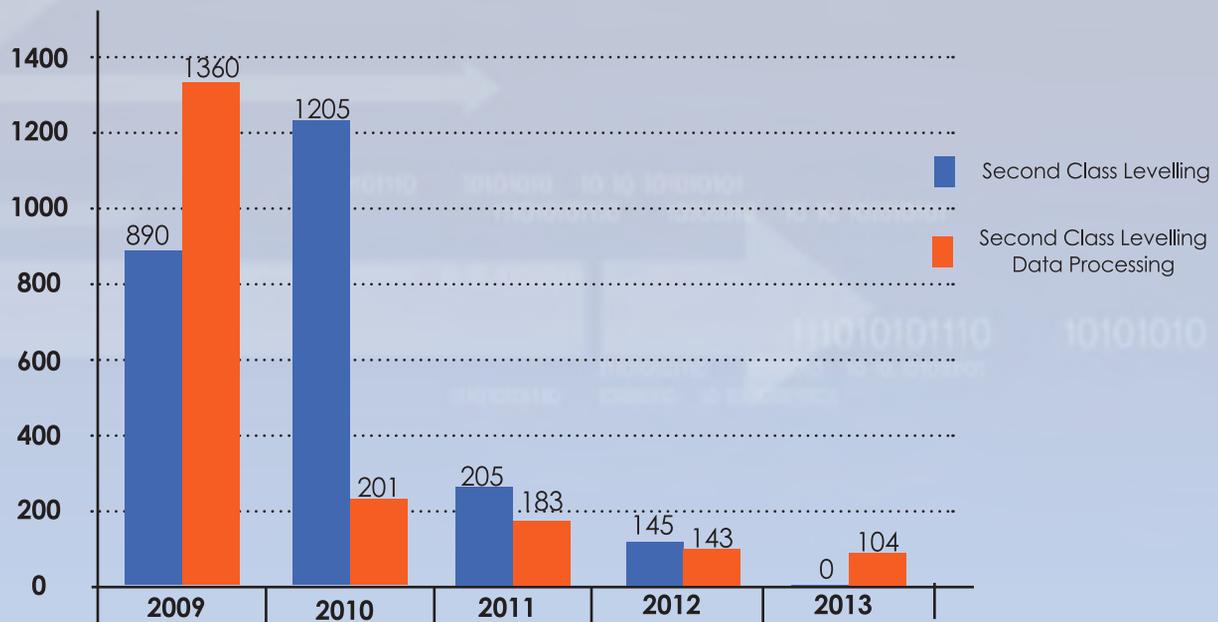
Second Class Levelling		Second Class Levelling Data Processing	
AWT 2013	2013 Achievement	AWT 2013	2013 Achievement
0 station	0 station (0%)	100 stations	104 stations (104%)

The five (5) years period achievement for second class levelling work activities is as follows:

Year	Second Class Levelling (station)	Second Class Levelling Data Processing (station)
2013	0	104
2012	145	143
2011	205	183
2010	1,205	201
2009	890	1,369

Note: Second Class Levelling not conducted in 2013 due to the focusing on Topographic Maps and Thematic Maps Mapping activities.

The five (5) years period achievements for second class levelling work activities is as follows:



## Gravity Measurement

Gravity measurement in Malaysia conducted since the 1970s. In Malaysia, JUPEM has played a major role in carrying out gravity measurements for obtaining orthometric height correction. This orthometric height will be utilised as a reference for mapping, engineering, scientific research and other works.

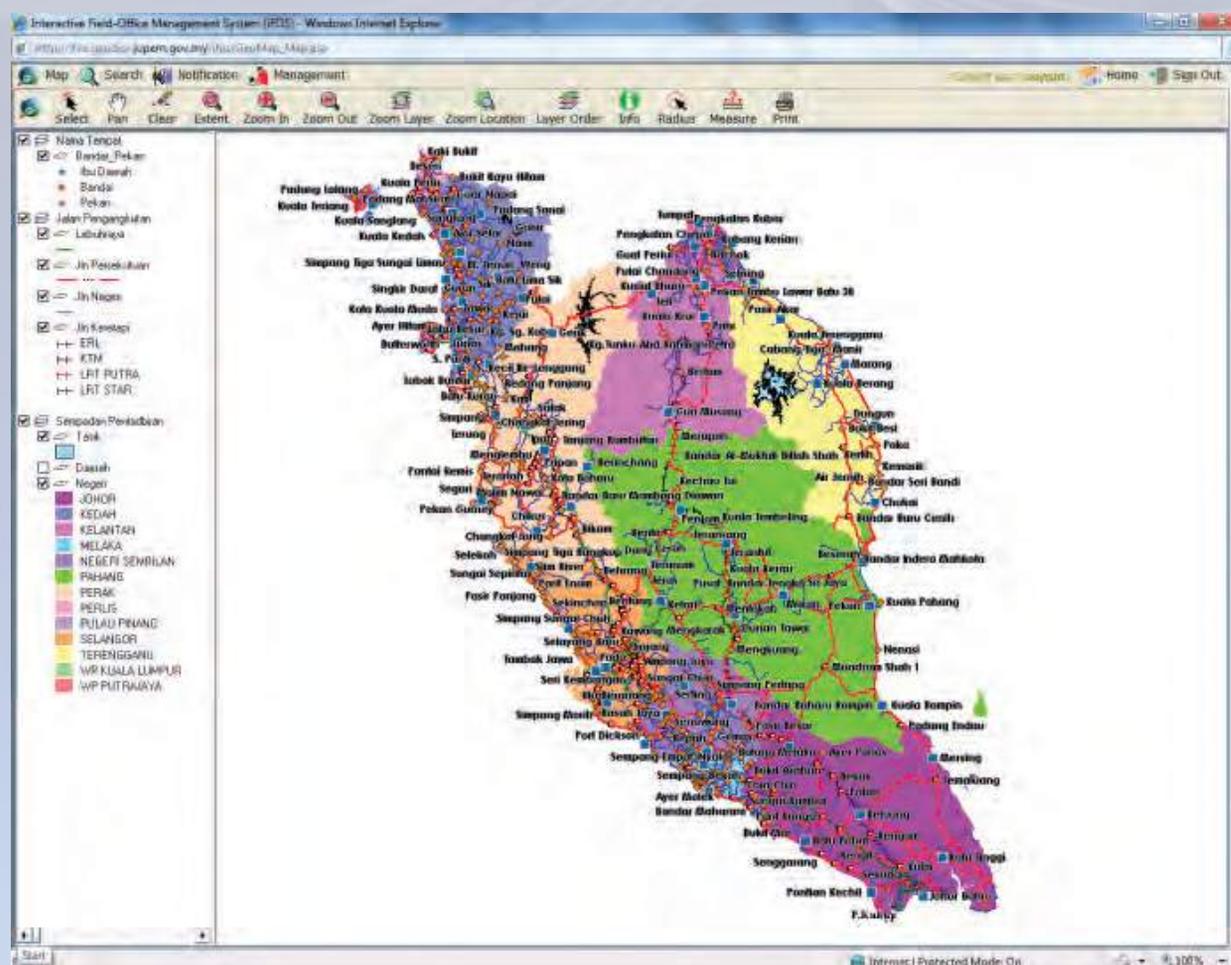


For the year 2013, plans made to set up 800 stations for the Third Order Gravity observation in the state of Perak and Pahang Darul Makmur

The achievement for this activity until 31 December 2013 is as follows:

AWT 2012	2012 Achievement	AWT 2013	2013 Achievement
800 stations	845 stations (106%)	800 stations	802 stations (100%)

### System iFOS



The Interactive Field-Office Management System For Geodetic Measurement (iFOS) is specially developed to help the process of planning, implementing and monitoring of geodetic survey work. This system is capable of performing the compilation process, the topographic fieldwork and editing for the updating of geodetic data between the Geodesy Section and the Topography Peninsular Section that are divided in accordance to regions with Kuala Lumpur for the Western Region, Segamat for the Southern Region, Taiping for the Northern Region and Kuantan for the Eastern Region.

Throughout year 2013, there are 48 times of maintaining and system-testing activities successfully carried out as scheduled:

AWT 2012	2012 Achievement	AWT 2013	2013 Achievement
48 times	48 times (100%)	48 times	48 times (100%)

## Levelling Calibration Laboratory

The levelling calibration laboratory established to enable calibration for various barcoded levelling rods and equipment used by JUPEM. The laboratory is located at the Map Printing Section building. The laboratory maintenance conducted periodically to ensure the equipment, devices and systems in the said lab are always in good and secure condition as well as to operate smoothly. Throughout the year 2013, calibration activity on levelling rods was successfully conducted with 24 times and this is a 100% succeed achievement based on the AWT set.



## Astronomy

JUPEM is an agency directly involved in the field of astronomy especially in the preparation of *rukyah* and *hilal* data. By being a member of the National Council for State Islamic Affairs, JUPEM has played its role by providing services to the public especially in the preparation of the Islamic calendar, *Qibla* direction determination, observations of *rukyah* and *hilal* for the determination of important dates in the Islamic calendar such as the determination of *Ramadan* and *Syawal*.

The achievement for astronomy related activities until 31 December 2013 is as follows:

No	Activity	AWT 2013	Achievement
1.	<i>Rukyah</i> and <i>Hilal</i> Astronomical Calculations	30 stations	30 stations (100%)
2.	<i>Hilal</i> Observations at the Teluk Kemang Observatory for the Review of the <i>Imkanur Rukyah</i> Criteria	9 times	9 times (100%)
3.	SkyLight Research Observation	6 times	6 times (100%)

In year 2013, the data preparation to determine the beginning of *Ramadan*, *Syawal* and *Zulhijjah* for the year 1434 *Hijrah* was conducted in 29 new moon observation stations ie: (1) Kuala Sungai Baru Simpang Empat, Perlis, (2) Menara Telekom, Alor Setar, Kedah, (3) Pulau Sayak, Kuala Muda, Kedah, (4) Pemandangan Indah, Langkawi, Kedah, (5) Pantai Aceh, Pulau Pinang, (6) Pantai Pasir Panjang, Perak, (7) Bukit Malawati, Kuala Selangor, Selangor, (8) Balai Cerap Selangor, Bandar Nakhoda Omar, Selangor, (9) Bukit Jugra, Selangor, (10) Menara Kuala Lumpur, (11) PICC Putrajaya, (12) Telok Kemang, Negeri Sembilan, (13) Tanjung Bidara, Melaka, (14) Pontian Kechil, Johor, (15) Bukit Tanjung Batu, Nenasi, Pekan, Pahang, (16) Bukit Pelindung, Kuantan, Pahang, (17) Gunung Berinchang, Cameron Highlands, Pahang, (18) Bukit Geliga, Kemaman, Terengganu, (19) Bukit Besar, Kuala Terengganu, Terengganu, (20) Merang, Setiu, Terengganu, (21) Pulau Perhentian, Besut, Terengganu, (22) Menara Bangunan SEDC, Kota Bharu, Kelantan, (23) Bukit Peraksi, Pasir Puteh, Kelantan, (24) Bukit Kampung Tembeling, Kuala Krai, Kelantan, (25) Tanjung Dumpil, Putatan, Sabah, (26) Menara Universiti Malaysia Sabah, Labuan, (27) Tanjung Lobang, Miri, Sarawak, (28) Tanjung Batu, Bintulu, Sarawak and (29) Teluk Bandung, Kuching, Sarawak.

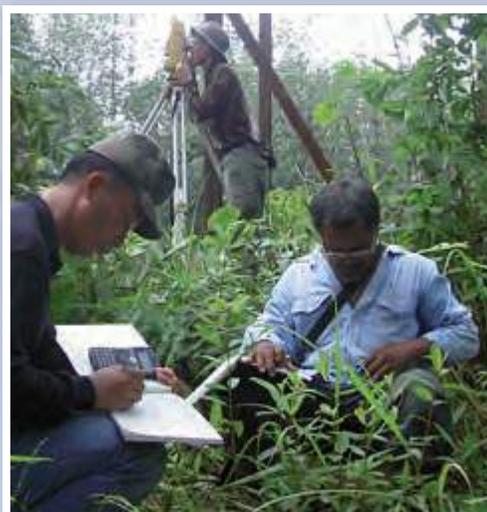
*Hilal* Observation Stations Location Throughout Malaysia



## INTERNATIONAL BOUNDARIES

### Malaysia - Thailand Land Border

The demarcation and survey of border project between Malaysia - Thailand measuring 551.5 km in length commenced on 6 July 1973 and completed on 26 September 1985. This project is a joint-implementation with the Royal Thai Survey Department (RTSD). At this time, the activity conducted under the project is Multi-Purpose Survey, which includes Investigation Survey, Verification and Maintenance works for the Malaysia-Thailand International Boundary.



The achievement of the activities completed for the Priority Area IXA (BP27-BP29) and Priority Area IXB (BP29-BP33) until 31 December 2013 is as follows:

AREA	AWT 2013 (KM)	ACHIEVEMENT (%)
Seksyen A- IXA (BP27-BP29)	5.0	5.0 km (100%)
Seksyen B- IXA (BP27-BP29)	4.7	4.7 km (100%)
Seksyen C- IXA (BP27-BP29)	4.8	5.8 km (100%)
Seksyen D- IXA (BP27-BP29)	4.3	4.3 km (100%)
Seksyen A- IXB (BP27-BP33)	6.0	6.0 km (100%)
Seksyen B- IXB (BP27-BP33)	4.8	4.8 km (100%)
<b>Jumlah</b>		<b>29.60km</b>

**Malaysia – Indonesia Land Border**

On 22 - 24 November 2012 the 37<sup>th</sup> meeting of the Joint Committee on Indonesia - Malaysia Border was held in Miri, Sarawak, Malaysia, to discuss the Sarawak - West Kalimantan and Sabah – East Kalimantan International Border Survey Project. Both parties agreed to conduct survey investigation, verification and maintenance work (IRM) in Priority Area II (G-H) from G524 - G594, Sarawak – West Kalimantan with a distance of 14.7 km and Sub Sector A200 - A500, Priority Area I (A-B) Sabah – East Kalimantan as far as 9.4 km, which was successfully completed in late June 2013.



The achievement for survey investigation, verification and maintenance work activities until 31 December 2013 is as follows:

AREA	AWT 2013	ACHIEVEMENT 2013
Sarawak-West Kalimantan	14.4 km	14.7 km (102%)
Sabah-East Kalimantan	9.4 km	9.4 km (100%)

### Malaysia – Indonesia Maritime Border

The Maritime Boundary Determination Meeting between Malaysia and Indonesia conducted according to plan, where JUPEM is a member of the Technical Committee for the Limitation of the Malaysia-Indonesia Maritime Boundary, which established in March 2005 and led by the Ministry of Foreign Affairs.

In addition, a Technical Working Group headed by the Director of Survey Section (Boundary Affairs) established under the said committee to discuss technical issues related to limitation of maritime border between Malaysia and Indonesia.



The meetings related to boundaries between Malaysia and Indonesia, held and attended by the department in year 2013 is as follows:

NO	MEETING/DISCUSSION	DATE
1	Intersessional Meeting for the 25 <sup>th</sup> Technical Meeting On Maritime Boundaries Delimitation Between Malaysia And The Republic of Indonesia at Wisma Putra, Putrajaya.	26 August 2013
2	The 25 <sup>th</sup> Technical Working Group (TWG) Meeting On Maritime Boundaries Delimitation Between Republic of Indonesia and Malaysia in Manado, Indonesia.	10-12 September 2013
3	Intersessional Meeting for the 26 <sup>th</sup> Technical Meeting On Maritime Boundaries Delimitation Between Malaysia And The Republic of Indonesia at Wisma Putra, Putrajaya	10 October 2013
4	The 26 <sup>th</sup> Technical Meeting On Maritime Boundaries Delimitation, Between Malaysia And The Republic of Indonesia in Johor Bahru, Johor.	18-20 October 2013

### Malaysia – Singapore Maritime Border

The Joint Survey Works between Malaysia and Singapore conducted as an early preparation for the maritime border determination work around Pedra Branca, Middle Rocks and South Escarpment. JUPEM Boundary Affairs Section also involved as joint secretariat in the border meeting. Until 31 December 2013, four (4) Sub-Committee Meeting on Joint Survey Work Malaysia - Singapore around Pedra Branca, Middle Rocks and South Escarpment were held and are as follow:



NO	MEETING/DISCUSSION	DATE
1.	Meeting to discuss the Terms of Reference (TOR) for Sub-Committee Maritime Border of Pedra Branca and Middle Rocks at Wisma Putra, Putrajaya.	4 November 2013
2.	Inter-Agency Meeting to face the 7 <sup>th</sup> Meeting of the Joint Malaysia-Singapore Technical Committee at Wisma Putra, Putrajaya.	11 November 2013
3.	Special Meeting on Maritime Border Between Pedra Branca And Middle Rocks at Wisma Putra, Putrajaya.	20 November 2013
4.	The 7 <sup>th</sup> Meeting of the Joint Malaysia-Singapore Technical Committee On Maritime Boundaries Delimitation in Singapore.	28-29 November 2013

#### Malaysia – Vietnam Maritime Border

JUPEM is also involved with Maritime Boundaries Delimitation between Malaysia-Vietnam. The following are the meetings held to discuss issue related to Malaysia and Vietnam pertaining on the Commercial Arrangement Area for 2013:

NO	MEETING/DISCUSSION	DATE
1	Meeting discussed issues related to Malaysia and Vietnam Commercial Arrangement Area (PM3 CAA) in Ho Chi Minh City, Vietnam.	18 - 20 March 2013
2	Briefing Organized by Talisman Malaysia About PM3 Commercial Arrangement Area Production Sharing Contract (PM3 CAA PSC) between Malaysia and Vietnam in Ampang, K.Lumpur.	8 April 2013
3	Inter-Agency Meeting to discuss Issues About Malaysia - Vietnam Commercial Arrangement Area Production Sharing Contract (PM3 CAA PSC) at Wisma Putra, Putrajaya.	16 April 2013
4	The 2 <sup>nd</sup> Meeting on Malaysia - Vietnam Commercial Arrangement Area (PM3 CAA) issues in Genting Highland, Pahang.	7-8 May 2013
5	The 3 <sup>rd</sup> Meeting on Malaysia - Vietnam Commercial Arrangement Area (PM3 CAA) issues in Hanoi, Vietnam.	10-11 December 2013

## Malaysia – Brunei Darussalam Land Border

In the 8<sup>th</sup> Technical Working Group Land Border meeting of Malaysia-Brunei held in Johor Bahru, Johor on the 19 - 21 March 2013, measurement work planning has amended from sector (E-F) to part of sector (A-B) with a distance of 13 km. Until 31 December 2013, demarcation and survey works for part of sector (A-B) with a distance of 13 km cannot be carried out due to old marks (IP1 - IP19) have not been proven in position. Accordingly, the 9<sup>th</sup> Meeting of the Technical Committee held in Bandar Seri Begawan, Brunei Darussalam on the 9 - 11 September 2013 decided to continue proving the old marks up to Bukit Teraja before further action made. Preliminary work and preparation before starting the demarcation survey for the Malaysia-Brunei Darussalam international border done in collaboration between Brunei and JUPEM Geodesy Section.

