



Buletin

JABATAN LAUT MALAYSIA

Edisi Februari 2023



Foto : Beacon Tompok Utara



Jabatan Laut Malaysia



@lautmy



jabatanlaut

Puisi Untuk Laut

Laut...

Aku alunkan irama puisi
Bersama lenggok tari Sang Primadona
Sudikah engkau mendengar?

Laut...

Sempadan tiada bernoktah
Kapal yang dikemudi Sang Kapten
Buas meneroka isi hatimu
Melorek jaya sebuah pelayaran
Menjengah Timur ke Barat
Menerjah Utara ke Selatan
Segala arah melewati janji
Dengan izinmu laut..

Laut...

Yang keluar dari rekahan perutmu
Adalah rezeki manusia
Pelaut akur dengan erti kehidupan
Bergelumang antara titisan keringat yang gugur
Bergelut antara nasib dan maut
Sedangkan tauke-tauke ikan tersenyum puas
Dengan hasil tangkapan lumayan
Berkepek-kepek duit
Merah, biru, ungu, dan segala warna!
Sang nelayan kerdil apa yang kau dapat?
Sejauh mana kudratmu berdiri
Meredah ranjau laut bergelora
Dengan hanya sampian kecil
Yang entah berapa kuasa kuda?

Laut...

Kau agihkan kekayaan yang ada
Berkilauan panahan emas hitam
Industri maritim kian gagah
Menerawang bumimu
Meneroka segenap pelosokmu
Mentadbir hasil keringat
Atas kesudianmu jua
Terlalu luas untuk diungkapkan
Silakan...silakan...

Laut...

Dengan mampirnya engkau
Syarikat-syarikat perkapalan
Akur dengan kemewahan duniamu
Menyediakan cabang-cabang kerjaya

Ada tikanya berumah di laut...

Betapa setianya engkau
Menjadikan syarikat dan majikan
Semakin sinonim dengan pekerja
Semakin sinonim dengan pekerjaan

Laut...

Parasmu menawan mata hati
Sesekali engkau menghempaskan
Ombak kebiruan-putih yang comel
Aku bisa mengerti itu
Acapkali terakam dalam petikan kamera digital
Sekadar paradigma kenangan
Atau
Sesekali menerajang ganas
Ombakmu menggulung tinggi
Aku bisa mengerti senario sedemikian
Hati-hati..!

Laut...

Izinkan aku bermain di gigi pantaimu
Mengutip cengkerang kecil
Atau batu-batu pantai
Yang entah dari mana lahirnya
Atau-atau
Izinkan rambutku ini
Dicium oleh hembusan bayu
Yang sedia lalu ditubuhmu
Sambil aku sudi bertimpuh
Melemparkan satu pandangan
Jauh dan kelam
Jauh dan kelam
Dalam dirimu...laut

Betapanya anugerahNya ini

Tidak bisa aku gapai
Dengan sepuluh jari
Hanya mungkin Cuma
Aku tafsirkan dengan fikiran
Indahnya laut
Dengan segala persekitaran
Yang Allah wujudkan!

Laut...

Laut...

Laut...

Asmariah & Asmah Bte. Ahmad
2004
Puisi Laut, Jabatan Laut Malaysia

MEMBANGUN MALAYSIA MADANI - JABATAN LAUT MALAYSIA (JLM) SANTUNI BEKAS PELAUT



1 Februari 2023 - Pasukan Ketua Pejabat Laut Negeri Pulau Pinang, JLM Wilayah Utara bersama eksekutif *Seafarer Management Centre* (SMC) mewakili Kumpulan Wang Pusat Perdagangan Laut (KWPPPL) bersama petugas Jabatan Kebajikan Masyarakat (JKM) santuni bekas pelaut yang menghidap penyakit kronik. JLM amat menghargai kerjasama erat JKM dalam usaha memberi penyepaduan ihsan yang lebih sistematik bagi peningkatan akses penjagaan kesihatan kepada golongan bekas pelaut yang lebih memerlukan ini

SESI LIBAT URUS BERSAMA AGENSI PEMBEKAL PELAUT MALAYSIA DI IBU PEJABAT LAUT, PELABUHAN KLANG



2 Februari 2023 - Jabatan Laut Malaysia (JLM) melalui Bahagian Pembangunan Perkapalan dan Pelaut (BPPP) telah menganjurkan sesi libat urus bersama semua Agensi Pembekal Pelaut (RPS) Malaysia. Sesi ini dipengerusikan oleh Tuan Nordin bin Mohamadin, Timbalan Ketua Pengarah Laut (Perancangan). Sesi libat urus ini dihadiri oleh pegawai-pegawai daripada Ibu Pejabat Laut serta JLM Wilayah Tengah. Sebanyak 22 buah syarikat pembekal pelaut seluruh Malaysia yang berdaftar dengan JLM telah menghadiri sesi ini secara fizikal dan telesidang.

Objektif utama libat urus adalah untuk membincangkan isu-isu RPS tempatan dan penerangan oleh JLM berkenaan isi kandungan terbaharu *Maritime Labour Convention, 2006* (MLC) pindaan 2022. Kesemua agensi RPS mengutarakan perspektif yang progresif bagi memastikan mekanisma pembekalan pelaut Malaysia sentiasa mampan.

Selain itu, JLM turut menekankan bahawa hanya pembekalan pelaut melalui agensi RPS berdaftar sahaja yang dibenarkan, dan pelaut tidak boleh dikenakan caj perkhidmatan oleh agensi RPS.

MAJLIS PENUTUPAN PROGRAM TRANSFORMASI MINDA (PTM) SIRI 1/2023



3 Februari 2023 - YBrs. Encik Nordin bin Mohamadin, Timbalan Ketua Pengarah Laut (Perancangan) telah menyempurnakan Majlis Penutupan Program Transformasi Minda (PTM) Siri 1/2023 bertempat di Auditorium Sirius, Institut Latihan Pengangkutan Laut (MATRAIN). Turut hadir bersama ialah Pengarah MATRAIN, Ts. Dr. Julyus Melvin Mobilik dan Pendaftar MATRAIN, Haji Ghadzali bin Ahmad. Program ini telah dijalankan bermula pada 25 Januari hingga 3 Februari 2023 dengan kerjasama antara Bahagian Khidmat Pengurusan, Ibu Pejabat Laut Malaysia dan MATRAIN. Seramai 42 peserta telah menyertai program ini dengan jayanya.

