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DAFTAR RIWAYAT HIDUP



Identitas Pribadi

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Identitas Keluarga

1. Nama Ayah : Subari
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4. Saudara :
 1. Luthfia Khoirunnisa
 2. Ummi Salma Aliya Zulfa

Riwayat Pendidikan

1. SD N 3 Parakan Kauman : Tahun 2000 – 2006
2. SMP N 2 Temanggung : Tahun 2006 – 2009
3. SMA N 1 Temanggung : Tahun 2009 – 2012
4. PIP Semarang : Tahun 2012 – Sekarang

Praktek Laut

1. Perusahaan Pelayaran : NYK Shipmanagement PTE. Ltd.
2. Nama Kapal :
 1. MV. NYK THESEUS
 2. MV. JINGU
3. Masa Layar : 5 Oktober 2014 – 13 November 2015



DAFTAR LAMPIRAN

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- b. Menu utama ke ENC & ARCS Chart Portfolio (gambar 4.5)
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- g. Lembar contoh *Passage Plan Map*
- h. *Passage Planning Checklist*

LAMPIRAN WAWANCARA

Dalam proses pengumpulan data-data skripsi dengan judul OPTIMALISASI PENGOPERASIAN ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS) DALAM UPAYA PENINGKATAN KESELAMATAN PELAYARAN DI MV. JINGU ini, penulis juga menggunakan metode pengumpulan data dengan cara wawancara kepada mualim I, II, dan III kapal MV. JINGU. Berikut adalah data dari para responden yang penulis lakukan wawancara:

Responden 1

Nama : EUSTAQUIO JR. SABERON ABALA

Umur : 42 tahun

Jabatan : Mualim I / *Chief Officer*

Responden 2

Nama : JOEY JR. BALAGOT OFIAZA

Umur : 45 tahun

Jabatan : Mualim II / *2nd Officer*

Responden 3

Nama : JANRY ABOBOTO SALMO

Umur : 35 tahun

Jabatan : Mualim III / *3rd Officer*

Wawancara dilakukan pada waktu pelayaran dari Singapore menuju Israel pada tanggal 12 Oktober 2015 sampai dengan 29 Oktober 2015 kepada Responden 1, Responden 2, dan Responden 3 sebagai berikut :

1. Menurut anda seberapa pentingkah keberadaan ECDIS di kapal?

a. Responden 1

“Di kapal ini ECDIS telah digunakan sebagai alat navigasi utama. Peta kertas sudah tidak digunakan lagi. Sehingga keberadaannya sangat penting untuk kegiatan navigasi kapal”.

b. Responden 2

“ECDIS sangat penting disini untuk memonitor posisi kapal dan untuk kegiatan *passage planning*. Keberhasilan pelaksanaan *passage plan* bergantung pada ECDIS dan kemampuan operatornya dalam mengoperasikan ECDIS. Pada waktu yang akan datang semua kapal akan diharuskan mempunyai ECDIS dan peta kertas tidak akan digunakan lagi”.

c. Responden 3

“ECDIS sangat penting keberadaannya untuk menavigasikan kapal. Di MV. JINGU sudah menerapkan sistem dual ECDIS sehingga kegiatan navigasi dilakukan melalui ECDIS”.

2. Apa pendapat anda mengenai ECDIS menggantikan posisi peta kertas di kapal?

a. Responden 1

“ECDIS memang memberikan keuntungan-keuntungan yang tidak bisa didapatkan dari peta kertas. Tetapi kita tidak boleh melupakan peta kertas karena ilmu-ilmu navigasi dasar kita pelajari melalui peta kertas. Jangan sampai semua kemudahan yang ada sekarang menjadikan kita pelaut yang malas”.

b. Responden 2

“ECDIS memang memberikan banyak sekali kemudahan bagi navigator dalam memantau jalannya kapal serta berbagai informasi yang ditampilkan dalam satu layar. Sehingga ECDIS dapat diterima untuk menggantikan peta kertas di kapal sesuai SOLAS bab V tentang *safety of navigation*. Namun ECDIS juga memberikan dampak kepada navigator yaitu mereka menjadi jarang mengaplikasikan teori penentuan posisi secara manual, padahal ini adalah ilmu dasar navigasi”.

c. Responden 3

“Kegiatan monitoring kapal lebih mudah dilakukan dengan ECDIS dibanding peta kertas. Berbagai informasi dari alat navigasi lain dapat dilihat di layar ECDIS sehingga sangat memudahkan bagi navigator”.

3. Seberapa seringkah anda menggunakan ECDIS di kapal ini?

a. Responden 1

“Setiap saya melaksanakan dinas jaga di anjungan. Jadi selama berada di atas kapal saya menggunakan ECDIS selama 8 jam setiap hari untuk memonitor posisi kapal.”

b. Responden 2

“Tentu saja sangat sering, karena saya mempunyai tugas untuk meng-*update* peta di ECDIS dan melakukan koreksi-koreksi. Saya juga membuat rute pelayaran melalui ECDIS, jadi setiap berdinis jaga di anjungan saya menggunakan ECDIS untuk membuat passage plan selain untuk bernavigasi”.

c. Responden 3

“Saya selalu mengecek ECDIS mungkin 5 menit sekali selama berdinis jaga untuk memantau posisi dan haluan kapal apakah menyimpang dari trek atau tidak. Saya lebih sering menggunakan Master ECDIS karena Back up ECDIS sering mengalami *hang* dan sering tidak merespon”.

4. Untuk kegiatan apa sajakah anda menggunakan ECDIS?

a. Responden 1

“Saya menggunakan ECDIS untuk memantau posisi dan haluan kapal sesuai rute yang telah ditetapkan. Karena ECDIS telah terhubung dengan alat navigasi lain seperti GPS, AIS, GYRO COMPASS, ARPA, RADAR, ECHO SOUNDER, dan lain-lain yang memudahkan navigator untuk melakukan pengamatan navigasi karena semua informasi dapat dilihat di layar ECDIS. Saya juga akan memberikan familiarisasi kepada *officer* yang baru naik kapal sebagai pengetahuan dasar mengoperasikan ECDIS”.

