

**LAPORAN
TAHUNAN**
ANNUAL REPORT
2016

JABATAN UKUR DAN PEMETAAN MALAYSIA

KANDUNGAN

5 PERUTUSAN KETUA PENGARAH UKUR DAN PEMETAAN MALAYSIA

9 MAKLUMAT KORPORAT

PENGURUSAN TERTINGGI JABATAN
KUMPULAN PENGURUSAN JUPEM
CARTA ORGANISASI JABATAN
VISI DAN MISI
OBJEKTIF DAN FUNGSI
PIAGAM PELANGGAN
KOD ETIKA
LOGO
LAGU JABATAN

27 TADBIR URUS KORPORAT

PENGURUSAN SUMBER MANUSIA
KURSUS DAN LATIHAN
LAMAN WEB JUPEM GEOPORTAL
PENERIMA BINTANG KEBESARAN
PERSEKUTUAN DAN NEGERI

41 LAPORAN PRESTASI

INFRASTRUKTUR GEODETIK

- Ukuran Jaringan dan Kawalan GNSS
- MyRTKnet
- Ujian Tapak Pillar Kalibrasi EDM/GNSS
- Cerapan Air Pasang Surut
- Jaringan Ukur Aras
- Ukuran Graviti
- Falak Syarie dan Astronomi

PERSEMPADANAN ANTARABANGSA

- Persempadanan Darat Malaysia-Thailand
- Persempadanan Darat Malaysia-Indonesia
- Persempadanan Maritim Malaysia-Indonesia
- Isu Tuntutan Bertindih di Laut China Selatan
- Persempadanan Darat Malaysia-Brunei Darussalam
- Projek Pelantar Benua Malaysia

LAPORAN PRESTASI

PERSEMPADANAN NEGERI

- Projek Penandaan dan Pengukuran Sempadan Bersama antara Negeri-negeri Semenanjung

SAKSI PAKAR KES-KES DI MAHKAMAH

PENERBITAN PETA

- Penawanan Data
- Pangkalan Data
- Pengemaskinian Peta Topografi
- Kartografi
- Percetakan
- Pemetaan Utiliti
- Perkhidmatan Pemetaan

UKURAN KADASTER

- Ukuran Hak Milik Tanah
- Semakan Kerja Juruukur Tanah Berlesen (JTB)
- Semakan Kerja Ukuran Hak Milik Strata Peringkat I
- Semakan Kerja Ukuran Hak Milik Strata Peringkat II
- Penandaan Titik Kawalan CRM
- Pangkalan Data Ukur Kadaster Kebangsaan (NDCDB)

BAHAGIAN GEOSPATIAL PERTAHANAN

- Perkhidmatan Geospasial Pertahanan dan Keselamatan
- Perkhidmatan Geospasial Medan untuk Operasi dan Latihan Peringkat ATM
- Penawanan Data menggunakan UAV
- Perkhidmatan Geospasial Melalui Pusat Operasi Geospasial Pertahanan
- Pengurusan Keupayaan Geospasial Pertahanan dan Keselamatan

103 LAPORAN KEWANGAN

- Pengurusan Kewangan
- Belanja Mengurus
- Belanja Pembangunan
- Hasil

111 ANUGERAH DAN PENGIKTIRAFAN

113 IMBASAN PERISTIWA UTAMA

129 DIREKTORI JABATAN



Moto

Pemacu Kesejahteraan Rakyat
dan Pembangunan Negara



PERUTUSAN KETUA
PENGARAH UKUR
DAN PEMETAAN
MALAYSIA

PERUTUSAN



DATO' SR HASAN BIN JAMIL
KETUA PENGARAH UKUR DAN
PEMETAAN MALAYSIA

Assalamualaikum Warahmatullahi Wabarakatuh,

Salam Sejahtera and Salam 1Malaysia.

Alhamdulillah, bersyukur ke hadrat Illahi di atas limpah rahmat dan kasih sayang-Nya, Laporan Tahunan JUPEM 2016 telah berjaya diterbitkan mengikut jadual yang telah dirancang. Terlebih dahulu ingin saya mengucapkan syabas kepada sidang redaksi di atas usaha menyediakan Buku Laporan Tahunan JUPEM dan ribuan terima kasih kepada semua Bahagian Ibu Pejabat dan JUPEM Negeri di atas kesungguhan dan komitmen dalam melaksanakan aktiviti-aktiviti yang dirancang sebagaimana yang dimanifestasikan di dalam buku ini.

Sebagai sebuah Jabatan di bawah Kementerian Sumber Asli dan Alam Sekitar, JUPEM perlu memainkan peranan sebagai sebuah organisasi yang bertanggungjawab dalam memacu pembangunan negara, berfungsi sebagai penasihat kerajaan dalam bidang ukur dan pemetaan disamping menjalankan kerja-kerja pengukuran dan pemetaan demi untuk pembangunan sosio ekonomi dan kedaulatan negara. Sejak penubuhannya dan bagi mencapai hasrat tersebut, JUPEM telah merencanakan pelbagai pembaharuan serta pemodenan bagi meningkatkan kualiti perkhidmatan dan produk yang ditawarkan. Bermula daripada penggunaan peralatan ukur konvensional sehinggalah kepada aplikasi satelit, penggunaan *Unmanned Aerial Vehicle* (UAV) dan yang terkini meneroka ilmu pengukuran dalam menyokong *Building Information Modelling* (BIM), JUPEM sentiasa mengorak langkah dan berusaha meningkatkan kepakaran dalaman seiring dengan perkembangan teknologi-teknologi terkini melalui latihan-latihan dan pendedahan secara berterusan demi memenuhi keperluan dan kehendak pelanggan.

Dalam menghadapi cabaran di sepanjang tahun 2016, tahniah untuk semua warga JUPEM kerana dengan berkat kerjasama dan kesungguhan semua, JUPEM telah melakar kecemerlangan di peringkat antarabangsa di atas kejayaan menganjurkan *International Forum on Policy and Legal Framework for Geospatial Information Management for Asia and The Pacific* (UN-GGIM-AP) *Plenary Meeting* yang dihadiri oleh perwakilan peringkat tertinggi dalam komuniti geospasial dari negara-negara anggota di bawah naungan *United Nations Global Geospatial Information Management* (UN-GGIM). Di peringkat Kementerian, JUPEM meneruskan kejayaan dalam melahirkan idea-idea inovasi yang berdaya saing dan JUPEM telah berjaya dianugerahkan sebagai Johan Anugerah Kumpulan Inovatif dan Kreatif (KIK) Terbaik 1NRE Kategori Teknikal, Naib Johan serta Tempat Ketiga KIK Terbaik 1NRE Kategori Pengurusan, dan Tempat Ketiga Pertandingan Inovasi 1NRE. Selain itu, JUPEM juga berjaya memperolehi Pensijilan Sistem Pengurusan Keselamatan Maklumat (ISMS) ISO/IEC 27001:2013 dari pihak Sirim QAS International Sdn. Bhd. bagi Pengurusan dan Pengesahan Data Pengguna Sistem MyRTKNet. Kejayaan yang dicapai ini seharusnya akan terus menjadi pemangkin serta pencetus semangat untuk warga JUPEM terus memberikan perkhidmatan yang terbaik di masa hadapan.

Bagi menyahut seruan Kerajaan agar penggunaan sumber data dan maklumat di semua agensi kerajaan dioptimumkan, JUPEM telah mengorak langkah dalam melaksana kerjasama perkongsian pintar dengan Pihak Berkuasa Tempatan (PBT) menerusi Strategi Lautan Biru Kebangsaan atau *Blue Ocean Strategy* (NBOS). Sebagai langkah permulaan, JUPEM telah menandatangani Memorandum Persefahaman (MoU) dengan Perbadanan Putrajaya, diikuti dengan Dewan Bandaraya Kota Kinabalu dan beberapa lagi PBT dalam masa yang terdekat. Strategi NBOS ini bukan sahaja dapat membantu JUPEM mengemaskini pangkalan data jabatan dengan lebih berkesan dan *cost effective*, malahan PBT-PBT tersebut juga boleh mendapat manfaat daripada data geospasial JUPEM yang tepat dan terkini seperti contohnya melalui portal aplikasi SmartKadaster yang membolehkan pengguna mengakses maklumat-maklumat geospasial secara tiga dimensi (3D) untuk kawasan Wilayah Persekutuan Kuala Lumpur dan Putrajaya. Kerjasama-kerjasama sebegini akan terus diperluaskan kepada Jabatan dan Agensi lain agar maklumat geospasial yang diperolehi dari projek-projek pembangunan sedia ada dan yang sedang dirancang dapat digunakan untuk pelbagai kegunaan dan dimanfaatkan bersama.

Berdasarkan kepada aktiviti dan pencapaian pada tahun 2016 ini, saya berharap setiap warga JUPEM dapat meneruskan iltizam yang tinggi di dalam menghadapi perubahan persekitaran yang pantas dan dinamik, mampu berfikir di luar kebiasaan serta akan terus mengamalkan budaya kerja yang positif bagi memikul amanah dalam memastikan perkhidmatan yang diberikan dapat memberi kepuasan kepada semua.

Akhir kata, semoga kita semua dapat bekerjasama dalam apa jua bidang yang kita lakukan dengan kekuatan fizikal dan mental serta kebijaksanaan bagi menggalas tanggungjawab yang diamanahkan. Marilah kita sama-sama berdoa agar kita dapat meneruskan kelangsungan, kecemerlangan dan kejayaan dan seterusnya menjadikan JUPEM terus menjadi Jabatan yang unggul dan disegani diperingkat nasional dan antarabangsa.

Sekian, terima kasih.



DATO' SR HASAN BIN JAMIL,
DIMP, JMW, AMN



MAKLUMAT KORPORAT



**KETUA PENGARAH UKUR DAN PEMETAAN MALAYSIA
DATO' SR HASAN BIN JAMIL**

(Mulai 4 November 2016)

DATUK SR AHMAD FAUZI BIN NORDIN

(Sehingga 3 November 2016)

**TIMBALAN KETUA PENGARAH UKUR DAN PEMETAAN II
DATO' SR MOHD NOOR BIN ISA**





PENGARAH BAHAGIAN (GEOSPATIAL PERTAHANAN)
BRIGEDIER JENERAL
SR DR MOHD ZAMBRI BIN MOHAMAD RABAB
(Mulai 2 Jun 2016)



PENGARAH BAHAGIAN (KHIDMAT PENGURUSAN)
NOREHAN BINTI OMAR
(Mulai 14 Januari 2016)



PENASIHAT UNDANG-UNDANG
ZARIFAH BINTI ZULGHAFAR



KETUA UNIT INTEGRITI
TRIVEINEI A/P SUNDARAM

Bahagian Ibu Pejabat JUPEM



**PENGARAH UKUR BAHAGIAN
(KADASTER)**

SR DR. TENG CHEE HUA



**PENGARAH UKUR BAHAGIAN
(DASAR DAN PENYELARASAN PEMETAAN)**

SR AHAMAD BIN ZAKARIA



**PENGARAH UKUR BAHAGIAN
(EHWAL PERSEMPADANAN)**

SR DR AZHARI BIN MOHAMED

(Mulai 18 Januari 2016)

SR TAN AH BAH

(Sehingga 15 Januari 2016)

PENGARAH UKUR BAHAGIAN (UKUR GEODETIK)

SR SOHAIME BIN HAJI RASIDI

(Mulai 15 Mac 2016)

SR DR. AZHARI BIN MOHAMED

(Sehingga 17 Januari 2016)



PENGARAH UKUR BAHAGIAN (PERANCANGAN DAN KORPORAT)

SR WAN MOHAMAD DARANI BIN AB. RAHMAN



PENGARAH UKUR BAHAGIAN (PEMETAAN TOPOGRAFI SEMENANJUNG)

SR MOHD LATIF BIN ZAINAL





**PENGARAH UKUR BAHAGIAN (PEMETAAN UTILITI)
SR DR. MOHD YUNUS BIN MOHD YUSOFF**



**PENGARAH UKUR BAHAGIAN (KARTOGRAFI DAN GIS)
SR ZOHER BIN NOMANBHOY**



**PENGARAH UKUR BAHAGIAN (PANGKALAN DATA GEOSPATIAL NEGARA)
HAJI ZAHARI BIN ZAMLOPE**

PENGARAH UKUR DAN PEMETAAN PERAK
SR JOHN ELVIS KOH



PENGARAH UKUR DAN PEMETAAN SELANGOR
SR HAJI MOHAMAD KAMALI BIN ADIMIN



PENGARAH UKUR DAN PEMETAAN JOHOR
SR HAJI RAMLI BIN NOR





PENGARAH UKUR DAN PEMETAAN PAHANG
DATU' SR HAJI MOHAMMAD YUNUS
BIN MD YUSOF



PENGARAH UKUR DAN PEMETAAN KEDAH
SR NG ENG GUAN



PENGARAH UKUR DAN PEMETAAN
W. P. KUALA LUMPUR/PUTRAJAYA
MD. ZAKI BIN AD. WAHID
(Sehingga 21 November 2016)

PENGARAH UKUR DAN PEMETAAN NEGERI SEMBILAN
SR JASNI BIN A. RAHMAN



PENGARAH UKUR DAN PEMETAAN PULAU PINANG
SR AHMAD AZMAN BIN GHAZALI



PENGARAH UKUR DAN PEMETAAN TERENGGANU
SR HAMDAN BIN AB. AZIZ





PENGARAH UKUR DAN PEMETAAN KELANTAN
SR WAN ZAINUDDIN BIN WAN YUSUFF
(Sehingga 3 Disember 2016)



PENGARAH UKUR BAHAGIAN
(PEMETAAN TOPOGRAFI SABAH)
SR HAJI ANUAL BIN AZIZ



PENGARAH UKUR BAHAGIAN
(PEMETAAN TOPOGRAFI SARAWAK)
RAHIM BIN HAJI MOHAMAD SALEH

PENGARAH UKUR DAN PEMETAAN MELAKA

AHMAD TARMIZI BIN BASTANI

(Sehingga 28 Oktober 2016)



PENGARAH UKUR DAN PEMETAAN PERLIS

SR AHMAD AZMI BIN HASHIM

(Mulai 17 Oktober 2016)

SR HAJI CHE SULAIMAN BIN MAT YUNUS

(Sehingga 14 Oktober 2016)

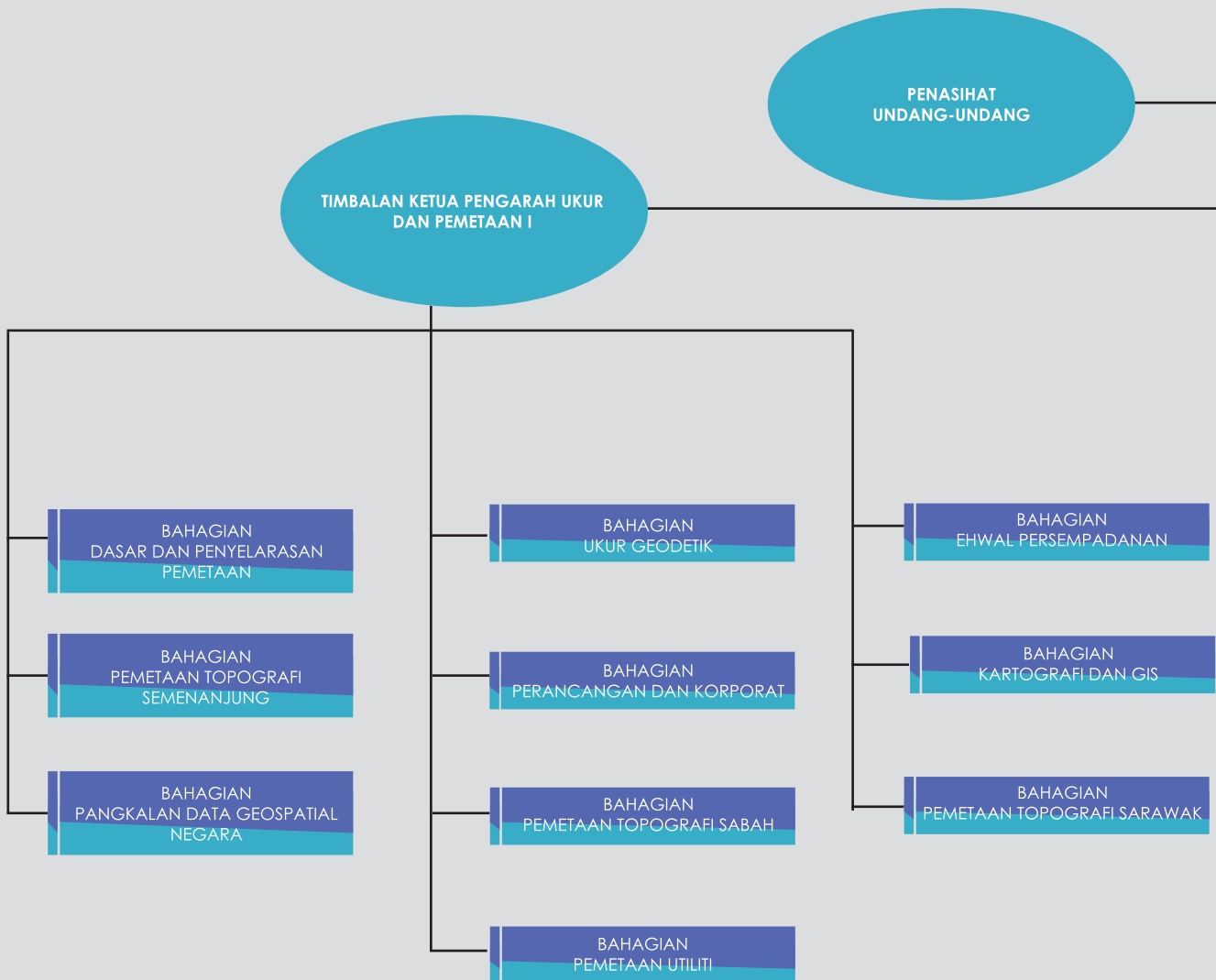


PENGARAH UKUR DAN PEMETAAN LABUAN

SR SHAFFRI BIN BAUDI



CARTA ORGANISASI JABATAN



KETUA PENGARAH UKUR DAN PEMETAAN MALAYSIA

UNIT INTEGRITI

TIMBALAN KETUA PENGARAH UKUR DAN PEMETAAN II

BAHAGIAN GEOSPATIAL PERTAHANAN

BAHAGIAN KHIDMAT PENGURUSAN

JAWATAN KADER DI 14 AGENSI

BAHAGIAN KADASTER

JUPEM PERAK

JUPEM JOHOR

JUPEM SELANGOR

JUPEM PAHANG

JUPEM KEDAH

JUPEM W.P. KUALA LUMPUR / PUTRAJAYA

JUPEM NEGERI SEMBILAN

JUPEM PULAU PINANG

JUPEM KELANTAN

JUPEM TERENGGANU

JUPEM MELAKA

JUPEM PERLIS

JUPEM W.P. LABUAN

Visi

Menjadikan JUPEM terbilang dalam perkhidmatan dan pengurusan ukur, pemetaan dan geospasial bagi memenuhi wawasan negara.

Misi

Menyediakan perkhidmatan dan pengurusan ukur, pemetaan dan geospasial yang berkualiti melalui sistem terbaik, sumber manusia yang kompeten dan persekitaran kerja yang kondusif.

Objektif

- Memastikan produk dan perkhidmatan ukur kadaster, pemetaan dan geodetik 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, pemetaan, geodetik, pemetaan utiliti bawah tanah dan maklumat geospasial.
- Memastikan penentuan, penandaan dan pengukuran sempadan negeri dan antarabangsa memenuhi keperluan pentadbiran negeri serta menjamin kedaulatan negara.
- Memastikan perkhidmatan geospasial pertahanan yang berkualiti dan bersepadu dalam mendokong infrastruktur pertahanan dan keselamatan negara.

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 penyediaan 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 surat hak milik ke Pejabat Tanah/ Pejabat Pengarah Tanah dan Galian dalam tempoh 7 hari dari penerimaan permohonan yang sempurna dan teratur.
- Memastikan dokumen geospasial 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 invois tidak melebihi 14 hari dari tarikh penerimaan lengkap diterima.

Fungsi

- Menasihati kerajaan dalam bidang ukur kadaster, pemetaan dan geospasial serta persempadanan negeri dan antarabangsa.
- Menyediakan maklumat ukur kadaster secara lengkap dan kekal untuk tujuan pengeluaran hakmilik tanah, strata dan statum.
- Menguruskan pangkalan data ukur kadaster dan pemetaan dengan efisien.
- Menerbitkan peta-peta topografi, kadaster, tematik dan utiliti bawah tanah untuk tujuan perancangan, pengurusan sumber asli, pemuliharaan alam sekitar, pembangunan, pemantauan dan keselamatan.
- Menyediakan infrastruktur geodetik bagi ukuran kadaster, pemetaan, kejuruteraan dan kajian saintifik.
- Menyediakan khidmat geospasial pertahanan secara menyeluruh dan bersepadu untuk tujuan pertahanan dan keselamatan.
- Menerbitkan produk falak dan astronomi termasuk jadual-jadual arah kiblat, waktu solat, data rukyah hilal, takwim hijriah dan maklumat gerhana serta almanak falak syarie.

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.



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.

Logo JUPEM pada keseluruhannya adalah lebih energetik, dinamik, progresif serta mampu bersaing dalam menghadapi cabaran-cabaran yang bersifat sejangat khususnya dalam penyediaan infrastruktur ukur dan pemetaan bagi mendukung Dasar Pembangunan Negara.

lagu JABATAN

JUPEM MAJU DAN JAYA

Positif Penuh Beretika
Realistik Kita Menuju Satu Wawasan
Perkhidmatan Cekap 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

JUPEM

The background features a vibrant, multi-colored geometric pattern of triangles and polygons in shades of yellow, orange, red, and purple. A semi-transparent white rectangular area is centered horizontally, containing a photograph of a modern building's interior. The photo shows a long, brightly lit hallway with a polished floor, white walls, and a large, ornate chandelier hanging from the ceiling. The overall aesthetic is contemporary and professional.

TADBIR URUS KORPORAT

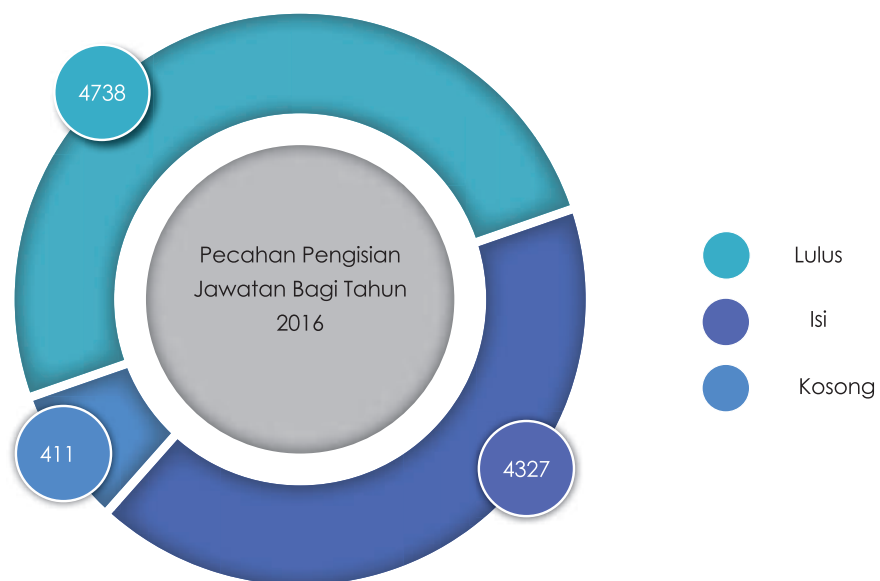
PENGURUSAN SUMBER MANUSIA

Perjawatan

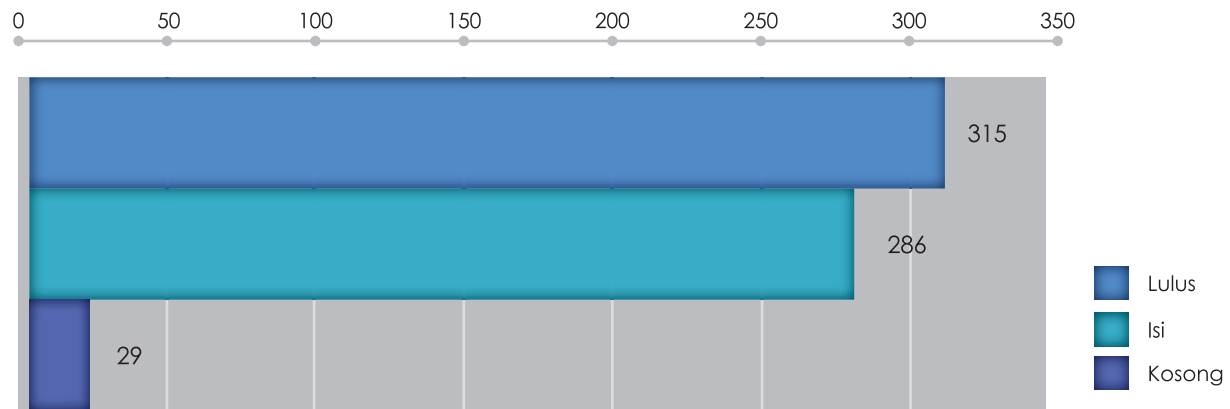
Mengikut Waran Perjawatan JUPEM Tahun 2016, JUPEM mempunyai jumlah perjawatan yang diluluskan sebanyak 4,738 jawatan berbanding perjawatan JUPEM tahun 2015 iaitu sebanyak 4,884 perjawatan. Daripada jumlah tersebut, sebanyak 4,327 perjawatan telah diisi meliputi Gred Utama, Kumpulan Pengurusan dan Profesional dan Kumpulan Pelaksana.

KUMPULAN	GRED	LULUS	ISI	KOSONG	BANK
GRED UTAMA	JUSA A, B, C	11	10	1	0
PENGURUSAN & PROFESIONAL	54	19	16	3	0
	48-52	72	70	2	0
	41-44	213	190	23	0
KUMPULAN PELAKSANA	17-38	2,161	1,975	186	0
	1-16	2,262	2,066	196	0
	JUMLAH	4,738	4,327	411	0

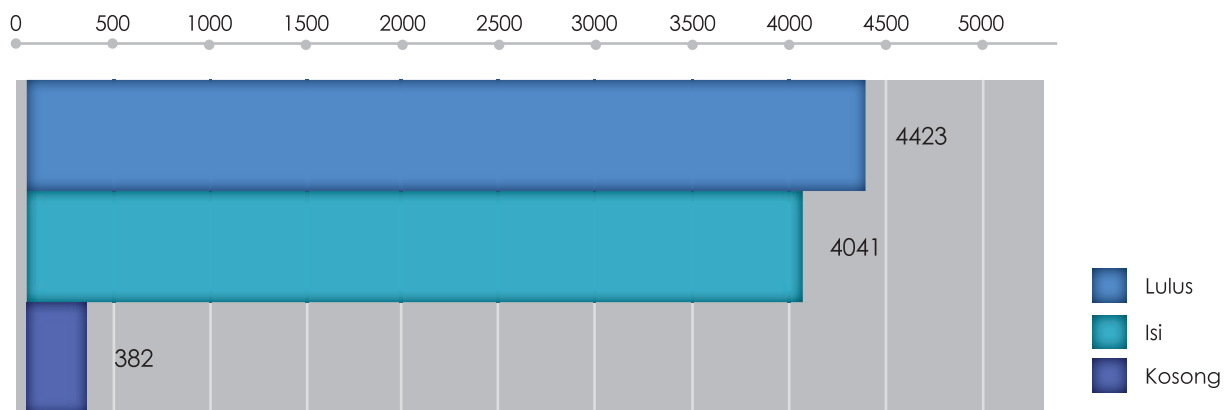
Pecahan Pengisian Jawatan Bagi Tahun 2016



Pecahan Pengisian Jawatan Gred Utama dan Kumpulan Pengurusan dan Profesional



Pecahan Pengisian Jawatan Kumpulan Pelaksana



Perjawatan Kader

JUPEM mempunyai sejumlah 185 perjawatan kader di pelbagai agensi Kerajaan yang lain seperti Kementerian Sumber Asli dan Alam Sekitar (NRE), Kementerian Kesejahteraan Bandar, Perumahan dan Kerajaan Tempatan (KPKT), Kementerian Pertahanan (MINDEF), Jabatan Pengairan dan Saliran (JPS), Jabatan Ketua Pengarah Tanah dan Galian (JKPTG), Jabatan Perhutanan Semenanjung Malaysia (JPSM), Jabatan Kerja Raya (JKR), Jabatan Penerbangan Awam (DCA), Jabatan Mineral dan Geosains (JMG), Jabatan Laut Semenanjung Malaysia (JLM), Jabatan Laut Wilayah Sarawak (JLSWK), Pusat Infrastruktur Data Geospasial Negara (MaCGDI), Institut Tanah dan Ukur Negara (INSTUN), Majlis Keselamatan Negara (MKN), Suruhanjaya Pilihan Raya (SPR), dan Agensi Remote Sensing Malaysia (ARSM).

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

BIL.	JABATAN	LULUS	ISI	KOSONG
1	Kementerian Sumber Asli dan Alam Sekitar (NRE)	1	1	0
2	Kementerian Kesejahteraan Bandar, Perumahan dan Kerajaan Tempatan (KPKT)	20	20	0
3	Kementerian Pertahanan (MINDEF)	3	3	0
4	Jabatan Pengairan dan Saliran (JPS)	1	0	1
5	Jabatan Ketua Pengarah Tanah dan Galian (JKPTG)	1	1	0
6	Jabatan Perhutanan Semenanjung Malaysia (JPMS)	5	4	1
7	Jabatan Kerja Raya (JKR)	22	20	2
8	Jabatan Penerbangan Awam (DCA)	2	2	0
9	Jabatan Mineral dan Geosains (JMG)	38	32	6
10	Jabatan Laut Semenanjung Malaysia (JLM)	2	1	1
11	Jabatan Laut Wilayah Sarawak (JLSWK)	12	8	4
12	Pusat Infrastruktur Data Geospatial Negara (MaCGDI)	34	32	2
13	Institut Tanah dan Ukur Negara (INSTUN)	29	27	2
14	Majlis Keselamatan Negara (MKN)	4	4	0
15	Suruhanjaya Pilihan Raya (SPR)	1	1	0
16	Agensi Remote Sensing Malaysia (ARSM)	10	6	4
	JUMLAH	185	162	23

Pecahan terperinci perjawatan kader mengikut kumpulan adalah seperti berikut:

BIL.	KUMPULAN PENGURUSAN DAN PROFESSIONAL/SKIM PERKHIDMATAN	GRED	LULUS	ISI	KOSONG
1	Juruukur	J54	1	1	0
2	Juruukur	J52	3	3	0
3	Juruukur	J48	10	10	0
4	Juruukur	J44	12	12	0
5	Juruukur	J41	25	23	2
6	Jurugeospatial	J44	2	1	1
7	Jurugeospatial	J41/J44	7	6	1
8	Juruukur/Jurugeospatial	J41/J44	4	4	0
	JUMLAH		64	60	4

BIL.	KUMPULAN PELAKSANA/SKIM PERKHIDMATAN	GRED	LULUS	ISI	KOSONG
1	Penolong Juruukur	JA38	2	1	1
2	Penolong Juruukur	JA36	8	5	3
3	Penolong Juruukur	JA29/JA36	107	93	14
4	Penolong Juruukur (KUP)	JA29	4	3	1
	JUMLAH		121	102	19

Kenaikan Pangkat

Urusan pemangkuan / kenaikan pangkat telah dilakukan sepanjang tahun 2016. Ini melibatkan 206 orang pegawai yang terdiri daripada 1 orang pegawai Kumpulan Gred Utama, 116 orang pegawai Kumpulan Pengurusan dan Profesional dan 89 orang pegawai Kumpulan Pelaksana.

Gred Utama dan Kumpulan Pengurusan dan Profesional

SKIM PERKHIDMATAN	KENAIKAN PANGKAT/ PEMANGKUAN KE GRED	KENAIKAN PANGKAT	PEMANGKUAN	JUMLAH
Juruukur Gred Utama B	Gred Utama A	0	1	1
Juruukur Gred Utama C	Gred Utama B	0	0	0
Juruukur Gred J54	Gred Utama C	3	1	4
Juruukur Gred J52	J54	7	1	8
Juruukur Gred J52	J54 (KUP)	2	0	2
Juruukur Gred J48	J52	20	3	23
Juruukur Gred J48	J52 (KUP)	2	0	2
Juruukur Gred J44	J48	13	10	23
Jurugeospasial Gred J44	J48	1	0	1
Jurugeospasial Gred J41	J44	1	0	1
Juruukur Gred J41	J44	1	0	1
Juruukur Gred J41	J41/J44 Fleksi	33	18	51
JUMLAH		83	34	117

Kumpulan Pelaksana

SKIM PERKHIDMATAN	KENAIKAN PANGKAT/ PEMANGKUAN KE GRED	KENAIKAN PANGKAT	PEMANGKUAN	JUMLAH
Penolong Juruukur, JA36	JA38	0	20	20
Penolong Juruukur, JA29	JA36	0	30	30
Penolong Juruukur, JA29 (TBBK)	JA36	23	0	23
Penolong Pegawai Tadbir, N29	N32	4	0	4
Pembantu Tadbir (Kewangan), W19	W22	1	0	1
Pembantu Tadbir (Perkeranian/ Operasi), N19 (TBBK)	N22	9	1	10
Pembantu Tadbir (Perkeranian/ Operasi), N19	N22	1	0	1
Pekerja Awam, R1 (KUP)	R4 (TBBK)	0	0	0
JUMLAH		38	51	89

*TBBK : Time Base Berasaskan Kecemerlangan

*KUP : Khas Untuk Penyandang

Persaraan

Sepanjang tahun 2016, seramai 222 pegawai dan kakitangan daripada pelbagai gred telah bersara yang meliputi bersara paksa, bersara pilihan dan meninggal dunia dalam perkhidmatan. Data keseluruhan persaraan adalah seperti berikut:

Bersara Paksa

BIL.	JAWATAN / GRED	JUMLAH
1	Juruukur Gred Utama A	1
2	Juruukur Gred Utama C	1
3	Juruukur J54	3
4	Juruukur J52	1
5	Juruukur J48	1
6	Pegawai Tadbir dan Diplomatik M48	1
7	Penolong Juruukur JA38	4
8	Penolong Juruukur JA36	11
9	Penolong Juruukur JA29	34
10	Setiausaha Pejabat N28	1
11	Pembantu Tadbir (Perkeranian/Operasi) N22	4
12	Pembantu Tadbir (Perkeranian/Operasi) N22 (KUP)	3
13	Pembantu Tadbir (Perkeranian/Operasi) N17	1
14	Pembantu Operasi N14	3
15	Pengawal Keselamatan KP14 (KUP)	1
16	Pembantu Awam H14	5
17	Pekerja Awam H14	49
18	Pembantu Awam H11	3
19	Pembantu Operasi N11	1
20	Pemandu Kenderaan H11	1
21	Pekerja Awam H11	1
22	Pemandu Kenderaan R6	2
	JUMLAH	132

Bersara Pilihan

BIL.	JAWATAN / GRED	JUMLAH
1	Juruukur J52	1
2	Juruukur J48	2
3	Juruukur J44	2
4	Penolong Juruukur JA38	3
5	Penolong Juruukur JA36	8
6	Penolong Juruukur JA29	31

7	Penolong Pegawai Tadbir N32	1
8	Pembantu Tadbir (Perkeranian/Operasi) N26	1
9	Pembantu Tadbir (Perkeranian/Operasi) N22	1
10	Pembantu Tadbir (Perkeranian/Operasi) N22 (KUP)	1
11	Pembantu Penerbitan N22(KUP)	1
12	Pembantu Tadbir (Perkeranian/Operasi) N17	2
13	Pembantu Kemahiran H17	1
14	Pembantu Awam H14	13
15	Pengawal Keselamatan KP14	1
16	Pembantu Operasi N11	2
17	Pembantu Awam H11	8
18	Pekerja Awam H11	1
JUMLAH		80

Meninggal Dunia Dalam Perkhidmatan

BIL.	NAMA	JAWATAN / GRED	NEGERI / BAHAGIAN
1	Md Nasir bin Zainuddin	Pemandu Kenderaan H11	Bahagian Ukur Geodetik
2	Maruthaya a/l Sundram	Penolong Juruukur JA29	JUPEM Kedah
3	Jaffry bin Jaafar	Pembantu Am pejabat N11	JUPEM Pulau Pinang
4	Zahari bin Mohamed Zin	Penolong Juruukur JA29	Pejabat Topografi Wilayah Timur
5	Zainuddin bin Sabtu	Pembantu Awam H14	JUPEM N. Sembilan
6	Mohd Azmi bin Mohd Razali	Penolong Juruukur JA36	JUPEM Kedah
7	Zaimah binti Yusoh	Penolong Juruukur JA29	JUPEM Pahang
8	Zaheri bin Basir	Pembantu Awam H11/H14	JUPEM Pahang
9	Wan Rosli bin Wan Ahmad	Penolong Juruukur JA29	JUPEM Terengganu
10	Sufian bin Abd Manap	Penolong Juruukur JA38	JUPEM N. Sembilan

Tindakan Tatatertib

Pengurusan Tatatertib Jabatan merupakan satu tatacara pengendalian bagi 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 2016, sebanyak 23 kes tindakan tatatertib telah dilaporkan dan sebanyak 16 kes telah dapat diselesaikan. Sementara itu, terdapat 13 kes yang masih dalam tindakan dan dibawa ke tahun 2017.

Keseluruhan kes tindakan tatatertib pada tahun 2016 adalah seperti berikut:

JENIS/BENTUK KESALAHAN	KES DIBAWA DARI TAHUN LEPAS (2015)		KES BARU DILAPORKAN (2016)		KES SELESAI (2016)		KES MASIH DALAM TINDAKAN (2017)	
	P&P	PELAKSANA	P&P	PELAKSANA	P&P	PELAKSANA	P&P	PELAKSANA
Tidak Hadir Bertugas	-	5		17	-	12	-	10
Kes Mahkamah	-	1		3	-	3	-	1
Dadah – Ujian Urin	-	-		3	-	1	-	2
JUMLAH	-	6		23	-	16	-	13

KURSUS DAN LATIHAN

Kursus dan Latihan

Latihan yang berterusan telah dilaksanakan bagi meningkatkan kemahiran dan pengetahuan pegawai 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 modal insan yang mempunyai kepakaran dan kompeten bagi memastikan kelangsungan sistem penyampaian dan perkhidmatan kepada pelanggan.

Bilangan Hari Kursus / Latihan Yang Dihadiri Pegawai Dan Kakitangan Bagi Tahun 2016

BIL.	COURSE FIELD	BILANGAN HARI			JUMLAH
		GED UTAMA	PENGURUSAN & PROFESIONAL	PELAKSANA	
1	Program Transformasi Minda (Kursus Wajib)	0	36	36	72
2	Pengurusan Ukur dan Pemetaan	106	2074	4948	7128
3	Pengurusan Sumber Manusia	10	974	9580	10564
4	Pengurusan Kewangan	0	76	2006	2082
5	Kualiti dan Produktiviti		278	1036	1314
6	Teknologi Maklumat dan Komunikasi (ICT)		34	444	478
7	Pembangunan Kendiri		532	7286	7820
8	Bahasa dan Komunikasi		3	6	9
JUMLAH		118	4007	25342	29467

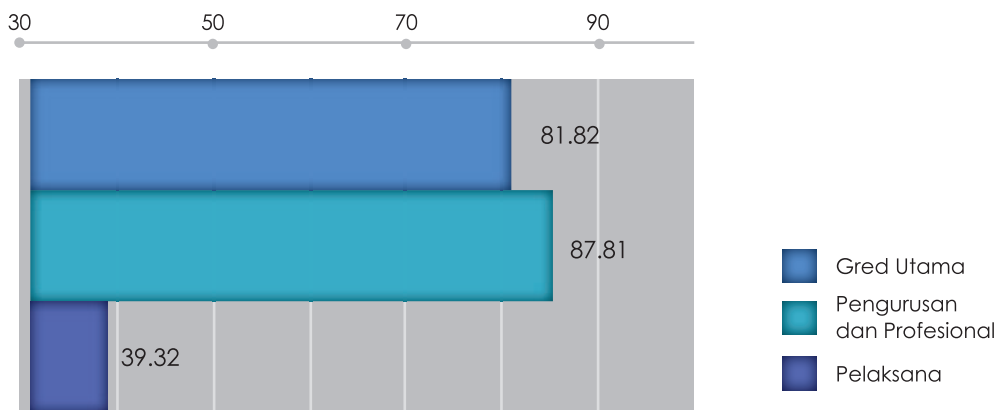
Pecahan Bilangan Hari Kursus / Latihan Yang Dihadiri Oleh Pegawai Dan Kakitangan



Bilangan Pegawai dan Kakitangan 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	Gred Utama	11	11	9	2	0	0
2	Pengurusan & Profesional	304	279	240	34	0	5
3	Pelaksana	4422	4084	1605	2445	33	1
JUMLAH		4737	4374	1854	2481	33	6

Pecahan Peratusan Pegawai dan Kakitangan Yang Menghadiri 7 hari Berkursus



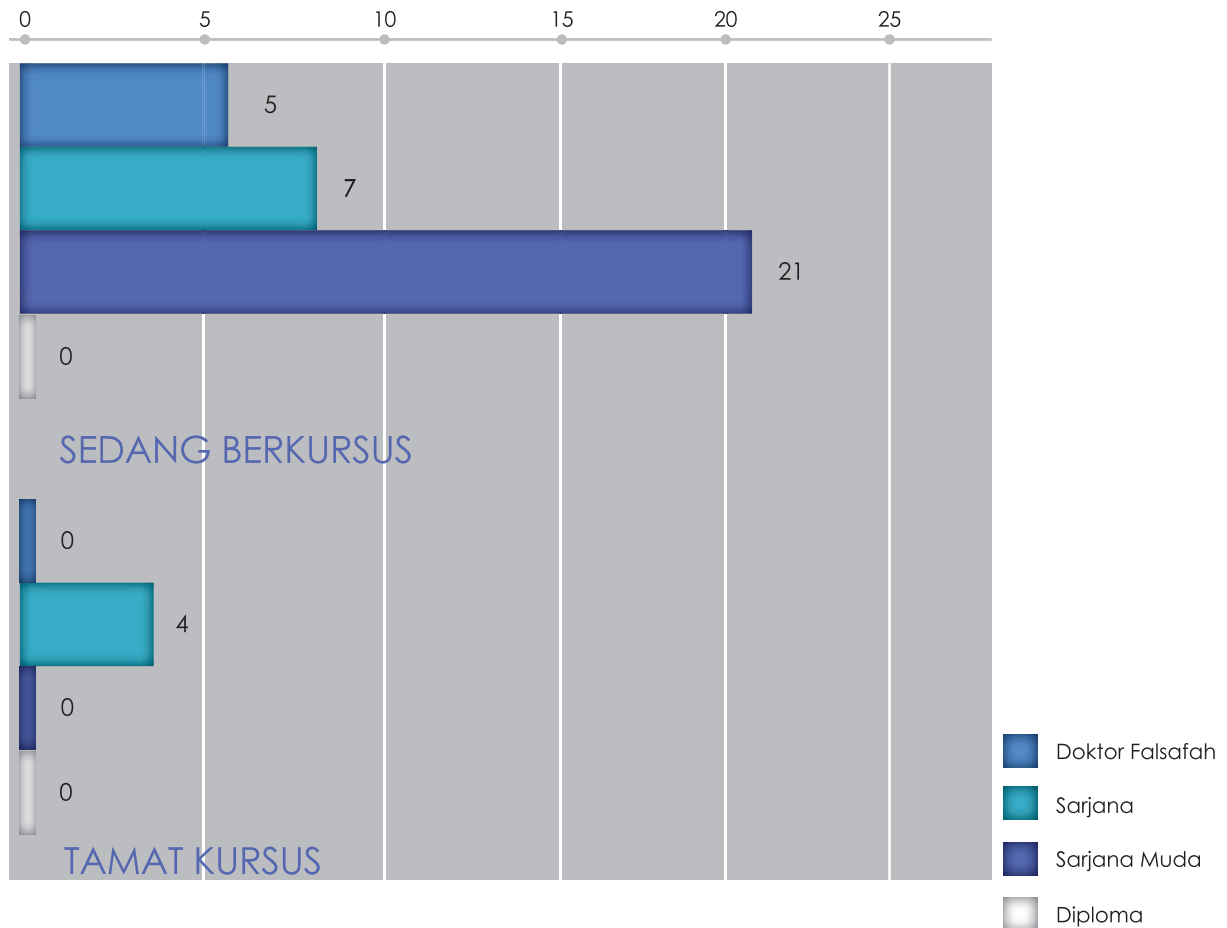
Bilangan Pegawai dan Kakitangan Yang Melanjutkan Pelajaran Bagi Tahun 2016

BIL.	TAHAP AKADEMIK	SEDANG BERKURSUS		TAMAT BERKURSUS		JUMLAH
		SEPENUH MASA	SEPENUH MASA	SEPARUH MASA	SEPENUH MASA	
1	Doktor Falsafah	3	2	0	0	5
2	Sarjana	5	2	4	0	11
3	Sarjana Muda	1	20	0	0	21
4	Diploma	0	0	0	0	0
JUMLAH		9	24	4	0	37

Nota: Separuh masa bermaksud:

- i. Pegawai/Kakitangan yang telah tamat tempoh cuti belajar secara sepenuh masa tetapi pengajian masih belum selesai (Peringkat Kedoktoran dan Sarjana)
- ii. Pegawai/Kakitangan yang melanjutkan pelajaran secara separuh masa

Pecahan Pegawai dan Kakitangan Yang Melanjutkan Pelajaran Dalam Tahun 2016



LAMAN WEB JUPEM GEOPORTAL

Laman web www.jupem.gov.my yang dikenali sebagai JUPEM Geoportal, sentiasa dikemaskinikan 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 keperluan pelanggan dan mendokong aspirasi Kerajaan dalam memperkasakan ICT dengan menyediakan pelbagai maklumat geospasial yang dihasilkan secara berpusat bagi tujuan menyediakan sistem pengurusan dan penyebaran maklumat secara atas talian, merealisasikan konsep e-Kerajaan, melakukan transaksi secara e-Dagang, serta menyediakan kemudahan *backup* atas talian.

PRODUK	BILANGAN TRANSAKSI 2016												JUMLAH
	JAN	FEB	MAC	APR	MEI	JUN	JUL	OGOS	SEPT	OKT	NOV	DIS	
Pemetaan	4	0	0	0	0	0	2	14	0	7	3	1	31
Kadaster	5831	4554	6514	6075	5956	5784	4885	6542	4108	5709	5809	5284	67051
Geodesi	242	227	233	278	204	219	198	253	186	258	258	244	2800
Perkhidmatan Geodetik	0	0	0	0	0	6	7	18	5	18	12	15	81
Permohonan Data Terhad	0	0	0	0	0	5	0	0	0	0	0	0	5
Permohonan Lesen Digital	0	0	0	0	0	25	42	34	21	23	19	23	187
Langganan RTK	0	0	0	0	0	0	0	0	0	0	3	2	5
Permohonan Permit	0	0	0	0	0	0	0	0	0	0	0	0	0
JUMLAH	6077	4781	6747	6353	6160	6039	5134	6861	4320	6015	6104	5569	70160

Laman Web Rasmi,
JUPEM Geoportal



Selain daripada itu selaras dengan perkembangan penggunaan media sosial yang popular dikalangan pengguna JUPEM juga tidak ketinggalan untuk menyediakan saluran penyampaian maklumat semasa melalui akaun rasmi Facebook dan Twitter selain Web Rasmi Jabatan.

Twitter



Facebook



PENERIMA BINTANG KEBESARAN PERSEKUTUAN NEGERI

BIL.	NAMA PEGAWAI	JAWATAN/GRED	BAHAGIAN / JUPEM NEGERI	ANUGERAH DITERIMA
1	Sr Dr Teng Chee Hua	Juruukur / Gred Utama C	Bahagian Kadaster	Johan Setia Mahkota (J.S.M)
2	Sr Jasni bin A. Rahman	Juruukur / J54	Negeri Sembilan	Pingat Jasa Kebaktian (P.J.K)
3	Sr Wan Zainuddin bin Wan Yusoff	Juruukur / J54	Kelantan	Pingat Setia Mahkota Kelantan (P.S.K)
4	Sr Muhammad Salim bin Mohammed Asari	Juruukur / J52	Perak	Ahli Mahkota Perak (A.M.K)
5	Sr Shahril Azhari bin Jumari	Juruukur / J48	Selangor	Bintang Perkhidmatan Cemerlang (B.P.C)
6	Mohd Azua bin Mohd Zain	Juruukur / J48	Pulau Pinang	Bintang Cemerlang Negeri (B.C.N)
7	Haji Muhamad Musmir bin Ishak	Juruukur / J41	Kedah	Bintang Perkhidmatan Cemerlang Kedah (B.C.K)
8	Abdul Aziz bin Sahri @ Sahry	Penolong Juruukur / JA38	Perak	Pingat Pekerti Terpilih (P.P.T)
9	Mohd Shukri bin Pah	Penolong Juruukur / JA38	Pulau Pinang	Pingat Jasa Masyarakat (P.J.M)
10	Samsuddin bin Dahlan	Penolong Juruukur / JA36	Perlis	Pingat Jasa Kebaktian (P.J.K)
11	Ooi Kwong Teow	Penolong Juruukur / JA29	Pulau Pinang	Pingat Jasa Kebaktian (P.J.K)
12	Rohani binti Haji Ahmad	Penolong Juruukur / JA29	Perlis	Pingat Jasa Kebaktian (P.J.K)
13	Mohd Shakir bin Darus	Pembantu Awam / H14	Pulau Pinang	Pingat Jasa Masyarakat (P.J.M)
14	Mohd Azuan bin Adul Rahman	Pembantu Awam / H11	Pulau Pinang	Pingat Jasa Masyarakat (P.J.M)
15	Rajendran a/l Raju	Pembantu Awam / H11	Pulau Pinang	Pingat Jasa Masyarakat (P.J.M)
16	Muhammad Wani bin Othman	Pembantu Operasi / N11	Perlis	Pingat Perkhidmatan Lama (P.P.L)





LAPORAN PRESTASI

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 90-an lagi.

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

Bagi tahun 2016, kerja-kerja pengukuran GNSS adalah melibatkan perancangan cerapan 550 stesen termasuk ukuran bagi menambahbaik jaringan *Cadastral Reference Mark* (eCRM) untuk ukuran kadaster.

Pencapaian aktiviti jaringan pengukuran GNSS bagi tahun 2016 adalah sebanyak 308 stesen (56%) berbanding 550 stesen yang ditetapkan. Kekurangan pencapaian adalah berpunca daripada Projek eCRM yang hanya berjaya mencerap 60 stesen daripada 400 stesen (15%) disebabkan faktor kekangan kewangan.

