

## **WELCOME**

Dear Trainee,

I take this opportunity to congratulate you on your being selected for ESEOC Course and extend you a warm welcome. These instructions are being sent to you with a view to help you prepare better for the course and for your stay at Goa, where the National Institute of Hydrography is located. You are requested to study these instructions carefully, as they contain vital information about the station, the Institute, course contents, methodology of instructions and various other important information.

At National Institute of Hydrography, our prime commitment is towards achieving the highest possible quality of training in the field of Hydrography and Allied Studies. The staff at National Institute of Hydrography strives hard to give it's trainees an unbeatable combination of Work-Study, Adventure activities, Fun and Games for the entire duration of the course to help you develop an intimate understanding of subjects such as Nautical Charting, Coastal Zone Management, Industrial Offshore Surveys and other associated subjects, as also creativity, innovation, teamwork, physical fitness and self discipline.

Your role as a trainee has become more demanding with the increasing responsibility of handling the expanding horizons of technological applications in the field of Hydrography. It is therefore expected of you to come here adequately prepared to undergo the course. The standard of your preparation for the course would be assessed by your performance in the Entry Level Knowledge test (ELKT) conducted within the first five days of your reporting to the Institute. The National Institute of Hydrography provides an ideal setting for studies, with its peaceful and tranquil environment.

My staff and I once again wish you a very happy, pleasant and fruitful stay at Goa.

Officer-in-Charge  
National Institute of Hydrography

# NATIONAL INSTITUTE OF HYDROGRAPHY

VASCO-DA-GAMA, GOA

## ABOUT THE PLACE

1. The National Institute of Hydrography is situated within the premises of INS Gomantak, atop the Alparqueiros hill, in Vasco Da Gama. Vasco Da Gama is a bustling port town in the state of Goa, and is situated on the south-bank of Zuari river mouth. The town has a very rich maritime culture and is very cosmopolitan in nature. Here you will come across people from all religious and social background and from various states of India and abroad. Mormugao Port, as the local seaport is known, is one of the major ports of India, capable of handling a wide range of cargo, however, the port specialises in iron-ore shipment. The Alparqueiros hill where the Institute is located overlooks this port and the estuary of Zuari River.



2. The state of Goa is popular tourist destination, situated on the West Coast of India. Its clean and sunny beaches are the main tourist attractions. Goa is hence known as the '**Land of sunshine and beaches**'. In addition to numerous beaches, there are many places, rich in natural beauty and of great historical and religious significance; one can visit in Goa. The main tourist season begins after the monsoon rains in September and ends in February with a grand Carnival, just before the start of the Christian season of Lent. Goa is particularly colourful during Christmas, New Year eve and the Carnival, with dances and gaiety galore. The climate in Goa is quite pleasant year round with plenty of sunshine, except for the period of monsoon rainfall. The monsoon season, from June to September, is the period of heavy rainfall, and during this season, Goa exudes a special charm. Goa guarantees a good time for all; no matter at whatever time of the year they visit. One can visit all places of interest in Goa by Government or privately run bus tours. These tours operate daily from Vasco-da-Gama & are reasonably priced. We will help you to arrange the sight seeing tours. The places of interest in Goa are as follows:-



- Basilica of Boom Jesus
- Panaji Church
- The tomb of St. Francis Xavier
- Chapel of Don Lourence
- Se Cathedral
- Patriarchal Palace
- Church of St. Francis Assisi
- Historical Archives of Goa
- Viceroy's Arch
- Cabo Raj Niwas
- Church of our Lady of Rosary
- Bogmolo



- St. Cajentan Church
- Aguada Fort
- Shri Mangueshi Temple
- Reis Magos Fort
- Shri Mahalasa Temple
- Terkhol Fort
- Adil Khan Palace
- Ramnath Temple - Ponda
- Aravalem Water Falls
- Datta Mandir - Sankholi
- Mayem Lake
- Mahalakshmi Temple - Panjim
- Bondla Forest Game Sanctuary
- Calangute, Colva, Anjuna, Vagator, Dona Paula, Mirmar



