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CLASSIFICATION STANDARD

**SHIP'S OFFICERS**

**TECHNICAL CATEGORY**

# CLASSIFICATION STANDARD

## SHIPS' OFFICERS

### **TECHNICAL CATEGORY**

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## INTRODUCTION

This standard describes four plans to be used to classify positions allocated to the Ships' Officers Group. It consists of an introduction and of definitions for the Technical Category, the Ships' Officers Group, and the Marine Operations, Floating Plant, Radio and Instructor Sub-groups.

All methods of job evaluation require the exercise of judgement and the orderly collection and analysis of information in order that consistent judgements can be made. Rational discussion and resolution of differences in the judgements made in determining the relative value of positions require that raters have a thorough knowledge of the positions being evaluated. This standard provides the criteria by which judgements are to be made in allocating positions to the Ships' Officers Group and to Sub-groups and in assigning positions to levels.

### Occupational Sub-groups

The occupational group includes positions requiring the performance of significantly different duties and different qualifications. In recognition of these differences four sub-groups have been established and classification criteria provided for determining the levels of positions within each of the four sub-groups.

### Officer Position Titles

The order in which the officer positions of a vessel's complement are ranked reflects the accepted view of their responsibilities and the experience and qualifications required to carry them out. The officer titles are listed, in order of rank, for each ship department in the Marine Operations, and Floating Plant Sub-groups.

The Officer titles in the Radio Sub-group and in the Instructor Sub-group are also listed in order of rank. A brief description of the responsibilities of each rank is provided in the appropriate sub-group.

### Use of the Standard

The following steps are to be taken in applying this classification standard:

1. Allocation of the position to the category, the group and sub-group is confirmed by reference to the definitions and the descriptions of inclusions and exclusions.
2. The title of the position is confirmed by comparing the responsibilities of the position with those described in the list of Officer Position Titles and Summary of Responsibilities for each sub-group.
3. Positions will be evaluated in accordance with the particular plan established for the sub-group to which the position has been allocated.

NOTE: Standard position descriptions (S.P.D.) for Electrical, Electronic, Supply, Logistic, Radio and Instructor positions are provided for reference purposes.

CATEGORY DEFINITION

Occupational categories were repealed by the Public Service Reform Act (PSRA), effective April 1, 1993. Therefore, the occupational category definitions have been deleted from the classification standards.

GROUP DEFINITION

For occupational group allocation, it is recommended that you use [the Occupational Group Definition Maps](#), which provide the 1999 group definition and their corresponding inclusion and exclusion statements. The maps explicitly link the relevant parts of the overall 1999 occupational group definition to each classification standard.

SUB-GROUP DEFINITIONSMarine Operations

Positions included in this sub-group are those that meet the group definition and are located on vessels engaged in operations other than those described in other sub-groups.

Floating Plant

Positions included in this sub-group are those that meet the group definition and perform their duties on:

- vessels equipped to carry out one or more of the following tasks: dredge surveys, marine excavations, dredging, snagging, underwater drilling, removal of underwater obstructions, or the alteration, repair or removal of marine structures such as wharves, piers or breakwaters;
- vessels equipped as floating cranes or derricks;
- vessels whose primary function is to provide electrical power to other vessels;
- vessels whose primary function is to flush and clean tanks and bilges;
- vessels equipped to assist in the degaussing of other vessels;
  
- vessels such as tugs, where the primary function is to provide service to floating plant.

Radio

Positions included in this sub-group are those that meet the group definition and have the primary responsibility for the operation and maintenance of radio equipment installed on vessels engaged in marine operations.

Instructor

Positions included in this sub-group are those that meet the group definition and are located in the departments of Nautical Sciences and Marine Engineering at the Canadian Coast Guard College or at the Transport Canada Training Institute.



SHIPS' OFFICERS

SUB-GROUP: MARINE OPERATIONS

### INTRODUCTION

Officer positions allocated to the Marine Operations Sub-group are located on vessels that differ from one another in terms of function, range of operation and complement and are measured using the rating formula.

#### Use of the Rating Plan

The following steps are to be used in the application of this rating plan:

1. The class of vessel is determined by reference to the Vessel Rating Formula and Classification Table.
2. The title of the position is confirmed by comparing the responsibilities of the position with those described in the List of Officer Position Titles and Summary of Responsibilities.
3. The level of the position is determined by reference to the Class of Vessel Column and the appropriate officer title in the Maximum Position Level Determination Table.

#### Notes to Raters

"Evaluation of Relief Duties for Relief Master, Relief Chief Engineer, and Relief Officer"

Positions that are designated as having a continuing function of Relief Officer, Relief Chief Engineer or Relief Master are to be classified at the lowest level at which a significant amount of relief duties are performed. The performance of relief duties evaluated at higher levels will be compensated through acting pay.

#### Evaluation of Relief Duties

Raters are to consider the level of the position where the relief work is performed, the class and operational status of the vessel on which the position is located and the qualifications required to carry out the responsibilities of the position.

#### Evaluation of Electronic or Electrical Officers Positions

The level of the Electronic or Electrical Officer position will be determined by the class of the vessel on which the officer serves, and

- the accredited knowledge required to perform the duties,
- the complexity of the marine electrical equipment on the vessel,
- the computerization of electrical controls on the main propulsion system, - the

electronic aids carried,

- the electro hydraulic, electromechanical and electrically operated equipment installed on board, and
- the requirement to assist technical and scientific personnel on board other than the crew.

A Senior Electronic or Electrical Officer must have one or more Electronic or Electrical Officers under direct supervision.

Evaluation of DND Pilots

Positions that have a continuing function as Pilots are to be classified as a Master 10 in the Maximum Position Level Determination Table.

Evaluation of Officer Positions on Tugs

If a tug is employed in Marine Operations the officer positions are to be classified in this sub-group.

### OFFICER POSITION TITLES AND SUMMARY OF RESPONSIBILITIES

Officer positions are listed according to whether they are employed in Command, or in the Deck, Engineering or Supply Departments.

The position titles appearing in the Command or in the Deck, Engineering and Supply Department sub-sections are ranked in accordance with the responsibilities attached to each position and the experience and qualifications required to carry them out.

#### Command

Master: Applies to positions with full responsibility for the safe and effective operation of a vessel, and for the management of officers and crew.

DND Base Pilot: Applies to positions with full responsibility to pilot military vessels in and about a harbour.

Relief Master: Applies to positions with no continuing responsibility on board any one vessel, but where there is a requirement to relieve a Master on any class of vessel.

Master, Class A (II) Vessel: Applies to positions with overall responsibility for the safe and effective operation of the vessel and for the management of the officers and crew on board Class A Vessels, where the total responsibility, based on consideration of size and role of the vessel and the requirement to navigate outside of smooth or partially smooth waters, does not equate to Master, Class A Vessel.

#### Deck Department

Chief Officer: Applies to positions with responsibility for the general upkeep, management and administration of a vessel, and for assuming command in the absence or incapacity of the Master.

First Officer: Applies to senior watch keeping deck officers on vessels where the deck officer next in rank to the Master is not a watch keeper.

Second Officer: Applies to second watch keeping officer positions on deck. Third

Officer: Applies to third watch keeping officer positions on deck.

