

NOTES FOR GUIDANCE FOR REGISTRATION AS A PROFESSIONAL HYDROGRAPHIC SURVEYOR

(Standard Entry)

1. INTRODUCTION

These notes which have been approved by the South African Council for Professional and Technical Surveyors, have been compiled with a view to assisting candidates who intend qualifying for registration as Professional Hydrographic Surveyors in terms of the Professional and Technical Surveyors Act, 40/1984. Adherence to the requirements as set out below will assist materially in avoiding unnecessary delays.

DEFINITION

The "Council" means the South African Council of Professional and Technical Surveyors established in terms of Act 40 of 1984, or any agent acting on its behalf.

2. STATUTORY REQUIREMENTS

- 2.1 A candidate who wishes to register as a Professional Hydrographic Surveyor must normally first register in terms of Section 21(1) of the Act as a Professional Hydrographic Surveyor in Training after obtaining the appropriate academic qualification in hydrographic surveying as set out in Annexure A to these Notes. Certified copies of the candidate's academic qualifications should be submitted to the Council together with the application to register as a Professional Hydrographic Surveyor in Training.
- 2.2 A candidate who wishes to qualify for registration as a professional hydrographic surveyor shall undergo such post-graduate practical training as set out in paragraphs 3, 4 and 5 and pass a law examination and successfully complete a practical test set by the Council within such period as it may determine.

3. PERIOD OF TRAINING

- 3.1 The period of practical training required in terms of Section 20(1)(d) is 270 working days. The nature of such training shall be as set out in paragraph 4 and is controlled by the Council. A training certificate is required from each supervisor.
- 3.2 Training must be continuous and only in exceptional cases will a break in training be condoned. A break in training will not be condoned unless a candidate makes timely application for such a break.
- 3.3 The candidate is required to notify the Council as soon as possible after registering as a professional hydrographic surveyor in training and starting his/her practical training, of the name of the professional hydrographic surveyor, firm or organisation with whom he is working. Any change in address or a change to another professional hydrographic surveyor, firm or organisation must be reported to the Council.

4. NATURE OF TRAINING

4.1 Training in hydrographic surveying must be varied and must be undertaken under the supervision of a professional hydrographic surveyor or such other person whom the council considers suitable. It is stressed that the supervisor should be a person who can instruct and provide the required experience. In case of doubt the candidate should refer the matter to Council. In such a case, the name, qualifications and experience of the supervisor, other than a registered professional hydrographic surveyor, must be supplied to the Council.

4.2 Compulsory Training: 225 working days which comprises:

	TYPE OF SURVEY	WORKING DAYS
a	Planning of hydrographic surveys and the issuing of hydrographic instructions.	10
b	The use of marine electronic and satellite positioning systems; together with modern echo sounders and either side-scan sonar or swathe bathmetric systems. At least 50% of this period must be spent on small boat surveys.	150
c	Coastlining.	25
e	Survey of terrestrial beacons.	20
f	Levelling.	10
g	Data verification procedures and report writing.	10

4.3 Options :

Not less than 45 working days in the following fields of hydrographic surveying, of which not less than 10 days will be acceptable in a minimum of three of the following options:

- (i) Deep sea oceanographic surveying
- (ii) Use of automated data gathering and processing systems
- (iii) Use of plotting systems and interfaces and/or cartographic procedures
- (iv) Preparation of nautical publications and radio warnings
- (v) Application of the Law of the Sea
- (vi) Positioning of underwater pipelines and/or cables
- (vii) Surveys for mineral exploitation at sea

- 4.4 The ratio of office to field work should be of the order of 1:1. Office work should include calculations, draughting and the participation in essential administrative operations, and may include computer programming and processing of data.
- 4.5 A detailed day to day diary of all survey work undertaken during the training period shall be kept and may be called for by the Council.

5. TRAINING SCHEDULE

When applying to the Council for registration, the candidate shall supply a Training Schedule as an extract from the diary and prepared substantially in the form of the attached specimen. This schedule must be compiled in chronological order and each page must be signed by the supervisor and the candidate.

