DIRECTORATE GENERAL OF SHIPPING MINISTRY OF SHIPPING, GOVERNMENT OF INDIA		
Page 1 of 2	TRAINING BRANCH	IS / ISO Clause No. 7.1
Ref: QMS: EACQP - 07 - 1	Subject: Endorsement on the reverse side of the participant's Certificate & sample formats for preparing suitable checklist for ECDIS training	File No: TR/CIR/6(11)/2011
Approved by the : DG	Circular No: Addendum to STCW 2010 Circular No.29 of 2012	Date: 07.05.2013

The Course guidelines of "Electronic Chart Display & Information System [ECDIS]" has been issued Vide STCW 2010 Circular No.29 of 2012 dated 10.12.2012, by the Directorate. The Annexure-1 of the said circular is a Specimen Certificate to be issued to the participants by the approved maritime training institutes /training providers of ECDIS course. The Directorate has now decided to put an endorsement on the reverse side of the said Certificate, which is attached herewith at Annex-A. The Training Institutes /Training providers are requested to print this endorsement on the reverse side of the Certificate. Further those Certificates which are already issued without such endorsement , should be replaced and reissued to the candidates by the Training Institutes / Training Providers.

2. Further, in continuation of STCW 2010 Circular No.29 of 2012 dated 10.12.2012, the directorate has prepared following sample formats to be used by the Training institutes /training providers, during the ECDIS Training :

i) ECDIS underway score sheet [attached herewith at Annex-B]

ii) Trainee's proficiency checklist as per IMO Model course Appendix 5A [attached herewith at Annex-C]

iii) Typical simulator exercise [attached herewith at Annex-D]

iv) Workstation and simulator exercise [attached herewith at Annex-E]

DIRECTORATE GENERAL OF SHIPPING MINISTRY OF SHIPPING, GOVERNMENT OF INDIA		
Page 2 of 2	TRAINING BRANCH	IS / ISO Clause No. 7.1
Ref: QMS: EACQP - 07 - 1	Subject: Endorsement on the reverse side of the participant's Certificate & sample formats for preparing suitable checklist for ECDIS training	File No: TR/CIR/6(11)/2011
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3. All the approved training institutes/ training providers conducting ECDIS training are advised to prepare suitable checklist similar to the sample formats attached at Annex- A, B, C & D, for the purpose of ECDIS Training. Effective use of these checklist will be verified during next scheduled /unscheduled inspection.

4. This issues with the approval of the Director General of Shipping & Ex-Officio Additional Secretary to the Govt. of India.

[Mahua Sarkar]
Dy. Director General of shipping

To,
1. All Maritime Training Institutes
2. Vice Chancellor, Indian Maritime University, East Coast Road, Uthandi, Chennai-600119.
3. All Academic Councils
4. All Mercantile Marine Departments
5. The Shipping Master, Mumbai /Kolkata /Chennai
6. The Director, Seamen's Employment Office, Mumbai /Chennai /Kolkata
7. INSA/ FOSMA/MASSA
8. INDOS Cell, Nav Bhavan Building, Mumbai -1
9. Engineering Branch
10. NT Branch
11. Management Representative [QMS], EAC Branch, DGS
12. Crews Branch
13. Computer Cells
14. Hindi Cell
15. Guard File
16. Sr. PS to DG[S] for information

ANNEX-A

TYPE SPECIFIC TRAINING

This ECDIS Course was conducted on TRANSAS Navi-Sailor 4000 ECDIS* simulator and the route monitoring exercises and evaluation conducted on TRANSAS Navi-Trainer Professional 5000* navigation simulator integrated with ECDIS.

The participants have received training on the following topics:

- Elements of ECDIS
- Watch keeping with ECDIS
- ECDIS Route Planning and Monitoring
- ECDIS Targets, Charts and System
- ECDIS Responsibility

***Note: Make and model of ECDIS Simulator and Navigation simulator used for training to be printed**

Above details to be printed in the back side of the ECDIS course participant's certificate.

Annex - B

Name of Institute

Quality System Control Bar

ECDIS UNDERWAY SCORE SHEET

DATE	:			MARKS OBTAINED	:	
BATCH NO.	:			TOTAL MARKS	:	100
DURATION	:			PASSING MARKS	:	70
Entering 0 on * items indicates critical fault (Retake evaluation)				SIGNATURE OF ASSESSOR	:	

Serial No.	Task Groups	Marks	Name:	Name:	Name:	Name:	Name:	Name:
1	Verify settings and interface of sensors	5						
1.1	UTC and ship time zone set on ECDIS equipment							
1.2	GPS HDOP recorded and checked within limits							
1.3	DGPS selected on position fixing system 1							
1.4	Position fixing system 2 on and initialized							
1.5	Heading input to ECDIS checked							
*1.6	**Check only official ENC's are loaded/ selected for monitoring**							
2	Verify safety settings on Echo Sounder and radar	5						
2.1	Speed log set to bottom track							
*2.2	**Sounder set to DBK and depth alarm set**							
2.3	ARPA & AIS tabs on ECDIS checked							
2.4	Radar selection and overlay settings checked							
3	Carry out route planning checks	5						
3.1	Berth to berth route and alternate route made and saved							
3.2	Route check function used and route inspected							