Relief Officer: Applies to positions with no continuing responsibility on board any one vessel, but where there is a requirement to relieve a deck officer on any class of vessel for varying lengths of time.

Mate: Applies to positions of senior deck officer under a Master, Class A(II) Vessels.

Assistant Watch keeping Officer: Applies to positions where there is a responsibility to assist in watch keeping and in other duties on deck or in the engine room.

#### Engineering Department

Chief Engineer: Applies to positions with full responsibility for the safe and effective operation of all engines and machinery and for the management of engine room officers and crew. It does not apply to certain engineer officer positions located on Class A(II) vessels commanded by a Master.

Relief Chief Engineer: Applies to positions with no continuing responsibility on board any one vessel, but where there is a requirement to relieve a Chief Engineer on any class of vessel for varying lengths of time.

Senior Second Engineer: Applies to positions of senior day-maintenance engineer and to those with responsibility for replacing the Chief Engineer in his absence or incapacity.

Senior Electronic or Electrical Officer: Applies to positions with responsibility for advising the Chief Engineer on all matters relating to the electronic or electrical systems and for the supervision of one or more Electronic or Electrical Officers.

Second Engineer: Applies to senior watch keeping officer positions in the engine room. In vessels where there is no Senior Second Engineer, there may be requirement to perform additional duties.

Third Engineer: Applies to the second watch keeping officer positions in the engine room. Fourth

Engineer: Applies to the third watch keeping officer positions in the engine room.

Relief Engineer: Applies to positions with no continuing responsibility on board any one vessel, but where there is a requirement to relieve an engineer officer on any class of vessel for varying lengths of time.

Engineer: Applies to engineer positions on vessels commanded by a Master Class A(II) Vessel.

Electronic Officer: Applies to positions with responsibility for the maintenance and servicing of the electronic and electrical power equipment.

Electrical Officer: Applies to positions with responsibility for maintenance and servicing of the electrical power generation, distribution and utilization systems.

#### Supply Department

Supply Officer\*: Applies to positions with responsibility for directing and controlling the catering, housekeeping, stores and financial services on board a vessel.

Assistant Supply Officer\*: Applies to positions with responsibility to assist the Supply Officer in directing and controlling the catering, housekeeping, stores and financial services on board a vessel.

Submersible Officers: Submersible Pilots and Maintenance Technicians in officer capacities may be assigned appropriate classifications in the Marine Operations Sub-group. The criteria for determining the levels of such positions will be a function of the complexity, size and operating limits of the submersible involved, the knowledge and experience necessary to perform the duties, and the relative responsibilities of the positions.

\* In those vessels operating under the CCG Integrated Logistics Support System these positions are identified as Logistic Officer and Assistant Logistic Officer respectively.

VESSEL RATING FORMULA AND CLASSIFICATION TABLE

Vessels, other than submersibles, on which the officer positions are allocated to the Marine Operations Sub-group are classified by use of the formula shown below, and assigned a "Class of Vessel" designation in accordance with the Vessel Classification Table for the sub-group.

Rating Formula

The Vessels engaged in Marine Operations are rated as follows:

$$\text{RATING (in points)} = \text{TONNAGE PLUS ONE TENTH OF THE RATED HORSEPOWER.}$$

"Tonnage" refers to the gross tonnage of the vessel.

"Rated Horsepower" refers to the maximum continuous-horsepower rating of the main propulsion machinery.

Vessel Classification Table

The class of each vessel is determined by relating the points determined by the rating formula to the following point intervals:

Class of Vessel		Point Intervals
*A and A(11)	up to	- 220
B	221	- 580
C	581	- 1,000
D	1,001	- 2,000
E	2,001	- 3,100
F	3,101	- 4,700
G	4,701	- 10,000
H	10,001 and	over

MAXIMUM POSITION LEVEL DETERMINATION TABLE

Ships' Classification and Point Rating

Level	Class H 10,001 pts. or over	Class G 4,701 - 10,000 pts.	Class F 3,101 - 4,700 pts.	Class E 7,001 - 3,100 pts.	Class D 1,001 - 2,000 pts.	Class C 581 - 1,000 pts.	Class R 221 - 580 pts.	Class A up to 220 pts.	Class A(II) up to 220 pts.
13	Master								
12	Chief Engineer	Master							
11		Chief Engineer	Master						
10			Chief Engineer	Master (d)					
9				Chief Engineer	Master				
8	Chief Officer Senior Second	Engineer			Chief Engineer	Master			
7		Cable Operations Officer		Chief Officer Senior (a)	Second Engineer	Chief Engineer			
6		Senior Electronics Logistic Officer (e)	Electrical Officer (b)		Chief Officer Senior (a) Second Engineer		Master (c)		
5		First Second		Second Engineer		Chief Officer Second Engineer	Chief Engineer		
4			Logistic Officer (e)						
4			Electronics or Electrical Officer (h)						
4	Second Officer Third Engineer Supply Officer		Second Officer Third Engineer		Second Engineer Logistic Officer (e)			Master	
3	Third Fourth Officer Assistant Officer Engineer		Third Officer Fourth Supply Officer		Second Third Officer Engineer		Chief Officer Second Engineer	Chief Engineer	Master
2	Assistant Officer Supply				Third Fourth Supply Officer	Officer Officer	Second Officer Third Engineer	Chief Officer Second Engineer	Mate Engineer
1			Assistant Watch keeping	Officer			Third Officer Fourth Engineer		

- NOTES: (a) The Senior Watch keeping Engineer position may be assigned to this level if there is no position of Senior Second Engineer. (b) See "Notes to Raters" on page 6. (c) Submersible Vessel. (d) Includes DND Base Pilots. (e) Vessels operating under CCG Integrated Logistics Support System. (f) On Class D and E vessels where there is an operational requirement for a non-watch keeping Chief Officer Position, the first watch keeping officer position will be classified two levels lower, i.e., MAO-4 and MAO-5 respectively.

SHIPS' OFFICERS SUB-GROUP: FLOATING

PLANT



INTRODUCTION

Officer positions allocated to the Floating Plant Sub-group are located on vessels that differ from one another in terms of equipment and tasks performed. The classification level of the Master or Dredge master is determined by a point rating plan. Officer positions below the level of Master or Dredge master are assigned levels on a ranking basis.

Point Rating Plan

The plan consists of four factors with a number of elements. The factors are Tonnage/Horsepower, Operational Complexity, Conditions of Work and Charge Responsibility. The Conditions of Work factor has two elements - Noise and Environment. These combined factors do not describe all aspects of jobs but only those characteristics that can be defined and distinguished and that are useful in determining the relative value of positions.

Point Values

The maximum point values assigned to each factor reflects its relative importance. Similarly, point values have been assigned to the degrees of the factors. The following factors, elements and point values are used:

Factor	Element	Factor Weights	Point Values	
			Minimum	Maximum
Tonnage/Horsepower		20		200
Operational Complexity		50	125	500
Conditions of Work	Noise	15	10	75
	Environment		10	75
Charge Responsibility		15	10	150
		100		1,000

Use of the Point Rating Plan

The following steps are used in the application of the point rating plan:

1. The point value of the position of the Master or Dredge master on a vessel is determined by application of the point rating plan.
2. The level of the Master or Dredge master on a vessel is determined by using the total point value of the position being evaluated in conjunction with the Position Level Determination Table. In the case of service vessels, such as tugs, only the tonnage/horsepower is to be used for evaluating the Master.
3. When the level of the Master or Dredge master has been determined, the levels of subordinate officers positions on the same vessel are found in the same vertical column.
4. "Complement" includes the Master, all officers and the crew.

