



SHIPSAFE

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**A TERM-ONTOLOGICAL e-GLOSSARY OF THE LIFE-SAVING
APPLIANCES ABOARD A SHIP (ENGLISH-SPANISH)**

User's manual



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1. Theoretical-methodological description of SHIPS SAFE

SHIPS SAFE is an electronic corpus-based bilingual glossary (English-Spanish) on a specific field of maritime safety, the safety of navigation and, within this broad topic area, on the life-saving appliances aboard a ship. This term-ontographic resource offers a digital approach and an application of language technologies to specialised communication. It is based on a terminological corpus-based research which stems from an ontology building and whose theoretical-methodological foundations are the Communicative Theory of Terminology (Cabre, 1999) and The Function Theory of Lexicography (Bergenholtz y Tarp, 2002). The empirical study was focused on one of the lines of enquiry of Natural Language Processing for terminography, the application of ontologies concerned with terminological resources. The research methodology for data analysis was mainly guided by the extraction of knowledge-patterns Meyer et al. (1992), Meyer y Mckintosh, (1996a y 1996b) y Meyer (2001) and by a combination of a top-down and a bottom-up approach. As the term-ontology is of a terminological and domain type, the nouns are the only part of speech that SHIPS SAFE contains.

SHIPS SAFE is intended to supply the terminology needs of professionals of the maritime sector, in general, and of language specialists, in particular, such as specialised translators and interpreters, linguists, technical writers, ESP teachers, researchers and students of Maritime English and of anyone interested in maritime terminology in English and Spanish languages.

Broadly speaking, SHIPS SAFE is the final product of the research and has the following goals:

-To provide a specialised resource for consultation of terms, concepts and of the conceptual relations established in the life-saving appliances conceptual domain so that the user can obtain information about the location of the term in the conceptual system scenario. For instance, if the user is interested in learning about «the survival crafts to abandon the vessel», the user may browse the list of conceptual relations, select the conceptual relations which can be related, such as `onboardInstrumentForAbandoningObject` or the conceptual relation `onboardInstrumentSurvivalCraftType` and will obtain all the terms that convey this idea. Optionally, the user may browse the search option of the eight sub-domains and select the survival craft sub-domain «survival craft».

-To account for the data about a term use by means of authentic samples of language use extracted from an ad hoc parallel macrocorpus NavSAFE, which was specially compiled and is divided into an English corpus, NavSAFE-EN, which contains 238 documents and 1 214,488 running words, and a Spanish corpus NavSAFE-ES, with 227 documents and 1 336,785 running words.

-To offer a microstructural design of the term entry that allows for a clear, complete and precise portrait of the term in context in English and Spanish. It might prove useful for building term-ontologies in further knowledge domains.

-To single up the essential terms in this sub-domain so that, in terms of second language pedagogy, teachers of specialised languages can be oriented towards which terms to

teach. Furthermore, the teachers can exploit the material for the contrastive study of the language or for other pedagogical purposes.

2. Macro-structural design:

SHIPS SAFE offers an English and a Spanish interface and both of them contain the same design. To start the search on the English interface, you can find a query and a taxonomy button on the home screen.

If you select the taxonomy button, you will get the full display of the concepts' organization in the conceptual field of the life-saving appliances aboard as it is shown in figure 1.0. The taxonomic organization is only provided in English because the ontology classes were listed in the source language, English.



Figure 1. Taxonomy of the concepts of the life-saving appliances aboard a ship

If you select the query button, you can consult SHIPSAFE in two ways: semasiologically and onomasiologically.

- a) The semasiological mode is provided by filters where you can browse an alphabetically ordered list of terms or use a search engine (keywords). Let's suppose that you search for the term «lifeboat». In the first option, you may select the alphabetical range (J-L) and click on the search button. as it is illustrated in figure 2.

Filter

A-Z range ←

Keyword

Figure 2. Search on the alphabetical range list

Figure 3 shows the list of the terms containing the alphabetical letters searched for in the initial position of the term. Then, you may click on the term («lifeboat») to directly access its description.

Filter

A-Z range: J-L

Keyword:

Showing elements from "J-L"

> **Select a specific search term for a full display**

- Launching and embarkation appliances | Dispositivos de puesta a flote y de embarco
- Launching appliances |
- Launching appliances for fast rescue boats | Dispositivos de puesta a flote para botes de rescate rápidos
- Launching appliances for free-fall lifeboats | Dispositivos de puesta a flote de botes salvavidas de caída libre.
- Launching appliances using falls and a winch | dispositivos de puesta a flote con tiras y un chigre
- Life-saving appliances | Dispositivos y medios de salvamento | LSA; life-saving equipment; lifesaving appliances equipo de salvamento; dispositivos de salvamento
- Lifeboat | bote salvavidas
- Lifeboat drills with on-load release davit launched lifeboats | ejercicios de suelta con carga de los botes salvavidas de pescante.
- Lifeboat fitted with searchlight | bote salvavidas provisto de proyector
- Lifeboat release and retrieval system | sistema de suelta y recuperación de un bote salvavidas | LRRs
- Lifeboat with a self-contained air support system | bote salvavidas provisto de un sistema autónomo de abastecimiento de aire
- Lifebuoy | bote salvavidas | lifering
- Lifejacket | chaleco salvavidas | life-jacket
- Lifeline | abiza | cabo salvavidas; cabo de seguridad life line; grab line
- Liferaft | balsa salvavidas
- Liferaft launching appliances | dispositivos de puesta a flote de las balsas salvavidas
- Line-throwing appliances | aparatos lanzacabos

