

STCW1995 版轉換為 2010 版船上訓練紀錄簿應補差項目表：一、二等大副

專長 FUNCTION：管理級-航海 NAVIGATION AT THE MANAGEMENT LEVEL

項次 Ref No	訓練 Training		評估標準 Criteria for Evaluation	適任性證明 Competence Demonstrated	
1	適任 Competence： 航程計劃及執行 Plan a voyage and conduct navigation				同部門較自身高階之 甲級船員簽名/日期 Assessor (Signature/Date)
1.3	船舶報告 Ship reporting system (大副)		報告依據「船舶報告系統之一 般原則」與船舶交通服務程序 <i>Reporting in accordance with the General Principles for Ship Reporting Systems and with VTS procedures</i>		
	科目/職責 Task/Duty	科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)	對改進部分之建議 Advice on Areas for Improvement	科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)	
1.1	瞭解及使用「船舶報告系統之一般原則」 Understand and use of the General Principles for Ship Reporting Systems				
1.2	瞭解及使用交通服務之程序 Understand and use of the vessel traffic service procedures				
2	適任 Competence： 定位及以任何方法定位結果之精確度 Determine position and the accuracy of the resultant position fix by any means		評估標準 Criteria for Evaluation	適任性證明 Competence Demonstrated 同部門較自高階之甲級 船員簽名/日期 Assessor (Signature/Date)	

2.4	使用現代電子航儀（大副） Position fix using electronic navigation aids	在電子航儀系統精確度標準內獲得船位。並說出影響最終船位精確度誤差的所在，並使用正確之方法以減少系統誤差 <i>The fix obtained by the use of electronic navigational aids is within the accuracy standards of the systems in use. The possible errors affecting the accuracy of the resulting position are stated and methods of minimizing the effects of system errors on the resulting position are properly applied</i>			
	科目/職責 Task/Duty	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)		對改進部分之建議 Advice on Areas for Improvement	科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)
.1	現代電子航儀操作原理、限制、誤差源、錯誤資訊之偵測及為獲得精確船位修正方法之專業知識 Specific knowledge of electronic navigational aids operating principles, limitations, sources of error, detection of misrepresentation of information and methods of correction to obtain accurate position fixing				
.2	利用雷達定船位 Use radar to fix ship's position				
.3	利用地文電子系統定船位 Use electronic position-fixing system to fix ship's position				
.4	利用衛星導航系統定船位 Use satellite navigation systems to fix ship's position				

7	<p align="center">適任 Competence :</p> <p align="center">使用電子海圖顯示及資訊系統與相關之導航系統 協助作成指揮決策以維持航行安全</p> <p align="center">Maintain safety of navigation through the use of ECDIS and associated navigation systems to assist command decision making</p>	<p align="center">評估標準 Criteria for Evaluation</p>		<p align="center">適任性證明 Competence Demonstrated</p> <p align="center">同部門較自身高階之 甲級船員簽名/日期 Assessor (Signature/Date)</p>	
7.1	<p>全面瞭解電子海圖顯示及資訊系統之 操作程序、系統檔與數據之管理 (大副)</p> <p>Thorough understanding of the management of operational procedures, system files and data</p>	<p><i>ECDIS 之操作程序已被建 立、應用及監控</i></p> <p><i>Operational procedures for using ECDIS are established, applied, and monitored</i></p>			
	<p align="center">科目/職責 Task/Duty</p>	<p align="center">科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)</p>	<p align="center">對改進部分之建議 Advice on Areas for Improvement</p>	<p align="center">科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)</p>	
.1	<p>海圖數據與系統軟體之購買、許可及更新 的管理，須符合既定之程序</p> <p>Manage procurement, licensing and updating of chart data and system software to conform to established procedures</p>				
.2	<p>系統與資料更新，包括廠商依據產品開 發，更新 ECDIS 系統版本之能力</p> <p>System and information updating, including the ability to update ECDIS system version in accordance with vendor's product development</p>				
.3	<p>建立與保持系統之基本配置與備用檔案</p> <p>Create and maintain system configuration and backup files</p>				
.4	<p>依據既定之程序，建立與保持紀錄檔案</p> <p>Create and maintain log files in accordance with procedures</p>				