OFFICER POSITION TITLES AND SUMMARY OF RESPONSIBILITIES

Officer positions allocated to this sub-group are listed according to whether they are employed in the Command, Deck or Engineering Department.

The position titles are ranked in accordance with the responsibilities attached to each position, and the experience and qualifications required to carry them out.

Command

Master: Applies to positions with full responsibility for navigating and operating a self-propelled plant or service vessel and for the management of the officers and crew.

Dredge master: Applies to positions with full responsibility for operating a floating plant that is not self-propelled and for the management of the officers and crew.

Deck Department

Mate: Applies to positions of senior deck officer under a Master or Dredge master.

Second Mate: Applies to positions of second senior deck officer under a Master or Dredge master.

Engineering Department

Chief Engineer: Applies to positions with full responsibility for operating and maintaining all machinery on a floating plant and for the management of officers and crew of the engineering department. It does not apply to engineer positions on vessels commanded by a Master at the FLP2 Level.

Second Engineer: Applies to positions of senior engineering officer under a Chief Engineer. Third

Engineer: Applies to positions of second engineering officer under a Chief Engineer. Fourth

Engineer: Applies to positions of third engineering officer under a Chief Engineer.

Engineer: Applies to positions of an engineering officer under a Chief Engineer or directly under a Master or Dredge master if there is no requirement for a Chief Engineer.

FACTORS AND RATING SCALES

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TONNAGE/HORSEPOWER FACTOR

This factor is used to measure the responsibility of the Master or the Dredge master for operating the floating plant in terms of its tonnage and horsepower.

Definition

"Tonnage" refers to the gross tonnage of the floating plant or service vessel only.

"Horsepower" refers to the total horsepower rating of the main and auxiliary machinery of the floating plant or service vessel.

Notes to Raters

Barges, scows and ancillary vessels, and the motive or other power for these, such as outboard motors are not to be considered under this factor. Similarly, pieces of construction equipment, such as bulldozers, are not to be considered under this factor.

RATING SCALE

Degree	Tonnage Plus One Half the Horsepower	Points
1	Up to - 500	40
2	501 - 900	80
3	901 - 1,500	120
4	1,501 - 2,500	160
5	2,501 -	200

OPERATIONAL COMPLEXITY

This factor is used to measure the difficulty of duties in terms of the variety of equipment used in floating plant operations.

Notes to Raters

- (i) The duties are those normally associated with the day-to-day operation, inspection, maintenance and repair of floating plant and associated equipment such as pipe lines and other disposal systems including booster stations, supporting pontoons or diesel engines fitted on dump scows.
- (ii) Other major equipment not included in the list of Variety of Equipment may be noted and considered by the rater.
- (iii) Auxiliary equipment such as generators, power winches or spuds are not to be included as they are common to all or most floating plants.
- (iv) Not more than one of items 2, 10 and 12 may be scored for the same vessel under Variety of Equipment.
- (v) Where two or more like equipments are in use the point score is to be increased to the next degree.

RATING SCALE - OPERATIONAL COMPLEXITY

No.	Variety of Equipment
1	Sand Pump and/or Cutter Suction Ladder
2	Excavation Bucket
3	Disposal System (pipeline, pontoons, etc.)
4	Disposal System (internal hoppers, dump scows, booster stations)
5	Diesel Hydraulic Excavation System
6	Diesel Electric Propulsion System
7	Power Boilers and Related Equipment (not heating system)
8	Propeller Pitch Control
9	Navigation Equipment (self-propelled vessels only)
10	Pile Driver
11	Automatic Flow or Density Control Mechanisms
12	Power Crane other than excavation (over 20 tons lift)
13	Pneumatic Rock Drills and Drill Towers
14	Diesel Generators (deperming) (or Power Barge)
15	High Pressure Pumps, Water (over 100 psi)
16	Compressor over 150 ACFM
17	Vacuum Pumps Reciprocating (25" mercury in 2500 gal. tank)
18	Self-propelled Construction Equipment (such as a bulldozer)
19	Workshop Complete Including Drill Press, Lathe, Welding Outfit and Bench Grinder

Degree	Pieces of Equipment	Points
1	2 or less	125
2	3	200
3	4	275
4	5	350
5	6	425
6	7 or more	500

CONDITIONS OF WORK

This factor is used to measure the demands of the work in terms of noise and environment.

Notes to Raters

In evaluating positions under the Noise Element raters are to consider the disagreeable conditions created by the noise generated by a variety of mechanical equipment.

Equipments listed in the Variety of Equipment Table under this factor are those normally in operation while the vessel is performing its assigned task and which would contribute to extremes of noise or other disagreeable working conditions; stand-by equipment is not to be included.

Where two or more like equipments operate at the same time the degree may be increased to the next level only. If a dredge has both a pump and/or more winches under Item No. 1, then it will be given credit for duplication under this item and raised to the next degree.

In evaluating positions under the Environment Element raters are to consider the kinds, severity and frequency of exposure to obnoxious odours, heat, dirt, oil and water, and other undesirable conditions such as the requirement to be away from home for extended periods.



RATING SCALE - CONDITIONS OF WORK

NOISE

"Noise" refers to those disagreeable conditions created by the use of the number and variety of equipments operating in a floating plant.

VARIETY OF EQUIPMENT TABLE

No.	Variety of Equipment Table	
1	Pumps and Winches (used in the primary tasks of the Floating Plant)	
2	Power Cranes or Dredge Front End	
3	Pneumatic Drills and Drill Towers	
4	Compressors over 150 ACFM	
5	Diesel or other engines over 40 BHP continuous	
6	Diesel engines over 1,000 BHP continuous	

  

Degree	Degree Definition	Points
1	ONE equipment listed in the Variety of Equipment Table numbered 1 to 5	10
2	TWO different equipments numbered 1 to 5	31
3	THREE different equipments numbered 1 to 5	52
	FOUR or MORE different equipments numbered 1 to 5	
4	or	75
	ONE or MORE equipments listed as number 6	

RATING SCALE - CONDITIONS OF WORKENVIRONMENT

"Environment" refers to the kind and severity of disagreeable and dangerous conditions during the performance of the work. Examples of disagreeable conditions include:

- exposure to dust, fumes, odours, extremes of weather, temperature extremes, wet, darkness or bad lighting,
- the requirement to wear cumbersome protective clothing or equipment, and
- the requirement to be away from home frequently or for significant periods.

Degree	Work Environment	Points
1	Good working environment with few disagreeable conditions.	10
2	Fair working environment such as frequent exposure to one disagreeable condition or occasional exposure to either several disagreeable conditions or to one <i>very</i> disagreeable condition.	31
3	Poor working environment such as frequent exposure to several disagreeable conditions or to one very disagreeable condition.	52
4	Very poor working environment such as frequent exposure to several very disagreeable conditions for extended periods.	75

CHARGE RESPONSIBILITY

This factor is used to measure the responsibility of the Master or Dredge master for the administration of human and material resources.