KAPAL DAI CAT 06 HILANG - JLM, NUSPM DAN JKM TERUS BERI SOKONGAN MORAL KEPADA KELUARGA KRU



4 Februari 2023 - Pasukan Ketua Pejabat Laut Negeri Pulau Pinang, JLM Wilayah Utara bersama pasukan National Union Seafarers Peninsular Malaysia (NUSPM) dan pasukan Jabatan Kebajikan Masyarakat (JKM) santuni keluarga ketua pegawai kapal DAI CAT 06, Mohammad Syafarizan Mohd Noor, 24; di kediaman mereka di Pulau Pinang. Kehilangan kapal ini sejak 1 Januari 2023 lalu dalam pelayaran ke Kuching, Sarawak menjadi misteri kerana tiada petunjuk mengenai kehilangannya sehingga kini.

LIMA'23 - JABATAN LAUT MALAYSIA (JLM) TINJAU LOKASI DEMONSTRASI BERSAMA PANGLIMA PASKAL



5 Februari 2023 - Timbalan Pengarah Laut Wilayah Utara (Pengurusan), JLM Wilayah Utara bersama pegawai-pegawai kanan JLM iringi Laksamana Pertama YBhg. Dato' Hj Mohd Redzuan bin Hj Talib, Panglima Pasukan Khas Laut (PASKAL), pasukan elit Tentera Laut Diraja Malaysia (TLDM) dalam sesi lawatan mengenalpasti lokasi sesuai Demonstrasi LIMA' 23 menggunakan aset JLM - MV SUHAIL di lokasi Resort World, Had Pelabuhan Langkawi. JLM amat menghargai komitmen Jabatan dan Agensi Kerajaan yang lain seperti APMM, PDRM, JKDM, JBPM dan Jabatan Perikanan Malaysia yang memberi input berharga semasa menjayakan sesi lawatan ini.

KUNJUNGAN HORMAT JABATAN LAUT MALAYSIA (JLM) WILAYAH TIMUR KE JABATAN PERIKANAN NEGERI TERENGGANU



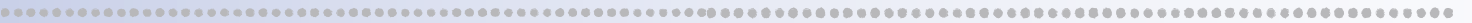
5 Februari 2023 - Jabatan Laut Malaysia (JLM) Wilayah Timur telah mengadakan kunjungan hormat ke Jabatan Perikanan Negeri Terengganu. Tn. Hj Abd Majid bin Hj Rais, Pengarah Laut Wilayah Timur selaku ketua rombongan telah disambut mesra oleh YBrs. Tuan Ruzaidi bin Mamat, Pengarah Perikanan Negeri Terengganu. Turut hadir sama dalam kunjungan hormat ini ialah Timbalan Pengarah, En. Mohd Azhan bin Abdulah, Ketua Penolong Pengarah BKIM, En Sayful Islam bin Mat, Penolong Pengarah Kanan BKP, Pn Tengku Farah Nadiana bt Tengku Mahmood dan Penolong Pengarah BKIM, En. Mazlin Fazmin bin Mhd Lazim.

Tujuan utama kunjungan hormat ini diadakan adalah bagi membincangkan isu- isu yang berkait rapat dengan kedua-dua Jabatan. Antara perkara yang disentuh adalah meliputi kebenaran bot nelayan membawa penumpang bagi tujuan rekreasi memancing, pengesahan butiran alat bantuan pelayaran yang diserahkan kepada JLM dan usaha bagi mempergiatkan ekonomi dan pelancongan di negeri Terengganu.

PROJEK PENERUKAN ALUR PELAYARAN KUALA PERLIS – JABATAN LAUT MALAYSIA (JLM) ERAT KERJASAMA BERSAMA JABATAN ALAM SEKITAR (JAS) NEGERI PERLIS



5 Februari 2023 – Pengarah Laut Wilayah Utara dan Ketua Pejabat Laut Negeri Perlis, JLM Wilayah Utara mengadakan pertemuan bersama pasukan pemangku Pengarah Alam Sekitar Negeri Perlis. JLM komited memelihara alam sekitar marin semasa melaksanakan projek penerukan alur pelayaran yang menghubungkan jalan laut antara negeri Perlis dan Langkawi Bandaraya Pelancongan.



LAWATAN OLEH PASUKAN TASK FORCE GV2050 KE PELABUHAN TANJUNG PELEPAS (PTP)



8 Februari 2023 – Pasukan *Task Force* GV2050 telah turun ke padang bagi melihat pelaksanaan inisiatif *Green Port Policy* oleh Pelabuhan Tanjung Pelepas (PTP) dan menyaksikan sendiri bagaimana 'transisi ke arah pelabuhan hijau' yang sedang dilaksanakan. *National Project Coordinator* (NPC), Encik Mohd Nazwan Hafeez menyatakan penghargaan di atas kemajuan yang telah ditunjukkan PTP dalam usaha merealisasikan projek IMO-Norway GV2050 dan peranan penting pihak pelabuhan dalam menjayakan aspirasi IMO itu.



PTP dikenal ramai sebagai salah satu hab pemindahan terbesar di dunia, yang kini berada di kedudukan ke-15 pelabuhan tersibuk di dunia. Buat masa ini, PTP beroperasi di dermaga linear tunggal, dengan fasiliti 14 *berths* di sepanjang lima (5) kilometer dermaga. Limbungan kontena PTP mempunyai kapasiti slot sebanyak 252,400 TEU dan dikendalikan oleh sejumlah 183 RTG dan 564 trak penggerak.