In year 2013, meetings and activities of international land boundary between Malaysia and Brunei Darussalam involving JUPEM Boundary Affairs Section is as follows:

NO	MEETING/DISCUSSION	DATE
1	The 8 <sup>th</sup> Meeting of the Joint Technical Committee of Land Boundaries between Malaysia and Brunei in Johor Bahru, Johor.	19-21 March 2013
2	The 9 <sup>th</sup> Meeting of the Joint Technical Committee of Land Boundaries between Brunei Darussalam and Malaysia in Brunei Darussalam.	9-11 September 2013
3	Joint Project Directors Meeting Malaysia - Brunei Darussalam International Land Border in Kota Kinabalu, Sabah.	1-3 October 2013
4	The 13 <sup>th</sup> Bilateral Meetings Regarding Implementation of EoL Between Malaysia and Brunei Darussalam in Brunei.	6-7 December 2013
5	Opening Ceremony of Friendship Bridge between Brunei Darussalam - Malaysia (Sg. Pandaruan)	8 December 2013

## STATE BOUNDARIES

### The Border Determination, Demarcation And Survey Project Between The States Of Peninsular Malaysia

The border determination, demarcation and survey activities between the states of Peninsular Malaysia only involved the borders between the state of Terengganu and Kelantan as well as those of Kedah and Perlis until 31 December 2013 is as follows:

TERENGGANU – KELANTAN BORDER	AWT 2013	2013 ACHIEVEMENT
Priority Area II; Bukit Yong Trigonometry Station – Gunung Kambing Trigonometry Station.	50 km	19.8 km (40%)
Priority Area III; Gunung Kambing Trigonometry Station –Kachang Trigonometry Station.		59.8 km (120%)

KEDAH – PERLIS BORDER	AWT 2013	2013 ACHIEVEMENT
From the Sanglang River Estuary to the Kerbau Berlaga Village	5.6 km*	-

Note: \* In the process of revising the draft of the Memorandum of Understanding (MoU) by the two states.



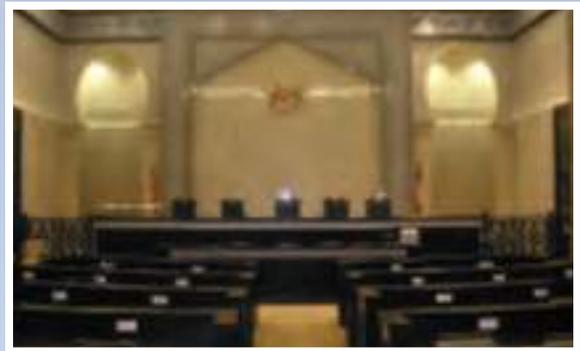
The following is the department in 2013 attended a list of meetings related to the border issues between states:

BIL	DISCUSSION	DATE
1	The Joint Boundary Demarcation and Survey Among the States in Peninsular Malaysia Project Trust Fund Committee Meeting No.1/2013 at Wisma Sumber Asli, NRE, Putrajaya	10 January 2013
2	Meeting To Finalise The Memorandum of Understanding (MoU) and to discuss about the MOU Signing Ceremony of Joint Border Demarcation and Survey Between Kedah and Perlis at Wisma Sumber Asli, NRE, Putrajaya	28 May 2013
3	The Technical Committee Meeting of Joint Border Demarcation and Survey Between Federal Territory of K.Lumpur and Putrajaya with State of Selangor at PTG WPKL, K.Lumpur	5 June 2013
4	Joint Technical Committee Meeting (JTC) of Joint Border Demarcation and Survey Between State of Melaka and Johor in Muar, Johor	5-6 June 2013
5	The Joint Boundary Demarcation and Survey Among the States in Peninsular Malaysia Project Trust Fund Committee Meeting No.2/2013 at Wisma JUPEM, K.Lumpur	9 July 2013
6	Intersessional National Committee Meeting of the States Joint Border Demarcation and Survey (JKPPSBN) No.1/2013 at Wisma Sumber Asli, NRE, Putrajaya	5 September 2013

7	Technical Committee Meeting for the Selangor and Perak Joint Border Demarcation and Survey at PTG Selangor, Shah Alam	9 September 2013
8	National Committee Meeting of the States Joint Border Demarcation and Survey (JKPPSBN) No.1/2013 at Wisma Sumber Asli, NRE, Putrajaya	12 September 2013
9	Meeting of Coordination Technical Issues and Joint Boundary Coordinate System Analysis Between Melaka and Johor at Wisma JUPEM, K.Lumpur	12-13 September 2013
10	Preparatory Meeting for the Borders MoU Signing Ceremony and Border Demarcation and Survey of Negeri Sembilan - Pahang & Negeri Sembilan – Melaka at Wisma Sumber Asli, NRE, Putrajaya	2 October 2013
11	Johor-Melaka Technical Issues Border Coordination Meeting and NDCDB Data Coordination of Johor-Melaka border at Wisma JUPEM, K.Lumpur	16 October 2013

#### COURT CASE EXPERT WITNESS

JUPEM officers called as expert witness in court involving cases where foreign anglers and vessels invaded into Malaysian water. Until 31 December 2013, there are ten (10) trial cases attended by JUPEM to verify the Malaysian water intrusion location caught by the Malaysian Maritime Enforcement Agency (MMEA). The trial cases attended is as follows:



NO	TRIAL CASES	DATE
1	Court Case Related To Police Report No.002226/2011 in Kangar Magistrate Court, Perlis	5 March 2013
2	Court Case Related To Police Report No.SDK-83-1688/12-2012 in Sandakan Court, Sabah	26-27 March 2013
3	Court Case Related To Police Report No.CJB001849 in Sessions Court Kota Tinggi, Johor	1-3 April 2013
4	Court Case Related to Case No.SDK-83-1688/12-2012 in Sandakan Court, Sabah	10-11 June 2013

5	Court Case Related to Case No.SDK-83-1688/12-2012 in Sandakan Court, Sabah	8-9 July 2013
6	Court Case Related To Police Report in Magistrate Court Yan, Kedah	22 July 2013
7	Court Case Related to Case No.SDK-83-1688/12-2012 in Sandakan Court, Sabah	25-26 July 2013
8	Court Case Related to Subpoena Case 801927 Related To Police Report GITA/006732/13 in Magistrate Court Kuching, Sarawak	26-30 August 2013
9	Court Case Related to Subpoena Case 801930 Related To Police GITA/005996/13 in Magistrate Court Kuching, Sarawak	29-30 August 2013
10	Court Case Related to Subpoena Case 801945 Related To Police GITA/006732/13 in Magistrate Court Kuching, Sarawak	30 September 2013

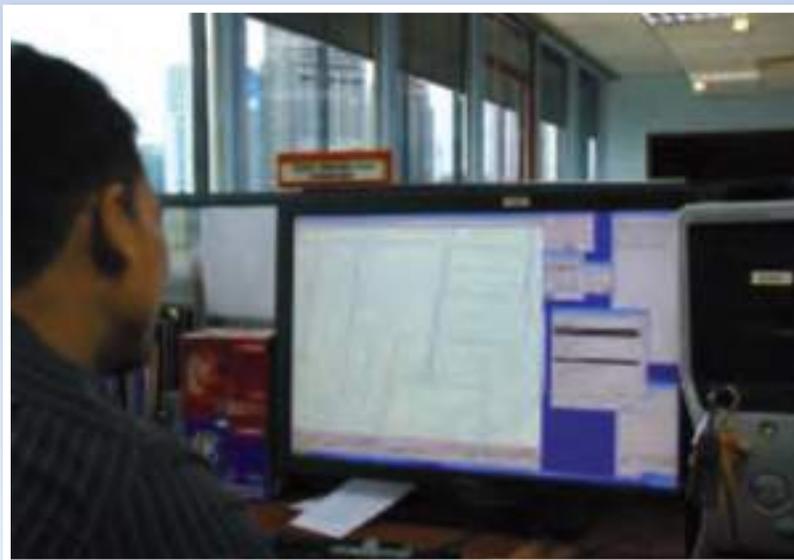
## MAP PUBLISHING

As the agency directly involved with the publishing and production of mapping products such as topographic maps, aerial photography and others, several activities involving survey and data processing are conducted before a map is generated. These activities involve data collection in the field and the processing of survey data.

### Data Acquisition

Data acquisition activities involve work such as aerial photography and preparation of contact prints, control point selection, preparation of field completion data set and orthophoto map.

Island maps that have been completed are the Bohayan Island (includes Tagabua Island, Tanah Island, Malundang Island and Manjinkil Island), Tabawan Island and Silumpat Island, Tagabua Island, Selakan Island, Gatahan Island and Bait Island.



In addition, data acquisition activities also involve the preparation of satellite images orthorectification data and data preparation for the Malaysian Armed Forces, public users and other departments as well as private agencies.

The achievement for data acquisition activities until 31 December 2013 is as follows:

Activity	AWT 2012 (Sheet)	2012 Achievement (Sheet)	AWT 2013 (Sheet)	2013 Achievement (Sheet)
Aerial Photography, Satellite Image Acquisition and InSAR Data	63	117 (186%)	145	148 (102%)
Control Point Selection	51	59 (116%)	114	156 (137%)
Field Completion Data Set Preparation	112	136 (121%)	174	180 (103%)
Orthophoto Maps Preparation	99	99 (100%)	100	124 (124%)
DTM Data Preparation	-	-	85	85 (100%)
Satellite Images Orthorectification Data Preparation	37	79 (214%)	180	180 (100%)
Data Preparation for the Malaysian Armed Forces, Public Users and Other Departments / Private Agencies	70	144 (206%)	70	100 (143%)
Island Maps Preparation	5	5 (100%)	5	6 (120%)

### Control Point Survey

Control point measurement conducted to obtain planimetry coordinates and control point elevation information that used as a control model in the stereo plotter.

The control point value is important in photogrammetry survey work where aerial triangulation adjustments done by using the said information.



The achievement for control point survey activities until 31 December 2013 is as follows:

Map Series	AWT 2013 (Sheet)	2013 Achievement (Sheet)
MY502A (SEM)	6	6 (100%)
MY512A (SWK)	2	2 (100%)
MY701T (SEM)	9	19 (211%)
MY711T (SWK)	2	9 (450%)
MY711T (SBH)	20	37 (185%)
<b>TOTAL</b>	<b>39</b>	<b>73</b>

## Database



In line with the requirements of mapping and the Geographic Information System, JUPEM has created two types of databases which are the topographic and cartographic databases. The topographic database scale is in 1:5,000, 1:10,000 and 1:25,000, and produced by means of photogrammetry and survey work in the field methods. Topographic database will be utilised again in the map revision process and is the latest source of digital data obtained from JUPEM. Whereas the cartographic database is generated from the topographic database and published as printed maps at the scales of 1:10,000 and 1:50,000.

In the process of producing topographic and cartographic databases, editing needs to be conducted on the topographic dataset using Gothic Lamps 2 software before validation and seamless process conducted with Radius Studio software. Next, the 1:25,000-scale dataset will go through the process of generalisation into the 1:50,000 scale using Radius Clarity software. Then, the result of the generalisation process that is the cartographic data set shall be arranged in the form of maps and are ready for proof print preparation.

The topographic data generated is based on the Malaysian Standard MS1759 – Feature and Attribute Codes where JUPEM is the custodian for the Built-Environment, Demarcation, Hypsography and Utility categories as well as being the pillar agency for Aeronautical, Geology, Hydrography, Transportation, Vegetation and General categories.

The achievement for database development activities until 31 December 2013 is as follows:

Activity	AWT 2012 (Sheet)	2012 Achievement (Sheet)	AWT 2013 (Sheet)	2013 Achievement (Sheet)
Preparation of 1:50,000 Scale Database	180	165 (92%)	165	166 (100%)
Preparation of 1:25,000 Scale Database	320	299 (93%)	320	324 (101%)
Preparation of 1:5,000 & 1:10,000 Scale Database	120	69 (58%)	100	100 (100%)
Preparation of MY701, MY711T dan L808 Series Seamless Data	-	-	68	68 (100%)
Preparation of MY601T Series Seamless Data	127	189(149%)	200	273 (137%)

## Topographic Map Updating

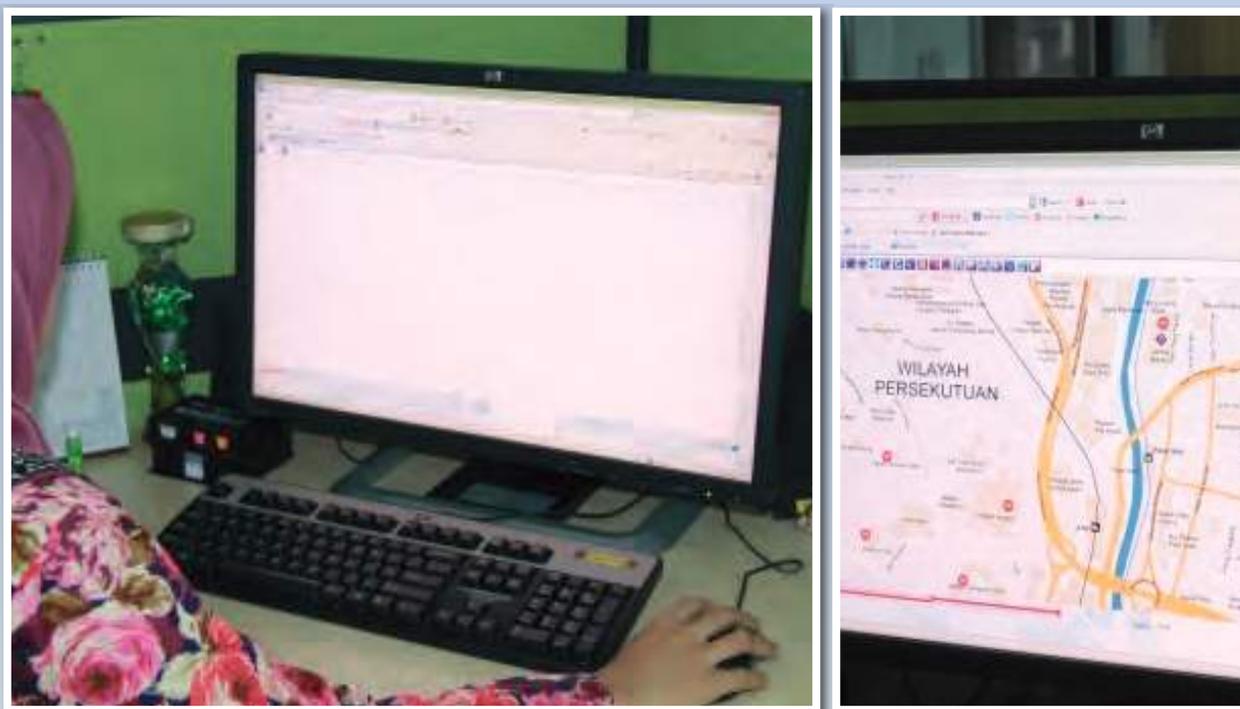
This activity is conducted to update topographic information on the map sheet through field completion survey work. The updating work involves a variety of map series that are the MY501T, MY701T, L808, MY511T and MY711T.

The achievement for field completion survey activities until 31 December 2013 is as follows:

Map Series	AWT 2012 (Sheet)	2012 Achievement (Sheet)	AWT 2013 (Sheet)	2013 Achievement (Sheet)
L 808	15	11 (73%)	12	12 (100%)
MY501T	45	46 (102%)	-	-
MY602A	-	-	50	50 (100%)
MY511T (Sabah)	40	40 (100%)	-	-
MY512A (Sabah)	-	-	40	35 (87%)
MY512A (Sarawak)	73	73 (100%)	63	58 (92%)
MY511T (Sarawak)	73	73 (100%)	-	-
MY701T (Semenanjung)	32	35 (109 %)	48	53 (110%)
MY711T (Sabah)	22	22 (100%)	22	25 (113%)
MY711T (Sarawak)	15	15 (100%)	19	19 (100%)
Joint Border Mapping (Sarawak)	5	5 (100%)	-	5 (100%)
<b>TOTAL</b>	<b>320</b>	<b>320</b>	<b>254</b>	<b>257</b>

### Cartography

Cartographic activities involve work such as cartographic editing, topographic map production, preparation of thematic databases and thematic map production.