6. LAW EXAMINATION

- 6.1 A person wishing to register as a Professional Hydrographic Surveyor must apply to the Registrar to write a Law Examination at least one month prior to the examination date. An examination fee (to be advised by the Registrar) must reach the offices of the Council two weeks before the examination date. The examination will be written in most centres at least twice a year. Candidates will be notified of the time and venue for each examination accordingly.
- 6.2 The law examination consists of a written paper of three hours duration, with a pass mark of 65%. The paper will consist of questions on the following Acts and portions of Acts:
- (a) The Professional and Technical Surveyor's Act (40 of 1984), as amended, and the Rules framed thereunder;
 - (b) The Land Survey Act (9 of 1927) - Sections 35 and 44 only (or the appropriate sections of any replacement Act);
 - (c) The Merchant Shipping Act (57 of 1951) - Chapter 5, Part III (safety of navigation) and Schedules II and III only.
 - (d) Maritime Zones Act (15 of 1994).
- 6.3 The candidate may apply to write the law examination at any time after registering as a Professional Hydrographic Surveyor in Training. It is advisable not to attempt to do so until training is nearing completion.

7. PRACTICAL TEST

- 7.1 When the candidate is of the opinion that he or she has met the requirements set out in paragraphs 3, 4 and 5, he or she may apply to the Council to perform a practical test.

- 7.2 The application must be accompanied by :-
- (a) A certified copy of the candidate's birth certificate or identity document;
 - (b) The Schedule of Training referred to in paragraph 5;
 - (c) The Training Certificate referred to in paragraph 3.1. A separate training certificate is required in respect of each supervisor with whom the candidate has served.
- 7.3 After the Convenor of the Professional Hydrographic Surveyors Registration Committee (hereafter referred to as the "Convenor") has approved the training schedule, the Council will advise the candidate of the date, time and place for an interview. Immediately after the interview the candidate will be advised whether a practical test will be required.
- 7.4 The practical test will consist of the completion of a number of tasks to the satisfaction of the Convenor. Practical test requirements will vary on an individual basis depending upon the results of the interview.
- 7.5 Any specific project undertaken by the candidate during his or her period of practical training and submitted in the form of a project report may be considered by the convenor to replace all or part of the practical test.

8. COMPLETION OF REGISTRATION PROCEDURE

- 8.1 Once the practical test has been satisfactorily completed, the Convenor will then issue a Practical Test Certificate to the candidate and forward a copy to the Council.
- 8.2 Once the candidate has passed the law examination and the practical test certificate has been issued, the Registrar will notify the candidate that he or she complies with the requirements of Section 20(1) (a), (b), (c), (d), (e) of Act 40 of 1984 and will forward him or her the relevant registration and oath/affirmation forms for completion. The completed forms should be returned together with the relevant fees.
- 8.3 When these formalities have been completed the candidate will be registered with the Council as a Professional Hydrographic Surveyor.

ANNEXURE A

ACADEMIC REQUIREMENTS FOR PROFESSIONAL HYDROGRAPHIC SURVEYORS

One of the following:

- (a) A four year degree in Hydrographic Surveying, recognised as meeting the Category A requirements of the FIG/IHO International Advisory Board on Standards of Competence for Hydrographic Surveyors.
- (b) A four year degree in Hydrographic Surveying, considered by the Education Advisory Committee of the South African Council for Professional and Technical Surveyors as being equivalent to the Category A requirements mentioned above.
- (c) A three or four year degree in a cognate discipline, plus a one year postgraduate diploma in hydrographic surveying which is recognised by the FIG/IHO Board as meeting the Category A requirements.

NOTES FOR GUIDANCE FOR REGISTRATION AS A PROFESSIONAL HYDROGRAPHIC SURVEYOR (i.t.o. GRANDFATHER CLAUSE)

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c	Coastlining.	25
e	Survey of terrestrial beacons.	20
f	Levelling.	10
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- 7.3 After the Convenor of the Professional Hydrographic Surveyors Registration Committee (hereafter referred to as the "Convenor") has approved the training schedule, the Council will advise the candidate of the date, time and place for an interview. Immediately after the interview the candidate will be advised whether a practical test will be required.
- 7.4 The practical test will consist of the completion of a number of tasks to the satisfaction of the Convenor. Practical test requirements will vary on an individual basis depending upon the results of the interview.
- 7.5 Any specific project undertaken by the candidate during his or her period of practical training and submitted in the form of a project report may be considered by the convenor to replace all or part of the practical test.