.5	依據既定之程序， 建立與保持航路計畫檔案 Create and maintain route plan files in accordance with procedures								
.6	使用 ECDIS 日誌與航跡紀錄功能， 檢查系統功能、報警設定與使用者回應 Use ECDIS log-book and track history function for inspections of system functions, alarm settings and user responses								
.7	瞭解電子海圖顯示及資訊系統之使用， 並不能免除正常之航海當值、 管理與監測所應有之數據來源 Understand that the use of ECDIS does not release the navigator from proper watchkeeping, managing and monitoring all data sources								
7.2	ECDIS 重播功能之應用 (大副) Use ECDIS playback functionality	採取減低航行風險之行動 Actions taken to minimize risk to safety of navigation		.1	運用 ECDIS 重播功能進行航行檢討，航路 計畫與系統功能 Use ECDIS playback functionality and review of system functions				
<p>註：使用電子海圖顯示及資訊系統之訓練及評估，對專門在無電子海圖顯示及資訊系統之船上人員而言，得不必要求。但應於該有關航海人員所簽發之加簽證書上註明此項限制</p> <p>Note: Training and assessment in the use of ECDIS is not required for those who serve exclusively on ships not fitted with ECDIS. This limitation shall be reflected in the endorsement issued to the seafarer concerned.</p>									

9	適任 Competence : 航行之應急反應 Respond to navigational emergencies		評估標準 Criteria for Evaluation	適任性證明 Competence Demonstrated 同部門較自身高階之 甲級船員簽名/日期 Assessor (Signature/Date)	
9.1	迅速確定任何問題之型式及範圍，並採取行動 增進船上人員之安全性（大副） The type and scale of any problem is promptly identified and actions taken to maximize safety of persons on board		迅速確定任何問題之型式及範圍，作出決定並採取行動以減少船舶系統任何故障所造成之影響。有效之通信符合所建立之程序。作出決定並採取行動增進船上人員之安全性 <i>The type and scale of any problem is promptly identified and decisions and actions minimize the effects of any malfunction of ship's system. Communications are effective and comply with established procedures. Decisions and actions maximize safety of persons on board</i>		
	科目/職責 Task/Duty	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)	對改進部分之建議 Advice on Areas for Improvement	科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)	
.1	船舶坐灘時應注意之事項 Precautions when beaching a ship				
.2	即將擱淺及擱淺後所採取之行動 Action to be taken if grounding is imminent, and after grounding				
.3	在有協助或無協助下使擱淺船舶重新浮起 Refloating a grounded ship with and without assistance				
.4	即將發生碰撞及發生碰撞後，或任何原因造成船體水密完整性損害時所採取之行動 Action to be taken if collision is imminent and following a collision or impairment of the watertight integrity of the hull by any cause				

5	對損害管制之評估 Assessment of damage control					
6	應急操舵 Emergency steering					
7	應急拖帶安排及拖帶程序 Emergency towing arrangements and towing procedure					
10	適任 Competence : 在各種情況下操縱及操作船舶 Manoeuvre and handle a ship in all conditions			評估標準 Criteria for Evaluation	適任性證明 Competence Demonstrated 同部門較自身高階之甲級船員簽名/日期 Assessor (Signature/Date)	
10.1	在各種情況下操縱及操作船舶 (大副) Manoeuvring and handling a ship in all conditions			有關靠泊及錨泊之所有決定係基於船舶操縱性、機器特性及靠泊或錨泊時可能發生之應力 <i>All decisions concerning berthing and anchoring are based on a proper assessment of the ship's manoeuvring and engine characteristics and the forces to be expected while berthed alongside or lying at anchor</i>		
	科目/職責 Task/Duty	科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)		對改進部分之建議 Advice on Areas for Improvement	科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)	
1	在接近引水站及引水人上下船之操縱，尤應注意天氣、潮汐、艙接近及停止距離 Manoeuvres when approaching pilot stations and embarking or disembarking pilots, with due regard to weather, tide, headreach and stopping distances					
2	在河道、河口及限制水域操作船舶，注意及海流、風及限制水域對舵效之影響 Handling ship in rivers, estuaries and restricted waters, having regard to the effects of current, wind and restricted water on helm response					