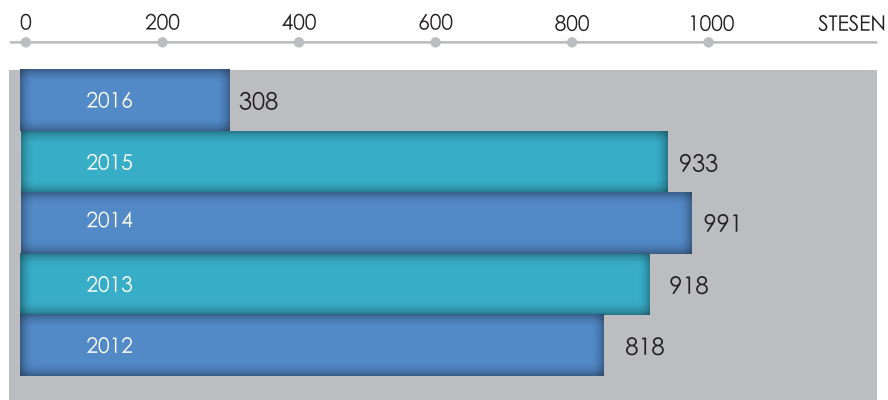
Pecahan aktiviti adalah seperti berikut:

BIL.	AKTIVITI	STESEN
1	Cerapan GNSS bagi penubuhan Jaringan Ukur Kawalan Sempadan Antarabangsa Malaysia – Brunei Darussalam	10
2	Projek Infrastruktur Kawalan Ukur Geodetik Sempadan N9-Selangor	22
3	Projek Kawalan Rangkaian MyRTKnet	96
4	Projek Verifikasi Stesen PMGSN	6
5	Projek Kalibrasi Peralatan GNSS	48
6	Projek Titik Tengah Semenanjung	4
7	Projek Kawalan Ukur Kuala Krai	8
8	Cerapan GNSS <i>Levelling Borneo</i>	54
9	Pengukuran Titik Kawal Kadaster (eCRM)	60
	JUMLAH	308



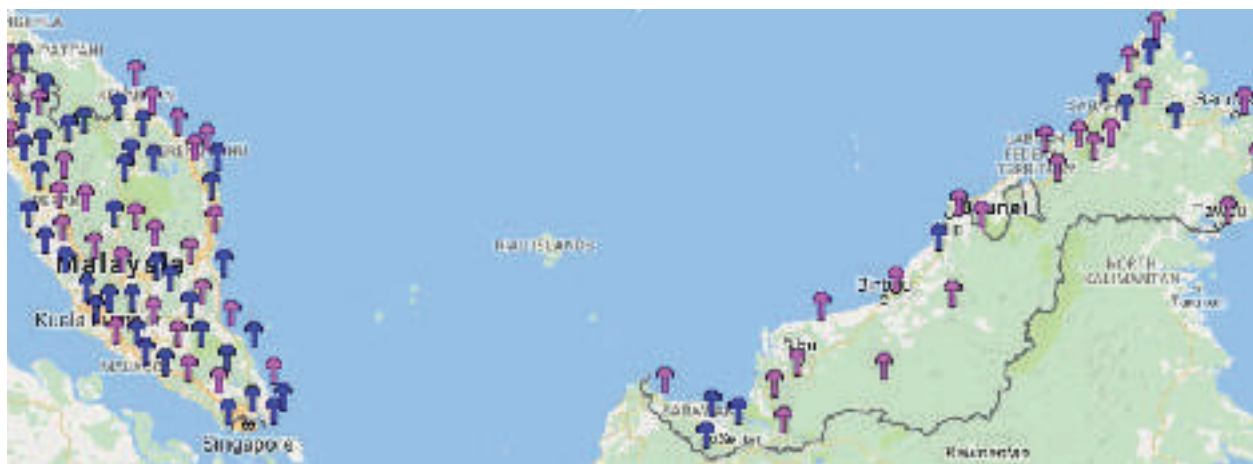
Pencapaian aktiviti jaringan pengukuran GNSS bagi tempoh lima tahun terakhir adalah seperti berikut:

TAHUN	STESEN
2012	818
2013	918
2014	991
2015	933
2016	308



MyRTKnet

Real Time Kinematic merupakan inovasi terkini dalam penentuan kedudukan relatif sesuatu titik. Lanjutan daripada perkembangan teknologi GNSS, sistem MyRTKnet (*Malaysian Real Time Kinematic Network*) telah dibangunkan sejak tahun 2003 di bawah Projek MyRTKnet Fasa 1 dengan sejumlah 27 stesen. Pemandatan stesen telah dilakukan semasa Projek MyRTKnet Fasa 2 dengan jumlah 78 stesen. Sehingga penghujung tahun 2016 sejumlah 96 stesen telah diwujudkan di bawah Projek MyRTKnet Fasa 3.



Dengan jumlah sebanyak 96 stesen iaitu masing-masing 65 stesen di Semenanjung, 15 stesen di Sabah, 15 stesen di Sarawak dan 1 stesen di Wilayah Persekutuan Labuan, sistem ini mampu memberikan hasil kerja pengukuran yang tepat dan jitu.

Pencapaian aktiviti MyRTKnet bagi tahun 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016	PENCAPAIAN
1	Pengurusan Data GPS Stesen	628,617 jam data	628,617 jam data (100%)
2	Pemprosesan Data GPS Stesen MyRTKnet Harian	26,192 set data	26,192 set data (100%)
3	Pemprosesan Data GPS Stesen MyRTKnet Mingguan & Tahunan	3,732 set data	3,732 set data (100%)

Ujian Tapak Pilar Kalibrasi EDN / GNSS

Sasaran kerja bagi aktiviti ini baru diwujudkan pada tahun 2015 bagi melaksanakan ujian tapak kalibrasi sekali setahun ke atas 14 stesen. Oleh yang demikian, jumlah ujian yang perlu dilakukan pada tahun 2016 adalah sebanyak 14 kali. Senarai tapak ujian pillar kalibrasi EDM/GNSS yang terletak di Semenanjung Malaysia dan Wilayah Persekutuan Labuan adalah seperti berikut:



BIL.	LOKASI	BIL. STESEN
1	Arau, Perlis	1
2	Pokok Sena, Kedah	1
3	Kubang Semang, Pulau Pinang	1
4	Taiping, Perak	1
5	W.P. Kuala Lumpur	1
6	Port Dickson, Negeri Sembilan	1
7	Melaka	1
8	Batu Pahat, Johor	1
9	Temerloh, Pahang	1
10	Tg. Sepat, Pahang	1
11	Kuantan, Pahang	1
12	Dungun, Terengganu	1
13	Melor, Kelantan	1
14	W.P. Labuan	1
	JUMLAH	14

Cerapan Air Pasang Surut

Objektif utama cerapan air pasang surut adalah untuk mendapatkan bacaan nilai aras purata laut yang akan digunakan sebagai datum tegak yang jitu dan seterusnya akan dijadikan sebagai rujukan asas bagi kerja-kerja pengukuran aras. Sejak bulan Mac 2016, sebanyak 19 stesen tolok air pasang surut (STAPS) masih dan terus beroperasi yang terdiri daripada 11 stesen di Semenanjung: (lokasinya di Jeti Telok Ewa Pulau Langkawi, Kedah; Penang Yacht Club George Town, Pulau Pinang; Pangkalan TLDM Lumut, Perak; Dermaga 25 Pelabuhan Utara Pelabuhan Kelang, Selangor; Jeti Tanjung Bruas Tanjung Keling, Melaka; Jeti Kukup, Johor; Kompleks LKIM Tanjung Sedili, Johor; Jeti Berjaya Beach Resort Pulau Tioman, Pahang; Pelabuhan Kuantan Tanjung Gelang, Pahang; Kompleks LKIM Cendering, Terengganu dan Kompleks LKIM Geting, Kelantan) manakala 6 stesen terletak di Sabah: (lokasinya di Pelabuhan Kota Kinabalu; Kudat; Pelabuhan Sandakan; Lahad Datu; Pelabuhan Tawau; Pulau Labuan) dan 2 stesen lagi terletak di Sarawak: (lokasinya di Pelabuhan Bintulu dan Marina Park Miri).



Lokasi Stesen STAPS di Semenanjung Malaysia, Sabah dan Sarawak

Pencapaian aktiviti cerapan air pasang surut bagi tahun 2016 adalah seperti berikut:

LOKASI	JUMLAH STESEN	SKT 2016	PENCAPAIAN
Semenanjung	11	132 set	132 set (100%)
Sabah	6	72 set	72 set (100%)
Sarawak	2	24 set	24 set (100%)

Aktiviti cerapan air pasang surut di 19 stesen STAPS berkenaan adalah bagi membolehkan Buku Rekod Cerapan Air Pasang Surut dan Buku Jadual Ramalan Air Pasang Surut dihasilkan untuk kegunaan pelbagai pihak.

Dalam tahun 2016, sebuah buku Rekod Cerapan Air Pasang Surut bagi tahun 2015 sebuah buku Jadual Ramalan Air Pasang Surut bagi tahun 2018 telah dapat diterbitkan.

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 Malaysia, Sabah dan Sarawak.

Bagi tahun 2016, Sasaran Kerja Tahunan (SKT) pemprosesan data ukur aras jitu dan aras kelas

kedua bagi Semenanjung Malaysia telah digugurkan disebabkan kerja-kerja pengukuran aras yang tidak dilaksanakan oleh pihak Bahagian Pemetaan Topografi Semenanjung bagi memberi tumpuan kepada aktiviti penandaan sempadan negeri dan antarabangsa. Walau bagaimanapun, pihak Bahagian Pemetaan Topografi Sarawak telah berjaya melaksanakan pengukuran dan pemprosesan data ukur aras jitu sebanyak 155 tanda aras manakala pihak Bahagian Pemetaan Topografi Sabah telah tidak menyenaraikan kerja ukur aras dalam SKT masing-masing sejak dari tahun 2014. Disamping itu, pihak Bahagian Ukur Geodetik juga telah berjaya menyediakan laporan dokumentasi tanda aras sebanyak 790 tanda aras pada tahun 2016 untuk tujuan penjualan kepada pengguna.



Pencapaian kerja-kerja ukuran aras bagi tahun 2016 adalah seperti berikut:

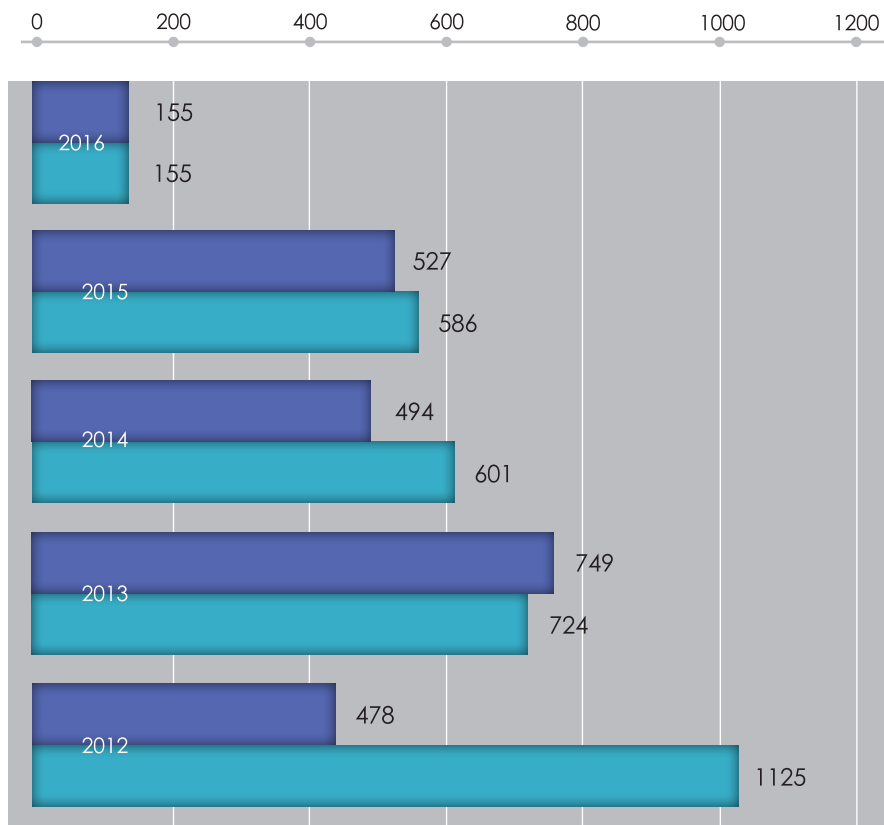
BIL.	AKTIVITI	PENCAPAIAN
1	Ukuran Aras Jitu dan Aras Kedua	155 Tanda Aras
2	Pemprosesan Data Ukuran Aras Jitu dan Aras Kedua	155 Tanda Aras
3	Dokumentasi Data Ukuran Aras	790 Tanda Aras

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

TAHUN	UKURAN ARAS JITU (TANDA ARAS)	PEMROSESAN DATA ARAS JITU (TANDA ARAS)
2012	1,125	478
2013	724	749
2014	601	494
2015	586	527
2016	155	155

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

TAHUN	UKURAN ARAS KELAS KEDUA (TANDA ARAS)	PEMROSESAN DATA ARAS KELAS KEDUA (TANDA ARAS)
2012	145	143
2013	0	104
2014	0	122
2015	0	156
2016	0	0

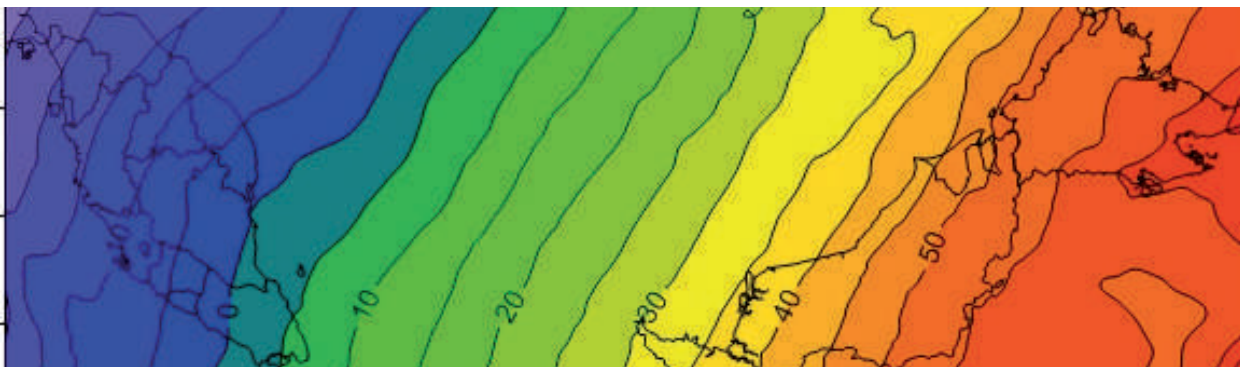


- Ukuran Aras Jitu
- Pemrosesan Data Aras Jitu

Ukuran Graviti

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.

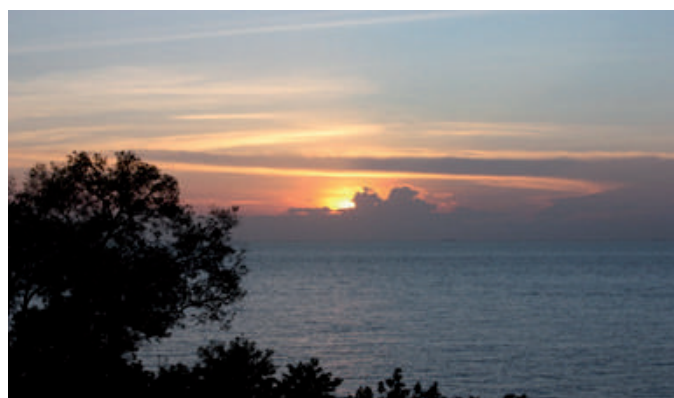
Bagi tahun 2016, aktiviti pengukuran graviti tidak dapat dijalankan kerana alat gravimeter yang digunakan bagi pengukuran graviti di lapangan mengalami kerosakan dan tidak ekonomik untuk dibaiki serta kekangan sumber kewangan yang terhad. Bagi memenuhi aktiviti tahunan, semakan dan pemprosesan semula data-data ukuran graviti telah dibuat. Selain itu, permohonan data transformasi ketinggian menggunakan MyGeoid masih lagi diteruskan bergantung kepada permohonan dari pengguna.



Falak Syarie dan Astronomi

JUPEM merupakan sebuah agensi yang terlibat secara langsung dalam bidang falak syarie dan astronomi khususnya dalam penyediaan data rukyah dan hilal. Di dalam Majlis Kebangsaan bagi Hal Ehwal Islam Negeri-negeri dan Panel Pakar Falak, 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, Syawal dan Zulhijjah.

Disamping itu, JUPEM turut terlibat dalam beberapa kajian yang dilaksanakan oleh pihak JAKIM dan Jabatan Mufti Negeri seperti Kajian Kecerahan Langit, Kajian Penentuan Waktu Solat Bangunan Tinggi dan Penentuan Zon Waktu Solat Negeri. Pada masa yang sama juga, JUPEM turut terlibat dengan program-program berkaitan astronomi seperti cerapan gerhana matahari dan kedudukan bulan paling hampir dengan bumi.

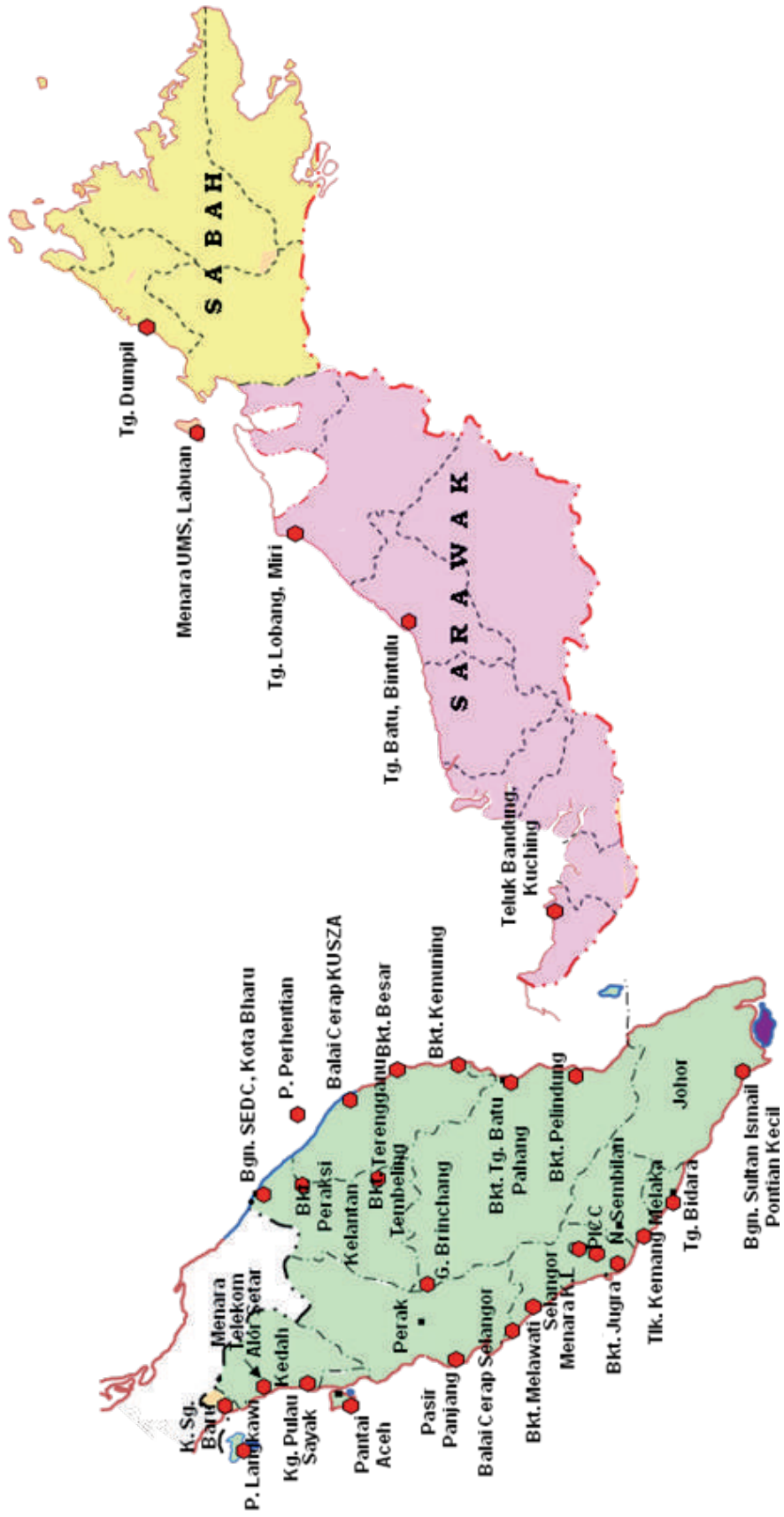




Pencapaian aktiviti berkaitan astronomi bagi tahun 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016	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 2016, penyediaan data dalam penentuan awal bulan Ramadhan, Syawal dan Zulhijjah bagi tahun 1437 Hijrah telah dijalankan di 29 buah stesen cerapan hilal rasmi seluruh negara iaitu di Kuala Sungai Baru Simpang Empat, Perlis; Menara Telekom, Alor Setar, Kedah; Kg Pulau Sayak, Kuala Muda, Kedah; Pemandangan Indah, Langkawi, Kedah; Pantai Aceh, Pulau Pinang; Pantai Pasir Panjang, Perak; Bukit Malawati, Kuala Selangor, Selangor; Balai Cerap Selangor, Sabak Bernam, Selangor; Bukit Jugra, Selangor; Menara Kuala Lumpur; PICC Putrajaya; Telok Kemang, Negeri Sembilan; Tanjung Bidara, Melaka; Pontian Kechil, Johor; Bukit Tanjung Batu, Nenasi, Pekan, Pahang; Bukit Pelindung, Kuantan, Pahang; Gunung Berinchang, Cameron Highlands, Pahang; Bukit Geliga, Kemaman, Terengganu; Bukit Besar, Kuala Terengganu, Terengganu; Balai Cerap KUSZA, Kuala Terengganu, Terengganu; Pulau Perhentian, Besut, Terengganu; Menara Bangunan SEDC, Kota Bharu, Kelantan; Bukit Peraksi, Pasir Puteh, Kelantan; Bukit Kampung Tembeling, Kuala Krai, Kelantan; Tanjung Dumpil, Putatan, Sabah; Menara Universiti Malaysia Sabah, Labuan; Tanjung Lobang, Miri, Sarawak; Tanjung Batu, Bintulu, Sarawak dan Teluk Bandung, Kuching, Sarawak.



Lokasi Stesen Cerapan Hilal di Semenanjung, Sabah dan Sarawak

PERSEMPADANAN ANTRABANGSA

Persempadanan Darat Malaysia - Thailand

Projek penandaan dan pengukuran sempadan antara Malaysia-Thailand bagi sempadan legeh (*watershed*) yang berukuran sepanjang 551.5 km telah dimulakan pada 6 Julai 1973 dan telah siap pada 26 September 1985. Manakala bagi sempadan alur terdalam sungai (*thalweg*) yang berukuran sepanjang 105.3 km telah dimulakan pada 1 November 2000 dan telah siap pada 28 Julai 2009. 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 ukuran siasatan, tanam pastian dan kerja-kerja penyelenggaraan sempadan di Kawasan Keutamaan V (BP3-BP7C), Kawasan Keutamaan III (BP16-BP27) bagi tahun 2017 adalah seperti berikut:

BIL.	KAWASAN	SKT 2016	PENCAPAIAN
Kawasan Keutamaan V- (BP3 - BP7C)			
1	Seksyen A - BP3 - BP3/151	6.3 km	6.3 km (100%)
2	Seksyen B - BP3/151 - BP5/20	6.0 km	6.0 km (100%)
3	Seksyen C - BP5/20 - BP5/142	5.6 km	5.6 km (100%)
4	Seksyen D - BP5/142 - BP6	6.4 km	6.4 km (100%)
5	Seksyen E - BP6 - BP7/23	6.6 km	6.6 km (100%)
Kawasan Keutamaan III - (BP16 - BP27)			
6	BP21/18 - BP 21/29	1.4 km	1.4 km (100%)
JUMLAH			32.3 km



Selain daripada itu, mesyuarat-mesyuarat yang berkaitan dengan persempadanan antarabangsa darat antara Malaysia dan Thailand telah diadakan seperti berikut:

BIL.	PERBINCANGAN	TARIKH
1	Mesyuarat <i>One Stop Centre (OSC)</i> Bil. 3/2016 Memorandum daripada Menteri Sumber Asli dan Alam Sekitar: Mesyuarat Ke-24 Jawatankuasa Bersama Sempadan Antarabangsa Malaysia-Thailand di Wisma Sumber Asli, Putrajaya	11 Januari 2016
2	<i>Pre-Council Joint Steering Committee (JSC)</i> Ke-15 Projek Usahasama Antara Kerajaan Malaysia dan Thailand Bagi Pemuliharaan Muara Sungai Golok di Wisma Sumber Asli, Putrajaya	19 Februari 2016
3	Lawatan Kerja Ke Projek Penandaan dan Pengukuran Sempadan Tetap dan Kekal Sempadan Antarabangsa Malaysia-Thailand di Sepanjang Sungai Golok (Kolok River) dan Taklimat Status BRP dan ARM di Kg. Pisau Raut dan Kg. Naga Ibu Selepas Projek Menstabil Tebing Sungai Golok di JUPEM Kelantan	1 Mac 2016
4	Mesyuarat Ke-15 <i>Joint Steering Committee on the Development of the Golok River Basin</i> di Bangkok, Thailand	2 – 4 Mac 2016
5	Taklimat Persediaan Penganjuran Mesyuarat Ke-24 Jawatankuasa Bersama Penandaan dan Pengukuran Sempadan Antarabangsa Malaysia - Thailand (LBC-24) di Wisma Sumber Asli, Putrajaya	21 April 2016
6	Mesyuarat <i>Post Mortem Joint Steering Committee</i> Bil.15/2016 di Wisma Sumber Asli, NRE	29 April 2016
7	Sidang Ke-33 <i>High Level Committee</i> Malaysia - Thailand di Bangkok, Thailand	20 – 24 Jun 2016
8	Mesyuarat Ke-33 Pengarah Projek Bersama Malaysia – Thailand (CPD-DIS) di Ipoh, Perak	12 – 14 Julai 2016
9	Mesyuarat Antara Agensi Pertama Berhubung Persiapan bagi Rundingan Tahunan Ke-6 Antara Perdana Menteri Malaysia dan Perdana Menteri Thailand pada 9 September 2016 di Wisma Putra, Putrajaya	21 Julai 2016
10	Projek Usahasama Antara Kerajaan Malaysia dan Thailand - Pemuliharaan Muara Sungai Golok - Mesyuarat <i>Pre-Council 'Joint Technical Working Group (JTWG)</i> Ke-34 di Genting Highlands, Pahang	29 Julai 2016
11	Rundingan Tahunan Ke-6 Antara Perdana Menteri Malaysia dan Perdana Menteri Thailand di Bangkok, Thailand	9 September 2016
12	Mesyuarat Ke-53 <i>General Border Committee Malaysia-Thailand (GBC MALTHAI)</i> di Kuala Lumpur	10 November 2016
13	Mesyuarat Persediaan Teknikal Penentuan Kawasan Keselamatan Sempadan Darat Bil. 2/2016 di MKN Putrajaya	14 November 2016
14	Mesyuarat Pertama Sekretariat Bersama <i>Land Boundary Committee (LBC)</i> Malaysia - Thailand di Seremban, Negeri Sembilan	14 Disember 2016



Persempadanan Darat Malaysia - Indonesia

Mesyuarat Ke-40 Jawatankuasa Bersama Sempadan Antarabangsa Indonesia-Malaysia yang telah diadakan di Bali, Indonesia pada 22 - 24 Mac 2016 bagi membincangkan Projek Pengukuran Sempadan Antarabangsa Sarawak-Kalimantan Barat dan Sempadan Antarabangsa Sabah-Kalimantan Utara yang antara lainnya ialah Program Ukur Bagi Tahun 2016. Dalam mesyuarat tersebut, kedua-dua pihak telah bersetuju untuk menjalankan kerja-kerja ukuran siasatan, tanam pastian dan penyelenggaraan (IRM) bagi Sektor Sabah-Kalimantan Utara, di Sub-Sektor A 700 - A 800 dalam Kawasan Keutamaan I (A-B) sejauh 8.5 km dan bagi Sektor Sarawak-Kalimantan Barat di Sub-Sektor H 100 – H 300 dalam Kawasan Keutamaan VII (H - I) dengan jarak sejauh 14.0 km.



Mesyuarat Ke-46 Jawatankuasa Teknikal Bersama dalam Projek Penandaan dan Pengukuran Sempadan Antarabangsa Indonesia-Malaysia di Pulau Pinang, Malaysia pada 20 - 22 September 2016 antara lainnya telah melaporkan pencapaian aktiviti ukuran siasatan, tanam pastian dan kerja-kerja penyelenggaraan bagi tahun 2016 adalah seperti berikut:

BIL.	KAWASAN	SKT 2016	PENCAPAIAN
1	Sabah-Kalimantan Utara	8.5 km	8.5 km (100%)
2	Sarawak-Kalimantan Barat	14.0 km	14.0 km (100%)



Mesyuarat berkaitan dengan persempadanan antarabangsa darat antara Malaysia dan Indonesia yang telah diadakan dalam tahun 2016 adalah seperti berikut:

BIL.	PERBINCANGAN	TARIKH
1	Mesyuarat Persediaan Bagi Mesyuarat Ke-40 Jawatankuasa Bersama Sempadan Malaysia-Indonesia di Tingkat 8, Wisma JUPEM	10 Mac 2016
2	Pra Mesyuarat Ke-40 Jawatan Kuasa Bersama Sempadan Malaysia-Indonesia di NRE, Putrajaya	16 Mac 2016
3	Mesyuarat Pasca JIM-40 di Tingkat 11, Wisma JUPEM	12 April 2016
4	Mesyuarat Antara Bahagian Ehwal Persempadanan, JUPEM Sabah dan Penasihat Undang-Undang berkaitan <i>Outstanding Boundary Problem</i> (OBP) di Tingkat 8, Wisma JUPEM	18 April 2016
5	Mesyuarat Persediaan Sekretariat Jawatankuasa Bersama Sempadan Malaysia - Indonesia (JIM) di MKN, Putrajaya	6 Mei 2016
6	Mesyuarat Sekretariat Jawatankuasa Bersama Sempadan Malaysia - Indonesia (JIM) di Johor Bharu	10 Mei 2016
7	Mesyuarat Pra-Sidang Ke-13 <i>High Level Committee</i> Malaysia - Indonesia di Wisma Pertahanan, Kuala Lumpur	23 Mei 2016
8	Mesyuarat Bagi Membincangkan Tindakan Susulan daripada Keputusan Mesyuarat Ke-40 Jawatankuasa Bersama Penandaan dan Pengukuran Sempadan Antarabangsa Malaysia - Indonesia (JIM-40)	22 Jun 2016
9	<i>Informal Scientific and Technical Discussion on the Issue of Land Boundary Between Indonesia (Badan Informasi Geospasial - BIG) and Malaysia</i> (JUPEM) di Tingkat 15, Wisma JUPEM	23 Jun 2016
10	Rundingan Tahunan Ke-11 di antara YAB Perdana Menteri dan TYT Presiden Republik Indonesia di Jakarta, Indonesia	1 Ogos 2016
11	<i>The Forty Fourth Meeting of The Co-Project Directors for Sabah and Kalimantan Utara on The Demarcation And Survey of The International Boundary Between Malaysia (Sabah) and Indonesia (Kalimantan Utara)</i> (MICD-44) di Miri, Sarawak, Malaysia	2 – 4 Ogos 2016
12	Mesyuarat Ke-13 <i>JWG on Common Border Datum Reference Frame and Joint Border Mapping</i> Malaysia - Indonesia, Bandung, Indonesia	4 – 5 Ogos 2016
13	Mesyuarat Ke-9 Kumpulan Kerja Bersama bagi Kawasan-kawasan Bermasalah (JWG-OBP) dalam Projek Penandaan dan Pengukuran Sempadan Antarabangsa Indonesia (Kalimantan Utara) - Malaysia (Sabah), Manado, Sulawesi Utara, Indonesia	30 Ogos 2016 – 1 September 2016
14	<i>Scientific and Technical Discussion on the Common Border Datum Reference Frame (CBDRF) Project Between Malaysia and Indonesia</i> , Genting Highlands, Malaysia	16 – 18 November 2016
15	Sidang Ke - 34 J/K Kerja / Kelompok Kerja Pembangunan Sosio Ekinomi Malaysia - Indonesia (JKK/KK SOSEK MALINDO) di Kuala Terengganu, Terengganu	28 November 2016

BIL.	PERBINCANGAN	TARIKH
16	Sesi Brainstorming on the Outstanding Boundary Problems on the Demarcation and Survey of the International Boundary Between Malaysia (Sabah) & Indonesia (Kalimantan Utara) di Shah Alam, Selangor	1 – 2 Disember 2016
17	Informal Discussion JWG-OBP on the Demarcation and Survey of the International Boundary Between Malaysia (Sabah) & Indonesia (Kalimantan Utara)	16 – 17 Disember 2016

Persempadanan Maritim Malaysia - Indonesia

Mesyuarat Teknikal Mengenai Isu-Isu Pembatasan Sempadan Maritim Antara Malaysia dan Indonesia merupakan mesyuarat berjadual yang diadakan secara berkala sejak tahun 2005 dan diketuai oleh Kementerian Luar Negeri (KLN). Di samping itu, *Technical Working Group (TWG) on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia* yang diketuai oleh Pengarah Ukur Bahagian (Ehwal Persempadanan), Jabatan Ukur dan Pemetaan Malaysia telah ditubuhkan di bawah Jawatankuasa Teknikal tersebut bagi membincangkan isu-isu teknikal berkaitan penentuan sempadan maritim antara Malaysia dan Indonesia.



Mesyuarat-mesyuarat berkaitan persempadanan maritim antara Malaysia dan Indonesia yang telah diadakan dalam tahun 2016 adalah seperti berikut:

BIL.	PERBINCANGAN	TARIKH
1	Mesyuarat Persediaan bagi Mesyuarat Utusan Khas Berhubung Dengan Pembatasan Sempadan Maritim Di Antara Malaysia dan Indonesia di Laut Sulawesi di KLN, Putrajaya	5 Februari 2016
2	Mesyuarat Utusan Khas Berhubung Dengan Pembatasan Sempadan Maritim Di Antara Malaysia dan Indonesia di Laut Sulawesi di Bali, Indonesia	11 - 12 Februari 2016
3	Mesyuarat Teknikal Ke-29 Antara Malaysia dan Republik Indonesia Berkenaan Dengan Pembatasan Sempadan Maritim di Jakarta, Indonesia	15 – 17 Mac 2016
4	Mesyuarat Persediaan Bagi Membincangkan Penyediaan <i>Draf Term of Reference (TOR) for the Joint Verification Work</i> di sekitar Pulau Sebatik, Sabah di Tingkat 8, Wisma JUPEM	23 Mac 2016
5	Mesyuarat Bagi Membincangkan Tindakan-Tindakan Susulan Berhubung <i>29th Technical Meeting on Maritime Boundaries Delimitation Between The Republic of Indonesia And Malaysia</i> di Tingkat 8, Wisma JUPEM	1 April 2016
6	Mesyuarat Antara Agensi Susulan Kepada Mesyuarat Teknikal Ke-29 Berhubung Dengan Pembatasan Sempadan Maritim Antara Malaysia dan Republik Indonesia di KLN, Putrajaya	11 April 2016
7	Mesyuarat Teknikal Ke-30 antara Malaysia dan Republik Indonesia berkenaan dengan pembatasan Sempadan Maritim Di Wisma JUPEM, Kuala Lumpur	19 Julai 2016
8	<i>3rd Meeting Between The Special Envoy Of Malaysia And The Special Envoy To The President Of The Republic Of Indonesia For Maritime Boundaries Delimitation Between Malaysia And Indonesia</i> di Kuala Lumpur	20 Julai 2016
9	Mesyuarat Antara Agensi bagi Mesyuarat Utusan Khas Berhubung Dengan Pembatasan Sempadan Maritim Di Antara Malaysia dan Indonesia di Laut Sulawesi di KLN, Putrajaya	15 Ogos 2016
10	Mesyuarat Persediaan Antara Agensi Bagi Menyelaraskan Pendirian Malaysia di <i>4th Meeting Between The Special Envoy Of Malaysia And The Special Envoy To The President Of The Republic Of Indonesia For Maritime Boundaries Delimitation Between Indonesia And Malaysia</i> di Putrajaya	19 September 2016
11	<i>4th Meeting Between The Special Envoy Of Malaysia And The Special Envoy To The President Of The Republic Of Indonesia For Maritime Boundaries Delimitation Between Indonesia And Malaysia</i> di Yogyakarta	22 – 23 September 2016
12	<i>1st - Intersessional Technical Working Group (ITWG) Meeting On Maritime Boundaries Delimitation Between The Republic Of Indonesia And Malaysia</i> di Bandung, Indonesia	14 – 15 Oktober 2016
13	Lawatan Ke Pulau Sebatik oleh Anggota Kumpulan Kerja Teknikal Dan Utusan Khas (Special Envoy) Penandaan Dan Pengukuran Sempadan Maritim Malaysia di Pulau Sebatik	25 Oktober 2016

BIL.	PERBINCANGAN	TARIKH
14	Mesyuarat Persediaan Antara Agensi Bagi <i>2nd Intersessional Technical Working Group Meeting</i> di Putrajaya	31 Oktober 2016
15	<i>2nd - Intersessional Technical Working Group (ITWG) Meeting On Maritime Boundaries Delimitation Between Malaysia And The Republic Of Indonesia</i> di Seremban	2 – 4 November 2016
16	Mesyuarat antara agensi bagi Mesyuarat Utusan Khas Berhubung Dengan Pembatasan Sempadan Maritim Di Antara Malaysia Dan Indonesia Di Laut Sulawesi di Putrajaya	2 Disember 2016
17	Mesyuarat antara agensi bagi Mesyuarat Utusan Khas Berhubung Dengan Pembatasan Sempadan Maritim Di Antara Malaysia Dan Indonesia Di Laut Sulawesi di Putrajaya	8 Disember 2016
18	Taklimat <i>Special Envoy</i> Bersama Kumpulan Teknikal Kepada Perdana Menteri Malaysia di Putrajaya	9 Disember 2016



Isu Tuntutan Bertindih Di Laut China Selatan

Republik Filipina telah mengemukakan *Arbitral Proceedings* ke *International Tribunal for the Law of the Sea* (ITLOS) terhadap Republik Rakyat China (RRC) di bawah peruntukan *Annex VII to the United Nations Convention on the Law of the Sea 1982* berhubung isu tuntutan bertindih di Laut China Selatan pada 22 Januari 2013. Dalam perkembangan terkini, pihak *Arbitral Tribunal* telah mengumumkan *Award in the Arbitration Initiated by the Republic of the Philippines against the People's Republic of China under Annex VII to the UNCLOS* pada 12 Julai 2016.

Arbitral Proceedings yang dikemukakan oleh Filipina terhadap RRC ini adalah berkaitan dengan isu tuntutan bertindih di Laut China Selatan yang mana kedua-dua buah Negara tersebut telah membuat tuntutan ke atas sebahagian kawasan maritim Malaysia di Laut China Selatan. Kedua-dua Negara tersebut telah mengemukakan bantahan terhadap *Malaysia-Vietnam Joint Submission on the extended Continental Shelf pursuant to the Article 76, UNCLOS 1982 in respect of the southern part of the South China Sea* pada tahun 2009. Keputusan *Arbitral Proceedings* tersebut akan memberi kesan perundangan terhadap *Joint Submission Malaysia-Vietnam*, Tuntutan Had Pelantar Benua Malaysia-Vietnam dan kawasan maritim Malaysia di Laut China Selatan.

Dalam hubungan yang berkaitan, JUPEM melalui Bahagian Ehwal Persempadanan turut terlibat dalam menjalankan kajian dan menghadiri mesyuarat berkaitan isu Laut China Selatan yang dipengerusikan oleh Kementerian Luar Negeri sepanjang tahun 2016 seperti berikut:

BIL.	MESYUARAT / PERBINCANGAN	TARIKH
1	Konsultasi Bulanan Isu-Isu Keselamatan dan Pembangunan di Laut China Selatan Bil. 7/2016 di Wisma Pertahanan, Kuala Lumpur	9 Februari 2016
2	Mesyuarat Laut China Selatan - Cadangan Tindakan Yang Perlu Diambil Oleh Malaysia Berhubung <i>Arbitral Proceedings</i> Yang Dikemukakan oleh Filipina Terhadap Republik Rakyat China di KLN, Putrajaya	7 Mac 2016
3	Perbincangan Mengenai Laut China Selatan - Cadangan Tindakan Yang Perlu Diambil Oleh Malaysia Berhubung <i>Arbitral Proceedings</i> Yang Dikemukakan Oleh Filipina Terhadap Republik Rakyat China di KLN, Putrajaya	13 April 2016
4	Perbincangan Berhubung Isu-Isu di Laut China Selatan di KLN, Putrajaya	13 April 2016
5	Konsultasi Bulanan Isu-Isu Keselamatan dan Pembangunan di Laut China Selatan Bil. 8/2016 di Wisma Pertahanan, Kuala Lumpur	8 Jun 2016
6	Laut China Selatan - Tindakan yang perlu diambil oleh Malaysia Berhubung <i>Final Award of Arbitral Proceedings</i> yang dikemukakan oleh Filipina terhadap Republik Rakyat China di KLN, Putrajaya	1 Julai 2016
8	Mesyuarat Bagi Membincangkan Hasil Pengukuran Khas Beting Hempasan Bantin Di Perairan Gugusan Beting Patinggi Ali, Laut China Selatan, Putrajaya	4 Ogos 2016
9	Mesyuarat Antara Agensi Bagi Membincangkan Award Oleh Arbitral Tribunal Berhubung Kes Yang Dikemukakan Oleh Filipina Terhadap Republik Rakyat China Mengenai Isu Laut China Selatan di Putrajaya	28 September 2016

Persempadanan Darat Malaysia - Brunei Darussalam

Bagi tahun 2016, kedua-dua pihak telah bersetuju untuk menjalankan kerja Penandaan dan Pengukuran Sempadan Antarabangsa Malaysia–Brunei Darussalam bagi sebahagian dari Sektor (K-L) SL07/21 - FL08.

Pasukan Ukur Bersama telah memulakan kerja Penandaan dan Pengukuran Sempadan Antarabangsa Malaysia-Brunei bagi sebahagian dari Sektor (K-L) SL07/21 - FL08 dengan anggaran jarak 7.0 km.

Sehingga 31 Disember 2016 Pasukan Ukur Bersama telah menjalankan kerja-kerja ukuran dan demarkasi sebanyak 9.9 km.

Pencapaian aktiviti kerja pengukuran bagi tahun 2016 adalah seperti berikut:

KAWASAN	SKT 2016	PENCAPAIAN
Sektor (K-L) SL07/21 - FL08 (7.0 km)	7.0 km	9.9 km (141%)





Mesyuarat yang berkaitan dengan persempadanan Antarabangsa Darat antara Malaysia dan Brunei telah diadakan seperti berikut:

BIL.	PERBINCANGAN	TARIKH
1	Mesyuarat Antara Agensi Ke-18 Bagi Membincangkan Pelaksanaan "Exchange Of Letters" (EOL) Antara Malaysia Dengan Brunei Darussalam di KLN, Putrajaya	4 Mac 2016
2	Mesyuarat Dua Hala Ke-16 Berhubung Pelaksanaan "Exchange Of Letters" (EOL) Malaysia - Brunei Darussalam di Kuala Lumpur	16 Mac 2016
3	Mesyuarat Ke-6 Pengarah-Pengarah Projek Bersama bagi Penandaan dan Pengukuran Sempadan Darat di antara Malaysia dan Brunei Darussalam di Bandar Seri Bagawan, Brunei Darussalam	5 - 7 April 2016
4	Mesyuarat Antara Agensi Bagi Membincangkan Draft Kenyataan Bersama dan Persediaan Substantif Untuk Rundingan Pemimpin Tahunan Ke-20 Antara Malaysia dengan Brunei Darussalam	22 September 2016
5	Rundingan Pemimpin Tahunan Ke-20 Antara Malaysia dengan Brunei Darussalam di Putrajaya	4 Oktober 2016

Projek Pelantar Benua Malaysia

Artikel 76, Konvensyen Undang-Undang Laut (KUUL), Pertubuhan Bangsa-Bangsa Bersatu 1982 memperuntukkan bagi negara-negara berpantai yang berhasrat untuk menetapkan perbatasan luar pelantar benua melebihi 200 batu nautika dari garis pangkal laut wilayahnya dikehendaki supaya mengemukakan data saintifik dan maklumat teknikal kepada Suruhanjaya Mengenai Had-Had Pelantar Benua (*CLCS-Commission on the Limits of the Continental Shelf*) selewat-lewatnya pada 13 Mei 2009. Selaras dengan itu, Mesyuarat Jawatankuasa Kecil Pelantar Benua yang telah diadakan di Majlis Keselamatan Negara (MKN), Jabatan Perdana Menteri pada 25 Ogos 2001 telah menubuhkan Kumpulan Kerja Pelantar Benua serta melantik JUPEM sebagai Lead Agency bagi mengumpul, menganalisis dan merangka penyediaan dokumen submission kepada CLCS.

Jemaah Menteri pada 23 Julai 2008 telah bersetuju tuntutan had pelantar benua dikemukakan secara *Joint Submission* dengan Vietnam. Dalam hal ini, dokumen *Joint Submission* Malaysia dan Republik Sosialis Vietnam telah berjaya dikemukakan kepada pihak CLCS di Pertubuhan Bangsa-Bangsa Bersatu, New York pada 6 Mei 2009. Seterusnya, pihak Malaysia dan Republik Sosialis Vietnam telah membentangkan *preliminary presentation Malaysia-Vietnam Joint Submission* semasa *24th session of the CLCS* di Ibu Pejabat Pertubuhan Bangsa-Bangsa Bersatu, New York, Amerika Syarikat pada 27 Ogos 2009. Walau bagaimanapun, pada 1 Oktober 2009 pihak CLCS telah menengguhkan pertimbangan bagi penelitian terhadap dokumen *Joint Submission* tersebut berikutan Nota Bantahan daripada pihak Republik Rakyat China dan Filipina. Keputusan CLCS menengguhkan *Joint Submission* tersebut merupakan halangan pertama yang perlu diatasi secara bersama oleh Malaysia dan Vietnam dalam memastikan dokumen *Joint Submission* dapat diteliti seterusnya menerima *recommendations* daripada pihak CLCS.

Dalam hubungan berkaitan, Keputusan Jemaah Menteri bertarikh 22 April 2009 antara lain telah bersetuju supaya penyediaan unilateral or joint submission Malaysia bagi *remaining portion of the extended continental shelf* terus dilaksanakan. Sehubungan itu, pada masa kini pihak JUPEM bersama agensi-agensi terlibat sedang menyediakan dokumen submission bagi tujuan tuntutan baki had pelantar benua yang dikenali sebagai Projek Pelantar Benua Malaysia Fasa II. Aktiviti-aktiviti yang dijalankan bertujuan memastikan pelaksanaan Projek Pelantar Benua Malaysia Fasa II dapat diteruskan seiring dengan perancangan yang ditetapkan merangkumi mesyuarat, perbincangan dan latihan kepada pegawai pelapis dalam memastikan *sustainability* Projek Pelantar Benua Malaysia dapat dipelihara demi kepentingan nasional. Antara pencapaian aktiviti-aktiviti dan mesyuarat-mesyuarat yang diadakan dalam tahun 2016 adalah seperti berikut:



BIL.	PERBINCANGAN	TARIKH
1	Mesyuarat Jawatankuasa Pelantar Benua Malaysia Bil.1/2016 di MKN, Putrajaya	28 Januari 2016
2	Latihan kepada pegawai pelapis Projek Pelantar Benua Malaysia mengenai <i>Introduction to Geology and Geophysics</i> bagi Urusan Tuntutan Had Pelantar Benua Malaysia berdasarkan Artikel 76, KUUL 1982 di Wisma JUPEM, Kuala Lumpur	13 April 2016
3	Mesyuarat Jawatankuasa Kumpulan Wang Amanah Projek Pelantar Benua Malaysia Bil.1/2016 di MKN, Putrajaya	13 Jun 2016
4	Mesyuarat Pasukan Kerja Teknikal Pelantar Benua Bil. 1/2016 di Wisma JUPEM, Kuala Lumpur	24 Jun 2016
5	Mesyuarat Pasukan Kerja Teknikal Pelantar Benua Bil. 2/2016 di Wisma JUPEM, Kuala Lumpur	24 Oktober 2016
6	Taklimat Overview Projek Pelantar Benua Malaysia dan <i>Way Forward</i> oleh Sr Tan Ah Bah	15 November 2016
7	Mesyuarat Persediaan <i>17th Malaysia-Vietnam Joint Technical Expert Committee (JTEC) Meeting On Issue Of Joint Submission Pursuant To Article 76 Of United Nations Convention On The Law Of The Sea (UNCLOS) 1982</i> di Putrajaya	18 November 2016
8	<i>17th Malaysia - Vietnam Joint Technical Expert Committee Meeting</i> di Wisma JUPEM, Kuala Lumpur	22-24 November 2016
9	Mesyuarat Jawatankuasa Kumpulan Wang Amanah Projek Pelantar Benua Malaysia Bil.2/2016 di MKN, Putrajaya	22 Disember 2016



PERSEMPADANAN NEGERI

Projek Penandaan dan Pengukuran Sempadan Bersama Antara Negeri-negeri Semenanjung Malaysia

Pada keseluruhannya, sempadan antara negeri-negeri di Semenanjung Malaysia melibatkan 19 sektor sempadan dengan anggaran jumlah jarak sempadan bersama di antara negeri-negeri di Semenanjung Malaysia adalah sejauh 2,540.6 kilometer dan daripada jumlah tersebut, sepanjang 1,428.8 kilometer (56.2%) telah siap ditanda dan diukur.