b. Responden 2

“Sebagai officer yang bertanggung jawab atas ECDIS, banyak sekali kegiatan yang saya lakukan dengan ECDIS. Yang pertama adalah navigasi dan passage planning. Mulai dari menyiapkan peta ENC, membuat rute, memasukkan informasi navigasi dan informasi broadcast ke ECDIS. Selanjutnya adalah pembaruan ECDIS, sebagai mualim II saya harus memastikan bahwa ECDIS telah ter-update dengan pembaruan terbaru dari AVCS. Dan yang terakhir adalah familiarisasi, mualim yang baru naik kapal mungkin belum familiar dengan ECDIS di kapal ini sehingga diperlukan familiarisasi tentang ECDIS dan prosedur pengoperasian dasarnya. Mualim I juga dapat memberikan familiarisasi sesuai SMS”.

c. Responden 3

“ECDIS adalah alat yang telah menggantikan posisi peta kertas. Saya menggunakan ECDIS untuk bernavigasi dan memonitor jalannya kapal. Kelebihan ECDIS antara lain telah dilengkapi dengan alarm sehingga bisa melihat kedepan bahaya-bahaya navigasi yang akan dilewati sehingga dapat dilakukan tindakan untuk mengantisipasinya seperti, *safety depth*, *safety contour*, *cross track alarm*, *safety distance*, dan lain-lain”.

5. Bagaimana performa ECDIS di kapal MV. JINGU menurut anda?

a. Responden 1

“Back up ECDIS sering mengalami hang atau tidak merespon sehingga beberapa kali harus direstart. Setelah direstart harus dimuat kembali rute

pelayaran dan informasi-informasi dari usermap. Master ECDIS bekerja dengan baik sejauh ini”.

b. Responden 2

“Saya pikir kedua ECDIS sudah berjalan dengan baik, tetapi masalah performa Master ECDIS sedikit lebih baik dibandingkan backup-nya. Beberapa kali back up ECDIS sering mengalami *hang* atau *stuck* saat dioperasikan. Seperti saat memuat peta yang akan digunakan untuk bernavigasi sehingga perlu menunggu sedikit lebih lama”.

c. Responden 3

“Performa ECDIS di kapal ini menurut saya kurang. Seperti kejadian kemarin saat terjadi kerusakan pada back up ECDIS sehingga harus dialiri udara dingin dari pendingin ruangan. Mungkin sudah waktunya diganti karena sudah lama disini”.

6. Apakah kekurangan dari alat ECDIS dalam pengoperasiannya diatas kapal?

a. Responden 1

“Kekurangan dari ECDIS karena alat ini bergantung pada sumber listrik kapal, jadi sewaktu-waktu dapat mengalami kegagalan. Jadi seorang navigator tidak boleh terlalu bergantung pada ECDIS dan harus tetap mengembangkan skill, pengetahuan, dan pengalamannya sebagai pelaut yang baik untuk mengoperasikan kapal dengan selamat”.

b. Responden 2

“Dalam pembuatan passage plan, saya harus melakukan *updating* ENC untuk peta-peta yang akan dilayari. Sebelumnya saya harus mengirimkan

request ke perusahaan dan *provider* via *e-mail*. Proses ini membutuhkan waktu beberapa hari sampai *permit* diterima dan di-*install* di ECDIS. Kendalanya adalah beberapa kali saya harus membuat *passage plan* tanpa adanya informasi di peta yang dilewati rute pelayaran karena *permit* belum diterima”.

c. Responden 3

“Salah satu kekurangan ECDIS untuk bernavigasi adalah perbedaan data-data kapal lain yang ditampilkan ECDIS dengan yang ditampilkan RADAR/ARPA seperti haluan, kecepatan, CPA dan TCPA. Hal ini beberapa kali menyulitkan untuk menganalisa keadaan dan ancaman tubrukan, terutama saat kapal berlayar di daerah dengan *traffic* tinggi”.

7. Saat pertama kali naik kapal, apakah anda telah diberikan familiarisasi tentang ECDIS?

a. Responden 1

“Familiarisasi terhadap ECDIS telah saya laksanakan pada hari pertama naik kapal. Familiarisasi di kapal ini termasuk dalam *manufacture training* untuk mengenalkan perwira baru dengan ECDIS yang terdapat di kapal ini secara spesifik.”

b. Responden 3

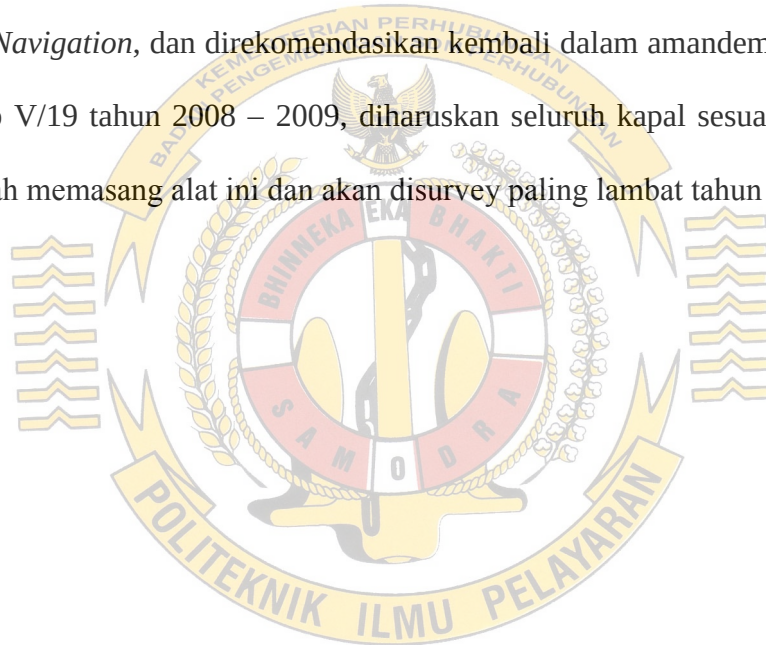
“Saya telah menerima familiarisasi tentang ECDIS pada saat pertama kali naik kapal ini. Pertama saya mendapat sedikit penjelasan dari mualim III sebelumnya tentang dasar-dasar pengoperasian ECDIS di kapal ini,

kemudian saya kembali menerima familiarisasi dari mualim II sesuai
ECDIS Familiarisation Checklist.”