Notes to Raters

The administration of human and material resources includes the responsibility to keep records, work logs, maintenance and time sheets, and the procurement of provisions and stores.

The number of officers specified in the degree definitions includes the Master or Dredge master.

Service vessels that do not operate independently may be included under this factor for complete count.

Degree	Responsibility	Points
1	A complement of 7 or less	30
2	Two officers OR a complement of 8 or more	70
3	Three officers OR a complement of 12 or more	110
4	More than three officers OR a complement of 15 or more	150

POSITION LEVEL DETERMINATION TABLE Ships' Officers, Floating Plant

Level	Class E 801 to 1000	Class D 651 to 800	Class C 501 to 650	Class B 351 to 500	Class A up to 350
7	Master Dredge master				
6	Chief Engineer	Master Dredge master			
5		Chief Engineer	Master Dredge master		
4	Second Engineer Mate		Chief Engineer	Master Dredge master	
3		Second Engineer Mate	Second Engineer Mate	Chief Engineer	Master Dredge master
2	Third Engineer Second Mate	Third Engineer		Second Engineer Mate	Master* Chief Engineer
1	Fourth Engineer				Engineer Mate

\* 300 points or less for self propelled vessel with a complement of five or less.

SHIPS' OFFICERS

SUB-GROUP: RADIO

### INTRODUCTION

Officer positions allocated to the Radio Sub-group are ranked in accordance with the responsibilities attached to each position and the experience and qualifications required to carry them out, as well as the class of vessel on which they serve. These positions exist only on vessels engaged in marine operations.

#### Use of the Rating Plan

The following steps are to be taken in the application of this rating plan.

1. The class of vessel is determined from the Vessel Classification Table for Marine Operations.
2. The title of the position is confirmed by comparing the duties and the responsibilities of the position with those described in the List of Officer Position Titles and Summary of Responsibilities for the Radio Sub-group.
3. The level of the Radio officer is determined from the Position Level Determination Table for the Radio Sub-group.

OFFICER POSITION TITLES AND SUMMARY OF RESPONSIBILITIES

Senior Radio Officer: Applies to positions with full responsibility for the effective operation and maintenance of radio communication, direction-finding and associated equipment installed on a vessel engaged in marine operations, and for the supervision of one or more junior radio officers.

Radio Officer: Applies to positions with full responsibility for the effective operation and maintenance of radio communication, direction-finding and associated equipment installed on a vessel engaged in marine operations.

Junior Radio Officer: Applies to positions with responsibility for the effective operation and maintenance of radio communication, direction-finding and associated equipment installed on a vessel engaged in marine operations, during a designated watch keeping period under the general supervision of a senior radio officer.

Standard Position Descriptions

Standard position descriptions serve to indicate the differences in the duties performed at each level.

POSITION LEVEL DETERMINATION TABLE

Level	Class E and over (Marine Operations)	Class D and below (Marine Operations) All classes of tugs
3	Senior Radio Officer	
2	Radio Officer	
1	Junior Radio Officer	Radio Officer



SHIPS' OFFICERS

SUB-GROUP: INSTRUCTOR

### INTRODUCTION

Officer positions allocated to the Instructor sub-group are evaluated in accordance with the responsibilities attached to each position and the experience and qualifications required to carry them out.

#### Use of the Rating Plan

The following steps are to be taken in the application of this rating plan.

1. The position is tentatively assigned to a level by comparing the duties and responsibilities of the position with those in the Officer Position Titles and Summary of Responsibilities.
2. The standard position descriptions illustrate the level tentatively selected and are to be compared with the description of the officer position being evaluated.

OFFICER POSITION TITLES AND SUMMARY OF RESPONSIBILITIESDepartment Head - Level 2

This level applies to positions where the primary responsibility is the planning and developing of courses of instruction in Nautical Sciences or Marine Engineering. Management responsibility at this level includes staff appraisal and supervision within a department, preparation of a departmental budget and recommending on major equipment purchases.

Instructor - Level 1

This level applies to positions where the primary responsibility is to teach Nautical Sciences and Marine Engineering subjects such as Navigation, Naval Architecture, Seamanship, Engineering Drawing, Marine Engineering, Marine Law, Meteorology, Climatology, Electrotechnology, Hydrography, Oceanography, Thermodynamics or Fluid Mechanics. Management responsibility at this level is confined to supervising the activities of a student body and recommending on the purchase of training aids.

STANDARD POSITION DESCRIPTION

Position Title: Senior Electronics/  
Electrical Officer, CCGS  
John A. Macdonald

Level: SO-MA07

Summary

Under the direction of the Chief Engineer advises in all electronic/electrical matters; maintains and repairs the ship's electrical and electronic systems which are under the charge of the Chief Engineer; maintains standby as directed at the main propulsion controls during maneuvering; supervises electrical personnel or others assigned to help; and performs other duties.

Duties

Maintains the ship's electrical machinery and power equipment, distribution systems and related electronic equipment and systems including 9 propulsion generators with a total capacity of over 12,000 K.W. and 3 propulsion motors of 5000 h.p. each, and ship's service generators of over 1500 K.W. capacity to ensure effective performance: by

- establishing and conducting comprehensive and systematic inspection, testing and preventive maintenance programs, routines and procedures;
- detecting, analyzing and repairing defects in the ship's electrically operated equipment, distribution systems and electronic equipment and systems which are under the charge of the Chief Engineer;
- scheduling work for Electrical Officer and additional members of the engineering crew as required;
- observing component and system functioning and noting deviations from standard performance, to ensure correction;
- preparing detailed repair lists for all electrical work to be carried out by contract and self refit;
- preparing and maintaining detailed records of inspection, maintenance and repair work carried out on electrical machinery and equipment and electronic systems;
- reviewing and revising as required electrical spares inventory to ensure that essential stocks of replacement parts are maintained;
- requisitioning electrical spares where required and maintaining parts in good order;
- maintaining records of consumable electrical store items and ensuring that a sufficient stock is maintained;
- inspecting and maintaining test equipment and supervising upkeep of workshop facilities;
- ensuring that electrical surveys and tests are scheduled in compliance with Steamship Inspection requirements;
- coordinating the electrical inspection and maintenance programs with those required for the associated machinery;
- devising and constructing alternate electrical systems to restore service or effecting emergency repairs in case of equipment failure;
- recording and updating as required ship's electrical drawings and equipment manuals to ensure their availability and accuracy;
- examining electrical work carried out under contract to ensure its compliance with refit specifications;
- establishing inspection maintenance routines for the electrical officer and ensuring that all work is carried out in a thorough and systematic manner;
- reporting to the Chief Engineer on the condition of shipboard electrical equipment.

Stands by at main propulsion electrical controls during maneuvering periods at such times as directed by Chief Engineer, to ensure correct operation of control equipment and take emergency corrective action in case of malfunction.

Makes progressive improvements to the operational efficiency of ship's electrical system: by

- analyzing operating records of electrical machinery and assessing suitability and reliability of equipment;
- making recommendations concerning alterations and/or additions to electrical machinery equipment;
- examining alterations and additions carried out by contract to ensure that work is completed in accordance with specifications.