Pada tahun 2016, pencapaian aktiviti penandaan dan pengukuran sempadan bersama antara Negeri Selangor dan Negeri Sembilan bagi tahun 2016 adalah seperti berikut:

SEMPADAN NEGERI	SKT 2016	PENCAPAIAN
Negeri Selangor - Negeri Sembilan	19.4 km	19.4 km (100%)



Pengukuran Sempadan Bersama Antara Negeri Sembilan dan Negeri Selangor Bagi Tahun 2016

Pada tahun 2016, pencapaian aktiviti penandaan dan pengukuran sempadan bersama antara Negeri Perak dan Negeri Kelantan bagi tahun 2016 adalah seperti berikut:

SEMPADAN NEGERI	SKT 2016- 2017	PENCAPAIAN
Negeri Perak - Negeri Kelantan (Sasaran bagi penandaan dan pengukuran di Kawasan Keutamaan I & II untuk disiapkan adalah pada akhir tahun 2017)	84.5 km	21.6 km (100%)



Pengukuran Sempadan Bersama Antara Negeri Perak - Negeri Kelantan bagi Tahun 2016

Berikut merupakan senarai mesyuarat sepanjang tahun 2016 yang berkaitan dengan sempadan antara negeri-negeri yang dihadiri oleh Jabatan:

BIL.	PERBINCANGAN	TARIKH
1	Urus Setia Bersama Bagi Majlis menandatangani Memorandum Persefahaman (MoU) Penandaan dan Penetapan Sempadan antara Negeri Kelantan dan Negeri Perak di Hotel Impiana KLCC, Kuala Lumpur	15 Februari 2016
2	Mesyuarat Perancangan dan Penyelarasan Kerja Pengukuran Sempadan Bersama antara Negeri-Negeri di Semenanjung Bil. 1/2016 di JUPEM	25 Februari 2016
3	Mesyuarat Bagi Membincangkan Maklumat dan Data Teknikal serta Cadangan Jajaran Sempadan Bersama Negeri Johor - Melaka dan Program Lawatan Teknikal ke Lapangan di Pejabat Juruukur Daerah Muar, Johor	8 Mac 2016
4	Mesyuarat dan Lawatan Tapak ke Projek Penandaan dan Pengukuran Sempadan Bersama di antara Negeri Perak dan Negeri Kelantan di Kawasan Keutamaan I di JPS, Cameron Highlands, Pahang	21 Mac 2016
5	Mesyuarat Penyelarasan Maklumat Ukur Kadaster bagi Penandaan dan Pengukuran Sempadan Bersama Negeri Sembilan dan Negeri Selangor Bil.1/2016 di JUPEM Negeri Sembilan	29 Mac 2016
6	Perbincangan berkaitan penyediaan <i>Terms of Reference</i> (ToR) bagi pengukuran persempadanan antara Negeri Selangor dan Wilayah Persekutuan Kuala Lumpur di JUPEM Wilayah Persekutuan, Kuala Lumpur	8 April 2016
7	Mesyuarat Perancangan dan Penyelarasan Kerja Pengukuran Sempadan Bersama antara Negeri-Negeri di Semenanjung Bil. 2/2016 di JUPEM	27 April 2016
8	Perbincangan Lanjutan dari Hasil Mesyuarat Perancangan dan Penyelarasan Kerja Pengukuran Sempadan antara Negeri-Negeri Semenanjung Malaysia Bil. 2/2016 antara BEP dengan Bahagian Kadaster di Tingkat 10, Wisma JUPEM	10 Mei 2016
9	Taklimat Berkaitan Persempadanan Negeri kepada Pengarah-Pengarah Ukur dan Pemetaan Negeri di Tingkat 11, Wisma JUPEM	30 Mei 2016
10	Mesyuarat " <i>Outreach And Engagement Programme</i> " Siri 1/2016 Bagi Membincangkan Projek Penandaan Dan Pengukuran Sempadan Bersama Bagi Negeri Selangor-Wilayah Persekutuan Kuala Lumpur, Negeri Selangor-Wilayah Persekutuan Putrajaya, Negeri Selangor-Pahang, Negeri Selangor-Perak dan Negeri Selangor-Negeri Sembilan di Putrajaya	8 Jun 2016
11	Mesyuarat Penyelarasan Ukuran Persempadanan Negeri-Negeri Antara Bahagian Kadaster, Bahagian Ehwat Persempadanan Dan Bahagian Topografi Semenanjung Malaysia di Tingkat 11, Wisma JUPEM	10 Jun 2016

BIL.	PERBINCANGAN	TARIKH
12	Mesyuarat Persempadanan Bersama Negeri Selangor - Pahang di JUPEM Selangor	10 Jun 2016
13	Mesyuarat Bagi Membincangkan 12 Daripada 32 Isu Kawasan Bermasalah Persempadanan di antara WP Kuala Lumpur dan Selangor di Pejabat Juruukur Daerah, JUPEM WP Kuala Lumpur/Putrajaya	15 Jun 2016
14	Mesyuarat Jawatankuasa Kumpulan Wang Amanah Projek Penandaan dan Pengukuran Sempadan Bersama Negeri-negeri di Semenanjung Malaysia Bil 1/2016 di NRE, Putrajaya	20 Jun 2016
15	Mesyuarat Perancangan dan Penyelarasan Kerja Pengukuran Sempadan Bersama antara Negeri-Negeri di Semenanjung Bil. 3/2016 di JUPEM	13 Julai 2016
16	Perbincangan Mengenai Draf Perjanjian Sempadan Kelantan - Terengganu dan Ukuran Astronomi di Tg. Geliga Berkaitan Sempadan Pahang – Terengganu di Tingkat 8, Wisma JUPEM	21 Julai 2016
17	Mesyuarat "Outreach And Engagement Programme" Siri 2/2016 Bagi Membincangkan Projek Penandaan Dan Pengukuran Sempadan Bersama Bagi Negeri Kedah - Perlis, Negeri Perak - Pulau Pinang, Negeri Kelantan - Terengganu dan Negeri Melaka - Negeri Sembilan.	9 Ogos 2016
18	Mesyuarat Penyelarasan Penyediaan Pelan Warta Persempadanan Bersama Negeri Selangor - Pahang di JUPEM Selangor, Shah Alam	17 Ogos 2016
19	Mesyuarat Jawatankuasa Bersama Teknikal Penandaan dan Pengukuran Sempadan Negeri Melaka dan Negeri Sembilan di PTG Melaka, Melaka	26 Ogos 2016
20	Mesyuarat Penyelarasan Teknikal Cadangan Kawalan Perancangan, Kawalan Pembangunan dan Penguatkuasaan Meliputi 3 batu nautika Perairan Negeri Melaka	7 September 2016
21	Mesyuarat Jawatankuasa Perancang Negeri Melaka Kali Ke -88 Bil. 3/2016 di Melaka	26 September 2016
22	Taklimat dan Perbincangan Mengenai Persempadanan Darat dan Maritim antara Negeri di Negeri-Negeri di Semenanjung Malaysia di ARKIB Negara, Kuala Lumpur	29 September 2016
23	Mesyuarat Penyelarasan Penandaan dan Pengukuran Sempadan Bersama Kuala Lumpur dan Negeri Selangor	20 Oktober 2016
24	Mesyuarat Rundingan Kertas Kerja Jawatankuasa Perancang Wilayah Bagi Kawasan Persempadanan antara Negeri Sembilan, Melaka dan Johor Bil. 2/2016 di Unit Perancangan Pembangunan, Johor Bharu	25 Oktober 2016

BIL.	PERBINCANGAN	TARIKH
25	Mesyuarat Persediaan bagi Mesyuarat Jawatankuasa Kebangsaan Penandaan dan Pengukuran Sempadan Bersama Negeri-Negeri di Semenanjung Malaysia Bil. 1/2016 di Wisma Sumber Asli, Putrajaya	25 Oktober 2016
26	Mesyuarat Jawatankuasa Kebangsaan Penandaan dan Pengukuran Sempadan Bersama Negeri-Negeri di Semenanjung Malaysia (JKPPSBN) Bil. 1/2016 di Wisma Sumber Asli, Putrajaya	27 Oktober 2016
27	Mesyuarat Jawatankuasa Kumpulan Wang Amanah Projek Penandaan dan Pengukuran Sempadan Bersama Negeri-negeri di Semenanjung Malaysia Bil 2/2016 di NRE, Putrajaya	20 Disember 2016

SAKSI PAKAR KES-KES DI MAHKAMAH

Pegawai-pegawai JUPEM merupakan saksi pakar dalam perbicaraan kes-kes tangkapan nelayan dan kapal asing yang menceroboh perairan Malaysia. Dalam tahun 2016, sejumlah dua puluh tiga (23) kes perbicaraan telah dihadiri bagi membuat pengesahan kedudukan sesuatu lokasi pencerobohan perairan negara yang telah dibawa ke mahkamah oleh Agensi Penguatkuasa, Maritim Malaysia (APMM) dan Kementerian Perdagangan Dalam Negeri, Koperasi dan Kepenggunaan (KPDNKK). Perbicaraan yang telah dihadiri adalah seperti berikut:

BIL.	PERBINCANGAN	TARIKH
1	Perbicaraan Kes Mahkamah Berkaitan Vesel Nelayan Asing Bernombor Pendaftaran BV 92979 TS dan BV 92978 TS oleh Agensi Penguatkuasaan Maritim (APMM), Kuching, Sarawak di Mahkamah Majistret, Kuching, Sarawak	14 – 15 Januari 2016
2	Perbicaraan Kes Mahkamah Berkaitan Vesel Nelayan Asing Bernombor Pendaftaran BV 5336 TS dan dan BV 5380 TS oleh Agensi Penguatkuasaan Maritim (APMM), Kuching, Sarawak di Mahkamah Majistret, Kuching, Sarawak	25 – 26 Januari 2016
3	Perbicaraan Kes Mahkamah Berkaitan Tangkapan Vesel KM Usaha Makmur 2 Tiada Bernombor Pendaftaran Berkait Repot Polis: Tg Tokong/002928/14 oleh Agensi Penguatkuasaan Maritim Malaysia (APMM) Pulau Pinang	24-25 Februari 2016
4	Perbicaraan Kes Mahkamah Kes Bernombor APMM-PM 102/250/15-07 Disiasat Oleh Agensi Penguatkuasaan Maritim Malaysia (APMM), Pangkalan Kuala Kedah, Kedah di Mahkamah Majistret, Alor Setar, Kedah	28 Februari 2016
5	Perbicaraan Kes Mahkamah Berkaitan Tangkapan Bot Fiber Tiada Nombor Pendaftaran Oleh Agensi Penguatkuasaan Maritim Malaysia (APMM), Daerah Maritim Batu Pahat, Johor di Mahkamah Majistret Batu Pahat, Johor	14 Mac 2016

BIL.	PERBINCANGAN	TARIKH
6	Perbicaraan Kes Mahkamah Berkaitan Vesel Nelayan Tempatan Bernombor Pendaftaran SBF48 Oleh Agensi Penguatkuasaan Maritim Malaysia (APMM), Daerah Maritim Miri, Sarawak di Mahkamah Majistret Miri, Sarawak	15 – 17 Mac 2016
7	Perbicaraan Kes Mahkamah Berkaitan Vesel Nelayan Tempatan Bernombor Pendaftaran SBF48 Oleh Agensi Penguatkuasaan Maritim Malaysia (APMM), Daerah Maritim Miri, Sarawak di Mahkamah Majistret Miri, Sarawak	7 April 2016
8	Perbicaraan Kes Mahkamah Berkaitan Tangkapan Rokok Berkait Repot Polis: PPUTIH Rpt/2475/15 oleh Pasukan Polis Marin, Wilayah Tampoi, Johor Bahru di Mahkamah Majistret Johor Bahru	24 Mei 2016
9	Perbicaraan Kes Mahkamah Berkaitan Kes Pengesahan Koordinat Vesel MT Berjaya Bernombor Pendaftaran IMO No. 8513003 Oleh Agensi Penguatkuasaan Maritim Malaysia (APMM), Johor Bahru di Mahkamah Majistret Sesyen, Johor Bahru	29 – 30 Mei 2016
10	Perbicaraan Kes Mahkamah Berkaitan Tangkapan Rokok Berkait Repot Polis: PPUTIH Rpt/2475/15 oleh Pasukan Polis Marin, Wilayah Tampoi, Johor Bahru di Mahkamah Majistret Johor Bahru	26 Jun 2016
11	Perbicaraan Kes Mahkamah Berkaitan Kes Pengesahan Koordinat Vesel MT Berjaya Bernombor Pendaftaran IMO No. 8513003 Oleh Agensi Penguatkuasaan Maritim Malaysia (APMM), Johor Bahru di Mahkamah Majistret Sesyen, Johor Bahru	4 Ogos 2016
12	Perbicaraan Kes Mahkamah Berkaitan Kes Pengesahan Koordinat Tangkapan Kapal Membawa Barang Larangan Berkait Repot Polis: PERMAS/000221/16 Oleh Agensi Penguatkuasaan Maritim Malaysia (APMM), Johor Bahru di Mahkamah Majistret, Johor Bahru	29 November 2016

PENERBITAN PETA

Beberapa aktiviti melibatkan pengukuran dan pemprosesan data dilakukan sebelum sesuatu peta dihasilkan. Aktiviti-aktiviti ini melibatkan kerja-kerja penawanan, pengutipan data di lapangan dan pemprosesan data ukuran.

Penawanan Data

Aktiviti-aktiviti penawanan data melibatkan kerja-kerja seperti penggambaran fotografi udara dan penyediaan cetak lekup, penyediaan dataset penyudahan padang dan penyediaan peta ortofoto. Selain daripada itu, aktiviti penawanan data juga melibatkan kerja-kerja penyediaan data ortorektifikasi imej satelit, penyediaan data untuk kegunaan dan keperluan pihak Angkatan Tentera Malaysia, jabatan-jabatan lain, pihak swasta serta pengguna awam.

Pencapaian empat (4) aktiviti penawanan data bagi tahun 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016 (LEMBAR)	PENCAPAIAN (LEMBAR) (%)
1	Perolehan Data Bawaan Udara	300	315 (105%)
2	Penyediaan Dataset Penyudahan Padang	75	60 (80%)
3	Penyediaan Peta Ortofoto	100	106 (106%)
4	Penyediaan Data DSM dan DTM	100	106 (106%)

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 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 yang tersedia di jabatan.

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

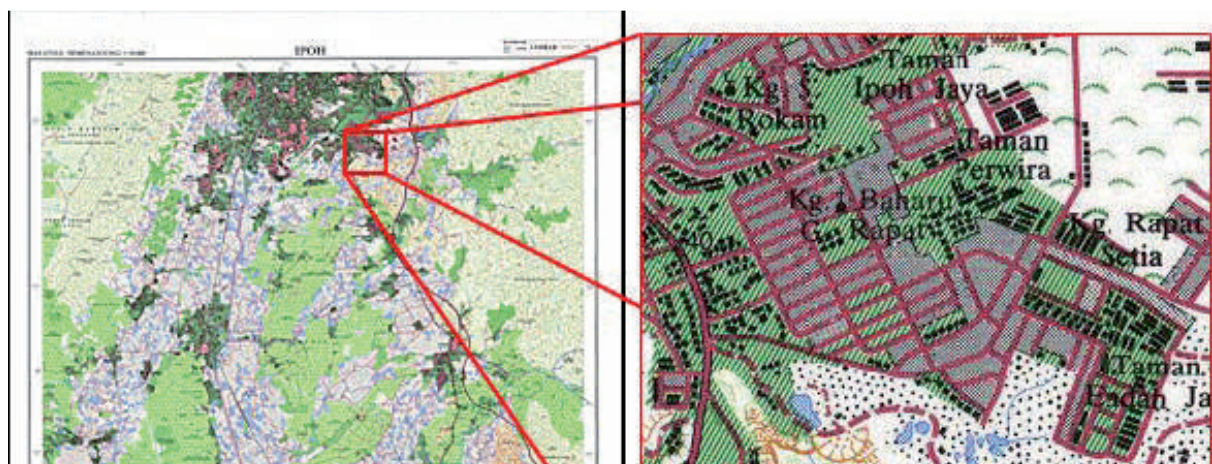
BIL.	AKTIVITI	SKT 2016 (LEMBAR)	PENCAPAIAN (LEMBAR) (%)
1	Penyediaan DSM dan DTM	100	110 (110%)
2	Penyediaan Orthofoto	100	110 (110%)
3	Pengemaskinian Pangkalan Data Skala 1:50 000	40	41 (103%)
4	Pengemaskinian Pangkalan Data Skala 1:25 000	160	66 (41%)
5	Pengemaskinian Pangkalan Data Skala 1:5 000 & 1:10 000	180	189 (105%)
6	Pengemaskinian Pangkalan Data Skala 1:5 000 & 1:10 000 (Pengkontrakan)	151	222 (147%)
7	Penyediaan Pangkalan Data bagi <i>Joint Border Mapping</i> (JBM)	20	20 (100%)
8	Penyediaan Peta Pulau-pulau	8 liputan	8 liputan (100%)
9	Penyediaan Data Bagi Pihak Angaktan Tentera Malaysia, Pengguna Awam dan Lain-lain Jabatan / Agensi	500	621 (124%)

Pengemaskinian Peta Topografi

Aktiviti ini dijalankan bertujuan mengemaskini maklumat topografi pada lembaran peta melalui kerja ukuran penyudahan padang. Kerja-kerja pengemaskinian melibatkan pelbagai siri peta iaitu MY501T, MY502A, dan MY701T.

Pencapaian aktiviti pengemaskinian peta topografi bagi tahun 2016 adalah seperti berikut:

AKTIVITI	SKT 2016 (LEMBAR)	PENCAPAIAN (LEMBAR) (%)
Pengemaskinian Peta Topografi	70	70 (100%)



Kartografi

Aktiviti kartografi melibatkan kerja-kerja seperti suntingan kartografi, penerbitan peta topografi, penyediaan pangkalan data tematik dan penerbitan peta tematik.



Pencapaian aktiviti kartografi bagi tahun 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016 (LEMBAR)	PENCAPAIAN (LEMBAR) (%)
1	Penyediaan Pruf Kelulusan Peta Topografi Pelbagai Siri	200	255 (128%)
2	Penyediaan Data Cetak Peta Topografi Pelbagai Siri	200	239 (120%)
3	Penyediaan Pruf Kelulusan Peta Tematik Pelbagai Siri	22	24 (109%)
4	Penyediaan Data Cetak Peta Tematik Pelbagai Siri	22	24 (109%)
5	Penerbitan Peta Elektronik	25	25 (100%)
6	Penerbitan Webmap dan eMap	3	3 (100%)

Percetakan

Kerja-kerja percetakan di JUPEM melibatkan tiga aktiviti utama iaitu aktiviti pracetak, pencetakan 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, Watikah, Dokumen Keselamatan dan produk-produk bukan peta yang lain



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

Pencapaian aktiviti pracetak bagi tahun 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016	PENCAPAIAN
1	Desktop Publishing (DTP)	160	160 (100%)
2	Pruf	160	160 (100%)
3	Plat Cetak	1600	1633 (102%)

Peta-peta topografi yang telah dicetak sepanjang tahun 2016 adalah seperti berikut:

BIL.	SIRI	JUMLAH LEMBAR	CATATAN
1	L7030/DNMM5101	17	Cetak Ulang
2	MY501T/MY501A/MY502A	22	
3	MY701T/MY701A	159	
4	MY511T/MY511A/MY512A (Sabah)	2	
5	MY711T/MY711A (Sabah)	0	
6	MY511T/MY511A/MY512A (Sarawak)	35	
7	MY711T/MY711A (Sarawak)	20	
JUMLAH		255	

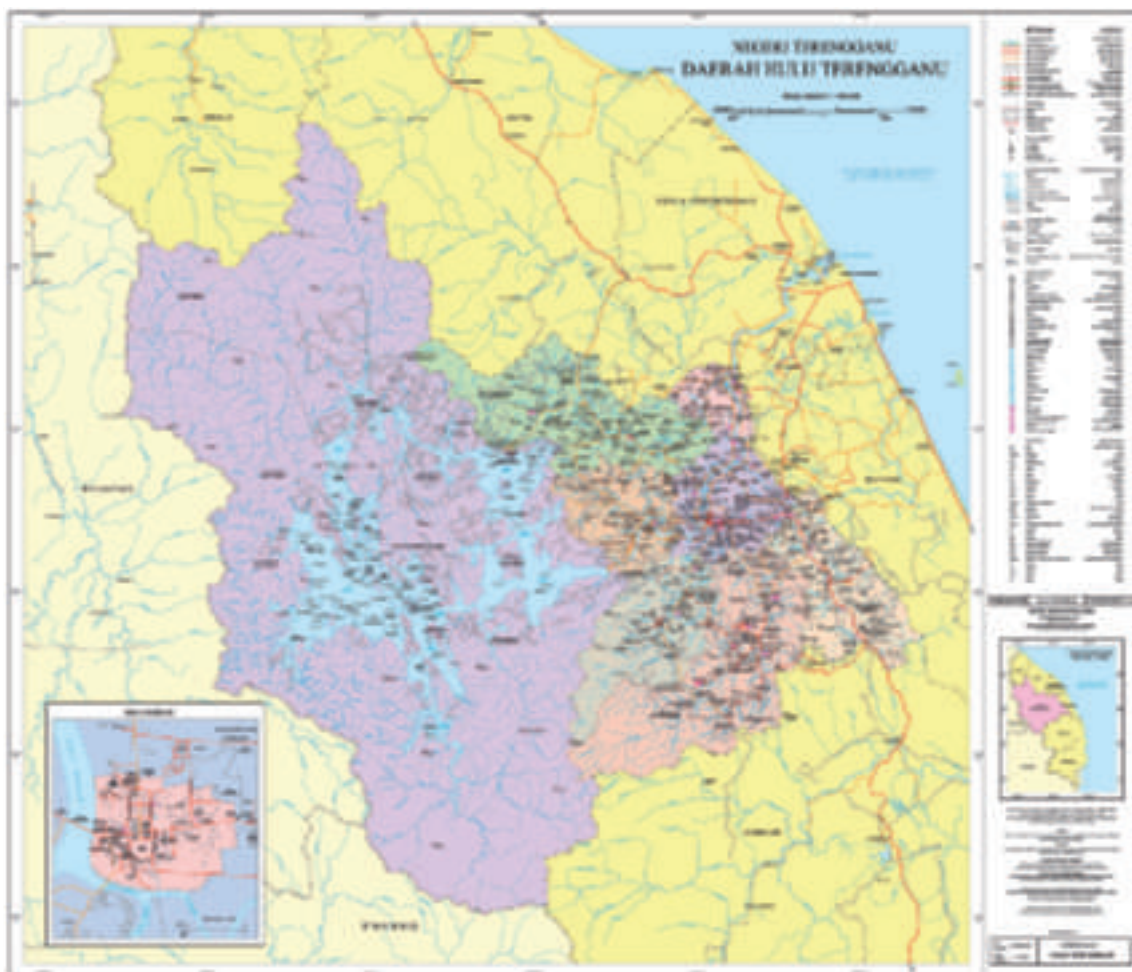
Perincian peta-peta topografi yang dicetak adalah seperti berikut:

NO. SIRI	NEGERI	NAMA LEMBAR
MY502A	Pahang	Kg. Genuai, Temerloh, Kuala Kerau, Telemong, Kg. Kuala Sat, Kg. Gelinggang
	Kedah	Padang Mat Sirat, Alor Setar
	Johor	Pulau Tinggi, Bandar Mas, Pekan Nenas, Layang-Layang, Bandar Petri Jaya
	Kelantan	Manik Urai, Kg. Jenekih, Kota Bharu
	Terengganu	Bandar Baru Kerteh, Kg. Batu Rakit, Kuala Terengganu
	Pulau Pinang	Geogetown
	Perlis	Padang Besar
	Selangor	Tanjong Karang
MY512A	Sarawak	Sungai Tru, Bukit Durang, Kg. Long Pran, Sungai Para, Sg. Paran, Lundu, Kg. Naha Nyabong, Long Salt, Sungai Pejelai, Kampung Long San, Kampung Long Daloh, Kg. Ramudu, Saratok, Pakan, Batu Talang, Kampung Lio Moto, Lellang, Siburan, Sungai Laie, Sebauh, Long Lidam, Bukit Long, Kg. Sang Anau, Lubok Antu, Batang Baram, Bukit Lesong, Long Anap, Bukit Tasu, Simunjan, Kg. Kuala Tatau, Bukit Mutoh, Sg. Muang, Long Lamai, Long Moh, Kg. Bilik
	Sabah	Sapulut, Kg. Banting
MY701T/A	Pulau Pinang	Taman Robina, Kg. Sg. Nyiur, Bandar Baru Seberang Jaya, Kg. Surau Seberang Jaya, Kg. Sungai Lokan, Permatang Binjai, Bandar Prai, Kawasan Perusahaan Prai
	Kedah	Kg. Sg. Kuar Jawa, Kampung Tok Jamat, Kg. Pokok Pauh, Felda Bukit Tembaga, Kg. Keda, Pekan Naka, Kg. Bkt. Nambua, Bukit Pinang, Kg. Simpang Empat, Kg. Titi Hj. Idris, Taman Desa Kamila, Kg. Baru Temusu, Kg. Nawa, Kg. Pokok Machang, Kg. Keda Kubang Kenyang, Kg. Kubang Jelai, Sg. Paung, Tmn Sejati Indah, Tmn. Wira Indah / Sg. Petani, Kg. Kuala Lanjut / Kg. Kubang Pisang, Kg. Perting, Bandaraya Alor Setar, Bandar Mutiara, Kampung Bukit Choras, Bukit Belantik, Kg. Setol
	Selangor	Bandar Bukit Raja, Setia Eco Park, Kg. Bendang Raja, Kg. Sg. Kabor, Taman Sri Kota, Kg. Pangar, Kg. Baru Subang, Kg. Desa Putra
	Negeri Sembilan	Pekan Cengkau, Kg. Bendang Raja / Seremban, Kg. Chembong
	Pahang	Kg. Bentan Tengah, Pos Mensun, Kg. Pdg. Polo, Sungai Telum, Pos Lemoi, C'ron Highlands/Kg. Pangen, Bandar Tanah Rata, Kampung Permatang Keledang, Gunung Tangga, Kampung Batu Satu (Temerloh), Sungai Gajah, Kg. Kuala Terla, Kampung Pangsenam, Pekan, Kampung Ketapang, Sungai Beringin, Sungai Wi
	Perlis	Pekan Simpang Empat
	Terengganu	Kg. Bkt. Payong, Perkpgan Melayu Kg. Raja
	Melaka	Kg. Durian Daun
	Perak	Bukit Larah, Bukit Penyengat
	Johor	Kulai

NO. SIRI	NEGERI	NAMA LEMBAR
MY711T/A	Sarawak	Tmn Distar / Bukit Aup, Kg. Pinang, Kg. Nangka, Lundu, Kg. Usahajaya Baru Sentosa Taman Hilltop Villa, Kg. Stutong, Taman Kiew Nang, Taman Bumiko, Kampung Payau
	Sabah	Tiada

Peta-peta tematik yang telah dicetak sepanjang tahun 2016 adalah seperti berikut:

BIL.	JENIS PETA	JUMLAH
1	Peta Politik/Negeri/Fizikal	2
2	Peta Daerah	1
3	Pelbagai Peta Tematik	22
JUMLAH		25



Perincian peta-peta tematik yang telah dicetak sepanjang tahun 2016 adalah seperti berikut:

NO. SIRI	JENIS PETA	NAMA LEMBAR
MY90005R	Negeri	Peta Politik Negeri Sabah, Peta Fizikal- cetak Ulang (Sabah)
MY91001R	Daerah	Putrajaya
-	Peta Jalan JKR	Johor, Pulau Pinang, Kedah
-	Peta Cenderahati	Malaysia
-	Peta Masjid	Peta Masjid di Santubong
-	Peta Daerah Kelantan	Tugu Peringatan Banjir
-	Peta JOG AIR	NB 47-08, NA 47-04 ED4, NA 49-46, NA 50-03, NA 50-15, NB 47-07 ED7, NB 48-14 ED3, NE 47-11 ED4, NE 47-12 ED6, NE 47-16 ED4, NB 48-05 ED5, NB 48-09 ED5, NB 48-13 ED4, NA 50-15
-	JBM	Lembar 41

Pencapaian aktiviti percetakan bagi tahun 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016	PENCAPAIAN
1	Cetak Peta Topografi	200	255 (128%)
2	Cetak Peta Tematik	22	25 (114%)
3	Cetak Bukan Peta	160	160 (100%)

Aktiviti pascacetak melibatkan kerja-kerja penjilidan buku selepas proses pencetakan dijalankan.

Pencapaian aktiviti pascacetak bagi tahun 2016 adalah seperti berikut:

AKTIVITI	SKT 2016	PENCAPAIAN
Penjilidan (Buku)	70,000 (unit)	101,304 (145 %)

Pemetaan Utiliti

Pemetaan utiliti melibatkan proses memperolehi dan mengenalpasti jenis pemasangan dan utiliti kemudahan awam yang tertanam di bawah tanah, menyediakan maklumat dan kedudukan utiliti dalam bentuk digital atau salinan cetak. Maklumat kedudukan pemasangan utiliti yang lengkap dan tepat diperlukan bagi membantu mengelakkan masalah gangguan utiliti dan seterusnya mengurangkan 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 bagi tahun 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016	PENCAPAIAN
1	Perolehan data utiliti daripada agensi pembekal data utiliti (pengemaskinian)	Mengemukakan permohonan, memperoleh dan mengumpulkan maklumat utiliti bagi kawasan: 1. W.P Labuan 2. Nilai 3. Seremban 4. Port Dickson	(100%)
2.	Semakan dan pengisian data ke dalam Pangkalan Data Utiliti Kebangsaan (PADU)	Menjalankan semakan, memproses dan memuatkan sepenuhnya semua data utiliti kawasan: 1. W.P Labuan 2. Nilai 3. Seremban 4. Port Dickson	100 % Pembekal data utiliti adalah daripada IWK, SAINS, JANS dan TMB.
3	Penyediaan Peta Asas skala 1:500	550 lembar bagi kerja-kerja pendigitalan mono dan suntingan butiran topografi daripada ortofoto.	550 lembar (100%) i. Petaling Jaya – 285 lembar ii. Kajang – 265 lembar
4	Pengesanan data utiliti bawah tanah di lapangan	90 km iaitu: i. Hulu Selangor : 28.85 km ii. Selayang : 11.09 km iii. Kajang : 55.65 km	95.59 km (106.21%) i. Hulu Selangor : 28.85 km ii. Selayang : 11.09 km iii. Kajang : 55.65 km
5	Penyediaan peta utiliti	62 lembar	64 lembar (103%) i. Putrajaya – 28 lembar ii. Cyberjaya – 36 lembar

Pencapaian aktiviti penyediaan peta asas skala 1:500 bagi tempoh lima tahun terakhir:

TAHUN	SKT	PENCAPAIAN LEMBAR						JUMLAH
		PUTRAJAYA	CYBERJAYA	KUALA SELANGOR	SHAH ALAM	SEPANG	PETALING JAYA	
2012	550	25	0	0	193	0	332	550
2013	550	375	0	0	0	100	75	550
2014	550	48	0	0	0	502	0	550
2015	550	0	0	0	0	125	425	550
2016	550	0	265	0		0	285	550
JUMLAH		448	265	0	193	727	1117	2750

Pencapaian aktiviti penerbitan peta utiliti bagi tempoh lima tahun terakhir adalah seperti berikut:

TAHUN	SKT (LEMBAR)	PENCAPAIAN (LEMBAR)	KAWASAN
2012	37	39	Putrajaya & Cyberjaya
2013	46	50	Putrajaya & Cyberjaya
2014	50	53	Putrajaya, Shah Alam & Cyberjaya
2015	60	64	Putrajaya & Cyberjaya
2016	62	64	Putrajaya & Cyberjaya
	JUMLAH	270	

Perkhidmatan Pemetaan

Bahagian Dasar dan Penyelarasan Pemetaan terdiri daripada 3 komponen utama iaitu Seksyen Dasar Pemetaan, Seksyen Penyelarasan dan Perpustakaan Peta Negara. Seksyen Dasar Pemetaan berperanan bagi menyelaras dasar dan program berkaitan pemetaan melalui Mesyuarat Jawatankuasa Pemetaan dan Data Spatial Negara (JPDSN). Selain daripada itu, Seksyen ini bertindak bagi mengatur program-program Bahagian Pemetaan, menyelaras penerbitan Buletin GIS, menggubal perundangan dan pekeliling berkaitan Pemetaan dan penyediaan ISO Pemetaan serta kertas kabinet.

Seksyen Penyelarasan Pemetaan pula berperanan sebagai urus setia bagi mesyuarat dan aktiviti Bahagian-bahagian Pemetaan dan merancang serta memantau bajet mengurus dan pembangunan di bawah Aktiviti Pemetaan. Seksyen ini juga memantau pencapaian KPI dan SKT bagi aktiviti-aktiviti pemetaan, pengurusan aset, latihan dan kursus serta pengeluaran Arahan Pemetaan.

Perpustakaan Peta Negara pula berperanan menyediakan sumber atau bahan rujukan dalam bidang ukur dan pemetaan, khususnya kepada warga 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. Sepanjang tahun 2016, PPN telah melaksanakan beberapa siri aktiviti promosi bahan bacaan kepada warga JUPEM.



Pencapaian aktiviti perkhidmatan pemetaan bagi tahun 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016	PENCAPAIAN
1	Semakan Pruf Peta Topografi dan Tematik (lembar)	370	370 (100%)
2	Penerbitan Buletin GIS dan Maklumat JPDSN (edisi)	4	4 (100%)
3	Urus Setia Mesyuarat (kali)	22	24 (109%)
4	Dokumentasi Koleksi Perpustakaan (jilid)	2,000	2,004 (100%)
5	Pengedaran Bahan-Bahan Terbitan JUPEM (naskhah)	3,300	3,300 (100%)
6	Perkhidmatan Perpustakaan (Perolehan Peta, Buku dll.) (naskhah)		
	i. Perolehan Pembangunan Koleksi Perpustakaan (buku/majalah/bahan pemetaan) ii. Dokumentasi Bahan Koleksi Perpustakaan di dalam sistem Perpustakaan (ILMU) (buku/terbitan bersiri/peta topografi/bahan AV/bahan foto)	800 1500	837 (105%) 1800 (120%)

UKURAN KADASTER

JUPEM melalui Bahagian Kadaster telah berjaya melaksanakan sepenuhnya sistem eKadaster di semua negeri Semenanjung Malaysia termasuk di semua Wilayah Persekutuan. Kejayaan sistem ini memendekkan tempoh proses kerja bermula dari penerimaan Permintaan Ukur sehingga Pelan Akui diluluskan telah memberi impak yang besar terhadap pengeluaran Hakmilik Tanah di seluruh negara. Hakmilik Tanah yang segera disiapkan membolehkan proses pembangunan tanah dapat dilakukan dengan lebih cepat dan teratur.



Pakej yang ada pada eKadaster seperti penggunaan teknologi jalur lebar pada penghantaran data, Sistem Maklumat Geografi (GIS) untuk analisis data, Sistem Satelit Navigasi Global (GNSS) bagi penentuan kedudukan sempadan dan tanda kawalan, penggunaan modul-modul lengkap dari penerimaan kerja hingga Pelan Akui diluluskan dan *National Digital Cadastral Database* (NDCDB) telah menjadikan eKadaster suatu sistem pengukuran yang efisien dan lengkap. Demi kelangsungan sistem eKadaster terus relevan dan mantap, penambahbaikan sentiasa dibuat mengikut arus perkembangan teknologi semasa dan terkini.



Ukuran Hakmilik Tanah

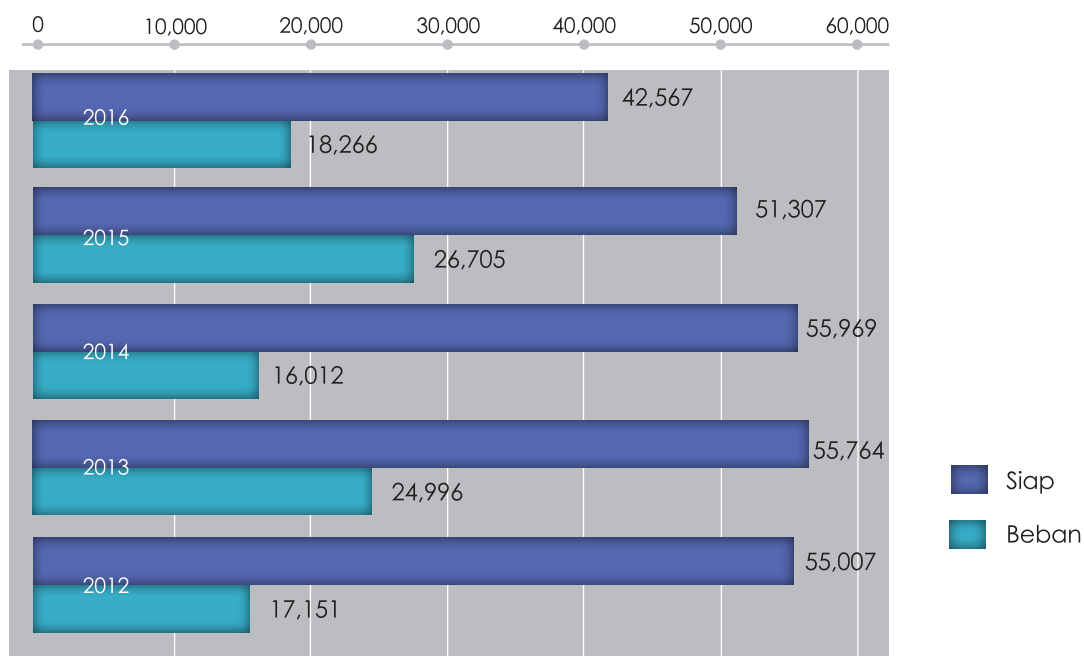
Kemajuan yang dicapai bagi aktiviti Ukuran Hakmilik Tanah bagi tahun 2016 adalah berjumlah 42,567 lot atau 99.90% daripada sasaran yang ditetapkan iaitu sebanyak 42,610 lot. Perincian ke atas pencapaian dan beban kerja mengikut JUPEM Negeri adalah seperti berikut:

BIL.	NEGERI	SKT 2016 (LOT)	PRESTASI		BEBAN KERJA (LOT)
			(LOT)	%	
1	Johor	6,400	5,610	88	4,124
2	Kedah	5,500	5,710	104	1,132
3	Kelantan	4,000	4,241	106	3,129
4	Melaka	1,600	1,713	107	71
5	Negeri Sembilan	1,500	1,398	93	353
6	Pahang	5,300	5,728	108	1,160
7	Perak	6,300	6,422	102	1,726
8	Perlis	1,800	1,460	81	1,433
9	Pulau Pinang	500	587	117	142
10	Selangor	3,500	3,436	98	4,045
11	Terengganu	5,900	6,082	103	778
12	W.P. Kuala Lumpur/ Putrajaya	220	82	37	162
13	W.P.Labuan	90	98	109	11
	JUMLAH	42,610	42,567	99.90	18,266

Perbandingan prestasi dan beban kerja untuk ukuran hak milik tanah bagi tempoh lima tahun:

TAHUN	2012 (LOT)	2013 (LOT)	2014 (LOT)	2015 (LOT)	2016 (LOT)
Siap	55,007	55,764	55,969	51,307	42,567
Beban Akhir Tahun	17,151	24,996	16,012	26,705	18,266





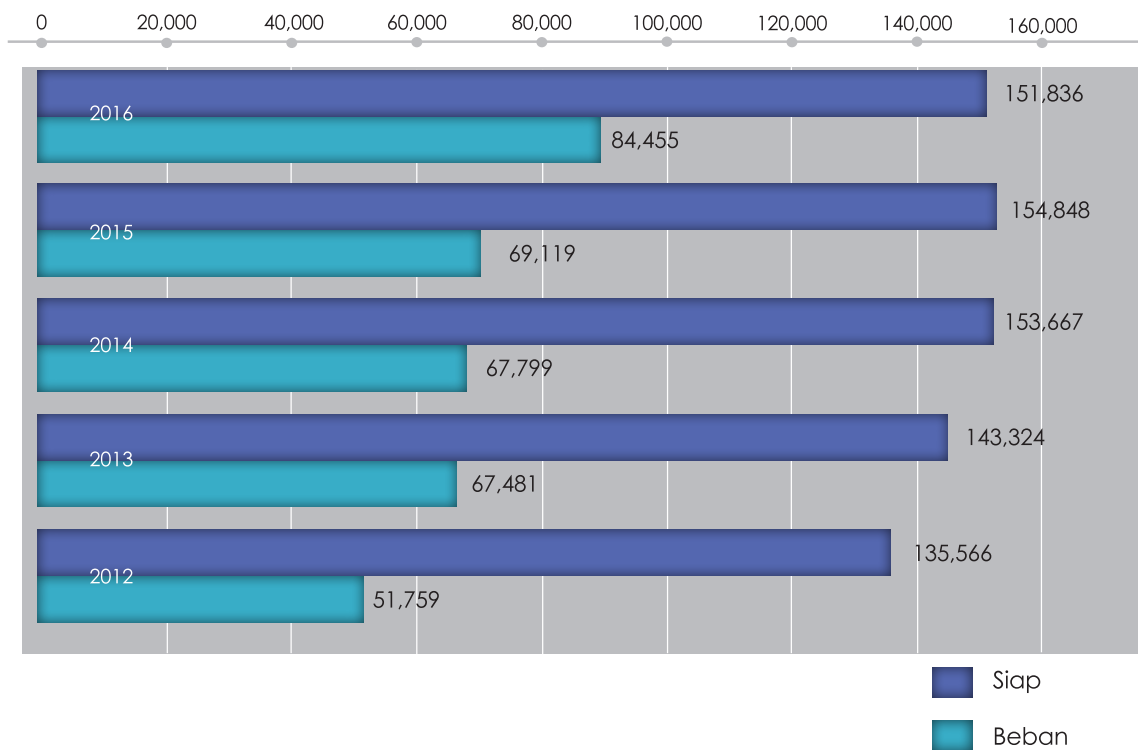
Semakan Kerja Juruukur Tanah Berlesen (JTB)

Kemajuan yang dicapai bagi aktiviti Semakan Kerja Juruukur Tanah Berlesen (JTB) bagi tahun 2016 adalah berjumlah 151,836 lot atau 101 % daripada sasaran yang ditetapkan sebanyak 150,020 lot. Pencapaian keseluruhan mengikut negeri-negeri adalah seperti berikut:

BIL.	NEGERI	SKT 2016 (LOT)	PRESTASI		BEBAN KERJA (LOT)
			(LOT)	%	
1	Johor	25,000	26,474	106	16,365
2	Kedah	10,400	10,008	96	4,033
3	Kelantan	10,500	12,440	118	2,923
4	Melaka	3,600	4,704	131	3,977
5	Negeri Sembilan	11,000	11,343	103	3,022
6	Pahang	13,000	12,331	95	1,135
7	Perak	24,000	24,881	104	19,995
8	Perlis	1,400	1,544	110	87
9	Pulau Pinang	5,000	4,238	85	5,260
10	Selangor	32,300	29,373	91	24,043
11	Terengganu	13,200	13,986	106	3,099
12	W.P. Kuala Lumpur/ Putrajaya	500	382	76	501
13	W.P.Labuan	120	132	110	15
JUMLAH		150,020	151,836	101	84,455

Perbandingan prestasi dan beban kerja semakan kerja Juruukur Tanah Berlesen (JTB) bagi tempoh lima tahun:

TAHUN	2012 (LOT)	2013 (LOT)	2014 (LOT)	2015 (LOT)	2016 (LOT)
Siap	135,566	143,324	153,667	154,848	151,836
Beban Akhir Tahun	51,759	67,481	67,799	69,119	84,455



Semakan Kerja Ukuran Hakmilik Strata Peringkat I

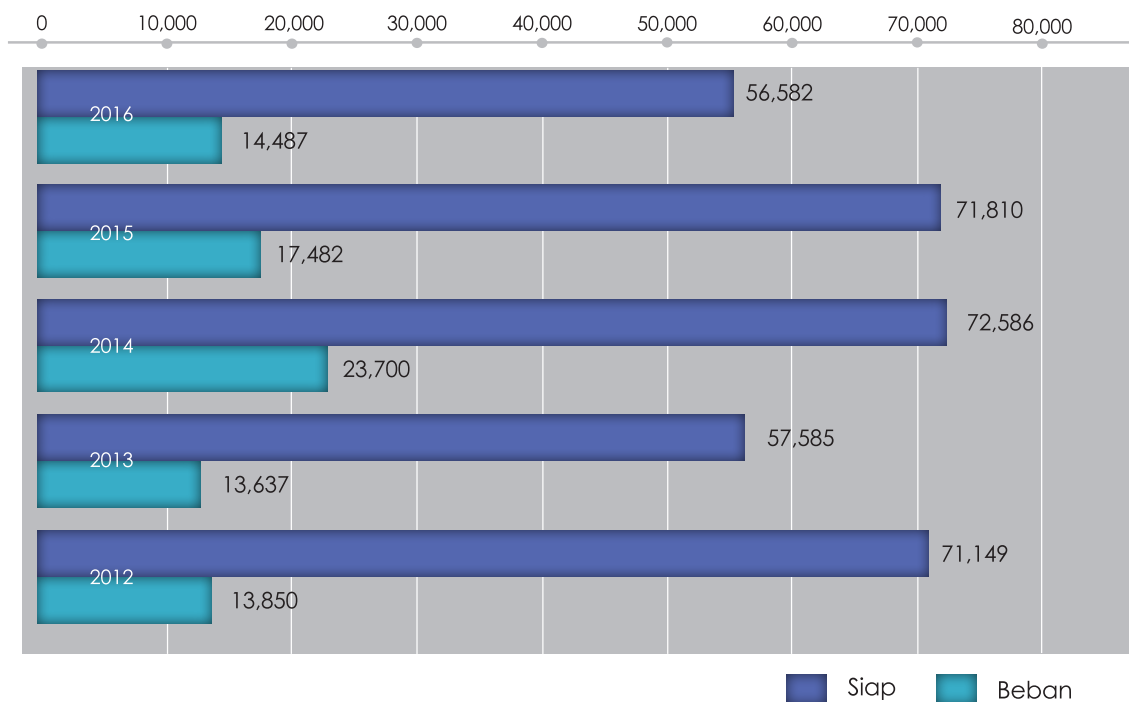
Pencapaian tahun 2016 untuk Semakan Kerja Ukuran Hakmilik Strata Peringkat I adalah berjumlah 56,582 petak iaitu 104% daripada sasaran yang ditetapkan sebanyak 54,500 petak. Perincian ke atas pencapaian dan beban kerja mengikut JUPEM Negeri adalah seperti berikut:



BIL.	NEGERI	SKT 2016 (PETAK)	PRESTASI		BEBAN KERJA (PETAK)
			(PETAK)	%	
1	Johor	4,000	4,035	101	400
2	Kedah	500	149	30	0
3	Kelantan	1,000	841	84	0
4	Melaka	1,000	2,273	227	0
5	Negeri Sembilan	1,000	0	0	0
6	Pahang	1,500	541	36	55
7	Perak	1,000	1,005	101	0
8	Perlis	0	0	0	0
9	Pulau Pinang	2,000	2,068	103	0
10	Selangor	30,000	31,695	106	10,096
11	Terengganu	500	527	105	477
12	W.P. Kuala Lumpur/Putrajaya	12,000	13,448	112	3,395
13	W.P.Labuan	0	0	0	64
JUMLAH		54,500	56,582	104	14,487

Perbandingan prestasi dan beban kerja semakan kerja ukuran hak milik strata peringkat I bagi tempoh lima tahun:

TAHUN	2012 (PETAK)	2013 (PETAK)	2014 (PETAK)	2015 (PETAK)	2016 (PETAK)
Siap	71,149	57,585	72,586	71,810	56,582
Beban Akhir Tahun	13,850	13,637	23,700	17,482	14,487



Semakan Kerja Ukuran Hakmilik Strata Peringkat II

Peringkat II melibatkan semakan Pelan Akui Strata dan Penyediaan Surat Hakmilik Strata. Penyediaan Surat Hakmilik Strata bagi tahun 2016 mencapai 43,705 petak iaitu 77% daripada matlamat tahunan berjumlah 56,500 petak.

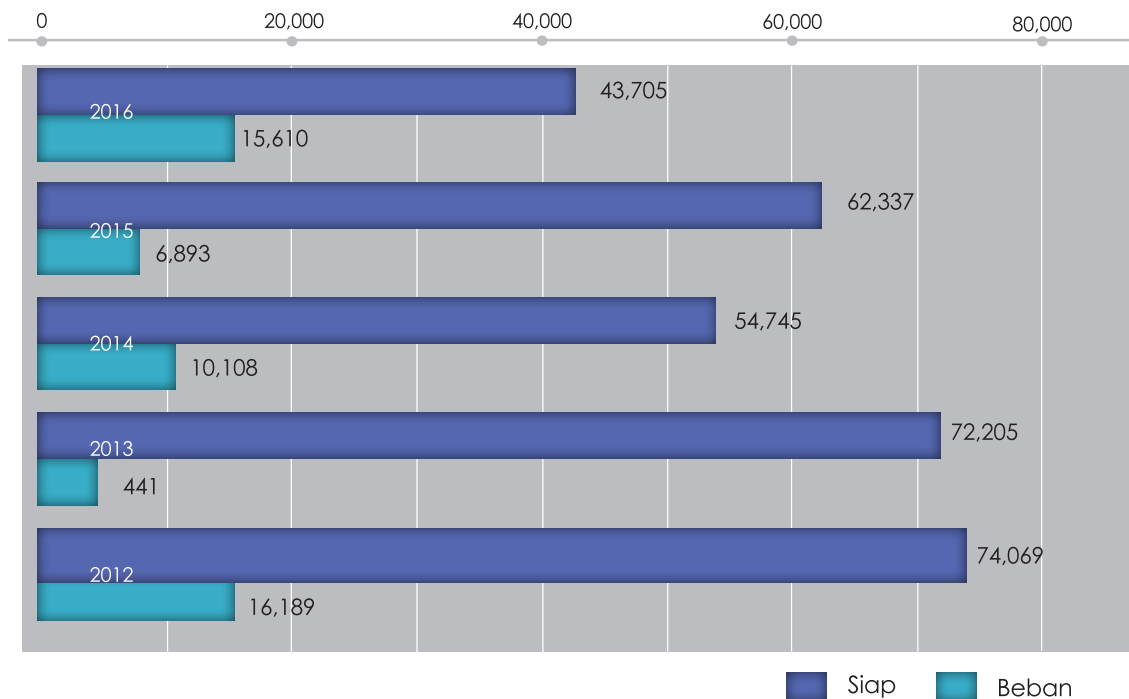


Perincian ke atas pencapaian dan beban kerja mengikut JUPEM Negeri adalah seperti berikut:

BIL.	NEGERI	SKT 2015 (PETAK)	PRESTASI		BEBAN KERJA (PETAK)
			(PETAK)	%	
1	Johor	5,000	5,035	101	1,102
2	Kedah	500	653	131	0
3	Kelantan	1,000	278	28	0
4	Melaka	1,000	2,079	208	66
5	Negeri Sembilan	500	352	70	3
6	Pahang	500	488	98	0
7	Perak	500	2,241	448	763
8	Perlis	0	0	0	0
9	Pulau Pinang	7,000	8,232	118	503
10	Selangor	25,000	13,257	53	7,125
11	Terengganu	500	20	4	0
12	W.P. Kuala Lumpur/ Putrajaya	15,000	11,070	74	6,048
13	W.P.Labuan	0	0	0	0
JUMLAH		56,500	43,705	77	15,610

Perbandingan prestasi dan beban kerja semakan kerja ukuran hak milik strata peringkat II bagi tempoh lima tahun:

TAHUN	2012 (PETAK)	2013 (PETAK)	2014 (PETAK)	2015 (PETAK)	2016 (PETAK)
Siap	74,069	72,205	54,745	62,337	43,705
Beban Akhir Tahun	16,189	441	10,108	6,893	15,610



Penandaan Titik Kawalan CRM

Cerapan titik kawal *Cadastral Reference Mark* (CRM) dilaksanakan bagi tujuan untuk memantapkan lagi ketepatan dan kejitian *National Digital Cadastral Database* (NDCDB) di semua JUPEM Negeri.