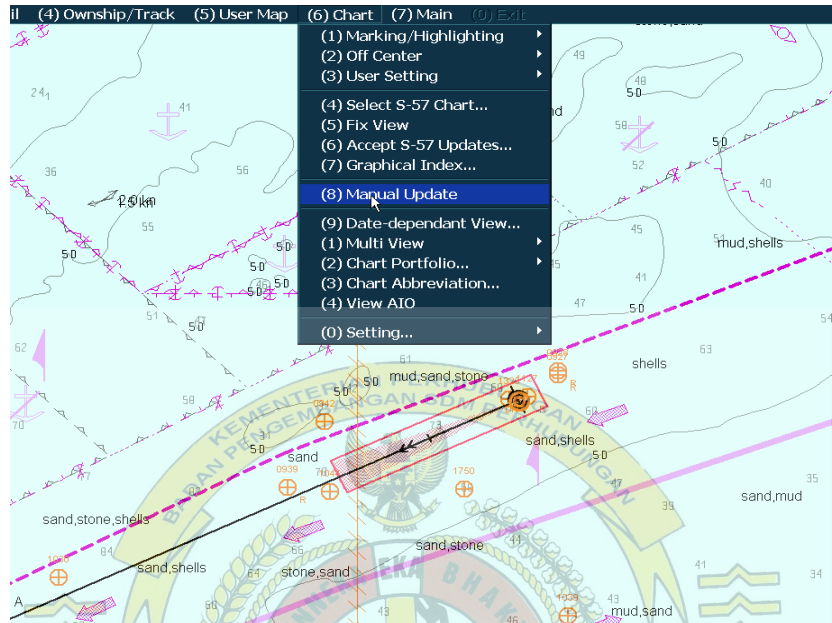
8. Mengapa *Electronic Chart Display and Information Systems (ECDIS)* harus terpasang di atas kapal?

Responden 1 :

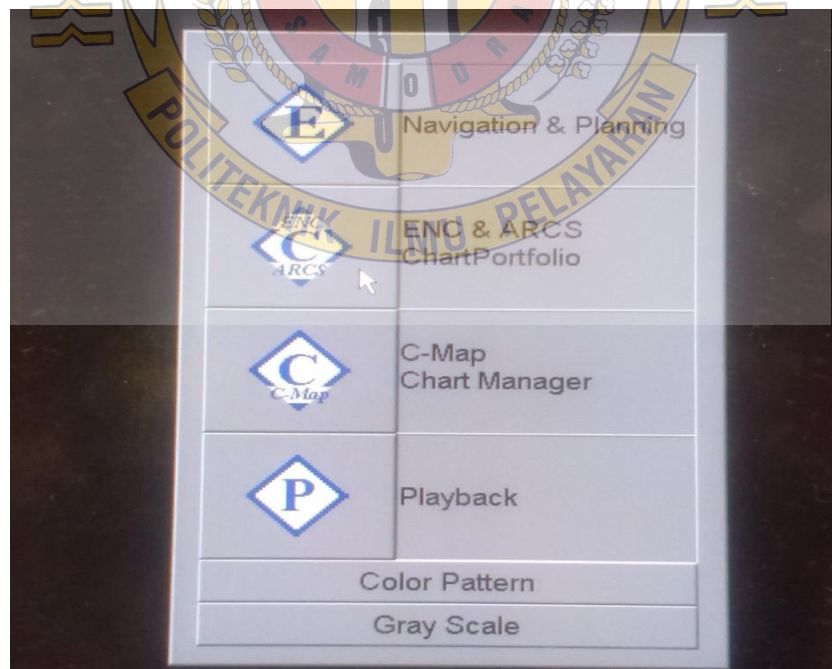
“*Electronic Chart Display and Information Systems (ECDIS)* adalah salah satu alat navigasi baru yang telah diatur dalam SOLAS bab V sebagai *Safety of Navigation*, dan direkomendasikan kembali dalam amandemennya SOLAS bab V/19 tahun 2008 – 2009, diharuskan seluruh kapal sesuai ketentuannya telah memasang alat ini dan akan disurvei paling lambat tahun 2017. “



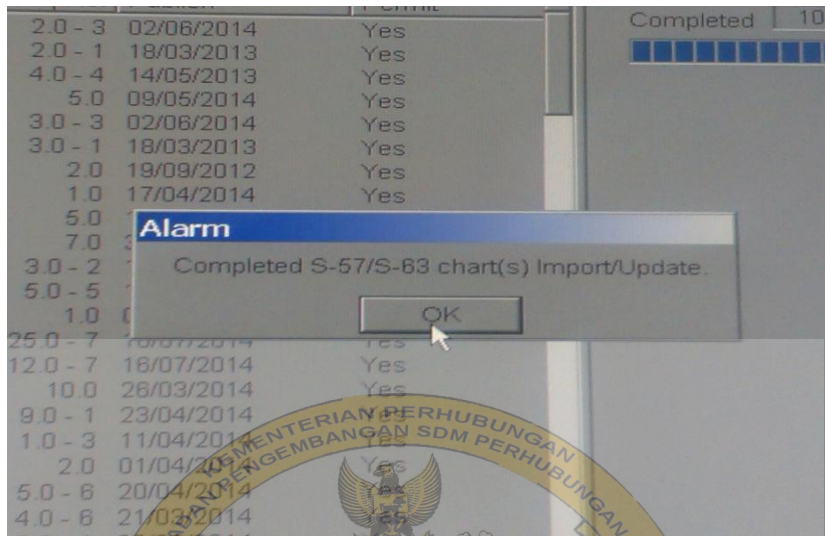
LAMPIRAN GAMBAR



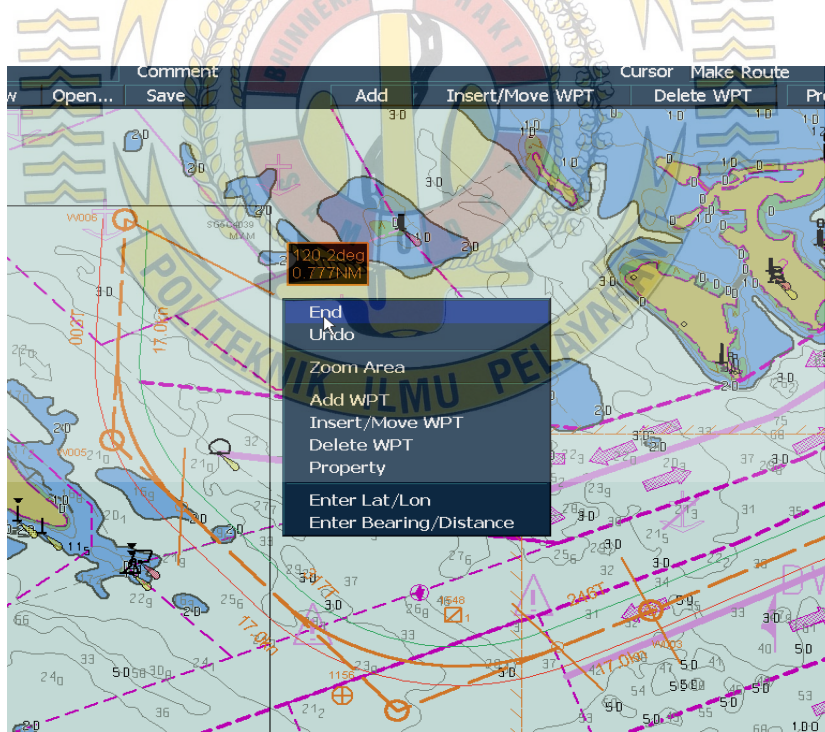
Gambar 4.6 Tampilan menu *Manual Update*