### **ABOUT THE NATIONAL INSTITUTE OF HYDROGRAPHY**

3. The Hydrographic Institute was set up at its present site in 1978. At this Institute, we train all categories of personnel involved in the field of hydrographic surveying. This Institute conducts various courses, specially tailored for different categories of personnel from naval hydrographic departments, and other maritime and port organisations, both Indian and foreign. The details of sailors courses conducted by this Institute, each year, are as follows: -

#### ♦ **PO 'Q' SR (Surveying Recorder Class I Qualifying course)**

\* Duration: 20 weeks.

\* Eligibility and Entry Level Qualifications :-

- SR II 'Q'/Leading 'Q' Board or equivalent course qualified.
- Minimum 6 years experience.
- ***This Institute is affiliated with Cochin University of Technology and Science for award of Diploma in Hydrographic Surveying for sailors qualifying PO 'Q' SR Course. The fees applicable for diploma will have to be paid by the individual.***

***All sailors are required to carry their original certificates issued by various Institutes/colleges/Universities etc. related to their educational qualifications and other courses qualified by them including Institute/university leaving certificates and university migration certificates at the time of reporting for above course."***

♦ **LS SR 'Q' Refresher Capsule (Surveying Recorders Class II Qualifying Course)**

- \* Duration: 11 weeks.
- \* Eligibility and Entry Level Qualifications :-
  - Basic 'Q' SR or equivalent course qualified
  - Minimum 2 ½ years experience.

♦ **BASIC 'Q'**

- \* Duration: 16 weeks.
- \* Eligibility and Entry Level Qualifications:-
  - 10 + 2 or equivalent with Physics and Mathematics.
  - Abinitio naval and seamanship training.

♦ **ESEOC (Electronic Survey Equipment Orientation Course) for Electrical Sailors**

- \* Duration: 05 weeks.
- \* Eligibility and Entry Level Qualifications:-
  - Sailors Nominated by CABS
  - Electrical Mechanic (Radio)

4. The Institute has a highly qualified teaching faculty, consisting of 10 officers and about 25 sailors. In addition, specialists in hydrography and allied fields from various reputed institutions are invited as guest faculty from time to time for delivering lectures to the trainees. The Institute is equipped with all latest generation hydrographic surveying equipment and training aids. The training for all courses is judicious mix of theory and practical classes. Training in computers is integral to all courses. The trainees are given adequate 'hands-on' training on all surveying and computer systems. For an overall development of trainees various extra-curricular activities like journal writing, prepared/impromptu talks, debates, cultural activities, medical and first-aid training, cross-country runs, swimming and games are included in the curriculum of all courses and are compulsory for all trainees.

5. The Institute is recognised as the Regional Training Center in Hydrography for Southeast Asian countries. Personnel from Bangladesh, Iran, Myanmar, Malaysia, Vietnam, Nigeria, Oman, Seychelles, Singapore, Sri Lanka, Sudan, Tanzania, Indonesia, Cambodia, South Africa, Saudi Arabia and Thailand have been trained at this Institute. Being an Institute of international standing, we receive very distinguished visitors from India and abroad. The trainees are given opportunities to interact with the dignitaries who visit the Institute.