Sepanjang lawatan ini, Pasukan *Task Force* GV2050 diberi peluang mencuba salah satu inisiatif di bawah program pelabuhan hijau iaitu *Electric Rubber Tired Gantry* (E-RTG) dan pasukan ini berasa amat kagum dengan komitmen yang ditunjukkan oleh PTP itu. Selain daripada inisiatif E-RTG, PTP juga mempunyai rancangan untuk memulakan dua lagi inisiatif hijau melalui pelaburan dalam perolehan trak penggerak mesra alam, dan akan juga peralihan kepada bot tunda dan bot malim yang mesra alam.

Pasukan *Task Force* GV2050 telah membuat usahasama dengan Kementerian Pengangkutan Malaysia (MOT) dan Institut Maritim Malaysia (MIMA) dalam mengenal pasti projek perintis bagi Malaysia, bukan sahaja untuk memenuhi objektif Projek GV2050 tetapi juga menggalakkan pihak berkepentingan memulakan langkah ke arah industri maritim yang lebih mesra alam.

LAWATAN KERJA ATASE PERHUBUNGAN KEDUTAAN REPUBLIK INDONESIA DI MALAYSIA SERTA SHAHBANDAR BENGKALIS



9 Februari 2023 – Lawatan Atase Perhubungan Kedutaan Republik Indonesia yang diketuai oleh Capt Supendi ke terminal ini bertujuan melihat operasi perkhidmatan feri antarabangsa Republik Indonesia ke Malaysia.

Antara isu yang dibincangkan adalah seperti jadual ketibaan dan pelepasan feri di Muar, Bengkalis serta Dumai, isu kemasukan jumlah penumpang luar biasa ke Malaysia melalui pintu sempadan Muar serta peluang dan potensi Batu Pahat menjadi laluan alternatif penumpang keluar masuk ke Wilayah Indonesia.

Wakil Jabatan Laut Malaysia Wilayah Selatan telah diketuai oleh Ketua Bahagian Operasi Maritim Tuan Shah Habidin Arif, Wakil Ibu Pejabat Laut Malaysia Tuan Hazwan Din, Ketua Pejabat Laut Batu Pahat Tuan Ahmad Nazreen, Ketua Pejabat Laut Muar En. Mohd Fuad dan seluruh warga Pejabat Laut Muar turut hadir dan mengalu-alu kehadiran pegawai Atase Republik itu.

Lawatan ini juga telah melibatkan kehadiran pemain industri perkapalan di Muar serta semua agensi Kerajaan di Pintu Sempadan seperti KASTAM, Imigresen, MAQIS, KKM dan PDRM.

JABATAN LAUT MALAYSIA (JLM) PERKUKUH KERJASAMA EKONOMI MARITIM MALAYSIA - THAILAND



10 Februari 2023 – Pasukan Pemeriksa Kawalan Negara Pelabuhan JLM Wilayah Utara laksana pemeriksaan aspek keselamatan ke atas kedua – dua bot tunda YKP KARISHMA dan baj FM NAMTHONG 28 berpendaftaran Thailand di Had Pelabuhan Pulau Pinang. JLM mewakili Malaysia menandatangani Memorandum Persefahaman (MOU) bersama Thailand pada tahun 2018 bagi memperkukuhkan kerjasama ekonomi maritim antara kedua – dua Negara.

LAPORAN KETUA AUDIT NEGARA (LKAN) 2021 – JABATAN LAUT MALAYSIA (JLM) PENTINGKAN ASPEK LATIHAN DALAMAN



13 Februari 2023 – Pasukan Wakil Pegawai Penguasa Projek (WPP) JLM Wilayah Utara jalani kursus pengurusan kontrak kerja bersama Jabatan dan Agensi luar di Pulau Pinang. JLM amat mementingkan usaha tingkatkan aspek mutu latihan dalaman untuk mengelak dari teguran berulang pengurusan dan pentadbiran kontrak sepertimana Laporan Ketua Audit Negara (LKAN) 2021.

MEMBINA PEKERJA BERKEMAHIRAN MELALUI KURSUS ASAS PENGENDALIAN BOT SIRI 3/2023



13 - 17 Februari 2023 - MATRAIN dengan kerjasama Jabatan Laut W.P.Labuan (JLMWPL) telah melaksanakan Kursus Asas Pengendalian Bot siri 3/2023 bertempat di Bangunan Worksyp, Kawasan Perindustrian Ranche-Ranche, W.P. Labuan bagi memperkukuh kemahiran asas pengendalian bot serta memperkasakan pengetahuan keselamatan di dalam menghadapi situasi kecemasan ketika melaksanakan tugas. Seramai 15 orang peserta yang terdiri daripada 10 orang Pembantu Laut daripada JLMWPL dan 5 orang Pembantu Laut daripada Jabatan Laut Wilayah Sabah menyahut cabaran bagi melaksanakan kursus yang dianjurkan selama lima (5) hari bermula pada 13 sehingga 17 Februari 2023. Tuan Alimuddin bin Amirudin, Pengarah Laut Wilayah Labuan turut serta hadir bagi merasmikan kursus ini. Beliau menyambut baik pelaksanaan kursus di Labuan dan berkesempatan menyatakan penghargaan serta ucapan terima kasih kepada MATRAIN dan kepada semua yang terlibat dan berharap penganjuran kursus seperti ini dapat dilaksanakan dari semasa ke semasa.



Kursus ini dikendalikan oleh barisan tenaga pengajar bertauliah iaitu En. Azman bin Ab. Latip, Penolong Pengarah Kanan daripada Jabatan Laut Wilayah Sabah dan En. Putra bin Abdul Hamid, Penolong Pengarah daripada Jabatan Laut Wilayah Sarawak serta turut dibantu oleh fasilitator En Muhammad Hafizi bin Daud dan En. Mohd Zulfizan bin Wahid daripada Jabatan Laut W.P.Labuan. Semua peserta perlu melengkapkan kursus ini dengan menyelesaikan sesi teori, praktikal dan penilaian. Semua peserta Kursus Asas Pengendalian Bot siri 3/2023 ini telah dinilai oleh En. Adam Ronny bin Rosly, Penolong Pengarah yang bertindak sebagai Pegawai Penilai di akhir kursus.