Figure 3. Term list obtained in the alphabetical range filter

By selecting the «keyword» filter, you will also obtain all the list of terms containing the search word, as it can be observed in figure 4.

Filter

A-Z range: ---

Keyword: lifeboat

Showing elements containing "lifeboat"

> **Select a specific search term for a full display**

- Davit-launched lifeboat | bote salvavidas de pescante
- Fire-protected lifeboat | bote protegido contra incendios
- Free-fall lifeboat | bote salvavidas de caída libre | FFLB
- Launching appliances for free-fall lifeboats | Dispositivos de puesta a flote de botes salvavidas de caída libre.
- Lifeboat | bote salvavidas
- Lifeboat drills with on-load release davit launched lifeboats | ejercicios de suelta con carga de los botes salvavidas de pescante.
- Lifeboat fitted with searchlight | bote salvavidas provisto de proyector
- Lifeboat release and retrieval system | sistema de suelta y recuperación de un bote salvavidas | LRRs
- Lifeboat with a self-contained air support system | bote salvavidas provisto de un sistema autónomo de abastecimiento de aire
- Self-righting partially enclosed lifeboat | bote salvavidas parcialmente cerrado autoadrizable
- Totally enclosed lifeboat | bote salvavidas totalmente cerrado

Figure 4. Results obtained for «lifeboat» in the «keyword» filter

Then, you may click on the term of your preference and directly access its description.

- b) The onomasiological mode presents two filters: the «sub-domain» menu and the «conceptual relations» menu. To make the search via the sub-domain access, please select one of the six sub-domains. The full list is displayed in figure 5 below.

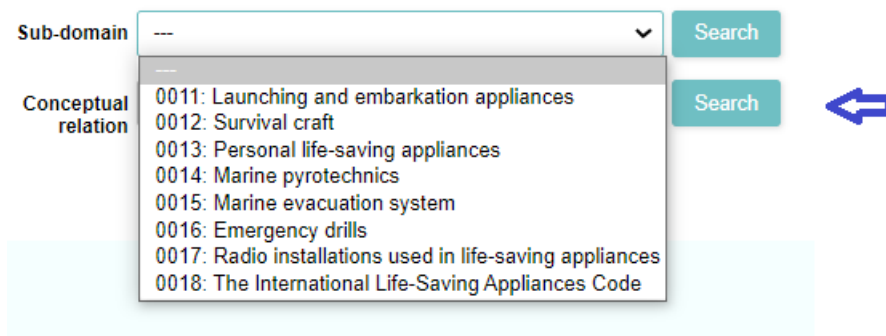


Figure 5. List of sub-domains in SHIPS SAFE

After the sub-domain selection, you will obtain all the list of concepts involved in that conceptual domain. Figure 6 shows a sample for the «survival craft» conceptual domain.

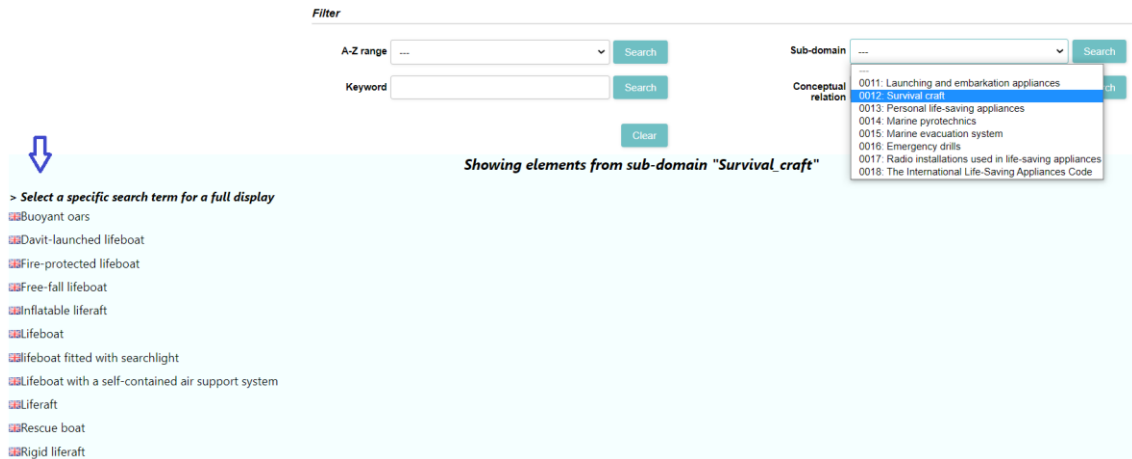


Figure 6. Results obtained for the sub-domain «survival craft»

To make the search using the conceptual relations' filter, you may click on the conceptual relation to obtain all the source and meta concepts involved as it is illustrated in figure 7. If you click on one of them, you will obtain the full display of the article selected on the same screen. The selected conceptual relation is described in English and Spanish and both of them pop up in a small window when selecting the conceptual relations' list.