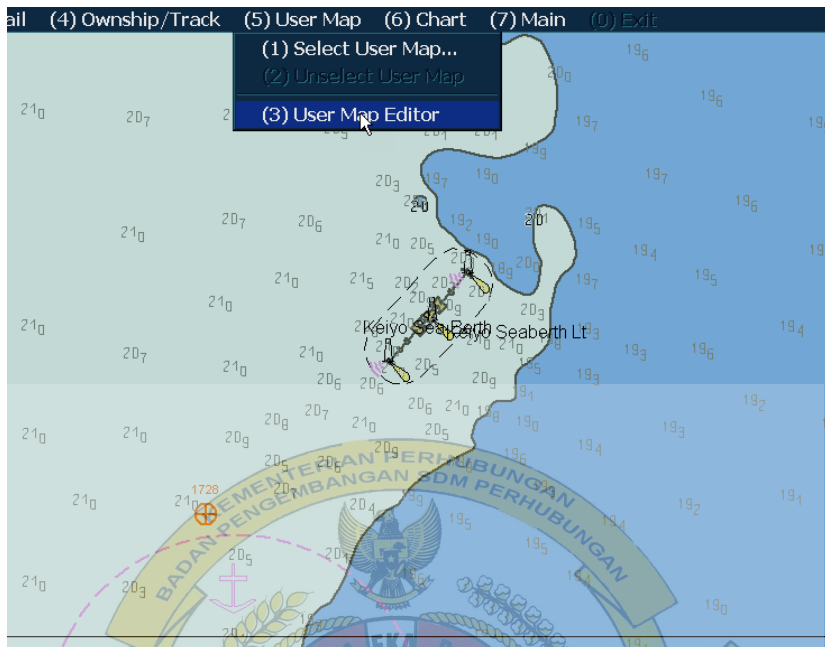
Gambar 4.7 Menu utama ke *ENC & ARCS Chart Portfolio*



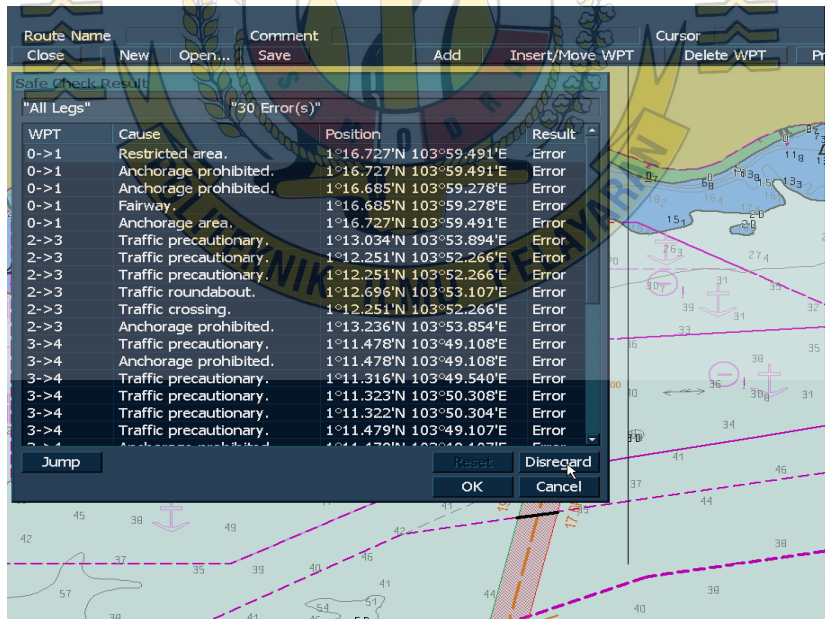
Gambar 4.8 Pemberitahuan pembaharuan peta otomatis telah selesai



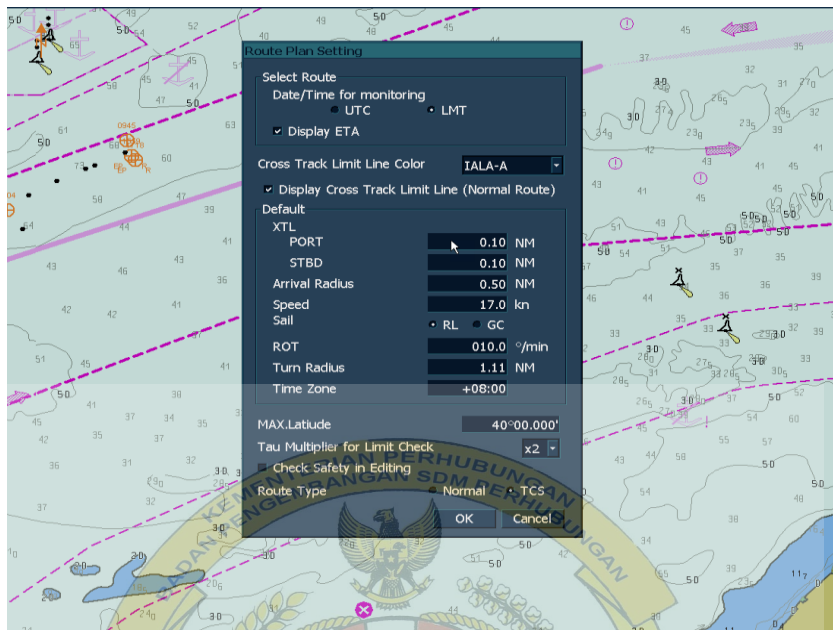
Gambar 4.9 Mengakhiri pelukisan peta melalui *Graphic Editor*