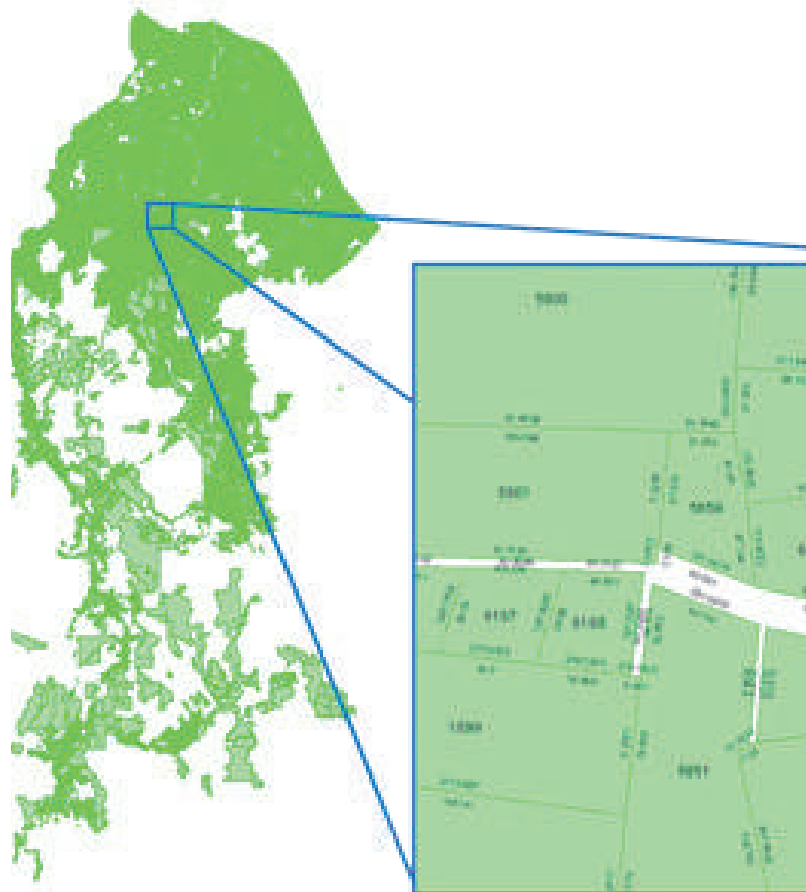
Pencapaian cerapan bagi tahun 2016 adalah seperti berikut:

NEGERI	TITIK KAWALAN CRM	
	FAIL	TITIK KAWAL
Johor	249	1,103
Kedah	3,040	5,753
Kelantan	1,897	4,920
Melaka	866	2,452
Negeri Sembilan	2,278	7,590
Pahang	2,650	8,874
Perak	2,349	7,939
Perlis	16	44
Pulau Pinang	134	404
Selangor	2,978	10,836
Terengganu	1,951	7,110
W.P. Kuala Lumpur/Putrajaya	385	1,076
W.P. Labuan	280	687
JUMLAH	19,073	58,788

Pangkalan Data Ukur Kadaster Kebangsaan (NDCDB)

Jumlah lot yang telah dikemaskinikan ke dalam Pangkalan Data ukur Kadaster Kebangsaan sehingga 31 Disember 2016 adalah sebagaimana berikut:

NEGERI	JUMLAH LOT DALAM NDCDB
Johor	1,245,188
Kedah	703,040
Kelantan	640,672
Melaka	326,481
Negeri Sembilan	532,467
Pahang	622,964
Perak	1,060,685
Perlis	81,199
Pulau Pinang	335,149
Selangor	1,278,723
Terengganu	501,534
W.P. Kuala Lumpur/Putrajaya	176,534
W.P. Labuan	12,413
JUMLAH	7,517,049



BAHAGIAN GEOSPATIAL PERTAHANAN

Bahagian Geospasial Pertahanan (BGSP) terus melaksanakan aktiviti dan program yang signifikan dalam memberi khidmat geospasial pertahanan kepada ATM melalui pendekatan seperti berikut:

- i. Memperkasakan pangkalan data dan menerbitkan pelbagai peta dan produk berkualiti, relevan dan berketepatan tinggi yang ditambah nilai bagi memenuhi keperluan pertahanan dan keselamatan.
- ii. Menyediakan bantuan khidmat geospasial pertahanan di medan untuk operasi ketenteraan, pengurusan krisis, perancangan pertahanan dan latihan serta aktiviti penguatkuasaan dan pelaksanaan tapisan keselamatan data geospasial.
- iii. Meneruskan kesinambungan pelan induk program *uGeo for Defence* untuk pembangunan keupayaan geospasial pertahanan BGSP di masa hadapan sehingga tahun 2030 bagi mewujudkan sistem penyampaian perkhidmatan maklumat secara digital dan bersepadu yang berkualiti, relevan dan bertepatan tinggi untuk kesiapsiagaan ATM.
- iv. Merealisasikan evolusi perkhidmatan program transformasi geospasial pertahanan dalam program *uGeo for Defence*. Program yang menekankan kepada 4 teras utama iaitu tadbir urus, maklumat, teknologi telah distrukturkan semula supaya dapat mencapai outcome selari dengan pembangunan projek *Network Centric Operation (NCO) ATM*.
- v. Pembangunan Projek *Interim Data Production Capability (IDPC)* yang merupakan transformasi proses kerja geospasial di BGSP dalam memproses permohonan maklumat dan perkhidmatan secara terus daripada terminal semua subsistem NCO di serata tempat di Malaysia.

Perkhidmatan Geospasial Pertahanan dan Keselamatan

BGSP terus melaksanakan aktiviti dan program yang signifikan dalam memberi khidmat geospasial pertahanan kepada ATM melalui pendekatan aktiviti dan teras seperti berikut:

Kemajuan keseluruhan aktiviti ini sehingga 31 Disember 2016 adalah seperti berikut:

BIL.	AKTIVITI	SKT 2016	PENCAPAIAN
1	Perkhidmatan Geospasial Medan untuk Operasi dan Latihan Peringkat ATM	5	125%
2	Perkhidmatan Penawanan Data Geospasial	40	100%

Perkhidmatan Geospasial Medan Untuk Operasi dan Latihan Peringkat ATM

BGSP telah melaksanakan 5 aktiviti latihan bagi memberi pendedahan kepada pegawai dan staf BGSP dalam situasi sebenar bantuan khidmat geospasial di medan perang. Di samping itu BGSP juga terlibat dengan aktiviti Latihan Bersama *Network Centric Operation* (NCO) dan *Joint Operational Planning Course* (JOPC). Laporan aktiviti latihan adalah seperti berikut:

BIL.	AKTIVITI	TARIKH
1	Latihan Bersama MK RAJD 2 Div di Kem Sanggro, Taiping, Perak	13-22 April 2016
2	Latihan Bersama <i>Network Centric Operation</i> (NCO) di Pangkalan Udara, Kuantan.	9-16 Mei 2016
3	Eksesais Perisai Timur Selatan KLPJ Siri 25/2016 di Kem 501 AW, Tebrau, Johor Bahru kawasan sekitar.	17-29 Julai 2016
4	<i>Joint Operational Planning Course</i> (JOPC) Siri 23/16 di Institut Aminuddin Baki (IAB) Cawangan Genting Highlands	19 September – 7 Oktober 2016
5	Bantuan Khidmat <i>Geospasial Mobile Systems</i> (GSMS) Kepada <i>Ex Land Strike 45/2016</i> Anjuran Maktab Turus Angkatan Tentera (MTAT) Siri 23/16 di Kuantan, Pahang.	26-30 September 2016

Penawanan Data Menggunakan UAV

Aktiviti penawaran data ini telah dilaksanakan menggunakan UAV (jenis eBee RTK, Hexacopter, Skywalker, Dji Phantom), IteGPS dan Trimble bagi tujuan pemetaan dan pengawasan bagi membantu Kementerian Sumber Asli dan Alam Sekitar (NRE), Angkatan Tentera Malaysia (ATM), Majlis Keselamatan Negara (MKN) dan Perbadanan Putrajaya. Sepanjang tahun 2016 sebanyak 40 aktiviti operasi penggambaran udara telah berjaya dilakukan seperti berikut:

BIL.	AKTIVITI	TARIKH PENUGASAN
1	Penggambaran Udara dan Penawanan Data RKAT ATM di Kem Kentonmen dan Kompleks RKAT U-Thant	4 – 8 Januari 2016
2	Pemantauan Pencemaran Alam Sekitar di Kawasan perlombongan Bauksit, Kuantan Pahang	11 – 13 Januari 2016
3	Pemantauan Pencemaran Alam Sekitar di Kawasan Perlombongan Bauksit dan Pengiraan Kuantiti Bauksit, Pelabuhan Kuantan	17 – 18 Februari 2016
4	Pemantauan Pencemaran Alam Sekitar di Kawasan Perlombongan Bauksit, Bukit Goh, Kuantan, Pahang	29 Februari – 2 Mac 2016
5	Penggambaran Udara di Kawasan Kem Paya Jaras, Sungai Buloh	9 – 14 Mac 2016
6	Penggambaran Udara Utiliti Mapping di Kawasan Kajang Fasa 1	28 Mac – 1 April 2016
7	Penggambaran Udara di Kawasan Pengkalan Udara Kuantan Pahang	4 – 8 April 2016

8	Penggambaran Udara di Kawasan Putrajaya	11 – 15 April 2016
9	Penggambaran Udara Video di Kawasan Kem Sangro, Taiping	14 – 15 April dan 18 – 22 April 2016
10	Penggambaran Udara di Kawasan Tanjung Malim	27 – 29 April 2016
11	Penggambaran Udara Pemantauan Empangan di Empangan Timah Tasoh, Perlis	12 Mei dan 17 – 20 Mei 2016
12	Penggambaran Udara Utiliti <i>Mapping</i> di Kawasan Kajang Fasa 2	26 Mei – 3 Jun 2016
13	Penggambaran Udara Kesan Banjir Kilat di Kawasan Ulu Telom, Cameron Highlands	31 Mei – 3 Jun 2016
14	Penggambaran Udara Video di Kawasan Kuala Kangsar	13 Jun 2016
15	Penggambaran Udara dan Video di Kawasan Sungai Besar	15 – 16 Jun 2016
16	Penggambaran Udara Pemantauan Empangan di Empangan Beris, Kedah	7 Jun dan 15 – 22 Jun 2016
17	Penggambaran Udara <i>Utility Mapping</i> di Kawasan Kajang Fasa 3	20 – 30 Jun 2016
18	Pemantauan Pencemaran Alam Sekitar di Kawasan Perlombongan Bauksit dan Pengiraan Kuantiti Bauksit, Pelabuhan Kuantan, Pahang	27 – 30 Jun 2016
19	Penggambaran Udara Kawasan Kota Tinggi	17 – 22 Julai 2016
20	Penggambaran Udara Kem Mahkota, Kluang Johor	23 - 24 Julai 2016
21	Penggambaran Udara Pencerobohan Tanah Kawasan Terisu dan Batu 49	31 Julai - 5 Ogos 2016
22	Penggambaran Udara LPS Blue Valley Cameron Highlands	14 – 17 Ogos 2016
23	Penggambaran Udara Kawasan Jalan Duta, Kuala Lumpur	22 – 26 Ogos 2016
24	Pemantauan Pencerobohan Tanah Kawasan Tringkap, Cameron Highlands Siri 11/2016	22 – 28 Ogos 2016
25	Pemantauan Pencerobohan Tanah di Cameron Highlands Siri 12/2016	5 – 9 September 2016
26	Penggambaran Udara Kawasan Tuaran dan Keningau	19 – 24 September 2016
27	Penggambaran Udara Kajian Turus Basalt Kawasan Tawau	19 – 24 September 2016
28	Penggambaran Udara Pencerobohan Tanah Kawasan Lojing, Kelantan	26 – 30 September 2016
29	Penggambaran Udara Pencerobohan Tanah Kawasan Ringlet, Cameron Highland Siri 13/2016	28 September – 4 Oktober 2016
30	Penggambaran Udara Pemantauan Pencemaran Kawasan MRT di Sungai Buloh dan Kajang	10 – 14 Oktober 2016

31	Penggambaran Udara Pemantauan Pembalakan Kawasan Gunung Inas, Kedah	17 – 21 Oktober 2016
32	Penggambaran Udara Air Pasang Besar di Kapar, Selangor	18 – 19 Oktober 2016
33	Penggambaran Udara Kawasan Putrajaya	24 – 28 Oktober 2016
34	Pemantauan Pencerobohan Tanah di Cameron Highlands Siri 14/2016	30 Oktober – 4 November 2016
35	Penggambaran Udara <i>Utility Mapping</i> di Kawasan Kajang Fasa 3 dan 4	30 Oktober – 4 November 2016
36	Penggambaran Udara Kawasan Lapang Sasar Menyala, Port Dickson	2 – 4 Novemembr 2016
37	Pemantauan Pencerobohan Tanah di Cameron Highlands Siri 15/2016	13 – 18 November 2016
38	Penggambaran Udara Pemantauan Sungai Kawasan Ringlet, Cameron Highlands	28 November – 2 Disember 2016
39	Penggambaran Udara Kawasan Lapang Sasar Terendak, Melaka	28 November – 2 Disember 2016
40	Penggambaran Udara Hakisan Pantai Mek Mas dan Pantai Kemayang, Kelantan	5 – 9 Disember 2016



Perkhidmatan Geospasial Melalui Pusat Operasi Geospasial Pertahanan

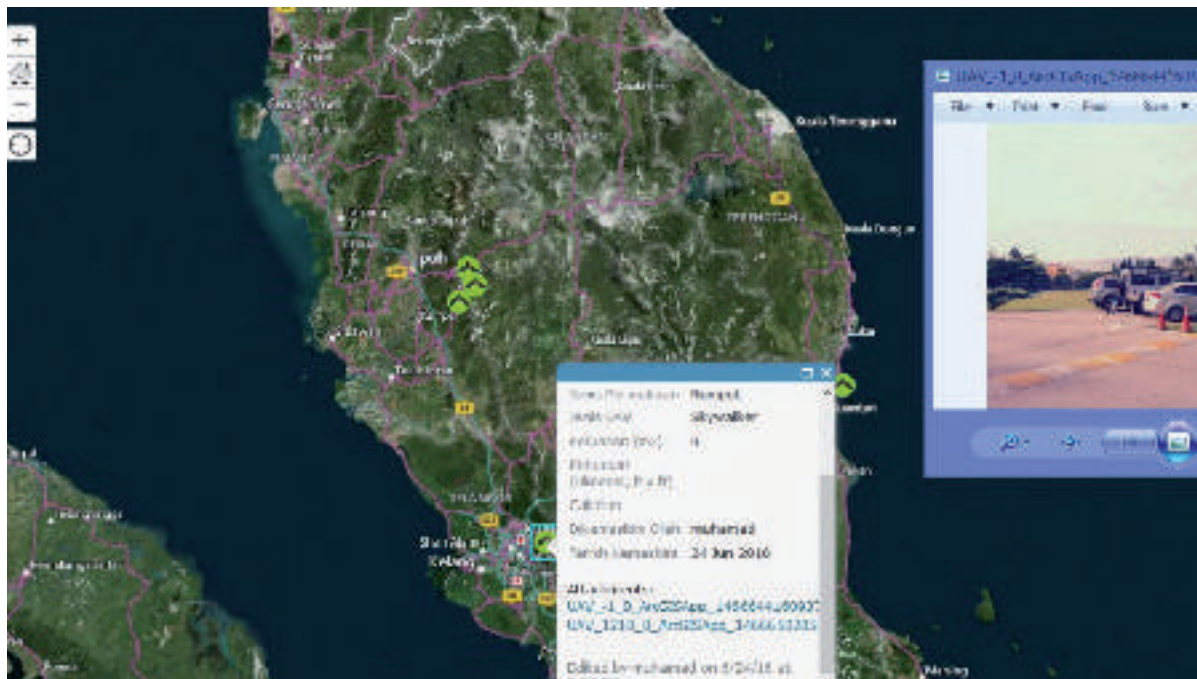
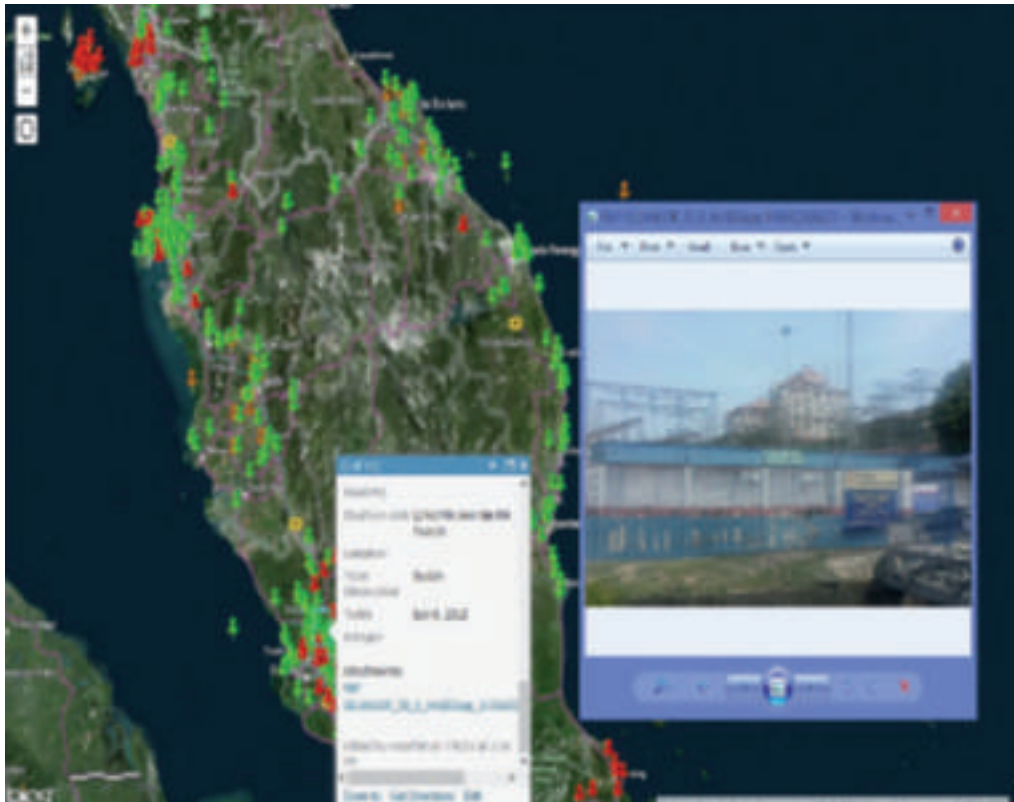
a. Memberi Perkhidmatan Melalui Portal / Web Service

Aktiviti ini telah dimasukkan dalam Portal BGSP dan dikenali sebagai BGSP Portal GeoHomepage yang telah dibangunkan di dalam Projek *Interim Data Production Capability* (IDPC) ditambahbaik bagi melahirkan konsep *user friendly* dengan menambahkan maklumat data dan peta serta *tools* yang bersesuaian.

Perkhidmatan portal dan *web service* ini merupakan satu perkhidmatan yang menggunakan konsep *sharing responsibilities*. Konsep ini memberi keupayaan pengguna untuk mengemaskini data melalui kerja *deleting* dan *publishing* portal ataupun *web service* yang disediakan.

BGSP telah memenuhi keperluan Pembangunan Web GIS oleh ATM berdasarkan permohonan yang diterima pada tahun 2016. Laporan pencapaian aktiviti adalah seperti berikut:

BIL.	AKTIVITI	TARIKH
1	Portal GIS Pusat Operasi Pertahanan (POP) untuk pemantauan penugasan operasi ATM (darat, udara dan laut).	25 Februari 2016
2	Portal GIS Bahagian Perkhidmatan Kejuruteraan Pertahanan (BPKP) untuk pengumpulan data pendaftaran aset tak alih ATM.	31 Mac 2016
3	Web GIS 5 Briged untuk penugasan penawanan dan penyelenggaraan batu sempadan.	15 Mac 2016
4	Web GIS Markas Pemerintahan Wilayah Timur Tentera Darat (MK PWTTD)	1 April 2016
5	Web GIS Seksyen Operasi Geospasial, BGSP untuk pemantauan tugas penggambaran udara (UAV).	23 Jun 2016
6	Web GIS Pusat Operasi Tentera Darat untuk pewartaan kawasan keselamatan di kawasan sempadan antarabangsa darat.	19 Ogos 16
7	Portal GIS Markas Angkatan Bersama (MK AB) untuk pemantauan dan mengurus operasi maritim di Perairan Timur Sabah.	21 Oktober 2016
8	Portal GIS Majlis Keselamatan Negara (MKN) untuk memantau Operasi Gading II (operasi menyingkirkan pertanian haram di Cameron Highland).	22 Oktober 2016
9	Web GIS R & Y untuk menempatkan kawasan larangan dan tempat larangan	30 Oktober 2016
10	Portal GIS 2 Divisyen Infantri untuk pemantauan operasi di bahagian timur dan utara Semenanjung Malaysia	7 November 2016
11	Web GIS Pusat Pengurusan Operasi Negara (PPON) pengawasan bencana negara.	20 November 2016





b. Membekalkan Pelbagai Produk BGSP Berdasarkan “Print On Demand”

Selaras dengan pelaksanaan Projek *Interim Data Production Capability (IDPC)*, sebanyak 10 jenis peta dirancang untuk diterbitkan oleh pihak BGSP berdasarkan permintaan yang diterima. Peta-peta tersebut adalah:

- (1) *Tactical Pilotage Chart* Skala 1:500 000
- (2) *Joint Operation Graphic (Air)* Skala 1:250 000
- (3) *Topographic Line Map* Skala 1:100 000
- (4) *Topographic Line Map* Skala 1:50 000
- (5) *Common Operation Map* Skala 1:50 000
- (6) *Military Urban Map* Skala 1:5 000
- (7) *Military Orthophoto Map* pelbagai skala
- (8) *Firing Range Map*
- (9) *Facility Map*

Selain dari *Standard Product* di atas, BGSP juga turut menerbitkan peta tematik tentera pelbagai skala untuk tujuan latihan, perancangan dan pengurusan ATM. Laporan pencapaian aktiviti seperti berikut:

BIL.	AKTIVITI	SKT 2016	PERMOHONAN TAHUN 2016	PENCAPAIAN
1	Membekalkan pelbagai produk BGSP berdasarkan “Print On Demand”	Berdasarkan permohonan (100%)	28 permohonan	28 (100%)

Peta dan carta yang dibekalkan seperti berikut:

BIL.	JENIS PETA DAN CARTA	JUMLAH PERMOHONAN	BILANGAN HELAIAN
1	<i>Military Orthophoto Map</i> pelbagai skala	5	22
2	<i>Firing Range Map</i>	5	18
3	<i>Facility Map</i>	1	2
4	Peta Tematik Tentera Pelbagai Skala	17	120
JUMLAH		28	162

c. Membekalkan Pelbagai Produk Geospasial Keluaran DPNM Kepada ATM

Di dalam Projek IDPC telah dibangunkan satu kerangka sistem pengkalan data geospasial pertahanan dan model data yang mampu memenuhi keperluan pertahanan khususnya ATM. Melalui sistem ini ia menjadi *One Stop Center* dimana maklumat geospasial pertahanan yang merangkumi pelbagai produk DPNM boleh diperolehi. Bagi produk-produk DPNM yang telah dibekalkan adalah seperti berikut:

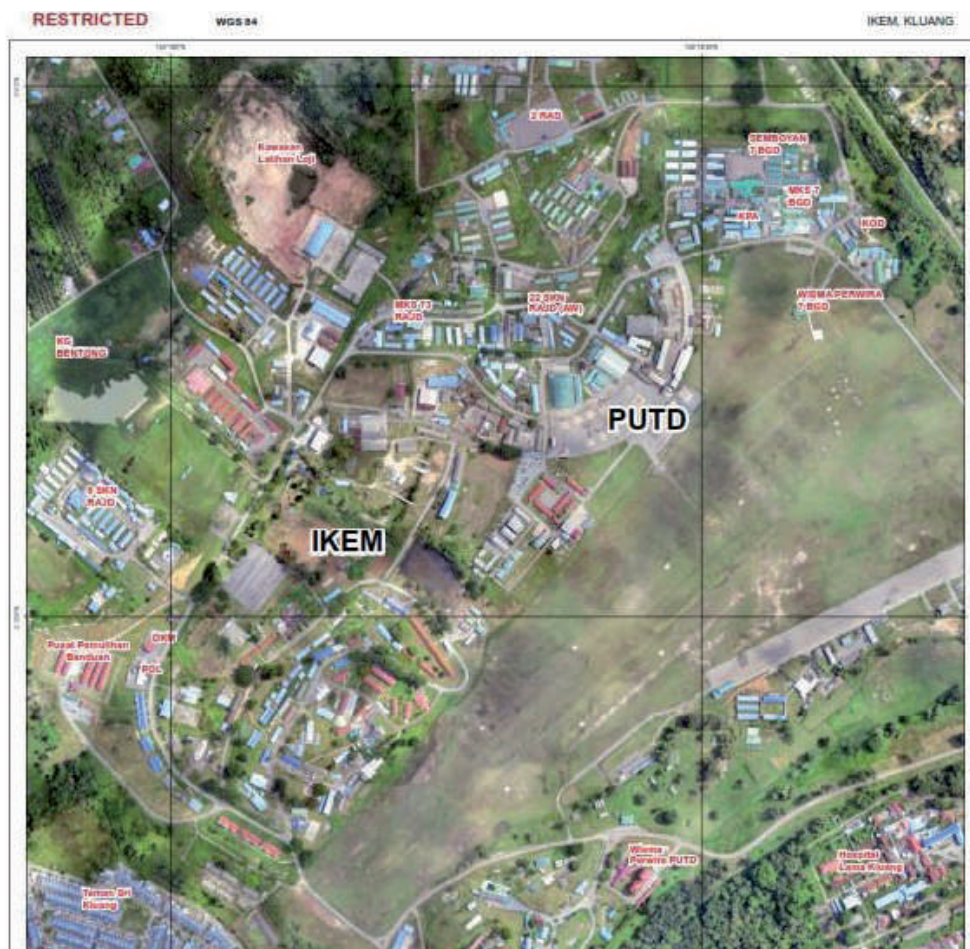
- (1) Peta Topographi Siri L7030 dan L738
- (2) Peta Siri MY 501T dan MY 511T
- (3) Peta Rampaian
- (4) Peta Negeri
- (5) Peta Fizikal Malaysia
- (6) Peta Orthopoto

Laporan pencapaian aktiviti seperti berikut:

BIL.	AKTIVITI	SKT 2016	PERMOHONAN TAHUN 2016	PENCAPAIAN
1	Membekalkan pelbagai produk Geospasial keluaran DPNM kepada ATM	Berdasarkan permohonan	97 permohonan	97 (100%)

Pelbagai Produk Geospasial Keluaran DPNM Kepada ATM adalah seperti berikut:

BIL.	PRODUK GEOSPASIAL KELUARAN DPNM	JUMLAH PERMOHONAN	BILANGAN HELAIAN
1	Peta Topographi Siri L7030 dan L738	70	11,126
2	Peta Siri MY	4	93
3	Peta Rampaian	3	14
4	Peta Negeri	12	329
5	Peta Keluaran DGC – TPC / ONC / JOG	8	399
JUMLAH		97	11,961



d. Memenuhi Permintaan Keperluan Data Untuk Pengeluaran Produk Geospasial

Menerusi sistem IDPC, BGSP memfokuskan kepada memenuhi penjanaan keperluan data yang diterima dari sumber-sumber di JUPEM (*readiness*) dan kehendak serta keperluan pelanggan-pelanggan dalam ATM (*responsiveness*).

Laporan pencapaian aktiviti seperti berikut:

BIL.	AKTIVITI	PENCAPAIAN
1	Kerja-kerja geocode/georef peta Siri My JUPEM	118 lembar
2	Kerja-kerja mengesahkan data dan imej UAV	14 kawasan
3	Keperluan data sempadan Antarabangsa	Seluruh Malaysia
4	Menyediakan data <i>Cadastre Reference Mark</i>	Seluruh Malaysia
5	Perolehan data daripada Suruhanjaya Komunikasi dan Multimedia Malaysia	Data menara komunikasi seluruh Malaysia

e. Memberi Khidmat Nasihat Teknikal Kepada Perolehan Sistem-Sistem Pertahanan ATM Berkenaan Keperluan Data Geospasial Pertahanan

BGSP berperanan memberi bantuan khidmat nasihat teknikal geospasial pertahanan kepada sistem-sistem pertahanan dan persenjataan moden ATM yang menggunakan perkhidmatan geospasial. Setiap pembangunan sistem ATM, BGSP terlibat dalam fasa-fasa seperti berikut

BIL.	AKTIVITI	PENCAPAIAN
1	Fasa 1. Keperluan Staf Am	Khidmat nasihat geospasial
2	Fasa 2. Penyiapan Spesifikasi Sistem	Khidmat nasihat geospasial
3	Fasa 3. Uji nilai Dan Pemilihan Tender	Khidmat nasihat geospasial
4	Fasa 4. Pembangunan Sistem	Pembangunan framework geospasial
5	Fasa 5. Penerimaan Awal	Ujian keserasian sampel data
6	Fasa 6. Penerimaan Akhir	Ujian keserasian data sebenar

Laporan pencapaian projek adalah seperti berikut:

BIL.	AKTIVITI PROJEK	PERINGKAT PEMBANGUNAN
1	Projek <i>Armoured Personnel Carrier (APC 8X8)</i>	Fasa 5
2	Projek <i>Airbus A400m</i>	Fasa 5
3	Projek <i>UAS –BSPP</i>	Fasa 5
4	Projek <i>Peperangan Elektronik Tentera Darat</i>	Fasa 5
5	Projek <i>CM 200</i>	Fasa 4





Pengurusan Keupayaan Geospasial Pertahanan Dan Keselamatan

Bagi meneruskan kesinambungan pelan induk program *uGeo for Defence* untuk pembangunan BGSP di masa hadapan sehingga tahun 2030 serta mewujudkan keupayaan perkhidmatan secara digital dan bersepadu untuk kesiapsiagaan ATM. Tahun 2016 BGSP telah menyasarkan aktiviti-aktiviti pengurusan keupayaan geospasial pertahanan dan keselamatan seperti berikut:

BIL.	AKTIVITI	PENCAPAIAN	
1	Melaksanakan Program <i>Outreach</i>	8 sesi	100%
2	Melaksanakan Bengkel Geospasial Pertahanan	1	100%
3	Melaksanakan Mesyuarat Jawatankuasa Geospasial Pertahanan	1	100%
4	Memproses Permohonan Pengeluaran Permit Penggambaran Udara	167 permit	100%
5	Memproses Permohonan Tapisan Keselamatan	347 permohonan	100%
6	Pengesahan Maklumat R & Y di Lapangan	12 Negeri	600%
7	Melaksanakan Latihan Kepakaran Geospasial	2	100%





The background features a vibrant, low-poly geometric pattern in shades of yellow, orange, and pink. A semi-transparent photograph of a person in a white lab coat is centered, showing them working in a laboratory setting. The text 'LAPORAN KEWANGAN' is overlaid on the image in a blue, sans-serif font.

LAPORAN KEWANGAN

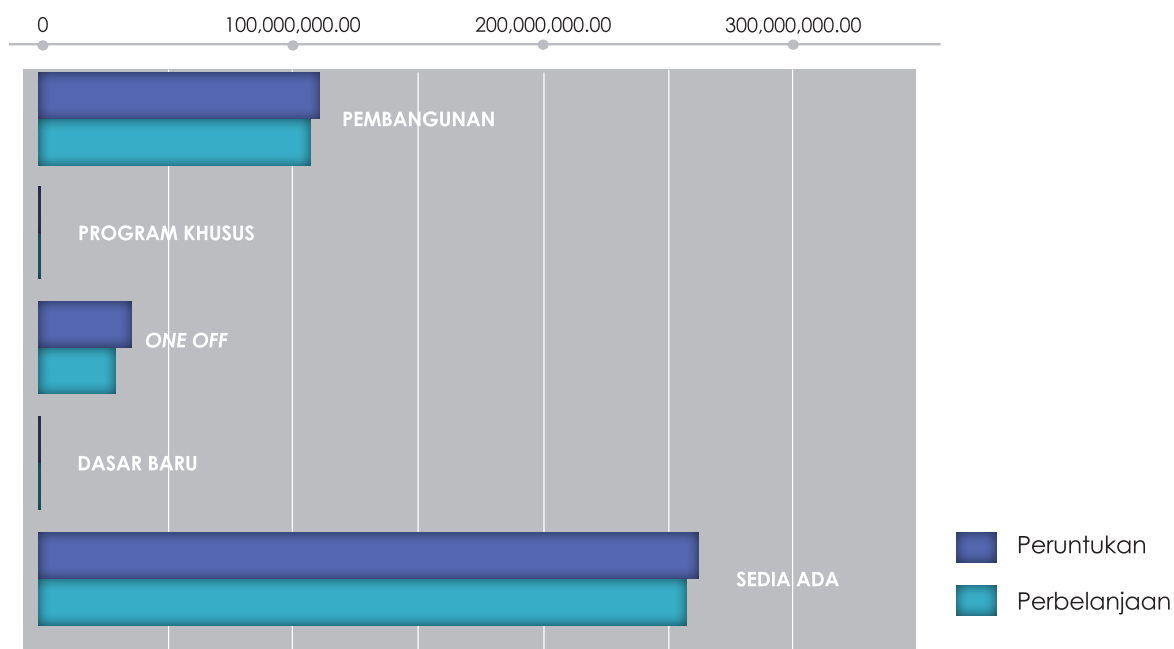
Pengurusan Kewangan

JUPEM telah menerima peruntukan kewangan sebanyak RM 372,729,173.00 bagi tahun 2016 yang meliputi Belanja Mengurus (RM 261,667,564.65) dan Belanja Pembangunan (RM 110,762,737.15). Daripada jumlah tersebut dan sehingga 31 Disember 2016 sebanyak RM 372,430,301.80 (99.91%) telah dibelanjakan.

Perincian agihan peruntukan dan perbelanjaan keseluruhan adalah seperti berikut:

AGIHAAN PERUNTUKAN	PERUNTUKAN RM	PERBELANJAAN	
		RM	(%)
Sedia Ada	261,499,860.00	261,450,805.95	99.98
Dasar Baru	-	-	-
One-Off	332,103.00	216,758.70	65.27
Program Khusus	-	-	-
Pembangunan	110,897,210.00	110,762,737.15	99.88
JUMLAH KESELURAHAN	372,729,173.00	372,430,301.80	99.92

Pencapaian kewangan tahun 2016 adalah seperti berikut:



Belanja Mengurus

Jumlah peruntukan sebanyak RM 261,667,564.65 di bawah Belanja Mengurus yang diluluskan pada tahun 2016 adalah untuk perbelanjaan bagi emolumen, perkhidmatan dan bekalan serta pemberian dan kenaikan tetap. Di samping itu, peruntukan juga diluluskan untuk perbelanjaan one-off.

SEDIA ADA

OBJEK AM	PERUNTUKAN (RM)	PERBELANJAAN	
		(RM)	(%)
Emolumen	198,617,200.00	198,581,317.95	99.98
Perkhidmatan & Bekalan	62,428,660.00	62,420,327.17	99.99
Aset	400,000.00	399,251.92	99.81
Pemberian Dan Kenaan Tetap	51,000.00	49,908.91	97.86
Perbelanjaan Lain	3,000.00	-	0.00
JUMLAH	261,499,860.00	261,450,805.95	99.98

DASAR BARU

OBJEK AM	PERUNTUKAN (RM)	PERBELANJAAN	
		(RM)	(%)
Perkhidmatan & Bekalan	-	-	-
JUMLAH	-	-	-

ONE-OFF

OBJEK AM	PERUNTUKAN (RM)	PERBELANJAAN	
		(RM)	(%)
Kursus Luar Negara	332,103.00	216,758.70	65.27
JUMLAH	332,103.00	216,758.70	65.27

PROGRAM KHUSUS

OBJEK AM	PERUNTUKAN (RM)	PERBELANJAAN	
		(RM)	(%)
Emolumen Kakitangan Kontrak	-	-	-
JUMLAH	-	-	-

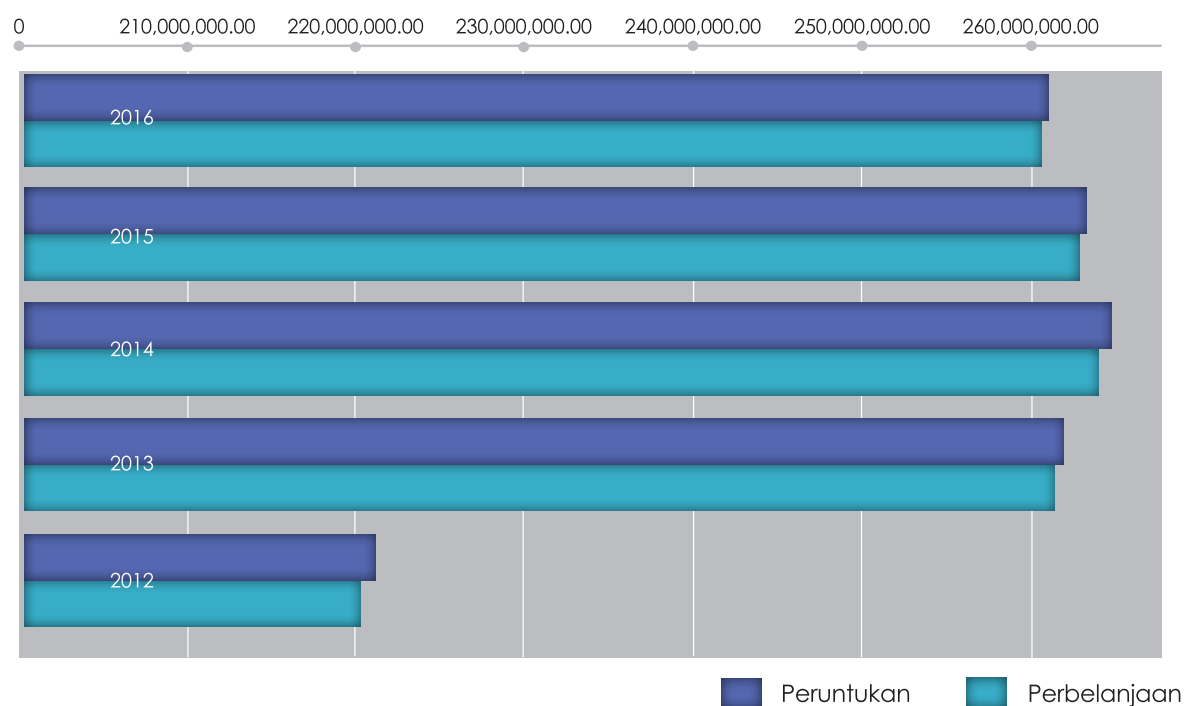
Pencapaian keseluruhan peruntukan aktiviti belanja mengurus adalah seperti berikut:

AKTIVITI	PERUNTUKAN (RM)	PERBELANJAAN	
		(RM)	(%)
Sedia Ada	261,499,860.00	261,450,805.95	99.98
Dasar Baru	-	-	-
One-Off	332,103.00	216,758.70	65.27
Program Khusus	-	-	-
JUMLAH KESELURUHAN	261,831,963.00	261,667,564.65	99.93

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

TAHUN	PERUNTUKAN	PERBELANJAAN	PERATUS (%)
2012	229,609,050.00	229,544,487.01	99.98
2013	264,863,999.00	262,383,633.48	99.06
2014	265,281,160.00	265,241,750.77	99.98
2015	264,921,470.00	264,902,218.70	99.99
2016	261,831,963.00	261,667,564.65	99.93

Carta di bawah menunjukkan jumlah peruntukan dan perbelanjaan bagi belanja mengurus untuk tempoh lima tahun:



Belanja Pembangunan

Sejumlah RM 110,840,210.00 telah diperuntukkan untuk Belanja Pembangunan Tahun 2016 bagi 'Rolling Plan' Pertama (RP1), Rancangan Malaysia Ke-11 (RMK-11) bagi menjayakan projek-projek pembangunan.

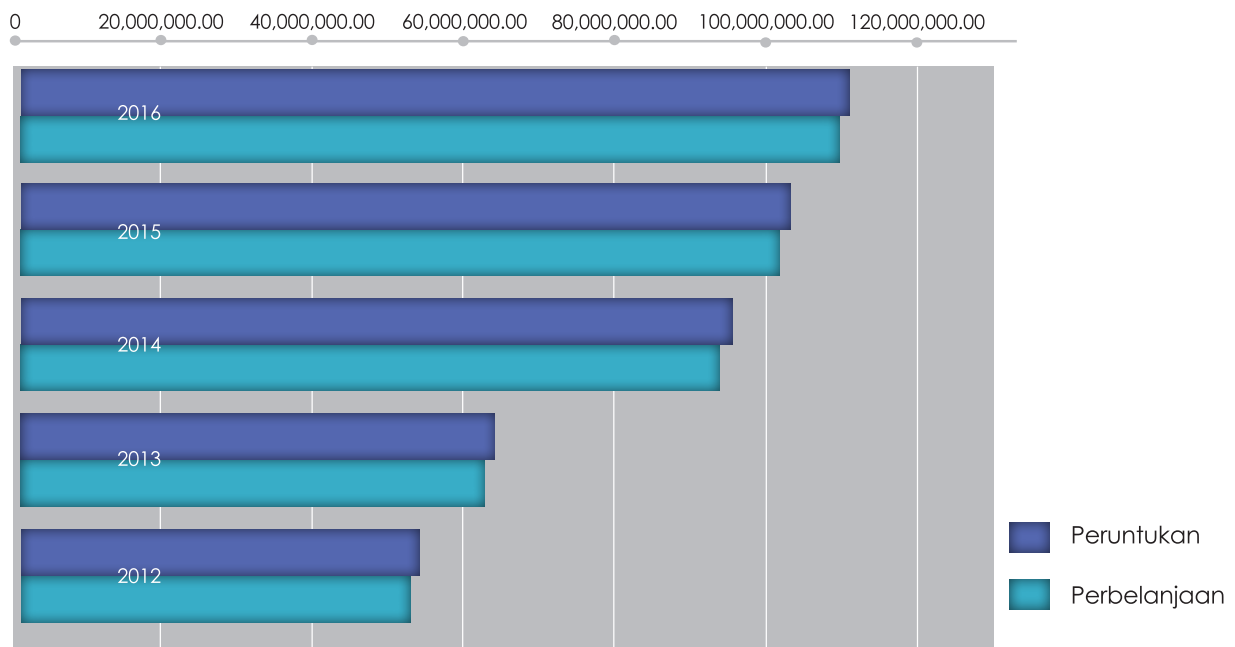
Senarai projek, peruntukan dan perbelanjaan adalah seperti berikut:

BUTIRAN / NAMA PROJEK	PERUNTUKAN (RM)	PERBELANJAAN	
		(RM)	(%)
E-Pemetaan 2.0	32,773,500.00	32,768,167.35	99.98
Menaiktaraf Perkakasan, Perisian Dan Aplikasi Sistem eKadaster Berasaskan Keperluan Teknologi Ukur Dan ICT Terkini	30,354,500.00	30,354,477.93	100.00
Menaiktaraf Lot-lot Yang Masih Dalam Kategori Sub-standard (Demarkasi Dan Kelas Tiga) Secara Pengkontrakan	1,463,300.00	1,463,202.80	99.99
<i>National Subsurface Utility Mapping (NaSUM)</i>	1,250,000.00	1,250,000.00	100.00
<i>Marine Geodetic Infrastructure In Malaysia Waters (MAGIC)</i>	6,800,000.00	6,799,999.99	100.00
Sistem Pangkalan Data Geodetik (SPDG)	3,500,000.00	3,499,849.99	100.00
Memperkasakan <i>ICT Enterprise Integrated System (IEIS)</i> Bagi Jabatan Ukur Dan Pemetaan Malaysia	4,543,010.00	4,542,990.90	100.00
Perolehan Data <i>Synthetic Aperture Radar (SAR)</i> Bagi Seluruh Daratan dan Pulau-Pulau di Semenanjung Malaysia	20,155,900.00	20,155,900.00	100.00
Transformasi Geospatial Pertahanan	3,000,000.00	3,000,000.00	100.00
Penentuan Dan Pengukuran Sempadan Antarabangsa (Darat Dan Maritim) Malaysia Dengan Negara-Negara Jiran	7,000,000.00	6,928,148.19	98.97
JUMLAH	110,840,210.00	110,762,737.15	99.93

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

TAHUN	PERUNTUKAN	PERBELANJAAN	PERATUS (%)
2012	54,284,000.00	54,232,243.35	99.90
2013	63,214,000.00	62,666,883.77	99.13
2014	96,391,905.00	95,900,907.14	99.49
2015	102,685,800.00	102,488,166.31	99.81
2016	110,840,210.00	110,762,737.15	99.93

Carta di bawah menunjukkan jumlah peruntukan dan perbelanjaan bagi belanja pembangunan untuk tempoh lima tahun:



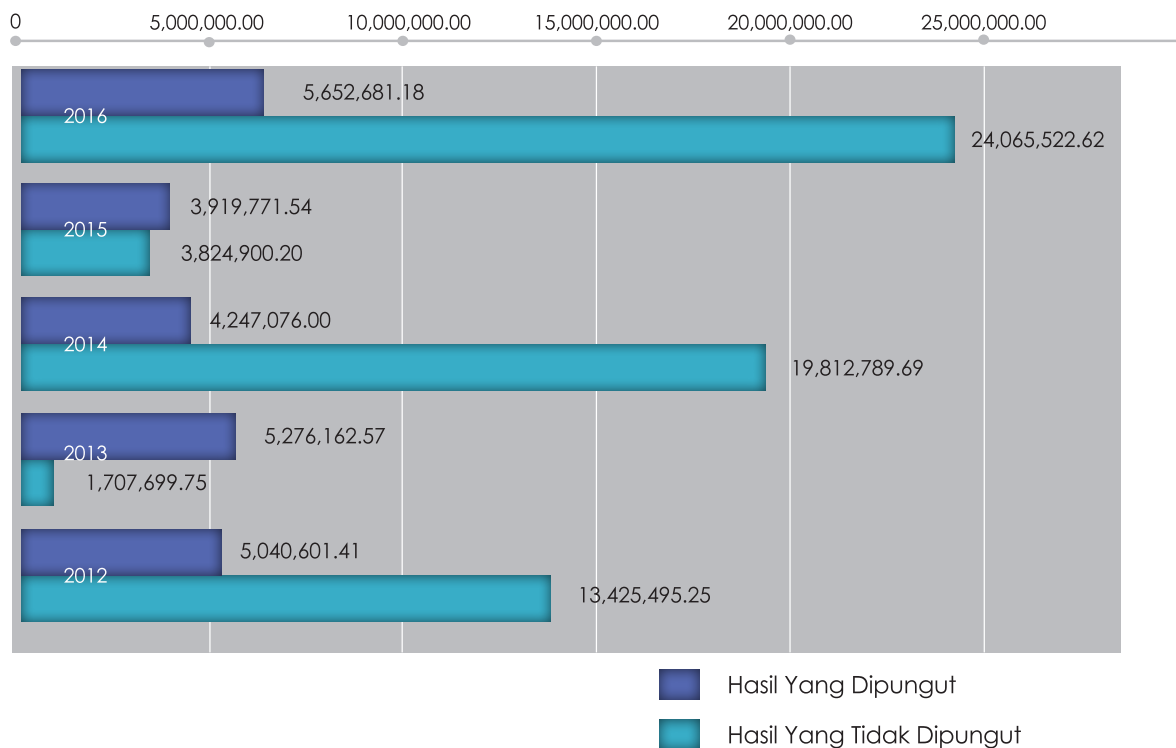
Hasil

Dalam Tahun 2016, jumlah hasil pendapatan JUPEM adalah sebanyak RM 29,718,203.80 yang diperolehi 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, sejumlah RM 5,652,681.18 sahaja hasil yang dapat dipungut manakala sejumlah RM 24,065,522.62 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 lima tahun kebelakangan:

TAHUN	HASIL YANG DIPUNGUT	HASIL YANG TIDAK DIPUNGUT	JUMLAH
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
2014	4,247,076.00	19,812,787.69	24,059,863.69
2015	3,919,771.54	3,824,900.20	7,744,671.74
2016	5,652,681.18	24,065,522.62	29,718,203.80

Carta di bawah menunjukkan pecahan kutipan hasil bagi tempoh lima tahun:







ANUGERAH DAN PENGIKTIRAFAN

ANUGERAH DAN PENGIKTIRAFAN

Sepanjang tahun 2016, JUPEM telah menerima beberapa anugerah di atas pencapaiannya dalam pelbagai bidang. Pencapaian dan pengiktirafan sepanjang tahun 2016 merupakan manifestasi dan komitmen semua warga JUPEM kepada Jabatan khususnya dan perkhidmatan awam amnya. Antara anugerah dan pengiktirafan yang diperolehi JUPEM sepanjang tahun 2016 adalah seperti berikut:

BIL.	KATEGORI	PERINGKAT
1	Anugerah Kumpulan Inovatif dan Kreatif (KIK) Terbaik 1NRE Kategori Teknikal – Bahagian Pemetaan Topografi Sabah	Kementerian (Johan)
2	Anugerah Kumpulan Inovatif dan Kreatif (KIK) Terbaik 1NRE Kategori Pengurusan – JUPEM Terengganu	Kementerian (Naib Johan)
3	Anugerah Kumpulan Inovatif dan Kreatif (KIK) Terbaik 1NRE Kategori Pengurusan – JUPEM Kelantan	Kementerian (Tempat Ketiga)
4	Pertandingan Inovasi 1NRE – JUPEM Pulau Pinang	Kementerian (Tempat Ketiga)
5	Pertandingan Filem Pendek Hari Inovasi 1NRE	Kementerian (Tempat Ketiga)
6	Pensijilan Sistem Pengurusan Keselamatan Maklumat (ISMS) ISO/IEC 27001:2013 bagi Pengurusan dan Pengesahan Data Pengguna Sistem MyRTKNet Ibu Pejabat JUPEM	Jabatan
7	Anugerah Sijil Amalan Persekitaran Berkualiti 5S – Ibu Pejabat JUPEM dan JUPEM Johor	Jabatan
8	Anugerah Persijilan Ekosistem Kondusif Sektor Awam (EKSA) – JUPEM Kedah, JUPEM Labuan, JUPEM Pulau Pinang, JUPEM Negeri Sembilan, JUPEM Pahang, JUPEM Perak, JUPEM Perlis, JUPEM Selangor, JUPEM Terengganu dan JUPEM WPKL/Putrajaya	Jabatan
9	Anugerah Sijil Mematuhi Pengajuran Mesyuarat MBJ Mengikut Suku Tahunan	Jabatan



The background features a vibrant, multi-colored geometric pattern of triangles and polygons in shades of yellow, orange, red, and purple. A semi-transparent photograph is overlaid on the right side, showing a group of people in a hallway. In the foreground, a person is holding a camera up to take a picture. In the background, a group of people, including a woman in a blue dress, are standing and talking. The overall composition is modern and artistic.

IMBASAN PERISTIWA UTAMA

JANUARI

21 JANUARI 2016

Sesi *Walkabout* oleh YB Datuk Ir. Haji Hamim bin Samuri, Timbalan Menteri Sumber Asli dan Alam Sekitar (NRE) ke JUPEM.



26 JANUARI 2016

Majlis Amanat Tahun Baharu 2016 oleh YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Ketua Pengarah Ukur dan Pemetaan Malaysia di Dewan Ukur, Ibu Pejabat JUPEM, Kuala Lumpur.

26-27 JANUARI 2016

Mesyuarat Pengurusan JUPEM Bil.1/2016 bertempat di Bilik Persidangan, Tingkat 15, Wisma JUPEM, Ibu Pejabat JUPEM, Kuala Lumpur dan dipengerusikan oleh YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Ketua Pengarah Ukur dan Pemetaan Malaysia.