LAWATAN KERJA KE BAWAH DULI YANG MAHA MULIA SERI PADUKA BAGINDA YANG DI-PERTUAN AGONG KE PULAU TIOMAN, ROMPIN, PAHANG



20 Februari 2023 - Yang di-Pertuan Agong, Al-Sultan Abdullah Ri'ayatuddin Al-Mustafa Billah Shah dan YAM Tengku Arif Bendahara Tengku Muhammad Iskandar Ri'ayatuddin Shah berkenan mengadakan lawatan kerja ke Kampung Salang, Pulau Tioman dengan menaiki kapal Jabatan Laut Malaysia Wilayah Timur iaitu MV SAIPH. Turut hadir dalam lawatan tersebut ialah YAB Menteri Besar Pahang, Dato' Sri Wan Rosdy Wan Ismail, Pegawai Daerah Rompin, YH Dato' Ahmad Nasim Dato' Haji Mohd Sidek serta barisan pentadbiran kerajaan negeri Pahang yang diiringi oleh Ketua Pejabat dan kakitangan Pejabat Laut Pulau Tioman.

Lawatan kerja ini bertujuan bagi melihat pembangunan Pulau Tioman serta merasmikan Klinik Kesihatan dan Masjid di Kampung Tekek. Yang di-Pertuan Agong turut mengambil peluang beramah mesra dengan penduduk kampung untuk melihat sendiri permasalahan rakyat di Pulau Tioman. Dalam hal ini, Jabatan Laut Malaysia Wilayah Timur berasa amat berbesar hati dapat bersama-sama Tuanku dalam lawatan kerja tersebut

JABATAN LAUT MALAYSIA (JLM) KONGSI KEPAKARAN MENANGANI INSIDEN TUMPAHAN MINYAK



22-23 Februari 2023 - Jabatan Laut Wilayah Persekutuan Labuan dengan kerjasama Pihak Syarikat Victoria STS (Labuan) Sdn. Bhd dengan jayanya telah melaksanakan kursus asas melawan tumpahan minyak didalam had pelabuhan Teluk Victoria, Labuan. Tujuan utama kursus adalah bagi meningkatkan kemahiran dan kesiapsiagaan kakitangan jabatan dan pihak syarikat yang terlibat sama pada kursus ini dalam menangani insiden tumpahan minyak. JLM menyambut baik permintaan agensi-agensi Kerajaan dan swasta yang berminat untuk melaksanakan program seperti ini bagi memastikan laut senantiasa bersih. Puan Phemela K.Francis, Ketua Bahagian Pengurusan Trafik dan Bantuan Pelayaran telah memberi taklimat serta mencadangkan syarikat Syarikat Victoria STS (Labuan) Sdn. Bhd yang menawarkan perkhidmatan operasi kapal-ke-kapal bagi pemindahan minyak mentah dan gas asli cecair untuk mewujudkan pelan tindakbalas tumpahan minyak memandangkan kawasan operasi adalah berdekatan dengan taman laut Pulau Kuraman dan didalam had pelabuhan yang mana terdapat pelbagai lagi aktiviti industri maritim.

MALAYSIA MADANI - JABATAN LAUT MALAYSIA (JLM) KOMITED MEMBANTU PELAUT MENINGKATKAN KEMAHIRAN SERTA BERDAYA SAING BAGI MENCARI PEKERJAAN DALAM INDUSTRI MARITIM YANG BERKEMBANG PESAT

20-27 Februari 2023 - Jabatan Laut Malaysia W.P Labuan (JLMWPL) telah menganjurkan kursus *Mate of Less Than 500GT Domestic Trade Voyages (Open)*- (MDO) siri 01/2023 bagi memberi latihan kemahiran, tingkatan keupayaan dan berdaya saing untuk mencari pekerjaan dengan memastikan pelaut mendapat akses kepada latihan maritim berkualiti pada kos yang berpatutan. Seramai 19 Peserta mengikuti kursus ini yang berlangsung selama tujuh (7) hari pada 20 sehingga 27 Februari 2023. Tuan Alimuddin bin Amirudin Pengarah laut Wilayah JLMWPL berkesempatan untuk meninjau serta memberi ucapan aluan ringkas dan kata-kata semangat kepada para peserta. Turut Hadir En. Azman bin Abd Latif, Penolong Pengarah Kanan yang juga bertindak sebagai Ketua Penyelaras kursus ini. JLM merancang dan akan melaksanakan kursus MDO ini secara berkala dalam meningkatkan bilangan pelaut yang berkelayakan bagi memenuhi permintaan industri maritim yang berkembang pesat.





Tip Utamakan Kesejahteraan Mental Di Tempat Kerja



Kementerian
Kesihatan
Malaysia



myhealthkkm



sihatmilikku



Talian
bantuan



1. Uruskan beban kerja dengan baik
2. Berkomunikasi dengan jelas
3. Sasarkan keseimbangan antara kerja dan kehidupan harian
4. Wujudkan ruang santai untuk relaksasi
5. Wujudkan kumpulan sokongan kesihatan mental
6. Dapatkan bantuan dan sokongan kesihatan mental
7. Elakkan stigma terhadap kesihatan mental

'Let's TALK' ke arah kesejahteraan mental.

Tell your problem to
someone you trust
(Kongsi masalah dengan
orang yang dipercayai)

Ask for help
(Minta bantuan)

Listen without judgement
(Dengar tanpa menghukum)

Know where to seek help
(Tahu di mana
dapatkan bantuan)

Shipping Industry: Greenhouse Gases Emission Reduction Strategy

By **Egbert Adolf Naintin**
Dato' Hj. Baharin bin Dato' Abdul Hamid
Muhammad Shuhaimi bin Abd Rahman
Marine Department Malaysia

The global annual temperature has increased at an average rate of 0.08°C (0.14°F) per decade since 1880 and over twice that rate (+0.18°C/+0.32°F) since 1981 (NOAA, 2020). Scientists believe that this situation, if not controlled, and climate change stopped, in four decades' time the surface of the earth will be very different than it is today.

The energy derived from the sun shapes the environment on earth in which we live. The earth becomes warmer due to the presence of water in liquid form as a result of the photosynthesis process driven by the absorption of sunlight. However, current human activities contribute to the increasing amount of carbon dioxide and other greenhouse gases (GHG), thus heightening the greenhouse effect, which leads to the rise in the earth's temperature and the consequent climate change.