8. COMPLETION OF REGISTRATION PROCEDURE

- 8.1 Once the practical test has been satisfactorily completed, the Convenor will then issue a Practical Test Certificate to the candidate and forward a copy to the Council.
- 8.2 Once the candidate has passed the law examination and the practical test certificate has been issued, the Registrar will notify the candidate that he or she complies with the requirements of Section 20(1) (a), (b), (c), (d), (e) of Act 40 of 1984 and will forward him or her the relevant registration and oath/affirmation forms for completion. The completed forms should be returned together with the relevant fees.
- 8.3 When these formalities have been completed the candidate will be registered with the Council as a Professional Hydrographic Surveyor.

ACADEMIC REQUIREMENTS FOR PROFESSIONAL HYDROGRAPHIC SURVEYORS

One of the following:

- (a) A four year degree in Hydrographic Surveying, recognised as meeting the Category A requirements of the FIG/IHO International Advisory Board on Standards of Competence for Hydrographic Surveyors.
- (b) A four year degree in Hydrographic Surveying, considered by the Education Advisory Committee of the South African Council for Professional and Technical Surveyors as being equivalent to the Category A requirements mentioned above.
- (c) A three or four year degree in a cognate discipline, plus a one year postgraduate diploma in Hydrographic surveying which is recognised by the FIG/IHO Board as meeting the Category A requirements.

**APPLICATION FOR REGISTRATION AS A
PROFESSIONAL HYDROGRAPHIC SURVEYOR
IN TERMS OF SECTION 20(2A) OF THE PROFESSIONAL AND
TECHNICAL SURVEYOR'S ACT (ACT 40 OF 1984)**

PERSONAL INFORMATION

- 1 Full Name(s) of Applicant _____
- 2 Postal Address _____

- 3 Telephone Number _____ (H) _____ (W)
- 4 Fax Number _____ Cell Number _____
- 5 Date of Birth* _____
- 6 Identity Number _____
- 7 Current Employer _____
- 8 Present Position _____
- 9 Date Appointed _____
- 10 Previous Employer(s) _____

- 11 Tertiary Academic qualifications and dates ** _____

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12. Total Hydrographic Survey Experience

	Period - % of experience
Other (specify):	

13. Hydrographic Survey Experience in Senior Management Position

- (a) Detail positions held and nature of work.
- (b) Detail number of subordinates under applicant's control (excluding unskilled helpers) and their level of competency relating to each position held.
- (c) Any other information relevant to this application.

14. Signature of applicant : _____

Date : _____

**** Certified copies of Academic qualifications, Birth Certificate or relevant page of Identity Document to be attached.**

28 August 1996

THE SOUTH AFRICAN COUNCIL FOR PROFESSIONAL AND TECHNICAL SURVEYORS

GENERAL INFORMATION AND PROCEDURES FOR THE REGISTRATION OF PROFESSIONAL SURVEYORS IN THE HYDROGRAPHIC CATEGORY IN TERMS OF THE GRANDFATHER DISPENSATION

These notes provide guidelines to prospective applicants who do not have a South African BSc Survey degree (or equivalent) but feel that they may qualify for Professional registration in terms of Section 20. 2(A) of Act 40 of 1984 as amended by Act 170 of 1993.

There are five basic requirements for registration.

1. The gaining of 15 years experience “of sufficient variety and of a satisfactory nature and standard”.

- 1.1 All relevant experience must have been acquired before the 17th of December, 1995.
- 1.2 Applicant’s experience must be submitted in the form of a “schedule of experience”, listing the duration, employer and type of work done.
- 1.3 Experience will be assessed by a committee delegated by the council to handle this task and the following general criteria will sought:
 - Experience that indicates a fundamental understanding and familiarity with broad surveying principles and the diverse methods of measuring and recording the real world as well as the interpretation and representation of the results.
 - An appreciation of the specialist areas of surveying and an awareness of ones personal limitations in this regard.
 - An ability to communicate knowledge and ideas, clearly, concisely and persuasively both verbally and in writing.
 - An ability to think and act creatively, to innovate and make crucial independent judgements.
 - A willingness to broaden personal education and skills outside the limits of the surveying discipline itself.
 - An awareness of social responsibility and the need for service to the community.

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2. There are two possibilities for the requirements. Either 2.1 or 2.2. below.