The achievement for cartography activities until 31 December 2013 is as follows:

Activity	AWT 2012 (Sheet)	2012 Achievement (Sheet)	AWT 2013 (Sheet)	2013 Achievement (Sheet)
Preparation of Variety of Topographic Map Series Proofs Check	350	400 (114%)	350	420 (120%)
Preparation of Variety of Topographic Map Series Print Data	350	400 (114%)	350	355 (101%)
Preparation of Variety of Thematic Map Series Proofs Check	50	57 (114%)	22	26 (118%)
Preparation of Variety of Thematic Map Series Print Data	50	52 (104%)	22	25 (114%)
Reprint	16	16 (100%)	16	21 (131%)
Electronic Map Publishing	25	29 (116%)	25	29 (116%)
Webmap Publishing	3	3 (100%)	3	3 (100%)

### Printing

Printing works in JUPEM involves 3 main activities that are printing, pre-printing and post-printing.

Despite publishing printed maps, printing activities also involve with the designing, processing and printing of various documents such as *Berita Ukur*, Annual Report, Compendium, decrees, security documents and other non-map products.



Topographic maps printed in 2013 are as follows:

Series No	State	Sheet Name
L7030 – Reprinted	N.Sembilan	Rembau, Titi, Kuala Pilah
	Perak	Behrang, Batu Kurau, Belum, Selama
	Kedah	Pulau Langkawi, Nami, Sg. Petani
	Terengganu	Dungun, Cukai, Manir
	Johor	Kulai, Kg. Sungai Rengit, Kg. Gajah, Pontian Kechil
	Pahang	Raub, Kg. Balai Padang, Sg. Lembing
	Perlis	Kangar
	Kelantan	Kg. Lubuk Bongor
	Selangor	Hulu Langat
MY501A	Terengganu & Pahang	Sg. Jengai
	Pahang	Kg. Kuala Tahan, Kg. Bantal, Gunung Mandi Angin
	Selangor	Semenyih
	Perak	Kg. Bota Kanan
	Kedah	Yan Besar
MY501T	Terengganu & Pahang	Sg. Jengai
	Pahang	Kg. Kuala Tahan, Kg. Bantal, Gunung Mandi Angin
	Selangor	Semenyih
	Perak	Kg. Bota Kanan
	Kedah	Yan Besar
MY502A	Kedah	Sik, Gunung Palas, Kuala Nerang, Gunung Batu Putih, Bedong, Kulim, Nami, Pendang, Bukit Gajah Hutan
	Pahang	Kg. Sentang, Muadzam Shah, Kuala Lipis, Cegar Perah, Felda Keratong Enam, Sg. Tekai, Sg. Koyan 3, Kuala Rompin, Pos Lanai
	Johor	Labis
	Selangor	Simpang Ampat
	N.Sembilan	Port Dickson

	Terengganu	Seri Bandi, Kg. Menerung, Marang, Al-Muktafi Billah Shah, Pulau Tenggol, Kuala Berang, Pekan Sri Langkap, Bukit Besi
	Perak	Kg. Sg. Kerang, Teluk Intan, Kg. Sg. Banum, Kg. Jalong, Bersia, Sg. Kenarong, Bagan Datuk, Pekan Gurney, Lumut, Bandar Baru Kampung Gajah, Kg. Sungai Tiang
	Kelantan	Dabong, Kg. Raja, Tasik Pergau, Fort Hua, Kg. Bertam Baru, Kg. Kabong, Kg. Pasir Tumboh, Kg. Tunku Abd. Rahman, Gua Musang, Pos Gob, Gunong Badong
	P.Pinang	George Town
	Kelantan, Terengganu & Pahang	Gunung Gagau
	Perak & Kelantan	Kg. Jarau
	Pahang & Kelantan	Sg. Tahan, Merapoh
	Kelantan & Terengganu	Kesedar Chalil
	N.Sembilan & Melaka	Gemencheh
	Kedah & Kelantan	Fort Kemar
	Perak, Kedah & P.Pinang	Parit Buntar
	Perak & Kedah	Selama
	Kedah & Perlis	Arau
MY511A	Sarawak	Long Anap, Kg. Biawak, Nanga Entawau, Sundar
	Sabah	Kinarut
MY511T	Sarawak	Long Anap, Kg. Biawak, Nanga Entawau, Sundar
	Sabah	Kinarut
MY512A	Sarawak	Nanga Gaat, Balai Ringin, Sg. Puro, Kg. Muara Tuang, Kg. Kendaie, Jimbong, Bukit Raya, Bukit Long, Sg. Mengiong, Bukit Tasu, Bakun Township, Seberang Nibong, Long Banga, Punah Bah, Sg. Entuloh Baleh, Sg. Penjelai, Nanga Bangkit, Kg. Belawai, Nanga Mujong, Nanga Melinau, Dewa Layang, Kampung Sijjak, Sg. Melatai, Bekenu, Gunung Sengayoh, Sg. Serikin, Kg. Long Adang, Daro, Bukit Entemu, Batu Lintang, Sg. Tiyut, Kg. Kepayang, Nanga Entalau, Sg. Kajang, Bukit Batu Bora, Kg. Kuala Nyalau, Long Semutut, Mukah,

	Sarawak	Bukit Ulu Tutong, Likau, Bukit Dulit, Sekuau, Oya, Nanga Telawan, Sebuyau, Kg. Data Kakus, Kg. Hilir, Bukit Selidang, Kg. Telok Melano, Kg. Pandan, Pekan Tepus, Tanjong Manis, Kg. Kekan, Long Beyak, Pulau Burung
	Sabah	Kg. Binanun, Telupid, Danum, Pulau Ligitan, Kg. Bakapit, Kg. Kuamut, Tambunan, Kg. Paris Satu, Pulau Tiga, Kg. Sungai-sungai, Kg. Mansud, Pulau Tabawan, Kg. Bun-Bun, Kg. Mangkabau, Papar, Kg. Bait, Kg. Pulau Mabul, Kg. Pulau Mabul, Kg. Mansiat, Bandar Labuk, Karakit, Kg. Merapok, Pulau Lankayan, Pulau Bohayan, Keningau, Sadong Jaya, Pulau Libaran, Kg. Bukit Indah, Kg. Lung Manis, Kg. Kuala Sapi, Kg. Pensiangan
MY701A	N.Sembilan	Kg. Durian Daun, Bandar Chembong, Pekan Chengkau, Pekan Rembau, Bandar Seremban, Pekan Senawang, Pekan Pedas
	P.Pinang	Kaws. Perusahaan Prai, Bandar Prai, Tmn. Mak Mandin, Tmn. Jawa, Kg. Sg. Nujur, Bandar Baru Sbg. Jaya, Kg. Sama Gagah, Kg. Sg. Lokan, Kg. Contoh
	WP Putrajaya	Presint 8, Tmn. Presint II Fasa 3
	WPKL	Tmn. Tun Dr. Ismail
	Selangor	Kg. Org Asli Bukit Damar, Kg. Pulau Sebok, Sg. Penchala
	Perak	Kg. Makmur, Tmn. Cempaka
	Pahang	Kg. Semambu, Kg. Pdg Polo, Kg. Pengsenam, Pekan, Temerloh, Kg. Sg. Gau, Bandar Baru Peramu Jaya, Keledang, Kampong Permatang, Kg. Ketapang, Beserah
	Melaka	Pekan Batu Berendam, Pekan Ayer Molek
	Johor	Kg. Seri Pantai, Kg. Tengah
MY701T	N.Sembilan	Kg. Durian Daun, Pekan Chengkau, Bandar Chembong, Pekan Rembau, Pekan Pedas, Bandar Seremban, Pekan Senawang
	P.Pinang	Bandar Prai, Kaws. Perusahaan Prai, Tmn. Mak Mandin, Tmn. Jawa, Kg. Sg. Nujur, Bandar Baru Sbg. Jaya, Kg. Sama Gagah, Kg. Sg. Lokan, Kg. Contoh
	Selangor	Kg. Org Asli Bukit Damar, Kg. Pulau Sebok, Sg. Penchala
	WP Putrajaya	Presint 8

	Perak	Kg. Makmur, Tmn. Cempaka
	Melaka	Pekan Batu Berendam, Pekan Ayer Molek
	Pahang	Kg. Semambu, Kg. Pdg Polo, Kg. Pengsenam, Pekan, Bandar Baru Peramu Jaya, Temerloh, Kg. Permatang Keledang, Kg. Sg. Gau, Kg. Ketapang, Beserah
	Johor	Kg. Seri Pantai, Kg. Tengah
	Selangor & WP	Universiti Lim Kok Wing
	WP	Tmn. Presint II Fasa 3
	WPKL	Tmn. Tun Dr. Ismail
MY711A	Sabah	Kg. Tagas, Bandar Lubok Jaya, Papar, Nabawan, Sg. Marawali, Kg. Jaya Baru, Kg. Kipovo, Kg. Bukit Lalang, Kg. Bubul Baru, Kg. Patiu, Kg. Bahagia, Tmn. Nikmat, Kg. Mengkabung, Tauran, Kota Belud, Kg. Pangkalan, Kg. Sabah Baru, Keningau, Kg. Bambangan, Kg. Kinasaraban, Kg. Bulot, Pekan Baru Pitas, Bukit Minudut, Kg. Timbuk, Bandar Kim Fung, Kg. Piasau, Kg. Bolong, Bingkor, Kg. Tagudon Baru, Bandau, Kg. Damai, Kg. Kenangan, Kg. Bukit Bendera, Kalumpang, Kg. Kuari, Kg. Kologon, Kg. Kabogan Barat, Tanjung Sebat, Desa Kencana, Kg. Nagalang, Kg. Mainawo, Sipitang, Kg. Kusilad, Kg. Cina, Kg. Timbang Batu, Kg. Tambalugu, Kuala Tongod, Kg. Kiandut, Kg. Kiandongo Barat, Kg. Gayang, Kg. Kindali, Kg. Panaitan, Lahat Datu, Felda Sahabat 05, Kg. Tuarid Taud, Kg. Pengkalan, Kg. Beaufort Selatan, Kg. Marakau, Telupid, Kg. Tenom Baru, Kg. Sinarut Baru, Kg. Gersik Baru (WP Labuan)
	Sarawak	Kg. Tanah Puteh, Kg. Rayang, Kg. Baru, Kg. Melayu, Gunung Stunggang, Betong, Sg. Sampari, Kg. Sebala Tamat, Serian, Kg. Sg. Maong, Tmn. Matang Ria, Kg. Malaysia Jaya, Kg. Sijjak, Sg. Labuk, Kg. Hijrah, Long Daah Uma Aging, Kg. Sg. Dalam, Kg. Rimba Stapok, Kg. Pulau Melayu, Tmn. Matang Jaya, Ladang Linau Mewah, Sungai Miri, Sg. Padang Liku, Kg. Siol Kandis, Sg. Dalam
	Perak	Tanjung Malim
MY711T	Sabah	Kg. Tagas, Bandar Lubok Jaya, Papar, Nabawan, Sg. Marawali, Kg. Bahagia, Kg. Jaya Baru, Kg. Kipovo, Kg. Bukit Lalang, Kg. Patiu, Kg. Bubul Baru, Tmn. Nikmat, Kg. Mengkabung, Tauran, Kg. Pangkalan, Kota Belud, Kg. Sabah Baru,

MY711T	Sabah	Keningau, Kg. Bambangan, Kg. Kinasaraban, Kg. Bulot, Bukit Minudut, Pekan Baru Pitas, Kampung Piasau, Kg. Timbuk, Kg. Bolong, Bandar Kim Fung, Bingkor, Kg. Tagudon Baru, Kg. Damai, Kg. Kenangan, Kg. Bukit Bendera, Bandau, Kalumpang, Kg. Kologon, Kg. Kabogan Barat, Tanjung Sebat, Kg. Marakau, Desa Kencana, Kg. Nagalang, Kg. Mainawo, Sipitang, Kg. Kusilad, Kg. Cina, Kg. Timbang Batu, Kg. Tambalugu, Kuala Tongod, Kg. Kiandongo Barat, Kg. Gayang, Kg. Kuari, Kg. Panaitan, Kg. Kindali, Lahat Datu, Felda Sahabat 05, Kg. Pengkalan, Kg. Tuarid Taud, Kg. Beaufort Selatan, Kg. Tenom Baru, Telupid, Kg. Sinarut Baru, Kg. Gersik Baru (WP Labuan)
	Sarawak	Kg. Tanah Puteh, Kg. Melayu, Kg. Rayang, Gunung Stunggang, Kg. Baru, Betong, Sg. Sampari, Serian, Kg. Sebala Tarat, Kg. Sg. Maong, Tmn. Matang Ria, Kg. Malaysia Jaya, Kg. Kiandut, Sg. Labuk, Sg. Padang Liku, Kg. Hijrah, Long Daah Uma Aging, Kg. Sg. Dalam, Tmn. Matang Jaya, Ladang Linau Mewah, Kg. Pulau Melayu, Kg. Rimba Stapok, Sg. Miri, Kg. Siol Kandis, Sg. Dalam
	Perak	Tanjung Malim
T738 – Cetak Ulang	Sabah	Long Sukang, Kg. Kuala Karamuak
	Sarawak	Sg. Serani, Bario, Kg. Pueh

Thematic maps that printed in 2013 are as follows :

Series No	State	Sheet Name
MY91001R	Sabah	Ranau, Beaufort, Peta Daerah Kuala Penyu, Tongod, Kota Marudu, Sipitang, Sandakan, Keningau, Papar, Kudat, Kunak, Pensiangan, Tenom
	Perak	Kampar, Kinta
	Sarawak	Peta Daerah Dalat, Peta Daerah Sarikei, Peta Daerah Kanowit, Limbang, Betong, Peta Daerah Matu, Julau
	Kelantan	Gua Musang
	Johor	Kota Tinggi, Johor Bahru

-	-	Peta SPR Sarawak – Cetak Ulang
DNMM9101 – Reprinted	-	Sabah dan Sarawak
MY90005R	-	Negeri Sembilan, Selangor Selatan, Selangor Utara, Kelantan, Johor Barat, Johor Timur, Pahang Timur, Kedah Utara, Pahang Barat & Kedah Selatan
-	-	Peta TPC (BGSP)
-	-	Peta Geologi – Belum – Hala Transect
-	-	Peta Geologi – Gajah Terom
-	-	JMG – Peta Geologi Maran
-	-	Mencetak Dokumen MoU & ToR JMG – Peta Sumber Mineral Negeri Johor JMG – Peta Sumber Mineral Negeri Pahang JMG – Peta Sumber Mineral Negeri Perak
MY90011		Pulau Batu Gajah, Pulau Setindan, Pulau Sepol, Pulau Ceben, Pulau Tulai dan Pulau Pemanggil
-	Sarawak	Peta Geologi
MY91008	-	Sabah & Sarawak
MY92001	-	Malaysia – Politik dan Fizikal

The achievement for printing activities until 31 December 2013 is as follows:

Activity	AWT 2012	2012 Achievement	AWT 2013	2013 Achievement
Topographic Map Printing	400	381 (95%)	350	452 (129%)
Thematic Map Printing	65	45 (69%)	40	63 (158%)
Non-Map Printing	160	203 (128%)	160	160 (100%)

Pre-printing activities involve the designing and layout of print materials as well as the preparation of proofs and printing plates.

The achievement for pre-printing activities until 31 December 2013 is as follows:

Activity	AWT 2012	2012 Achievement	AWT 2013	2013 Achievement
DTP (work no)	160	129 (81%)	160	160 (100%)
Proofs (piece)	465	530 (114%)	390	515 (132%)
Plates (piece)	2,200	1,670 (76%)	2,200	2,880 (131%)

Post-printing activities involve finishing work after the printing process has conducted.

The achievement for post-printing activities until 31 December 2013 is as follows:

Activity	AWT 2012	2012 Achievement	AWT 2013	2013 Achievement
Bindery (unit)	50,000	36,590 (73%)	70,000	102,409 (146%)

### Utility Mapping

Utility mapping involves the process of acquiring and identifying types of installations and public utility service facilities that are embedded underground and providing information and utility position in digital or hard copy.

Complete and accurate information on the utility installation position is required to help reduce and prevent service disruptions caused by damage to the utility installations during the execution of excavation work. The frequency of these damages also impairs the quality of people's life and negatively affects the nation's economy.