Performs other duties such as planning, organizing and directing training schemes for uncertified personnel in routine electrical maintenance and safe working practices and providing assistance to engineering and scientific personnel in electrical matters.

#### Specifications

#### Ship Rating

The CCGS "John A. MacDonal d" has a gross tonnage of 6,186 tons and a diesel -electric main propulsion system of 15,000 shp, is rated at 7,686 points and classified as a Class "G" ship.

STANDARD POSITION DESCRIPTION

Position Title: Electrical Officer  
CSS HUDSON

Level: SO-MA05

Summary

Under the direction of the Senior Electrical Officer operates, maintains, modifies and repairs equipments associated with the general electrical services and interior communications section of the electrical installation. Participates in regulatory authority inspections and ensures that repairs and modifications carried out by contract meet both operational and regulatory authority requirements. Assists Atlantic Oceanographic Laboratory Engineering Services personnel to install and maintain scientific electrical equipments, and carries out other related duties.

Duties

Under direction of the Senior Electrical Officer operates, maintains, modifies and repairs electrical elements of the auxiliary and emergency generators with their associated distribution systems, upper deck and engine room auxiliaries, galley, and accommodation support facilities which make up the general electrical-services installation, and the interior communications system: by - coordinating with the Senior Electrical Officer preventative and corrective maintenance programs

- which are compatible with the overall electrical-maintenance plan;
- technically directing the activities of a Junior Electrical Officer or Electrical Technician in
  - locating and repairing equipment defects;
  - locating and repairing defects in equipments where unserviceability prejudices ship operation, or when the work requires specialized knowledge and skill;
  - writing repair and modification specifications for work which will be carried out by contract;
  - technically directing the activities of a Junior Electrical Officer or Electrical Technician and crewmen who are employed as trade helpers in a continuing preventative maintenance program;
- producing maintenance records including insulation-resistance test results, calibration and equipment test results, defect reports, and worksheets, then analyzing them to assess equipment suitability and reliability;
- revising electrical plans, drawings, and equipment handbooks to reflect modifications to the ship's general electrical-services installation;
- requisitioning electrical stores and spares;
- repairing test equipment.

Participates in regulatory authority inspections of the ship's general electrical-services installation and ensures that repairs and modifications carried out by contract meet both regulatory authority and operational requirements: by

- liaising with contractors' representatives and providing necessary ship's services and assistance during repairs and modifications by contract, then carrying out tests and accepting the work on the ship's behalf at its completion;
- arranging for inspections by regulatory authorities, readying the equipment for inspection, assisting with inspections, then returning equipments to their normal operating states at the conclusion of such inspections.

Assists Atlantic Oceanographic Laboratory Engineering Services personnel to install and maintain scientific electrical equipments:

- Liaising with Engineering Services personnel to determine ship's electrical facilities required in support of new scientific installations, then providing the necessary services and power;
- assisting during the installation of such equipments, and maintaining electrical elements while they are aboard.

Performs other related duties: by

- assisting the Senior Electrical Officer when required to locate and repair defects in electrical elements of the propulsion system;
- acting for the Senior Electrical Officer in his absence;
- participating in damage control and rescue drills;
- writing reports and other technical correspondence;
- watch keeping in the Machinery Control Room when required;
- technically assisting as necessary during collection of scientific data.

#### Specifications

#### Ship's Rating

CSS HUDSON is a twin screw, ice class 1, non-passenger, foreign-going vessel of 3,721 gross registered tons propelled by a diesel electric system developing 8,800 b.h.p., is rated at 4,601 points, and is classified as a Class F ship.

BENCH-MARK POSITION DESCRIPTION

Position Title: Supply Officer  
CCGS Simcoe

Level: SO-MA0 2

Summary

Under the direction of the Master, plans and organizes the operation of the supply department on a Department of Transport ship; conducts and controls supply department services; supervises the work of a staff of four; maintains records, compiles reports and performs other duties.

Duties

Plans and organizes the operation of the supply department on the Canadian Coastguard Ship Simcoe engaged in light icebreaking, supply and buoy-laying activities in the lower Great Lakes area between the communities of Prescott and Sarnia: by

- consulting with the chief cook in preparing menus, scheduling meals and determining standards of quality and economical use of provisions, to ensure an efficient catering service to the ship's complement of 10 officers and 24 crewmen;
- consulting with the senior steward on all matters pertaining to accommodation, sanitation and laundry facilities, to ensure effective housekeeping services on the ship;
- establishing requirements and procedures for the requisition, receipt, storage and distribution of supplies; and
- collaborating with officers of the engine room department in the loading and moving of stores, supplies and provisions, to ensure an effective stores control system.

Conducts and controls supply department services, and ensures that supply department accommodation and equipment is kept in a proper state of repair and maintenance: by

- examining victualling provisions before they are prepared for consumption, to ensure that they meet the required standards of quality;
- sampling meals to ensure they are tasty and wholesome;
- inspecting the galley and messrooms, to ensure that food is stored, prepared and served properly under sanitary conditions, and that waste is kept to a minimum;
- inspecting daily all other areas under the control of the supply department, such as cabins, stairways, hallways, lounges, offices, store-rooms, baggage rooms and other storage areas, washrooms and toilets, to ensure their cleanliness and good condition;
- checking laundry facilities to ensure an adequate supply of uniforms for the supply department staff, and of ship's bedding and linens;
- arranging for the return of defective, excessive or incorrect stores items and the disposal of depreciated, obsolete and unusable items;
- keeping the accounts and records pertaining to the ship's budget, canteen, purchasing, stores, and the cargo manifest and passenger list; and
- reporting to the Master any maintenance and repair requirements such as painting of cabins and repairs to catering, galley and sanitary equipment.

Supervises the work of the supply department staff consisting of a chief cook, assistant cook, steward and assistant steward: by

- drawing up work, overtime and leave schedules and maintaining discipline;
- inspecting the clothing and general cleanliness of the staff, to ensure that high standards of sanitation and personal hygiene are maintained;



Ships' Officers

Sub-group: Marine Operations

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- conducting staff training programmes and writing work performance standards; and
- completing personnel appraisal reports, keeping personnel records, resolving personnel problems, and recommending disciplinary and promotion action to the Master in accordance with the regulations governing ships crews and other directives.

Performs other duties, such as controlling incoming and outgoing mail, conducting correspondence concerning the ship's administration, and compiling reports on supply department matters.

Specifications

Ship's Rating

The CCGS Simcoe has a gross tonnage of 961 tons and a diesel-electric propulsion system of 2,000 b.h.p., is rated at 1,161 points, and is classed as a Class D ship.

STANDARD POSITION DESCRIPTION

Position Title: Logistic Officer  
                  CCGS Martha L. Black

Level: SO-MAO 5

Summary

Under the direction of the Master and the functional guidance of the Regional Fleet Logistic Officer, plans, organizes, directs and coordinates the program and activities of the Supply Department in the area of materiel management; controls and coordinates all the Ship's Commissary and Housekeeping Services; coordinates ship's administration and financial management activities; provides advice and assistance as required on Material Management, financial, administrative and personnel policies and procedures; manages staff assigned to the Supply Department and performs other duties as required.

