

PRE-EXERCISE EVALUATION

The Pre-Exercise aimed to train the Contracting Parties in the procedures to request assistance, to prepare the participants for the main exercise, and to increase the responsiveness and capability of the participating organizations at sea and on the shore.



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Summary and Recommendations

The BALEX DELTA 2018 Pre-Exercise was an exercise carried out in two phases during the spring of 2018, as a precursor to the full-scale live BALEX DELTA exercise in August 2018. It was essentially an alarm and start-up exercise, but instead of simply confirming the communication lines, the request for assistance was supposed to trigger national processes in each participating Contracting Party to identify and offer resources. The request included on the shore as well as at sea resources. In the first phase emails were used, and in the second phase SafeSeaNet and CECIS-MP were used.

The exercise was generally regarded as helpful, and several participants underlined the usefulness of an alarm exercise that went beyond a simple communications check. However, few concrete improvements were noted in the evaluation. The overall objectives according to the DoW were:

- To train the Contracting Parties in the procedures to request assistance,
- To prepare the participants for the main exercise, and
- To increase the responsiveness and capability of the participating organizations at sea and on the shore.

It should however be noted that it were the national procedures for *identifying and offering resources*, not the national procedures for *identifying needs and requesting resources* that were actually trained in the exercise. If the first objective is changed to reflect this, they are fulfilled.

Most of the detailed objectives were also fulfilled. However, crisis communication to the public, information sharing and how to include environmental values need to be further trained and discussed to be fulfilled.

The exercise design allowed for the national lines of communication to be tested. Although minor improvements were identified, the lines of communication for requesting and offering sea resources were generally well-established and well-functioning. The exercise design also allowed for the national roles and procedures for *identifying and offering resources* to be tested. However, the evaluation shows that this process, partly due to national differences, may not be clearly defined in all its aspects. In particular, it was unclear which roles, apart from the conventional roles for operative communication regarding sea resources that the exercise aimed to test.

There were few lessons identified regarding how the national roles and procedures for alarming and requesting resources could be improved. However, the exercise highlighted that the process between national PoCs and the national authorities responsible for the shore resources may need further analysis, development, and training. The inclusion of the Governmental decision-making level is necessary to test the whole national/internal process in some Contracting Parties.

The HELCOM procedures and processes used for alarming and for requesting and offering assistance at sea are well-known and perceived as straight-forward to use. However, the HELCOM procedures and processes used for alarming, requesting and offering assistance on the shore are still under development, both regarding who and how to alarm.

A majority of participants prefer to use SSN/CECIS-MP for alarming and requesting, but recognize the challenge posed by Russia not having access to these systems. The exercise revealed a number of issues for further development regarding SSN and CECIS-MP, both related to technical aspects and possibly to a lack of training/practice. There are furthermore a lack of clarity in how to use the systems correctly when it comes to procedural issues such as the use of negative responses to requests.

The Contracting Parties interpreted the exercise instructions somewhat differently, and consequently tested their national systems differently. Some carried out the complete national process, from request to decision on assistance, while others handled the exercise as a somewhat evolved communications check leaving out for instance the highest decision-making levels and/or the step of checking the actual availability of offered resources.

The most important recommendations in the evaluation are:

- National procedures and processes:



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- To encourage the Contracting Parties to further develop their national processes especially concerning the link to the authorities responsible for the shore resources.
- To include a Pre-Exercise further testing the national processes for requesting and offering shore resources in BALEX DELTA 2019, or arrange it as a separate BALEX BRAVO.
- To include a session regarding the commonalities and singularities between participating Contracting Parties in the Lessons Identified meeting in April 2019.
- To further increase knowledge regarding commonalities and singularities between HELCOM participants, a seminar could be arranged to present lessons identified from national pre-exercises.
- Multinational procedures and processes:
 - To carry out an analysis of the processes and procedures, including multinational as well as national roles and responsibilities, for alarming shore resources. This analysis should provide suggestions on how to alarm in an incident involving the shore, in order to make sure that the relevant national authorities are reached.
 - To compile and analyze the operational strengths and weaknesses of CECIS-MP and similar systems as a basis for future development.
 - To establish a structure between HELCOM and the EU for reporting and discussing technical issues regarding CECIS-MP.
 - To have continuous training in the use of SSN/CECIS-MP for the relevant personnel.
 - To, if necessary, develop the procedures for requesting and offering resources further, i.a. aspects such as the use of negative replies etc.
 - To arrange an opportunity after the Pre-Exercise to discuss and compare experiences, and to compile suggestions for the development of procedures and technical systems, with the aim to increase the HELCOM responsiveness and capability.
- Design of future Pre-Exercises:
 - To further clarify in the exercise invitation what parts of the national processes that should be tested.
 - To offer a specific exercise opportunity to test the full decision-making process, involving the appropriate political levels as well where applicable. However, in the BALEX DELTA context it would in most cases be enough to include the operational level to ensure broad participation.
 - If the purpose of the exercise is to test the national and multinational procedures and systems, the exercise should not be pre-announced. Further, the same procedures, systems and personnel/organization that would be used in a real crisis should be employed in the exercise.