26 JANUARI 2016

Pelancaran Buku Pelan Integriti Organisasi (PIO) JUPEM bersempena Majlis Amanat Tahun Baharu.

27 JANUARI 2016

Penganjuran Kempen Derma Darah di Ibu Pejabat JUPEM oleh Jabatan Ukur dan Pemetaan Malaysia dan Pertubuhan Jurukur DiRaja Malaysia (RISM) dengan kerjasama Pusat Darah Negara.



FEBRUARI

15 FEBRUARI 2016

Majlis menandatangani Memorandum Persefahaman (MoU) Penandaan dan Penetapan Sempadan antara Negeri Kelantan dan Negeri Perak di Hotel Impiana, KLCC.



MAC

9 MAC 2016

Majlis Solat Gerhana dan Cerapan Gerhana Matahari Separa sempena fenomena gerhana matahari separa anjuran Jabatan Kemajuan Islam Malaysia (JAKIM) dengan kerjasama Jabatan Ukur dan Pemetaan Malaysia.

22 – 24 MAC 2015

Mesyuarat Ke-40 Jawatankuasa Bersama Penandaan dan Pengukuran Sempadan Antarabangsa Malaysia – Indonesia (JIM-40) di Bali, Indonesia.





31 MAC 2016

Mesyuarat Majlis Bersama
Jabatan Bilangan 1/2016 di Bilik
Mesyuarat Berlian, Tingkat 11,
Wisma JUPEM.

APRIL

5 APRIL 2016

Majlis Anugerah Perkhidmatan
Cemerlang (APC) Kementerian
Sumber Asli dan Alam Sekitar
(NRE) Tahun 2015 dilangsungkan
di Malaysia Agro Exposition Park
Serdang (MAEPS), Selangor.



6 – 7 APRIL 2016

Mesyuarat Jawatankuasa
Pemetaan dan Data Spatial
Negara (JPDSN) Bilangan 67
di Bilik Persidangan, Tingkat 15,
Wisma JUPEM.

MEI

2-6 MEI 2016

Makmal Kajian Nilai Bagi Projek-projek Pembangunan Rancangan Malaysia Kesebelas (RMKe-11) JUPEM di Holiday Inn, Melaka.



16-20 MEI 2016

Bengkel Kumpulan Inovatif dan Kreatif (KIK) Jabatan Ukur dan Pemetaan Malaysia (JUPEM) diadakan bertempat di Institut Tanah dan Ukur Negara (INSTUN).

24 – 25 MEI 2015

Penganjuran Seminar dan Pameran Drone Kebangsaan (NaDES) 2016 di Institut Tanah dan Ukur Negara oleh Jabatan Ukur dan Pemetaan Malaysia (JUPEM) dan Institut Tanah dan Ukur Negara (INSTUN) dengan kerjasama dan sokongan Kementerian Sumber Asli dan Alam Sekitar (NRE).



JUN



5 JUN 2016

Majlis Cerapan Hilal Ramadan 1437H diadakan serentak di 29 Balai/Tapak Cerap di seluruh negara.

14 JUN 2016

Lawatan kerja ke Jabatan Ukur dan Pemetaan Malaysia (JUPEM) oleh YBhg. Dato' Dr Nadzri bin Yahaya, Timbalan Ketua Setiausaha (Pengurusan Sumber Asli), Kementerian Sumber Asli dan Alam Sekitar (NRE).



16 JUN 2016



Program Outreach JUPEM sempena Program Ramah Mesra YB Dato Sri Dr Haji Wan Junaidi bin Tuanku Jaafar, Menteri Sumber Asli dan Alam Sekitar bersama masyarakat di Dewan Terbuka Pertubuhan Peladang, Sungai Besar.

25 JUN 2016

Penganjuran Majlis Berbuka Puasa oleh Lembaga Jurukur Tanah (LJT) dengan kerjasama Jabatan Ukur dan Pemetaan Malaysia di Wisma LJT.



JULAI

19 JULAI 2016

Majlis Sambutan Hari Raya di perkarangan Dewan Ukur, Ibu Pejabat JUPEM, Kuala Lumpur diadakan dengan kerjasama Lembaga Jurukur Tanah.

20 JULAI 2016

Majlis Menandatangani Memorandum Persefahaman (MoU) antara Jabatan Ukur dan Pemetaan Malaysia (JUPEM) dengan Perbadanan Putrajaya (PPj) berkaitan perkongsian maklumat geospasial di Dewan Seri Melati, Kompleks Perbadanan Putrajaya.





21 JULAI 2016

Majlis perhimpunan bersama YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Ketua Pengarah Ukur dan Pemetaan Malaysia di Dewan Ukur, Ibu Pejabat JUPEM.

21-22 JULAI 2016

Mesyuarat Pengurusan JUPEM Bil.2/2016 bertempat di Bilik Persidangan, Tingkat 15, Wisma JUPEM, Ibu Pejabat JUPEM, Kuala Lumpur bagi membincangkan prestasi semasa 2016 Bahagian di Ibu Pejabat dan JUPEM Negeri.



OGOS

2 OGOS 2016

Lawatan teknikal ke Jabatan Ukur dan Pemetaan Malaysia (JUPEM) oleh Delegasi Timor-Leste yang diketuai oleh Tuan Yang Terutama Jaime Xavier Lopes, Setiausaha Negeri, Kementerian Tanah dan Harta Timor-Leste.

8-9 OGOS 2016

Penganjuran Simposium Maklumat Geospasial Kebangsaan (NGIS) ke-7 di Pusat Konvensyen Antarabangsa Putrajaya (PICC) oleh Pusat Infrastruktur Data Geospasial Negara (MaCGDI) dengan kerjasama Jabatan Ukur dan Pemetaan Malaysia (JUPEM), Unit Pemodenan Tadbir dan Perancangan Pengurusan Malaysia (MAMPU), Suruhanjaya Komunikasi dan Multimedia (MCMC).



10 OGOS 2016

Perasmian Bangunan Pejabat Topografi Wilayah Selatan yang terletak di Segamat, Johor oleh YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Ketua Pengarah Ukur dan Pemetaan Malaysia.

24-26 OGOS 2016

Mesyuarat ke-24 Jawatankuasa Sempadan Bersama (LBC) Sempadan Antarabangsa Malaysia – Thailand di Melaka, Malaysia dan dipengerusikan secara bersama dipihak Malaysia oleh YBhg. Dato' Sri Azizan bin Ahmad, Ketua Setiausaha Kementerian Sumber Asli dan Alam Sekitar dan dipihak Thailand oleh H.E Vasin Teeravachayan, Penasihat kepada Kementerian Luar Negeri Thailand.



SEPTEMBER

20-22 SEPTEMBER 2016



Mesyuarat Ke-46 Jawatankuasa Teknikal Bersama (MIT-46) Penandaan dan Pengukuran Sempadan Antarabangsa antara Malaysia dan Indonesia di Pulau Pinang, Malaysia. Mesyuarat dipengerusikan secara bersama dipihak Malaysia oleh YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Ketua Pengarah Ukur dan Pemetaan Malaysia dan dipihak Indonesia oleh Yang Terhormat Laksamana Pertama Raja Morni Harahap, Direktur Wilayah Pertahanan, Kementerian Pertahanan Republik Indonesia.

29 SEPTEMBER 2016

Mesyuarat Pra Geospatial Pertahanan Siri 13/2016 di Bilik Persidangan Tingkat 15, Wisma JUPEM oleh Bahagian Geospatial Pertahanan (BGSP) dan kunjungan hormat bersama YBhg. Dato' Sr Hasan bin Jamil, Timbalan Ketua Pengarah Ukur dan Pemetaan I oleh YBhg. Brig Jen Khairil Asri bin Haji Ibrahim.



OKTOBER

5-8 OKTOBER 2016



Persidangan Pengarah-pengarah Ukur Jabatan Ukur dan Pemetaan Malaysia (JUPEM) dan pelancaran buku *Coffe Table Book (CTB) "Charting Malaysia's Boundaries – The JUPEM Story"* diadakan di The Zenith Hotel, Kuantan, Pahang.

13 OKTOBER 2016

Majlis Perhimpunan Bulanan bersama YB Dato Sri Dr. Haji Wan Junaidi bin Tuanku Jaafar, Menteri Sumber Asli dan Alam Sekitar diadakan di Dewan Ukur, Ibu Pejabat JUPEM dan perasmian Makmal Ujian Alat Pengesanan Utiliti Bawah Tanah dan Pusat Khidmat Pelanggan JUPEM serta pelancaran Buku Atlas Kebangsaan Malaysia.



14 OKTOBER 2016

Pentauliahkan Kolonel Kehormat Juruukur Angkatan Tentera pada Majlis Pemakaian Pangkat Kehormat kepada YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Ketua Pengarah Ukur dan Pemetaan Malaysia oleh YBhg. Jen Tan Sri Raja Mohamed Affandi Raja Mohamed Noor, Panglima Tentera Darat (PTD).



17-19 OKTOBER 2016

Penganjuran *United Nations Global Geospatial Information Management for Asia and The Pasific (UN-GGIM-AP) International Forum on Policy and Legal Frameworks for Geospatial Information and Management and 5th Pleanary Meeting* di Hotel Parkroyal Kuala Lumpur.

NOVEMBER

29 SEPTEMBER 2016

Majlis Menandatangani MoU antara Jabatan Ukur dan Pemetaan Malaysia (JUPEM) dengan Dewan Bandaraya Kota Kinabalu (DBKK) diadakan di Dewan Mesyuarat, Tingkat 1, Bangunan DBKK.



3 NOVEMBER 2016

Majlis Tandatangan dan Penyerahan Nota Serah Tugas Ketua Pengarah Ukur dan Pemetaan Malaysia di antara YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Ketua Pengarah Ukur dan Pemetaan Malaysia dan YBhg. Dato' Sr Hasan bin Jamil, Timbalan Ketua Pengarah Ukur dan Pemetaan I diadakan di Dewan Ukur, Ibu Pejabat JUPEM.

4 NOVEMBER 2016

Majlis Penyerahan Nota Serah Tugas Timbalan Ketua Pengarah Ukur dan Pemetaan I diantara YBhg. Dato' Sr Hasan bin Jamil, Timbalan Ketua Pengarah Ukur dan Pemetaan I dan YBhg. Dato' Sr Mohd Noor bin Isa, Timbalan Ketua Pengarah Ukur dan Pemetaan II di Bilik Persidangan Tingkat 15, Wisma JUPEM.



4 NOVEMBER 2016

Majlis Makan Malam Jasamu Dikenang sempena persaraan dan mengenang jasa YBhg. Datuk Sr Ahmad Fauzi bin Nordin, mantan Ketua Pengarah Ukur dan Pemetaan Malaysia yang telah menamatkan perkhidmatan pada 3 November 2016 di Dewan Prima, Wisma LJT.

8 NOVEMBER 2016

Majlis Penyerahan Rasmi Kenderaan Jabatan oleh Bahagian Kadaster bertempat di Kawasan Parking CAMS, Ibu Pejabat JUPEM dan dirasmikan oleh YBhg. Dato' Sr Hasan bin Jamil, Ketua Pengarah Ukur dan Pemetaan Malaysia.





15 NOVEMBER 2016

Majlis Apresiasi bagi menghargai pegawai dan kakitangan yang terlibat dalam penganjuran *United Nations Global Geospatial Information Management for Asia and The Pasific (UN-GGIM-AP) International Forum on Policy and Legal Frameworks for Geospatial Information and Management and 5th Pleanary Meeting* di Hotel Parkroyal Kuala Lumpur pada 16 – 21 Oktober 2016 di Dewan Ukur, Ibu Pejabat JUPEM.



DISEMBER

30 DISEMBER 2016

Majlis Meraikan Pentaulihan Projek JUPEM T6/2014 – Perolehan Pesawat Tanpa Juruterbang/ *Unmanned Aerial Vehicle (UAV)* dan peralatan sokongan diadakan di Hotel Putrajaya Marriot turut dihadiri oleh YBhg. Dato' Sr Hasan bin Jamil, Ketua Pengarah Ukur dan Pemetaan Malaysia.



The background features a vibrant, low-poly geometric pattern in shades of yellow, orange, and pink. A semi-transparent photograph of a group of people in a meeting is centered on the right side of the page. The text 'DIREKTORI JABATAN' is overlaid on the left side of the photograph.

DIREKTORI JABATAN

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 Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170891	03-26917457
2	Pejabat Timbalan Ketua Pengarah Ukur dan Pemetaan I Jabatan Ukur dan Pemetaan Malaysia Tingkat 10, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170892	03-26970221
3	Pejabat Timbalan Ketua Pengarah Ukur dan Pemetaan II Jabatan Ukur dan Pemetaan Malaysia Tingkat 11, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170896	03-269933618
4	Pejabat Pengarah Ukur Bahagian (Dasar dan Penyelarasan Pemetaan) Jabatan Ukur dan Pemetaan Malaysia Tingkat 10, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170894	03-26910994
5	Pejabat Pengarah Ukur Bahagian (Kadaster) Jabatan Ukur dan Pemetaan Malaysia Tingkat 10, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170614	03-26170727

A	IBU PEJABAT JUPEM	NO. TEL.	NO. FAKS
6	Pengarah Bahagian (Geospatial Pertahanan) Jabatan Ukur dan Pemetaan Malaysia Tingkat 2, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170948	03-26980505
7	Pengarah Ukur Bahagian (Ehwal Persempadanan) Jabatan Ukur dan Pemetaan Malaysia Tingkat 8, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170893	03-26934084
8	Pengarah Ukur Bahagian (Ukur Geodetik) Jabatan Ukur dan Pemetaan Malaysia Tingkat 7, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170635	03-26912757
9	Pengarah Bahagian (Khidmat Pengurusan) Jabatan Ukur dan Pemetaan Malaysia Tingkat 12, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170853	03-26170869
10	Pengarah Ukur Bahagian (Pemetaan Topografi Semenanjung) Jabatan Ukur dan Pemetaan Malaysia Tingkat 3 & 5, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170897	03-26983844
11	Pengarah Ukur Bahagian (Kartografi dan GIS) Jabatan Ukur dan Pemetaan Malaysia Tingkat 6, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170898	03-26170647

A	IBU PEJABAT JUPEM	NO. TEL.	NO. FAKS
12	Pengarah Ukur Bahagian (Pemetaan Utiliti) Jabatan Ukur dan Pemetaan Malaysia Tingkat 4, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170742	03-26170984
13	Pengarah Ukur Bahagian (Pangkalan Data Geospasial Negara) Jabatan Ukur dan Pemetaan Malaysia Tingkat 7, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170901	03-26916989
14	Pengarah Ukur Bahagian (Perancangan dan Korporat) Jabatan Ukur dan Pemetaan Malaysia Tingkat 13, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170842	03-26170990

B	JUPEM NEGERI	NO. TEL.	NO. FAKS
1	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Johor Tingkat 7, 8 dan 9 Blok A, Wisma Persekutuan Jalan Ayer Molek 80000 Johor Bahru JOHOR	07-2231244	07-2238535
2	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Kedah 1187 Jalan Raya 09000 Kulim KEDAH	04-4906166	04-4904223
3	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Kelantan Jalan Hospital 15000 Kota Bharu KELANTAN	09-7481470	09-7443923

B	JUEM NEGERI	NO. TEL.	NO. FAKS
4	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Melaka Jalan Taming Sari 74500 MELAKA	06-2822844	06-2847319
5	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Negeri Sembilan Tingkat 7&8, Wisma Persekutuan Jalan Dato' Abdul Kadir 70000 Seremban NEGERI SEMBILAN	06-7623882	06-7672351
6	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Pahang Jalan Tengku Muhamad 25050 Kuantan PAHANG	09-5668511	09-5685541
7	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Perak Jalan Dato' Seri Ahmad Said Greentown 30450 Ipoh PERAK	05-2417181	05-2417151
8	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Perlis Tingkat 6, Bangunan Persekutuan Persiaran Jubli Emas 01000 Kangar PERLIS	04-9772128	04-9772131
9	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Pulau Pinang Tingkat 39, KOMTAR 10000 Georgetown PULAU PINANG	04-2611762	04-2635884
10	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Selangor Tingkat 16-02 dan 17-01, Plaza Masalam No. 2 Jalan Tengku Ampuan Zabedah E9/E 40578 Shah Alam SELANGOR	03-55144000	03-55132614

B	JUPEM NEGERI	NO. TEL.	NO. FAKS
11	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Terengganu Tingkat 7 & 8, Wisma Persekutuan Jalan Sultan Ismail 20578 Kuala Terengganu TERENGGANU	09-6221144	09-6237188
12	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Wilayah Persekutuan Kuala Lumpur / Putrajaya Tingkat 3 & 4, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170800	03-26938740
13	Pengarah Ukur dan Pemetaan Jabatan Ukur dan Pemetaan Labuan Tingkat 7, Blok 4 Kompleks Ujana Kewangan Peti Surat 86 87008 WILAYAH PERSEKUTUAN LABUAN	087-412068	087-417401
14	Pengarah Ukur Bahagian (Pemetaan Topografi Sabah) Jabatan Ukur dan Pemetaan Malaysia Tingkat 3, Blok B, Bangunan Kuwasa Jalan Karamuning 88840 Kota Kinabalu SABAH	088-212835	088-231243
15	Pengarah Ukur Bahagian (Pemetaan Topografi Sarawak) Jabatan Ukur dan Pemetaan Malaysia 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) Behrang 35950 Tanjung Malim PERAK	05-4542825	05-4542837
4	Penolong Pengarah Kanan Kementerian Kesejahteraan Bandar, Perumahan dan Kerajaan Tempatan (KPKT) 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

C	AGENSI-AGENSI LAIN (KADER)	NO. TEL.	NO. FAKS
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 (ARSM) Kementerian Sains Teknologi dan Inovasi No. 13, Jalan Tun Ismail 50480 Kuala Lumpur	03-26973400	03-26973350
8	Ketua Setiausaha Kementerian Pertahanan (MINDEF) 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

C	AGENSI-AGENSI LAIN (KADER)	NO. TEL.	NO. FAKS
11	Ketua Pengarah Jabatan Laut Malaysia (JLM) Peti Surat 12, Jalan Limbungan 42007 Pelabuhan Kelang Selangor	03-33467777	03-31685289
12	Ketua Pengarah Jabatan Penerbangan Awam (DCA) 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 (SPR) Bahagian Pengurusan Sumber Manusia Aras 4-5, Blok C, Kompleks C Pusat Pentadbiran Kerajaan Persekutuan 62502 PUTRAJAYA	03-88724802	03-88880743
14	Jabatan Laut Wilayah Sarawak (JLSWK) Kompleks Jabatan Laut Sarawak Lot 683, Seksyen 66, Jalan Utama, Tanah Puteh 93619 Kuching Sarawak	082-484335/159	082-331778

Pertanyaan

Untuk sebarang pertanyaan lanjut sila hubungi:

Urus Setia
Bahagian Perancangan dan Korporat
Jabatan Ukur dan Pemetaan Malaysia
Tingkat 13, Wisma JUPEM
Jalan Sultan Yahya Petra
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**
LAPORAN TAHUNAN
2016

DEPARTMENT OF SURVEY AND MAPPING MALAYSIA

CONTENT

143 MESSAGE FROM THE DIRECTOR GENERAL OF SURVEY AND MAPPING MALAYSIA

147 CORPORATE PROFILE

DEPARTMENT'S TOP MANAGEMENT
DEPARTMENT'S MANAGEMENT TEAM
DEPARTMENT'S ORGANISATION CHART
VISION AND MISSION
OBJECTIVE AND FUNCTION
CLIENT'S CHARTER
CODE OF ETHICS
LOGO
DEPARTMENT'S SONG

165 CORPORATE GOVERNANCE

HUMAN RESOURCE MANAGEMENT
COURSES AND TRAINING
JUPEM GEOPORTAL WEBSITE
FEDERAL AND STATE HONORARY
AWARDS RECIPIENTS

179 PERFORMANCE REPORT

GEODETIC INFRASTRUCTURE

- GNSS Network Control And Measure
- MyRTKnet
- EDM/GNSS Calibration Pillar Base Test
- Tidal Observation
- Network Levelling
- Gravity Measurement
- *Falak Syarie* and Astronomy

INTERNATIONAL BOUNDARIES

- Malaysia – Thailand Land Boundary
- Malaysia – Indonesia Land Boundary
- Malaysia – Indonesia Maritime Boundary
- Issue of Overlapping Claims In The South China Sea
- Malaysia – Brunei Darussalam Land Boundary
- Malaysia Continental Shelf Project

PERFORMANCE REPORT

STATE BOUNDARIES

- Peninsular States Joint Border Demarcation and Survey

COURT CASE EXPERT WITNESS

MAP PUBLISHING

- Data Acquisition
- Database
- Topographic Map Updating
- Cartography
- Printing
- Utility Mapping
- Mapping Services

CADASTRAL SURVEY

- Land Titles Survey
- Checking of Licensed Land Surveyor (LLS) Survey
- Checking of Level I Strata Titles Survey
- Checking of Level II Strata Titles Survey
- CRM Control Points Establishment
- National Digital Cadastral Database (NDCDB)

DEFENSE GEOSPATIAL DIVISION

- Geospatial Defense and Security Services
- Geospatial Field Service Operation and Training for ATM
- Data Acquisition with Unmanned Aerial Vehicle (UAV)
- Geospatial Defense Operation Centre Services
- Geospatial Defense & Security Capability Management

241

FINANCIAL REPORT

- Financial Management
 - Operating Expenditure
 - Development Expenditure
 - Revenue
-

249

AWARDS AND RECOGNITION

251

SEQUENCE OF EVENTS


267

DEPARTMENT DIRECTORY



Motto

The catalyst for national development and citizen's prosperity



MESSAGE FROM THE
DIRECTOR GENERAL
OF SURVEY AND
MAPPING MALAYSIA

MESSAGE



DATO' SR HASAN BIN JAMIL
THE DIRECTOR GENERAL OF SURVEY
AND MAPPING MALAYSIA

Assalamualaikum Warahmatullahi Wabarakatuh,

Greetings and Salam 1 Malaysia.

Alhamdulillah, I am grateful to the Almighty Allah above his mercy and his love, the Department of Survey and Mapping Malaysia (JUPEM) 2016 Annual Report had successfully published in accordance and within the planned schedule. First, I would like to express my gratitude to the editorial staff on their efforts for preparing the Annual Report and congratulate to all the JUPEM's personnel on the serious efforts and commitment in implementing the planned activities as manifested in this book.

As a Department under the Ministry of Natural Resources and Environment, JUPEM needs to play its role as an organization that is responsible for driving nation development, serves as Adviser to the Government as well as carry out surveying and mapping works for the socioeconomic development and the nation's sovereignty. To achieve this objective, JUPEM has anchored various modernization since its inception to improve the quality of services and products offered. Starting from the use of conventional equipment to satellite applications, the use of Unmanned Aerial Vehicle (UAV) and the most recent exploring surveying technology in supporting Building Information Modelling (BIM), JUPEM will continue to stride forward pioneering diversified data collection methods and strive to improve internal expertise in line with the latest technologies through human capital development programme. Therefore, we will continuously expose ourselves to the available technology on an ongoing basis and from time to time improving the existing work procedures to meet the needs and requirements of our customers.

Facing challenges throughout the year 2016, I would like to congratulate all of JUPEM's personnel, where with our cooperation and prayers, JUPEM has achieved excellence at the international level on successfully organizing International Forums on Policy and Legal Framework for Geospatial Information Management for Asia and The Pacific (UN-GGIM-AP) Plenary Meeting which attended by the highest level of representation from member states under the auspices of the United Nations Global Geospatial Information Management (UN-GGIM). Furthermore, at the Ministerial level, JUPEM success continued in producing competitive innovation ideas and awarded as Champion in Innovative and Creative Group (ICG) Best 1NRE Technical Category, the runner-up and together with the third place for Best ICG 1NRE Management Category. In addition, we successfully obtained the Information Security Management System (ISMS) ISO/IEC 27001:2013 Certificate from the Sirim QAS International Sdn. Bhd. for User Management and Authentication Data MyRTKNet System. With this achievement, I hope that we will continue to be a catalyst and competent for providing the best services in the future.

Responding to the call by the government to optimise the use of data sources and information in all public agencies, JUPEM has begun initiated steps to implement cooperation partnerships with the local authority in stages under the National Blue Ocean Strategy (NBOS). For a start, JUPEM has signed a Memorandum of Understanding (MoU) with Putrajaya Corporation, followed by Kota Kinabalu City Hall and other local authority shortly. With this approach, NBOS strategy will help JUPEM continuously updating our databases more efficiently

and cost effective. The local authorities can also benefit from JUPEM geospatial data which is accurate and up- to- date with an example like SmartKadaster application portal, which allows users to access geospatial information in three dimensions (3D) for Wilayah Persekutuan Kuala Lumpur and Putrajaya. We will continue extending such cooperation to the other departments and agencies so that geospatial information obtained from the existing and planned development projects can be used for variety purposes and utilized together. Based on the activities and achievements for the year 2016, I hope each of JUPEM's personnel will have a strong commitment in the face of rapidly changing dynamics environment. JUPEM's personnel should be able to think outside the box, practicing a positive work culture, integrity, accountability and ensuring our efficiency in providing services to our stakeholders and customers.

Finally, I hope we all will be able to work together in any field we do with physical, mental strength, wisdom and health with complete responsibility and trust in the future. Let us pray that we can continue the continuity, excellence, success and thereby continue making JUPEM become a premier Department and respected at both national and international level.

Thank you.



DATO' SR HASAN BIN JAMIL,
DIMP, JMW, AMN



CORPORATE PROFILE

DEPARTMENT'S TOP MANAGEMENT



DIRECTOR GENERAL OF SURVEY AND MAPPING MALAYSIA
DATO' SR HASAN BIN JAMIL

(Starting 4th November 2016)

DATUK SR AHMAD FAUZI BIN NORDIN

(Until 3rd November 2016)

DEPUTY DIRECTOR GENERAL OF SURVEY AND MAPPING II
DATO' SR MOHD NOOR BIN ISA





DIRECTOR (DEFENSE GEOSPATIAL DIVISION)
BRIGEDIER JENERAL
SR DR MOHD ZAMBRI BIN MOHAMAD RABAB
(Starting 2nd June 2016)

BRIGEDIER JENERAL HAJI AHMAD NASIR
BIN HAJI ABD. RAHMAN
(Until 1st June 2016)



DIRECTOR (MANAGEMENT SERVICES DIVISION)
NOREHAN BINTI OMAR
(Starting 14th January 2016)

NIK YUSAIMI BIN YUSSOF
(Until 13th January 2016)



LEGAL ADVISOR
ZARIFAH BINTI ZULGHAFAR



INTEGRITY UNIT HEAD
TRIVEINEI A/P SUNDARAM

JUPEM Headquarters Division



DIRECTOR OF SURVEY (CADASTRAL DIVISION)
SR DR. TENG CHEE HUA



DIRECTOR OF SURVEY (COORDINATING AND MAPPING POLICY)
SR AHAMAD BIN ZAKARIA



DIRECTOR OF SURVEY (BOUNDARY AFFAIRS DIVISION)

SR DR AZHARI BIN MOHAMED
(Starting 18th January 2016)

SR TAN AH BAH
(Until 15th January 2016)

DIRECTOR OF SURVEY (GEODETIC SURVEY DIVISION)

SR SOHAIME BIN HAJI RASIDI

(Starting 15th March 2016)

SR DR. AZHARI BIN MOHAMED

(Until 17th January 2016)



DIRECTOR OF SURVEY (PLANNING AND CORPORATE DIVISION)

SR WAN MOHAMAD DARANI BIN AB. RAHMAN



DIRECTOR OF SURVEY (PENINSULAR TOPOGRAPHY MAPPING DIVISION)

SR MOHD LATIF BIN ZAINAL





DIRECTOR OF SURVEY (UTILITY MAPPING DIVISION)
SR DR. MOHD YUNUS BIN MOHD YUSOFF



DIRECTOR OF SURVEY (CARTOGRAPHY AND GIS DIVISION)
SR ZOHER BIN NOMANBHOY



DIRECTOR OF SURVEY (NATIONAL GEOSPATIAL DATABASE DIVISION)
HAJI ZAHARI BIN ZAMLOPE

DIRECTOR OF SURVEY AND MAPPING PERAK
SR JOHN ELVIS KOH



DIRECTOR OF SURVEY AND MAPPING SELANGOR
SR HAJI MOHAMAD KAMALI BIN ADIMIN



DIRECTOR OF SURVEY AND MAPPING JOHOR
SR HAJI RAMLI BIN NOR





DIRECTOR OF SURVEY AND MAPPING PAHANG
DATO' SR HAJI MOHAMMAD YUNUS BIN MD
YUSOF



DIRECTOR OF SURVEY AND MAPPING KEDAH
SR NG ENG GUAN



DIRECTOR OF SURVEY AND MAPPING
F. T. KUALA LUMPUR/PUTRAJAYA
MD. ZAKI BIN AD. WAHID
(Until 27th November 2016)

DIRECTOR OF SURVEY AND MAPPING NEGERI SEMBILAN
SR JASNI BIN A. RAHMAN



DIRECTOR OF SURVEY AND MAPPING PULAU PINANG
SR AHMAD AZMAN BIN GHAZALI



DIRECTOR OF SURVEY AND MAPPING TERENGGANU
SR HAMDAN BIN AB. AZIZ





DIRECTOR OF SURVEY AND MAPPING KELANTAN
SR WAN ZAINUDDIN BIN WAN YUSUFF
(Until 3rd December 2016)



DIRECTOR OF SURVEY
(SABAH TOPOGRAPHY MAPPING DIVISION)
SR HAJI ANUAL BIN AZIZ



DIRECTOR OF SURVEY
(SARAWAK TOPOGRAPHY MAPPING DIVISION)
RAHIM BIN HAJI MOHAMAD SALEH

DIRECTOR OF SURVEY AND MAPPING MELAKA

AHMAD TARMIZI BIN BASTANI

(Until 28th October 2016)



DIRECTOR OF SURVEY AND MAPPING PERLIS

SR AHMAD AZMI BIN HASHIM

(Starting 17th October 2016)

SR HAJI CHE SULAIMAN BIN MAT YUNUS

(Until 14th October 2016)

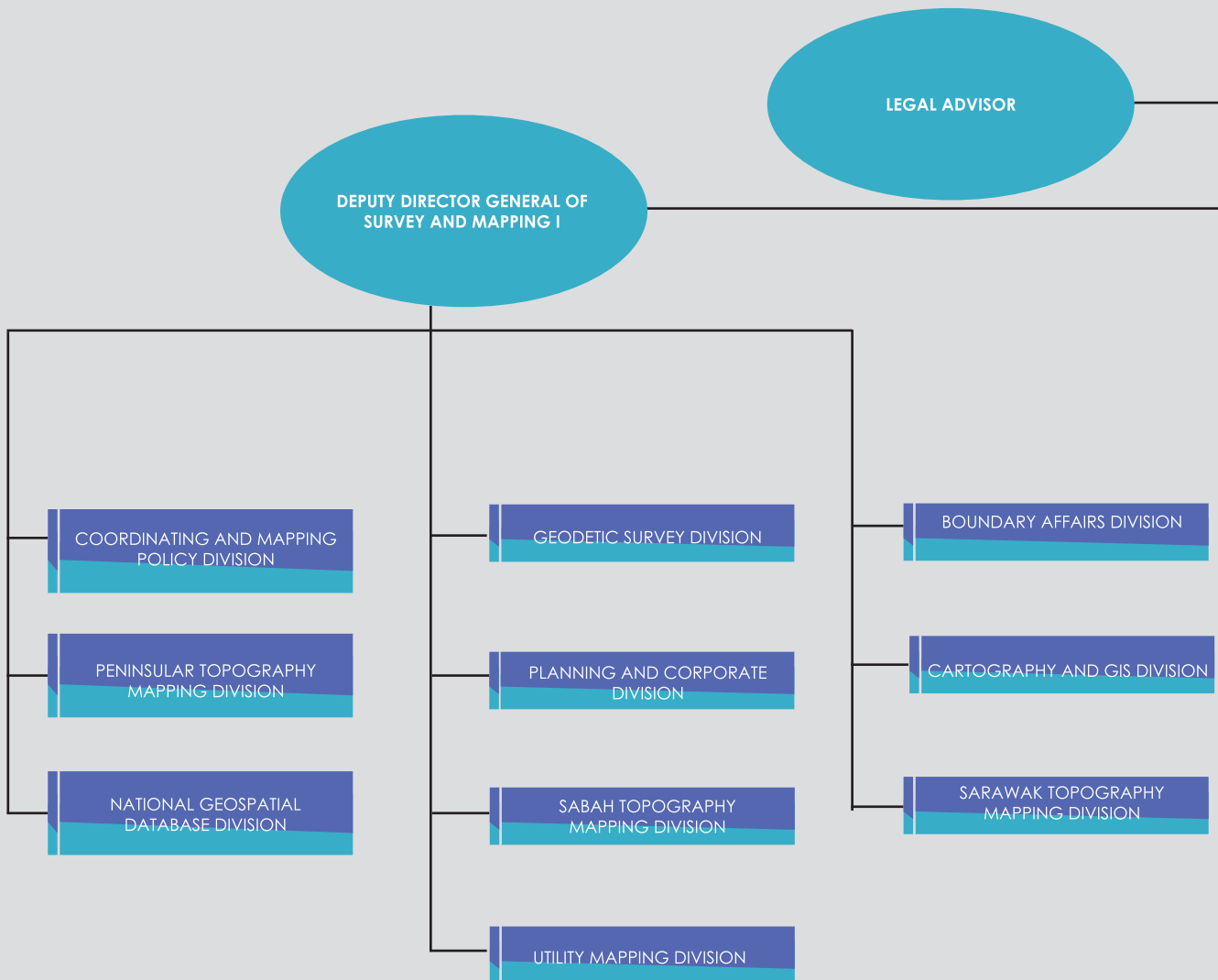


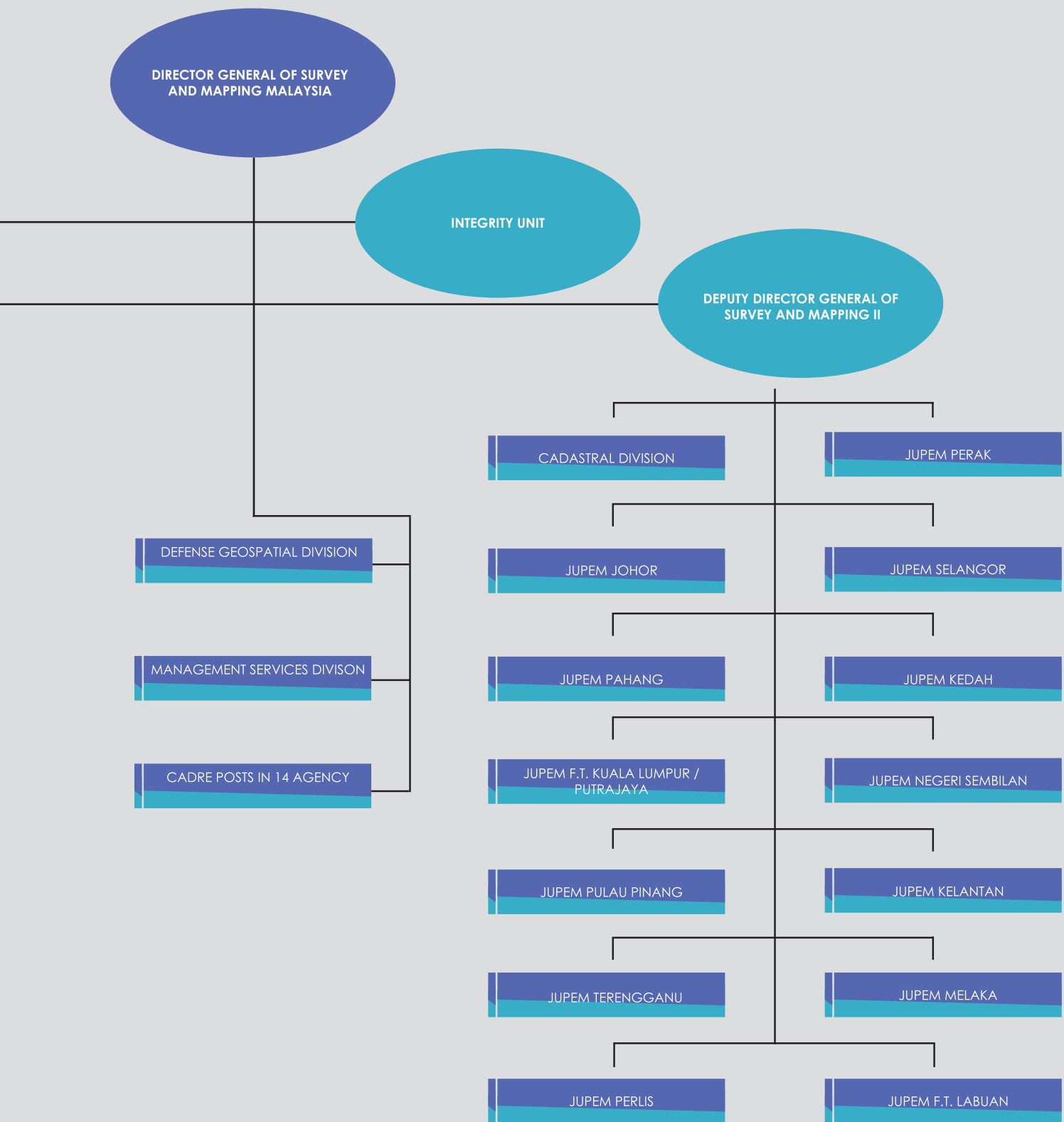
DIRECTOR OF SURVEY AND MAPPING F.T. LABUAN

SR SHAFFRI BIN BAUDI



DEPARTMENT ORGANISATION CHART





Vision

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

Mission

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

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 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, mapping, geodetic, underground utility mapping and geospatial information.
- 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.
- Ensure quality and integrated geospatial defence services in supporting of defence infrastructure and national security.

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 Surveyor (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.

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 underground utility maps for planning, natural resources management, environmental conservation, development, monitoring, and security purposes.
- Providing geodetic infrastructure for cadastral surveying, mapping, engineering and scientific research purposes.
- Providing a comprehensive and integrated geospatial defence services for the purpose of defence and security.
- Publishing astronomical and astronomy products include qiblah direction tables, prayers time, rukyah hilal data, hijra calendar and eclipse information and syariah astronomical almanac.

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.



Logo Definition

- JUPEM's logo design consists of three basic forms of dots, circle 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 been 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, JUPEM's logo 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.

Department's Song

JUPEM MAJU DAN JAYA

Positif Penuh Beretika
Realistik Kita Menuju Satu Wawasan
Perkhidmatan Cekap 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

JUPEM



CORPORATE GOVERNANCE

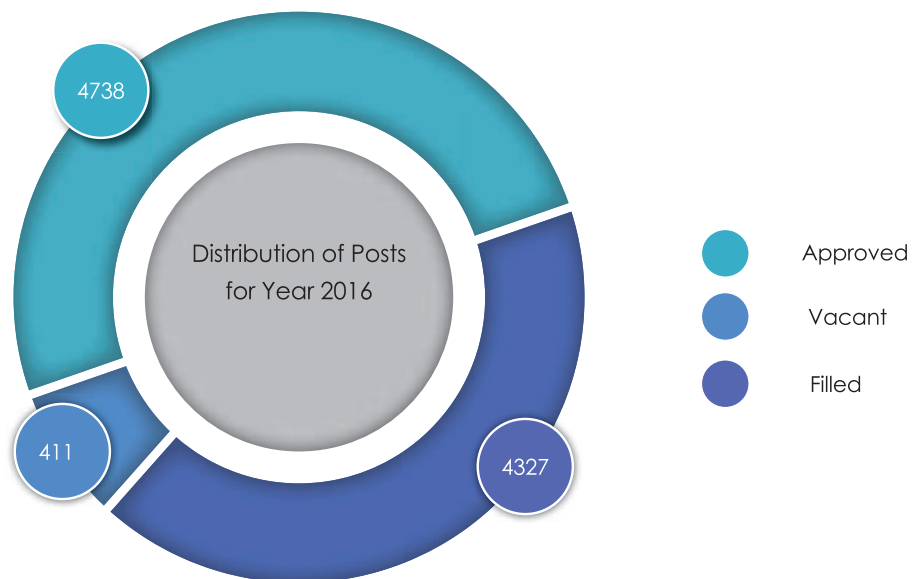
HUMAN RESOURCE MANAGEMENT

Personnel

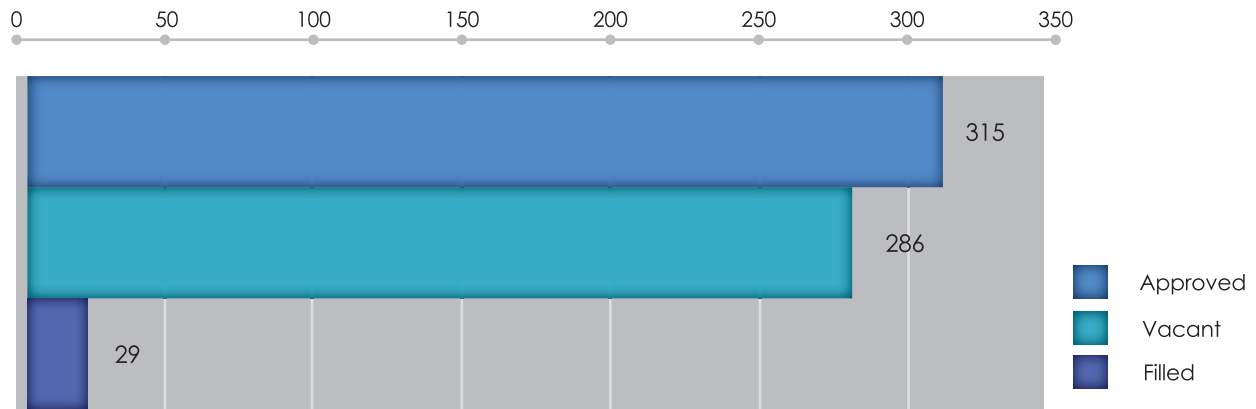
Through the Establishment warrant of year 2016, Jupem has a total 4,738 posts approved compared to 4,884 posts in year 2015. Following the warrant a total of 4,327 posts are filled inclusive of the Premier Grade, Management and Professional Group and the Implementer Group.

GROUP	GRADE	APPROVED	FILLED	VACANT	BANKED
PREMIER GRADE	JUSA A, B, C	11	10	1	0
MANAGEMENT AND PROFESSIONAL	54	19	16	3	0
	48-52	72	70	2	0
	41-44	213	190	23	0
IMPLEMENTER	17-38	2,161	1,975	186	0
	1-16	2,262	2,066	196	0
TOTAL		4,738	4,327	411	0

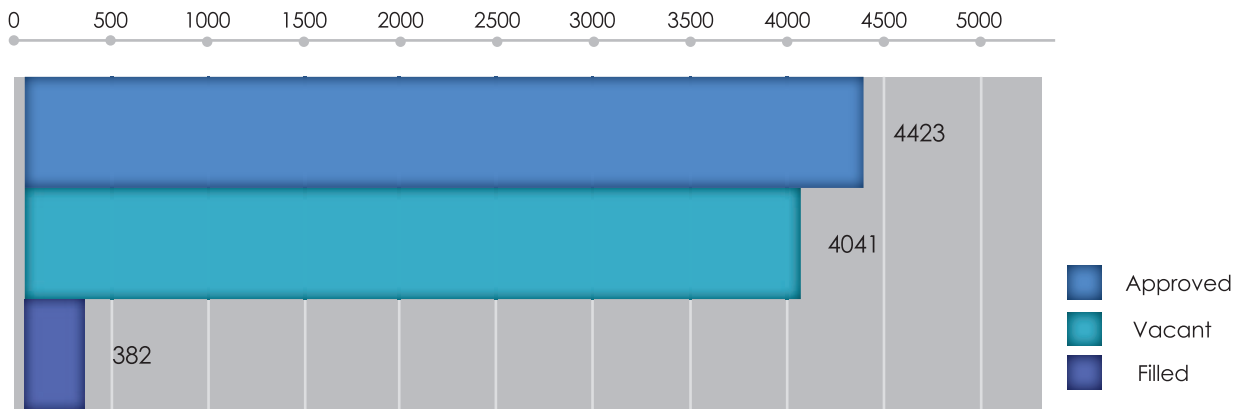
Distribution of Posts for Year 2016



Distribution of Posts Filled for Premier Grade and the Management and Professional Group



Distribution of Posts Filled for Implementer Group



Cadre Staffing

JUPEM has 185 cadre posts in various government agencies positioned in Ministry of Natural Resources and Environment (NRE), National Centre for Geospatial Data Infrastructure (MaCGDI), Public Works Department (JKR), National Institute of Land and Survey (INSTUN), Ministry of Urban Wellbeing, Housing and Local Government (KPKT), National Security Council (MKN), Election Commission (SPR), Department of Mineral and Geoscience (JMG), Peninsular Malaysia Forestry Department (JPMS), Marine Department Peninsular Malaysia (JLM), Marine Department Sarawak (JLM), Department of Civil Aviation (DCA), Malaysian Remote Sensing Agency (MRSA), Ministry of Defence (MINDEF), Department of Director General of Land and Mines (JKPTG) and Department of Irrigation and Drainage (JPS).

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

NO.	DEPARTMENT	APPROVED	FILLED	VACANT
1	Ministry of Natural Resources and Environment (NRE)	1	1	0
2	Ministry of Urban Wellbeing, Housing and Local Government (KPKT)	20	20	0
3	Ministry of Defence (MOD)	3	3	0
4	Department of Irrigation and Drainage (JPS)	1	0	1
5	Department of Director General of Land and Mines (JKPTG)	1	1	0
6	Peninsular Malaysia Forestry Department (JPSM)	5	4	1
7	Public Works Department (JKR)	22	20	2
8	Department of Civil Aviation (DCA)	2	2	0
9	Department of Mineral and Geoscience (JMG)	38	32	6
10	Marine Department Peninsular Malaysia (JLM)	2	1	1
11	Marine Department Sarawak (JLSWK)	12	8	4
12	National Centre for Geospatial Data Infrastructure (MaCGDI)	34	32	2
13	National Institute of Land and Survey (INSTUN)	29	27	2
14	National Security Council (MKN)	4	4	0
15	Election Commission (SPR)	1	1	0
16	Malaysian Remote Sensing Agency (ARSM)	10	6	4
TOTAL		185	162	23

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

NO.	POST (MANAGEMENT AND PROFESSIONAL)	GRADE	APPROVED	FILLED	VACANT
1	Surveyor	J54	1	1	0
2	Surveyor	J52	3	3	0
3	Surveyor	J48	10	10	0
4	Surveyor	J44	12	12	0
5	Surveyor	J41	25	23	2
6	Geospatialist	J44	2	1	1
7	Geospatialist	J41/J44	7	6	1
8	Surveyor/ Geospatialist	J41/J44	4	4	0
TOTAL			64	60	4

NO.	POST (IMPLEMENTER)	GRADE	APPROVED	FILLED	VACANT
1	Assistant Surveyor	JA38	2	1	1
2	Assistant Surveyor	JA36	8	5	3
3	Assistant Surveyor	JA29/JA36	107	93	14
4	Assistant Surveyor (KUP)	JA29	4	3	1
TOTAL			121	102	19

Promotions

Acting/promotion exercise throughout year 2016 involve 206 staff comprising 1 from the Premier Grade, 116 from the Management and Professional Group and 89 from the Implementer Group.

Promotion Board: Management and Professional Group

SCHEME OF SERVICE	PROMOTION / ACTING TO GRADE	PROMOTION	ACTING	TOTAL
Surveyor Premier Grade B	Gred Utama A	0	1	1
Surveyor Premier Grade C	Gred Utama B	0	0	0
Surveyor Grade J54	Gred Utama C	3	1	4
Surveyor Grade J52	J54	7	1	8
Surveyor Grade J52	J54 (KUP)	2	0	2
Surveyor Grade J48	J52	20	3	23
Surveyor Grade J48	J52 (KUP)	2	0	2
Surveyor Grade J44	J48	13	10	23
Geospatialist Grade J44	J48	1	0	1
Geospatialist Grade J41	J44	1	0	1
Surveyor Grade J41	J44	1	0	1
Surveyor Grade J41	J41/J44 Fleksi	33	18	51
	TOTAL	83	34	117

Promotion Board: Implementer Group

SCHEME OF SERVICE	PROMOTION / ACTING TO GRADE	PROMOTION	ACTING	TOTAL
Assistant Surveyor Grade JA36	JA38	0	20	20
Assistant Surveyor Grade JA29	JA36	0	30	30
Assistant Surveyor Grade JA29 (TBBK)	JA36	23	0	23
Administrative Officer Assistant Grade N29	N32	4	0	4
Administrative Assistant (Finance) Grade W19	W22	1	0	1
Administrative Assistant (Clerical/Operational) Grade N19 (TBBK)	N22	9	1	10
Administrative Assistant (Clerical/Operational) Grade N19	N22	1	0	1
General Worker Grade R1 (KUP)	R4 (TBBK)	0	0	0
	TOTAL	38	51	89

*TBBK : Time Base Berasaskan Kecemerlangan

*KUP : Khas Untuk Penyandang

Retirement

Throughout year 2016, a total of 222 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	Surveyor Premier Grade A	1
2	Surveyor Premier Grade C	1
3	Surveyor J54	3
4	Surveyor J52	1
5	Surveyor J48	1
6	Administrative and Diplomatic Officer M48	1
7	Assistant Surveyor JA38	4
8	Assistant Surveyor JA36	11
9	Assistant Surveyor JA29	34
10	Office Secretary N28	1
11	Administrative Assistant (Clerical/Operational) N22	4
12	Administrative Assistant (Clerical/Operational) N22 (KUP)	3
13	Administrative Assistant (Clerical/Operational) N17	1
14	Operational Assistant N14	3
15	Security Guard KP14 (KUP)	1
16	General Assistant H14	5
17	General Worker H14	49
18	General Assistant H11	3
19	Operational Assistant N11	1
20	Driver H11	1
21	General Worker H11	1
22	Driver R6	2
	TOTAL	132

Optional Retirement

NO.	POST/GRADE	TOTAL
1	Surveyor J52	1
2	Surveyor J48	2
3	Surveyor J44	2
4	Assistant Surveyor JA38	3
5	Assistant Surveyor JA36	8
6	Assistant Surveyor JA29	31
7	Administrative Officer Assistant N32	1

8	Administrative Assistant (Clerical/Operational) N26	1
9	Administrative Assistant (Clerical/Operational) N22	1
10	Administrative Assistant (Clerical/Operational) N22 (KUP)	1
11	Production Assistant N22 (KUP)	1
12	Administrative Assistant (Clerical/Operational) N17	2
13	Skill Assistant H17	1
14	General Assistant H14	13
15	Security Guard KP14	1
16	Operational Assistant N11	2
17	General Assistant H11	8
18	General Worker H11	1
TOTAL		80

Died in Service

NO.	NAME	POST/GRADE	STATE / SECTION
1	Md Nasir bin Zainuddin	Driver H11	Geodetic Division
2	Maruthaya a/l Sundram	Assistant Surveyor JA29	JUPEM Kedah
3	Jaffry bin Jaafar	General Assistant H11	JUPEM Pulau Pinang
4	Zahari bin Mohamed Zin	Assistant Surveyor JA29	Kuantan Topographic Survey Regional Office
5	Zainuddin bin Sabtu	General Assistant H14	JUPEM N. Sembilan
6	Mohd Azmi bin Mohd Razali	Assistant Surveyor JA36	JUPEM Kedah
7	Zaimah binti Yusoh	Assistant Surveyor JA29	JUPEM Pahang
8	Zaheri bin Basir	General Assistant H11/H14	JUPEM Pahang
9	Wan Rosli bin Wan Ahmad	Assistant Surveyor JA29	JUPEM Terengganu
10	Sufian bin Abd Manap	Assistant Surveyor JA38	JUPEM N. Sembilan

Disciplinary Action

The department 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 2016, 23 disciplinary cases were reported and as many as 16 cases were resolved. Meanwhile, a total of 13 cases were still pending and taken into the year of 2017.