Duties

Plans, organizes, directs, and coordinates the program and activities of the Supply Department in accordance with Treasury Board, Transport Canada and Canadian Coast Guard policy and directives: by

- requisitioning types and quantities of materiel to meet authorized allowances or specified requirements of provisions, general stores, spare parts, controllable items, uniforms and protective clothing, pharmaceutical and medical supplies, canteen and bonded stores;
- reviewing incoming Standing Offer Agreements and Purchase Orders and maintaining a central file of agreements for monthly/annual contracts;
- managing special and emergency requirements of all Departments by determining the best means of purchase, contacting Regional/District Superintendent Materiel Management, Supply and Services Canada and/or supplier by telephone, telex or letter to obtain cost and availability, etc., and ensuring that materiel is received within the deadline required;
- maintaining commitment control records for materiel requisitioned for stock and for non-stocked items;
- expediting overdue deliveries;
- ensuring that proper receipt, identification and inspection is carried out for all incoming materiel;
- ensuring the proper stowage, care, preservation and security of materiel stocked in central stores or in use by the Supply Department;
- ensuring that materiel held in stock is properly identified, catalogued and incorporated in the centralized cataloguing files;
- maintaining manual or automated inventory management records for up to seven thousand line items;
- controlling the issue and receipt of all materiel held in stock internally within the ship;
- evaluating usage history in conjunction with user departments to confirm or revise stock levels, lead time and/or shelf life;
- evaluating the needs to add new items to stock in consultation with user departments on board;
- reviewing stock replenishment requisitions with user departments to ensure the items are in current use, that quantities ordered are realistic, that all pertinent information is contained in each requisition and that non-stock materials are non-repetitive;
- carrying out periodic stocktaking's of materiel held in stock, investigating discrepancies, adjusting the stock records and preparing the supporting documentation;
- reviewing materiel held in stock and in use by the Supply Department frequently and on a regular basis to identify items surplus to requirements;
- administering and coordinating the disposal of all surplus and obsolete materiel on board;
- preparing and submitting write-off documents for materiel damaged, lost or destroyed while held in stock;
- maintaining custody and control, dispensing and accounting for pharmaceutical and medical supplies and related items;

Organizes, directs, controls and coordinates all commissary activities in the ship, which includes the provision of food services and domestic services and the administration and control of all non-public fund activities on board.

A. Food and Domestic Services: by

- organizing food and domestic services by determining requirements and preparing shift and work schedules;
- directing, controlling and coordinating the operation of the General Mess System;
- preparing weekly menus in collaboration with the Chief Cook;
- directing and supervising cooks and stewards in the planning, preparation, cooking and serving of varied, nutritious and appetizing meals;
- ensuring the safe operation, maintenance and control of all food preparation and handling equipment;
- ensuring high standards of cleanliness and hygiene are established and maintained;
- investigating any complaints concerning food and domestic services and initiating corrective action, when warranted;
- determining the ship's food requirements for varying operational periods and roles; coordinating requisitioning, receipt and storage of provisions; establishing and maintaining the Commitment Control Record of Provisions Expenditures;
- analysing weekly menus and meal costs and making adjustments as necessary to ensure compliance with the average meal cost allowance established for the region/district and with the scales of issue;
- ensuring the maintenance, cleanliness and sanitation of all Officers' accommodation areas including cabins, heads, wash places and adjacent passageways plus any other areas allocated to the Supply Department;
- controlling and, in consultation with the Commanding Officer, allocating messing and accommodation to meet the requirements of all supernumerary personnel;
- directing the operation of the ship's laundry;
- conducting regular inspections of all food storage, preparation and serving areas, accommodation spaces and laundry spaces;
- ensuring that effective pest and insect control measures are adopted and maintained;
- directing, organizing and coordinating arrangements for VIP visits and official receptions held on board.

B. Non-Public Funds Activities: by

- directing and controlling the operation of the ship's canteen;
- approving the purchase of all items for sale in the canteen;
- purchasing and controlling bonded stores in accordance with Canada Customs Regulations;
- selecting, directing, supervising and training canteen personnel;
- ensuring adequate security and control of canteen and bonded stocks and cash holdings;
- establishing and maintaining auditable consolidated financial accounts for the ship's canteen, Officers' Mess and Recreation and Welfare Fund;
- preparing financial statements on a quarterly basis including Balance Sheet, Statement of Operations and Statement of Revenue and Expenditure;
- performing the duties of the secretary-treasurer of the Recreation and Welfare Committee.

Budgets and administers the Supply Department's financial resources to ensure compliance with the Financial Administration Act and Treasury Board and Transport Canada Financial Management policy and directives: by

- managing the Supply Department's financial and person-year resources;

- organizing and coordinating financial input to budgetary submissions for MYOP, Main Estimates, Five-Year Capital Plan and Alterations and Additions (A&A's);
- controlling costs and maintaining commitment control records;
- analyzing and preparing Monthly Performance Reports;
- identifying and applying correct financial codes to classify and aggregate data;
- exercising financial signing authority in accordance with sections 25 and 27 of the Financial Administration Act;
- analyzing proposals and documentation concerning contracts, Local Purchase Orders and Emergency Purchase Orders as a basis for decision on payments;
- preparing Monthly Provision Report Summary and Provision Report Schedules;
- assisting in the preparation of, auditing, and recommending payment of, employee Travel Expense Claims;
- reviewing all monthly transactions reported on EPD/DRS O&M Budget Statements and requesting changes as necessary;
- establishing and maintaining appropriate files for financial records pertaining to the Supply Department for audit purposes.

Coordinates ship's administration and financial management on behalf of the Commanding Officer: by

- establishing and maintaining correspondence and records management systems and procedures on board;
- collecting personal mail from ship's personnel for mailing and distributing personal mail as received;
- maintaining ship's office manuals, publications and bulletins;
- preparing ship's correspondence and reports;
- preparing appropriate forms in accordance with Canadian Customs and Excise Regulations;
- preparing and maintaining ship's personnel files and records;
- acquiring and maintaining ship's office machinery and equipment;
- ensuring that all budget documentation is prepared accurately and in accordance with established policies, procedures and guidelines;
- providing administrative assistance and support services to the Commanding Officer.

Provides assistance and advice as required to the Commanding Officer and other Department Heads in the ship on materiel management, financial, administrative and personnel policies and procedures which affect them: by

- discussing and collaborating in the preparation of the short term and long range plans for materiel requirements in support of their operational, planned maintenance, refit and maintenance programs;
- coordinating the preparation and submission of the operations and maintenance budgets for the ship and providing advice in commitment control, preparation of variance reports and records management;
- coordinating staffing action and personnel administration to meet ship's and departmental requirements;
- ensuring that the Commanding Officer and other Department Heads are aware of all changes made to the procedures, instructions and guidelines pertaining to materiel management, financial management, personnel and ship's administration and which apply to them.