The achievement for utility mapping activities until 31 December 2013 is as follows:

Activity	AWT 2012	2012 Achievement	AWT 2013	2013 Achievement
Utility Data Acquisition and Information from all utility agencies (TNB, TM, IWK, Gas Malaysia and SYABAS/ State Water Works Company)	4 Districts	4 Districts (100%) Hulu Selangor, Port Dickson, Rembau and Kuala Pilah.	4 Districts Jelebu, Tampin, Jempol and Labuan	100% Telekom Malaysia Data 75% IWK Data except Labuan No data receive from SAINS, Gas Malaysia and TNB.  Progress = 44% (No TNB data for this area)
Uploading of Utility and Base Map Data to the National Utility Database (Utility data received is uploaded)	4 Districts	4 Districts (100%) Hulu Selangor, Port Dickson, Rembau and Kuala Pilah.	4 Districts Jelebu, Tampin, Jempol and Labuan	100% Telekom Malaysia Data 75% IWK Data except Labuan No data receive from SAINS, Gas Malaysia and TNB.  Progress = 44% (No TNB data for this area)
Detection, Survey and Verification of Underground Utility Installations in the field	112km	122.5km (101%) Survey work involving Putrajaya and Selangor areas	112km Survey work involving the Shah Alam areas	A total of 113.6km has completed with detection, survey and verification Shah Alam = 100.4 km Putrajaya = 3.9 km Petaling Jaya = 9.3 km  Progress = 101%
Preparation of Base Map Scale 1:500	550 sheets	550 sheets (100%)  Editing and digitising topographic details from orthophotos for Putrajaya, Shah Alam and Petaling Jaya	550 sheets  Editing and digitising topographic details from orthophotos for Putrajaya, Shah Alam, Petaling Jaya and Sepang	A total of 550 sheets has been digitised with topographic details  Petaling Jaya = 75 sheets Putrajaya = 375 sheets Sepang = 100 sheets  Progress = 100%
Publishing of Utility Maps	37 sheets	39 sheets (105%) Perform cartographic editing & publishing utility maps on demand/print-on-demand for Putrajaya and Cyberjaya	46 sheets Perform cartographic editing & publishing utility maps on demand/print-on-demand for Putrajaya and Cyberjaya	A total of 50 sheets completed its cartographic editing and for printing  Putrajaya = 34 sheets Cyberjaya = 16 sheets  Progress = 109%

The five (5) years period achievements for 1:500 scale base map preparation activities is as follows:

Year	AWT (sheet)	Achievement (Sheets)					Total
		Putrajaya	Cyberjaya	Kuala Selangor	Shah Alam	Selangor	
2009	550	291	259	-	-	-	550
2010	550	245	-	305	-	-	550
2011	550	-	-	55	495	-	550
2012	550	25	-	-	193	332	550
2013	550	375	-	-	-	100	550
<b>TOTAL</b>		<b>936</b>	<b>259</b>	<b>360</b>	<b>688</b>	<b>407</b>	<b>2750</b>

The five (5) years period achievements for utility maps publication is as follow:

Year	AWT (Sheets)	Achievement (Sheets)	Area
2009	35	44	Putrajaya
2010	35	37	Putrajaya
2011	37	37	Putrajaya & Cyberjaya
2012	37	39	Putrajaya & Cyberjaya
2013	46	50	Putrajaya & Cyberjaya
<b>TOTAL</b>		<b>207</b>	

### Mapping Services

The Mapping Service consists of 3 main components which include the National Geospatial Data Sales and Information Centre (NGDSIC), National Central Map Store and National Map Library.

The National Geospatial Data Sales and Information Centre (NGDSIC) role is to manage the provision as well as the sale services of mapping products produced by JUPEM. The NGDSIC also acts to conduct security clearance for any application to obtain restricted classified products or data.





The National Central Map Store is the central storage for maps published by JUPEM. These maps will be stored in bulk before distributed to relevant parties, particularly the Malaysian Armed Forces (MAF). It also functions as to provide maps sold through the National Geospatial Data Sales and Information Centre (NGDSIC).

The National Map Library's role is to provide resources or reference materials in the field of surveying and mapping, particularly to JUPEM employees and the public in general. The National Map Library provides variety of books, technical journals and other publication materials related to surveying and mapping.

The achievement for map services activities until 31 December 2013 is as follows:

Activity	AWT 2012	2012 Achievement	AWT 2013	2013 Achievement
Proof Checking (sheet)	350	450 (129%)	370	446 (120%)
Processing Mapping Materials, Copyright Licenses and Reprinting Rights Permits (application)	650	792 (122%)	700	752 (107%)
Library Services (procurement of maps, books, etc.) (copy)	4,000	5,374 (134%)	4,500	4,505 (100%)
Library Collection Documentation (volume)	2,500	3,716 (149%)	3,000	3,305 (110%)
JUPEM Publication Material Distribution (copy)	18,000	31,059 (172%)	25,000	36,842 (147%)
Receiving of Map by the Central Map Store (piece)	350,000	249,000 (71%)	250,000	495,818 (198%)
Distribution of Map by the Central Map Store (piece)	220,000	141,559 (64%)	150,000	171,662 (114%)

## CADASTRAL SURVEY

In Cadastral Survey, the reports cover all the major activities of the JUPEMs' States for Land Titles Survey, Verification of Licensed Land Surveyor (LLS) works, Verification of Level I Strata Titles Survey works and Verification of Level II Strata Titles Survey works.

The success of the Department of Survey and Mapping Malaysia (JUPEM) in developing and implementing the eKadaster system has provided a favourable impact on the overall performance of the Cadastre Division. The system also managed to shorten the process of survey and preparation of land title plans, thereby producing a great impact on the development of a fast-growing nation.

The utilisation of latest wireless broadband technology, information and communication technology (ICT), Geographic Information Systems (GIS), Global Navigation Satellite System and latest survey system are features in the eKadaster system. It is also to create National Digital Cadastral Database (NDCDB) with the development of Cadastral Control Infrastructure (CCI) so that the Survey Accurate Coordinate NDCDB could replace the not homogenous State Digital Cadastral Database (SDCDB). The strata titles survey works previously done manually is now digitally processed and stored in the Strata / Stratum / Marine Survey Database (SSMSD).

### Land Titles Survey Performance

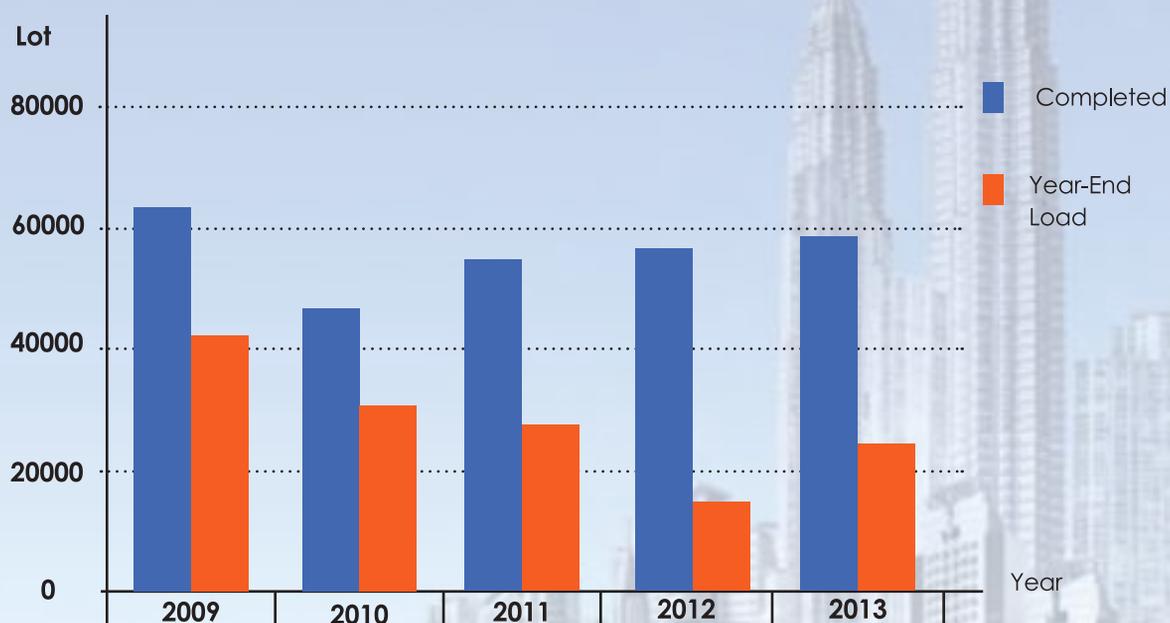
Progress achieved for land titles survey activity in year 2013 is 55,764 lots or 102% from the annual target of 54,700 lots set. Detail on the performance and workload in accordance to JUPEMs' States is as shown in the table:



STATE	AWT 2013	2013 ACHIEVEMENT		WORKLOAD
	(Lot)	(Lot)	%	(Lot)
Johor	8,200	8,560	104	6,983
Kedah	6,700	5,939	89	1,227
Kelantan	7,200	6,490	90	3,035
Melaka	1,600	2,107	132	474
Negeri Sembilan	3,800	3,441	91	763
Pahang	5,700	5,757	101	647
Perak	6,600	7,248	110	1,164
Perlis	1,800	2,219	123	1,456
Pulau Pinang	1,300	692	53	59
Selangor	4,000	3,919	98	4,296
Terengganu	6,100	8,990	147	4,854
W.P. Kuala Lumpur/ Putrajaya	1,600	253	16	34
W.P.Labuan	100	149	149	4
<b>TOTAL</b>	<b>54,700</b>	<b>55,764</b>	<b>102</b>	<b>24,996</b>

The five (5) years period in comparison of performance and workload for land titles survey:

YEAR	2009 (Lot)	2010 (Lot)	2011 (Lot)	2012 (Lot)	2013 (Lot)
Completed	63,471	44,567	54,730	55,007	55,764
Year-End Load	40,601	32,825	28,303	17,151	24,996



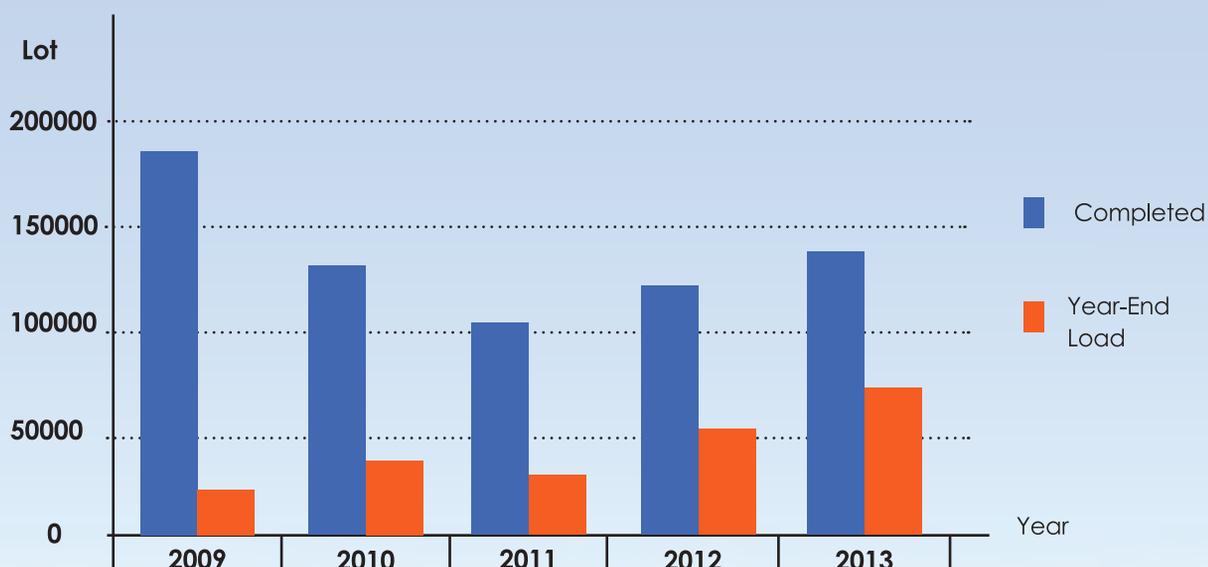
### Verification of Land Titles Survey by Licensed Land Surveyors (LLS) Performance

The achievement for verification of land titles survey by LLS activity for year 2013 is 143,324 lots or 131% from the annual target of 109,000 lots set. Overall achievement in accordance to JUPEMS' States is as shown in the table:

STATE	AWT 2013 (Lot)	2013 ACHIEVEMENT (Lot)	%	WORKLOAD (Lot)
Johor	21,100	21,226	101	17,397
Kedah	12,000	15,774	131	6,050
Kelantan	11,000	14,933	136	3,450
Melaka	3,000	4,210	140	1,534
Negeri Sembilan	6,000	8,889	148	1,844
Pahang	8,000	13,219	165	2,764
Perak	10,980	18,338	167	4,175
Perlis	1,200	1,522	127	290
Pulau Pinang	4,000	5,150	129	1,264
Selangor	20,000	21,862	109	24,079
Terengganu	9,700	17,106	176	4,039
W.P. Kuala Lumpur/ Putrajaya	2,000	996	50	595
W.P.Labuan	20	99	495	0
<b>TOTAL</b>	<b>109,000</b>	<b>143,324</b>	<b>131</b>	<b>67,481</b>

The five (5) years period in comparison of performance and workload for verification of Licensed Land Surveyors (LLS) works:

YEAR	2009 (Lot)	2010 (Lot)	2011 (Lot)	2012 (Lot)	2013 (Lot)
Completed	193,070	140,440	114,165	135,566	143,324
Year-End Load	25,469	42,564	37,220	51,759	67,481



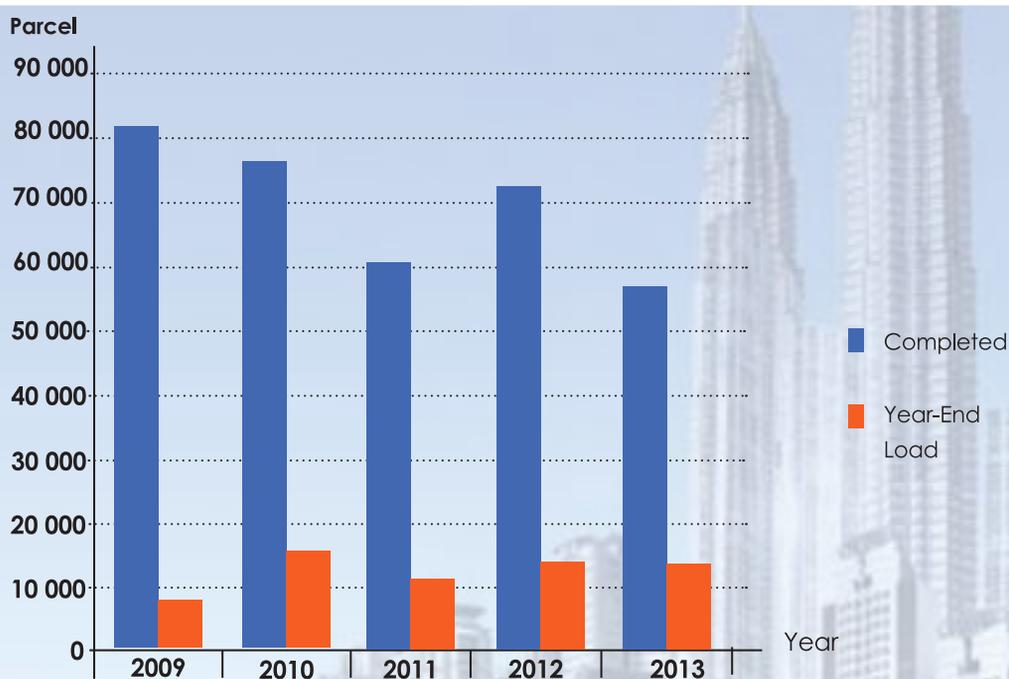
## Verification of Level I Strata Titles Survey Performance

The 2013 achievement for verification of level I strata titles survey works is 57,585 parcels or 139% of the annual target of 41,270 parcel set. Details on the performance and workload according to JUPEMS' States is as shown in the table :

STATE	AWT 2013 (Lot)	2013 ACHIEVEMENT		WORKLOAD (Lot)
		(Lot)	%	
Johor	3,000	3,772	126	335
Kedah	0	0	0	0
Kelantan	0	0	0	246
Melaka	300	543	181	333
Negeri Sembilan	150	445	297	0
Pahang	500	923	185	97
Perak	320	367	115	0
Perlis	0	0	0	0
Pulau Pinang	4,000	7,614	190	1,430
Selangor	22,000	25,195	115	7,476
Terengganu	0	12	0	0
W.P. Kuala Lumpur/ Putrajaya	11,000	18,714	170	3,720
W.P.Labuan	0	0	0	0
<b>TOTAL</b>	<b>41,270</b>	<b>57,585</b>	<b>139</b>	<b>13,637</b>

The five (5) years period in comparison of performance and workload for verification of level I strata titles survey works:

YEAR	2009 (Parcel)	2010 (Parcel)	2011 (Parcel)	2012 (Parcel)	2013 (Parcel)
Completed	81,902	77,670	60,426	71,149	57,585
Year-End Load	9,666	16,428	11,985	13,850	13,637



## Verification Of Level II Strata Titles Survey Performance

Level 2 involve the verification of Strata Certified Plans and preparation of Strata Titles Documentation. The preparation of Strata Titles Documentation in 2013 achieved up to 72,205 parcels or 106% of the annual target of 68,000 parcels set.