The following is the type of offences and case status throughout year 2016:

TYPE/Form OF OFFENCE	CASES BROUGHT FROM PREVIOUS YEAR (2015)		NEW CASES REPORTED (2016)		SETTLED CASES (2016)		CASES STILL IN ACTION (2017)	
	M&P	IMPLEMENTER	M&P	IMPLEMENTER	M&P	IMPLEMENTER	M&P	IMPLEMENTER
Absent from work	-	5		17	-	12	-	10
Court case	-	1		3	-	3	-	1
Drug – Urine Test	-	-		3	-	1	-	2
TOTAL	-	6		23	-	16	-	13

COURSES AND TRAINING

Courses And Training

Continuous training is being 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 is able to produce human capital with expertise and competence to ensure the sustainability of delivery and service systems to customers.

Numbers of Man-Days for Courses/Training for the Year 2016

NO.	COURSE FIELD	NUMBER OF DAYS			TOTAL
		PREMIER GRADE	MANAGEMENT & PROFESSIONAL	IMPLEMENTER	
1	Mind Transformation Program (Compulsory Course)	0	36	36	72
2	Survey and Mapping Management	106	2074	4948	7128
3	Human Resources Management	10	974	9580	10564
4	Financial Management	0	76	2006	2082
5	Quality and Productivity		278	1036	1314
6	Information Technology and Communication (ICT)	0	34	444	478
7	Self-development	2	532	7286	7820
8	Language and Communication	0	3	6	9
TOTAL		118	4007	25342	29467

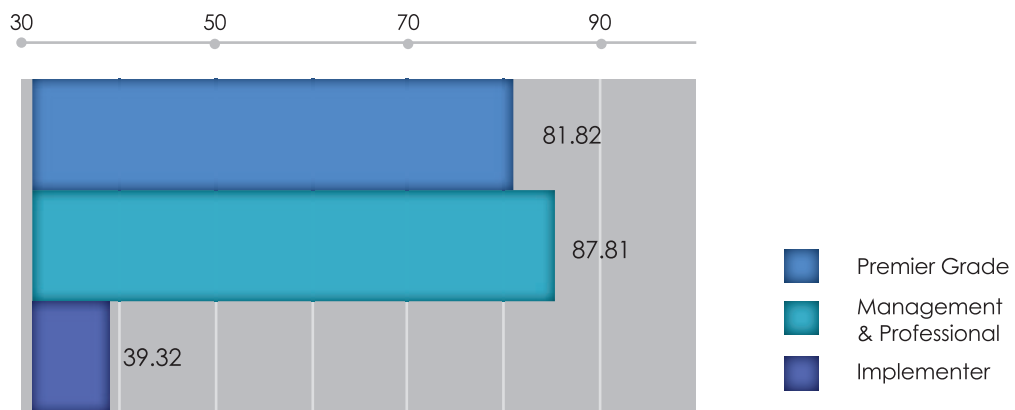
Distribution of the Numbers of Man-Days for Courses/Training



Number of Staff Attending Courses for 7 Days

NO.	GRADE / GROUP	NUMBER OF POSTS	NUMBER OF POSTS FILLED	SHORT COURSES			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	Premier Grade	11	11	9	2	0	0
2	Management & Professional	304	279	240	34	0	5
3	Implementer	4422	4084	1605	2445	33	1
TOTAL		4737	4374	1854	2481	33	6

Distribution of Staff Attending Courses for 7 Days



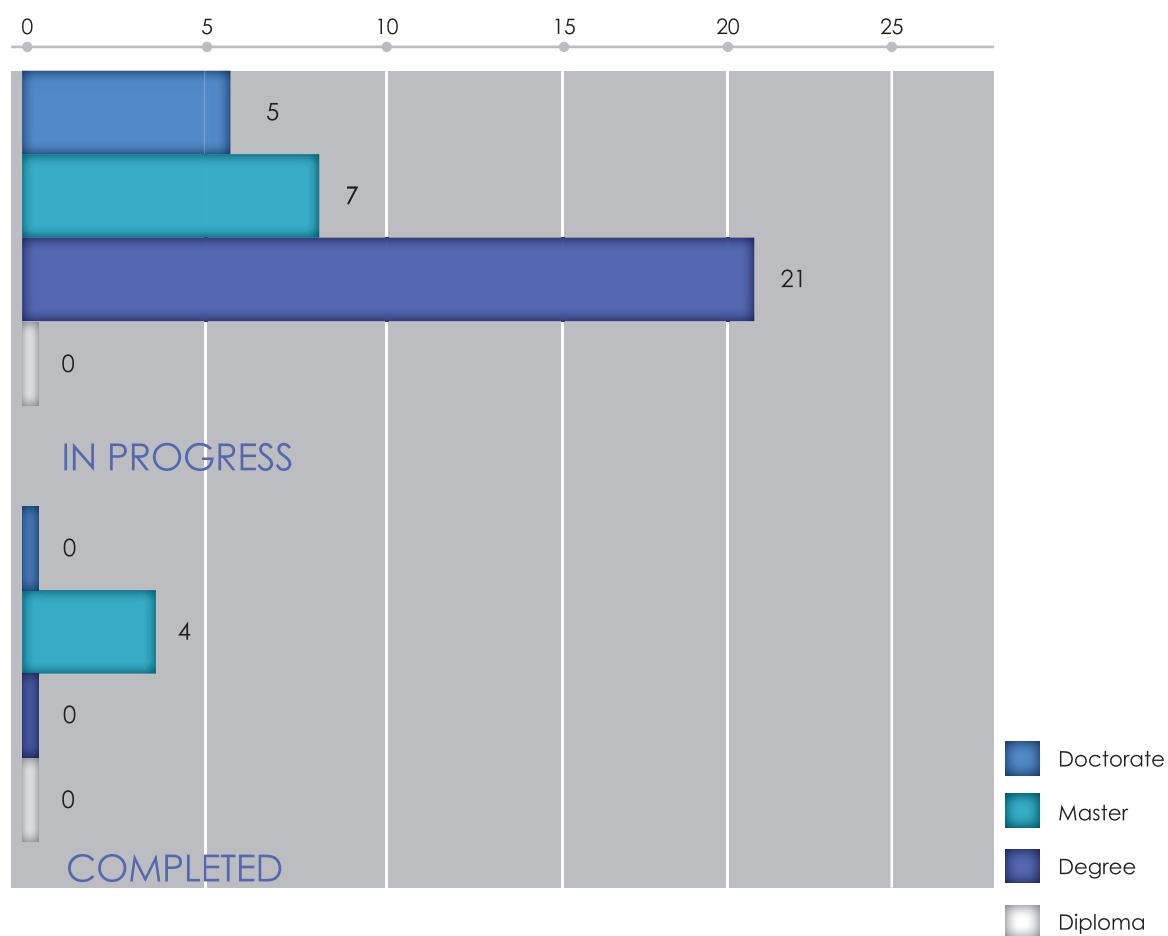
Number of Staff Furthering Studies in 2016

NO.	ACADEMIC LEVEL	IN PROGRESS		COMPLETED		TOTAL
		PART TIME	FULL TIME	PART TIME	FULL TIME	
1	Doctorate	3	2	0	0	5
2	Master	5	2	4	0	11
3	Degree	1	20	0	0	21
4	Diploma	0	0	0	0	0
	TOTAL	9	24	4	0	37

Note: Part time means:

- i. Staffs who already completed full time study but not yet graduated (Doctorate and Master)
- ii. Staffs who pursue part time study

Distribution of Staff Furthering Studies in 2016



JUPEM GEOPORTAL WEBSITE

JUPEM website www.jupem.gov.my or JUPEM Geoportal is being 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 in empowering ICT by providing various centralised geospatial information for the purpose of online management system and dissemination of information, realising the concept of e-government, performing transaction through e-commerce, and providing online backup facility.

PRODUCT	NUMBER OF TRANSACTIONS 2016												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	
Mapping	4	0	0	0	0	0	2	14	0	7	3	1	31
Cadastre	5831	4554	6514	6075	5956	5784	4885	6542	4108	5709	5809	5284	67051
Geodesy	242	227	233	278	204	219	198	253	186	258	258	244	2800
Geodetic Services	0	0	0	0	0	6	7	18	5	18	12	15	81
Limited Data Application	0	0	0	0	0	5	0	0	0	0	0	0	5
Digital Licence Application	0	0	0	0	0	25	42	34	21	23	19	23	187
RTK Subscription	0	0	0	0	0	0	0	0	0	0	3	2	5
Permit Application	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6077	4781	6747	6353	6160	6039	5134	6861	4320	6015	6104	5569	70160



JUPEM Geoportal official web page

Apart from that, in line with the growing popularity of social media usage among consumers, JUPEM is also provide current information delivery through official Facebook and Twitter accounts as well as the JUPEM Geoportals Official Web Page.

Twitter



Facebook



FEDERAL AND STATE HONORARY AWARDS RECIPIENTS

NO.	OFFICER NAME	POST/GRADE	DIVISION / JUPEM STATE	AWARD RECEIVED
1	Sr Dr Teng Chee Hua	Surveyor / Premier Gred C	Cadastre Division	<i>Johan Setia Mahkota (J.S.M)</i>
2	Sr Jasni bin A. Rahman	Surveyor / J54	Negeri Sembilan	<i>Pingat Jasa Kebaktian (P.J.K)</i>
3	Sr Wan Zainuddin bin Wan Yusoff	Surveyor / J54	Kelantan	<i>Pingat Setia Mahkota Kelantan (P.S.K)</i>
4	Sr Muhammad Salim bin Mohammed Asari	Surveyor / J52	Perak	<i>Ahli Mahkota Perak (A.M.K)</i>
5	Sr Shahril Azhari bin Jumari	Surveyor / J48	Selangor	<i>Bintang Perkhidmatan Cemerlang (B.P.C)</i>
6	Mohd Azua bin Mohd Zain	Surveyor / J48	Pulau Pinang	<i>Bintang Cemerlang Negeri (B.C.N)</i>
7	Haji Muhamad Musmir bin Ishak	Surveyor / J41	Kedah	<i>Bintang Perkhidmatan Cemerlang Kedah (B.C.K)</i>
8	Abdul Aziz bin Sahri @ Sahry	Assistant Surveyor/ JA38	Perak	<i>Pingat Pekerti Terpilih (P.P.T)</i>
9	Mohd Shukri bin Pah	Assistant Surveyor/ JA38	Pulau Pinang	<i>Pingat Jasa Masyarakat (P.J.M)</i>
10	Samsuddin bin Dahlan	Assistant Surveyor/ JA36	Perlis	<i>Pingat Jasa Kebaktian (P.J.K)</i>
11	Ooi Kwong Teow	Assistant Surveyor/ JA29	Pulau Pinang	<i>Pingat Jasa Kebaktian (P.J.K)</i>
12	Rohani binti Haji Ahmad	Assistant Surveyor/ JA29	Perlis	<i>Pingat Jasa Kebaktian (P.J.K)</i>
13	Mohd Shakir bin Darus	General Assistant/ H14	Pulau Pinang	<i>Pingat Jasa Masyarakat (P.J.M)</i>
14	Mohd Azuan bin Adul Rahman	General Assistant/ H11	Pulau Pinang	<i>Pingat Jasa Masyarakat (P.J.M)</i>
15	Rajendran a/l Raju	General Assistant/ H11	Pulau Pinang	<i>Pingat Jasa Masyarakat (P.J.M)</i>
16	Muhammad Wani bin Othman	Operation Assistant / N11	Perlis	<i>Pingat Perkhidmatan Lama (P.P.L)</i>





PERFORMANCE REPORT

GEODETIC INFRASTRUCTURE

GNSS Network Control and Measure

The measurement method using Global Satellite Navigation System (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 the 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.

In 2016, GNSS survey works involved in planning observation on 550 stations, which also included measurement to improve the Cadastral Reference Mark (CRM) network for cadastral.

The achievement of survey activities involving GNSS for the year 2016 is 308 stations (56%) compared to 550 stations. Lack of achievement is due to the eCRM project only got 60 out of 400 stations (15%) because of financial constraints.

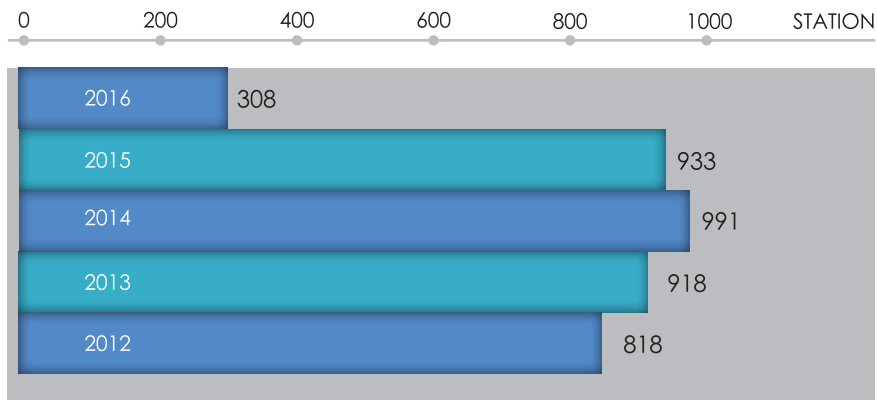


The breakdown of activities is as follows.

NO.	ACTIVITY	STATION
1	GNSS observations for the establishment of the International Border Control Survey Malaysia – Brunei Darussalam	10
2	Geodetic Infrastructure Control for Negeri Sembilan –Selangor Border Project	22
3	MyRTK Network Control Project	96
4	PMGSN Station Verification Project	6
5	GNSS Equipment Calibration Project	48
6	Peninsular Malaysia Central Point Project	4
7	Kuala Krai Survey Control Project	8
8	Borneo GNSS Levelling Observation	54
9	GNSS observations for the Cadastral Reference Mark (CRM)	60
	TOTAL	308

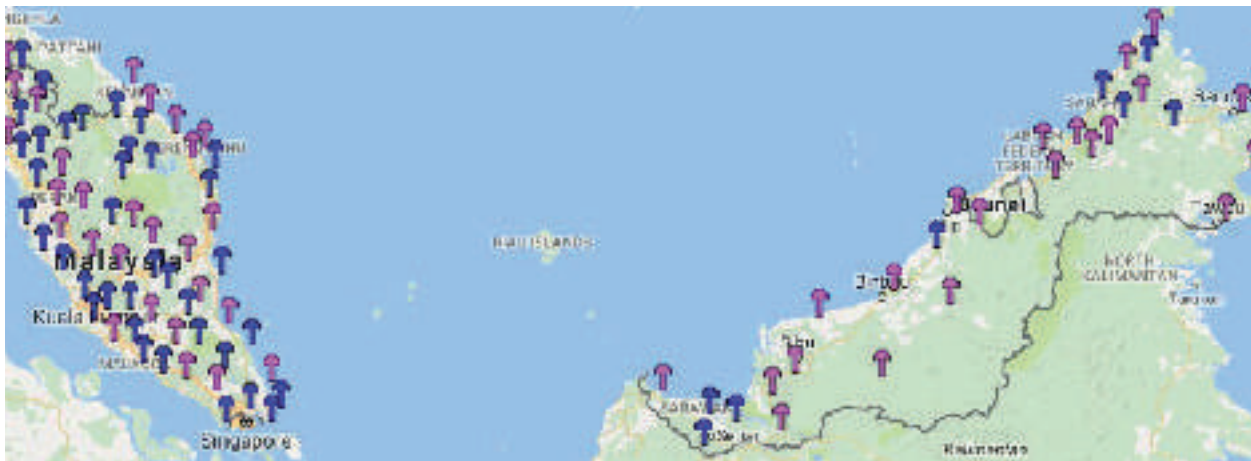
The five years period performance results for measurement activities involving GNSS is as follows:

YEAR	STATION
2012	818
2013	918
2014	991
2015	933
2016	308



MyRTKnet

Real Time Kinematic is the latest innovation in the determination of a point's relative position. In 2003 referring to the GNSS technology development, MyRTKnet (Malaysian Real Time Network) system with 27 stations developed under MyRTKnet Phase 1 Project. Another 78 stations established in MyRTKnet Phase 2 Project and until the end of 2016, a total number of 96 stations has been established under MyRTKnet Phase 3 Project.



With a total of 96 stations, 65 stations in Peninsular, 15 stations in Sabah, 15 stations in Sarawak and 1 stations in Federal Territory of Labuan, the system is able to provide precise and accurate measurement work.

The achievement for MyRTKnet activities for year 2016 is as follows:

NO.	ACTIVITY	AWT 2016	ACHIEVEMENT
1	GPS Data Management of MyRTKnet Station	628,617 data hour	628,617 data hour (100%)
2	Daily GPS Data Processing of MyRTKnet Station	26,192 data set	26,192 data set (100%)
3	Weekly and Yearly GPS Data Processing of MyRTKnet Station	3,732 data set	3,732 data set (100%)

EDM/GNSS Calibration Pillar Base Test

The work target for this activity was newly created in 2016 to carry out base calibration test once a year for 14 stations. Consequently, the number of tests to be carried out in 2016 was 14 times. Listing of EDM/GNSS calibration pillar bases located in Peninsular Malaysia and the Federal Territory of Labuan is as follows:



NO.	LOCATION	NO. STATION
1	Arau, Perlis	1
2	Pokok Sena, Kedah	1
3	Kubang Semang, Pulau Pinang	1
4	Taiping, Perak	1
5	W.P. Kuala Lumpur	1
6	Port Dickson, Negeri Sembilan	1
7	Melaka	1
8	Batu Pahat, Johor	1
9	Temerloh, Pahang	1
10	Tg. Sepat, Pahang	1
11	Kuantan, Pahang	1
12	Dungun, Terengganu	1
13	Melor, Kelantan	1
14	W.P. Labuan	1
TOTAL		14

Tidal Observations

The primary objective of tidal observations is to get the reading of the mean sea level, which will be used as an accurate vertical datum and thus will serve as a reference for level measurement work.

Since March 2016, a total of number of 19 gauges stations tides (STAPS) continues to operate, consisting of 11 stations on the Peninsular Malaysia (located at Jeti Telok Ewa Pulau Langkawi, Kedah; Penang Yacht Club George Town, Pulau Pinang; Pangkalan TLDM Lumut, Perak; Dermaga 25 Pelabuhan Utara Pelabuhan Kelang, Selangor; Jeti Tanjung Bruas Tanjung Keling, Melaka; Jeti Kukup, Johor; Kompleks LKIM Tanjung Sedili, Johor; Jeti Berjaya Beach Resort Pulau Tioman, Pahang; Pelabuhan Kuantan Tanjung Gelang, Pahang; Kompleks LKIM Cendering, Terengganu and Kompleks LKIM Geting, Kelantan), while 6 stations located in Sabah (located at the Port of Kota Kinabalu; Kudat; Sandakan Port; Lahad Datu; Tawau Port; Pulau Labuan) and 2 more stations located in Sarawak (located at the Port Bintulu and Marina Park Miri).



STAPS stations located in Peninsular Malaysia, Sabah and Sarawak

The achievement for tidal observation activities for the year 2016 is as follows:

LOCATION	TOTAL STATION	AWT 2016	ACHIEVEMENT
Semenanjung	11	132 sets	132 sets (100%)
Sabah	6	72 sets	72 sets (100%)
Sarawak	2	24 sets	24 sets (100%)

Tidal observation activities in 19 STAPS stations are for the publication of Tidal Observation Record Book and Tidal Forecast Schedule Book to be used by various parties.

In the year 2016, one Tidal Observations Record Book for year 2015 and one Tidal Forecast Schedule Book for year 2018 had been published.

Network Levelling

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



In the year of 2016, Precision and Second Class levelling data processing for Peninsular Malaysia

have not been carried out due to Peninsular Topographic Mapping Division focus on International and State border survey works. However, Sarawak Topographic Mapping Division has successfully implemented the measurement and precision levelling data processing of 155 benchmarks. In addition, Geodetic Survey Division successfully prepare a report documenting the benchmark of 790 benchmarks for the year 2016.

The achievement of levelling works for the year 2016 is as follows:

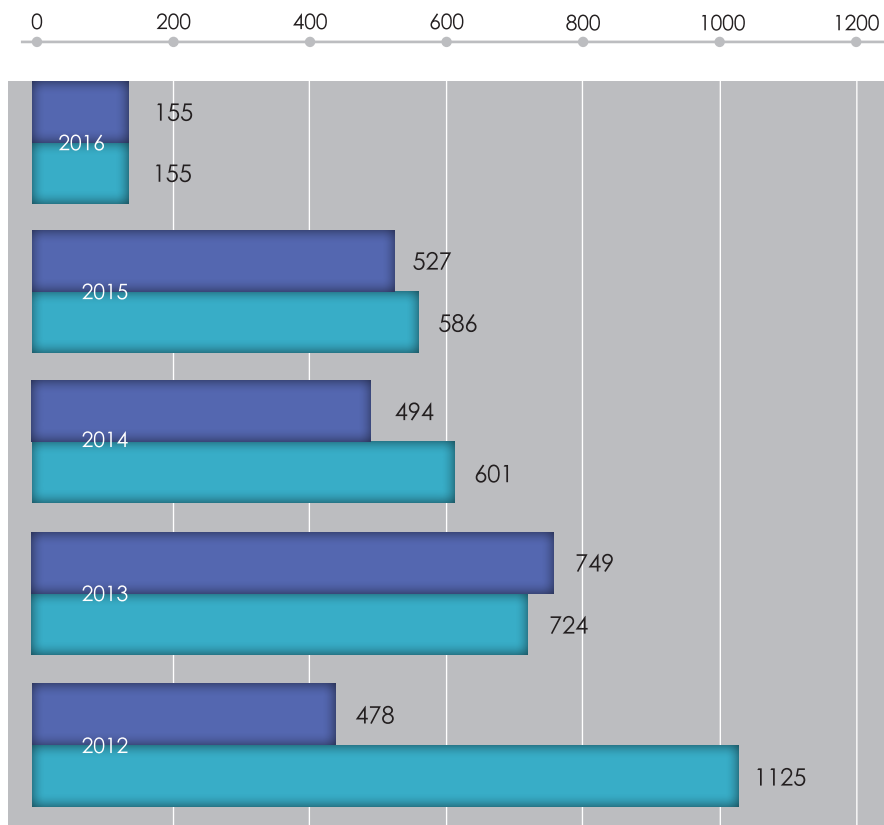
NO.	ACTIVITY	ACHIEVEMENT
1	Precise and Second Class Levelling	155 Bench Marks
2	Precise and Second Class Levelling Data Processing	155 Bench Marks
3	Documentation for Levelling Data	790 Bench Marks

The achievement of levelling works for year 2016 is as follows:

YEAR	PRECISE LEVELLING (BENCH MARKS)	PRECISE LEVELLING DATA PROCESSING (BENCH MARKS)
2012	1,125	478
2013	724	749
2014	601	494
2015	586	527
2016	155	155

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

YEAR	SECOND CLASS LEVELLING (BENCH MARKS)	SECOND CLASS LEVELLING DATA PROCESSING (BENCH MARKS)
2012	145	143
2013	0	104
2014	0	122
2015	0	156
2016	0	0

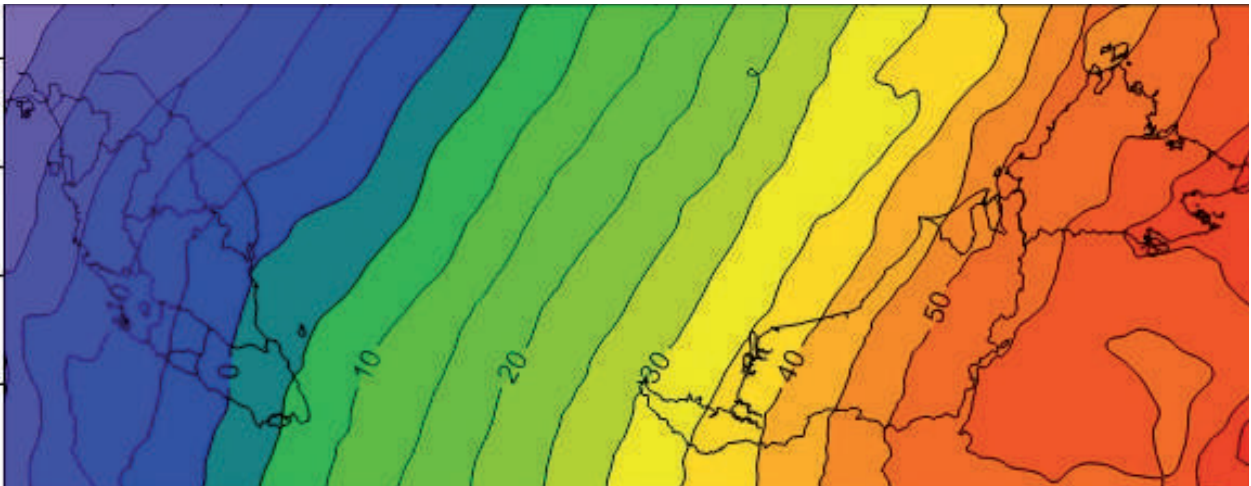


- Precise Levelling
- Precise Levelling Data Processing

Gravity Measurement

JUPEM has played a major role in carrying out gravity measurement for orthometric heights correction. Orthometric height will be used as a reference for mapping, engineering, scientific research and other work.

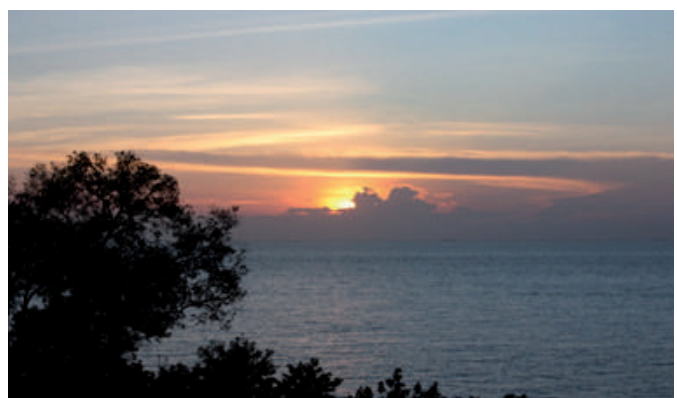
For the year 2016, the activities of gravity measurements were not able to be carried out because the gravimeter equipment needed to be repaired and was not able to do the observations. However, to meet the annual activities, gravity measurements existing data reprocessing have been made. Additionally, the application data transformation height services using MyGEOID still available based on the request from the user.



Falak Syarie and Astronomy

JUPEM is an agency directly involved in the field of falak syarie and astronomy especially in the preparation of rukyah and hilal data. 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, Syawal and Zulhijjah.

In addition, JUPEM also involved in several studies conducted by JAKIM and State Mufti Department such as Skylight Research Observation, *Kajian Penentuan Waktu Solat Bangunan Tinggi and Penentuan Zon Waktu Solat Negeri*. At the same time, JUPEM involved in programs related to geodesy astronomy such as solar eclipse observations and moon closest to earth observations.

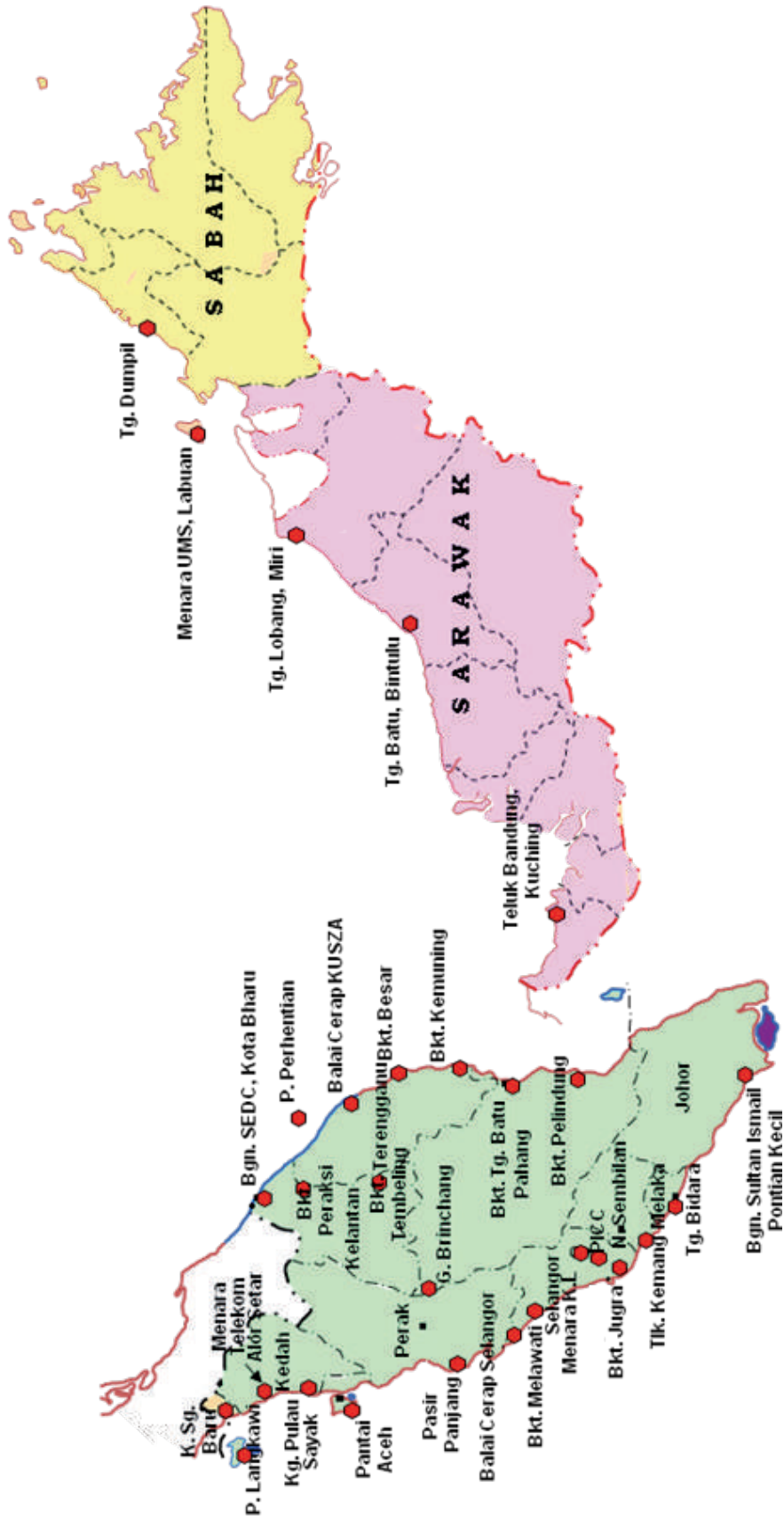




The achievement for astronomy related activities for the year 2016 is as follows:

NO.	ACTIVITY	AWT 2016	ACHIEVEMENT
1	Rukyah and Hilal Astronomical Calculations	29 stations	29 stations (100%)
2	Hilal Observations at the Teluk Kemang Observatory for the Review of the Imkanur Rukyah Criteria	9 times	9 times (100%)
3	Skylight Research Observation	6 times	6 times (100%)

In the year 2016, the data preparation to determine the beginning of Ramadan, Syawal and Zulhijjah for the year 1437 Hijrah was conducted at 29 Hilal observation stations in Kuala Sungai Baru Simpang Empat, Perlis; Menara Telekom, Alor Setar, Kedah; Pulau Sayak, Kuala Muda, Kedah; Pemandangan Indah, Langkawi, Kedah; Pantai Acheh, Pulau Pinang; Pantai Pasir Panjang, Perak; Bukit Malawati, Kuala Selangor, Selangor; Balai Cerap Selangor, Bandar Nakhoda Omar, Selangor; Bukit Jugra, Selangor; Menara Kuala Lumpur; PICC Putrajaya; Telok Kemang, Negeri Sembilan; Tanjung Bidara, Melaka; Pontian Kechil, Johor; Bukit Tanjung Batu, Nenas, Pekan, Pahang; Bukit Pelindung, Kuantan, Pahang; Gunung Berinchang, Cameron Highlands, Pahang; Bukit Geliga, Kemaman, Terengganu; Bukit Besar, Kuala Terengganu, Terengganu; Merang, Setiu, Terengganu; Pulau Perhentian, Besut, Terengganu; Menara Bangunan SEDC, Kota Bharu, Kelantan; Bukit Peraksi, Pasir Puteh, Kelantan; Bukit Kampung Tembeling, Kuala Krai, Kelantan; Tanjung Dumpil, Putatan, Sabah; Menara Universiti Malaysia Sabah, Labuan; Tanjung Lobang, Miri, Sarawak; Tanjung Batu, Bintulu, Sarawak; Teluk Bandung, Kuching, Sarawak.



Locations of Hilal Observation Stations in Peninsular, Sabah and Sarawak

INTERNATIONAL BOUNDARIES

Malaysia – Thailand Land Boundary

The delimitation and demarcation of the international boundary between Malaysia–Thailand measuring 551.5 km in length commenced on 6 July 1973 and completed on 26 September 1985.

As for the deepest river flow boundary (Thalweg) measuring at 105.3 km was commenced on 1 November 2000 and was completed on 28 July 2009. The project was jointly implemented with the Royal Thai Survey Department (RTSD). At this time, the activity conducted under the project is Multi-Purpose Survey, which includes Investigation, Refixation, and Maintenance for the Malaysia–Thailand International Boundary.

The achievement of the activities for investigation, refixation and border maintenance in Priority Area V (BP3-BP7C), Priority Area III (BP16-BP27) for the year 2016 is as follows:

NO.	AREA	AWT 2016	ACHIEVEMENT
Priority Area V- (BP3 - BP7C)			
1	Section A - BP3 - BP3/151	6.3 km	6.3 km (100%)
2	Section B - BP3/151 - BP5/20	6.0 km	6.0 km (100%)
3	Section C - BP5/20 - BP5/142	5.6 km	5.6 km (100%)
4	Section D - BP5/142 - BP6	6.4 km	6.4 km (100%)
5	Section E - BP6 - BP7/23	6.6 km	6.6 km (100%)
Priority Area III - (BP16 - BP27)			
6	BP21/18 - BP 21/29	1.4 km	1.4 km (100%)
TOTAL			32.3 km



In addition, the meetings related to the delimitation of the international land boundary between Malaysia and Thailand are as follows:

NO.	MEETING AND DISCUSSION	DATE
1	One Stop Centre (OSC) Series 3/2016 Meeting on the Memorandum from the Minister of Natural Resources and Environment (NRE): 24th Meeting Joint Land Boundary Committee Malaysia-Thailand in Putrajaya	11 January 2016
2	The 15th Pre-Council Joint Steering Committee (JSC) Partnership project between the Government of Malaysia and Thailand for the Conservation Muara Sungai Golok in Wisma Sumber Asli in Putrajaya	19 February 2016
3	Site Visit to Border Demarcation and Survey Project for the Permanent International Malaysia-Thailand Border in the Sungai Golok (Kolok River) and BRP Status Briefing and ARM in Kg. Pisau Raut and Kg. Naga Ibu after the Project Bank Normalizes in Sungai Golok in JUPEM Kelantan	1 March 2016
4	The 15th Joint Steering Committee on the Development of the Golok River Basin in Bangkok, Thailand	2 – 4 March 2016
5	Preparatory Briefing for Organizing 24th Meeting Organizing Committee of the 24th Joint International Boundary Demarcation and Survey of Malaysia - Thailand (LBC-24)	21 April 2016
6	Meeting of Post Mortem Joint Steering Committee No.15/2016 in Wisma Sumber Asli, NRE	29 April 2016
7	33rd Meeting of the High Level Committee Malaysia - Thailand in Bangkok, Thailand	20 – 24 June 2016
8	33rd Discussion of Co-Project Directors on the Joint Thailand - Malaysia Land Boundary Demarcation and Survey	12 – 14 July 2016
9	Inter Agencies Meeting on the Preparation of the Sixth Annual Consultation between the Prime Minister of Thailand and Prime Minister of Malaysia in Bangkok, Thailand	21 July 2016
10	Pre-Council Meeting on the 34th Meeting on the Joint Technical Working Group (JTWG) in Genting Highlands, Pahang	29 July 2016
11	Sixth Annual Consultation between the Prime Minister of Thailand and Prime Minister of Malaysia in Bangkok, Thailand	9 September 2016
12	53rd General Border Committee Malaysia-Thailand (GBC MALTHAI) in Kuala Lumpur	10 November 2016
13	Meeting on the Technical Preparatory of the Determination of Land Border Security Bil. 2/2016 in MKN, Putrajaya	14 November 2016
14	First Meeting of Secretariat of the Joint Malaysia - Thailand in Seremban, Malaysia.	14 December 2016



Malaysia – Indonesia Land Boundary

The 40th Malaysia-Indonesia International Boundary Joint Committee Meeting which was held in Bali, Indonesia on 22-24 March 2016 to discuss the Sarawak-West Kalimantan and Sabah-North Kalimantan International Boundary Demarcation Project which, among other was the Survey Programme for Year 2016. In the meeting, both sides had agreed to undertake survey work for investigation, refixation and maintenance (IRM) for Sabah-North Kalimantan Sector, at Sub-Sector A 700-A 800 in Priority Area I (A-B) with distance of 8.5 km and for Sarawak-West Kalimantan Sector at Sub-Sector H 100-H 300 in Priority Area VII (HI) with distance of 14.0 km.



The 46th Indonesia-Malaysia International Boundary Joint Technical Committee Meeting on Delimitation and Demarcation Project in Pulau Pinang, Malaysia on 20-22 September 2016 among others had reported the achievement for investigation, refixation, and maintenance work activities for the year 2016 as follows:

NO.	AREA	AWT 2016	ACHIEVEMENT
1	Sabah–North Kalimantan	8.5 km	8.5 km (100%)
2	Sarawak–West Kalimantan	14.0 km	14.0 km (100%)



Meetings related to the delimitation of the international land boundary between Malaysia and Indonesia in 2016 are as follows:

NO.	MEETING AND DISCUSSION	DATE
1	Preparatory Meeting of the Fortieth Meeting of the Joint Indonesia - Malaysia Boundary Committee on the Demarcation and Survey of the International Boundary in Wisma JUPEM, Kuala Lumpur	10 March 2016
2	Preparatory Meeting of the Fortieth Meeting of the Joint Indonesia - Malaysia Boundary Committee on the Demarcation and Survey of the International Boundary in Putrajaya	16 March 2016
3	Pre-Meeting 40th Joint Indonesia - Malaysia (JIM) in Wisma JUPEM	12 April 2016
4	Inter-Division Meeting (Boundary Affairs Division, Legal Advisor JUPEM and Topographic Division Sabah) on the Outstanding Boundary Problem (OBP) in Wisma JUPEM	18 April 2016
5	Preparatory Meeting for the Secretariat of Joint Malaysia - Indonesia Boundary Committee in Putrajaya	6 May 2016
6	Meeting of Secretariat on the Joint Malaysia - Indonesia Boundary Committee in Johor Bahru	10 May 2016
7	Preparatory Meeting of the 13th Meeting on the High Level Committee Malaysia - Indonesia in Wisma Pertahanan	23 May 2016
8	Meeting to discuss further actions on the outcome of the Fortieth Meeting of the Joint Indonesia - Malaysia Boundary Committee on the Demarcation and Survey of the International Boundary	22 June 2016
9	Informal Scientific and Technical Discussion on the Issue of Land Boundary Between Indonesia and Malaysia in Wisma JUPEM	23 June 2016
10	The 11th Annual Consultation between Prime Minister of Malaysia and President of The Republic of Indonesia in Jakarta, Indonesia	1 August 2016
11	The 44th Meeting of The Co-Project Directors for Sabah and Kalimantan Utara on The Demarcation And Survey of The International Boundary Between Malaysia (Sabah) and Indonesia (Kalimantan Utara) (MICD-44) in Miri, Sarawak, Malaysia	2 - 4 August 2016
12	13th Meeting of the JWG on Common Border Datum Reference Frame and Joint Border Mapping Malaysia - Indonesia in Bandung, Indonesia	4 – 5 August 2016
13	9th Meeting of The Joint Working Group On The Outstanding Boundary Problems (JWG-OBP) On The Joint Demarcation And Survey Of The International Boundary Between Malaysia (Sabah) And Indonesia (Kalimantan Utara) in Manado in Sulawesi Utara, Indonesia	30 August 2016 – 1 September 2016
14	Scientific and Technical Discussion on the Common Border Datum Reference Frame (CBDRF) Project Between Malaysia and Indonesia in Genting Highlands	16 -18 November 2016
15	The 34th Session Indonesia-Malaysia SOSEK Working Committee Conference in Kuala Terengganu	28 November 2016

NO.	MEETING AND DISCUSSION	DATE
16	Brainstorming session on the Outstanding Boundary Problems on the Demarcation and Survey of the International Boundary Between Malaysia (Sabah) & Indonesia (Kalimantan Utara) in Shah Alam, Selangor	1 - 2 December 2016
17	Informal Discussion JWG-OBP on the Demarcation and Survey of the International Boundary Between Malaysia (Sabah) & Indonesia (Kalimantan Utara)	16 - 17 December 2016

Malaysia – Indonesia Maritime Boundary

Technical Meeting on Maritime Boundary Restriction Issues between Malaysia and Indonesia are in the form of scheduled meetings and being held periodically since year 2005 led by the Ministry of Foreign Affairs (KLN). In addition, Technical Working Group (TWG) on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia headed by the Director of Survey (Boundary Affairs Division), Department of Survey and Mapping Malaysia was established under this Technical Committee to discuss technical issues related to the delimitation of maritime boundaries between Malaysia and Indonesia.



The meetings related to maritime boundaries between Malaysia and Indonesia held in 2016 are as follows:

NO.	MEETING AND DISCUSSION	DATE
1	Preparatory Meeting for the Special Envoy Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in Ministry of Foreign Affairs, Putrajaya	5 February 2016
2	Special Envoy Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in Bali, Indonesia	11 - 12 February 2016
3	The 29th Technical Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in Jakarta, Indonesia	15 – 17 March 2016
4	Preparatory Meeting to Discuss Preparation of Draft of Term of Reference (TOR) for the Joint Verification Work in the vicinity of Pulau Sebatik, Sabah in 8th Floor, Wisma JUPEM	23 March 2016
5	Meeting to Discuss Follow-up Actions on 29th Technical Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in 8th Floor, Wisma JUPEM	1 April 2016
6	Inter-Agency Meeting to Follow-up on 29th Technical Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in 8th Floor, Wisma JUPEM	11 April 2016
7	30th Technical Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in 8th Floor, Wisma JUPEM	19 July 2016
8	3rd Meeting Between The Special Envoy of Malaysia and The Special Envoy to The President of The Republic of Indonesia for Maritime Boundaries Delimitation Between Malaysia and Indonesia in Kuala Lumpur	20 July 2016
9	Inter-Agency Meeting for the Special Envoy Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in Ministry of Foreign Affairs, Putrajaya	15 August 2016
10	Preparatory Meeting of the Inter-Agency to Coordinate Malaysia's Stand in 4th Meeting Between The Special Envoy Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in Ministry of Foreign Affairs, Putrajaya	19 September 2016
11	4th Meeting Between The Special Envoy Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in Yogyakarta, Indonesia	22 – 23 September 2016
12	1st Intersessional Technical Working Group (ITWG) Meeting on Maritime Boundaries Delimitation between The Republic of Indonesia and Malaysia in Bandung, Indonesia	14 – 15 October 2016
13	Visit to Pulau Sebatik by the Technical Working Group Members and Special Envoy for the Maritime Boundaries Delimitation in Pulau Sebatik, Sabah	25 October 2016

NO.	MEETING AND DISCUSSION	DATE
14	Preparatory Meeting of the Inter-Agency for 2nd Intersessional Technical Working Group (ITWG) Meeting on Maritime Boundaries Delimitation between The Republic of Indonesia and Malaysia in Ministry of Foreign Affairs, Putrajaya	31 October 2016
15	2nd Intersessional Technical Working Group (ITWG) Meeting on Maritime Boundaries Delimitation between The Republic of Indonesia and Malaysia in Seremban	2-4 November 2016
16	Inter-Agency Meeting for the Special Envoy Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in Ministry of Foreign Affairs, Putrajaya	2 December 2016
17	Inter-Agency Meeting for the Special Envoy Meeting on Maritime Boundaries Delimitation between Malaysia and The Republic of Indonesia in Ministry of Foreign Affairs, Putrajaya	8 December 2016
18	Briefing of Special Envoy with Technical Working Group to the Prime Minister of Malaysia in Prime Minister's Office, Putrajaya	9 December 2016



Issue of Overlapping Claims In The South China Sea

The Republic of the Philippines had submitted Arbitral Proceedings to the International Tribunal for the Law of the Sea (ITLOS) towards People's Republic of China (PRC) on 22 January 2013 regarding on the issue of overlapping claims in the South China Sea. This procedure was under the provisions of Annex VII to the United Nations Convention on the Law of the Sea 1982 regarding with the issue. In the latest development, on 12 July 2016, the Arbitral Tribunal had announced the Award in the Arbitration Initiated by the Republic of the Philippines against the People's Republic of China under Annex VII to the UNCLOS.

Arbitral Proceedings submitted by the Philippines against China is related to the issue of overlapping claims in the South China Sea which both countries have been making claims on the part of the Malaysian maritime areas in the South China Sea. In the year of 2009, both of the countries had objected to Malaysia-Vietnam Joint Submission on the extended of Continental Shelf according to the Article 76, UNCLOS 1982 in respect of the southern part of the South China Sea. The results on the Arbitral Proceedings will give legal effect to the Malaysia-Vietnam Joint Submission, Claim Limits of the Continental Shelf Malaysia-Vietnam and Malaysia maritime areas in the South China Sea.

JUPEM through Border Affairs Division has involved in conducting a study and attend meetings related to the South China Sea issues, chaired by the Ministry of Foreign Affairs. The meetings held in the year of 2016 were as follows:

NO.	MEETING AND DISCUSSION	DATE
1	Monthly Consultation of Security and Development Issues in the South China Sea No. 7/2016 in the Ministry of Defense, Kuala Lumpur	9 February 2016
2	Meeting of the South China Sea - Proposed Actions to be taken by Malaysia on Arbitral Proceedings Submitted by the Philippines Against the People's Republic of China in Ministry of Foreign Affairs, Putrajaya	7 March 2016
3	Discussion of the South China Sea - Proposed Actions to be taken by Malaysia on Arbitral Proceedings Submitted by the Philippines Against the People's Republic of China in Ministry of Foreign Affairs, Putrajaya	13 April 2016
4	Discussion on the Issues in South China Sea in Ministry of Foreign Affairs, Putrajaya	13 April 2016
5	Monthly Consultation of Security and Development Issues in the South China Sea No. 8/2016 in the Ministry of Defence, Kuala Lumpur	8 June 2016
6	Meeting of the South China Sea - Proposed Actions to be taken by Malaysia on Arbitral Proceedings Submitted by the Philippines Against the People's Republic of China in Ministry of Foreign Affairs, Putrajaya	1 July 2016
8	Meeting to Discuss the Results of the Special Survey in Hempanan Bantin in Gugusan Beting Patinggi Ali, South China Sea in Ministry of Foreign Affairs, Putrajaya	4 August 2016
9	Inter-Agency Meeting to Discuss on Awards of Arbitral Proceedings Submitted by the Philippines Against the People's Republic of China on South China Sea Issues in Ministry of Foreign Affairs, Putrajaya	28 September 2016

Malaysia - Brunei Darussalam Land Boundary

In the year 2016, both sides had agreed to carry out the Malaysia–Brunei Darussalam International Boundary Demarcation and Survey for part of Sector (K-L) SL07/21-FL08.

The Joint Survey Team had started to delimit and demarcate the Malaysia-Brunei International Boundary for part of Sector (K-L) SL07/21-FL08 with a distance of 7 km.

Until 31 December 2016, the Joint Survey Team had carried out survey and demarcation works for a distance of 9.9 km.

The achievement of the survey activity for year 2016 is as follows:

AREA	AWT 2016	ACHIEVEMENT
Sector (K-L) SL07/21 - FL08 (7.0 km)	7.0 km	9.9 km (141%)





Meetings related to the delimitation of Malaysia and Brunei international land boundary were held as follows:

NO.	MEETING AND DISCUSSION	DATE
1	18th Inter-Agency Meeting to Discuss on Implementation of Exchange Of Letters (EOL) between Malaysia and Brunei Darussalam in Ministry of Foreign Affairs, Putrajaya	4 March 2016
2	16th Bilateral Meeting on Implementation of Exchange Of Letters (EOL) between Malaysia and Brunei Darussalam in Kuala Lumpur	16 March 2016
3	Inter-Agency Meeting to Discuss the Draft of Joints Statement and Substantive Preparations for the 20th Annual Leaders' Consultation between Malaysia and Brunei Darussalam in Ministry of Foreign Affairs, Putrajaya	5 - 7 April 2016
4	Inter-Agency Meeting to Discuss the Draft of Joints Stinement and Substantive Preparations for the 20th Annual Leaders' Consultation between Malaysia and Brunei Darussalam in Ministry of Foreign Affairs, Putrajaya	22 September 2016
5	20th Annual Leaders' Consultation between Malaysia and Brunei Darussalam in Putrajaya	4 October 2016

Malaysia Continental Shelf Project

Article 76, The United Nations Convention on the Law of the Sea (UNCLOS) 1982 required the coastal states that wish to establish the external boundary of the continental shelf beyond 200 nautical miles from the baseline of its territorial sea to submit scientific data and technical information to the Commission on the Limits of the Continental Shelf (CLCS) by the latest on 13 May 2009. In accordance to that, a Continental Shelf Subcommittee Meeting that was held at National Security Council (MKN), Prime Minister Department on 25 August 2001 had established a Continental Shelf Working Group where JUPEM was appointed as the Lead Agency to collect, analyse and prepare the submission document to CLCS.

The Cabinet on 23 July 2008 had agreed the continental shelf claims to be submitted as a Joint Submission with Vietnam. Regard to this, the Joint Submission document of Malaysia and the Socialist Republic of Vietnam had been successfully submitted to the CLCS at the Organisation of the United Nations, New York on 6 May 2009. Subsequently, Malaysia and the Socialist Republic of Vietnam had presented the Malaysia-Vietnam Joint Submission preliminary presentation on the 24th session of the CLCS at the Organisation of the United Nations Headquarters, New York, United State of America on 27 August 2009. However, on 1 October 2009 CLCS had suspended the consideration to review the Joint Submission document following the Objection Notes from the People's Republic of China and the Philippines. CLCS decision to suspend the Joint Submission was the first obstacle that needed to be addressed jointly by Malaysia and Vietnam in ensuring the Joint Submission document could be reviewed and subsequently received recommendations from CLCS.