## **MATTERS OF GENERAL INTEREST**

6. **Travel Arrangements.** In addition to the port, Vasco Da Gama is well connected by road, rail and air. The bus terminal and the railway station are within walking distance from the Hydro Institute, just about 1.5 kilometres away. The Dabolim airport, situated at distance of just 5 kilometres away, operates both national and international flights. There are more than one daily-flight to and from Mumbai and Delhi. There are also several luxury buses that ply between Vasco Da Gama and Mumbai, daily. One can travel locally by the numerous buses that ply in the town. The taxis and rickshaws are readily available. Additionally, one can avail the two-wheeler-taxis, quite unique to Goa, for short distance travel at a very small fee. If you are in possession of a valid driving license that is duly recognised by the local Road Transport Officer, you will be able to hire four or two-wheelers. The rates are variable and quite expensive. **You will have to wear a crash helmet while riding two-wheelers, even as a pillion.**

7. **Banking.** Branches of most well known national and international banks are situated in Vasco-Da-Gama, within a distance of 2 kilometres from the Hydrographic Institute. Additionally, we have an extension counter of the Punjab National Bank within the base, very close to the Institute. You may transfer your accounts to one of the banks at Vasco Da Gama for the duration of your training.

8. **Postal Services.** The Main Post Office at Vasco-Da-Gama is approximately 2 kilometres from the Institute, from where letters can be despatched. At this post office, you will get to buy all types of postal stationary and stamps. All Official and personal mail arrives at the Central Registry of Headquarters Goa area, from where it is collected by the Institute staff. Personal mails of trainees are handed over to the class leader in the classroom. Letters and parcels can also be reliably sent or received through various private courier services that operate at Vasco Da Gama. The Institute's postal address is:-

**National Institute of Hydrography**  
C/O Headquarters Goa Naval Area  
Vasco-Da-Gama  
Goa - 403 802 (India)  
Email Address: **info-nih.goa@nic.in**

9. **Telephone Services.** Adequate STD and ISD facilities are available at Vasco Da Gama, from where you can talk to any part of the country or the world. The rates are quite reasonable. The area STD code for Vasco-Da-Gama is 0832. The Naval base (Gomantak) Exchange can be called up on any of the following telephone numbers: 2513950, 2513951, 2511531 to 2511540, who in turn will connect the extension number you require. Hydro Institute's extension number, manned through out day and night, is 2808. There is no STD facility on any of the extensions of Gomantak exchange. Some of the important telephone numbers are as follows: -

2582800 - Direct line to Officer-in-Charge Office

2513419 - Fax line

### **Extensions of Gomantak Exchange.**

2800 - Officer-in-Charge, Office

2802 - Chief Instructor, Office

2720 - Officer of the Day, INS Gomantak

2808 - Information Centre National Institute of Hydrography (Manned 24 Hours)

***Cell phones are strictly prohibited in the Institute premises.***

10. **Facilities within the Naval Base.** There is a dry canteen within INS Gomantak where you will get to buy all toiletry articles and sundries at subsidised prices. Adequate facilities are available for various sports and games including waterman ship activities are available locally. The naval swimming pool is situated about 5 kilometres from the Institute. You will be able to use the pool on all days of the week, except Thursdays. Officers and sailors have separate timings for the pool. For sailors, we have an institute 'Anandika' within INS Gomantak. 'Anandika' has a bar, wet canteen and a well-stocked library. An air-conditioned Naval auditorium is situated next to the swimming pool, where regular feature films, mostly Hindi and at times English, are screened. The charges for the cinema are nominal, but you have to be in appropriate uniform for the shows.

### **ADMINISTRATION**

11. **Arrival/ Reception.** A representative of the Institute will receive the trainees arriving by scheduled trains or flights at Information Centre of this Institute. Trainees arriving on completion of part I at seamanship school Kochi to take railway warrant up to Vasco-da-Gama station. They are to get down at Madgaon and board suitable train for Vasco. The availability of trains from Madgaon to Vasco station are placed at appendix 'B'. Trainees arriving by buses/taxis or those arriving without prior notification are advised contact any of the following on telephone, at any time of day or night, if facing difficulties to get to the Institute:-

- |                                      |   |                      |
|--------------------------------------|---|----------------------|
| (a) Officer of the Day, INS Gomantak | : | 2513950/51 Ext. 2720 |
| (b) Duty Staff at Institute          | : | 2582808              |

12. **Accommodation.** All sailors undergoing various courses will be accommodated in the Institute's Trainees Block, next to the Institute. The sailor trainees will not be permitted to stay ashore with families, except in very exceptional situations.