Strata Review Stage 1



Strata Review Stage 2



Preparation of Ownership Documentation

Detail on the performance and workload in accordance to JUPEMs' States is as shown in the table:

STATE	AWT 2013 (Lot)	2013 ACHIEVEMENT (Lot)	%	WORKLOAD (Lot)
Johor	6,050	6,137	101	0
Kedah	550	268	49	0
Kelantan	0	0	0	0
Melaka	500	335	67	0
Negeri Sembilan	1,000	682	68	0
Pahang	900	1,305	145	0
Perak	1,000	1,480	148	0
Perlis	0	0	0	0
Pulau Pinang	15,000	11,930	80	0
Selangor	28,000	23,480	84	0
Terengganu	0	157	0	0
W.P. Kuala Lumpur/ Putrajaya	15,000	26,431	176	441
W.P.Labuan	0	0	0	0
<b>TOTAL</b>	<b>68,000</b>	<b>72,205</b>	<b>106</b>	<b>441</b>

The five (5) years period in comparison of performance and workload for verification of level II strata titles survey works:

YEAR	2009 (Parcel)	2010 (Parcel)	2011 (Parcel)	2012 (Parcel)	2013 (Parcel)
Completed	205,537	87,381	80,001	74,069	72,205
Year-End Load	33,923	15,306	12,076	16,189	441



#### CRM Control Point Establishment Performance

CRM (Cadastral Reference Mark) control points observation meant to enhance the precision and accuracy of NDCDB (National Digital Cadastral Database) in all JUPEMS' States. Observation performance is as follows:

STATE	CRM Control Points	
	File	Control Points
Johor	1542	6,008
Kedah	752	1,064
Kelantan	369	966
Melaka	120	416
N.Sembilan	600	2,055
Pahang	505	1,762
Perak	409	1,404
Perlis	198	585
Pulau Pinang	175	365
Selangor	481	2,314
Terengganu	97	392
W.P. KL/ Putrajaya	108	304
W.P. Labuan	12	36
<b>TOTAL</b>	<b>5,368</b>	<b>17,671</b>

## DEFENCE GEOSPATIAL

### Defence Geospatial Technical Services Assistance

The Defence Geospatial Division (DGD) role is to provide defence geospatial technical advice and assistance to Malaysian Armed Forces (MAF) defence and weaponry systems that utilise the use of geospatial services.



### uGeo for Defence Program

Through the implementation of this program, DGD will be directly involved in preparing defence geospatial information and services for the MAF. uGeo for Defence scope of programs at the initial phase for this activity is as follows:

- Integrated Defence Geographic Information System.
- Outreach Program.
- Defence Geospatial Development Program.
- Geospatial Engineering Doctrine.
- Military Mapping Committee Meeting.

The achievement for these programs until 31 December 2013 is as follows:

No	Activity	AWT 2013	2013 Achievement
1.	Integrated Defence Geographic Information System (DGIS) through MAF Network Centric Operation (NCO) project	Design-Phase2	100%
2.	Outreach Program	10 Sessions	18 Sessions (180%)
3.	Geospatial Seminar	3 Times	2 Times (67%)
4.	Defence Geospatial Development Program	5 Programs	100%
	Doctrine Completion		
5.	a. Geospatial Mobile System Application Doctrine (GSMS)	Phase 3, 4 & 6	100%
	b. Geospatial Engineering Doctrine	Phase 1 & 2	100%
6.	Military Mapping Committee Meeting	1 Times	1 Times

### Technical Advisory Service to MAF

DGD serves to provide assistance and technical advisory services to the geospatial defence systems and MAF modern weaponry that use geospatial services. Year 2013 AWT targeted three (3) systems implemented by the following phases:

- Eurocopter Project.
- Armoured Personnel Carrier (APC8X8) Project.
- Army War Treatment Computerised System.

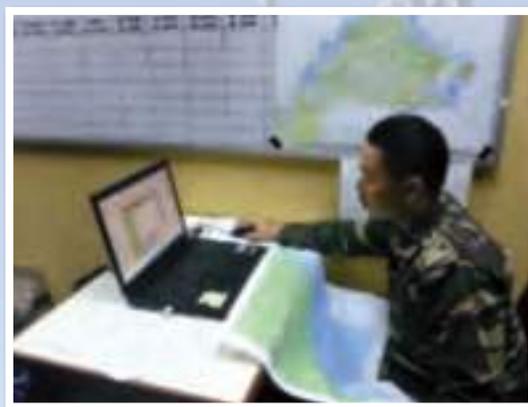
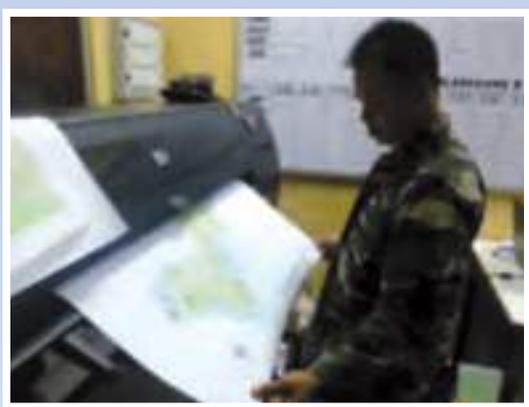
The achievement for these activities until 31 December 2013 is as follows:

No	Activity	AWT 2013	2013 Achievement
1.	Monitoring and provides technical advice to the procurement of MAF defence systems on defence geospatial data needs	3 Systems	100%

### Defence Geospatial Information Development

The scope for the initial phase of the uGeo for Defence program for the development of defence geospatial information activities include the preparation of defence geospatial data, which leads to the datasets development of 1: 50,000 scale for Vector Smart Map (VMAP) Level 2 and Vector Interim Terrain Data (VITD). The main sources of data obtained from the JUPEM's Database Section that includes Cartography and Topography Databases.

SKT 2013 focused on defence geospatial products in the form of hardcopy and softcopy to publish military version Topographic Maps that are Topographic Line Map (TLM) and Common Operation Map (COM) with 1: 50,000 scale, Shooting Range Map and provides TLM map specifications.



Amongst scopes and activities of the information developments are:

1. Preparation of Defence Geospatial Vector Data.
2. Expanding the Defence Geospatial Database.
3. Defence Geospatial Product for MAF Utilisation.
4. Defence Geospatial Product Guide Book.

Progress of all the said scopes until 31 December 2013 is as follows:

No	Activity	AWT 2013	2013 Achievement
1.	Creating "basic" VITD and VMAP data from DPNM geospatial data	Sabah dan Sarawak Siri T 738T 738 Series (278 Sheets) Phase C and D	100%
2.	Updating "basic" VITD and VMAP data from MY501T geospatial data series	Peninsular Malaysia MY501T Series (98 Sheets) Fasa C dan D	100%
3.	Updating Mapping Directive Draft 1/96	1 time	100%
4.	Updating Topographic Maps Stock Policy Draft and Air Charts for MAF	1 time	100%
5.	TLM Map specifications	1 time	100%
6.	Producing defence geospatial products		
	a. Topographic Line Map	30 Sheets	100%
	b. Common Operation Map	4 Shooting range	100%
	c. Shooting Range	2 Shooting range	100%
7.	Producing COM hardcopy map for Ops PASIR		
	a. COM Map 1:50,000 scale	28 sheets (Sabah offshore)	
	b. Sabah COM Map 1:750,000 scale	1 sheet (Requirements for placement centres of sectors A and B Ops PASIR)	100%
8.	Map of 1: 100,000 scale for PUTD	4 sheets (Peninsular Malaysia)	1 Sheet (25%) (Only 1 sheet implemented due to the delay in receiving the software)
9.	Maps in GeoPDF format	40 sheets	100%

## Defence Geospatial Services Assistance In The Field

### 1. DGD Involvement In Training And Operations

DGD implemented training activities to provide exposure to officers and staff in actual situation of the battlefield. Training activities carried out in the form of data preparation assistance and geospatial defence advisory services.

For operation activities, DGD has been involved in Ops Daulat launched by Malaysian government following the terrorist aggression in Lahad Datu, Sabah from 10 March 2013 to 12 June 2013. In the operation, DGD was directly involved in providing services to all elements of the defence geospatial security and defence (MAF, RMP, MMEA, NSC and ESSCOM) such as mapping advisory, maps enlargement, aerial photos and satellite analysis services with the help of JUPEM Sabah, Malaysian Remote Sensing Agency and Land and Survey Department of Sabah.

DGD also produced Collateral Damage map to map the locality, damaged and destroyed area as well as proprietary information and photographs as spatial records for future use. Moreover, DGD also provides web services for humanitarian and natural disasters during Ops Banjir in early January 2013.





Progress until 31 December 2013 is as follows:

No	Activity	AWT 2013	2013 Achievement
1.	ExerciseWith MAF	5 times	6 times (120%)
2.	Operation	1 time	1 time
3.	Web services for humanitarian and natural disasters	1 time	1 time

## 2. Installation of Defence Geospatial Data

Data installation activities conducted after the said defence and weaponry systems awarded and entered into MAF inventory and services. In year 2013, three (3) systems had made the installation process and the achievement until 31 December 2013 is as follows:

No	Activity	AWT 2013	2013 Achievement
1.	Perform installation process to MAF project	3 Systems a. Mortar 120MM 2R2M. b. Extended Air Defence Simulator (EADSIM). c. Ground Navigation Equipment (GNE).	100%

## 3. Map Enlargement

This activity dependent on the demand from the Formation Command Post for training purposes especially involving Command Post Exercise and operational planning. Moreover, DGD also produce maps in various themes for military used in needed areas such as images from satellites, unmanned aerial vehicle and aerial photos.

Progress until 31 December 2013 is as follows:

No	Activity	AWT 2013	2013 Achievement
1.	Map Enlargement for Formation Command Post	50 Sheets	72 Sheets (144%)
2.	Various Themes of Maps Printing	1000 Sheets	1050 Sheets (105%)

## Enforcement of Security Instructions Circular Onto Geospatial Classified Documents

### Application for Aerial Photography/Mapping Permit and Field Data Collection Activity Permit

DGD performs security screening on all individuals and public/private agencies applying to conduct aerial photography/mapping activities and field data collection except to MAF and RMP (Referring to Paragraph 12 of Security Instruction No.1/2007). Progress until 31 December 2013 is as follows:

No	Activity	AWT 2013	2013 Achievement
1.	Production of mapping and spatial data collection permit	100 Permits	146 Permits (146%)

### Security Screening Onto Classified Geospatial Document

This activity includes data from public and private agencies such as Remote Sensing Agency and Mk Survey Company. This is to ensure the supply of classified geospatial documents to users are free from R and Y restrictions as stipulated in the Security Instruction Circular Onto Classified Geospatial Documents. Progress until 31 December 2013 is as follows:

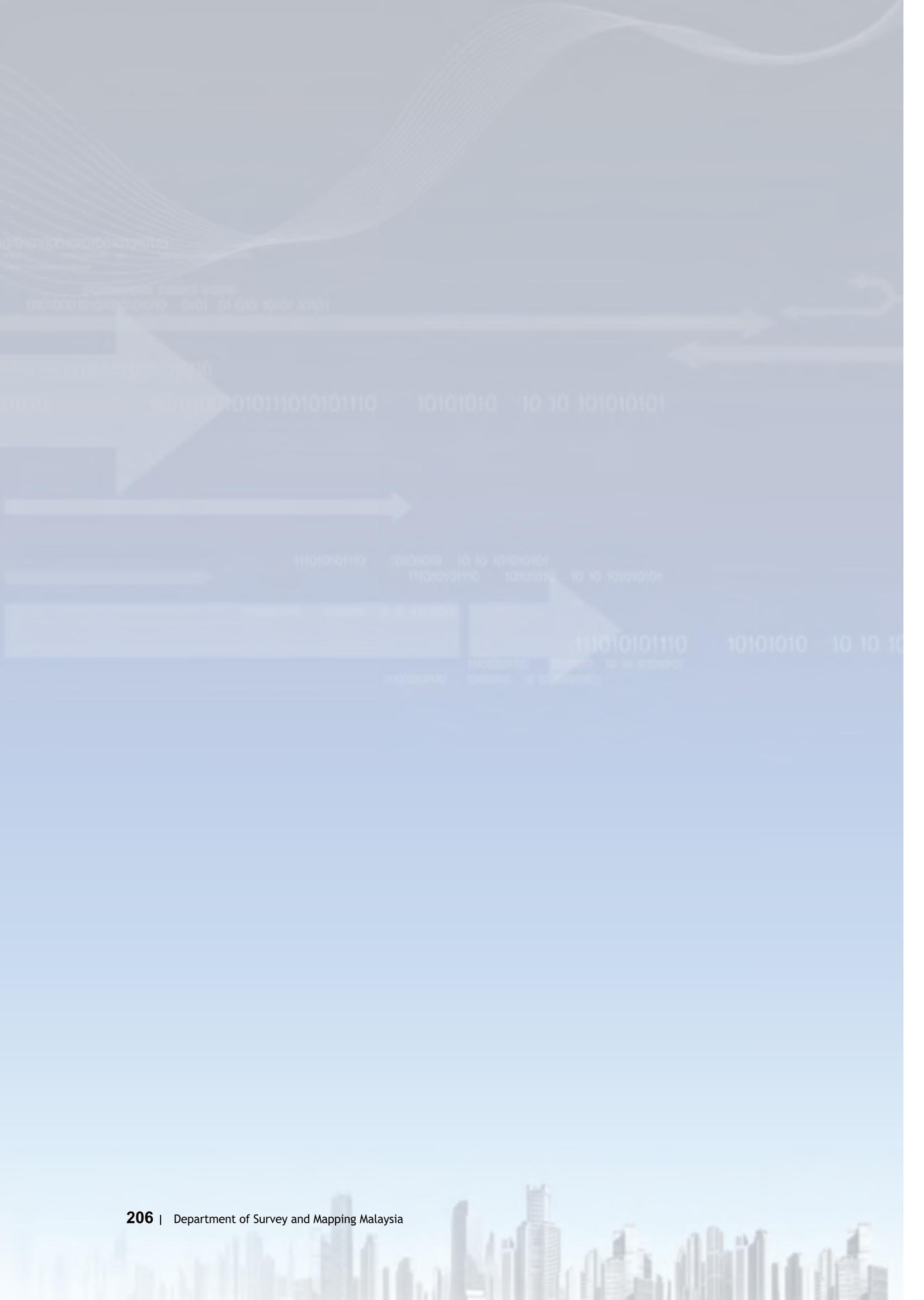
No	Activity	AWT 2013	2013 Achievement
1.	Security screening onto classified geospatial documents	100 Applications	326 Applications (326%)
2.	Review of geospatial data proofs issued by DPNM	250 Proofs	205 Proofs (82%)

### Monitoring of Agencies Involved in the Storage of Classified Geospatial Documents

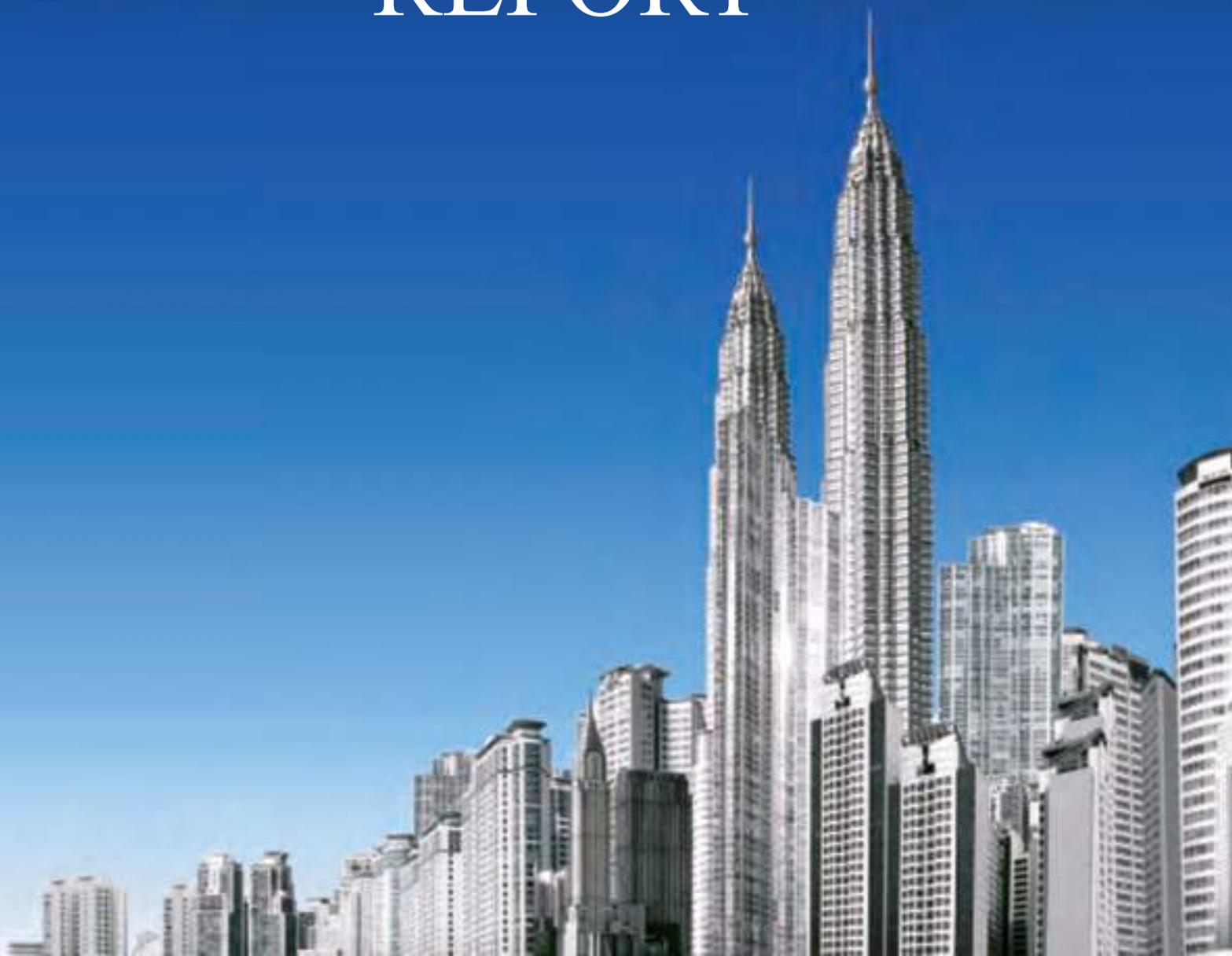
Monitoring to public and private agencies implemented to ensure agencies that store classified geospatial documents comply with the conditions of storage and maintenance of the Classified Geospatial Documents. While monitoring the MAF is to ensure the storage and disposal of classified geospatial documents is executed in accordance with the prescribed procedures as well as to enable DGD to provide latest development update in geospatial products utilised by the MAF.