Gambar 4.10 Tampilan menu *User Map Editor*



Gambar 4.11 *Disregard* untuk menindak lanjuti peringatan setelah rute di cek



Gambar 4.12 Pengaturan untuk menyetel *Cross Track Limit* di ECDIS



Gambar 4.13 Pengaturan untuk tampilan siang dan malam hari
(*Day/Night setting*)

LAMPIRAN DOKUMEN

SPESIFIKASI ALAT

1. Master ECDIS JRC (JAN 901-B)

GENERAL		
	OS	Windows XP embedded
	Power supply	AC 100-115, 200-230 V $\pm 10\%$, 60/50Hz $\pm 5\%$
	Power consumption	300VA or less
DISPLAY		
	Size	23" colour LCD display
	Resolution	1600x1200 dot (UXGA)
	EBL	2 (EBL1/EBL2)
	VRM	2 (VRM1/VRM2)
	Bearing indication	north-up / course-up (simultaneously in multi view)
	Presentation mode	true / relative / free motion
	Multi display areas	2 (longitudinal, transverse, picture in picture)
	Scale	1:1.000 up to 1:75.000.000
	Range	0.125 - 96nm
ROUTE PLANNING		
	Input	graphical or numerical
	Safety check	grounding, obstruction, dangerous areas
	Import/export format	CSV
	Limit check	TCS only: turn radius, route width
MONITORING		
	Plotting	Own vessel position and track
	ARPA tracking	200 (100 from No.1 Radar + 100 from No.2 Radar)
	AIS tracking	300 (sleeping + activated)

	AIS class	class A + class B
	AIS/ARPA alarm	CPA/TCPA
CHART MANAGEMENT		
	Updating	semi-auto / manual (available via ChartCo)
	Data correction	available
CONNING DISPLAY		
	Navigation screen	date/time, speed, route planning info, engine data, rudder data, weather/sea conditions
	Harbour/docking screen	speed, docking/sway speed, thruster data
	Alarm management screen	complete and detailed alarm status, acknowledge
INTERFACES		
	Gyro input	IEC61162-2 or synchro/step
	Log input	IEC61162-1 or 200 pulse
	Remote maintenance	possible
	Copying route	FD / USB
	Network	LAN (10/100Mbps)
OPTIONAL ITEMS		
	HUB (for multiple radars/RPS connector	7EZNA4008
	Junction box route HUB	CQD-10
	Gyro interface unit	MPXP34120
	Mini keyboard	5EZKT00022
	Route planning system (RPS)	JAN-1186-19
	Display cover	MPXP33089
	Display hood	MPOL30345A

2. Back up ECDIS JRC (JAN-2000)

GENERAL		
	Power supply	100V to 115V, 200V to 230V AC $\pm 10\%$, 60/50Hz $\pm 5\%$
	Power consumption	160VA max. □ 120VA typ.)
DISPLAY		
	Size	18.1 inch or 19 inch colour LCD display
	Resolution	1280 by 1024 pixels (SXGA)
	EBL	2 (EBL1/EBL2)
	VRM	2 (VRM1/VRM2)
	Bearing indication	north-up / course-up (simultaneously in multi view)
	Presentation mode	true / relative / free motion
	Multi display areas	2 (longitudinal, transverse, picture in picture)
	Scale	1:1.000 up to 1:75.000.000
	Range	0.125 - 120 NM
ROUTE PLANNING		
	Input	graphical or numerical
	Safety check	grounding, obstruction, dangerous areas
	Import/export format	CSV
MONITORING		
	Plotting	Own vessel position and track
	TT (ARPA) targets	200
	AIS tracking	300 (activated 100 + sleeping 200)
	AIS class	class A + class B
	AIS/ARPA alarm	CPA/TCPA
CHART MANAGEMENT		
	Updating	semi-auto / manual (available via ChartCo)
	Data correction	available

FUNCTIONS		
	Route planning	route editing, alternative route editing, safety check of planned route
	Navigation monitoring	own ship's position, crossing safety contour, approaching obstruction and prohibited areas, cross track error, arrival at waypoint, off course, dragging anchor
	Operation	multi-view, scrolling, data recording (up to 90 days), printing of screen/route/logbook
INTERFACES		
	IEC61162-1	RX 4ch, TX 3ch
	LAN	built-in 10/100 Mbps
	Copying route	USB
OPTIONAL ITEMS		
	Display 19-inch LCD	NWZ-173-E
	NSK unit	NCT-4106A
	Serial add-in board	NQD-2888
	PC mini keyboard	PCP-ACK-595 US-PS2-R
	PC trackball	ST-45UPI
	Manual chart installation (English)	7ZPNA4111

ECDIS FAMILIRAZATION

Vessel Name: _____

Officer: _____

Date Completed: _____

No	ITEMS	Comments	YES/NO
SECTION 1- INITIAL PREPARATION			
1.1	Establish if the vessel is approved to use ECDIS for navigation		
1.2	Establish whether there are Company Navigational Procedures concerning the use of the equipment and ensure that these are followed		
1.3	Establish whether any passwords are needed for the management of the system and, if so, obtain the details from the Master (if appropriate - see end note)		
1.4	Establish whether there is an onboard approved Familiarisation training package for the equipment, whether as computer based training, an inbuilt training mode or as a book or digital image of a book (eg. PDF file). Use this before completing the checklist items here		
1.5	Identify the primary ECDIS equipment and the facilities for back-up. If the back-up is a second ECDIS of a different type to that of the primary installation, then Sections 2 to 6 of this Familiarisation checklist must be repeated for both systems		
1.6	Understand ship procedures in event that the ECDIS and its back-up fail		
1.7	Determine where the user manuals for ECDIS and its backup are located – an electronic version of these may be available on each unit		
1.8	Determine where Base and Update CDs are stored on the ship (if appropriate)		
1.9	Determine the procedures to obtain additional chart permits (if appropriate)		
1.10	Determine and understand the position-fix systems that feed the ECDIS. Determine the method of switching between sources, such as primary and secondary position-fix systems		
1.11	Determine what other systems feed into the ECDIS, such as radar (acquired targets, Radar picture overlay), AIS, water speed logs, echo sounders, etc. For each, establish the reference framework, eg. ground-, water- or shipstabilised (relative)		
1.12	Determine where to find maintenance records related to the ECDIS and service reports, non conformity reports & inspection, validation reports (if appropriate)		
1.13	Determine the power supply modes and their specifications such as UPS duration		
SECTION 2- BASIC OPERATION			
2.1	Determine how to switch the ECDIS on and off		
2.2	Establish the function(s), position and general operation of the physical controls and switches, including cursor control, and the access and selection of menu items		
2.3	Understand how to access the main menu and select menu options		
2.4	Determine the methods for setting day/night viewing modes, brightness, contrast and colour correction (if available)		
2.5	Determine how to switch between traditional and simplified symbology		
2.6	Determine how to put equipment in route-monitoring mode and route-planning mode		
2.7	Determine the methods for scrolling and zooming charts, including determining the current scale of displayed charts and setting the display to a particular		
2.8	Determine how to select the Display Base and Standard Display		
2.9	Determine how to display other information from ENC's, including the display of All Other Information		
2.10	Determine how to check that information concerning own ship, such as dimensions are correct		
2.11	Determine how to select the safety contour and safety depth		
2.12	Determine how to select two- or four-colour contour mode		
2.13	Determine how to select deep and shallow area display options		
2.14	Determine how to set all other parameters concerning the safety domain		
2.15	Establish how alarms and other alerts are given by the ECDIS and understand the procedure needed to acknowledge them		