13. **Baggage.** Please bring only very essential baggage with you. Excess baggage, if any, may be deposited in Institute's kit store. All valuable items, including excess cash may be deposited with the respective course officers for safe custody. Use of private electrical appliances is not permitted in the Trainees Block.

14. **Pay and Allowances.** All pay and allowances due to the trainees will be paid as and when due. The sailors will be paid by the Logistics Officer, INS Gomantak. The trainees are required to be in possession of their pay-books when they report for the course. In addition, to temporarily tide over financial problems the trainees are requested to also take action as per para 38.

15. **Dress.** Trainees are to be smartly turned out at all times. All naval trainees are to be in possession of all types of uniforms, including appropriate headgear and footwear, that they are entitled. The standard dresses for various training activities at the Institute are as under. Rig for Dogwatch instructions and games/sports are shorts, T-shirt with white socks and PT shoes/Sneaker.

- |     |                                  |   |  |
|-----|----------------------------------|---|--|
| (a) | Class room instructions          | : | Dress no. 8s/10A with black shoes                    |
| (b) | Field Practical                  | : | Dress no. 10/10A with gym shoes/jungle boots & Beret |
| (c) | Ceremonial parades and Divisions | : | Dress no. 2, 8A's                                    |
| (d) | Social Get Together              | : | Formal Dress (No jeans and T shirts permitted)       |

16. **Medical Cover.** Medical cover for all sailor trainees will be provided by INHS Jeevanti (Naval Hospital within the base, very close to the Institute). The trainees, who feel unwell, are to report to the Institute and then proceed to Hospital.

17. **Identity Cards.** Trainees are to personally ensure the safe custody of their Identity Cards. The identity cards are to be worn around the neck using a nylon cord at all times while on duty or proceeding on short leave.

18. **Leave and Holidays.** Leave will not be granted to the trainees, except in highly exceptional cases. The discretion for grant of such leave rests, solely, with the Officer-in-Charge of the Institute. Sailors required to proceed on leave on completion of course required to bring leave concurrence letter from their respective ships and should not be issued with return railway warrant. Sailors issued with returned railway warrant will not be granted leave on completion of course.

19. **Main Notice Board.** All temporary memorandum issued by the Institute, the Goa Area daily and other general orders, INS Gomantak and Institute's daily orders, and matters of general interest will be placed on the Institute's Main Notice Board. Trainees are advised to read these for information and necessary compliance.

20. **Tea Club.** A tea club is run within the Institute on a no-profit-no-loss basis for the benefit of the staff and trainees. Class leader is to take the daily requirement of tea and light snacks in respect of the class and convey the same to the tea club-in-charge. The tea club dues are to be settled at the end of the month by class leader, collectively for the entire class.

21. **Television.** Vasco-Da-Gama is within the range of TV station at Panjim, which relays Mumbai transmission. In addition, various satellite channels are also available for viewing. Colour Televisions/Music System are provided in Sailors Recreation Room.

22. **Power Supply.** Indian domestic power supply is 220/230 v, 50Hz AC. Voltage fluctuations are common, hence sensitive appliances would need a voltage stabiliser.

23. **Private Arms.** Trainees possessing private arms are not permitted to keep the same in personal custody and same are required to be deposited in the INS Gomantak armory immediately on reporting.