Manages the human resources assigned to the Supply Department to ensure compliance with Treasury Board and Transport Canada Personnel Management policy and directives: by

- ensuring that Supply Department personnel are adequately trained and are able to perform their assigned duties;
- developing, establishing and monitoring on-the-job training programs for Supply crew personnel;
- reviewing performance to ensure that standards and levels of services are met;
- participating on selection boards to fill vacant Supply Department positions;
- completing probationary/annual appraisal documents;
- reviewing and approving weekly Personnel Activity Reporting Systems (PARS) forms submitted by Supply Department personnel;

- recommending disciplinary action to the Commanding Officer;
- recommending Supply Department personnel for promotion, acting appointments, transfer, training and/or dismissal.

Performs other duties such as:

- administering First Aid to members of the ship's complement;
- making recommendations, through written reports and/or Alterations and Additions (A&A) to change, modify, replace or remove existing galley equipment, accommodation spaces, storerooms, ship's office, etc., to reduce workload and improve efficiency;
- reporting in writing to the Commanding Officer any problems of a serious nature pertaining to logistic activities on board and recommending corrective action as necessary;
- cooperating with the local library in borrowing, returning, controlling and organizing the ship's library system;
- carrying out or assisting in special projects/assignments as directed.

#### Specifications

#### Ship's Rating

The CCGS Martha L. Black has a gross tonnage of 3,740 tons with a main propulsion system capable of generating 8,445 h.p. and is rated at 4,584 points (Class F).

STANDARD POSITION DESCRIPTION

Position Title: Senior Radio Officer

Level: SO-RAD 3

Summary

Under the direction of the ship's Master, supervises the work of one or more junior radio watch keeping officers; stands a marine safety watch and conducts a public Correspondence and Communications Service; maintains, or directs the maintenance of radio communications equipment; provides navigation information to the Master and watch keeping officers; and performs other duties.

Duties

Supervises the work of one or more junior radio watch keeping officers: by

- establishing a schedule of watch keeping duties;
- training new operators in the performance of their duties;
- scheduling and recording overtime; and
- appraising the performance of junior radio officers and recommending disciplinary or promotion action.

Stands a marine safety watch and conducts a Public Correspondence and Communications Service during a designated watch keeping period: by

- maintaining a continuous watch for distress communications;
- transmitting from, and receiving messages addressed to, the ship and by relaying message traffic to other ships;
- copying weather reports, traffic lists, warnings to navigators and news bulletins for information and the safe operation of the ship;
- monitoring the operation of facsimile equipment, making adjustments and passing current weather and ice information maps to the bridge;
- making entries in the radio station log;
- taking weather observations and coding and forwarding information to the Meteorological Service;
- testing and setting the auto-alarm device before going off watch;
- routing radio telegrams according to standard procedures; and
- providing search and rescue communications during emergencies.

Maintains, or directs the maintenance of, transmitters, receivers and direction finders according to instructions in operating and maintenance manuals, to ensure satisfactory performance: by

- establishing a maintenance schedule;
- investigating reported breakdowns on watch keeping shifts;
- carrying out and personally directing repairs to radio communications equipment;
- tuning equipment to ensure that transmission is on authorized frequencies and to eliminate faulty radiation that may interfere with other assigned frequencies;
- checking meter readings on transmitters and receivers to ensure that equipment is functioning normally and that faulty operation is detected and corrected before it causes damage to equipment;
- checking storage batteries and ensuring that they are fully charged; and
- inspecting emergency life-boat equipment and accessories to ensure a state of readiness for use.

Provides navigation information to the Master and watch keeping officers by taking and relaying time signals to the bridge and by taking bearings on radio beacons, as requested, using a direction finder.

Performs other duties such as relieving the junior officer on watch in his absence, maintaining contact with headquarters concerning equipment performance and other communications matters, and as assigned from time to time by the ship's Master.

STANDARD POSITION DESCRIPTION

Position Title: Radio Officer

Level: SO-RAD 2

Summary

Under the direction of the ship's Master, stands a marine safety watch and conducts a public Correspondence and Communications Service; maintains transmitters, receivers and direction finders; provides navigation information to the Master and watch keeping officers; and performs other duties.

Duties

Stands a marine safety watch and conducts a public Correspondence and Communications Service during a designated watch keeping period: by

- maintaining a continuous watch for distress communications, actively or by an auto-alarm system;
- transmitting from, and receiving messages addressed to, the ship and by relaying message traffic for other ships;
- copying weather reports, traffic lists, warnings to navigators, and news bulletins for information and the safe operation of the ship;
- monitoring the operation of facsimile equipment, making adjustments and passing current weather and ice information maps to the bridge;
- making entries in the radio station log;
- taking weather observations and coding and forwarding information to the Meteorological Service;
- testing and setting the auto-alarm device before going off watch;
- routing radio telegrams according to standard procedure; and
- providing search and rescue communications during emergencies.

Maintains transmitters, receivers and direction finders according to instructions in operating and maintenance manuals, to ensure satisfactory performance: by

- establishing a maintenance schedule;
- tuning equipment to ensure that transmission is on authorized frequencies and to eliminate faulty radiation that may interfere with other assigned frequencies;
- checking meter readings on transmitters and receivers to ensure that equipment is functioning normally and that faulty operation is detected and corrected before it causes damage to equipment; -
- checking emergency storage batteries and ensuring that they are fully charged;
- inspecting emergency life-boat radio equipment and accessories to ensure a state of readiness for use during an emergency; and
- maintaining a stock of spare parts.

Provides navigation information to the Master and watch keeping officers by taking and relaying time signals to the bridge and by taking bearings on radio beacons, as requested, using a direction finder.

Performs other duties such as computing charges for radio-telegrams and radiotelephone calls, keeping records, amending publications, maintaining contact with headquarters concerning equipment performance and other communications matters, and as assigned from time to time by the ship's Master.

STANDARD POSITION DESCRIPTION

Position Title: Junior Radio Officer

Level: SO-RAD 1

Summary

Under the general supervision of a Senior Radio Officer aboard ship, stands a marine safety watch and conducts a Correspondence and Communications Service; maintains transmitters, receivers and direction finders; provides navigation information to the Master and watch keeping officers; and performs other duties.

Duties

Stands a marine safety watch and conducts a public Correspondence and Communications Service during a designated watch keeping period: by

- maintaining a continuous watch for distress communications;
- transmitting from, and receiving messages addressed to, the ship and by relaying message traffic to other ships;
- copying weather reports, traffic lists, warnings to navigators, and news bulletins for information and the safe operation of the ship;
- monitoring the operation of facsimile equipment, making adjustments and passing current weather and ice information maps to the bridge;
- making entries in the radio station log;
- taking weather observations and coding and forwarding information to the Meteorological Service;
- testing and setting the auto-alarm device before going off watch;
- routing radiotelegrams according to standard procedure; and
- providing search and rescue communications during emergencies.

Maintains transmitters, receivers, and direction finders as directed and according to instructions in operating and maintenance manuals, to ensure satisfactory performance: by

- tuning equipment to ensure that transmission is on authorized frequencies and to eliminate faulty radiation that may interfere with other assigned frequencies;
- checking meter readings on transmitters and receivers to ensure that equipment is functioning normally and that faulty operation is detected and corrected before it causes damage to equipment;
- checking the emergency storage batteries and ensuring that they are fully charged; and
- inspecting emergency life-boat radio equipment and accessories to ensure a state of readiness for use during an emergency.