In relation to that, the Cabinet decision dated 22 April 2009, among others, had agreed that the Malaysia unilateral or joint submission preparation for the remaining portion of the extended continental shelf to be continued. Therefore, till date JUPEM with other agencies involved are preparing the submission document for the purpose of reclaiming the remaining continental shelf limit known as Malaysia Continental Shelf Project Phase II. Activities are carried out and aim to ensure the continuity of the Malaysia Continental Shelf Project Phase II simultaneously with assigned plans inclusive of meetings, discussions and training to junior officers to preserve the sustainability of the Malaysia Continental Shelf Project for national interest. Among the activities and meetings held achievements for the year 2016 were as follows:



NO.	MEETING AND DISCUSSION	DATE
1	Meeting of Malaysia Continental Shelf Committee No. 1/2016 in National Security Council, Putrajaya	28 January 2016
2	Training to the Young Officers of the Malaysia's Continental Shelf Project on Introduction to Geology and Geophysics relating to Malaysia's Claims on the Limits of the Continental Shelf in accordance with Article 76, UNCLOS 1982 in Ministry of Defense, Kuala Lumpur	13 April 2016
3	Meeting of Trust Fund Committee of the Malaysia's Continental Shelf Project No. 1/2016 in National Security Council, Putrajaya	13 June 2016
4	Meeting of Technical Working Group of Continental Shelf No. 1/2016 in Wisma JUPEM	24 June 2016
5	Meeting of Technical Working Group of Continental Shelf No. 2/2016 in Wisma JUPEM	24 October 2016
6	Briefing on Overview of Malaysia's Continental Shelf Project and Way Forward by Sr Tan Ah Bah in Wisma JUPEM	15 November 2016
7	Inter-Agency Meeting for 17th Malaysia-Vietnam Joint Technical Expert Committee (JTEC) Meeting on Issue of Joint Submission Pursuant to Article 76 of United Nations Convention on The Law of the Sea (UNCLOS) 1982 in National Security Council, Putrajaya	18 November 2016
8	17th Malaysia-Vietnam Joint Technical Expert Committee (JTEC) Meeting On Issue Of Joint Submission Pursuant To Article 76 Of United Nations Convention On The Law Of The Sea (UNCLOS) 1982 in Kuala Lumpur	22-24 November 2016
9	Meeting of Trust Fund Committee of the Malaysia's Continental Shelf Project No. 2/2016 in National Security Council, Putrajaya	22 December 2016



STATE BOUNDARIES

The Joint Border Demarcation And Survey Project Between The States Of Peninsular Malaysia

Overall, the border between the states in Peninsular Malaysia involving 19 sectors with an estimated distance between the states is 2,540.6 km, of which, over 1,428.8 km (56.2%) has been carried out demarcation and survey works.

The achievement of joint border demarcation and survey activities between Selangor State and Negeri Sembilan State for the year 2016 is as follows:

STATE BOUNDARY	AWT 2016	ACHIEVEMENT
Selangor State - Negeri Sembilan State	19.4 km	19.4 km (100%)



Joint Border Survey for Selangor State and Negeri Sembilan State for the year of 2016

The achievement of joint border demarcation and survey activities between Perak State and Kelantan State for the year 2016 is as follows:

STATE BOUNDARY	AWT 2016-2017	ACHIEVEMENT
Perak State – Kelantan State (The target for demarcation and survey works completion for the Priority Area I & II is by the end of 2017)	84.5 km	21.6 km (100%)



Joint Border Survey for Perak State and Kelantan State for the year of 2016

The following is the department's attended list for meetings related to boundary between states in 2016:

NO.	MEETING AND DISCUSSON	DATE
1	Joint Secretariat for the Memorandum of Understanding (MoU) between the Border Demarcation and Delimitation between Kelantan and Perak in the Impiana KLCC Hotel, Kuala Lumpur	15 February 2016
2	Planning and Coordination Meeting of the Joint Boundary Survey of the States in Peninsular Num. 1/2016 in JUPEM, Kuala Lumpur	25 February 2016
3	Meeting to Discuss the Technical Advisory Board and the Proposed Joint Border of Johor - Melaka and Technical Visit Programme in Muar, Johor	8 March 2016
4	Meeting and Site Visit to Project Joint Border Demarcation and Survey of the Stine of Perak and Kelantan in Priority Area I in JPS, Cameron Highlands, Pahang	21 March 2016
5	Cadastral Information Coordination Meeting of the Joint Border Demarcation and Survey of Negeri Sembilan and Selangor No.1 / 2016 in JUPEM Negeri Sembilan	29 March 2016
6	Discussions relined to the provision in Terms of Reference (ToR) for the boundary Demarcation between the Stine of Selangor and the Federal Territory of Kuala Lumpur in JUPEM Kuala Lumpur	8 April 2016
7	Planning and Coordination Meeting of the Joint Boundary Survey of the States in Peninsular Num. 2/2016 in JUPEM, Kuala Lumpur	27 April 2016
8	Continued discussion of Planning and Coordination Meeting of the Working Boundary Survey of the States of Peninsular Malaysia Num. 2/2016 between Boundary Affairs Division and Cadastral Division in Wisma JUPEM, Kuala Lumpur	10 May 2016
9	Briefing on the Stine Boundaries to the Directors of Surveying and Mapping Stine in Wisma JUPEM, Kuala Lumpur	30 May 2016
10	Meeting "Outreach and Engagement Programme" Series 1/2016 To Discuss Border Demarcation and Survey Project Joint Stine-Federal Territory of Kuala Lumpur, Selangor, Federal Territory of Putrajaya, Selangor, Pahang, Selangor, Perak and Selangor, Negeri Sembilan in Putrajaya	8 June 2016
11	The Coordination Meeting of the Border States Cadastral Division, Border Affairs Division and Division Topography Peninsular Malaysia in Wisma JUPEM, Kuala Lumpur	10 June 2016
12	Meeting of the Joint Boundary Selangor - Pahang in JUPEM Selangor	10 June 2016
13	Meeting to Discuss about 12 of 32 issues Outstanding Boundary Problem between Kuala Lumpur and Selangor District Surveyor in JUPEM WP Kuala Lumpur / Putrajaya	15 June 2016

NO.	MEETING AND DISCUSSON	DATE
14	Trust Fund Committee Meeting Project Joint Border Demarcation and Survey of the States in Peninsular Malaysia No. 1/2016 in NRE, Putrajaya	20 June 2016
15	Planning and Coordination Meeting of the Joint Boundary Survey of the States in Peninsular Num. 3/2016 in JUPEM Kuala Lumpur	13 July 2016
16	Discussion on the Draft Agreement on Border Kelantan - Terengganu and Astronomic Observation in Tanjung Geliga with regards to the Boundary of Pahang - Terengganu in Level 8, Wisma JUPEM	21 July 2016
17	Meeting "Outreach and Engagement Programme" Series 2/2016 To Discuss Border Demarcation and Survey Project Joint Kedah - Perlis, Perak - Pulau Pinang, Negeri Kelantan - Terengganu and Negeri Melaka - Negeri Sembilan in NRE, Putrajaya	9 August 2016
18	Coordination Meeting of the Joint Border Plan Preparation of Selangor - Pahang in JUPEM Selangor, Shah Alam	17 August 2016
19	Joint Technical Committee Meeting Boundary Demarcation and Survey of Malacca and Negeri Sembilan in PTG Melaka, Melaka	26 August 2016
20	Proposed Technical Coordination Meeting Planning Control, Development Control and Enforcement Covers 3 nautical miles of Malacca Territorial Water in PTG Melaka	7 September 2016
21	Melaka Stine Planning Committee Meeting Inter -88 Num. 3/2016 in Melaka	26 September 2016
22	Briefing and Discussion on Maritime Delimitation of the States in Peninsular Malaysia in the Ninional Archives, Kuala Lumpur	29 September 2016
23	Coordination Meeting of the Joint Border Demarcation and Survey of Kuala Lumpur and Selangor in JUPEM Selangor	20 October 2016
24	Meeting on the Consultation of Working Paper for Regional Planning Committee for Border Areas between Negeri Sembilan, Melaka and Johor Num. 2/2016 in Development Planning Unit, Johor Bharu	25 October 2016
25	Preparatory Meeting for the Meeting of the National Committee of the Joint Border Demarcation and Survey of the States in Peninsular Malaysia Num. 1/2016 in Wisma Sumber Asli, Putrajaya	25 October 2016
26	Meeting of the National Committee of the Joint Border Demarcation and Survey of the States in Peninsular Malaysia (JKPPSBN) Bill. 1/2016 in Wisma Sumber Asli, Putrajaya	27 October 2016
27	Trust Fund Committee Meeting Project Joint Border Demarcation and Survey of the States in Peninsular Malaysia No. 2/2016 in NRE, Putrajaya	20 December 2016

COURT CASE EXPERT WITNESS

JUPEM officers are called as expert witness in court involving cases where the foreign anglers and vessels encroached into Malaysia water. For the year 2016, there were 23 hearing cases attended to verify the intrusion location brought to court by the Enforcement Agency, Malaysian Maritime (APMM) and the Ministry of Domestic Trade, Co-Operatives and Consumerism (KPDNKK). The hearing cases attended were as follows:

NO.	MEETING AND DISCUSSION	DATE
1	Court Hearing of Foreign Fishing Vessel registration number BV TS 92979 TS and BV 92978 TS by Malaysia Maritime Enforcement Agency (MMEA), Kuching, Sarawak in the Magistrate's Court, Kuching, Sarawak	14 - 15 January 2016
2	Court Hearing of Foreign Fishing Vessel registration number BV TS 92979 TS and BV 92978 TS by Malaysia Maritime Enforcement Agency (MMEA), Kuching, Sarawak in the Magistrate's Court, Kuching, Sarawak	25-26 January 2016
3	Court Hearing of Vessel KM Usaha Makmur 2 linked Police Report Tg Tokong/002928/14 by Malaysia Maritime Enforcement Agency (MMEA), Pulau Pinang in the High's Court, Pulau Pinang	24 - 25 February 2016
4	Court Hearing of Case Number APMM-PM 102/250/15-07 by Malaysia Maritime Enforcement Agency (MMEA), Kuala Kedah in the Magistrate's Court, Alor Setar, Kedah	28 February 2016
5	Court Hearing of Fiber Boin without Registration Number by Malaysia Maritime Enforcement Agency (MMEA), in the Magistrate's Court, Batu Pahat, Johor	14 March 2016

NO.	MEETING AND DISCUSSION	DATE
6	Court Hearing of Local Fishing Vessel with Registration Number SBF48 by Malaysia Maritime Enforcement Agency (MMEA), Miri, Sarawak in the Magistrate's Court, Miri, Sarawak	15-17 March 2016
7	Court Hearing of Local Fishing Vessel with Registration Number SBF48 by Malaysia Maritime Enforcement Agency (MMEA), Miri, Sarawak in the Magistrate's Court, Miri, Sarawak	7 April 2016
8	Court Hearing of Cigarette Case linked Police Report PPUTIH Rpt/2475/15 by Marine Police, Tampoi, Johor Bahru in Magistrate's Court, Johor Bahru	24 May 2016
9	Court Hearing of Vessel MT Berjaya with Registration Number IMO No. 8513003 by Malaysia Maritime Enforcement Agency (MMEA), Johor Bahru in the Magistrate's Court, Johor Bahru	29-30 May 2016
10	Court Hearing of Cigarette Case linked Police Report PPUTIH Rpt/2475/15 by Marine Police, Tampoi, Johor Bahru in Magistrate's Court, Johor Bahru	26 June 2016
11	Court Hearing of Vessel MT Berjaya with Registration Number IMO No. 8513003 by Malaysia Maritime Enforcement Agency (MMEA), Johor Bahru in the Magistrate's Court, Johor Bahru	4 August 2016
12	Court Hearing of Carrying Illegal Items on Vessel linked Police Report PERMAS/000221/16 by Malaysia Maritime Enforcement Agency (MMEA), Johor Bahru in the Magistrate's Court, Johor Bahru	29 November 2016

MAP PUBLISHING

Measurement and data processing activities are carried out before producing a map. These activities involved data acquisition and survey data processing.

Data Acquisition

Data acquisition involved works such as aerial photography and preparation of contact prints, control point selection, preparation of field completion data set and orthophoto map. In addition, data acquisition activities also involved the preparation of satellite imagery orthorectification data and data preparation for Malaysian Armed Forces, public users, and other departments as well as private agencies.

The achievement of four (4) data acquisition activities for year 2016 is as follows:

NO.	ACTIVITY	AWT 2016	ACHIEVEMENT (SHEET) (%)
1	Airborne Data Acquisition	300	315 (105%)
2	Field Completion Data Set Preparation	75	60 (80%)
3	Orthophoto Map Preparation	100	106 (106%)
4	DTM and DSM Data Preparation	100	106 (106%)

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 1:5 000, 1:10 000 and 1:25 000, and are produced by means of photogrammetry and survey work in the field. The topographic database will be utilised again in the map revision process and is the latest source of digital data obtained from JUPEM. 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 carried out on the topographic data set using the latest technology available.

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 lead agency for Aeronautical, Geology, Hydrography, Transportation, Vegetation and General categories.

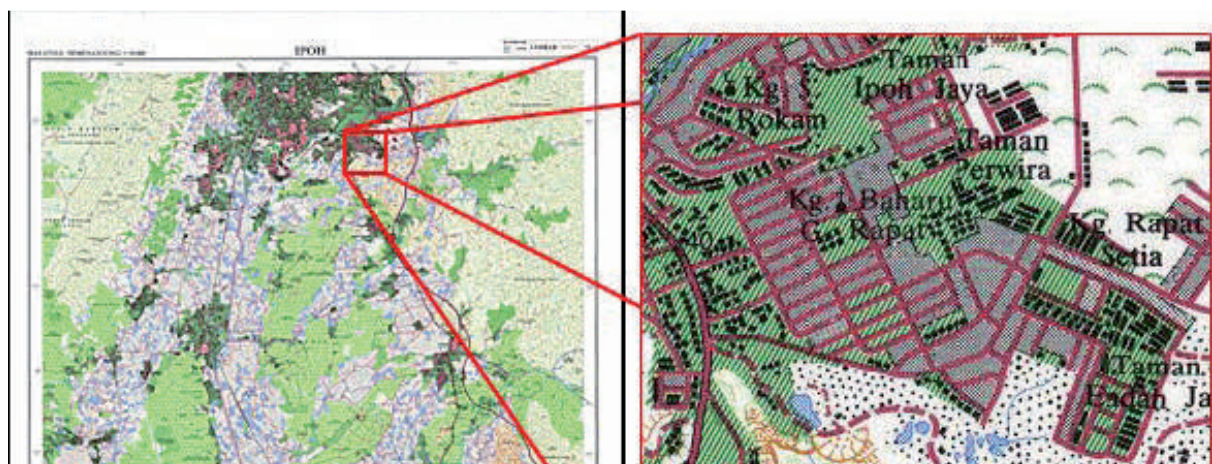
NO.	ACTIVITY	AWT 2016 (SHEET)	PENCAPAIAN (LEMBAR) (%)
1.	DTM and DSM Data Preparation	100	110
2.	Orthophoto Map Preparation	100	110
3.	Updating of 1:50 000 Scale Database	40	41 (102.5%)
4.	Updating of 1:25 000 Scale Database	160	66 (41.3%)
5.	Updating 1:5 000 & 1:10 000 Scale Database	180	189 (105%)
6.	Updating 1:5 000 & 1:10 000 Scale Database (outsourcing)	151	222 (147%)
7.	Joint Border Mapping Database Preparation (JBM)	20	20 (100%)
8.	Island Map Preparation	8 coverage	8 coverage (100%)
9.	Data Preparation for the Malaysian Armed Forces, Public Users and Other Departments/Private Agencies	500	621 (124%)

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 i.e. MY501T, MY502A and MY701T

The achievement for updating topographic map activities for year 2016 is as follows:

ACTIVITY	AWT 2016 (SHEET)	ACHIEVEMENT (SHEET) (%)
Updating Topographic Map	70	70 (100%)



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 for year 2016 is as follows:

NO.	ACTIVITY	AWT 2016 (SHEET)	ACHIEVEMENT (SHEET) (%)
1	Preparation of Various Topographic Map Series Proofs Check	200	255 (128%)
2	Preparation of Various Topographic Map Series Print Data	200	239 (120%)
3	Preparation of Various Thematic Map Series Proofs Check	22	24 (109%)
4	Preparation of Various Thematic Map Series Print Data	22	24 (109%)
5	Electronic Map Publishing	25	25 (100%)
6	Webmap and eMap Publishing	3	3 (100%)

Printing

Printing works in JUPEM involves three main activities that are printing, pre-printing, and post-printing. Apart from publishing printed maps, printing activities also include the designing, processing, and printing of various documents such as *Berita Ukur*, Annual Report, Compendium, Decrees, Security Documents and other non-map products.



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 for year 2016 is as follows:

NO.	ACTIVITY	AWT 2016	ACHIEVEMENT
1	Desktop Publishing (DTP)	160	160 (100%)
2	Proof	160	160 (100%)
3	Plates	1600	1633 (102%)

Topographic maps that were printed in 2016 are as follows:

NO.	SERIES	TOTAL SHEET	NOTE
1	L7030/DNMM5101	17	Reprint
2	MY501T/MY501A/MY502A	22	
3	MY701T/MY701A	159	
4	MY511T/MY511A/MY512A (Sabah)	2	
5	MY711T/MY711A (Sabah)	0	
6	MY511T/MY511A/MY512A (Sarawak)	35	
7	MY711T/MY711A (Sarawak)	20	
TOTAL		255	

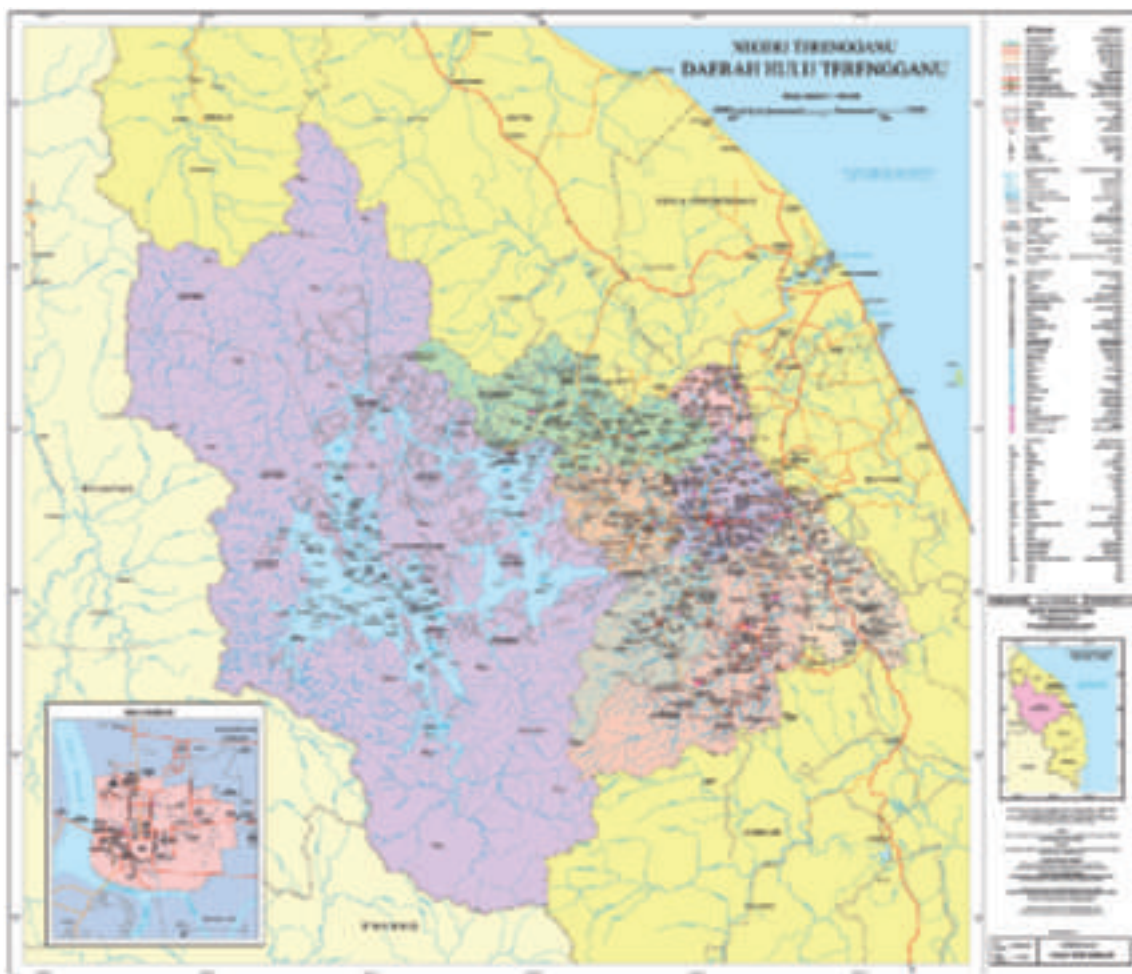
Detailed printed topographic maps are as follow:

SERIES NO.	STATE	SHEET NAME
MY502A	Pahang	Kg. Genuai, Temerloh, Kuala Kerau, Telemong, Kg. Kuala Sat, Kg. Gelinggang
	Kedah	Padang Mat Sirat, Alor Setar
	Johor	Pulau Tinggi, Bandar Mas, Pekan Nenas, Layang-Layang, Bandar Petri Jaya
	Kelantan	Manik Urai, Kg. Jenekih, Kota Bharu
	Terengganu	Bandar Baru Kerteh, Kg. Batu Rakit, Kuala Terengganu
	Pulau Pinang	Geogetown
	Perlis	Padang Besar
	Selangor	Tanjong Karang
MY512A	Sarawak	Sungai Tru, Bukit Durang, Kg. Long Pran, Sungai Para, Sg. Paran, Lundu, Kg. Naha Nyabong, Long Salt, Sungai Pejelai, Kampung Long San, Kampung Long Daloh, Kg. Ramudu, Saratok, Pakan, Batu Talang, Kampung Lio Moto, Lellang, Siburan, Sungai Laie, Sebauh, Long Lidam, Bukit Long, Kg. Sang Anau, Lubok Antu, Batang Baram, Bukit Lesong, Long Anap, Bukit Tasu, Simunjan, Kg. Kuala Tatau, Bukit Mutoh, Sg. Muang, Long Lamai, Long Moh, Kg. Bilik
	Sabah	Sapulut, Kg. Banting
MY701T/A	Pulau Pinang	Taman Robina, Kg. Sg. Nyiur, Bandar Baru Seberang Jaya, Kg. Surau Seberang Jaya, Kg. Sungai Lokan, Permatang Binjai, Bandar Prai, Kawasan Perusahaan Prai
	Kedah	Kg. Sg. Kuar Jawa, Kampung Tok Jamat, Kg. Pokok Pauh, Felda Bukit Tembaga, Kg. Keda, Pekan Naka, Kg. Bkt. Nambua, Bukit Pinang, Kg. Simpang Empat, Kg. Titi Hj. Idris, Taman Desa Kamila, Kg. Baru Temusu, Kg. Nawa, Kg. Pokok Machang, Kg. Keda Kubang Kenyang, Kg. Kubang Jelai, Sg. Paung, Tmn Sejati Indah, Tmn. Wira Indah / Sg. Petani, Kg. Kuala Lanjut / Kg. Kubang Pisang, Kg. Perting, Bandaraya Alor Setar, Bandar Mutiara, Kampung Bukit Choras, Bukit Belantik, Kg. Setol
	Selangor	Bandar Bukit Raja, Setia Eco Park, Kg. Bendang Raja, Kg. Sg. Kabor, Taman Sri Kota, Kg. Pangar, Kg. Baru Subang, Kg. Desa Putra
	Negeri Sembilan	Pekan Cengkau, Kg. Bendang Raja / Seremban, Kg. Chembong
	Pahang	Kg. Bentan Tengah, Pos Mensun, Kg. Pdg. Polo, Sungai Telum, Pos Lemoi, C'ron Highlands/Kg. Pangen, Bandar Tanah Rata, Kampung Permatang Keledang, Gunung Tangga, Kampung Batu Satu (Temerloh), Sungai Gajah, Kg. Kuala Terla, Kampung Pangsenam, Pekan, Kampung Ketapang, Sungai Beringin, Sungai Wi
	Perlis	Pekan Simpang Empat
	Terengganu	Kg. Bkt. Payong, Perkpgan Melayu Kg. Raja
	Melaka	Kg. Durian Daun
	Perak	Bukit Larah, Bukit Penyengat
	Johor	Kulai

SERIES NO.	STATE	SHEET NAME
MY711T/A	Sarawak	Tmn Distar / Bukit Aup, Kg. Pinang, Kg. Nangka, Lundu, Kg. Usahajaya Baru Sentosa
		Taman Hilltop Villa, Kg. Stutong, Taman Kiew Nang, Taman Bumiko, Kampung Payau
	Sabah	None

Thematic maps that were printed in 2016 are as follows:

NO.	TYPE OF MAP	TOTAL
1	Political/State/Physical Map	2
2	District Map	1
3	Various Thematic Maps	22
TOTAL		25



Details of thematic maps that were printed in 2016 are as follows:

SERIES NO.	MAP TYPE	SHEET NAME
MY90005R	State	<i>Peta Politikai Negeri Sabah, Peta Fizikal- cetak Ulang (Sabah)</i>
MY91001R	District	Putrajaya
-	JKR Street Map	Johor, Pulau Pinang, Kedah
-	Sourvenir Map	Malaysia
-	Mosque Map	<i>Peta Masjid di Santubong</i>
-	Kelantan District Map	<i>Tugu Peringatan Banjir</i>
-	JOG AIR Map	NB 47-08, NA 47-04 ED4, NA 49-46, NA 50-03, NA 50-15, NB 47-07 ED7, NB 48-14 ED3, NE 47-11 ED4, NE 47-12 ED6, NE 47-16 ED4, NB 48-05 ED5, NB 48-09 ED5, NB 48-13 ED4, NA 50-15
-	JBM	Lembar 41

The achievement for printing activities for year 2016 is as follows:

NO.	ACTIVITY	AWT 2016	ACHIEVEMENT
1	Topographic Map Printing	200	255 (128%)
2	Thematic Map Printing	22	25 (114%)
3	Non-map printing	160	160 (100%)

Post-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 for year 2016 is as follows:

ACTIVITY	AWT 2016	ACHIEVEMENT
Binding (Book)	70,000 (unit)	101,304 (145%)

Utility Mapping

Utility mapping involves the process of acquiring and identifying types of installations and public utility facilities that are embedded underground and providing utility information and position in a digital or hardcopy. A comprehensive and accurate information on 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 for year 2016 is as follows:

NO.	ACTIVITY	AWT 2016	ACHIEVEMENT
1	Utility data acquisition from utility agencies (updating)	Application submission, to obtain and to gather utility information for areas: 1. W.P Labuan 2. Nilai 3. Seremban 4. Port Dickson	(100%)
2.	Uploading of utility and base map data into National Utility Database (PADU)	Conduct review, process and fully uploaded utility data for areas:1. W.P Labuan 2. Nilai 3. Seremban 4. Port Dickson	100 % Utility data provider Indah Water Konsortium, Syarikat Air Negeri Sembilan, Jabatan Air Negeri Sembilan and Telekom Malaysia Berhad
3	Base Map preparation scale 1:500	550 sheets for mono digitising works and editing topographic details from orthophoto.	550 sheets (100%) i. Petaling Jaya – 285 sheets ii. Kajang – 265 sheets
4	Detection and survey of underground utility installation in the field	90 km iaitu: i. Hulu Selangor : 28.85 km ii. Selayang : 11.09 km iii. Kajang : 55.65 km	95.59 km (106.21%) i. Hulu Selangor : 28.85 km ii. Selayang : 11.09 km iii. Kajang : 55.65 km
5	Utility map preparation	62 sheets	64 sheets (103%) i. Putrajaya – 28 sheets ii. Cyberjaya – 36 sheets

The five years period achievement for 1:500 scale base map preparation activities is as follows:

YEAR	SKT	ACHIEVEMENT (SHEET)						TOTAL
		PUTRAJAYA	CYBERJAYA	KUALA SELANGOR	SHAH ALAM	SEPANG	PETALING JAYA	
2012	550	25	0	0	193	0	332	550
2013	550	375	0	0	0	100	75	550
2014	550	48	0	0	0	502	0	550
2015	550	0	0	0	0	125	425	550
2016	550	0	265	0		0	285	550
TOTAL		448	265	0	193	727	1117	2750

The five years period achievement for utility maps publication is as follows:

YEAR	AWT (SHEET)	ACHIEVEMENT (SHEET)	AREA
2012	37	39	Putrajaya & Cyberjaya
2013	46	50	Putrajaya & Cyberjaya
2014	50	53	Putrajaya, Shah Alam & Cyberjaya
2015	60	64	Putrajaya & Cyberjaya
2016	62	64	Putrajaya & Cyberjaya
	TOTAL	270	

Mapping Services

Coordinating and Mapping Policy Division consists of three main components which include the Mapping Policy Section, Mapping Coordinating Section, and National Map Library. Mapping Policy Section is responsible for coordinating policies and programs related to mapping through the Mapping and National Spatial Data Committee Meeting (JPDSN). Also, this section performs to regulate Mapping Division programs, coordinating the publication of GIS Bulletin, enact legislation and circulars relating to the provision of Mapping and prepare Mapping's ISO and cabinet paper.

The Mapping Coordinating Section serves as secretariat for Mapping Division meetings and events besides planning and monitoring Mapping Division operating and development budgets. This section also monitor the KPI and AWT achievement for mapping activities, asset management, training and courses as well as releasing Mapping Instruction.

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



The achievement for mapping services activities for year 2016 is as follows:

NO.	ACTIVITY	AWT 2016	ACHIEVEMENT
1	Topographic and Thematic Map Proof Checking (sheet)	370	370 (100%)
2	GIS Bulletin and JPDSN Publications (edition)	4	4 (100%)
3	Meeting Preparation (times)	22	24 (109%)
4	Library Collection Documentation (volume)	2,000	2,004 (100%)
5	Distribution of JUPEM's Publications Materials (copies)	3,300	3,300 (100%)
6	Library Services (Maps Procurement, Books, etc.) (copies)		
	i. Library Collections Development Acquisition (books/magazines/mapping materials)	800	837 (105%)
	ii. Library Collection Materials Documentation in the Library System (ILMU) (books/publication series/topographic maps/AV materials/photographic materials)	1500	1800 (120%)

CADASTRAL SURVEY

The success of JUPEM in developing and implementing the eKadaster system has provided a favourable impact on the overall performance of the States JUPEM and Federal Territories. The system successfully managed to shorten the process of survey and preparation of land title plans, thereby producing a high impact on the development of a fast-growing nation.

The utilisation of the latest information and communication technology (ICT), Geographic Information Systems (GIS), Global Navigation Satellite System, system modules and National Digital Cadastral Database (NDCDB) have made eKadaster an efficient system. For the continuity to make eKadaster system remains relevant and robust, improvements always made according to current technology and



Land Titles Survey

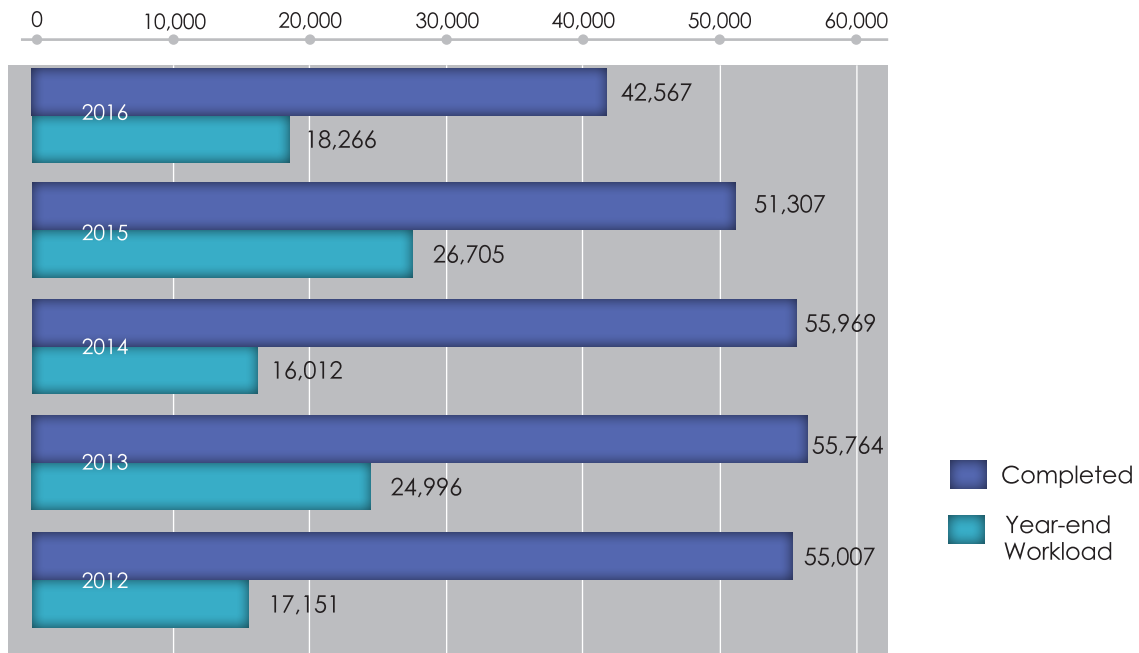
Progress achieved for Land Titles Survey activity for year 2016 was 42,567 lots or 99.90% from the annual target of 42,610 lots. Details on the performance and workload in accordance to JUPEMs' States is as shown in the table:

NO.	STATE	AWT 2016 (LOT)	ACHIEVEMENT		WORKLOAD (LOT)
			(LOT)	&	
1	Johor	6,400	5,610	88	4,124
2	Kedah	5,500	5,710	104	1,132
3	Kelantan	4,000	4,241	106	3,129
4	Melaka	1,600	1,713	107	71
5	Negeri Sembilan	1,500	1,398	93	353
6	Pahang	5,300	5,728	108	1,160
7	Perak	6,300	6,422	102	1,726
8	Perlis	1,800	1,460	81	1,433
9	Pulau Pinang	500	587	117	142
10	Selangor	3,500	3,436	98	4,045
11	Terengganu	5,900	6,082	103	778
12	W.P. Kuala Lumpur/ Putrajaya	220	82	37	162
13	W.P.Labuan	90	98	109	11
	TOTAL	42,610	42,567	99.90	18,266

The comparison of performance and workload for land titles survey for the last five years:

YEAR	2012 (LOT)	2013 (LOT)	2014 (LOT)	2015 (LOT)	2016 (LOT)
Completed	55,007	55,764	55,969	51,307	42,567
Year-end Workload	17,151	24,996	16,012	26,705	18,266





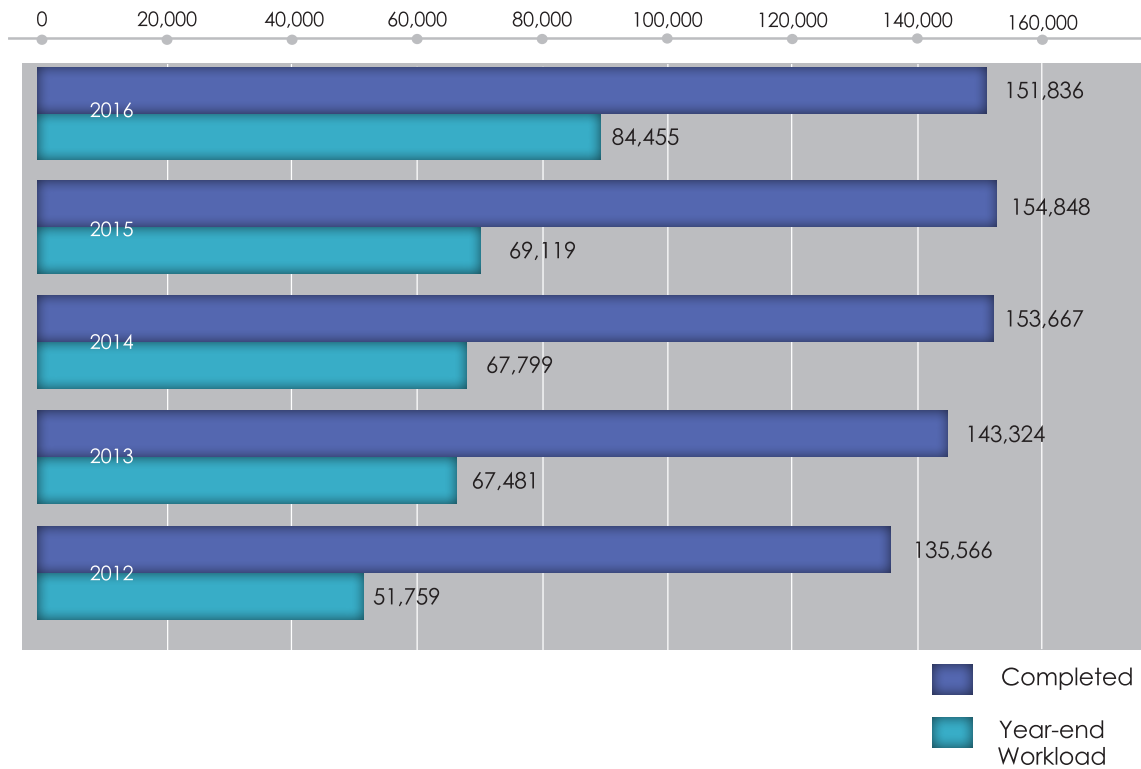
Checking of Licensed Land Surveyors (LLS) Survey

The achievement for Checking of Licensed Land Surveyors (LLS) Survey activity for year 2016 was 151,836 lots or 101% from the annual target of 150,020 lots. Overall achievement in accordance to JUPEMs' States is as shown in the table:

NO.	STATE	AWT 2016 (LOT)	ACHIEVEMENT		WORKLOAD (LOT)
			(LOT)	%	
1	Johor	25,000	26,474	106	16,365
2	Kedah	10,400	10,008	96	4,033
3	Kelantan	10,500	12,440	118	2,923
4	Melaka	3,600	4,704	131	3,977
5	Negeri Sembilan	11,000	11,343	103	3,022
6	Pahang	13,000	12,331	95	1,135
7	Perak	24,000	24,881	104	19,995
8	Perlis	1,400	1,544	110	87
9	Pulau Pinang	5,000	4,238	85	5,260
10	Selangor	32,300	29,373	91	24,043
11	Terengganu	13,200	13,986	106	3,099
12	W.P. Kuala Lumpur/ Putrajaya	500	382	76	501
13	W.P.Labuan	120	132	110	15
TOTAL		150,020	151,836	101	84,455

The comparison of performance and workload for checking of Licensed Land Surveyors (LLS) survey for the last five years:

YEAR	2012 (LOT)	2013 (LOT)	2014 (LOT)	2015 (LOT)	2016 (LOT)
Completed	135,566	143,324	153,667	154,848	151,836
Year-end Workload	51,759	67,481	67,799	69,119	84,455



Checking of Level I Strata Titles Survey

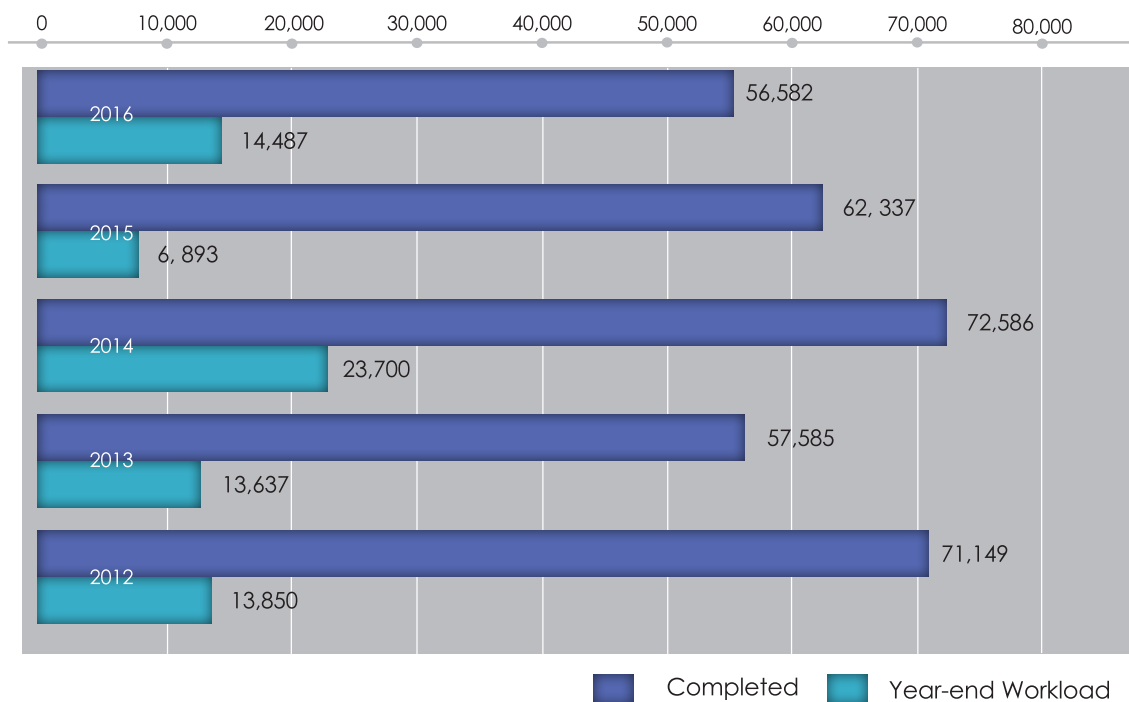
The 2016 achievement for Checking of Level I Strata Titles Survey was 56,582 parcels or 104% of the annual target of 54,500 parcels. The detail on the performance and workload is as shown in the table:



NO.	STATE	AWT 2016 (PARCEL)	ACHIEVEMENT		WORKLOAD (PARCEL)
			(PARCEL)	&	
1	Johor	4,000	4,035	101	400
2	Kedah	500	149	30	0
3	Kelantan	1,000	841	84	0
4	Melaka	1,000	2,273	227	0
5	Negeri Sembilan	1,000	0	0	0
6	Pahang	1,500	541	36	55
7	Perak	1,000	1,005	101	0
8	Perlis	0	0	0	0
9	Pulau Pinang	2,000	2,068	103	0
10	Selangor	30,000	31,695	106	10,096
11	Terengganu	500	527	105	477
12	F.T. Kuala Lumpur/Putrajaya	12,000	13,448	112	3,395
13	F.T.Labuan	0	0	0	64
TOTAL		54,500	56,582	104	14,487

The comparison of performance and workload for checking of level I strata titles survey for the last five years:

YEAR	2012 (PARCEL)	2013 (PARCEL)	2014 (PARCEL)	2015 (PARCEL)	2016 (PARCEL)
Completed	71,149	57,585	72,586	71,810	56,582
Year-end Workload	13,850	13,637	23,700	17,482	14,487



Checking of Level II Strata Titles Survey

Level II involved the Checking of Strata Certified Plans and Preparation of Strata Titles Documentation. The preparation of Strata Titles Documentation in 2016 achieved 43,705 parcels or 77% of 56,500 parcels annual target.

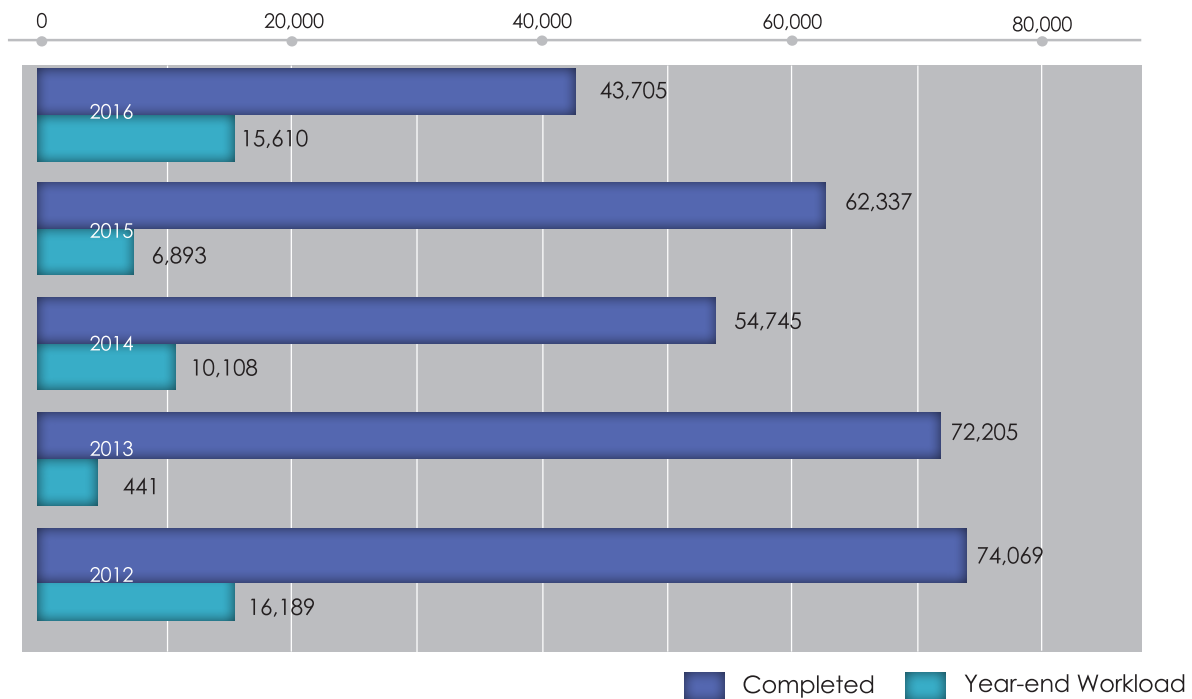


Details on the performance and workload in accordance to JUPEMs' State is as shown in the table:

NO.	STATE	AWT 2016 (PARCEL)	ACHIEVEMENT		WORKLOAD (PARCEL)
			(PARCEL)	%	
1	Johor	5,000	5,035	101	1,102
2	Kedah	500	653	131	0
3	Kelantan	1,000	278	28	0
4	Melaka	1,000	2,079	208	66
5	Negeri Sembilan	500	352	70	3
6	Pahang	500	488	98	0
7	Perak	500	2,241	448	763
8	Perlis	0	0	0	0
9	Pulau Pinang	7,000	8,232	118	503
10	Selangor	25,000	13,257	53	7,125
11	Terengganu	500	20	4	0
12	W.P. Kuala Lumpur/ Putrajaya	15,000	11,070	74	6,048
13	W.P.Labuan	0	0	0	0
TOTAL		56,500	43,705	77	15,610

The comparison of performance and workload for checking of level II strata titles survey for the last five years:

YEAR	2012 (PARCEL)	2013 (PARCEL)	2014 (PARCEL)	2015 (PARCEL)	2016 (PARCEL)
Completed	74,069	72,205	54,745	62,337	43,705
Year-end Workload	16,189	441	10,108	6,893	15,610



CRM Control Point Establishment

CRM (Cadastral Reference Mark) control point observations are carried out to enhance the precision and accuracy of NDCDB (National Digital Cadastral Database) in all JUPEMs' States.

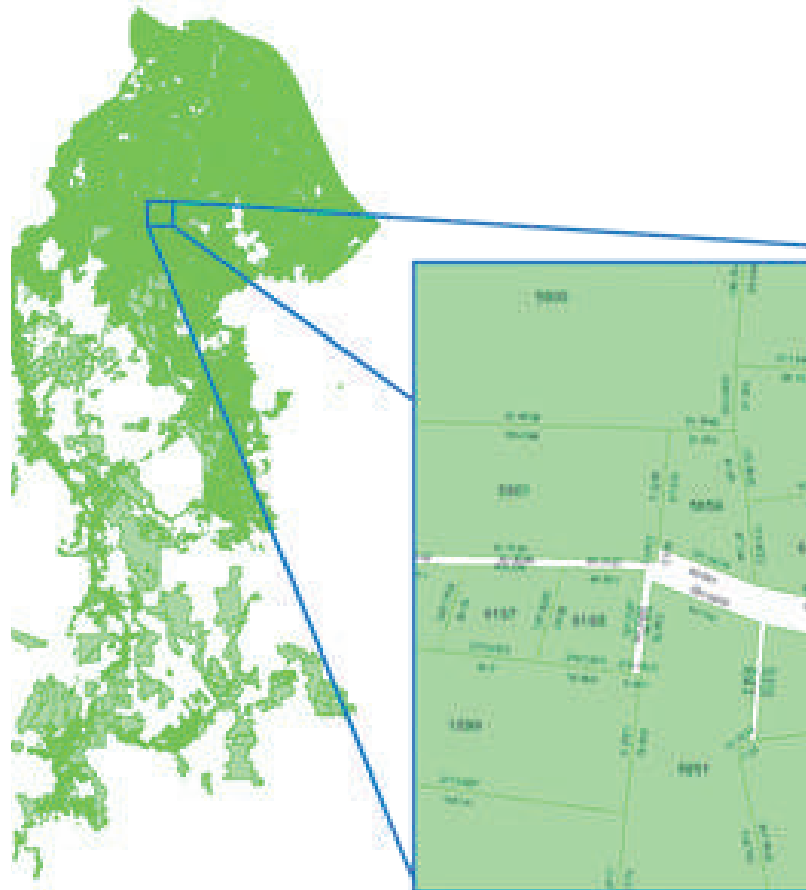
Observation performance for year 2016 is as follows:

STATE	CRM CONTROL POINT	
	FILE	CONTROL POINT
Johor	249	1,103
Kedah	3,040	5,753
Kelantan	1,897	4,920
Melaka	866	2,452
Negeri Sembilan	2,278	7,590
Pahang	2,650	8,874
Perak	2,349	7,939
Perlis	16	44
Pulau Pinang	134	404
Selangor	2,978	10,836
Terengganu	1,951	7,110
F.T. Kuala Lumpur/Putrajaya	385	1,076
F.T. Labuan	280	687
TOTAL	19,073	58,788

National Digital Cadastral Database (NDCDB)

The number of lots that had been updated to the National Digital Cadastral Database till 31 December 2016 is as follows:

STATE	NUMBER OF LOTS IN NDCDB
Johor	1,245,188
Kedah	703,040
Kelantan	640,672
Melaka	326,481
Negeri Sembilan	532,467
Pahang	622,964
Perak	1,060,685
Perlis	81,199
Pulau Pinang	335,149
Selangor	1,278,723
Terengganu	501,534
F.T. Kuala Lumpur/Putrajaya	176,534
F.T. Labuan	12,413
TOTAL	7,517,049



DEFENSE GEOSPATIAL DIVISION

Defense Geospatial Division (BGSP) has continuously implemented programs and activities that are significant in serving geospatial defence to the ATM through the following approaches:

- i. Empowering databases and publishing various quality, precise maps, and relevance products to meet the needs of defense and security.
- ii. Continuing the defense geospatial services assistance in the field for military operations, crisis management, defense planning and training, and in enforcement activities and implementation of geospatial data security clearance.
- iii. Continuing the uGEO for defense master plan program to establish a quality integrated system for digital information delivery, relevant and high precision services until 2030 for ATM readiness.
- iv. Realization transformation evolution in geospatial defense in uGEO for Defense program. The program focuses on the four main pillars of governance, information, and technology which has been restructured to achieve the outcome in line with the ATM Network-Centric Operation (NCO) development project.
- v. Interim Data Production Capability (IDPC) Development Project, BGSP applications transformation process and on-line information services directly from all NCO subsystems terminal in Malaysia.