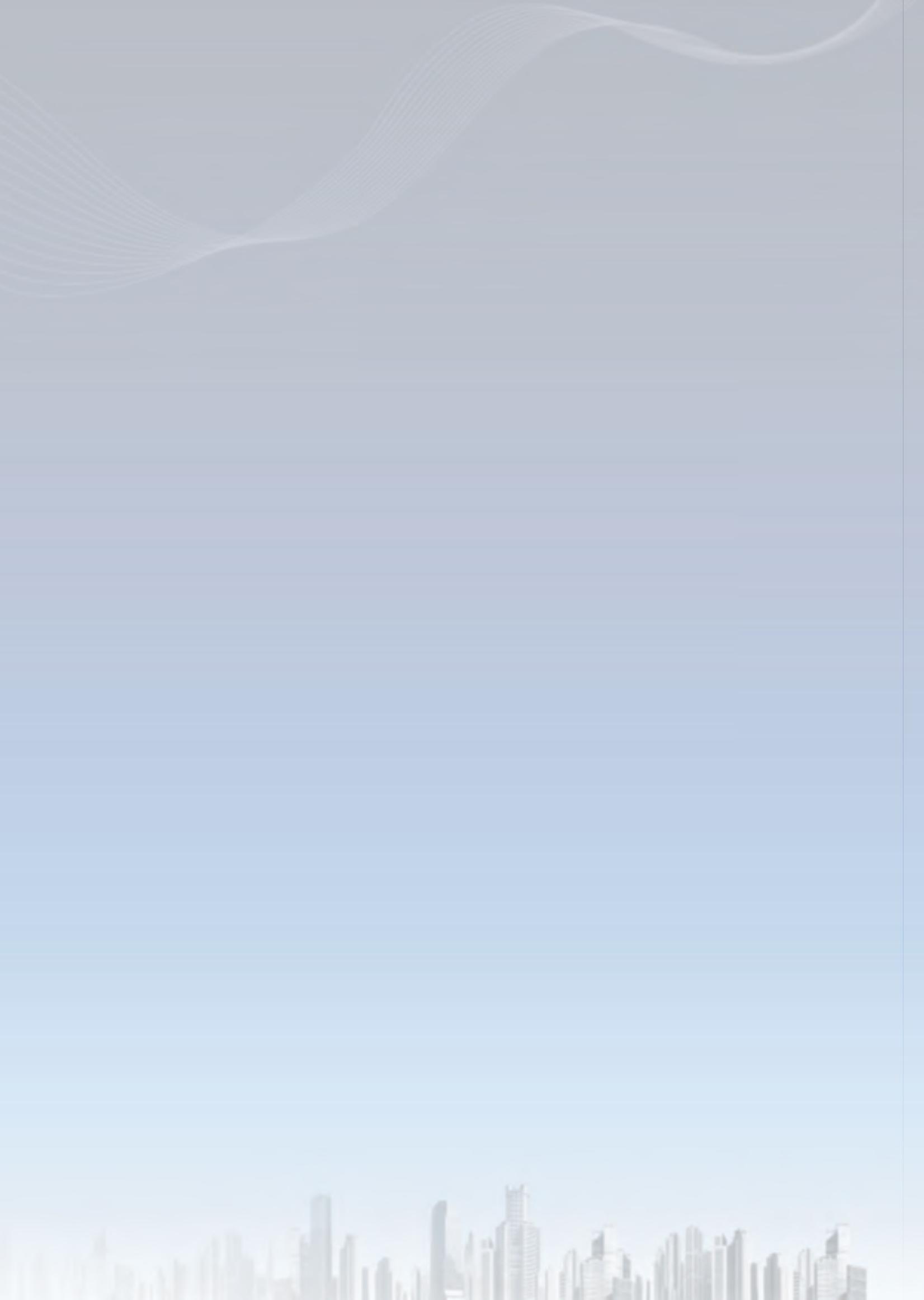
Progress until 31 December 2013 is as follows:

No	Activity	AWT 2013	2013 Achievement
1.	Monitoring to public and private agencies	15 Agencies	22 Agencies (146%)
2.	Monitoring to MAF	34 Units	25 Units (73%)



# FINANCIAL REPORT





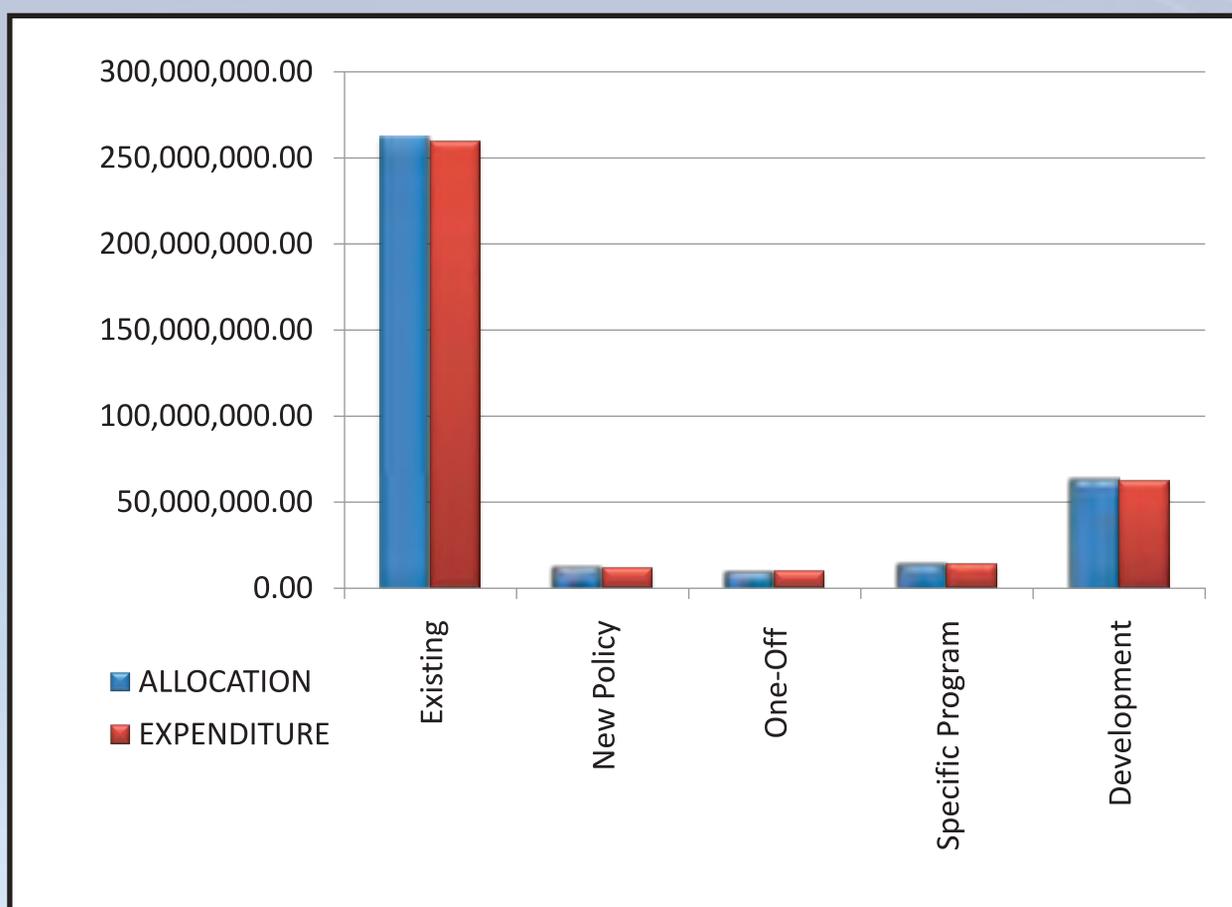
## FINANCIAL MANAGEMENT

JUPEM received a financial allocation of RM 328,077,999.00 for the year 2013 covering Operating Expenditure (RM 264,863,999.00) and Development Expenditure (RM 63,214,000.00). Of this amount and up to 31 December 2013, RM 325,050,517.25 (99.08%) spent.

Details of the allocation distribution and the achievement of the overall expenses is as follows:

ALLOCATION DISTRIBUTION	ALLOCATION RM	EXPENDITURE RM	(%)
Existing	261,739,800.00	259,408,229.21	99.11
New Policy	1,000,000.00	1,000,000.00	100.00
One-Off	879,700.00	877,735.00	99.78
Specific Program	1,244,499.00	1,097,669.27	88.20
Development	63,214,000.00	62,666,883.77	99.13
<b>TOTAL</b>	<b>328,077,999.00</b>	<b>325,050,517.25</b>	<b>99.08</b>

Financial performance in 2013 is as follows:



## OPERATING EXPENDITURE

An allocation of RM264, 863,999.00 under Operating Expenditure approved in the year 2013 for expenditure on emoluments, services and supplies, grants and fixed allowances as well as other expenses. In addition, allocations also approved for the acquisition of assets and expenses under the one-off.

Detail of allocation and operating expenditure spending in 2013 is as follows:

### EXISTING

GENERAL OBJECTS	ALLOCATION		EXPENDITURE	
	(RM)	(RM)	(RM)	(%)
Emoluments	180,817,900.00	179,088,882.14		99.04
Services & Supplies	80,277,310.00	79,679,771.69		99.26
Assets	495,340.00	495,340.00		100.00
Grants And Fixed Allowances	65,898.00	65,533.38		99.45
Other Expenses	78,692.00	78,692.00		100.00
<b>TOTAL</b>	<b>261,739,800.00</b>	<b>259,408,229.21</b>		<b>99.11</b>

### NEW POLICY

GENERAL OBJECTS	ALLOCATION		EXPENDITURE	
	(RM)	(RM)	(RM)	(%)
Services and Supplies	1,000,000.00	1,000,000.00		100.00
<b>TOTAL</b>	<b>1,000,000.00</b>	<b>1,000,000.00</b>		<b>100.00</b>

### ONE-OFF

GENERAL OBJECTS	ALLOCATION		EXPENDITURE	
	(RM)	(RM)	(RM)	(%)
Services and Supplies	100,000.00	100,000.00		100.00
Assets	779,700.00	777,735.00		99.75
<b>TOTAL</b>	<b>879,700.00</b>	<b>877,735.00</b>		<b>99.78</b>

### SPECIFIC PROGRAM

GENERAL OBJECTS	ALLOCATION		EXPENDITURE	
	(RM)	(RM)	(RM)	(%)
Emoluments	380,099.00	237,348.79		62.40
Services and Supplies	864,400.00	860,320.48		99.53
<b>TOTAL</b>	<b>1,244,499.00</b>	<b>1,097,669.27</b>		<b>88.20</b>

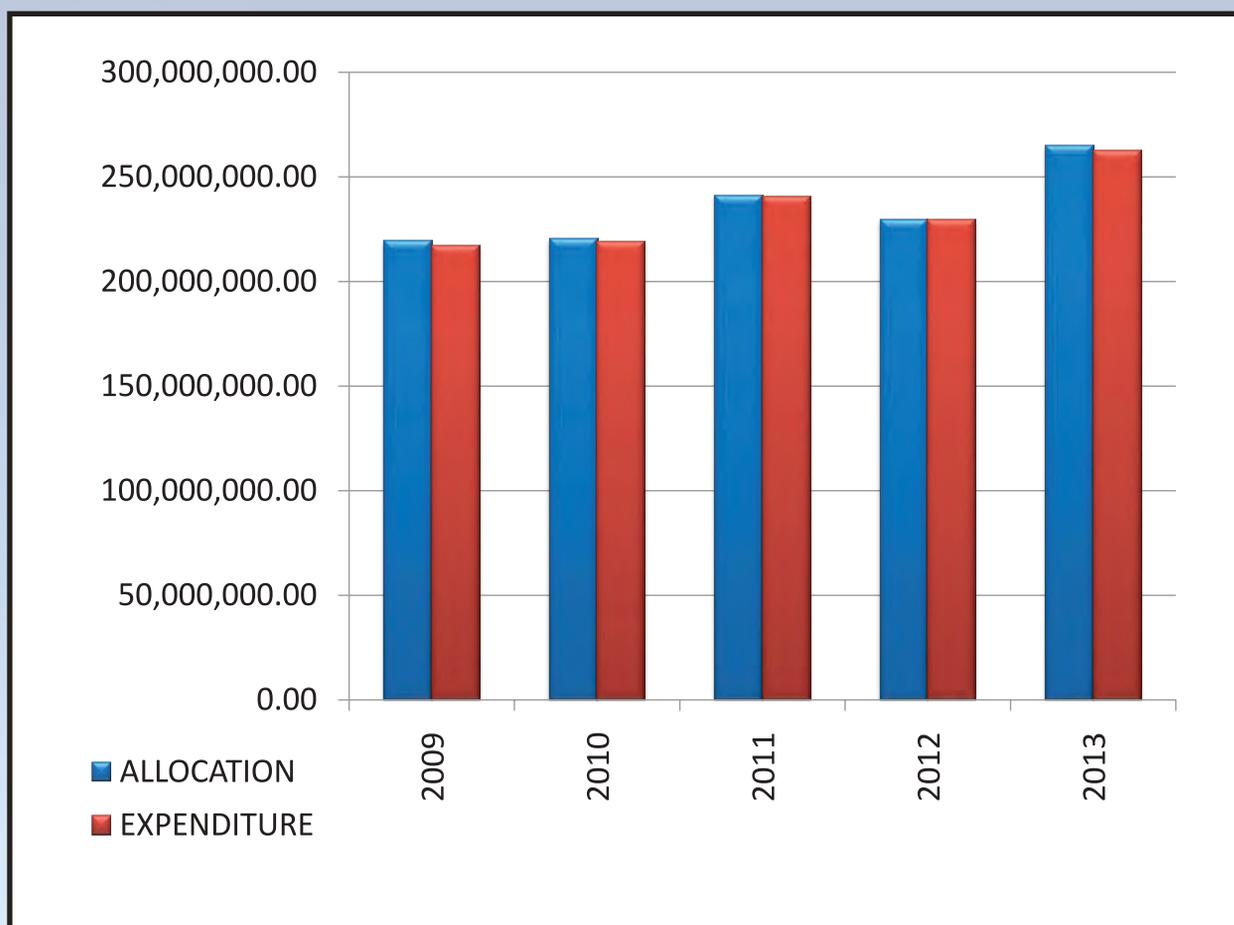
The overall achievement of operating expenditure allocation activities is as follows:

ACTIVITY	ALLOCATION (RM)	EXPENDITURE (RM)	(%)
Existing	261,739,800.00	259,408,229.21	99.11
New Policy	1,000,000.00	1,000,000.00	100.00
One-Off	879,700.00	877,735.00	99.78
Specific Program	1,244,499.00	1,097,669.27	88.20
<b>TOTAL</b>	<b>264,863,999.00</b>	<b>262,383,633.48</b>	<b>99.06</b>

The five (5) years period for operating expenditure shown as follows:

YEAR	ALLOCATION	EXPENDITURE	PERCENTAGE (%)
2013	264,863,999.00	262,383,633.48	99.06
2012	229,609,050.00	229,544,487.01	99.98
2011	241,327,070.00	240,697,761.25	99.74
2010	220,353,440.00	219,164,637.15	99.46
2009	219,684,770.00	217,090,016.58	98.82

The five (5) years period for total allocation and expenditure shown in the following chart:



## DEVELOPMENT EXPENDITURE

A total of RM63,214,000.00 allocated to implement successfully development projects in the Second Rolling Plan of the 10<sup>th</sup> Malaysia Plan.