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Abbreviations and Definitions

BALEX DELTA	An annual operational exercise, institutionalized under Section 10, Volume 1 of the HELCOM Manuals to test alarm procedures, response capability and time, test and train the staff functions and the cooperation between combatting units in response to Baltic maritime pollution incidents.
CECIS-MP	Common Emergency Communication and Information System – Marine Pollution provided by the European Union Emergency Response Coordination Centre (ERCC)
CEDRE	Centre of Documentation, Research and Experimentation, a French research center focusing on accidental pollution at sea.
DoW	<i>Description of Work</i> as set out in Annex 1, Form T1, Summary of the Project, Invitation to tender for evaluating the conduction and fulfilment of the objectives of the annual Baltic Sea states' marine pollution response exercise BALEX DELTA
EMSA	European Maritime Safety Agency
ERCC	European Union Emergency Response Coordination Centre
EUCP	European Union Civil Protection
HELCOM	Baltic Marine Environment Protection Commission (Helsinki Commission)
HELCOM Manuals (or the Manual)	The HELCOM Manual on Co-operation in Response to Marine Pollution, including three Volumes; Volume 1 regarding co-operation in combatting marine pollution Volume 2 regarding co-operation specifically in the case of spillages of chemicals Volume 3 regarding co-operation in combating spillages of oil and other harmful substances on the shore.
Helsinki Convention	Convention on the Protection of the Marine Environment of the Baltic Sea 1992 (as amended with annexes 2007)
MAR-ICE	Marine Intervention in Chemical Emergencies Network
POC	Point of contact
POLFAC	<i>POLLution FACilities</i> report, is the third type of report defined by Volume I of the HELCOM Manual, dealing with matters related to assistance between combatting authorities.
POLINF	<i>POLLution INFORMATION</i> report, is the second type of report defined by Volume I of the HELCOM Manual, giving detailed, supplementary information to the POLWARN report to combatting authorities.
POLWARN	<i>POLLution WARNING</i> report, is the first type of report defined by Volume I of the HELCOM Manual, which gives warning of pollution incidents or threats of pollution to combatting authorities.



1 Introduction

HELCOM (Baltic Marine Environment Protection Commission – Helsinki Commission) is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea. The contracting parties are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden, and the European Union. HELCOM includes a Response Working Group that among other things is to ensure national and international response to maritime pollutions incidents.

Since the 1980s HELCOM has organized the yearly BALEX DELTA exercise to test the HELCOM Manual procedures in an operational setting. BALEX DELTA is the main mechanism by which the Contracting parties comply with Regulation 10(3), Annex VII of the Helsinki Convention concerning regular joint operational combatting and alarming exercises.

The focus of the exercise has traditionally been on resources at sea, although there has been a growing interest in the shore dimension over the last years. This is partly due to the work carried out by the HELCOM Expert Working Group SHORE on developing guidelines for the HELCOM Response Manual regarding shore operations, including exercise procedures. On the shore cooperation became part of HELCOM when the Convention was revised in 2014.

Most of the previous BALEX DELTA exercises have followed the same basic structure, beginning with an alarm exercise, constituting a communications test, and then focusing on testing basic operational at sea capabilities. In 2018, with support from European Commission, the BALEX DELTA exercise concept was further developed. This included:

- a *pre-exercise* which extends the alarming beyond the traditional communication check and introduces an alarm exercise that engages HELCOM, EU and national procedures for requesting and offering at-sea and on-shore assistance,
- *increasing the complexity of the at-sea exercise* by including elements such as night time operations and diving,
- an *on-shore table-top exercise*, involving national, regional and local authorities as well as non-governmental organizations in testing, training, and discussing cooperation frameworks and responsibilities.

The Finnish Environment Institute (SYKE) was responsible for the evaluation of the BALEX DELTA 2018 and the Swedish Defence Research Agency (FOI) supported SYKE. This report presents the FOI analysis and conclusions regarding the Pre-Exercise.