Of the 15 years experience in item 1:

2.1 Five of the fifteen years must have been “in a senior managerial position”

The criteria applied to this assessment will be:

- Management at a level that involves an understanding of costing, budgeting and the deployment of physical and human resources.
- A capacity for leadership, the ability to receive and take responsibility, to delegate authority and organise work.
- A conspicuous role in the formation of policy with particular emphasis on policy decisions that call for the wise application of judgement.
- In the case of applicants who are members of the South African Navy, the applicant should have been recognised as a Hydrographic Charge Surveyor by the Hydrographic Office.

2.2 Alternatively, the applicant must have “passed such examination as the education advisory committee, with the concurrence of council, may accept”.

Such examinations are considered on an individual basis.

3. The passing of “an examination regarding laws concerning surveying and related matters.”

The law examination consists of a written paper of 3 hours duration. The examination is “open book” and the pass mark is 50%.

The paper will consist of questions on the following Acts:

- (i) The Professional and Technical Surveyors Act (40 of 1984) and the Rules framed thereunder;
- (ii) and any other Act that may be prescribed from time to time.

4. “The carrying out of such trial surveys or practical tests as the council may determine.”

This requirement is at the discretion of the evaluation committee who will make a decision on behalf of Council. The practical test may be set in one or more particular areas of perceived weakness; and may consist of an oral examination.

5. The making of a professional oath or affirmation in relation to the practising of his profession.

If all other requirements have been fulfilled, this will be called for.

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Procedure

1. An application form to register as a Professional Surveyor in terms of Section 20 (2A) of the Act must be submitted to the Registrar with full Schedules of Experience and curriculum vitae. In the case of applicants contemplating entry via item 2.2 above, certified copies of the

relevant certificate, diploma or degree must also be enclosed, together with copies of the syllabi for the courses undertaken.

2. After evaluation the applicant will be advised of the acceptability or otherwise of his or her experience and the necessity for a trial survey, interview or exemption therefrom.
3. If the experience is acceptable, whether or not a Trial Survey is required, the applicant may immediately apply to the Registrar (in writing) to sit the next available Law Examination for Professional Surveyors in the Hydrographic category. He or she will be advised of a venue and a choice of two possible dates for writing that examination. After the examination he or she will be sent a notification of success or failure.
4. An application form to register as a Professional Surveyor may be submitted to the Registrar with the prescribed fee and oath.

South African Council for Professional and Technical Surveyors

Report of Registration Recommendations Subcommittee for Hydrographic Surveyors for 1995/96

The subcommittee for Hydrographic surveyors consists of Mr D F Hull, Cmdre N Guy and myself, as convenor.

, The past year has not been productive, mainly due to the small amount of time that I have been able to devote to this task. No full meetings of the committee have been held; I have had separate meetings with Cmdre Guy and Mr P J Groenewald (president of PLATO) and a telephonic discussion with Mr Hull. Some progress has been achieved in preparing a draft set of guidelines for applicants using the grandfather clause. This document should be ready in time for the annual meeting of PLATO.

Work still remains to be done on the "Notes for Guidance" for applicants for registration as professional and technical Hydrographic surveyors. I recommend that this work be completed under a more productive convenor than I have been.

Assoc. Prof. C L Merry
July 1996

2 September 1996

Mr J Groenewald
President: PLATO
c/o 68 Wale Street
Cape Town
8001

Dear John,

Grandfather Clause : Professional Hydrographic Surveyors

I attach the proposed information and procedures document for the grandfather dispensation for professional Hydrographic surveyors, as prepared by my sub-committee, for consideration by PLATO at its annual meeting. We have also made some progress on preparing Notes for Guidance for professional and technical Hydrographic surveyors. However, these will unfortunately not be ready in time for the PLATO meeting.

I would like to add some further comment to the attached document:

- (i) It has been largely based upon the equivalent document for professional engineering surveyors, with some modifications coming from the document for professional mine surveyors. Obviously, appropriate changes have been made to adapt the text for Hydrographic surveyors.
- (ii) We have included a requirement for the PLATO Act (40 of 1984) to be part of the law examination, as we feel it is appropriate that any professional surveyor should be familiar with the act under which he or she is registered. However, it should be noted that this has *not* been a requirement for the mine surveyors (it is for land and engineering surveyors). We believe that PLATO should adopt a consistent policy in this regard.

I will not be attending the PLATO meeting. Should there be any questions at the meeting, Mr Dave Hull, who is a member of the sub-committee, will be available to answer them.

Yours faithfully,

Prof. C L Merry