The list of projects, allocation and expenditure is as follows:

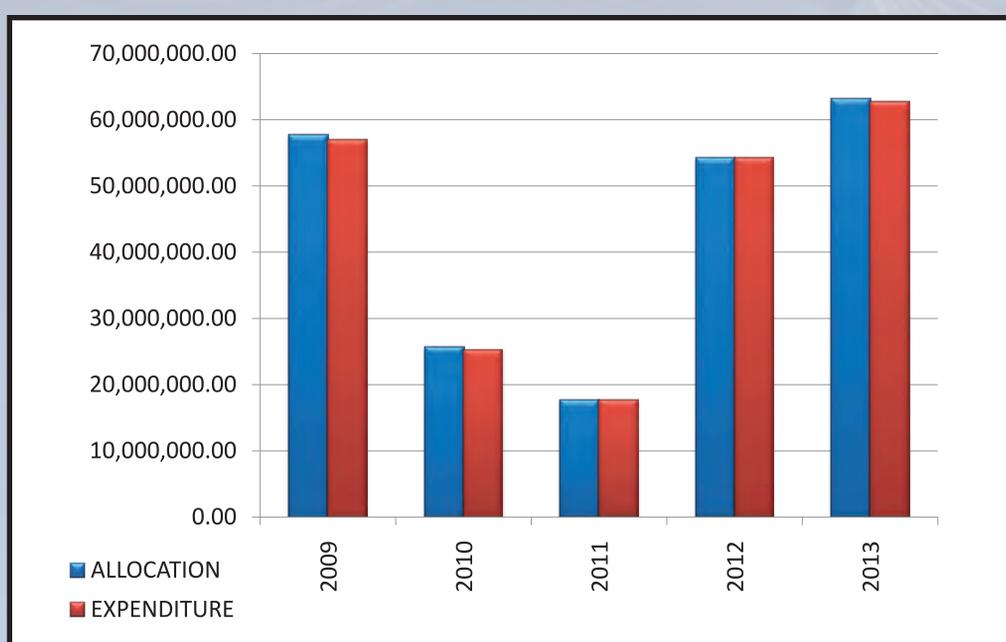
PROJECT DETAILS/NAME	ALLOCATION	EXPENDITURE	
	(RM)	(RM)	(%)
International Border (Land and Maritime) Demarcation and Survey Projects Between Malaysia and Neighbouring Countries	6,000,000.00	5,792,188.70	96.54
Empowering of the National Digital Cadastral Database	8,434,518.00	8,434,517.55	100.00
ICT Enterprise Integrated System For JUPEM	2,866,750.00	2,866,750.00	100.00
e-Mapping	34,912,732.00	34,909,812.87	99.99
Marine Geodetic Infrastructure In Malaysia Waters	7,500,000.00	7,474,780.00	99.66
Geodetic Database System (SPDG) Sub-Project to National Tide Gauge Telemetry	1,000,000.00	984,365.00	98.44
Geospatial Information Development for Security System Enhancement Project	1,500,000.00	1,494,250.00	99.62
Construction of New Branch Office of Topography Southern Region, Segamat, Peninsular Topography Section	1,000,000.00	710,219.65	71.02
<b>TOTAL</b>	<b>63,214,000.00</b>	<b>62,666,883.77</b>	<b>99.13</b>

The five (5) years period for development expenditure shown as follows:

YEAR	ALLOCATION	EXPENDITURE	PERCENTAGE (%)
2013	63,214,000.00	62,666,883.77	99.13
2012	54,284,000.00	54,232,243.35	99.90
2011	17,695,525.00	17,660,229.65	99.80
2010	25,645,960.00	25,260,310.30	98.50
2009	57,780,860.00	56,974,372.13	98.60

The five (5) years period for total allocation and expenditure shown in the following chart:

### Development Expenditure



### REVENUE

In year 2013, JUPEM successfully collect RM6,983,862.32 in revenue with the sale of maps, certified plans, aerial photographs, geodetic and astronomic data, survey fees, as well as other services inclusive of payment for licensing or permit from the sale of digital data. However, from the said total, the actual revenue collected was only RM5, 276,162.57 with RM1,707,699.75 as non-collectable revenue and is categorised as income from services where fees exempted under the provisions of the law.

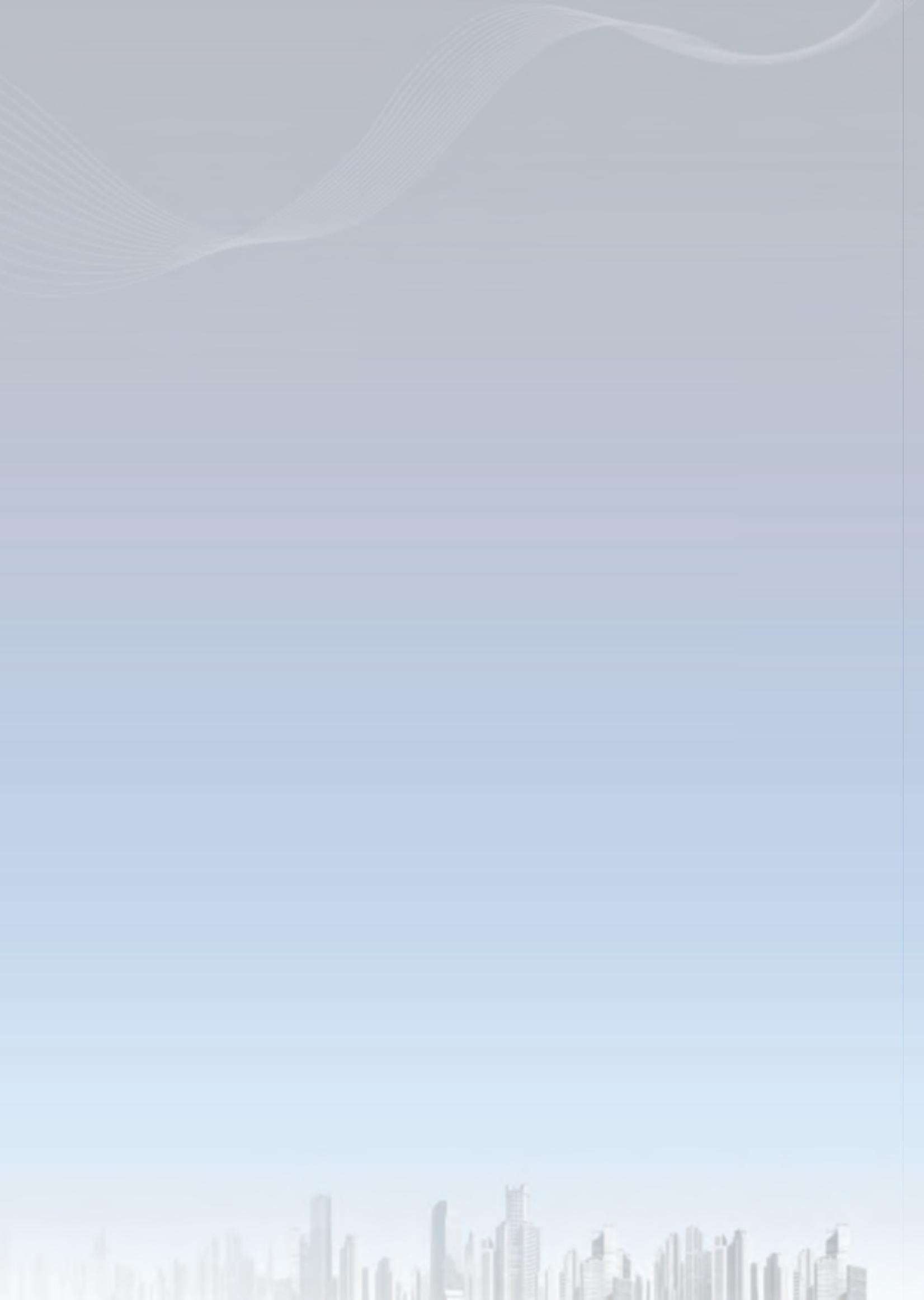
The three (3) years period on detail for revenue collected from JUPEM's Headquarters and JUPEM's States is as follows:

Year	Collected Revenue	Non-Collectable Revenue	Total
2011	9,495,794.90	11,367,195.18	20,862,990.08
2012	5,040,601.41	13,425,495.25	18,466,096.66
2013	5,276,162.57	1,707,699.75	6,983,862.32



AWARDS  
AND  
RECOGNITION





## AWARDS AND RECOGNITION

Throughout 2013, JUPEM received several awards for its achievement in various fields. The achievement and recognition throughout the year 2013 are manifestation and commitment of all JUPEM denizens to the department in particular and the public service in general.

Among the awards and recognitions JUPEM received is as follows:

NO.	CATEGORY	LEVEL
1	MS ISO 9001:2008 Certification by SIRIM	National
2	Ministry of Natural Resources and Environment 5 <sup>th</sup> Bi-Annual Sports Championship	Ministry (1 <sup>st</sup> Runner Up)
3	Award for Innovative and Creative Group (ICG) Technical Category at Department/Agency Level under NRE in conjunction with 1NRE Innovation Day 2013, GEN XY Group- JUPEM Pahang entitled " Inefficient in manufacturing process of boundary stones in JUPEM Pahang"	Ministry (Champion)
4	Award for Innovative and Creative Group (ICG) Management Category at Department/Agency Level under NRE in conjunction with 1NRE Innovation Day 2013, GiGEO Group – Defence Geospatial Division (JUPEM Headquarters) entitled "Difficulty in Using Map Sheet In Malaysian Armed Forces (MAF)"	Ministry (Champion)
5	ISO/IEC 27001 : 2005 & MS ISO/IEC 27001 : 2007 Certification by SIRIM & IQNET- Information Security Management System	National
6	Outstanding Achievement Award on 5 Star Rating in the Malaysia Government Portals and Websites Assessment (MGPWA) 2013 by Multimedia Development Corporation (MDEC)	National
7	5S Practices Certification by MPC	National

### 1<sup>st</sup> Runner Up in The Ministry of Natural Resources and Environment 5<sup>th</sup> Bi-Annual Sports Championship



**Award for Innovative and Creative Group (ICG) at Department/Agency Level Under NRE in Conjunction With 1NRE Innovation Day 2013**



Technical Category Champion GEN XY – JUPEM Pahang



Management Category Champion GiGEO – Defence Geospatial Division (DGD)

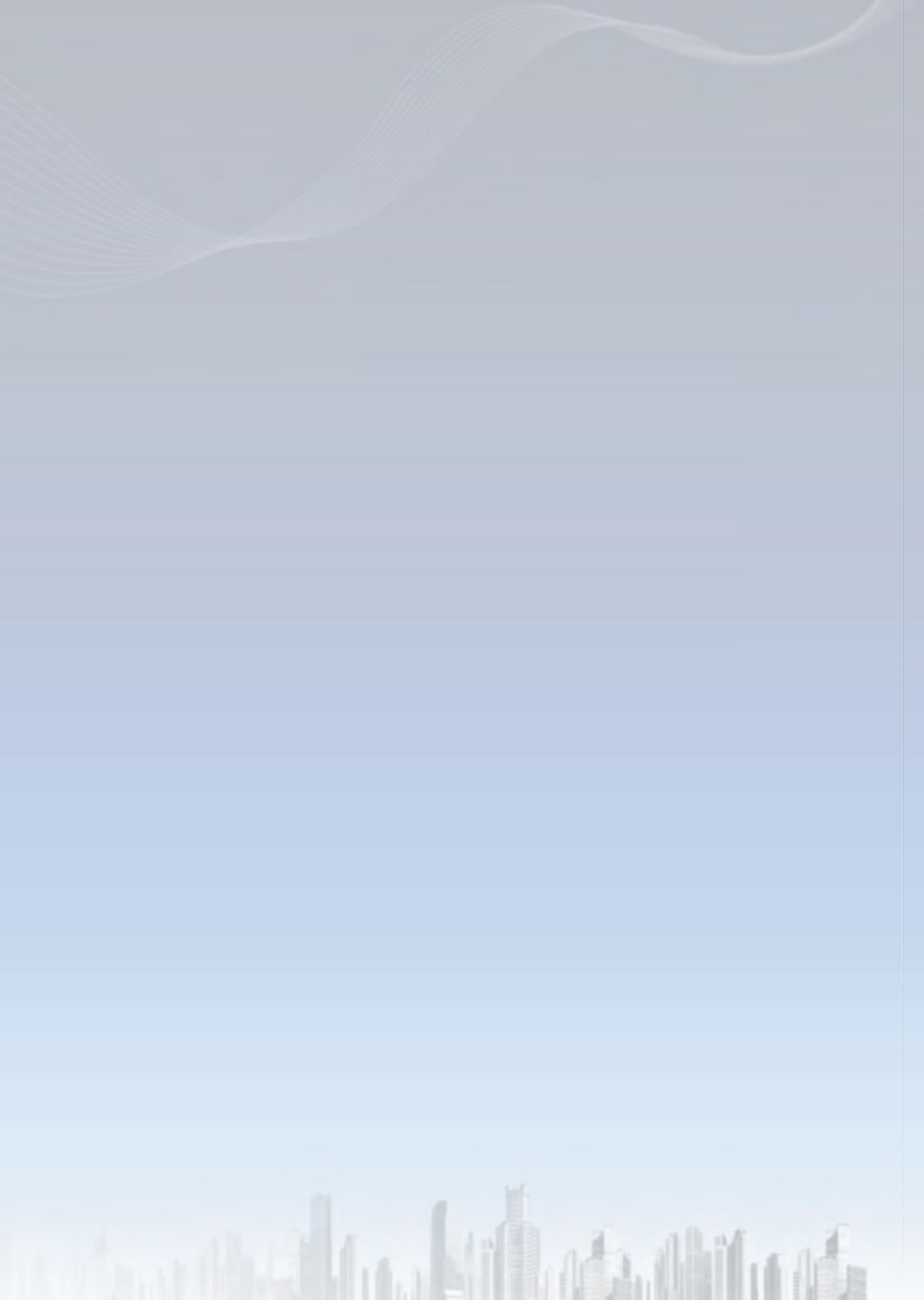


**ISO/IEC 27001: 2005 & MS ISO/IEC 27001: 2007 Certification by SIRIM & IQNET- Information Security Management System**



# SEQUENCE OF EVENTS IN 2013





## SEQUENCE OF EVENTS IN 2013

01

JANUARY



**8 January 2013**

2013 New Year Message Ceremony held at Dewan Ukur, JUPEM Headquarters, Kuala Lumpur.



**8 – 9 January 2013**

JUPEM's Management Meeting No. 1/2013 at Prince Hotel, Kuala Lumpur chaired by YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib, Director General of Survey and Mapping, Malaysia



**24 January 2013**

JUPEM joined the rally in conjunction with the National Mawlid Celebration in DataranPutrajaya.



### 28 FEBRUARY 2013

JUPEM's PUSPANITA held a General Meeting at Dewan Ukur, Headquarters, Kuala Lumpur chaired by Datin Normah binti Mohammad, the chairperson for JUPEM's PUSPANITA.

### 14 – 17 MARCH 2013

Team Building and Brain Storming program at Mutiara Taman Negara Resort, Kuala Tahan, Pahang. Total of 31 participants attended the program comprised of JUPEM's Top Management and Management and Professional group.



### 22 – 24 MARCH 2013

A total of 80 of Survey Technicians participated in Identity Transformation and Organisation's Strengthening Workshop at Hotel Seri Malaysia, Port Dickson, Negeri Sembilan.



#### 4 APRIL 2013

Director General of Survey and Mapping Malaysia's dialogue session with staff from grade 27 till 38 at Survey Hall, Headquarters, Kuala Lumpur.



#### 16 APRIL 2013

A special award has been honoured to a total of 8 JUPEM's staff during the Ministry of Natural Resources and Environment monthly assembly at Dewan Baiduri, Wisma Sumber Asli, Putrajaya.



#### 23 APRIL 2013

Data Acquisition Section visit to National Space Agency (ANGKASA) at Sungai Lang, Banting, Selangor.



#### 14 – 16 MAY 2013

AKRAB Enhancement and Accreditation Program held at Suria Cherating Beach Resort, Kuantan, Pahang.



**20 MAY 2013**

Excellent Service Award Presentation Ceremony (APC) held at Renaissance Hotel, Kuala Lumpur.



**28 – 30 MAY 2013**

ICG workshop held at Suria City Hotel, Johor Bahru.

06

JUNE



**22 – 24 JUNE 2013**

Trip and Project Monitoring for Marine Geodetic Infrastructures in Malaysian Waters (MAGIC) held in Pulau Layang-Layang and its surroundings.



#### 2 JULY 2013

YB Datuk Seri G. Palanivel, Minister of Natural Resources and Environment (NRE) and YBhg. Dato' Zool Azha Yusof, Secretary General of NRE, made an official visit to JUPEM



#### 4 JULY 2013

JUPEM's Management Meeting No. 2/2013 at Pulai Springs Resort, Johor Bahru, Johor, chaired by YBhg. Datuk Prof. Sr. Dr. Abdul Kadir bin Taib, Director General of Survey and Mapping Malaysia.



#### 29 JULY 2013

NEPAL Delegation visit to JUPEM.



#### 20 AUGUST 2013

JUPEM Eid Mubarak Celebrations held at parking yard of Bangunan Ukur, Kuala Lumpur, attended by Deputy Minister of Natural Resources and Environment (NRE), YB Dato' Sri Dr. James Dawos Mamit.



**29 AUGUST 2013**

National Utility Mapping Seminar 2013 held at the Crown Ballroom II, Hotel Istana, Kuala Lumpur. The event officiated by the Minister of Natural Resources and Environment (NRE).

09

**SEPTEMBER**



**6 – 12 SEPTEMBER 2013**

Self-Development and Teamwork Improvement Course held in Paroi Sports Complex, Seremban, Negeri Sembilan.



**13 – 15 SEPTEMBER 2013**

JUPEM participated in NRE 5<sup>th</sup> Bi-annual Sport Championship at UPM Sport Complex, Serdang, Selangor. The event officiated by YB Datuk Seri G.Palanivel, the Minister of Natural Resources and Environment (NRE).

**8 - 10 OCTOBER 2013**

Innovative and Creative Group (ICG) Workshop on Enhancement and Preparation of Project Report Series 2 held at Hotel Impiana Cherating, Pahang.