Transportation of people and goods is one of the main activities carried out on a daily basis. Transportation activities account for about 14% of total GHG emissions globally. GHG emissions from these activities mainly involve petroleum-based fuels that are consumed to power land, sea, and air vehicles. According to the International Council on Clean Transportation (ICCT), shipping is considered an efficient method of transporting goods compared with other modes of transport, based on the amount of carbon dioxide emitted per ton for each cargo per mile (cargo/mile). While shipping does generate less carbon dioxide per ton for each cargo/mile than any other mode of transport (Wang & Lutsey, 2013), the fact that

shipping does contribute to GHG emissions cannot be denied.

Understanding the importance of managing GHG emissions from a shipping perspective, the International Maritime Organisation (IMO), a United Nations specialised agency which currently has 174 Member States including Malaysia, has undertaken studies to understand the amount of emission produced by ships. In the 4th IMO GHG study, it was reported that international shipping contributed about 2% of global carbon dioxide emissions (IMO, 2020). International shipping is recognised as the main mode of transport for global trade and handles about 80% of global trade which is essential to a nation's economic growth (UNCTAD, 2020). The IMO in its report has estimated, depending on future economic and energy developments, maritime carbon dioxide emissions from shipping to increase by up to 50% by 2050, relative to 2018, unless further action is taken (IMO, 2020).

MARPOL CONVENTION

Given the global nature of the shipping industry, measures to reduce GHG emissions from ships need to be an international effort. The IMO is tasked to create regulatory frameworks for the shipping industry that are effective, universally adopted and implemented through Member States' national legislations. One of the solutions to address GHG emissions from ships was the introduction in 1973 of the International

MARPOL	SUMMARY	DATE OF ENTRY INTO FORCE OR SUCCESSION
Annex I	Deals with the discharge of oil into the sea	May 1, 1997
Annex II	Details discharge criteria for the minimisation of pollution from noxious liquid substances carried in large quantities	May 1, 1997
Annex III	Regulates the safe sea transport of harmful substances in package form and sets out requirements on how to package, label and stow these substances on-board to prevent their release into the marine environment	December 27, 2010
Annex IV	Deals with the discharge of sewage from ships	December 27, 2010
Annex V	Deals with garbage and either the prohibition of discharge into the sea and the conditions and the distance from land, where certain discharges are allowed	May 1, 1997
Annex VI	Deals with air pollutions and also regulates the energy efficiency of ships	December 27, 2010

Table 1: Malaysia as a signatory to MARPOL

Convention for the Prevention of Pollution from Ships, also known as MARPOL. Today, the MARPOL Convention has been ratified and implemented by Member States that represent over 90% of the world's shipping tonnage. Its implementation has had a big impact on how ships are being operated and the procedures adopted by their crews.

The MARPOL Convention consists of six annexes. Apart from Annexes I and II, the other Annexes, including Annex VI, relate to air pollution and energy efficiency of ships, that need to be signed up to as additions by Member States. This means that only Member States that have signed MARPOL Annex VI can enforce the regulations. However, ships flying the flag of a non-signing Party must comply with the regulation, including construction requirements, when they are sailing in the waters of a signatory Party. Table 1 shows the date of entry into force or succession by Malaysia as a signatory Party.

ENERGY-EFFICIENCY MEASURES UNDER MARPOL

To improve ship energy efficiency, MARPOL, under Annex VI, has set the Energy Efficiency Design Index (EEDI) and Ship Energy Efficiency Management Plan (SEEMP) requirements that must be complied with by all ships weighing 400 gross tonnage and above. The objective of EEDI is

to ensure that ships are designed and built to be more energy efficient, while SEEMP is an on-board management tool which consists of two parts:

- (i) the requirements for energy efficiency management; and
- (ii) the requirement for monitoring and reporting the ship's annual fuel consumption.

The EEDI and SEEMP are complementary strategies to improve the energy efficiency of ships. Not only that, the EEDI regulations are intended to encourage new ship designs, with more efficient engines, and the development and installation of innovative energy-efficient technologies.

Energy Efficiency Design Index

Since 2013, newly-built ships and major conversions of existing ships (depending on the type and weight of the ship) must comply with IMO energy efficiency regulations, i.e., ships that are built must meet the minimum energy efficiency levels specified in terms of EEDI. The EEDI indicates the amount of carbon dioxide emitted per ton/mile of goods transported by ships. A smaller EEDI means the ship's design is more energy efficient. The IMO requires that the attained EEDI of new ships does not exceed a certain threshold, the so-called required EEDI. The exact value of the required EEDI depends on

Attained EEDI ≤ Required EEDI

$$\text{EEDI} = \frac{P \times \text{SFC} \times C_F}{\text{DWT} \times V_{\text{REF}}}$$

Where:

- P** = 75% of the rated shaft power,
- SFC** = the specific fuel consumption,
- C_F** = a conversion factor giving the amount of CO₂ produced from the particular type of fuel used,
- DWT** = represents the deadweight tonnage of the ship, and
- V_{REF}** = the vessel speed at design load.

Figure 1: Required EEDI Calculation

the ship's type and size. The regulation stipulates that the attained EEDI must not be greater than the required EEDI, in which, IMO has calculated the required EEDI values (see Figure 1), based on reference lines developed using averaged energy efficiency data from ships built between 2000 and 2010 (MEPC.203(62), 2011).

The regulation stipulates that the required level of EEDI be further strengthened every five years as part of the effort to reduce carbon dioxide emissions per tonne mile from ships. As can be seen from Table 2, IMO has set rate of reduction of carbon dioxide emissions until the period of 2025 and beyond, whereby most types of ships need to be 30% more efficient compared with the baseline. Here, the role of ship designers and builders are essential, and they are free to choose the most cost-effective solution, as long as the required level of energy efficiency is achieved. This encourages new ships to be more technologically advanced and ultimately, promote innovation at the ship design stage. New technologies and alternative fuels such as LNG, LPG, methanol, biofuel, and hydrogen are listed as some of the most promising solutions (DNV.GL, 2019).