The next chapter (Chapter 2) describes the Pre-Exercise and its design. The last chapter (Chapter 3) presents the evaluation, including the evaluation methodology. The evaluation concerns national processes and procedures, multinational processes and procedures, the fulfillment of the overall objectives, and a section on the exercise design.

2 The Pre-Exercise

The main objective of the BALEX DELTA Pre-Exercise, as defined in the Description of Work (DoW) in the application to the EU DG ECHO, was:

- To train the HELCOM Contracting Parties in the procedures of how to request assistance in case of oil spill or an accident with Hazardous or Noxious Substances.
- To prepare the contracting Parties for the main exercise.

It should be noted that in the DoW, the Pre-Exercise was described as testing and improving the roles and procedures for *alarming and requesting* national and international resources. In the preparation of the exercise, it was decided to reverse the exercise and test the national and international procedures for *offering* assistance as these processes were partly seen as similar.

Furthermore, as an overarching outcome the Pre-Exercise should:

- Increase the responsiveness and capability of the participating organizations at sea and on the shore, allowing for more effective handling of spills, including crisis communication to the public, and cooperation on the national and international level.

In addition to these overarching objectives and outcomes, a number of more detailed Pre-Exercise goals in fulfilment of the main objectives can be identified in the DoW:

- Testing national lines of communication,
- Testing roles and procedures for alarming and requesting resources at national and international levels,
- Identifying who is responsible for alarming, identification of resource needs, testing national lines of communication and how those tasks are solved,
- Discussing sharing of information, collaboration, and how to include the environmental values when combating oil and chemical spills,
- Discussing crisis communication.

The DoW further states the following additional desired outcomes of the Pre-Exercise:

- The Pre-exercise highlights commonalities and singularities between participating Contracting Parties. To further increase knowledge about singularities and communalities, a seminar may be arranged presenting lessons learned from national Pre-Exercises,
- Improving roles and procedures for alarming and requesting resources at national and international level,
- Further developing an overarching exercise concept for at sea, on the shore and combined operations.

For the purpose of this evaluation, it is important to note that while the detailed goals can be verified, outcomes must be measured, analyzed and assessed. For example, whether the Pre-Exercise actually tested a specific aspect of alarming, response or responsibilities, is a factual verification whereas whether any of these actually improved is an evaluative verification.

2.1 The Reporting Procedures

The reporting procedures trained in the Pre-Exercise are based on both the HELCOM Manual and the European Union procedures and systems.

HELCOM cooperation in response to marine pollution is triggered by a call for assistance under Regulation 8, Annex VII of the Helsinki Convention. A Contracting Party is entitled to call for assistance from other Contracting Parties when responding to a pollution incident at sea and the Contracting Parties receiving the call shall use their best endeavors to bring such assistance.

Volume I of the HELCOM Manual consequently provides Reporting Procedures and a Pollution Reporting System to facilitate exchange of information on pollution between combatting authorities within the HELCOM cooperation framework. The Manual provides three report types:

- POLWARN (POLlution WARNing): gives information or warning of pollution or threat of pollution.
- POLINF (POLlution INFOrmation): gives detailed supplementary information.
- POLFAC (POLlution FACilities): gives information on matters related to assistance.

Pursuant to HELCOM Recommendation 36/3, the HELCOM Contracting Parties, most of which are EU Member States should use electronic means provided by the EU Civil Protection mechanism to submit pollution reports; in particular SafeSeaNet and CECIS-MP (Common Emergency Communication and Information System – Marine Pollution), herein “the EU technical systems”. SafeSeaNet is an information system for maritime traffic data and network for maritime data exchange, including data for maritime environmental protection such as pollutions and hazards.¹ The system is developed and maintained by the European Commission and the European Maritime Safety Agency (EMSA).² CECIS-MP is a web-based emergency communications and monitoring tool provided by the European Union Emergency Response Coordination Centre (ERCC), enabling real-time data exchange on marine pollution between EU Member States and ERCC.

2.2 The Pre-Exercise Design

The Polish Search and Rescue Service directed the Pre-Exercise and developed the scenario. The selection of hazardous and noxious substances included in the scenario aimed at incorporating a chemical substance incident, which is both toxic and reactive, i.e. may react with water and oil, resulting in various toxic products. The scenario included several hazards such as fire, explosion, and toxic gas clouds, which require risk management and a wide range of response actions regarding hazardous and noxious substances. For this purpose, the Polish party selected a scenario based on a Chlorine trifluoride (CLF3) incident.

