

The careers of merchant navy officers: the irresistible lure of the land

Numerous international studies have refuted the myth that the maritime transport industry attracts few young people. While it is estimated that there is a potential shortfall of 60,000 officers in the sector, it is, nevertheless, an area that offers good career opportunities. And yet France is struggling to attract school leavers wishing to train as seafaring officers. Despite the development of short careers and the efforts being made to channel high-school students into para-maritime courses, slightly more than one third of the officers who graduate from the initial university-level training pathway pursue careers in the merchant navy. Ultimately, a large proportion of onboard command functions are assumed by officers who have obtained their tickets via the continuing training pathway. This is undoubtedly another specific characteristic of the French maritime employment system, which owes its equilibrium to the diversity of its training pathways.

The career trajectories of merchant navy officers are more varied today than in the past: after all, they are more likely nowadays to switch to shore-based jobs, particularly within the French maritime cluster*. Nevertheless, many officers continue to sign up for long-term seafaring careers. Thus officers with careers of very diverse lengths coexist on merchant vessels, and not without certain tensions: short careers for those who will switch at a very early stage to sedentary, shore-based jobs and long careers for those who will commit themselves to long-term careers at sea. This segmentation of careers is also found in a number of occupations in which working conditions are atypical or difficult. It is the case with nurses, for example, who frequently go into private practice after starting their careers in hospital. In the merchant navy, however, this segmentation seems even further exacerbated. In an occupational market that is strictly managed by the state, subject to international agreements and characterised by rules, behaviour and ways of constructing occupational identities that have no equivalents in land-based activities, this takes on a particular significance and raises specific issues.

Furthermore, the intensification of the short career phenomenon among merchant navy officers over the past 15 or more years has raised the spectre of a shortage of officers, despite the extremely cyclical nature of maritime trade. A number of studies have regularly raised the alarm about a future shortage of officers, estimated at several thousands [1] (60,000 officers globally by 2020 according to studies carried out by the

University of Warwick). In a context in which maritime occupations and training programmes are little known to the general public and scarcely enjoy a prestigious image, 'early carer changes' and other 'vanishing acts' leading to the loss of a high share of qualified officers less than ten years after leaving the French Maritime Academy, the *École Nationale Supérieure Maritime* (ENSM, formerly known as the 'hydro school') are often blamed for ship owners' recruitment difficulties [2].

This risk of a shortage of seafaring officers and the challenges this generates have led the government department in charge of university-level maritime training programmes to usher in some major reforms. It has also introduced new rules into a labour market that has now been extended to include the para-maritime sectors; while it has acknowledged the short career phenomenon, it has also sought to make the training of merchant navy officers more transparent and attractive. But what effects does this phenomenon have, and how are these short careers possible without imperilling the command of merchant vessels? And while we are on the subject, how do they relate to the long careers? It might also reasonably be wondered whether the current reforms, which emphasise employability and the potential for switching to land-based jobs rather than the further professionalization of the merchant seafaring occupations, might not themselves serve to reinforce these short careers. So what are the objectives of the new regulatory regime of which the ENSM is said to be the epicentre?

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SHORT CAREERS
 MERCHANT NAVY
 CLOSED
 OCCUPATIONAL
 MARKET
 CAREER CHANGE
 SEAFARING OFFICER
 ENGINEER

Without going into the detail of a complex organisation, the French university-level maritime training system is divided broadly into two pathways:

- Pathway A, the academic pathway, provides comprehensive, broadly based training for deck officers and engineers and leads after five and a half years' study to the degree in nautical studies (*diplôme d'études supérieures de la marine marchande/DESMM*) and then, after a compulsory period of service at sea (lasting 36 or 48 months), to the master mariner's ticket or licence (*brevet polyvalent de capitaine de 1ère classe de la navigation maritime/C1NM*) without restrictions on tonnage and power, which is still known as the 'unrestricted master's ticket' (or chief engineer's ticket for those who opt for the engine department).

- Pathway B, the vocational pathway, is a progressive continuing training and promotion pathway for those wishing to become deck or engine room officers. It is targeted at officers, some of them relatively old, who in many cases started their careers with lower-level qualifications and who, having moved up through the ranks, in some cases after the accreditation of prior and experiential learning, end up by obtaining their master's or chief engineer's tickets, which confer on them the same professional prerogatives as those enjoyed by their colleagues from the academic pathway.

The training is provided in the four establishments operated by the *École Nationale Supérieure Maritime (ENSM)*. Since 2011, the school has been accredited by the *Commission des Titres d'Ingénieur (CTI)*, the main body responsible for the evaluation and accreditation of higher education institutions that train professional engineers in France. In 2016, furthermore, a significant reform of university-level maritime training ratified the conversion of the ENSM into an engineering school. The terms pathway A and pathway B are no longer used. There is now a training pathway for engineers, which is divided into:

- a 'seafaring engineer' option, leading to the DESMM and qualification as an engineer;
- two para-maritime engineer options: 'environmental vessel management' and 'deployment and maintenance of offshore systems'.