Name of Institute

Quality System Control Bar

Serial No.	Task Groups	Marks	Name:	Name:	Name:	Name:	Name:	Name:
	visually							
3.3	Route waypoints, courses and distances displayed							
3.4	Route cross track error zones set for the passage							
3.5	Chart 'auto load' and 'auto scale' on							
3.6	'User Map' tabs A & B on							
4	Verify safety settings on ECDIS							
*4.1	**Dimensions of safety frame/ vector set**							
4.2	Length of COG and heading vector set							
*4.3	**Ship scale model set to 'Align by heading'**							
*4.4	**Safety contour depth set to Minimum Depth Required (MDR)**							
*4.5	**Safety depth set same as safety contour depth**							
4.6	'Manual Correction' tab on							
5	Situational Awareness							
*5.1	**Consistency in radar screen, ECDIS screen and visual scenery**							
5.2	Able to use dual screen for area around ship & look ahead							
5.3	Able to adjust scale of chart							
5.4	Able to identify coastline and match with land areas on ENC							
5.5	Plot on request visual/ radar fixes							
6	Monitor route on ECDIS for safe navigation							
6.1	Activate route monitor to display route data panel							
6.2	Copy activated route into GPS and radar							
6.3	Provide on request ETA, XTE, CTS to next waypoint							
6.4	Query chart objects							
6.5	Query tracked targets on ARPA/ AIS							
7	Check & manage alarms							
7.1	Set appropriate alarms on ECDIS							
7.2	Check alarm and indicator windows regularly							
7.3	Acknowledge alarms and take corrective action							

Name of Institute

Quality System Control Bar

Serial No.	Task Groups	Marks	Name:	Name:	Name:	Name:	Name:	Name:
7.4	View alarm status in the alarm management system							
8	Adjust settings to suit conditions/ adapt to changing conditions	10						
8.1	Set day/ night palette							
8.2	Custom layers set for low clutter							
8.3	Change display to dual panel/ full screen/ multi-panel							
8.4	Change modes to Course Up, North Up, Head Up, RM and TM							
8.5	Switch on and adjust radar overlay							
9	Manage AIS messaging and assess environmental conditions	10						
9.1	Revise 'User Maps' on request							
9.2	AIS messaging managed on ECDIS							
9.3	Display tide and current information on ECDIS							
9.4	Query tide and port information on ECDIS							
9.5	Call in to VTS on request							
10	Maneuver according to accepted navigational practices & IRPCS	10						
*10.1	**Ensure safe CPA at all times**							
*10.2	**Ensure safe Depth below keel (DBK) at all times**							
	TOTAL	100						

APPENDIX 5A
TRAINEE'S PROFICIENCY CHECKLIST ON USE OF ECDIS

These tasks are most effectively mastered by:

- Following a developmental sequence, (Workstation Exercises conducted in classroom setting)
- Practicing them in navigational contexts (Simulator Exercises when underway, conducted in mini-simulator).
- References: Type approved ECDIS *User Manual and ECDIS Performance Standards*
- Other ECDIS docs: *Technical; Operating Principles; Software Description, Chart Updates*

Basic Tasks					
		Day	**Workstation Exercise**	**SIM Exercise**	**Tick**
1	Identify all information panels and functions	D1			
2	Enable / disable display of panels and functions	D1			
3	Set screen color palette – Day / night / etc.;	D1			
4	Become familiar with how to open panels and functions	D1			
5	Set orientation of Main display – N / H / C	D1			
6	Set mode of Main display – TM / RM	D1			
7	Select Dual display – alignment / mode / orientation / scale choice	D1			
8	Learn how to return to ownship display.	D1			
9	Reposition ownship in Relative Motion	D1			
10	Use of EBL and VRM	D1			
11	Select vector length	D1			
12	Select different chart formats	D2			
13	Load specific charts	D2			
14	Select Chart options if available such as auto-load, auto scale, fixed	D2			
15	Select correct scale to show chart layers- Use of zoom function	D2			
16	Select chart display categories and layers	D2			
17	Obtain chart object information (vector chart)	D2			
18	Set Anti-grounding – Safety Contour / Depth	D3			
19	Set Anti-grounding cue or equivalent ECDIS function	D3			