Provides navigation information to the Master and watch keeping officers during a designated watch keeping period by taking and relaying time signals to the bridge and by taking bearings on radio beacons, as requested, using a direction finder.

Performs other duties such as computing charges for radio telegrams and radiotelephone calls, keeping records, compiling traffic abstracts, amending publications, and as assigned from time to time by the ship's Master.



STANDARD POSITION DESCRIPTION

Position Title: Department Head,  
Nautical Sciences

Level: SO-INS 2

Summary

Under direction of the Director of Studies, Canadian Coast Guard College, plans, develops and modifies course content in the Nautical Sciences Department; co-ordinates and supervises training within the department; instructs Cadets and Canadian Coast Guard Officers; plans, develops, co-ordinates and evaluates ship-board training assignments; and performs other duties.

Duties

Plans, develops and modifies course content in the theory and practical application of the subjects relating to Nautical Sciences such as Navigation, Seamanship, Marine Law, Meteorology, Climatology, Hydrography and Oceanography: by

- identifying those areas of knowledge specified for Deck Officers in the "Regulations relating to the examination and certification of Masters and Mates", which are issued under the authority of the Canada Shipping Act;
- selecting topics in subjects such as Economic Geography and Economics, and arranging periodic visits to steel plants, shipyards and institutes to provide graduates with a wider knowledge of the nautical environment than that required by the regulations;
- writing and amending syllabi, lesson plans, classroom notes, term previews, classroom assignments, tests and examinations;
- devising training aids, such as sketches for blackboard demonstrations, models, graphs, charts and transparencies;
- reviewing cadet success/failure/progress statistics, staff recommendations, and student reaction to assess the effectiveness of training; and
- reviewing professional journals and attending courses to keep up-to-date with developments in fields applicable to Ships' Officers.

Instructs classes of cadets and officers in subjects such as Aids to Navigation, Marine Law, Naval Architecture and Ship Stability: by

- lecturing, demonstrating and operating training aids, showing films and applying other instructional techniques to present the theoretical and practical aspects of a subject, either in the classroom, in a laboratory or workshop, or on board a Canadian Coast Guard ship.

Plans and implements Nautical Sciences training: by

- assigning instructors to teach specific subjects according to language requirements and professional competence;
- discussing schedules of instruction with the Director of Studies, and coordinating time tables of subjects to be taught and assignment of classrooms with other Department Heads and the Director of Studies;
- monitoring and demonstrating instructional techniques to ensure that courses do not deviate from the syllabus or scheduled time tables and that instructors are conversant with established methods; - inspecting student notebooks, blackboard diagrams, instructors' daily diaries and examination papers;
- setting examinations, or approving the use of examinations, or questions set by instructors;
- appraising cadet and staff performance, and counseling cadets and instructors; and
- providing staff training in the use of new or complicated training aids such as the planetarium or photoplott radar-navigation simulator.

Plans, develops, co-ordinates and evaluates ship-board training assignments to give cadets the best possible experience during sea cruises: by

- reviewing the progress records and personal interests of each cadet to assess training needs;
- arranging for cadets specializing in Nautical Sciences to receive familiarization training in Marine Engineering;
- discussing the appropriateness, training value and practicability of ship-board training assignments with sea-training officers, officers of the vessels being used in the training program and with the cadet instructors; and
- reviewing, grading and assessing completed assignments, cadet performance reports, the adequacy of safety measures and cadets' diaries at the end of each cruise.

Administers the Nautical Sciences department: by

- supervising a staff of instructors;
- controlling an annual budget for the purchase of course materials, training aids and small boat repairs;
- recommending special purchases of training aids from manufacturers, other schools and government departments; and
- arranging with the College Administrator for the printing, reproduction or manufacture of précis, lecture notes, sketches, slides, transparencies and training aids.

Performs other duties such as attending courses at plants that manufacture training aids, writing staff information précis; interviewing prospective instructors; and recommending appointment, retention, re-assignment and dismissal of Nautical Sciences Departmental Staff.

STANDARD POSITION DESCRIPTION

Position Title: Instructor, Marine Engineering

Level: SO-INS 1

Summary

Under the general supervision of the Department Head, Marine Engineering Department, Canadian Coast Guard College, instructs Cadets and Canadian Coast Guard Officers; develops and revises methods of presentation; sets examinations; writes syllabus previews and lesson plans; and serves on sea-training cruises; and performs other duties.

Duties

Instructs classes of cadets to a standard which allows the award of Canadian Coast Guard College diploma in Marine Engineering on successful completion of examinations throughout a three-year course, and also Coast Guard officers during short-term, knowledge-upgrading courses, in assigned subjects relating to Marine Engineering: by

- lecturing in class, in a laboratory or workshop, or on board ship, on the theoretical and practical aspects of subjects such as Naval Architecture, Engineering Drawing, Marine Engineering, Electro technology, Applied Mechanics, Strength of Materials, Thermodynamics, Fluid Mechanics, and Theory of Machines, to enable students to reach a demonstrable standard of proficiency;
- demonstrating the practical application of theory, using training aids such as sectioned and cut-away engines and machinery, ships' controls, films, and models;
- tutoring individual students or groups of students in subjects or topics in which assistance is needed to reach a satisfactory level of proficiency; and
- supervising extra study periods in the evening, on rotation with other staff members.

Evaluates and revises methods of presentation, examinations, syllabus previews and lesson plans to ensure that course material and examination questions keep up-to-date with changing techniques and technology: by

- reviewing the latest bulletins, technical journals and books published on Marine Engineering subjects;
- discussing articles of interest with the Department Head and other instructors and recommending the incorporation of new material in future lectures;
- reviewing regulations and statutes relating to assigned subject areas to ensure that lesson plans and lecture notes are up-to-date;
- devising new or improved training aids for use in class to demonstrate concepts which members of previous courses have found difficult to grasp;
- writing new or improved syllabus previews, examination questions and lesson plans to reflect experience with previous courses and to incorporate new material; and
- attending courses and lectures on new equipment or training aids, instructional techniques and technology to obtain information for revising lectures.

Examines students' proficiency at regular intervals: by

- setting, marking and grading tests and examinations to measure and record students' progress; and
- developing, writing and marking study and work assignments designed to measure students' initiative, study and work habits, and attitude.

Directs student training aboard ship on those occasions when given the temporary assignment of Sea Training Officer: by

- planning the timetable of training in consultation with Departmental Heads and the Director of Studies;

- conferring with the ship's Captain and Officers to indicate required courses, speeds, ship's activities and
- procedures which will provide the best training exercises for students;
- altering, adjusting or amending the timetable of training while at sea, according to circumstances such as weather, location, appropriateness of time for a particular activity, or to repeat a lesson or activity for greater student understanding;
- being responsible for the discipline of students and the supervision of instructors; and
- writing a report at the end of the cruise giving details such as the training accomplished, administrative problems encountered, performance of cadets, and other matters of value for future ship-board exercises.

Performs other duties, such as counseling cadets; contributing to composite evaluations of students by expressing pertinent viewpoints in evaluation committee meetings; attending departmental or college staff meetings; and accompanying students on visits to steel plants, shipyards or institutes.