.3	船舶迴旋圈之應用 Application of constant-rate-of turn techniques					
.4	在淺水操縱船舶，包括由於艏坐、橫搖及縱搖之影響所減少之餘裕水深 Manoeuvring in shallow water, including the reduction in under-keel clearance caused by squat, rolling and pitching					
.5	船舶會船效應及岸吸效應之作用（運河效應） Interaction between passing ships and between own ship and nearby banks (canal effect)					
.6	在各種不同之風、潮汐及海流情況下，使用或不使用拖船離靠泊位 Berthing and unberthing under various conditions of wind, tide and current with and without tugs					
.7	船與拖船之相互作用 Ship and tug interaction					
.8	使用推進系統及操縱系統 Use of propulsion and manoeuvring systems					
.9	錨地選擇；在受限錨地內使用單錨或雙錨錨泊及使用錨鍊長短的決定等有關因素 Choice of anchorage; anchoring with one or two anchors in limited anchorages and factors involved in determining the length of anchor cable to be used.					
.10	走錨 Dragging anchor					
.11	解開糾纏之錨 Clearing fouled anchors					

.12	<p>在惡劣天氣下操縱及操作船舶，包括救助遇險船舶或飛機、拖帶作業、使失控船舶脫離浪谷之方法、減少漂流與使用鎮浪油等</p> <p>Management and handling of ship in heavy weather, including assisting a ship or aircraft in distress; towing operations; means of keeping an unmanageable ship out of trough of the sea, lessening drift and use of oil</p>				
.13	<p>在船舶受損及未受損情況下進乾塢</p> <p>Dry-docking, both with and without damage</p>				
.14	<p>在惡劣天氣下操縱船舶釋放救難艇及救生艇筏之注意事項</p> <p>Precautions in manoeuvring to launch rescue boats and survival craft in bad weather</p>				
.15	<p>從救難艇及救生艇筏上將生還者救上船之方法</p> <p>Methods of taking on board survivors from rescue boats and survival craft</p>				
.16	<p>決定一般型式船舶之操縱及推進特性之能力，特別注意船舶在各種吃水及航速下之停止距離與迴旋圈範圍</p> <p>Ability to determine the characteristics of common types of ships, with special reference to stopping distances and turning circles at various draughts and speeds</p>				
.17	<p>減速航行以避免因本船之艏波及艉波造成損壞之重要性</p> <p>Importance of navigating at reduced speed to avoid damage caused by own ship's bow wave and stern wave</p>				
.18	<p>航行於冰區或接近冰區，或船上積冰之情況應採取之實際措施</p> <p>Practical measures to be taken when navigating in or near ice or in conditions of ice accumulation on board</p>				
.19	<p>在分道航行制及船舶交通服務區及其附近水域之操縱船舶航行與迫近</p> <p>Use of, and manoeuvring in and near, traffic separation schemes and in traffic service (VTS) areas</p>				

專長 FUNCTION：管理級-貨物裝載

CARGO HANDLING AND STOWAGE AT THE MANAGEMENT LEVEL

項次 Ref No	訓練 Training			適任性證明 Competence Demonstrated	
12	適任 Competence： 計劃並確保安全裝貨、積載、繫固、航行中照料及卸貨 Plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes		評估標準 Criteria for Evaluation	同部門較自身高階之 甲級船員簽名/日期 Assessor (Signature/Date)	
12.1	貨物安全操作程序之建立 (大副) Establish procedures for safe cargo handling		依所制定之程序及法定要求，計劃並執行貨物作業 Cargo operations are planned and executed in accordance with established procedures and legislative requirements stowage and securing of cargoes		
	科目/職責 Task/Duty	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)		對改進部分之建議 Advice on Areas for Improvement	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)
1	應用有關安全裝卸、積載、繫固、及運輸貨物之國際規則、章程與標準之知識與能力 Knowledge of and ability to apply relevant international regulations, cods and standards concerning the safe handling, stowage, securing and transport of cargoes				
2	依據下列有關文書及其他資訊建立貨物安全操作程序之能力 Ability to establish procedures in accordance with the following instruments and other relevant information such as： 國際海運危險品章程 International Maritime Dangerous Goods (IMDG) Code				