The implementation and enforcement of an Energy Efficiency Existing Ship Index (EEXI) which broadly follows the EEDI, including survey and certification, will contribute to reducing GHG emissions. This Attained EEXI should be less than a specific Required EEXI, taken as a percentage

relative to the EEDI baseline. Both the Attained and the Required EEXI will be included in each ship's International Energy Efficiency Certificate (IEEC).

Ship Energy Efficiency Management Plan

SEEMP is intended as a practical tool to help ship owners manage the environmental performance of each ship. Under the regulation, all vessels, new or existing, with 400 gross tonnage and above, are required to keep a specific SEEMP on board. A SEEMP provides a structured approach for monitoring and improving a ship's performance and therefore, improving fleet efficiency performance over time. This is done through improvements to the ship's operational efficiency by reducing fuel consumption and in turn, lowering GHG emissions.

Part I of the SEEMP is to provide a mechanism that can improve the energy efficiency of each ship in operation and that of the company's fleet in total. It encourages the implementation of ship specific energy efficiency measures that result in reduced fuel consumption on board. There is a variety of options to improve efficiency, such as, speed optimisation, weather routing and hull maintenance depending on ship type, cargoes, routes, and other factors. There is no "one size fits all" solution, so it is important that the SEEMP be ship specific.

PHASE	YEAR	REDUCTION RATES
Phase 0	2013-2015	0%
Phase 1	2015-2020	-10%
Phase 2	2020-2025	-15 to -20%
Phase 3	2025+	-30%

Table 2: Reduction Rate of EEDI [$\text{gm CO}_2/\text{te.nm}$]

The IMO guidelines can help ship owners develop a SEEMP for each individual ship in their fleet. The guidelines contain practical measures which can assist in improving the energy efficiency of a ship. It also provides a practical approach on how to develop the SEEMP, which consists of a four-stage process (Plan-Do-Check-Act), and thereby progressively improving the energy efficiency of the ship.

Starting in 2019, all ships of 5,000 gross tonnage and above are required to monitor and report their annual fuel oil consumption data. Part II of the SEEMP relates to this mandatory obligation and provides detailed information on the monitoring and reporting scheme. According to IMO regulations, the consumption data for all types of fuel oil consumed per year by a ship has to be reported regardless of the type of combustion machinery it uses. Every type of fuel must be reported irrespective of whether the ship was underway or not. Other information that must be recorded and reported to the IMO includes the distance travelled by the ship and the hours spent underway. The methods used to determine the fuel consumption are set out in the SEEMP guidelines (MEPC.282(70), 2016). After each calendar year, all data collected must be reported to the ship's flag Administration for verification. Once the data is checked, the flag Administration has to transfer the data to the IMO.

Starting from 2023, all ships of 5,000 gross tonnage and above will be required to calculate their annual operational Attained Carbon Intensity Indicator (CII), based on verified data in accordance with the IMO Data Collection System (IMO DCS). The Attained CII will then be compared to a Required CII which will be annually reduced by a specified percentage depending on a ship's type and size category. The Attained CII calculation methodology and the Required CII for the first three years will be included in each

SEEMP. Subsequently, each SEEMP will have to be updated and re-approved.

Verification is carried out by the ship's flag administration and in Malaysia, this falls under the purview of the Marine Department Malaysia (MARDEPT). MARDEPT requires all new ships to comply with the EEDI and SEEMP for existing ships. For any ship weighing 400 gross tonnage and above, an IEEC for the ship is issued after a survey is done in accordance with the provisions of the amended regulation (MSN09, 2012). This means that if EEDI and SEEMP verification has been completed, then the ship is issued with an IEEC. This certificate is valid for the lifetime of the ship unless there are major conversions, as defined by the Annex, that affect its energy efficiency.

MALAYSIA'S COMMITMENT TO REDUCE GHG EMISSIONS

Recognising that international shipping needs to continue getting greener, as well as supporting the aim of the 2015 Paris Climate Change Agreement that sets a clear goal to limit the global average temperature increase to 1.5°C above pre-industrial levels, the IMO continues to look into how it can further reduce the shipping industry's carbon footprint. In 2018, the IMO adopted an Initial GHG reduction strategy that commits to phasing out carbon dioxide emissions from international shipping in this century. The strategy includes setting a target of reducing the total annual GHG emissions by at least 50% by 2050.

Responding to the global threat from climate change that is being imposed on the planet, Malaysia is committed to contributing to the reduction of GHG emissions and to achieve the IMOs' goal in phasing out GHG emissions from international shipping during this century. As emphasised in the MARPOL Convention,



Shipping in the Straits of Malacca

increasing energy efficiency will reduce fuel consumption, thus reducing fuel costs and lowering GHG emissions. It's a win-win situation, both for our planet and the shipping industry.

In the 32nd Session of the IMO Assembly which was held from December 6-15, 2021, Malaysia secured the vote to continue as an IMO Member State for a ninth consecutive term, a befitting celebration of Malaysia's 50th Anniversary as an IMO Member State since 1971. Winning the election is an honour for Malaysia as shipping is one of the most important modes of goods transportation as well as a significant enabler of Malaysia's economic growth. The re-election has allowed Malaysia to retain her seat in Category-C of the IMO Assembly for the 2022-2023 biennium, further strengthening Malaysia's long-term commitments and contribution to the programmes and ideals of the IMO and its constituent agencies. The Marine Department Malaysia, a Government agency under the purview of Ministry of Transport, has been mandated to supervise all matters relating to merchant shipping throughout the Federation (ILBS, 2007), and spearhead the initiatives for greener shipping in the country.

To achieve international goals and to be seen as walking the talk, Malaysia needs a strong partnership as mentioned in the United Nations Sustainable Development Goals (SDGs), particularly SDG 17, which highlights the

importance of partnerships and implementation to achieve the goals, and allowing all parties involved to share and distribute information on best practices and to access resources and general know-how.