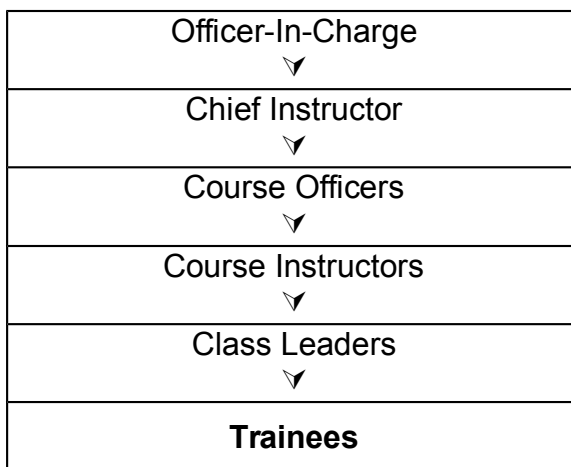


## **TRAINING**

24. **Command and Control.** The Institute is under the direct control of the Flag Officer Commanding-in-Chief, Southern Naval Command, Kochi, for all matters of Training. For all professional matters pertaining to hydrographic surveying, the Institute is guided by the Chief Hydrographer to the Government of India. The Flag Officer Commanding, Headquarters Goa Naval Area provides necessary administrative support to the Institute.

25. **Training Organisation.**

- (a) The Chain of command, the trainees to interact with Officer-in-Charge is as follows:



- (b) The flow chart of training organisation, of this institute is placed at **Appendix 'A'**.

26. **Course Officer.** An Officer-Instructor is designated as the Course Officer for a particular course. Your Course Officer will meet you, in person, on your arrival at the Institute. During the temporary absence of your course officer from Institute, on leave, hospitalisation or duty, some other officer will carry out the duties of the Course Officer. This, however, will be informed to you. Course officer shall deal with all the administrative, personal and training matters of the course. Under normal circumstances, trainees may approach Course Officer through their respective Course Instructors. In exceptional circumstances, a trainee may approach his Course Officer directly. The course officer will also be the Divisional Officer for the sailor trainees of the course.

27. **Course Instructor.** A sailor-instructor is designated as the Course Instructor for a particular course. The Course Instructor will interact with you on almost a day to day basis. All personal, administrative and training matters pertaining to the trainees of a particular course will be dealt by the Course Instructor. The trainee may seek to meet the Course Officer through the Course Instructor.

28. **Class Leader.** The senior most sailor in each class will carry out the duties of the class leader. The duties of class leader are:

- (a) To maintain order and discipline of the class when no instructor is present.
- (b) To conduct class from place to place for instructional purposes, in orderly manner.
- (c) To report to the instructors as per the training programme when the class is ready.



- (d) To maintain the course diary as guided by the Course Instructor.

29. **Weekly Training Programme.** The classroom/ practical instruction for each course is promulgated every week by Weekly Training Programme. This weekly training programme will be ready on the last working day of the preceding week and copy is put up in the notice board in the classroom allotted to each course. The class leader is responsible for the collection of the weekly training programme from the Training Cell, on the last working day of the preceding week.

30. **Training Routine.** The Institute follows a six-day working week. The classroom/practical instructions are programmed only on the weekdays i.e., from Monday to Friday. Saturdays are devoted for extra-curricular activities, conduct of examinations, open-house discussions, equipment maintenance, guest lectures and so on. A typical training day forenoon session is made up of 08 periods classroom/practical instructions of 40 minutes duration each. The morning muster is at 0725 hrs; attendance is mandatory for all staff and trainees. The classes commence at 0750 hrs and continue until 1325 hrs, with a 15 minutes tea break from 1020 to 1040 hrs. At 1325 hrs the staff and trainees are again required to muster for the 'Evening Quarters', when the daily orders and other necessary instructions for the following day are read out or announced. The lunch break commences at 1330 hrs. On Saturdays, however the lunch break begins at 1230 hrs. The trainees are required to again muster at 1545 hrs on all working week days for 'Dog watch', for practical training, equipment practice, extra-classes for weak students, parade training, or games. The 'Dog watch' ends at 1800 hrs with a 15 minutes break from 1645 to 1700 hrs. The weekly training programme will indicate the nature of 'Dog watch'. 'Dog watch' on Wednesdays and Thursdays are set-aside for parade training/watermanship training and games respectively. In addition, the sailors' courses, namely, PO 'Q' SR , LS SR 'Q', Basic 'Q' SR and ESEOC are required to muster after dinner from 1930 to 2100 hrs for self-study, on all working week days except Saturdays, Sundays and Holidays. An instructor will also be available for attending to the queries of the trainees.