Pathway B is now known as the vocational pathway and is still targeted at individuals who already hold a mariner's ticket and wish to obtain a higher-level ticket, with arrangements having been put in place with the engineering pathway in order to facilitate changes of course.

to long seafaring careers, on the other hand, have risen to their positions through the vocational training pathway, which is still known as pathway B or the 'second chance or 'social advancement' pathway (see Box 1). By way of example, the share of master mariners and chief engineers trained in these two pathways was 53% and 47% respectively in 2015 (see Table).

Early career change: a phenomenon to be put into context

The average age of merchant navy officers is 41 (compared with 39 for deck ratings); 44% of them have more than 20 years' seniority (compared with 30% of deck ratings). The average age of the officers who left the profession between 2010 and 2015 was 43 (compared with 32 for deck ratings) and their average seniority was 23 years. One third of these leavers were retiring (at age 55 in this profession) and only one quarter were under 35 years of age. Furthermore, 70% of the officers in seafaring positions in 2009 were still registered as seafarers in 2015. It is clear from these data [3] that officers tend to stay at sea longer than deck ratings, who quit in larger numbers and at a younger age (see Box 3). Of the officers who obtained their degree in nautical studies (*diplôme d'études supérieures de la marine marchande/DESMM* – see Box 1) in 2009, 83% were still in the merchant navy five years later. Thus these results suggest that the frequently expressed view that almost 50% of each cohort of graduates 'disappear' after five years at sea and that each cohort 'disappears' virtually entirely after 10 years is in need of qualification.

It is nonetheless the case that exit rates from the profession are high, particularly among officers who graduated from the academic pathway A. An earlier Céreq study [4] showed that the decision to stop going to sea is made between the ages of 30 and 35, that is after seven or eight years at sea. There are many factors behind this decision: the 'second child' effect, which is often highlighted, is only one factor among many. Besides the very real difficulty of reconciling family life and periods at sea, there are other factors that weigh heavily in favour of stopping going to sea. The first of these is the changes that have taken place in working conditions and the intensification of work, which are linked to a large extent to officer's increased responsibility for ensuring compliance with legal regulations and safety standards, which are being increasingly monitored by ship owners. As a result, the focus of officers' work is less on tasks linked to directing the steering of the ship and operating the engines and more on reporting and demonstrating that rules and procedures have been properly applied. Moreover, automation has deprived sailors of their role as navigators in favour of shore-based management, which has served only to increase the level of external direction and control. To all this must be added the isolation and fragmentation of on-board communities due to the double effect of the new information technologies and the difficulty sailors of often very diverse origins have in finding a common language

Trajectories linked to training pathway

While the situation regarding officer recruitment seems to be less fraught today, particularly in France, data provided by the Directorate of Maritime Affairs (*la Direction des Affaires Maritimes/DAM*, see Box 3) enable us to verify what is happening with this 'short career' phenomenon.

Firstly, the number of merchant seamen has changed little over the past 15 years. There are 16,000 of them in France today, 43% of whom are officers, a total of 6,850 in all, 3% of whom are women. The officers constitute a very heterogeneous group; such posts are held by seamen with command responsibilities and encompass a wide variety of situations, certificates and ranks, as well as a very wide range of prerogatives. A significant share of officers (20%) are engaged in coastal navigation, which is dominated by small certificated skippers, uncertificated skippers and coastal skippers, whose tickets confer limited prerogatives that are far removed from those enjoyed by officers on large ocean-going vessels, for example. This diversity of posts is matched by that of the training pathways, which is not unconnected with the length of seafaring careers. After all, most of the officers who abandon their seafaring careers at an early stage were trained in the so-called academic pathway or pathway A, the university-level maritime training course at the ENSM that lasts five and a half years; most of the officers who commit themselves

* *The French Maritime Cluster, established in 2006, has almost 450 members, including companies of all sizes, competitiveness hubs, federations and associations, research institutes and centres, schools and training organisations, local authorities and local economic actors and the French Navy. It encompasses maritime activities ranging from shipbuilding to wind energy and offshore oil and gas extraction, from brokerage to oceanographic research and biotechnologies, from defence to fishing, from logistics to public works, from water sports to port operations, etc. The maritime economy employs 310,000 people directly and accounts for 14% of French GDP.*

in which to communicate with each other. The consequences of all this are increasing stress, excessive weariness and a reduced appetite for the job, for which the relatively generous levels of pay no longer provide sufficient compensation [1].