Malaysia believes prioritising environmental sustainability and responding appropriately to the global climate issue, within the SDG 2030 context, will build a strong foundation towards sustainable shipping. In November 2021, YB Datuk Seri Ir. Dr. Wee Ka Siong, Minister of Transport, announced the participation of Malaysia in the IMO-Norway Green Voyage 2050 (GV2050), and is prepared to actively contribute and participate towards the successful implementation of this project. The GV2050 is a global partnership to support developing countries in meeting their commitment towards relevant climate change and energy efficiency goals.

On February 22-24, 2022, the celebration of Malaysia's Maritime Week 2022 with the theme "New technologies for greener shipping" was done to show appreciation and respect to the Government and the private sector such as ship owners, logistics agencies, maritime transport, port operators for their efforts, contributions and commitments to the development of the maritime industry. This theme, as mentioned by the Secretary General of the IMO, Mr Kitack Lim, is an apt reminder to all to reflect on the need to support the green transition of the maritime sector

for a sustainable future. Hence, the Malaysian maritime communities are called upon to actively support a greener transition of the shipping sector, showcasing maritime innovation, research and development, as well as demonstrating and deploying new technologies. ■

REFERENCE

- DNV.GL. (2019). *Assessment of selected alternative fuels and technologies*. Hamburg: DNV. GL.
- ILBS. (2007). *The Merchant Shipping Ordinance 1952*. Petaling Jaya: International Law Book Services.
- IMO. (2020). *Fourth IMO Greenhouse Gas Study*. London: International Maritime Organization.
- MEPC.203(62). (2011). *International Maritime Organization*. Retrieved from Energy Efficiency Measures: <https://www.imo.org/en/OurWork/Environment/Pages/Technical-and-Operational-Measures.aspx>
- MEPC.282(70). (2016, October 28). *Index of MEPC Resolutions and Guidelines related to MARPOL Annex VI*. Retrieved from International Maritime Organization: <https://www.imo.org/en/OurWork/Environment/Pages/Index-of-MEPC-Resolutions-and-Guidelines-related-to-MARPOL-Annex-VI.aspx#4>
- MSN09. (2012). *Marine Department Malaysia*. Retrieved from marine.gov.my/jlm/notice/shipping: www.marine.gov.my
- NOAA. (2020). *National Centers for Environmental Information*. Retrieved from State of the Climate: Global Climate Report for 2020: <https://www.ncdc.noaa.gov/sotc/global/202013/supplemental/page-1>.
- UNCTAD. (2020). *Review of maritime transport*. New York: United Nation Publication.
- Wang, H., & Lutsey, N. (2013). *Long-term potential for increased shipping efficiency through the adoption of industry-leading practices*. Washington DC: International Council on Clean Transportation.

Sila Imbas



THE **INGENIEUR** VOL 92 OCTOBER-DECEMBER 2022

<https://viewer.joomag.com/ingenieur-vol-92-oct-dec-2022-ingenieur-vol92-final/0343133001672971641?short&>



PAPARAN DIGITAL BAGI *Lesen Kenderaan Motor (LKM)* *Lesen Memandu Malaysia (LMM)*

Mulai **10 FEBRUARI 2023** pemilik kenderaan persendirian bagi warganegara boleh menggunakan mod paparan LKM Digital (e-LKM) dan LLM Digital (e-LLM) melalui Portal awam JPJ atau Aplikasi Mobile MyJPJ.

Kenderaan persendirian individu, termasuk motosikal bagi warganegara **TIDAK PERLU PAMER PELEKAT LKM** mengikut peruntukan di bawah Seksyen 127 (1) (b) Akta Pengangkutan Jalan 1987.

Bagi pemandu dan pemilik kenderaan yang belum bersedia, anda masih boleh memapar pelekat LKM dan menggunakan kad LMM dalam tempoh interim.

Inisiatif ini akan dilaksanakan secara berperingkat, mengambil kira kesediaan sistem dan penerimaan awam terhadap pelaksanaannya sebelum peluasan ke fasa seterusnya.



Info

Anda tidak akan disaman jika tidak dapat muat turun aplikasi MyJPJ dan tidak menunjukkan e-LKM & e-LLM

Penguat kuasa (JPJ & Polis) akan menyemak status LKM dan LLM melalui gajet penguatkuasaan (Sistem SmED)



Cetak e-LKM & e-LLM dan simpan dalam kenderaan

Dalam tempoh pelaksanaan fasa pertama ini, kategori pemilik atau pemegang lesen kenderaan yang masih **WAJIB** mempamerkan LKM dan mengemukakan kad LLM adalah seperti berikut:-