31. **Library.** The Institute has small but well stocked library of text books, manuals, pamphlets, technical papers, periodicals in Hydrography and related subjects. Library is open to trainees during the working hours and in addition 1630 to 1830 hrs on weekdays.

32. **Discipline.** Trainees are expected to comply with relevant instructions/orders which may include Training Orders, Standing Orders and any other General Orders issued from time to time. Copies of these orders are available at Institute. Cellular phones are not permitted inside the Institute premises.

33. **Small Arms Competency Certificate.** All sailors should be in possession of in date "Small Arms Competency Certificate" duly signed by CO iaw IHQ MoD (N) letter WP/2614 dated 10 Dec 13 (Not addressed to all) at the time of reporting for the above mentioned courses.

34. **Syllabus and Subjects.** A copy of the course syllabus will be handed over to the class leader at the beginning of the course for reference by the trainees. This copy of the syllabus is to be retained in the classroom. The following table gives the subjects taught to the various courses, along with details of periods allotted and examinations marks for each subject: -

<b>PO 'Q' SR</b>			
<b><u>Sl.</u></b>	<b><u>Subject</u></b>	<b><u>Periods</u></b>	<b><u>Marks</u></b>
(a)	Data Processing I	76	100
(b)	Data Processing II	166	100
(c)	Data Processing II Practical	50	100
(d)	Hydrographic Control I	60	100
(e)	Hydrographic Control II	28	100
(f)	Hydrographic Practice I	70	100
(g)	Hydrographic Practice II	74	100
(h)	Tides and Basic Oceanography	66	100
(j)	Administration, Stores & Teaching Techniques	42	100
(k)	Practical Ashore	01 Week	100
(l)	Practical Afloat	01 Week	100
(m)	Class Work Book/ Practical Work Book/ Field Book/ Fair Chart *	--	100
	<b>Total</b>	632	1200

<b>LS SR 'Q'</b>			
<b><u>Sl.</u></b>	<b><u>Subject</u></b>	<b><u>Periods</u></b>	<b><u>Marks</u></b>
(a)	Hydrographic Control	28	50
(b)	Hydrographic Practice	58	100
(c)	Tides and Basic Oceanography	42	50
(d)	Electronic Data Processing	112	150
(e)	Practical	0.5 Week	100
	<b>Total</b>	240	450

<b>BASIC 'Q' SR</b>			
<b><u>Sl.</u></b>	<b><u>Subject</u></b>	<b><u>Periods</u></b>	<b><u>Marks</u></b>
(a)	Hydrographic Control I	64	100
(b)	Hydrographic Control II	30	50
(c)	Hydrographic Practice I	48	50
(d)	Hydrographic Practice II	68	100
(e)	EDP I	52	100
(f)	EDP II	70	100
(g)	Basic Mathematics and Electronics	08	50
(h)	Tides and Oceanography	58	100
(j)	Administration and Stores	24	50
(k)	Basic Technical Orientation		
	TOC I	34	20
	TOC II	24	40
	TOC Practical	24	40
(l)	Field Practical Ashore	1.5 Week	100
(m)	Field Practical Afloat	1.5 Week	100
(n)	Fair Sheet/ Work Book & Field Book		50
(p)	Journal		50
	<b>Total</b>	504	1100

<b>ESEOC</b>			
<b><u>Sl.</u></b>	<b><u>Subject</u></b>	<b><u>Periods</u></b>	<b><u>Marks</u></b>
(a)	Position Fixing Equipment	22	50
(b)	Under Water Equipment	60	100
(c)	Computer and ADLS	76	100
(d)	Hazards from Electric Shock	22	50
	<b>Total</b>	180	300

35. **Examination and results.** Examination for each subject will be conducted immediately on completion of the instructional periods. The examinations are usually held on the Saturday following the subject completion. The duration of examination will be 2 to 3 hours as appropriate. In order to qualify in each subject the trainees will have to secure a minimum of 50 % marks in each written examination and 65 % marks in each practical examination. Further, to qualify in the course securing an overall aggregate of 55 % marks is mandatory.