Long careers for some facilitate short careers for others

If merchant navy officers leave the profession in droves after just a few years at sea, how can France's merchant navy vessels continue to sail? Which officers continue to go to sea? Taking account of the age at which the most senior officer's tickets (master mariner and chief engineer) were obtained makes it possible to infer in which of the two pathways an officer received his training and thereby to answer this question. Almost 40% of masters who obtained their tickets before the age of 35, and who therefore trained via the academic route, have more than 25 years' seniority. This proportion falls to 21% in the case of chief engineers; it would seem that engine room officers find it easier to switch to shore-based jobs than deck officers. Almost 80% of officers who obtained their tickets after age 40, and who therefore took the continuing training route, have more than 25 years' seniority; this applies to both masters and chief engineers.

These figures give rise to several observations. Although the share of officers who trained at the ENSM and who have more than 25 years' seniority is only half that of their colleagues who took the vocational route, this share is still far from negligible. This further supports the previous observation, namely that only a fraction of officers who took the academic route cut their seafaring careers short. This fraction is certainly significant, but it in no way means that a whole cohort of ENSM graduates disappears completely, even after 25 years' service. The career prospects for these officers undergo a sort of bipolarisation between those who embark on a seafaring career for a limited period of time with the aim of enhancing the value of their training in order to obtain a shore-based job and those who are and will remain seafarers, sometimes right up to retirement. As for those who take the vocational route, the very construction of their trajectories seems to keep them at sea on a long-term basis. Nevertheless, their motivation has to be considered in context, since it is undoubtedly due in part to the greater difficulty they experience in switching to shore-based jobs, whether with ship owners or in the para-maritime industries, where those jobs open to those changing careers tend to be taken first by former officers who graduated from the ENSM.

Thus it might reasonably be asked whether the lengthy careers of some officers are a condition for the truncated careers of others. The recent conversion of the DESMM into an engineering degree is likely to make the segregation of career lengths between the two training pathways even more pronounced.

Sing the sea's praises, but stay on land'

This Provençal adage summarises very well the current problems posed by the new regulatory regime

governing the relationship between training and employment in maritime transport. This new regime ratifies the short career phenomenon or even tends indirectly to encourage it and seeks to respond as much to the needs of the maritime cluster as to those of the ship owners. It is still too early to evaluate the paradoxes and tensions to which this new regulatory regime gives rise.

The recent reform of the maritime training programmes was a response to the supposed weaknesses of the old system and of the ENSM, namely its excessive specialisation - providing training only for seafarers, which is an occupation very sensitive to cyclical fluctuations in economic activity - its isolation and its lack of attractiveness [5]. In order to make it easier for students to develop their own individual strategies, to increase the institution's attractiveness and to escape from an excessively inward-looking, mono-cultural identity, the ENSM has sought to open itself up to other professions. As part of this opening up, the ENSM has introduced the new qualification of marine engineer and several master's programmes in engineering, which are intended to increase recognition of the training the school provides and to make students more employable and the school more attractive (see Box 1). However, as noted in a recent report by the Cour des comptes, the French government accounting and audit office [6], the ship owners do not seem persuaded of the value added of this new qualification, since they have not yet acknowledged its relevance. For their part, students are divided on this new qualification of marine engineer, which is supposed to create 'fluidity between occupations', as recommended by the European Commission in its Blue Book: some see it as facilitating changes of profession, while others feel that it will render their skills more commonplace by taking away those elements that made them unique [7].

2 Seniority of master mariners and chief engineers by pathways in 2015

SENIORITY	Age at which the most senior officer's tickets were obtained as % of the total number		
	≤ 35 years Pathway A	36-40 years Pathway B	≥ 40 years
MASTER MARINERS (total: 1141)			
≤10 years	3	3	3
11-15 years	15	7	6
16-25 years	42	27	13
> 25 years	40	63	78
TOTAL	100 (658)	100 (196)	100 (287)
CHIEF ENGINEERS (total: 1147)			
≤10 years	7	5	3
11-15 years	20	5	3
16-25 years	52	35	14
> 25 years	21	55	80
TOTAL	100 (554)	100 (218)	100 (375)
GRAND TOTAL	53%		47%

Source : data DAM 2015, processing by Céreq.