Geospatial Defense and Security Services

BGSP continue to implement programs and activities that are significant in serving geospatial defense for ATM.

Overall achievement for the year of 2016 is as follows:

NO.	ACTIVITY	AWT 2016	ACHIEVEMENT
1	Geospatial Field Service Operation and Training for ATM	5	125%
2	Geospatial Data Acquisition Services	40	100%

Geospatial Field Service Operation and Training for ATM

BGSP has conducted five training activities to provide exposure to the officer and staff in the real situation geospatial services on the battlefield. In addition, BGSP also involved in Joint Training Network- Centric Operation (NCO) and the Joint Operational Planning Course (JOPC). Training activities report is as follows:

NO.	ACTIVITY	DATE
1	Joint Exercise with MK RAJD 2 Div at Kem Sanggro, Taiping, Perak	13-22 April 2016
2	Joint Exercise with Network Centric Operation (NCO) at Kuantan Airbase, Pahang	9-16 May 2016
3	KLPJ South East Shield Exercise No.25/2016 at Kem 501 AW, Tebrau, Johor Bahru kawasan sekitar.	17-29 July 2016
4	Joint Operational Planning Course (JOPC) No. 23/16 at Aminuddin Baki (IAB) Institute, Genting Highlands	19 September – 7 October 2016
5	Geospatial Mobile Systems (GSMS) services to Ex Land Strike 45/2016 organised by Malaysian Armed Forces Staff College (MTAT) No. 23/16 at Kuantan, Pahang.	26-30 September 2016

Data Acquisition with Unmanned Aerial Vehicle (UAV)

This data acquisition activities using a UAV (Bee RTK, Hexacopter, Skywalker, Dji Phantom), IckeGPS and Trimble conducted to assist the Ministry of Natural Resources and Environment (NRE), Malaysian Armed Forces (ATM), National Security Council (NSC) and Putrajaya Corporation (PPJ) for mapping and monitoring purposes. In the year 2016, a total number of 40 operations successfully conducted as follows:

NO.	LOCATION	DATE
1	Aerial Survey and Data Acquisition for RKAT ATM Kentonmen Camp and RKAT U-Thant Complex	4 – 8 January 2016
2	Environmental Pollution Monitoring of Bauxite Mining in Kuantan, Pahang	11 – 13 January 2016
3	Environmental Pollution Monitoring of Bauxite Mining and Bauxite Quantity Calculation in Kuantan, Pahang	17 – 18 February 2016
4	Environmental Pollution Monitoring of Bauxite Mining in Bukit Goh, Kuantan, Pahang	29 – 2 March 2016
5	Aerial Survey for Paya Jaras Camp, Sungai Buloh	9 – 14 March 2016
6	Aerial Survey for Utility Mapping of Kajang area Phase 1	28 – 1 April 2016
7	Aerial Survey for Kuantan Air Force Base, Pahang	4 – 8 April 2016

8	Aerial Survey for Putrajaya area	11 – 15 April 2016
9	Aerial Videography in Sangro Camp, Taiping	14 – 15 April 2016 and 18 – 22 April 16
10	Aerial Survey for Tanjung Malim area	27 – 29 April 16
11	Aerial Survey for Dam Monitoring in Timah Tasoh Dam, Perlis	12 May and 17 – 20 May 2016
12	Aerial Photography for Utility Mapping of Kajang area Phase 2	26 – 3 June 2016
13	Aerial Survey for flash floods effect in Ulu Telom area, Cameron Highlands	31 May – 3 June 2016
14	Aerial Videography in Kuala Kangsar area	13 June 2016
15	Aerial Survey and Videography in Sungai Besar area	15 – 16 June 2016
16	Aerial Survey for Dam Monitoring in Beris Dam, Kedah	7 June, 15 – 22 June 2016
17	Aerial Survey for Phase 3 Utility Mapping in Kajang	20 – 30 June 2016
18	Environmental Pollution Monitoring of Bauxite Mining and Bauxite Quantity Calculation in Kuantan Port, Pahang	27 – 30 June 2016
19	Aerial Survey for Kota Tinggi area	17 – 22 July 2016
20	Aerial Survey for Mahkota Camp, Kluang, Johor	23 - 24 July 2016
21	Aerial Survey for Land Invasion in Terisu and Batu 49 area	31 July - 5 August 2016
22	Aerial Survey for LPS Blue Valley, Cameron Highlands	14 – 17 August 2016
23	Aerial Survey for Jalan Duta area, Kuala Lumpur	22 – 26 August 2016
24	Monitoring for Land Invasion in Tringkap, Cameron Highlands No. 11/2016	22 – 28 August 2016
25	Monitoring for Land Invasion in Cameron Highlands No. 12/2016	5 – 9 September 2016
26	Aerial Survey for Tuaran and Keningau area	19 – 24 September 2016
27	Aerial Survey for Basalt Research in Tawau area	19 – 24 September 2016
28	Aerial Survey for Land Invasion in Lojing area, Kelantan	26 – 30 September 2016
29	Aerial Survey for Land Invasion in Ringlet, Cameron Highlands No. 13/2016	28 September – 4 October 2016
30	Aerial Survey for pollution monitoring of MRT project in Sungai Buloh and Kajang	10 – 14 October 2016

31	Aerial Survey for Logging Monitoring in Gunung Inas, Kedah	17 – 21 October 2016
32	Aerial Survey for High Tide in Kapar, Selangor	18-19 October 2016
33	Aerial Survey for Putrajaya area	24 – 28 October 2016
34	Monitoring for Land Invasion in Cameron Highlands No. 14/2016	30 Okt – 4 November 2016
35	Aerial Survey for Phase 3 & 4 Utility Mapping in Kajang	30 Okt – 4 November 2016
36	Aerial Survey for Menyala Shooting Area, Port Dickson	2 – 4 November 2016
37	Monitoring for Land Invasion in Cameron Highlands No. 15/2016	13 – 18 November 2016
38	Aerial Survey for River Monitoring in Ringlet, Cameron Highlands	28 November – 2 December 2016
39	Aerial Survey for Terendak Shooting Area, Melaka	28 November – 2 December 2016
40	Aerial Survey for Coastal Erosion of Mek Mas and Kemayang Beach, Kelantan	5 – 9 December 2016



Geospatial Defense Operation Centre Services

a. Portal / Web Services

In IDPC project, BGSP GeoHomepage Portal was developed to enhance the services with a user-friendly improved concept by adding data information, maps, and customization tools.

Also, this web portal using 'sharing responsibilities services' concept which gives the users the capability to update, delete and publish the data through web portal or service provided.

BGSP also meets the needs of Web Development GIS-based application for ATM in 2016. The achievement of activities is as follows:

NO.	ACTIVITY	DATE
1	Defense Operation Center (POP) GIS Portal for monitoring ATM operations (land, air, and sea).	25 February 2016
2	Engineering Defense Division (BPKP) GIS Portal for ATM immovable assets data registration	31 March 2016
3	5th Brigade Web GIS for boundary stones deployment and maintenance	15 March 2016
4	Web GIS for Markas Pemerintahan Wilayah Timur Tentera Darat (MK PWTTD)	1 April 2016
5	Geospatial Operations Section Web GIS, for aerial survey (UAV) monitoring tasks	23 June 2016
6	Army Operation Center Web GIS for international land border safety gazette area	19 August 2016
7	Markas Angkatan Bersama (MK AB) GIS Portal for monitoring and managing maritime operations in Eastern Sabah	21 October 2016
8	National Security Council (NSC) GIS Portal for monitoring Gading II Operation (illegal farming in Cameron Highland).	22 October 2016
9	Web GIS for R & Y restricted area	30 October 2016
10	2nd Infantry Division GIS Portal for monitoring operations in Eastern and Northern Peninsular Malaysia	7 November 2016
11	National Management Operation Centre (PPON) Web GIS for disaster monitoring	20 November 2016



b. BGSP Various Products Based on “Print On Demand”

In line with the implementation of IDPC project, ten different type of maps designed and planned for publication based on a request. The maps are as follows:

- (1) Tactical Pilotage Chart Skala 1:500 000
- (2) Joint Operation Graphic (Air) Skala 1:250 000
- (3) Topographic Line Map Skala 1:100 000
- (4) Topographic Line Map Skala 1:50 000
- (5) Common Operation Map Skala 1:50 000
- (6) Military Urban Map Skala 1:5 000
- (7) Military Orthophoto Map pelbagai skala
- (8) Firing Range Map
- (9) Facility Map

Apart from the standard products, BGSP also publishes thematic maps of various scales for the purpose of ATM military training, planning, and management. The achievement of activities is as follows:

NO.	ACTIVITY	AWT 2016	APPLICATION 2016	ACHIEVEMENT
1	BGSP various products based on “Print On Demand”	Based on request (100%)	28	28 (100%)

Map and chart supplied as follows :

NO.	TYPES OF MAPS AND CHARTS	TOTAL APPLICATION	NUMBER OF SHEETS
1	Military Orthophoto Map (Various scale)	5	22
2	Firing Range Map	5	18
3	Facility Map	1	02
4	Military Thematic Map (Various Scale)	17	120
TOTAL		28	162

c. DNMM (Directorate of National Mapping, Malaysia) Geospatial Range of Products to ATM

Through the IDPC project, a system database framework and the defense geospatial data model has been developed to meet the needs, especially for ATM. In this system, it becomes a One- Stop Centre (OSC) which DNMM range of products obtained. The DNMM products supplied is as follows:

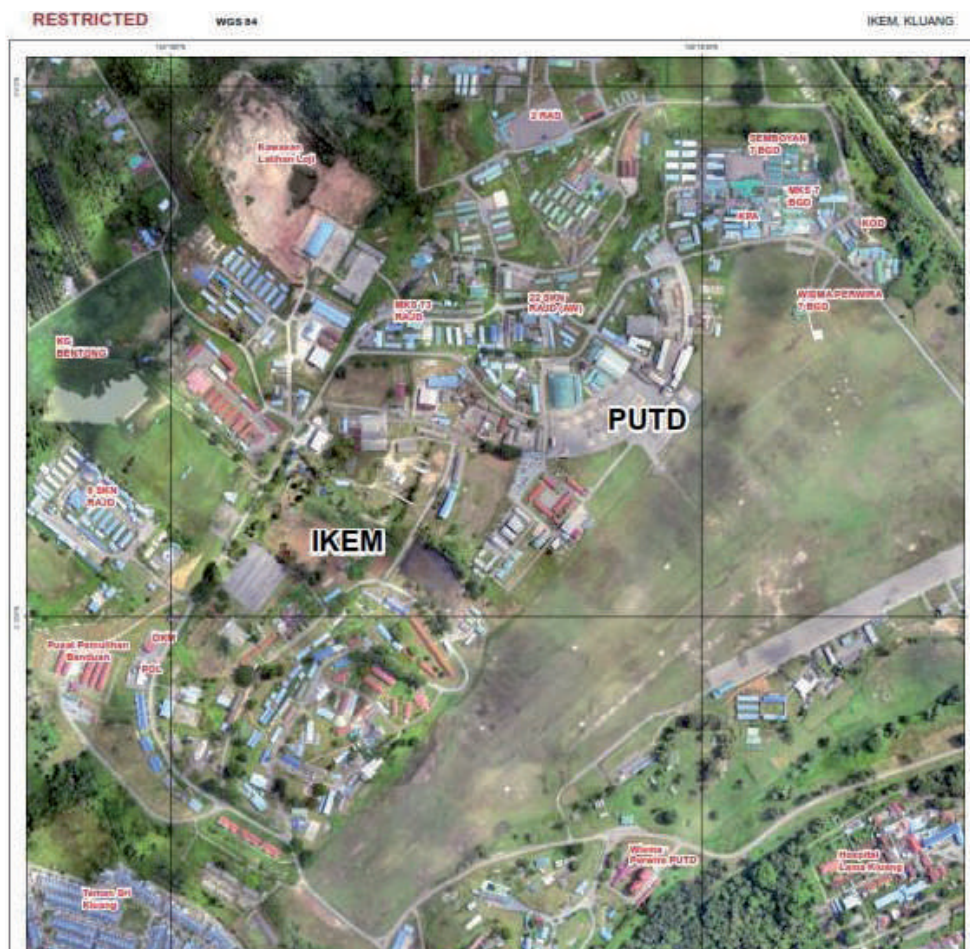
- i. Topographic Map L7030 and L738 Series
- ii. Topographic Map MY 501T and 511T Series
- iii. *Rampaian* Map
- iv. State Map
- v. Malaysia Physical Map
- vi. Orthophoto Map

The achievement of activities is as follows:

NO.	ACTIVITY	AWT 2016	APPLICATION 2016	ACHIEVEMENT
1	DNMM Geospatial Products to ATM	Based on application	97	97 (100%)

DNMM Geospatial Various Products to ATM is as follows:

NO.	DNMM GEOSPATIAL PRODUCTS	TOTAL APPLICATION	TOTAL NUMBER OF SHEETS
1	Topographic Map, L7030 and L738 Series	70	11,126
2	Topographic Map, MY Series	4	93
3	<i>Rampaian</i> Map	3	14
4	State Map	12	329
5	DGC Map – TPC / ONC / JOG	8	399
TOTAL		97	11,961



d. Geospatial Data Production Demand

Through the IDPC system, BGSP focus on addressing the needs of the data generation received from JUPEM in term of readiness and responsiveness to fulfill the ATM requirements.

The achievement report of the following activities is as follows:

NO.	ACTIVITY	ACHIEVEMENT
1.	Geocoding MY Map Series	118 sheets
2.	UAV Data and Image Validation	14 areas
3.	International Border Data Requirements	Entire Malaysia
4.	Cadastre Reference Mark Data Readiness	Entire Malaysia
5.	Data received from the Malaysian Communications and Multimedia Commission	Communication Towers data throughout Malaysia

e. Provide Technical Advice To The Procurement of ATM Defense Systems On The Geospatial Defense Data Needs

BGSP role is to provide technical advisory assistance to the ATM defense geospatial defense systems and modern weaponry which uses geospatial services. On each of ATM system development, BGSP involved in phases as follows:

NO.	ACTIVITY	ACHIEVEMENT
1	Phase 1. General Staff Requirements	Geospatial Advisory
2	Phase 2. System Specifications Preparation	Geospatial Advisory
3	Phase 3. Tender Evaluation and Selection	Geospatial Advisory
4	Phase 4. System Development	Geospatial Framework Development
5	Phase 5. First Acceptance	Sample Data Compatibility test
6	Phase 6. Final Acceptance	Real Data Compatibility Test

Achievement report of the following activities is as follows:

NO.	ACTIVITY	ACHIEVEMENT
1	Armoured Personnel Carrier (APC 8X8) Project	Phase 5
2	Airbus A400m Project	Phase 5
3	UAS –BSPP Project	Phase 5
4	Army Electronic Warfare Project	Phase 5
5	CM 200 Project	Phase 4



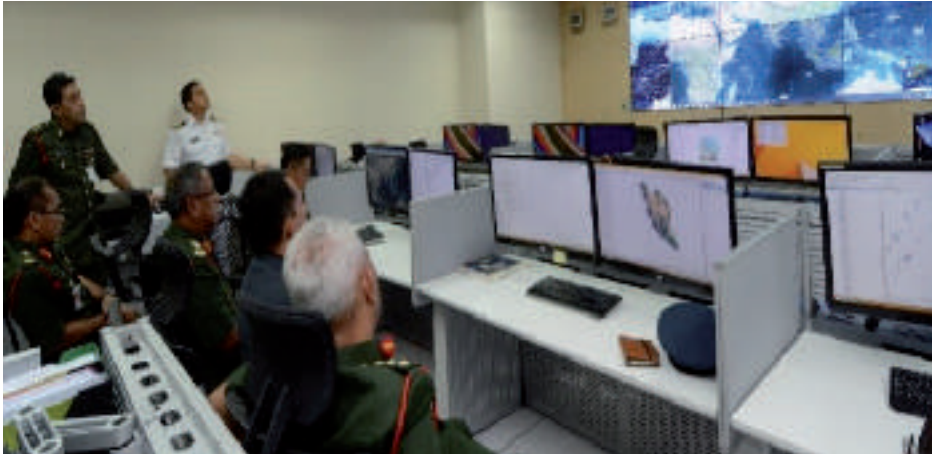


Geospatial Defence & Security Capability Management

For the continuation of the uGEO For Defense Master Plan program until 2030 and creating the digital services and integrated preparedness capability for ATM, BGSP has achieved geospatial defense and security activities in the year 2016 is as follows:

NO.	ACTIVITY	ACHIEVEMENT	
1	Outreach Programme	8 sessions	100%
2	Geospatial Defense Workshop	1 time	100%
3	Geospatial Defense Committee Meeting	1 time	100%
4	Permit Application (Aerial)	167 permits	100%
5	Security Clearance Application Process	347 applications	100%
6	R & Y Information Verification	12 states	600%
7	Geospatial Expertise Training	2 times	100%







FINANCIAL
REPORT

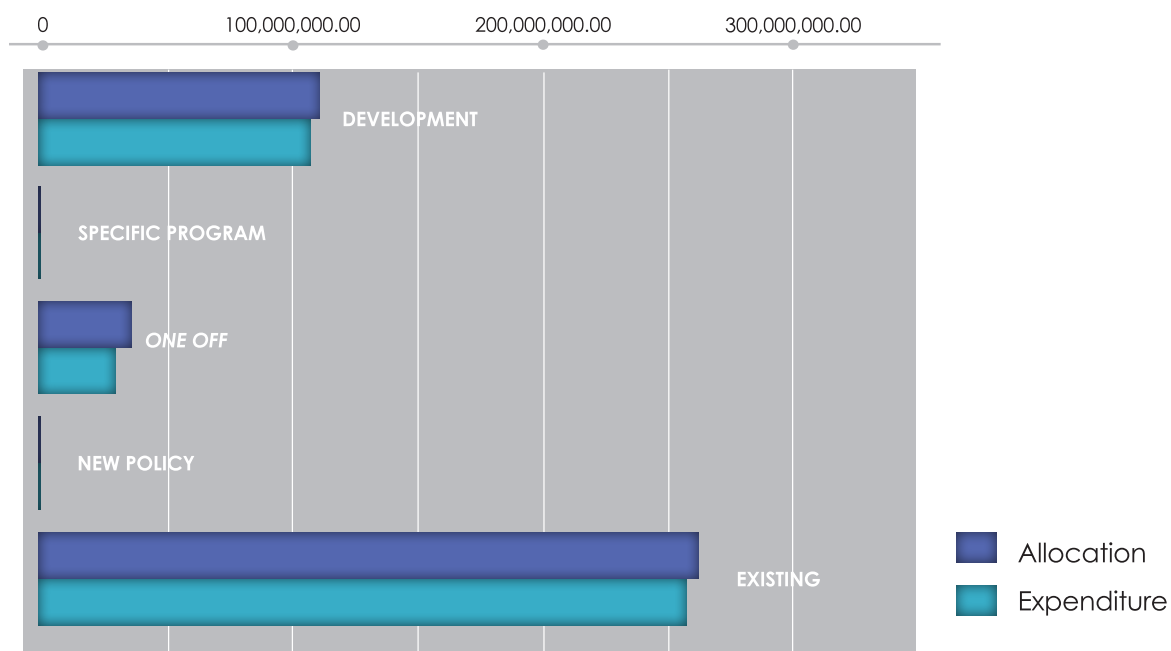
Financial Management

JUPEM received a financial allocation of RM 372,729,173.00 for the year 2016 covering Operating Expenditure (RM 261,667,564.65) and Development Expenditure (RM 110,762,737.15). Of this amount and up to 31 December 2016, RM 372,430,301.80 (99.91%) was spent.

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

ALLOCATION DISTRIBUTION	ALLOCATION RM	EXPENDITURE	
		RM	(%)
Existing	261,499,860.00	261,450,805.95	99.98
New policy	-	-	-
One-Off	-	216,758.70	65.27
Specific program	-	-	-
Development	110,897,210.00	110,762,737.15	99.88
OVERALL TOTAL	372,729,173.00	372,430,301.80	99.92

Financial performance in 2016 is as follows:



Operating Expenditure

An allocation of RM 261,667,564.65 under Operating Expenditure was approved in the year 2016 for expenditure on emoluments, services and supplies, grants and fixed allowances as well as other expenses. In addition, allocations was also approved for expenses under one-off.

EXISTING

GENERAL OBJECT	ALLOCATION (RM)	EXPENDITURE	
		(RM)	(%)
Emoluments	198,617,200.00	198,581,317.95	99.98
Services & Supplies	62,428,660.00	62,420,327.17	99.99
Assets	400,000.00	399,251.92	99.81
Grants And Fixed Allowances	51,000.00	49,908.91	97.86
Other Expenses	3,000.00	-	0.00
TOTAL	261,499,860.00	261,450,805.95	99.98

NEW POLICY

GENERAL OBJECT	ALLOCATION (RM)	EXPENDITURE	
		(RM)	(%)
Services & Supplies	-	-	-
TOTAL	-	-	-

ONE-OFF

GENERAL OBJECT	ALLOCATION(RM)	EXPENDITURE	
		(RM)	(%)
Oversea Courses	332,103.00	216,758.70	65.27
TOTAL	332,103.00	216,758.70	65.27

SPECIFIC PROGRAM

GENERAL OBJECT	ALLOCATION (RM)	EXPENDITURE	
		(RM)	(%)
Contract Employee Emoluments	-	-	-
TOTAL	-	-	-

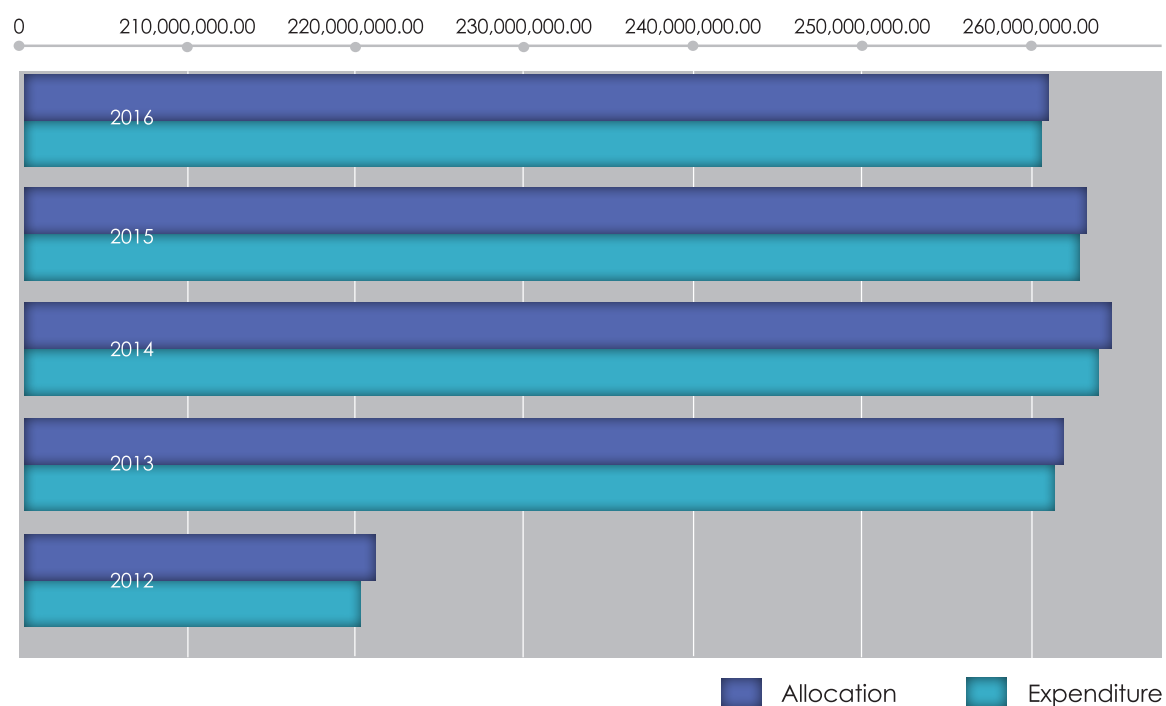
The overall achievement of operating expenditure allocation activities is as follows:

ACTIVITY	ALLOCATION (RM)	EXPENDITURE	
		(RM)	(%)
Existing	261,499,860.00	261,450,805.95	99.98
New Policy	-	-	-
One-Off	332,103.00	216,758.70	65.27
Specific Program	-	-	-
OVERALL TOTAL	261,831,963.00	261,667,564.65	99.93

The operating expenditure for the last five years is as follows:

YEAR	ALLOCATION	EXPENDITURE	PERCENTAGE (%)
2012	229,609,050.00	229,544,487.01	99.98
2013	264,863,999.00	262,383,633.48	99.06
2014	265,281,160.00	265,241,750.77	99.98
2015	264,921,470.00	264,902,218.70	99.99
2016	261,831,963.00	261,667,564.45	99.93

The total allocation and expenditure for the last five years is as shown in the following chart:



Development Expenditure

A total of RM 110,840,210.00 was allocated for Development Expenditure in year 2016 to implement development projects in the First Rolling Plan of the 11th Malaysia Plan (RMK-11).

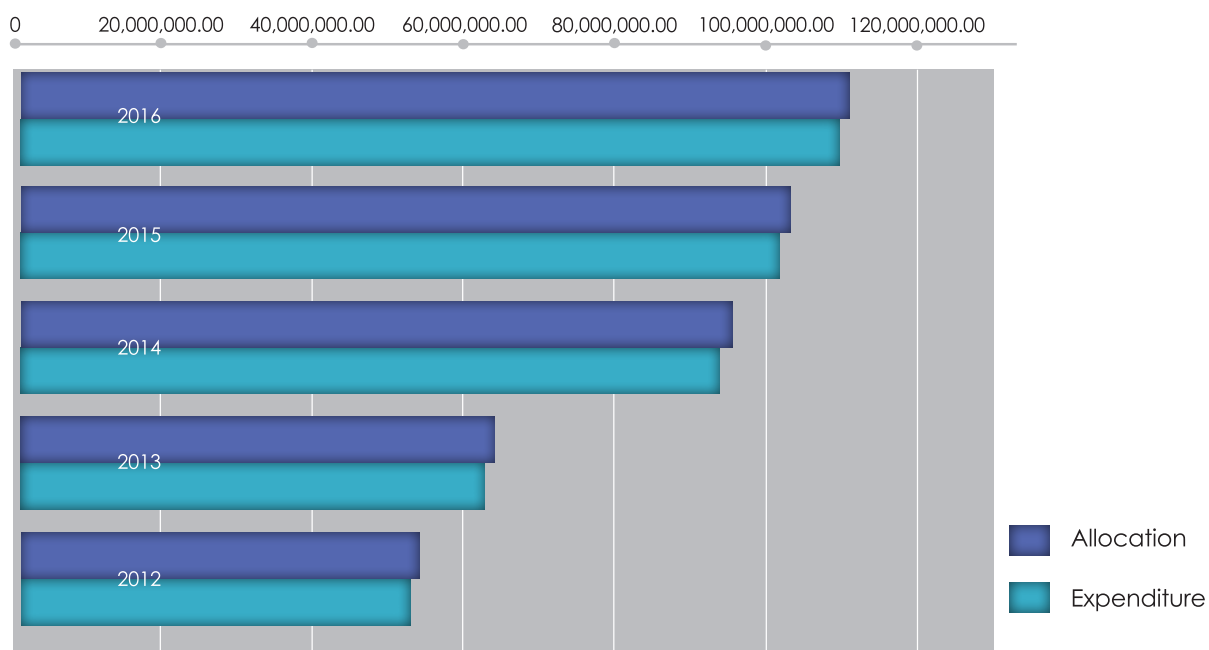
The list of projects, allocation and expenditure are as follows:

DETAILS / PROJECT NAME	ALLOCATION (RM)	EXPENDITURE	
		(RM)	(%)
<i>E-Pemetaan 2.0</i>	32,773,500.00	32,768,167.35	99.98
<i>Menaiktaraf Perkakasan, Perisian Dan Aplikasi Sistem eKadaster Berasaskan Keperluan Teknologi Ukur Dan ICT Terkini</i>	30,354,500.00	30,354,477.93	100.00
<i>Menaiktaraf Lot-lot Yang Masih Dalam Kategori Sub-standard (Demarkasi Dan Kelas Tiga) Secara Pengkontrakkan</i>	1,463,300.00	1,463,202.80	99.99
National Subsurface Utility Mapping (NaSUM)	1,250,000.00	1,250,000.00	100.00
Marine Geodetic Infrastructure In Malaysia Waters (MAGIC)	6,800,000.00	6,799,999.99	100.00
<i>Sistem Pangkalan Data Geodetik (SPDG)</i>	3,500,000.00	3,499,849.99	100.00
<i>Memperkasakan ICT Enterprise Intergrated System (IEIS) Bagi Jabatan Ukur Dan Pemetaan Malaysia</i>	4,543,010.00	4,542,990.90	100.00
<i>Perolehan Data Synthetic Aperture Radar (SAR) Bagi Seluruh Daratan dan Pulau-Pulau di Semenanjung Malaysia</i>	20,155,900.00	20,155,900.00	100.00
<i>Transformasi Geospatial Pertahanan</i>	3,000,000.00	3,000,000.00	100.00
<i>Penentuan Dan Pengukuran Sempadan Antarabangsa (Darat Dan Maritim) Malaysia Dengan Negara-Negara Jiran</i>	7,000,000.00	6,928,148.19	98.97
TOTAL	110,840,210.00	110,762,737.15	99.93

The development expenditure for the last five years is as follows:

YEAR	ALLOCATION	EXPENDITURE	PERCENTAGE (%)
2012	54,284,000.00	54,232,243.35	99.90
2013	63,214,000.00	62,666,883.77	99.13
2014	96,391,905.00	95,900,907.14	99.49
2015	102,685,800.00	102,488,166.31	99.81
2016	110,840,210.00	110,762,737.15	99.93

The total allocation and expenditure for the last five years is shown in the following chart:



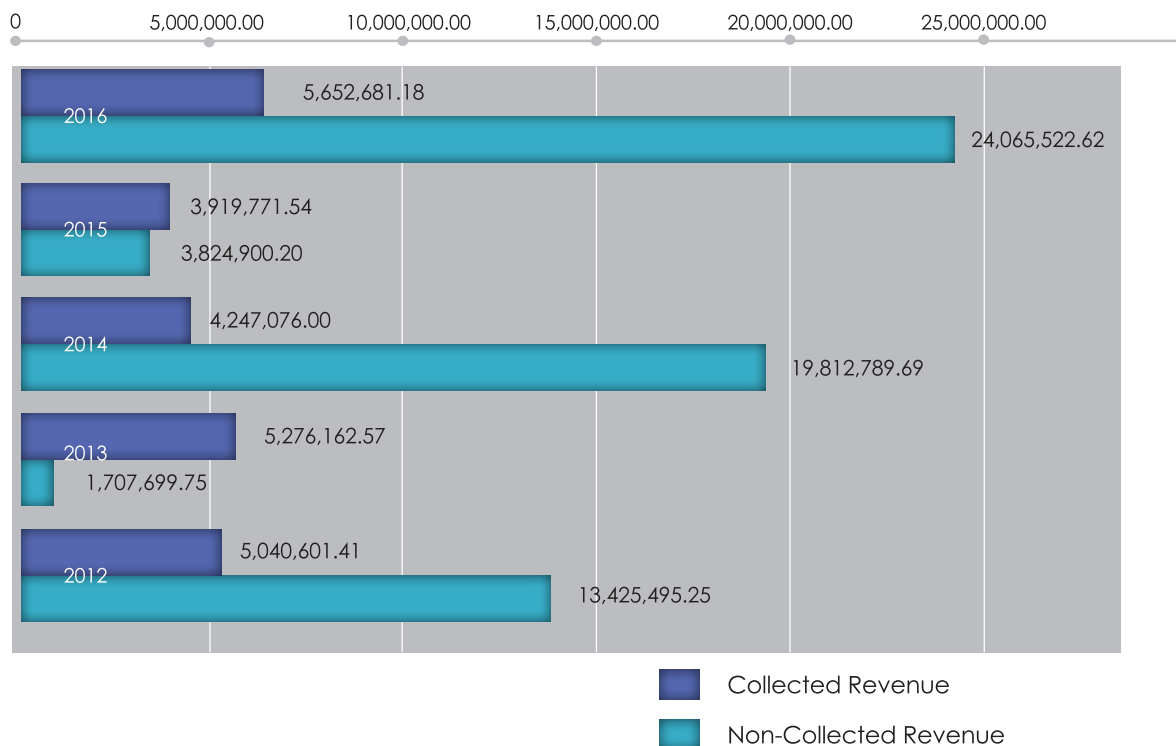
Revenue

In year 2016, JUPEM successfully collected RM 29,718,203.80 in revenue from the sales of maps, certified plans, aerial photographs, geodetic and astronomical 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 RM 5,652,681.18 with RM 24,065,522.62 as non-collectable revenue and is categorised as income from services where fees exempted under the provisions of the law.

The detail for revenue collected for JUPEM (JUPEM's Headquarters and JUPEMs' States) for the last five years is as follows:

YEAR	COLLECTED REVENUE	NON-COLLECTABLE REVENUE	TOTAL
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
2014	4,247,076.00	19,812,787.69	24,059,863.69
2015	3,919,771.54	3,824,900.20	7,744,671.74
2016	5,652,681.18	24,065,522.62	29,718,203.80

The revenue breakdown for the last five years is shown in the following chart:







AWARDS AND RECOGNITION

AWARDS AND RECOGNITION

Throughout 2016, JUPEM received several awards for its achievement in various fields. The achievement and recognition throughout the year 2016 were 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 are as follows:

NO.	CATEGORY	LEVEL
1	Innovative and Creative Circle (ICC) 1NRE Best Award Technical Category – Sabah Topography Mapping Division	Ministry (Champion)
2	Innovative and Creative Circle (ICC) 1NRE Best Award Management Category – JUPEM Terengganu	Ministry ((Second Place)
3	Innovative and Creative Circle (ICC) 1NRE Best Award Management Category – JUPEM Kelantan	Ministry (Third Place)
4	1NRE Innovation Competition – JUPEM Pulau Pinang	Ministry (Third Place)
5	Short Film Competition 1NRE Innovation Day	Ministry (Third Place)
6	Information Security Management System (ISMS) ISO/IEC 27001: 2013 Certificate for Management and User Data Verification System (MyRTKNet) - JUPEM Headquarters	Department
7	5S Quality Environment Certificate Award – JUPEM Headquarters and JUPEM Johor	Department
8	Public Sector Conduasive Ecosystem Certificate Award (EKSA) – JUPEM Kedah, JUPEM Labuan, JUPEM Pulau Pinang, JUPEM Negeri Sembilan, JUPEM Pahang, JUPEM Perak, JUPEM Perlis, JUPEM Selangor, JUPEM Terengganu and JUPEM WPKL/Putrajaya	Department
9	Award of Certificate in Compliance Organising MBJ Meeting by Quarterly	Department



The background features a vibrant, low-poly geometric pattern in shades of yellow, orange, and pink. A semi-transparent photograph is centered on the right side, showing a group of people in a hallway. Some individuals are holding up their phones to take pictures, suggesting a formal event or ceremony. The text 'SEQUENCE OF EVENTS 2016' is overlaid on the left side of the image.

SEQUENCE OF EVENTS 2016

JANUARY

21 JANUARY 2016

Walkabout session by Deputy Minister of Natural Resources and Environment (NRE) to the Department of Survey and Mapping Malaysia (JUPEM).



26 JANUARY 2016

New Year Message Event 2016 by YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Director General of Survey and Mapping Malaysia at Dewan Ukur, JUPEM Headquarters, Kuala Lumpur.

26-27 JANUARY 2016

JUPEM Management Meeting No.1/2016 held at Conference Room, 15th floor, Wisma JUPEM, Kuala Lumpur chaired by YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Director General of Survey and Mapping Malaysia.





26 JANUARY 2016

Book of Organizational Integrity Plan launching ceremony in conjunction with the New Year Message Event 2016.

27 JANUARY 2016

Blood Donation Campaign at JUPEM's Headquarters organised by JUPEM and Royal Institute of Surveyors Malaysia (RISM) in collaboration with the National Blood Centre (PDN).



FEBRUARY

15 FEBRUARY 2016

Signing Ceremony of Memorandum of Understanding (MoU) between JUPEM Kelantan and Perak State Government on demarcation and delimitation of state border at Impiana Hotel, KLCC.



MARCH

9 MARCH 2016

Department of Islamic Development Malaysia (JAKIM) in collaboration with JUPEM had organised Partial Solar Eclipse Observation and Prayer Program.

22 – 24 MARCH 2015

The 40th Malaysia-Indonesia International Boundary Joint Committee (JIM-40) Meeting was held in Bali, Indonesia.





31 MARCH 2016

Joint Departmental Council (MBJ) Meeting No.1/2016 was held at Berlian Meeting Room, 11th floor, Wisma JUPEM.

APRIL

5 APRIL 2016

Ministry of Natural Resources and Environment Excellent Service Award Ceremony 2015 was held at Malaysia Agro Exposition Park Serdang (MAEPS), Selangor.



6 – 7 APRIL 2016

National Mapping and Spatial Data Committee Meeting (JPDSN) No. 67 was held at 15th Floor, Conference Room, Wisma JUPEM.



MAY

2-6 MAY 2016

JUPEM's Value Assessment (VA) Research Laboratory for the Eleventh Malaysia Plan at Holiday Inn, Melaka.



16-20 MAY 2016

JUPEM Innovative and Creative Circle (ICC) Workshop was held at National Institute of Land and Survey (INSTUN).

24 – 25 MAY 2015

JUPEM and National Institute of Land and Survey (INSTUN) in collaboration with Ministry of Natural Resources and Environment had organised National Drone Exhibition (NaDES) 2016 at National Institute of Land and Survey (INSTUN).



JUNE



5 JUNE 2016

Hilal Observations for the year 1436 Hijrah was conducted at 29 Hilal observation stations in Malaysia.

14 JUNE 2016

Working visit to JUPEM by YBhg. Dato' Dr Nadzri bin Yahaya, Deputy Secretary General (Natural Resources Management), Ministry of Natural Resources and Environment.



16 JUNE 2016

JUPEM Outreach Program in conjunction with "Ramah Mesra YB Dato Sri Dr Haji Wan Junaidi bin Tuanku Jaafar, Minister of Natural and Resources Environment" with the community at Dewan Terbuka Pertubuhan Peladang, Sungai Besar.



25 JUNE 2016

“Majlis Berbuka Puasa”
organised by Land Surveyors
Board with JUPEM at Wisma LJT.



JULY

19 JULY 2016

JUPEM in collaboration with
Land Surveyor Board Malaysia
(LJT) had organised a Hari Raya
Aidilfitri Celebration at Dewan
Ukur JUPEM, Kuala Lumpur.



20 JULY 2016

Signing Ceremony of
Memorandum of Understanding
(MoU) between JUPEM and
Putrajaya Corporation (PPj) on
geospatial information sharing
at Dewan Seri Melati, Putrajaya
Corporation Complex.





21 JULY 2016

Monthly Assembly with YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Director General of Survey and Mapping Malaysia at Dewan Ukur JUPEM.

21-22 JULY 2016

JUPEM Management Meeting No.2/2016 was held at 15th Floor Conference Room, Wisma JUPEM, Kuala Lumpur to discuss the current performance of the Divisional/ JUPEM States's activities.



AUGUST

2 AUGUST 2016

Technical Visit by Timor-Leste Delegation JUPEM headed by H.E Secretary of State for Land and Property, Mr. Jaime Xavier Lopes.

8-9 AUGUST 2016

Malaysian Centre for Geospatial Data Infrastructure (MaCGDI) in collaboration with JUPEM, Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) and Malaysian Communications and Multimedia Commission (MCMC) had organised 7th National Geospatial Information Symposium (NGIS) at Putrajaya International Convention Centre (PICC).



10 AUGUST 2016

Official Opening Ceremony of Segamat Topographic Survey Regional Office by YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Director General of Survey and Mapping Malaysia.

24-26 AUGUST 2016

The 24th Malaysia-Thailand Land Boundary Committee Meeting was held in Melaka, Malaysia and were chaired by YBhg. Dato' Sri Azizan bin Ahmad, Secretary General of Natural Resources and Environment and H.E Vasin Teeravachayan, Advisor to the Ministry of Foreign Affairs of Thailand.



SEPTEMBER

20-22 SEPTEMBER 2016



The 46th Malaysia-Indonesia Meeting of the Joint Technical Committee on the demarcation and survey of the international boundary between Indonesia and Malaysia was held in Pulau Pinang, Malaysia. The meeting were chaired by YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Director General of Survey and Mapping Malaysia and Yang Terhormat Laksamana Pertama Raja Morni Harahap, Regional Defence Director, Ministry of Defence of The Republic of Indonesia.

29 SEPTEMBER 2016

Defense Geospatial Committee Pre-Meeting No.13/2016 was held at 5th floor Conference Room, Wisma JUPEM were attended by YBhg. Dato' Sr Hasan bin Jamil, Deputy Director General of Survey and Mapping I and YBhg. Brig Jen Khairil Asri bin Haji Ibrahim.



OCTOBER

5-8 OCTOBER 2016

Department of Survey and Mapping Malaysia (JUPEM) Directors of Survey Conference 2016 and launching of the Coffee Table Book (CTB) "Charting Malaysia's Boundaries - The JUPEM Story" was held at Zenith Hotel, Kuantan, Pahang.

13 OCTOBER 2016

Ministry of Natural Resources and Environment 's Monthly Assembly with YB Dato Sri Dr. Haji Wan Junaidi bin Tuanku Jaafar, Minister of Natural Resources and Environment was held at Dewan Ukur JUPEM. In conjunction with the event, YB Minister has officiated the Underground Utility Detection Instrument Test Lab and the Customers Service Centre besides launching the Malaysia's Book of National Atlas.



14 OCTOBER 2016

YBhg. Datuk Sr Ahmad Fauzi bin Nordin, Director General of Survey and Mapping Malaysia commissioned the Honorary Colonel of the Armed Forces Surveyors at the Honorary Prize of Honor Council, officiated by YBhg. Jen Tan Sri Raja Mohamed Affandi Raja Mohamed Noor, Chief of Army (PTD).



17-19 OCTOBER 2016

United Nations Global Geospatial Information Management for Asia and the Pacific (UN-GGIM-AP) International Forum on Policy and Legal Frameworks for Geospatial Information and Management and 5th Plenary Meeting was held at Parkroyal Hotel, Kuala Lumpur.

NOVEMBER

1 NOVEMBER 2016

Signing Ceremony of Memorandum of Understanding (MoU) between JUPEM and Kota Kinabalu City Hall (DBKK) at 1st floor, Dewan Mesyuarat, DBKK Building.



3 NOVEMBER 2016

Handover Note from the Director General of Survey and Mapping Malaysia, YBhg. Datuk Sr Ahmad Fauzi bin Nordin to the Deputy Director General of Survey and Mapping I, YBhg. Dato' Sr Hasan bin Jamil was held at Dewan Ukur JUPEM.



4 NOVEMBER 2016

Handover Note from the Deputy Director General of Survey and Mapping I, YBhg. Dato' Sr Hasan bin Jamil to the Deputy Director General of Survey and Mapping II, YBhg. Dato' Sr Mohd Noor bin Isa was held at 15th Floor Conference Room, Wisma JUPEM.



4 NOVEMBER 2016

Farewell and Appreciation Dinner for former Director General of Survey and Mapping Malaysia, YBhg. Datuk Sr Ahmad Fauzi bin Nordin at Dewan Prima, Wisma LJT.



8 NOVEMBER 2016

Vehicle Handover Ceremony by the Cadastral Division was held in front of CAMS Building, JUPEM was officiated by YBhg. Dato' Sr Hasan bin Jamil, Director General of Survey and Mapping Malaysia.



15 NOVEMBER 2016

Appreciation Ceremony to all officers involved in United Nations Global Geospatial Information Management for Asia and the Pacific (UN-GGIM-AP) International Forum on Policy and Legal Frameworks for Geospatial Information and Management and 5th Plenary Meeting at Dewan Ukur JUPEM.



The background features a vibrant, low-poly geometric pattern in shades of yellow, orange, and pink. A semi-transparent photograph of a group of people in a meeting is centered on the page. The text 'DEPARTMENT DIRECTORY' is overlaid on the photograph in a blue, sans-serif font.

DEPARTMENT DIRECTORY

DEPARTMENT 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 Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170891	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 Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170892	03-26970221
3	Office of the Deputy Director General of Survey and Mapping II Department of Survey and Mapping Malaysia Level 11, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170896	03-269933618
4	Director of Survey (Coordinating and Mapping Policy Division) Department of Survey and Mapping Malaysia Level 10, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170894	03-26910994
5	Director of Survey (Cadastre Division) Department of Survey and Mapping Malaysia Level 10, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170614	03-26170727

A	JUPEM HEADQUARTERS	TEL. NO.	FAX NO.
6	Director of Survey (Defence Geospatial Division) Department of Survey and Mapping Malaysia Level 2, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170948	03-26980505
7	Director of Survey (Boundary Affairs Division) Department of Survey and Mapping Malaysia Level 8, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170893	03-26934084
8	Director of Survey (Geodetic Survey Division) Department of Survey and Mapping Malaysia Level 7, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170635	03-26912757
9	Director (Management Services Division) Department of Survey and Mapping Malaysia Level 12, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170853	03-26170869
10	Director of Survey (Peninsular Topography Mapping Division) Department of Survey and Mapping Malaysia Level 3&5, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170897	03-26983844
11	Director of Survey (Cartography dan GIS Division) Department of Survey and Mapping Malaysia Level 6, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170898	03-26170647

A	JUEM HEADQUARTERS	TEL. NO.	FAX NO.
12	Director of Survey (Utility Mapping Division) Department of Survey and Mapping Malaysia Level 4, Bangunan Ukur Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170742	03-26170984
13	Director of Survey (National Geospatial Database Division) Department of Survey and Mapping Malaysia Level 7, Wisma JUEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170901	03-26916989
14	Director of Survey (Planning and Corporate Division) Department of Survey and Mapping Malaysia Level 13, Wisma JUEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170842	03-26170990

B	JUEM STATE	TEL. NO.	FAX NO.
1	Director of Survey and Mapping Department of Survey and Mapping Johor Tingkat 7, 8 dan 9 Blok A, Wisma Persekutuan Jalan Ayer Molek 80000 Johor Bahru JOHOR	07-2231244	07-2238535
2	Director of Survey and Mapping Jabatan Ukur dan Pemetaan Kedah 1187 Jalan Raya 09000 Kulim KEDAH	04-4906166	04-4904223
3	Director of Survey and Mapping Jabatan Ukur dan Pemetaan Kelantan Jalan Hospital 15000 Kota Bharu KELANTAN	09-7481470	09-7443923

B	JUEM STATE	TEL. NO.	FAX NO.
4	Director of Survey and Mapping Department of Survey and Mapping Melaka Jalan Taming Sari 74500 MELAKA	06-2822844	06-2847319
5	Director of Survey and Mapping Department of Survey and Mapping Negeri Sembilan Tingkat 7&8, Wisma Persekutuan Jalan Dato' Abdul Kadir 70000 Seremban NEGERI SEMBILAN	06-7623882	06-7672351
6	Director of Survey and Mapping Department of Survey and Mapping Pahang Jalan Tengku Muhamad 25050 Kuantan PAHANG	09-5668511	09-5685541
7	Director of Survey and Mapping Department of Survey and Mapping Perak Jalan Dato' Seri Ahmad Said Greentown 30450 Ipoh PERAK	05-2417181	05-2417151
8	Director of Survey and Mapping Department of Survey and Mapping Perlis Tingkat 6, Bangunan Persekutuan Persiaran Jubli Emas 01000 Kangar PERLIS	04-9772128	04-9772131
9	Director of Survey and Mapping Department of Survey and Mapping Pulau Pinang Tingkat 39, KOMTAR 10000 Georgetown PULAU PINANG	04-2611762	04-2635884
10	Director of Survey and Mapping Department of Survey and Mapping Selangor Tingkat 16-02 dan 17-01, Plaza Masalam No. 2 Jalan Tengku Ampuan Zabedah E9/E 40578 Shah Alam SELANGOR	03-55144000	03-55132614

B	JUEM STATE	TEL. NO.	FAX NO.
11	Director of Survey and Mapping Department of Survey and Mapping Terengganu Tingkat 7 & 8, Wisma Persekutuan Jalan Sultan Ismail 20578 Kuala Terengganu TERENGGANU	09-6221144	09-6237188
12	Director of Survey and Mapping Department of Survey and Mapping Wilayah Persekutuan Kuala Lumpur / Putrajaya Tingkat 3 & 4, Wisma JUPEM Jalan Sultan Yahya Petra 50578 KUALA LUMPUR	03-26170800	03-26938740
13	Director of Survey and Mapping Department of Survey and Mapping Labuan Tingkat 7, Blok 4 Kompleks Ujana Kewangan Peti Surat 86 87008 WILAYAH PERSEKUTUAN LABUAN	087-412068	087-417401
14	Director of Survey (Sabah Topography Mapping Division) Jabatan Ukur dan Pemetaan Malaysia Tingkat 3, Blok B, Bangunan Kuwasa Jalan Karamuning 88840 Kota Kinabalu SABAH	088-212835	088-231243
15	Director of Survey (Sarawak Topography Mapping Division) Jabatan Ukur dan Pemetaan Malaysia Tingkat 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) Kementerian Sumber Asli dan Alam Sekitar (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) Behrang 35950 Tanjung Malim PERAK	05-4542825	05-4542837
4	Senior Assistant Director Ministry of Urban Wellbeing, Housing and Local Government (KPKT) 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

C	OTHER AGENCIES (CADRE)	TEL. NO.	FAX NO.
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 (MRSA) Ministry of Science, Technology and Innovation No. 13, Jalan Tun Ismail 50480 KUALA LUMPUR	03-26973400	03-26973350
8	Chief Secretary Ministry of Defence (MINDEF) Human Resource Management Division Civil Service Branch Level 2, Wisma Pertahanan Jalan Padang Tembak 50634 KUALA LUMPUR	03-20715656	03-26917217
9	Chief Director Department of Mineral and Geoscience (JMG) Headquarters, Level 20, Bangunan Tabung Haji Jalan Tun Razak 50658 KUALA LUMPUR	03-21611033	03-21611036
10	Chief Director Peninsular Malaysia Forestry Department (JPSM) Administration and Finance Section Jalan Sultan Salahuddin 50650 KUALA LUMPUR	03-26164488	03-26925657

C	OTHER AGENCIES (CADRE)	TEL. NO.	FAX NO.
11	Chief Director Malaysia Marine Department (JLM) P.O.Box 12, Jalan Limbungan 42007 Pelabuhan Kelang SELANGOR	03-33467777	03-31685289
12	Chief Director Civil Aviation Department (DCA) Management Services Division Levels 1-4, Podium Block No. 27, Persiaran Perdana Presint 4 Pusat Pentadbiran Kerajaan Persekutuan 62618 PUTRAJAYA	03-88714000	03-88901640
13	Secretary Election Commission (SPA) Human Resource Management Division Levels 4-5, Block C, Kompleks C Pusat Pentadbiran Kerajaan Persekutuan 62502 PUTRAJAYA	03-88724802	03-88880743
14	Director Sarawak Regional Marine Department Lot 683, Section 66, Jalan Utama, Tanah Puteh 93619 Kuching SARAWAK	082-484335/159	082-331778

Enquiries

For further enquiries, please contact:

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Disclaimer

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