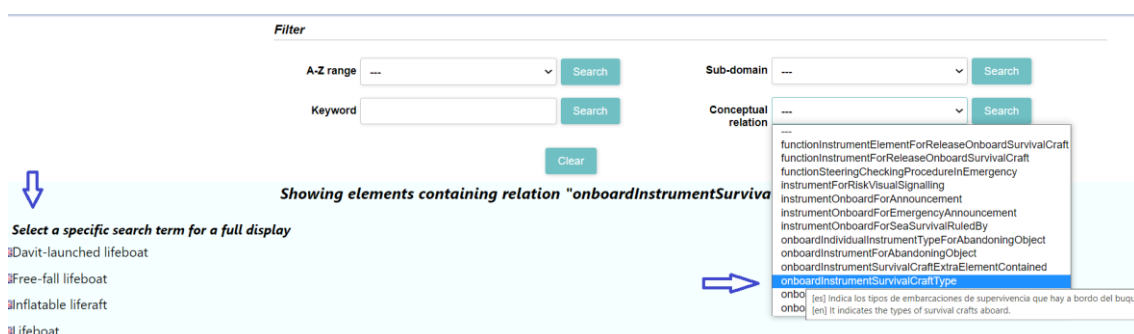


Figure 7. Results obtained for the conceptual relation `onboardInstrumentForAbandoningObject`

3. Microstructural design:

Each term-ontographic article contains the following fields:

-Term: It appears in its base form.

-Concept ID: Each term has a code to identify its conceptual dimension. The first three digits identify the domain it belongs to and the remaining digits refer to the subdomain and microdomains.

- Domain: Domain information.

-Subdomain: Subdomain information.

-Microdomain: Microdomain information.

-Definition (EN): It is expressed in English language. The definition has been extracted from the NavSAFE-EN corpus, and validated.

-Definition/Definición (ES): It is expressed in Spanish language. It is the translation equivalent of the English definition. The definition has been extracted from the NavSAFE-ES corpus, and validated.

-Term in context (EN): A corpus sample in English exemplifying the term use.

-Term in context/Término en contexto (ES): A corpus sample in Spanish exemplifying the term use.

- Variants (EN): English term(s) which can be considered as semantically equivalent (synonyms, abbreviations, acronyms, ...)
- Variants (ES): Spanish terms which can be considered as semantically equivalent. (synonyms, abbreviations, acronyms, ...)
- Equivalent (ES): The translation equivalent in Spanish language to the source term.
- Conceptual relation (EN): It denotes the existing conceptual relation between concepts. It is expressed in English language only.
- Description of the conceptual relation: Explanation of the meaning of each conceptual relation. It is provided in both languages, English and Spanish.
- Superordinate concept (EN): It is the most general concept in a taxonomic hierarchy.
- Subordinate concept (EN): It is the most specific category in a taxonomic hierarchy.
- Expert validation: It indicates whether or not the term has been fully validated. It is a reliability indicator.

Figure 8 illustrates a partial screenshot of the microstructural design of the term-ontographic article for *lifeboat*:

Concept ID: 00331 <Lifeboat>

Term:

Lifeboat

PoS:

🇬🇧 noun

Domain:

🇬🇧 Safety of navigation

🇪🇸 Seguridad de la navegación

Subdomain:

🇬🇧 Life-saving appliances

🇪🇸 Dispositivos y medios de salvamento del buque

Microdomain:

🇬🇧 Survival craft

🇪🇸 Embarcación de supervivencia

Equivalent:

🇪🇸 bote salvavidas

Superordinates:

survival_craft

Subordinates:

buoyant_oars

davit-launched_lifeboat

fire-protected_lifeboat

free-fall_lifeboat

lifeboat_with_a_self-contained_air_support_system

totally_enclosed_lifeboat

lifeboat_fitted_with_searchlight

self-righting_partially_enclosed_lifeboat

Concept relations:

onboardInstrumentForAbandoningObject

Description

🇬🇧 *It indicates the life saving devices provided by the ship to abandon the vessel.*

🇪🇸 *Se refiere a los dispositivos de salvamento de los que dispone el buque para abandonarlo.*

Figure 8. Partial screenshot of the microstructural design of the term-ontographic article for *lifeboat*