No	ITEMS	Comments	YES/NO
SECTION 3- CHARTS			
3.1	Determine how to access the chart directory and to identify whether charts are ENC's, RNC's or unofficial		
3.2	Determine how to select a chart for display on the screen		
3.3	Determine how to load new chart licence keys (if appropriate)		
3.4	Determine how to load base data (if appropriate)		
3.5	Determine how to check the update status of loaded charts		
3.6	Determine how to update charts using the normal cumulative update procedures (if appropriate)		
3.7	If applicable, determine how to apply non-cumulative or electronically-transmitted updates		
3.8	Determine how to apply manual updates (if appropriate)		
SECTION 4- NAVIGATION TOOLS AND FUNCTIONS			
4.1	Determine how to display the legend of general information e.g. units for depths & heights, datums etc..		
4.2	Determine how to select information about an object (Pick report)		
4.3	Determine how Zone of Confidence (CATZOC) information can be displayed		
4.4	Determine how to access the Presentation Library		
4.5	Determine what Marine Information Overlays (MIOs) are available and how to access them. (Radar and AIS covered in Section 6 below)		
4.6	Determine the single operator action needed to remove MIOs from the display		
4.7	Determine the single operator action needed to set the Standard Display		
4.8	Determine how to view, add, edit and delete Mariners' Notes		
4.9	Determine how to access all navigational elements and parameters, such as past track, vectors, position lines, etc.		
4.10	Establish the facilities provided for the measurement of range and bearing (eg EBLs and VRMs) and determine their use		
4.11	Determine the method(s) used for inserting Parallel Index lines		
4.12	Determine what other navigational tools are available and how to access them		
4.13	Determine how to change to using the ECDIS back-up system		
4.14	Determine the procedure for identifying and reacting to sensor/GNSS failure.		
4.15	Determine how to switch Chart Text (text for charted objects) on and off.		
SECTION 5- ROUTE PLANNING (If appropriate to watchkeeping responsibilities)			
5.1	Determine how to load existing routes and enable for editing		
5.2	Determine how to initiate a new route plan		
5.3	Determine how to initiate and plan alternate routes		
5.4	Determine how to save route plan		
5.5	Determine how to add, delete and adjust graphically the position of waypoints		
5.6	Determine how to add, edit and delete critical points		
5.7	Determine how to display time varying objects relevant for the timing of the planned voyage		
5.8	Establish all the features available for planning routes, such as use of straight and curved segments, wheel over positions, turn radii, and inserting pilotage aids		
5.9	Determine the ship's procedures for displaying MSI, T&P Notices and other relevant notes into the voyage plan		
5.10	Determine how to use the facilities for checking the planned route		
5.11	Determine how to load the planned route and alternatives into the back-up system		
5.12	If available, determine how to use RCDS mode where ENC's are not available and as appropriate.		
SECTION 6- ROUTE MONITORING			
6.1	Determine how to load a pre-planned route		
6.2	Determine how to select the primary or an alternate route and how to distinguish between them on the display		
6.3	Determine the single operator action that selects the charted display of own ship's position		
6.4	Determine the available display orientation modes and how to switch between them (eg. North Up, Head Up, Course Up)		
6.5	Determine the available display motion modes and how to select them and change the parameters, such as the position of own ship on the display when Relative Motion is selected		

[illegible]

Notes:

- 1) This checklist shall be used as part of familiarisation related to ECDIS as per S-032001-06CHK-Bridge Familiarization checklist. For any new joining officer the off signing officers shall at least complete the Initial preparation & Basic operations (Section 1 & 2) of this ECDIS Familiarization checklist, the remaining sections checklist to be completed by the on signing officer within 72 hours of joining.
- 2) Completion Date of training as per this familiarisation checklist shall be entered in S-032001-06CHK-Bridge Familiarization checklist
- 3) Hard copy training checklist shall be filed on board in case ship's staff have not completed equipment / type specific training ashore for the model/type of ECDIS fitted onboard

ECDIS Watch Checklist

Vessel	Voy No.	(Port) From	To (Port)
SECTION A: Settings (To be instructed by Master)			
1) Safety Depth Setting			
2) Safety Contour Setting			
3) Look Ahead Monitoring Zone (or Grounding alarm Monitoring Zone) instruction :			
Date:			
SECTION B: Check items prior taking over watch	0000	0400	0800
	1200	1600	2000
	Remarks		
1) Settings			
a) Is Date and time set on ECDIS accurate?			
b) Datum			
c) Being used in RCDS or ECDIS mode?			
d) Any change in settings of ECDIS?			
e) Route plan loaded and monitored on both ECDIS?			
f) Safety Depth setting (as per Section A-1)			
g) Safety contour setting (as per Section A-2)			
h) Look ahead function as per Section A-3?			
i) Draft and Pilot (static data - ship's particulars) correctly entered?			
j) Turn rate & radius of turn entered is appropriate?			
k) Cross track limit set as per area and Master's orders?			
2) Alarms & Indicators			
a) Are alarms settings as per mandatory req?			
b) Are indicator settings as per mandatory req?			
c) Are additional alarm / indicator settings as per Master's instructions?			
3) SENC Display & Charts			
a) All information in Standard Base selected?			
b) Are spot sounding selected for display?			
c) Is, if any, essential information to be displayed as per Master's instructions selected for display?			
d) Is Nominal Scale of chart being used? (No overscale / underscale/ SCAMIN)			
e) Updated ENC / RNC in use?			
4) SENSORS			
a) Confirm from handing over OOW about status of input of sensors including which are active?			
b) No speed and heading input errors?			
c) Compare radar and ECDIS(GPS) positions			
d) Compare ARPA and AIS data shown on ECDIS?			
e) Voyage Recording is in progress?			
5) Additional Checks if in RCDS Mode			
a) Paper charts being used as backup?			
b) Alarms for officer entered information active?			
c) Chart Datum and datum setting on ECDIS confirmed and datum shift applied, if required?			
6) Are all above checks confirmed on both ECDIS?			
7) Additional ship / equipment specific checks			
OOW Watch Signature:			
Master's Signature			