36. **Grading of Trainees.** At the end of each course the following grading, corresponding to the percentage value of total marks they secure in the course will be awarded to the trainees and the same recorded in the Course Certificates. The seniority will not be applicable for LS SR 'Q' and ESEOC course.

<b>PO 'Q' SR</b>			<b>Seniority</b>	<b>Basic 'Q' SR</b>			<b>Seniority</b>
Outstanding	80% and above		2 months	Outstanding	80% and above		4 months
Distinguished	75% to 79.9%		1 month	Distinguished	75% to 79.9%		3 months
Above Average	70% to 74.9%		1 month	Above Average	70% to 74.9%		2 months
High Average	65% to 69.9%		½ months	High Average	65% to 69.9%		1 month
Average	60% to 64.9%		½ months	Average	60% to 64.9%		½ months
Below Average	55% to 59.9%		Nil	Below Average	55% to 54.9%		Nil
Failed	54.9% and below		-6 Months	Failed	54.9% and below		-6 Months

***A failure in three subjects or in re-examination will be withdrawn from course.***

37. **Previous Knowledge.** The trainees are advised to brush up their previous knowledge in hydrography and related topics, before reporting for the course.

38. **Entry Level Knowledge Test.** Trainees would be required to undergo an Entry Level Knowledge Test on reporting for the course. The details of subjects for ELKT, course wise, are as follows:-

♦ **PO 'Q' SR**

- Hydrographic Control
- Hydrographic Practice
- Tides
- Electronic Data Processing

♦ **LS SR 'Q'**

- Hydrographic Control
- Hydrographic Practice
- Tides
- Electronic Data Processing