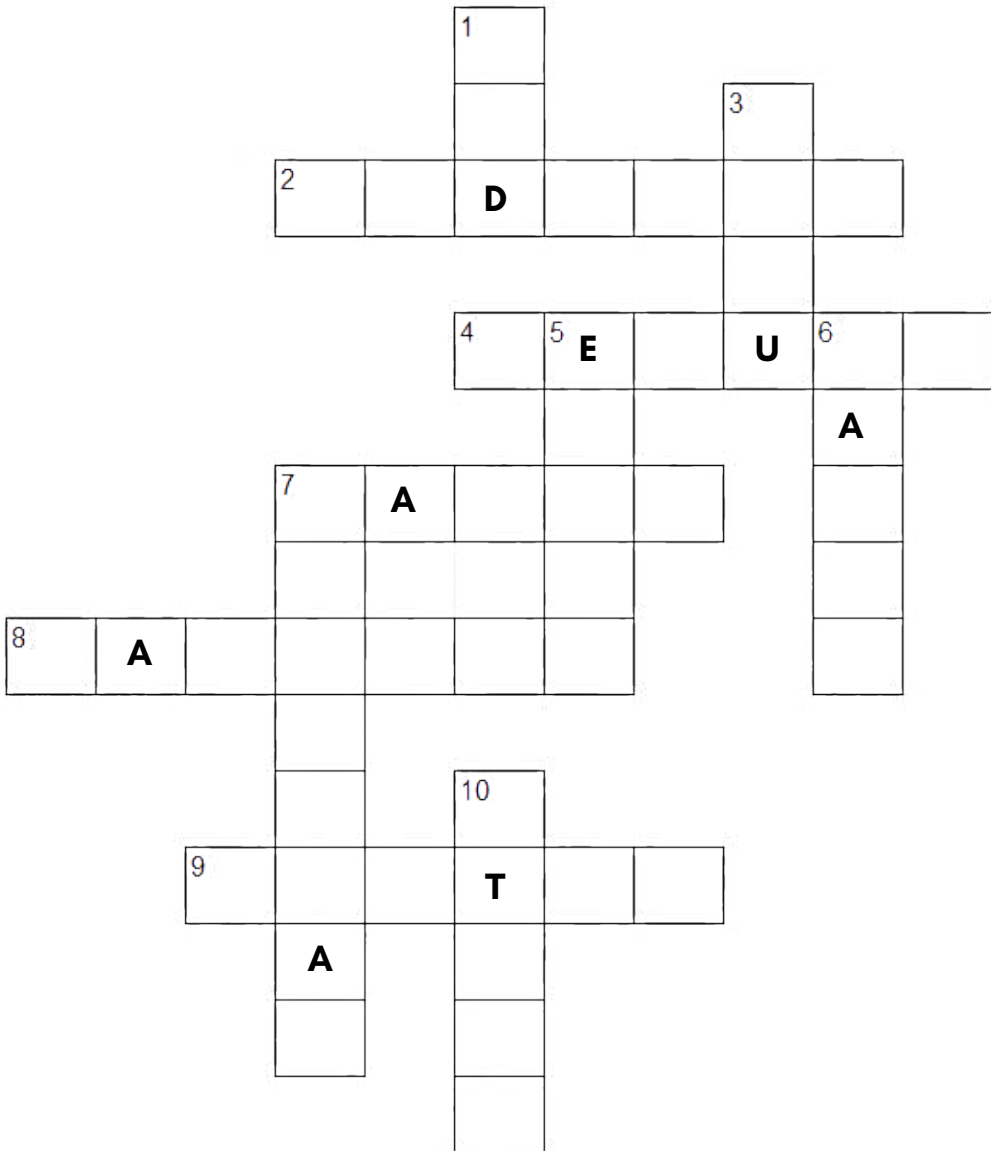


LESEN KENDERAAN MOTOR (LKM)

- 01 LKM Persendirian Syarikat
- 02 Kenderaan Pemilikan Warganegara Asing
- 03 Kenderaan Perdagangan Meliputi Kenderaan Barangan dan Kenderaan Perkhidmatan Awam

Sumber: Kementerian Pengangkutan Malaysia

TEKA SILANG KATA JABATAN LAUT MALAYSIA



MENEGAK

- 1 Pelengkap konvensyen antarabangsa.
- 3 Ada laut, ada yang darat.
- 5 Nadi kepada dorongan kapal.
- 6 *Galley* kapal di rumah anda.
- 7 Nyalaan api memerlukan ia, udara dan haba
- 10 Buletin laut diterajui oleh wilayah sohor.

MELINTANG

- 2 Kitab samudera sejak 1952 dan 1960.
- 4 Ibu haiwan ini namanya sama walau dieja dari depan atau belakang.
- 7 Dikibarkan apabila masuk pelabuhan.
- 8 Pemimpin maritim dilahirkan di sini.
- 9 Geti, padannya Bunga. Sila, padannya Buku.



DAPUR JLM

BAHAN - BAHAN:

- **Bahan-bahan untuk perapan ayam:**

- 400g atau 2 keping isi ayam
- 1 sudu besar tepung jagung
- 2 sudu besar kicap cair

- **Bahan-bahan untuk sos:**

- 2 sudu besar kicap manis
- 2 sudu besar kicap cair
- ½ sudu besar minyak bijan
- 1 sudu besar tepung jagung
- 1 sudu besar gula
- 3-4 sudu besar air

- **Bahan-bahan untuk lain-lain:**

- 1 senduk minyak masak
- ½ mangkuk kecil gajus
- 6-7 tangkai cili kering
- 3-4 ulas bawang putih
- 1 inci halia
- Lada benggala
- ¼ biji bawang holland
- Daun bawang



Ayam Kung Pao

CARA PENYEDIAAN:

Cara-cara untuk ayam kung pao:

- Potong cili kering, bawang holland, daun bawang, bawang putih dan halia.
- Potong ayam dalam bentuk kiub lalu gaul rata tepung jagung dan kicap cair.
- Perap seketika ayam tersebut.
- Pada bekas asing, masukkan kicap manis, kicap cair, minyak bijan, tepung jagung, gula dan air lalu kacau kesemua bahan hingga sekata.
- Panaskan minyak dan goreng gajus sehingga keperangan lalu angkat.
- Goreng cili kering dan masukkan isi ayam sehingga ayam kelihatan keperangan.
- Masukkan hirisan bawang putih dan halia, lalu gaul sehingga naik bau.
- Masukkan lada benggala, bancuhan sos, sedikit air, bawang holland dan gajus.
- Tambah garam jika perlu.
- Masukkan daun bawang dan sambung sehingga masak.
- Kemudian, ayam kung pao siap dan boleh dihidang.

TIPS:

Masak ayam di atas api yang besar dan kacau dengan cepat supaya ayam kung pao menjadi lebih *juicy*, lembut dan masak sempurna.

EDITORIAL BULETIN JABATAN LAUT MALAYSIA



Mohammad Hisham Bin Ali
Ketua Editor



Kapten Mohamad Halim Bin Ahmed
Penasihat

EDITOR- EDITOR



**Reeta a/p
Francis**



**Mohamad Najdi Naim
Bin Mohd Tarmizi**



**Azham
Bin Abd Razak**



**Sharifah Taherah Bt
Shabbir Ahmad**



**Siti Norparlila Bt
Sidek**



**Asrul Hafandi
Bin Awang Haji**

Diterbitkan oleh:

UNIT KORPORAT

Ibu Pejabat Laut, Jabatan Laut Malaysia

Peti Surat 12, Jalan Limbungan,
42007 Pelabuhan Klang,
Selangor Darul Ehsan.

korporat@marine.gov.my