Note:

a) All checks should be carried out on both ECDIS.

b) Self Diagnostic and similar tests/checks should be included and carried out as per vessel specific Bridge / Navigation Equipment Checklist

[illegible]

- Tick appropriate means which is used for comparison of position on ECDIS.
- For Comparison with GPS, use the secondary position fixing GPS for that respective ECDIS.
- In remarks mention, if position found OK or any error (maintain suitable record of addressing that particular error) and Officer watch rank/sign).
- Interval of Comparison should be as per Passage Plan

[illegible]

ECDIS WAYPOINT LIST

MV JINGU

FM: SINGAPORE **TO:** EILAT

Date:
VOY: 25E

// ROUTE SHEET exported by JRC ECDIS.
// <<NOTE>>This strings // indicate comment column/cells. You can edit freely.
// SIN-EIL2<ANTS> V25E - SEMBAWANG - EILAT
// WPT No. LAT LON

WPT No.	LAT	LON	PORT[NM]	STBD[NM]	Speed[kn]	Sail(RL/G ROT[deg/m	Turn	Rad[Time	Zone
0	27.817 N	103 50.072 E	***	***	***	***	***	***	8:00 E
1	28.085 N	103 50.213 E	0.02	0.02	5 RL	23.87	0.2	8:00 E	
2	28.2 N	103 50.4 E	0.05	0.05	6 RL	28.65	0.2	8:00 E	
3	27.97 N	103 51 E	0.05	0.05	6 RL	28.65	0.2	8:00 E	
4	27.765 N	103 51.43 E	0.05	0.05	6 RL	28.65	0.2	8:00 E	
5	27.4 N	103 51.98 E	0.05	0.05	8 RL	38.2	0.2	8:00 E	
6	26.8 N	103 52.5 E	0.05	0.05	8 RL	38.2	0.2	8:00 E	
7	26.1 N	103 53 E	0.05	0.05	8 RL	38.2	0.2	8:00 E	
8	25.6 N	103 53.8 E	0.05	0.05	10 RL	47.75	0.2	8:00 E	
9	25.6 N	103 54.6 E	0.05	0.05	10 RL	47.75	0.2	8:00 E	
10	25.3 N	103 55.3 E	0.05	0.05	10 RL	47.75	0.2	8:00 E	
11	23.5 N	103 57.1 E	0.05	0.05	8 RL	38.2	0.2	8:00 E	
12	23.5 N	103 57.8 E	0.05	0.05	8 RL	38.2	0.2	8:00 E	
13	23.87 N	103 58.8 E	0.05	0.05	8 RL	38.2	0.2	8:00 E	
14	23.87 N	104 0.2 E	0.05	0.05	8 RL	38.2	0.2	8:00 E	
15	21.2 N	104 3.2 E	0.05	0.05	8 RL	38.2	0.2	8:00 E	
16	18.5 N	104 6.363 E	0.05	0.05	6 RL	28.65	0.2	8:00 E	
17	17.65 N	104 6.39 E	0.05	0.05	6 RL	11.46	0.5	8:00 E	
18	16.768 N	104 4.998 E	0.15	0.15	12 RL	22.92	0.5	8:00 E	
19	15.5 N	104 0 E	0.15	0.15	12 RL	22.92	0.5	8:00 E	
20	14.1 N	103 56 E	0.1	0.1	12 RL	22.92	0.5	8:00 E	
21	11.75 N	103 51 E	0.1	0.1	12 RL	22.92	0.5	8:00 E	
22	10.5 N	103 47.9 E	0.1	0.1	12 RL	22.92	0.5	8:00 E	
23	8.35 N	103 44.25 E	0.1	0.1	12 RL	22.92	0.5	8:00 E	
24	11 N	103 39.5 E	0.15	0.15	16 RL	30.56	0.5	8:00 E	
25	14.3 N	103 25 E	0.2	0.2	16 RL	30.56	0.5	8:00 E	
26	24.675 N	103 10.801 E	0.2	0.2	16 RL	30.56	0.5	8:00 E	
27	38.276 N	102 52.8 E	0.2	0.2	16 RL	30.56	0.5	8:00 E	
28	57 N	102 15.5 E	0.5	0.5	16 RL	30.56	0.5	8:00 E	
29	11.5 N	101 59.5 E	0.5	0.5	16 RL	30.56	0.5	8:00 E	
30	36.5 N	101 27.5 E	0.5	0.5	16 RL	30.56	0.5	8:00 E	
31	50 N	101 0 E	0.3	0.3	16 RL	30.56	0.5	8:00 E	
32	3.5 N	100 46 E	0.25	0.25	16 RL	30.56	0.5	8:00 E	
33	0 N	99 38 E	0.5	0.5	16 RL	30.56	0.5	8:00 E	
34	30 N	97 40 E	0.5	0.5	16 RL	30.56	0.5	8:00 E	
35	20 N	95 17 E	0.5	0.5	16 RL	30.56	0.5	8:00 E	
36	36 N	88 0 E	0.5	0.5	16 RL	30.56	0.5	7:00 E	