♦ **BASIC 'Q'**

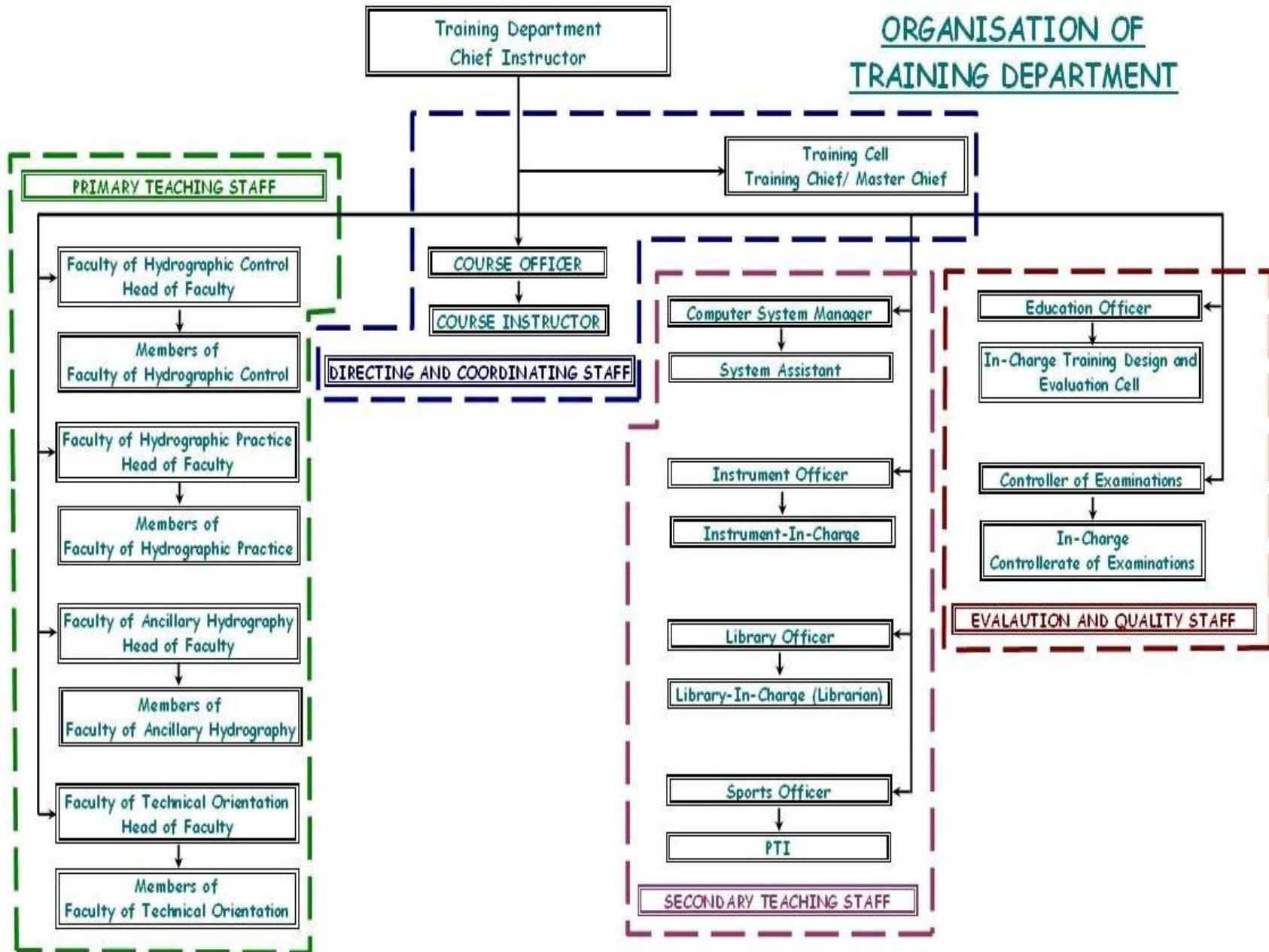
- English
- Basic Arithmetic
- General Hydrographic Survey

♦ **ESEOC**

- Basic Electronics

***You are expected to be through in the knowledge of your previous level course attended.***

39. **Temporary Measures for Pay and Allowances.** You are advised to bring only adequate money to last you for the initial two months of the course. You must advise your bank by letter prior departure for course that you are temporarily proceeding to Vasco-da-gama, Goa for course and that you request them to remit monthly an amount as desired by you to a bank in Vasco the Name, branch and Account Number of which you will intimate on opening the account here. This will ensure your pay being received here in fair time. Alternatively you must bring your cheque book so that you can deposit your out station cheque in your account and withdraw cash subject to realisation of cheque.



SL. NO.	TRAIN NAME	TRAIN NO.	RUNNING DAYS	DEPARTURE (MADGAON)	ARRIVAL (VASCO)
1.	VELLANKANI VASCO EXP	07316	WED, THU, SAT	0500	0530
2.	YASHWANTPUR VASCO EXP	17309	MON, WED	0520	0600
3.	GOA EXP	12780	DAILY	0545	0630
4.	HUBLI VASCO LINK EXP	06948	DAILY	0545	0630
5.	KULEM TO VASCO PASSENGER	56961	DAILY	0730	0820
6.	PATNA VASCO EXP	12742	MON	0900	0950
7.	CHENNAI VASCO EXP	17311	SAT	1200	1300
8.	KULEM TO VASCO PASSENGER	56963	DAILY	1315	1405
9.	AMRAVATHI EXP	18047	MON, WED, THU, SAT	1400	1500
10.	KACHEGUDA VASCO EXP	17603	MON, WED, THU, SAT	1400	1405
11.	KULEM TO VASCO PASSENGER	56965	DAILY	1810	1900