The oil incident within the Pre-Exercise scenario used Seatrack web simulations. Seatrack web is a web-based tool used to simulate how sea currents, winds and ice affects the spread of pollution, such as oil, hour-by-hour.³ The scenario encompassed a spill of 3,000 tons of medium-light crude oil. Given the weathering process, this oil according to the exercise report undergoes intensive emulsification resulting in:

- Large quantities of oil-water mixtures, up to 21,000 tons of emulsion,
- Intensive increase in viscosity,
- Unpredictable displacement of oil plumes,
- Long persistence in marine environment.

The same basic scenario was also used in the main exercise in Sweden in August 2018.

A POLWARN (pollution warning), giving the participants a first warning about the incident, was sent out from Poland. This was followed by a POLINF (pollution information), where more details about the incident and the circumstances were presented. Finally, a POLFAC (pollution facilities) was distributed, in which Poland requested a number of resources, including both sea and shore resources. This request was supposed to trigger national processes for identifying and offering resources to the requesting party.⁴

¹ EMSA. (2018). Vessel traffic monitoring in EU waters (SafeSeaNet). Available: <http://www.emsa.europa.eu/ssn-main.html>. Last accessed 18/05/2018.

² EMSA. (2018). SafeSeaNet Management. Available: <http://www.emsa.europa.eu/ssn-main/ssn-management.html>. Last accessed 18/05/2018.

³ SMHI. (2012). Seatrack web - Spridningsprognoser för oljeutsläpp och andra föroreningar. Available: <https://www.smhi.se/professionella-tjanster/professionella-tjanster/sakerhet-och-beredskap/seatrack-web-spridningsprognoser-for-oljeutslapp-och-andra-fororeningar-1.1646>. Last accessed 17/05/2017.

⁴ As noted above the DoW stated that it was the processes for requesting assistance in case of oil spill or an accident with hazardous or noxious substances.



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The Pre-Exercise was divided into two phases, a couple of weeks apart. In the first phase, emails were used to alarm the Contracting Parties, which is the traditional HELCOM procedure. In the second phase, the EU technical systems Safe Sea Net (SSN) and CECIS-MP were used for alarming and requesting assistance. The participants knew what weeks the exercise would be carried out, but not the exact date and time.

Some tools and aspects of the alarming that were not included in the first phase of the exercise, but in the second. This included the request for satellite imagery through CleanSeaNet, a European satellite-based Earth observation service for oil spill and vessel detection⁵ and the request for information from the Maritime Intervention in Chemical Emergencies (MAR-ICE) service.⁶ Furthermore there was no exchange or completion of contracts between Poland and EMSA during the first phase.

Another alarm exercise was carried out in August, a couple of weeks before the main exercise.

⁵ EMSA. (2018). CleanSeaNet. Available: <http://www.emsa.europa.eu/csn-menu.html>. Last accessed 18/05/2018.

⁶ EMSA. (2018). Marine Intervention in Chemical Emergencies Network. Available: <http://www.emsa.europa.eu/chemical-spill-response/mar-ice-network.html>. Last accessed 18/05/2018.

3 The Evaluation

The evaluation is an integral part of the BALEX DELTA 2018 exercise and had two overall objectives:

- To evaluate the exercise itself and the fulfillment of the exercise goals, and
- To evaluate the HELCOM and EU procedures and systems for alarming and requesting assistance.

The latter objective also includes an evaluation of the HELCOM Response exercise concept.

3.1 Methodology

In a first step, Pre-Exercise objectives and aims were identified from the DoW. This resulted in the list of exercise objectives and desired outcomes in Chapter 2.

Several objectives had a “yes” or “no” character, e.g. “test the national lines of communication”. In these cases the evaluation will only verify whether a certain aspect has been included in the exercise or not, and if this has been done in a successful and comprehensive manner. The evaluation will not measure the result of the exercise, for instance the actual functionality of the national lines of communication, but notice structural challenges high-lighted by the exercise.

Regarding the outcomes, for instance the improvement of a capability, the analysis is mainly based on the exercise report from the Polish Search and Rescue Service and on self-evaluation in the questionnaire and in the interviews. Since there are no previous measurements to use a baseline this approach was chosen as the most appropriate strategy.

The HELCOM RESPONSE manual does not establish any required levels of ability in the procedures. Hence it is not possible to decide what constitutes an acceptable value of the functionality to be used as a basis for the evaluation. Instead a qualitative analysis has been used, where the participants’ input in interviews and questionnaires form the basis. Instead of measuring functionality, the participants’ views and comments are compiled, analyzed and assessed.