37	5	36 N	80	35.5 E	0.5	0.5	16 RL	30.56	0.5	6:00 E
38	6	45 N	78	0 E	0.5	0.5	16 RL	30.56	0.5	5:00 E
39	8	15 N	75	0 E	0.5	0.5	16 RL	30.56	0.5	5:00 E
40	14	28 N	53	0 E	0.5	0.5	16 RL	30.56	0.5	4:00 E
41	11	58 N	45	0 E	0.5	0.5	16 RL	30.56	0.5	4:00 E
42	12	33.7 N	43	29.1 E	0.5	0.5	16 RL	30.56	0.5	4:00 E
43	12	37.5 N	43	22 E	0.5	0.5	16 RL	30.56	0.5	4:00 E
44	13	14 N	43	4.5 E	0.4	0.4	16 RL	30.56	0.5	4:00 E
45	13	33.6 N	42	40 E	0.5	0.5	16 RL	30.56	0.5	4:00 E
46	15	0 N	41	52 E	0.5	0.5	16 RL	30.56	0.5	3:00 E
47	25	0 N	36	5 E	0.5	0.5	16 RL	30.56	0.5	3:00 E
48	27	30 N	34	41.709 E	0.4	0.4	16 RL	30.56	0.5	3:00 E
49	27	55 N	34	27.5 E	0.4	0.4	16 RL	30.56	0.5	3:00 E
50	28	0.9 N	34	28.9 E	0.15	0.15	12 RL	22.92	0.5	3:00 E
51	29	25 N	34	54.5 E	0.15	0.15	12 RL	22.92	0.5	3:00 E
52	29	31.55 N	34	56.75 E	0.15	0.15	6 RL	16.37	0.35	3:00 E
53	29	31.9 N	34	56.52 E	0.05	0.05	6 RL	16.37	0.35	3:00 E

ROUTE CHECK DONE:

Approved: _____
Master

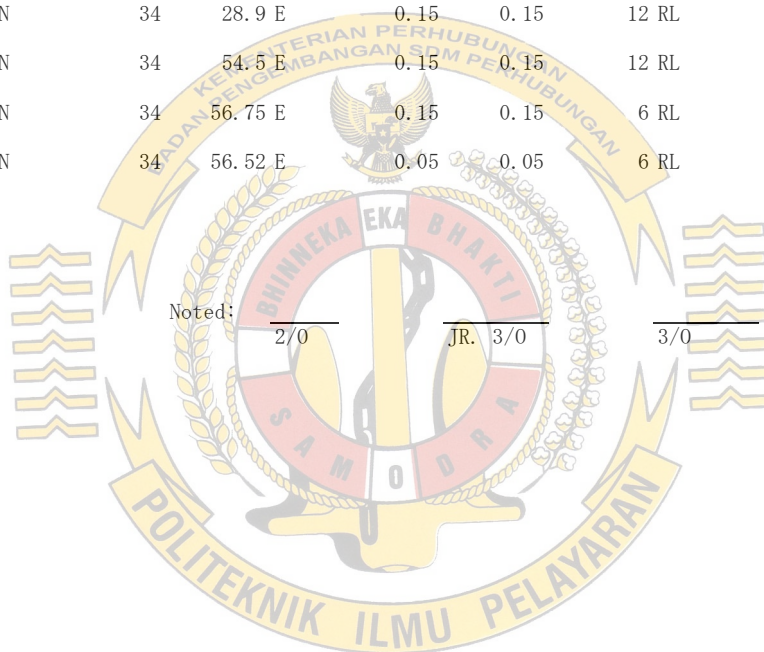
Noted:

2/0

JR. 3/0

3/0

C/0



Passage Planning Checklist		(Vsl: <u>JINGU</u>)
Voyage No: _____ From: _____ To: _____		
1	Are the marine charts of the area to be transited (of a large enough scale), including ENC and RNC(if ECDIS equipped) and the publications required available?	☐
2	Are the marine charts of the area to be transited and the publications required currently corrected the latest NTM and/or electronic updates, T&P? Latest Update _____ Latest NTM _____	☐
3	Have the navigational warnings and sailing route information (refer to ship's routing publications) pertaining to the passage been obtained and have the necessary data been entered on the marine charts?	☐
4	In deciding on the routing, was reference made to the relevant publications?	☐
5	Have instructions from the shore staff or administrative guidance from relevant authorities, such as navigational restrictions and tidal windows, been checked?	☐
6	Does the passage plan anticipate all known navigational hazards and adverse weather conditions?	☐
7	Has due consideration been given to the traffic density likely to be encountered during the voyage?	☐
8	Have checks been made on the distances off the coast at the end on the wheel-over points, and also for ensuring sufficient sea room at all stages for safe passage?	☐
9	Has the planned route been clearly displayed on the appropriate charts?	☐
10	Have the requirements regarding traffic separation schemes (TSS), their regulations / vessel traffic routing services (VTS) been considered?	☐
11	Have important navigational aids of the area to be transited been checked and studied, and has the establishment of a clearing line, position monitoring methods/intervals etc. also been checked and studied, and necessary actions taken?	☐
12	Has the scope of utilization, etc. of important navigational aids been entered on the marine charts?	☐
13	Has a safe navigating speed been selected by giving consideration to the weather and sea conditions, traffic density, all known navigational hazards and to the maneuverability of the ship?	☐
14	Have the needs of the intended voyage, such as fuel, water, lubricants, chemicals, expendable spare parts and tools been studied and considered necessary actions taken? (Ref: Calculations of Consumables, Management Meeting, Toolbox meeting etc.)	☐
15	Have the vessel's drafts, condition and stability information, the maneuvering characteristics, squat, critical velocity for dragging anchor at the respective stages of the voyage been properly calculated?	☐
16	Have the tides and tidal currents at the necessary locations of the passage been checked?	☐
17	Has the necessary information about the arrival port been obtained and studied including pilot boarding area, anchorages etc, including information pertaining to the availability of shore based emergency response arrangements and equipments?	☐
18	When a pilot is to embark and disembark, has the situation around the pilot station been checked and studied and has the ship handling for it been established?	☐
19	Are there any local regulations, relevant to the type of vessel or cargo being carried that must be borne in mind? Has necessary action been taken for their compliance?	☐ ☐
20	Does the plan take into account the marine environment protection measures that may apply to the voyage and avoid, as far as possible, actions and activities which could cause damage to the environment? For e.g., Low Sulphur Fuel consumption in SECA, or, CARB ,or, NPDES/VGP, or, restrictions on navigation in certain environmentally sensitive areas like Australian Great Barrier Reef etc.	☐
21	Has security information regarding pirates and armed robberies likely to be known in the area of intended voyage been studied and considered necessary measures to be taken?	☐
22	Has a reserve plan / contingency plan been prepared in case the scheduled plan cannot be used?	☐
23	Other checks, for new or special requirements on Master's discretion. AIS Data updated.	☐

Second Officer: _____ Master: _____ Date: _____