	Overall Presentation of Display				
20	Select position & time from best available source	D1			
21	Cancel / verify / modify position offset	D1			
22	Select chart & scale appropriate to location	D1			
23	Create uncluttered display, depending upon context and conditions	D2			
24	Choose most appropriate display, orientation and motion	D2			
25	Load a pre-checked and approved Route for monitoring; load existing schedule	D3			
26	Select Safety Parameters appropriate to own ship location, route and environment.	D3			
27	If in TM, select appropriate chart setting/ look ahead value.	D2			
	Intermediate Tasks				
28	Create route plan – rough draft, save	D3			
29	Edit route plan – Focus on Route, fine tune additional data entry	D3			
30	Adjust distance calculations in route planning	D3			
31	Perform safety check	D3			
32	Create & modify Route Schedule ETD, ETA, speeds – Function Panel / Schedule	D3			
33	Select appropriate panel for display of route monitoring data	D3			
34	Select the appropriate active way point.	D3			
35	Set / select Route Monitoring alarms – Monitoring / Navigational Alarms if available to do so.	D3			
36	Select appropriate display layers for route monitoring	D3			
37	Select relevant Navigation Alarms	D3			

38	Observe alarm condition (Alarm panel)	D3			
39	Set Time Zone for ship's time	D1			
40	Select time icon to display – UTC / ship's time	D1			
41	Observe & assess target information	D1			
42	Configure ARPA settings.	D1			
43	Configure AIS settings	D3			
44	Set anchor watch guard ring & alarm	D3			
45	Select tidal information from vector charts	D3			
46	View Logbook if available.	D3			
47	Make manual entry in the Ship Log if available	D2			
48	Unload & load existing user charts	D3			
49	Create a user chart object	D4			
50	Edit a user chart object	D4			
51	Insert a manual correction	D4			
52	Delete a manual correction	D4			
53	Activate Man Overboard function and view available data	D1			
Navigator Tasks					
54	Install / delete chart data	D4			
55	Install chart updates for RNCs.	D4			
56	Install chart updates for ENCs.	D4			
57	Modify ownship settings.	D1			
58	Toggle between UTC and local time	D1			
59	Import data files	D4			
60	Export data files	D4			
61	Print route plan	D2			
62	Create SAR date if option is available	D2			
63	Delete route plan(s)	D2			
64	View track history graphically	D2			
65	Playback files if option is available	D2			
66	Select DR mode	D2			

Name of Institute

Quality System Control Bar

Candidate Name: _____ Faculty Name: _____

Signature: _____ Signature: _____

ANNEX-D

SIMULATOR EXERCISE 4: NAVIGATION IN RESTRICTED WATERS

Ship	VLCC Atlantic Rose (Displacement 159584 MT)

Wind Direction	W'ly	**Wind Speed**	Force 3	**Visibility**	Clear
Current Direction	045°	**Rate**	2.0 Knots	**Start time**	2000 hrs

Initial Position: 01°24.3'N 104°26' W	**Initial Course:** 225°	**Initial Speed:** 15 Knots

Task: Vessel in position01°24.3'N 104°26' W, north of Horsburgh light on passage through the Singapore Straits. Make a passage plan and proceed to drop anchor at TanjungPelepas. Work out ETA at safe speed of transit in the straits.

- Plan a route from present position including user layers
- Set cross track limits as required.
- Check the Minimum Depth Required for vessel and set safety contour depth and safety depth.
- Set relevant alarms on ECDIS.
- Set safety frame for vessel depending on speed
- Set depth and shallow alarms on the echo sounder
- Set lengths for heading and COG vectors as per speed of vessel
- Activate route monitor and monitor passage

Objectives:

- Monitor sea area
- Use created route including route schedule
- Select user layers
- Validate own ship's position by alternate means
- Check settings such as vector time, display reset, information layers, alarms, track, sensors, and own ship configurations
- Modify the selected route as instructed, check for safety, adjust route schedule

ANNEX-E

INDEX

WORKSTATION EXERCISES

EXERCISE No.	EXERCISE NAME	Revision Date
1A	Familiarization with equipment -Elements of ECDIS	02.03.2013
1B	Familiarization with equipment - Watch keeping with ECDIS	02.03.2013
1C	Familiarization with equipment - Miscellaneous Functions	02.03.2013
2	IMO MSC 232(82) performance standards requirements	02.03.2013
3	Underway exercise - Transiting Dover straits	02.03.2013
4	Underway exercise -Dover to Dunkerque –	02.03.2013
5	Route Planning	02.03.2013
6	Ordering and updating SENC charts on TRANSAS system (TADS)	02.03.2013
7	Loading, updating and uninstalling of AVCS ENC's	02.03.2013
8	Manual chart correction – Dover Straits	02.03.2013
9	ENC Symbology	09.03.2013

SIMULATOR EXERCISES

EXERCISE No.	EXERCISE NAME	Revision Date
1A	Simulator Familiarization	13.02.2013
1B	Open Sea – Basic integrated navigation	13.02.2013
2	Navigating in coastal waters	13.02.2013
3	Navigation in coastal waters – Search and	13.02.2013

	Rescue	
4	Navigation in restricted waters	13.02.2013

SIMULATOR EVALUATION EXERCISES

EXERCISE No.	EXERCISE NAME	Revision Date
1	Voyage Planning, executing and route monitoring - Navigation in coastal and restricted waters	14.12.2012
2	Voyage Planning, executing and route monitoring - Navigation in coastal and restricted waters	14.12.2012