This edition of *Bref* is based on a series of studies carried out by Céreq on behalf of the Occupations and Skills Observatory for the merchant navy between 2011 and 2016 [3]. They gave rise to an agreement with the OPCA for the transport and services sector, one of the authorised joint collection bodies set up to collect, pool and redistribute employers' training levies (*Organisme Paritaire Collecteur Agréé Transport et Services*) and to collaboration with the Directorate of Maritime Affairs (DAM), sub-directorate for seafarers and maritime training. The data analysed here are exhaustive and are drawn from the files of 'registered mariners' managed by the DAM. They provide detailed information on the socio-demographic characteristics of merchant seamen (age, sex, certificates of qualification, seniority) as well as the jobs held (function, status, vessel and type of shipping, length of periods at sea, ports of registry). Derived from the crew lists compiled for each voyage, these data provide information on all French seafarers who sailed on at least one day in the year on one of the 400 vessels flying the French flag – first and second ports of registry – belonging to some 50 shipping companies and engaged in trade as their principal shipping activity.

From mariner to engineer

What emerges from all this is a degree of ambivalence and strong tensions between students' strategies and the institution's objectives. For the former, the question is to choose between training for a seafaring career or for a wide range of occupations that will equip them with a set of cross-cutting skills and give them the status of engineer and access to other sectors where the working conditions are less arduous and less constraining. The institution, for its part, is seeking gradually to emerge from its historical role of a 'school preparing its students for careers as merchant navy officers' and to transform itself into a major national multidisciplinary training establishment for the maritime professions, while at the same time making every effort to retain its esprit de corps and strong maritime identity. As a result, the two broad categories of officers and officer cadets that had been graduating from the establishment for the past 15 years have become even more sharply polarised between those who chose the school in order to train as a seafarer with a view to embarking on a lengthy career in the merchant navy and those whose aim is to achieve a level of employability that will enable them to move smoothly and easily into a new job on land. This latter group has a utilitarian approach to the maritime training and to their first tours of duty at sea, which they regard as a necessary requirement to be completed as quickly as possible so that their training and experience can be turned to advantage within the maritime ecosystem, or even beyond. For this group, their status as engineers is perceived as an additional asset.

However, while the quality of the training received within the ENSM seems to guarantee an easy transition into a land-based job, such a move is based above all on the technical and behavioural skills acquired while serving on board ship in the course of a specific career trajectory. These skills are derived from qualities put to the test at sea: the ability to take decisions in

uncertain and risky situations, to operate complex technical systems and even to manage multicultural crews. So how can this potential for a change of career acquired through experience be maintained if the periods of time spent at sea are considerably reduced? On the other hand, is not improving and expanding the training programmes in order to anticipate and facilitate changes of career simply helping to increase the number of graduates who perform their famous 'vanishing act' as soon as they complete their training? It is in this way that the reform, while intended as a response to the supposed expectations of students and as a means to attract more candidates, ratifies the 'short career' phenomenon. But does it not also harbour within it the risk that it will weaken the school's maritime identity by making available a significant space within its programmes to accommodate disciplines specific to the engineering schools with which it competes? Is there not a risk that the maritime training system will be diluted and lose its clarity if the training on offer becomes too diversified? [5].

It remains the case, nevertheless, that the ships of the French merchant navy fleet continue to sail and that this is possible only by employing officers who have come up through the continuing training pathway, whose dynamic seems unrelated to these preoccupations with rapid changes of career. Its beneficiaries define themselves above all as seafarers and not as engineers who agree to 'act as sailors' [6] for a few years, as a necessary tack on a career path whose course is set with the sole aim of proceeding full steam ahead towards a land-based job.

Further reading

[1] « Recrutements, formations et carrières dans la marine marchande en Europe », P. Chaumette, *Annuaire de Droit Maritime et Océanique*, Tome XXX, 2012.

[2] « Attractivité du secteur maritime et des métiers des gens de mer. Quelques jalons pour un modèle de compréhension », G. Podevin, in ETF (European Transport Workers' Federation), *Enhancing the image of the sector and promoting the quality of living and working conditions at sea*, Berlin, 2010.

[3] *Les emplois et les caractéristiques socio-démographiques du personnel navigant des entreprises du transport maritime*, A. Delanoë, G. Podevin, Céreq, rapport pour l'OPQM Transport maritime, OPCA.TS, 2015.

[4] « Les carrières courtes des officiers du transport maritime : mythe et réalité », A. Delanoë, V. Gosseaume, G. Podevin in *Mobilités et changements de catégories : portée et limites des données longitudinales*, Céreq, Relief N° 37, 2012.

[5] « Repenser la formation maritime supérieure en France ? », D. Laurent, *La revue maritime*, n° 478, Avril 2007.

[6] « L'École nationale supérieure maritime : un avenir à clarifier », Cour des Comptes, rapport public annuel 2018.

[7] « Carrières de métier et carrières d'employabilité : les modèles de carrière dans le contexte de la marine marchande », L. Honoré in F. Dany, L. Pihel et A. Roger (coord.), *La gestion des carrières. Populations et contextes*, Vuibert, 2013.