**20 OCTOBER 2013**

Mesra Rakyat 1Malaysia Tour Program of Environmental Partner in Tanah Rata, Cameron Highlands, in conjunction with National Environmental Week

**21 – 22 OCTOBER 2013**

Quality Records Management Officer Briefing held at Hotel Puteri Resort Ayer Keroh, Melaka.

**27 – 30 OCTOBER 2013**

Retreat and Team Building Workshop for JUPEM AKRAB members held at Persona Village Resort, Kuala Tahan, Pahang



### 30 OCTOBER 2013

JUPEM crowned as champion in Management and Technical category in the NRE Innovative and Creative Group (ICG) competition, held at Dewan Baiduri, NRE, Putrajaya.

11

NOVEMBER



### 4 NOVEMBER 2013

JUPEM took part in the Special Forum in conjunction with 1435H Maal Hijrah celebration at the National Mosque, Kuala Lumpur, and broadcasted live on TV1.



### 15 NOVEMBER 2013

JUPEM received recognition in the safety management system certification scheme from SIRIM & QAS International Sdn. Bhd. in a ceremony held at Grand Lagoon Ballroom, Sunway Resort Hotel & SPA, Bandar Sunway, Petaling Jaya, Selangor.

12

DECEMBER



### 3 – 6 DECEMBER 2013

JUPEM Star Rating System (SSR) Criteria Draft Finalising Workshop held at Best Western Prima Inland Sea Resort Port Dickson, Negeri Sembilan.



**4 – 6 DECEMBER 2013**

JUPEM ICG Convention held at Grand Blue Wave Hotel, Shah Alam, Selangor and officiated by Director General of Survey and Mapping Malaysia, YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib.



**9 – 10 DECEMBER 2013**

The 2013 Directors of Survey Conference held at Holiday Inn, Melaka and officiated by Director General of Survey and Mapping Malaysia, YBhg. Datuk Prof. Sr Dr. Abdul Kadir bin Taib.



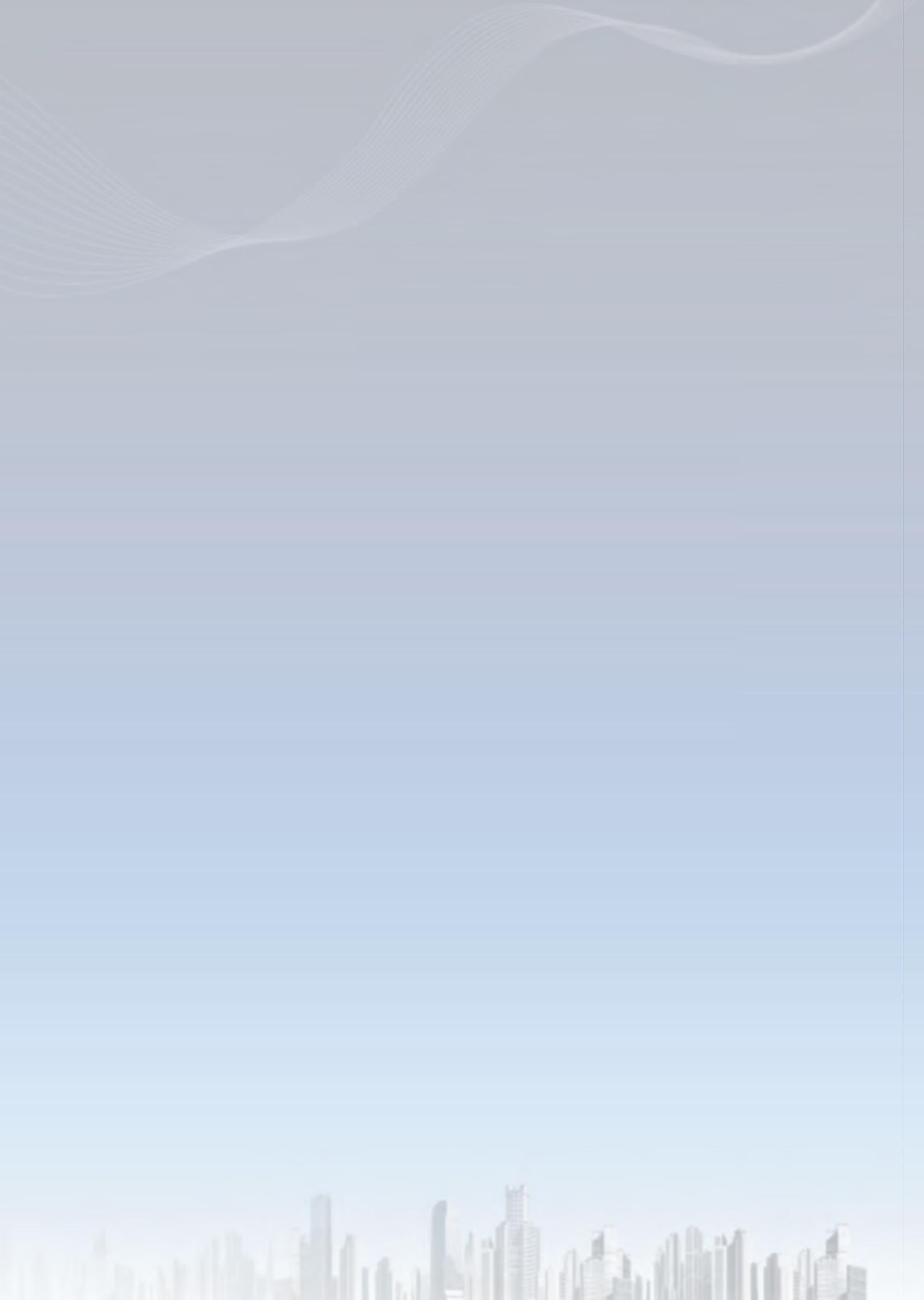
**31 DECEMBER 2013**

Two delegates from the National Survey Authority (NSA), Sultanate of Oman visited JUPEM Headquarters. He was the Air Commodore Yaqoob Al-Toobi, Head of NSA, Ministry of Defence and Mr. Saleem Al-Hashmi, Director of Geospatial Information, NSA, Ministry of Defence.



# JUPEM DIRECTORY





A	JUPEM HEADQUARTERS	Tel. No.	Fax No.
1	Office of the Director General of Survey and Mapping Department of Survey and Mapping Malaysia Level 11, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170811	03-26917457
2	Office of the Deputy Director General of Survey and Mapping I Department of Survey and Mapping Malaysia Level 10, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170812	03-26970221
3	Office of the Deputy Director General of Survey and Mapping II Department of Survey and Mapping Malaysia Level 10, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170871	03-26987114
4	Office of the Director of Survey Division (Mapping) Department of Survey and Mapping Malaysia Level 11, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170841	03-26917457
5	Office of the Director of Survey Division (Cadastre) Department of Survey and Mapping Malaysia Level 10, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170871	03-26170727
6	Office of the Defence Geospatial Division Department of Survey and Mapping Malaysia Level 2, Bangunan Ukur Jalan Semarak 50578 KUALA LUMPUR	03-26170941	03-26980505

<b>B</b>	<b>JUPEMs' STATES</b>	<b>Tel. No.</b>	<b>Fax No.</b>
1	Department of Survey and Mapping Johor Levels 7, 8 and 9 Block A, Wisma Persekutuan Jalan Ayer Molek 80000 Johor Bahru JOHOR	07-2231224	07-2238535
2	Department of Survey and Mapping Kedah 1187 Jalan Raya 09000 Kulim KEDAH	04-4906166	04-4904223
3	Department of Survey and Mapping Kelantan Jalan Hospital 15000 Kota Bharu KELANTAN	09-7481588	09-7443923
4	Department of Survey and Mapping Melaka Jalan Hospital Taming Sari 75578 MELAKA	06-2822844	06-2847319
5	Department of Survey and Mapping Negeri Sembilan Jalan Dato' Abdul Kadir 70000 Seremban NEGERI SEMBILAN	06-7623882	06-7620158
6	Department of Survey and Mapping Pahang Jalan Tengku Muhamad 25050 Kuantan PAHANG	09-5668511	09-5668503
7	Department of Survey and Mapping Perak Jalan Dato' Seri Ahmad Said Greentown 30450 Ipoh PERAK	05-2417181	05-2417151
8	Department of Survey and Mapping Perlis Level 6, Bangunan Persekutuan Kangar Persiaran Jubli Emas 01000 Kangar PERLIS	04-9772128	04-9772131

9	Department of Survey and Mapping Pulau Pinang Level 39, KOMTAR 10000 Georgetown PULAU PINANG	04-2611762	04-2835884
10	Department of Survey and Mapping Selangor Level 16-02 and 17, Plaza Masalam No. 2 Jalan Tengku Ampuan Zabedah E9/E 40578 Shah Alam SELANGOR	03-55132616	03-55132613
11	Department of Survey and Mapping Terengganu Levels 7 & 8, Wisma Persekutuan Jalan Sultan Ismail 20578 Kuala Terengganu TERENGGANU	09-6221144	09-6237188
12	Department of Survey and Mapping Malaysia Kuala Lumpur/Putrajaya Federal Territory Levels 3 & 4, Wisma JUPEM Jalan Semarak 50578 KUALA LUMPUR	03-26170600	03-26938740
13	Department of Survey and Mapping Labuan Level 7, Block 4 Kompleks Ujana Kewangan Peti Surat 86 87008 WILAYAH PERSEKUTUAN LABUAN	087-412068	087-417401
14	Department of Survey and Mapping Malaysia (Sabah Topographic Section) Block B, Levels 2, 3 & 4 Bangunan KWSP Karung Berkunci 2083, Jalan Karamunsing 88840 Kota Kinabalu SABAH	088-538351	088-231243
15	Department of Survey and Mapping Malaysia (Sarawak Topographic Section) Level 7, Bangunan Sultan Iskandar Jalan Simpang Tiga 93578 Kuching SARAWAK	082-420763	082-245420

C	OTHER AGENCIES (CADRE)	Tel. No.	Fax No.
1	Director Air Base and Maritime Branch Level 8, Block F Ibu Pejabat JKR Malaysia Jalan Sultan Salahuddin 50582 KUALA LUMPUR	03-26108888	03-26988187
2	Director National Centre for Geospatial Data Infrastructure (MaCGDI) Ministry of Natural Resources and Environment (NRE) Level 7, Lot 4G3, Presint 4 Pusat Pentadbiran Kerajaan Persekutuan Putrajaya 62574 PUTRAJAYA	03-88861111	03-88894851
3	Director National Institute of Land and Survey (INSTUN) Ministry of Natural Resources and Environment (NRE) 35950 Tanjung Malim PERAK	05-4542825	05-4542837
4	Senior Assistant Director Ministry of Housing and Local Government Project Implementation and Maintenance Division Land Survey Unit Level 8, No. 51 Persiaran Perdana, Presint 4 62100 PUTRAJAYA	03-88915000	03-88913182
5	Assistant Secretary (Survey) Ministry of Natural Resources and Environment (NRE) Level 7, Lot 4G3, Presint 4 Pusat Pentadbiran Kerajaan Persekutuan Putrajaya 62574 PUTRAJAYA	03-88861111	03-88892672
6	Assistant Secretary National Security Council (MKN) Prime Minister's Department Maritime Safety and Sovereignty Division Level 2, Bangunan Perdana Putra Pusat Pentadbiran Kerajaan Persekutuan Putrajaya 62502 PUTRAJAYA	03-88726817	03-88883021
7	Chief Director Malaysian Remote Sensing Agency Ministry of Science, Technology and Innovation No. 13, Jalan Tun Ismail 50480 KUALA LUMPUR	03-26973400	03-26973350

8	<p>Chief Secretary Ministry of Defence Human Resource Management Division Civil Service Branch Level 2, Wisma Pertahanan Jalan Padang Tembak 50634 KUALA LUMPUR</p>	03-20715656	03-26917217
9	<p>Chief Director Department of Mineral and Geoscience (DMG) Headquarters, Lantai 20, Bangunan Tabung Haji Jalan Tun Razak 50658 KUALA LUMPUR</p>	03-21611033	03-21611036
10	<p>Chief Director Peninsular Malaysia Forestry Department (PMFD) Seksyen Pentadbiran dan Kewangan Jalan Sultan Salahuddin 50650 KUALA LUMPUR</p>	03-26164488	03-26925657
11	<p>Chief Director Peninsular Malaysia Marine Department P.O. Box 12, Jalan Limbungan 42007 Pelabuhan Kelang SELANGOR</p>	03-33467777	03-31685289
12	<p>Chief Director Civil Aviation Department Management Services Division Levels 1-4, Podium Block No. 27, Persiaran Perdana Presint 4 Pusat Pentadbiran Kerajaan Persekutuan 62618 PUTRAJAYA</p>	03-88714000	03-88901640
13	<p>Secretary Election Commission (EC) Human Resource Management Division Levels 4-5, Block C, Kompleks C Pusat Pentadbiran Kerajaan Persekutuan 62502 PUTRAJAYA</p>	03-88724802	03-88880743
14	<p>Director Sarawak Marine Department Lot 683, Section 66, Jalan Utama, Tanah Puteh 93619 Kuching SARAWAK</p>	082-484335/159	082-331778

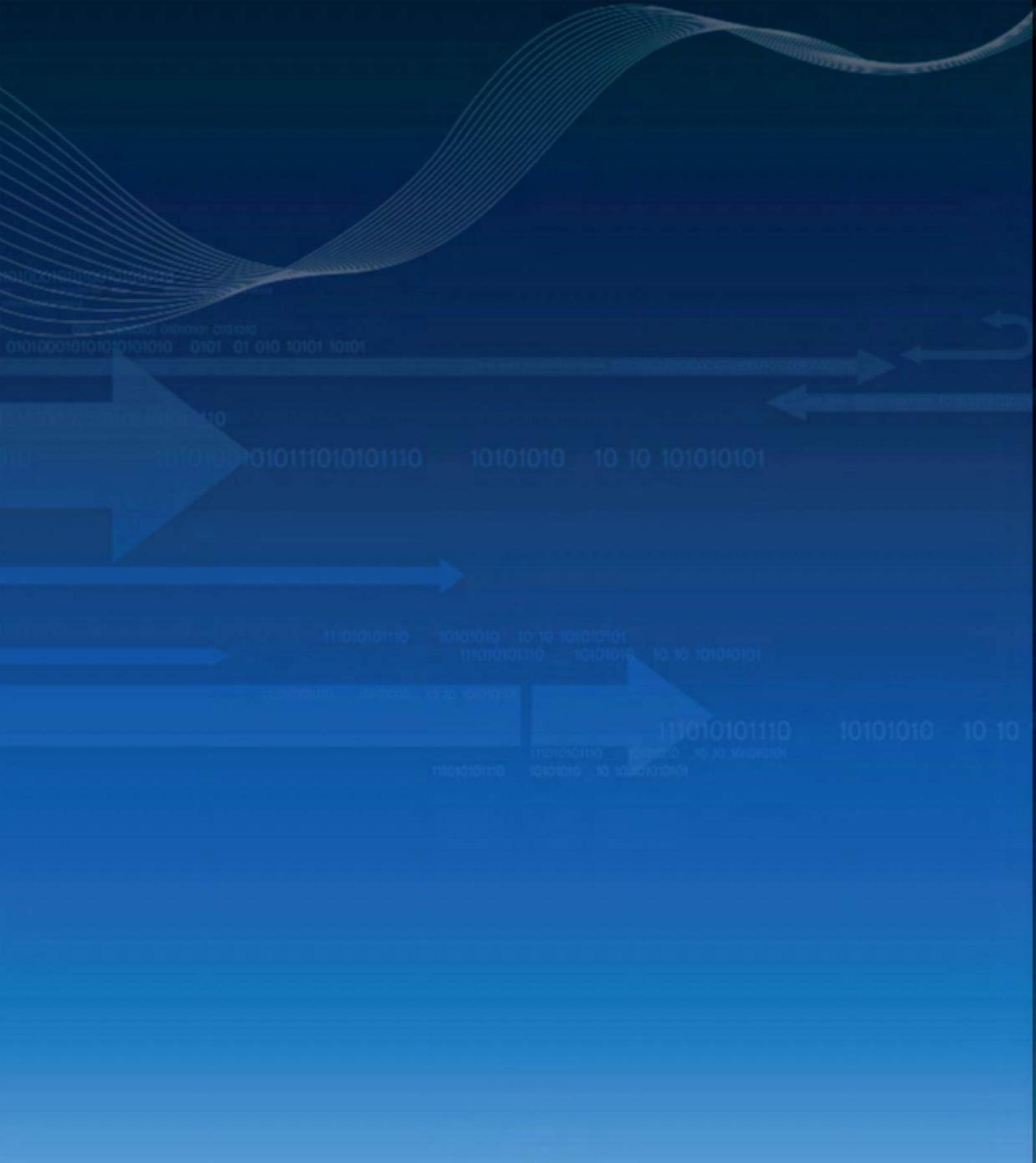
### **Enquiries**

For further enquiries, please contact:

The Secretariat  
Planning, Research and Development Section  
Department of Survey and Mapping Malaysia  
Level 13, Wisma JUPEM  
Jalan Semarak  
50578 Kuala Lumpur  
MALAYSIA  
TEL : 03 - 26170800  
FAX : 03 - 26170990

### **Disclaimer**

All information is correct at time of printing.  
Data and information contained in this report cannot use as evidence to any legal action.



Jabatan Ukur dan Pemetaan Malaysia  
Department of Survey and Mapping Malaysia  
[www.jupem.gov.my](http://www.jupem.gov.my)