.3	國際海運散裝貨物章程 International Maritime Solid Bulk Cargoes (IMSBC) Code					
.4	73/78 年防止船舶污染國際公約附錄 III 及 V MARPOL73/78 Annexes III and V					
12.2	貨物裝卸作業 (大副) Cargo loading and unloading operation	<p>迅速辨識貨物情況或規格之不可接受或難以預知之變化，並即時採取補救措施與計劃以保證船上人貨之安全。貨物操作之執行係依所制定之程序及法定之要求</p> <p><i>Unacceptable or unforeseen variations in the condition or specification of the cargo are promptly recognized and remedial action is immediately taken and designed to safeguard the safety of the ship and those on board. Cargo operations are planned and executed in accordance with established procedures and legislative requirements stowage and securing of cargoes</i></p>				
.1	迅速辨識貨物情況或規格之不可接受或難以預知之變化，並即時採取補救措施與計劃 Unacceptable or unforeseen variations in the condition or specification of the cargo are promptly recognized and remedial action is immediately taken and designed					
.2	貨物及貨物操作對俯仰及穩度影響之知識 Knowledge of the effect on trim and stability of cargoes and cargo operations					

.3	<p>使用穩度及俯仰圖表及應力計算設備包括自動化數據設備 (ADB) 之能力，及為保持船體應力在可接受限度內而裝貨及壓載之知識</p> <p>Use of stability and trim diagrams and stress-calculating equipment, including automatic data-based (ADB) equipment, and knowledge of loading cargoes and ballasting in order to keep hull stress within acceptable limits</p>				
.4	<p>有能力闡述在船岸間建立有效通信及改善工作關係之基本原則</p> <p>Ability to explain the basic principles for establishing effective communication and improving working relationship between ship and terminal personnel</p>				
.5	<p>液貨船及液貨船操作之一般知識</p> <p>General knowledge of tankers and tanker operations</p>				
.6	<p>散裝貨船操作與設計局限性之知識</p> <p>Knowledge of the operational and design limitations of bulk carrier</p>				
.7	<p>使用船上所有可資利用有關散裝貨裝載、管理與卸載資料之能力</p> <p>Ability to use all available shipboard data related to loading, care and unloading of bulk cargoes</p>				
12.3	<p>在船上積載及繫固貨物 (大副)</p> <p>Stowage and securing of cargoes on board ships</p>	<p>貨物之積載及繫固確保航行中穩度與應力狀況始終在安全限制內</p> <p><i>Cargoes ensures that stability and stress conditions remain within safe limits at all times during the voyage</i></p>			

.1	在船上積載及繫固貨物包括裝卸貨設備及繫固與拉緊設備 Stowage and securing of cargoes on board ships, including cargo-handling gear and securing and lashing equipment				
.2	裝卸操作尤應注意「貨物積載及繫固安全操作章程」所述之貨物運輸 Loading and unloading operations, with special regard to the transport of cargoes identified in the Code of Safe Practice for Cargo Stowage and Securing				
12.4	航程中照料（大副） Care during the voyage			監督貨物狀況之頻率及程度 適於其性質及當時情況 <i>The frequency and extent of cargo condition monitoring is appropriate to its nature and prevailing conditions</i>	
.1	依據貨物之性質與當時情況決定檢查貨物狀況之頻度 Determine the frequency and extent of cargo condition monitoring in according with the nature and prevailing conditions of cargoes				
13	適任 Competence : 對存放貨物的空間、艙口蓋與壓水艙所作之缺點報告予以評估並採取適當措施 Assess reported defects and damage to cargo spaces, hatch covers and ballast tanks and take appropriate action			評估標準 Criteria for Evaluation	適任性證明 Competence Demonstrated 同部門較自身高階之甲級 船員簽名/日期 Assessor (Signature/Date)

13.1	標準散裝貨船重要構造強度限制 (大副) The limitations on strength of the vital constructional parts of a standard bulk carrier	對貨物有原則評估、有憑據的論證及正確性。根據船舶之安全與當時之狀況做出可以被接受之決定 <i>Evaluations are based on accepted principles, well-founded arguments and correctly. The decisions taken are acceptable, taking into consideration the safety of the ship and the prevailing conditions</i>			
	科目/職責 Task/Duty	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)		對改進部分之建議 Advice on Areas for Improvement	科目已完成 Task Completed 施訓者簽名/日期 Instructor (Signature/Date)
.1	標準散裝貨船重要構造強度限制之知識 Knowledge of the limitations on strength of the vital constructional parts of a standard bulk carrier				
.2	對所給數據詮釋彎曲力矩與剪力之能力 Ability to interpret given figures for bending moments and shear forces				
.3	闡述如何避免對散裝貨船不利影響之腐蝕、疲乏及不當貨物操作之能力 Ability to explain how to avoid the detrimental effects on bulk carriers of corrosion, fatigue and inadequate cargo handling				
14	適任 Competence : 危險貨物載運 Carriage of dangerous goods	評估標準 Criteria for Evaluation	適任性證明 Competence Demonstrated 同部門較自身高階之甲級船員簽名/日期 Assessor (Signature/Date)		

14.1	危險貨物載運有關之國際規則、標準、章程及建議 (大副) International regulations, standards, codes and recommendations on the carriage of dangerous cargoes	貨物之配載計畫係基於可信賴之資料及依所制定之準則及法定之要求 <i>Planned distribution of cargo is based on reliable information and is in accordance with established guidelines and legislative requirements</i>			
	科目/職責 Task/Duty	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)	對改進部分之建議 Advice on Areas for Improvement	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)	
.1	對國際海運危險品章程之知識 Knowledge of the International Maritime Dangerous Goods (IMDG) Code 標				
.2	對國際海運散裝固體章程之知識 Knowledge of the International Maritime Solid Bulk Cargoes (IMSBC) Code				
14.2	裝卸期間注意之事項及航行中之照料 (大副) Precautions during loading and unloading and care during the voyage	有關危險之資料與特別要求係記載於在意外事故發生時易於參考之表格中 <i>Information on dangers, hazards and special requirements is recorded in a format suitable for easy reference in the even of an incident</i>			
.1	將有關危險之資料與特別要求記載於在意外事故發生時易於參考之表格中 Information on dangers, hazards and special requirements is recorded in a format suitable for easy reference in the even of an incident				

專長 FUNCTION：管理級-船舶操作與船上人員管理
CONTROLLING THE OPERATION OF THE SHIP AND
CARE FOR PERSONS ON BOARD AT THE MANAGEMENT LEVEL

項次 Ref No	訓練 Training			適任性證明 Competence Demonstrated	
19	適任 Competence： 領導與管理技巧之運用 Use of leadership and managerial skill		評估標準 Criteria for Evaluation	同部門較自身高階之 甲級船員簽名/日期 Assessor (Signature/Date)	
19.1	派出任務與工作量管理之能力 (大副) Ability to apply task and workload management		分派船員之任務並告知適於 各有關人員之預期行為方式 與工作標準。必要之團隊人員 分別瞭解現有與預期船舶之 操作情況與外部環境之狀況 The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals. Necessary team member(s) share accurate understanding of current and predicted vessel and operational status and external environment		
	科目/職責 Task/Duty	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)	對改進部分之建議 Advice on Areas for Improvement	科目已完成 Task Completed 施訓者簽名/日期 Instructor(Signature/Date)	
1	計劃與協調 Planning and co-ordination				
2	人員分派 Personnel assignment				
3	時間與資源之限制 Time and resource constraints				

.4	優先順序 Prioritization					
19.7	標準操作程序之制定 (大副) Development of standard operating procedures	操作經證明係有效並符合可 適用之規則 <i>Operations are demonstrated to be effective and in accordance with applicable rules</i>				
.1	標準操作程序之制定、履行與監督 Development, implementation, and oversight of standard operating procedures					



交通部航港局
Maritime and Port Bureau, MOTC