An evaluation concept was developed, and indicators and sources of information identified (Appendix A). Finally, protocols for interviews, questionnaires and observations were developed.

The interviews were semi-structured. The interview protocol (Appendix B) furthermore changed over time, due to the results from the questionnaire as well as to differences between respondents. Follow-up questions were also posed by e-mail after an initial analysis. The interviewees were also given the opportunity to correct or alter their responses.

The initial plan was to observe the second exercises phase on site at MSB in Sweden, and then use the questionnaire to collect information from all the participants. This information was to be supplemented with two or three interviews. However, as it proved impossible to follow the exercise on site due to MSB not participating, it was decided to instead increase the number of interviews. In the end, six interviews were carried out face-to-face or over the phone.

The interviewees were, apart from EMSA and from Poland (leading the exercise), a mix of representatives from Contracting Parties participating with varying capabilities: Sweden, Finland, Latvia and Germany. The interviewees were mainly individuals that had actively participated in the exercise. The final selection of interviewees was partly based on recommendations from SYKE.

The questionnaire was presented in electronic format through an online platform (Appendix C). Apart from background questions, the questionnaire focused on the participation of the Contracting Parties in the exercise, the fulfillment of exercise objectives and the functionality of the HELCOM and EU procedures and technical solutions. Ten respondents completed the questionnaire: Denmark (two different organizations), EMSA, European Commission/ECHO-ERCC, Finland (two different organizations), Germany, Latvia, Poland, and Sweden. Estonia, Lithuania, and Russia did not complete the questionnaire. The questionnaire posed a series of scaled questions (from strongly disagree to strongly agree) with fields for open, unstructured commentary from respondents to each question.

Finally, the Polish exercise report, which presented the overarching Pre-Exercise activity and outcomes, was an important input to this evaluation.



The identified exercise objectives fall into three main categories: National processes and procedures, multinational (EU and HELCOM) processes and procedures as well as exercise concept and design. In the next section some general observations from the exercise are discussed, based on information from the Polish exercise report, the interviews and the questionnaires. Thereafter three sections that address the main categories of objectives will follow. The final section summarizes the evaluation, and evaluate each objective. It also address the two overall objectives of the exercise.

3.2 General observations

All HELCOM Contracting Parties, except for Estonia, participated in the Pre-Exercise, although Denmark only participated in the second phase. Russia, being a non-EU state could not participate in the SafeSeaNet and CECIS-MP alarming, but was contacted through email in phase two. The first phase resulted in 67 e-mail communications whereas 115 communications were sent during the second phase.

In phase one, EMSA, Finland, Germany, Russia and Sweden offered assistance in the form of sea resources. In phase two, Denmark, EMSA, Finland, Germany, Latvia and Sweden offered such resources. These resources included, for example, vessels for handling oil and hazardous and noxious substances, skimmers, tanks, and expert assistance. Only one country (Sweden) offered shore resources in the first phase, and three (Sweden, Germany and Latvia) did so in the second phase. However, among the shore resources offered, it is noteworthy that only the work boats matched or exceeded the resources requested, with the length of coastal booms falling short.

In the first phase of the Pre-Exercise, all POLWARN, POLINF and POLFAC were acknowledged by the exercise participants within an hour and all additional information was provided within two hours. However, extended communications for additional information was exchanged with the EC. Offers of assistance were generally provided within two hours of the POLFAC with a couple of exceptions.

3.2.1 The Respondents Found the Pre-Exercise Helpful

The respondents of both questionnaires and interviews expressed an overall positivity to the Pre-Exercise and its design. In the questionnaire all agreed or strongly agreed with the statement that “The BALEX DELTA 2018 pre-exercise helped us become better prepared (for BALEX DELTA 2018 main exercise and for future alarms and requests for assistance)”. This impression is further underlined by the comments in the questionnaire and by the interviews. Almost all interview respondents underlined the usefulness of this type of exercise, and several respondents especially stressed the increased realism compared to earlier alarm exercises. One questionnaire respondent commented that this type of exercise “is useful to be carried out before any exercise”. This general positivity should also be considered in view of the fairly high participation rate especially in offering sea assistance resources. There were further affirmative responses to the questionnaire:

- *The Pre-Exercise helped test national lines of communications*; 2 respondents strongly agreed, 3 respondents agreed, 3 neither agreed nor disagreed, and 1 disagreed,
- *The Pre-Exercise helped test national processes for alarming and identification of sources*; 1 respondent strongly agreed, 5 agreed, and 4 neither agreed nor disagreed,
- *The Pre-Exercise helped increase national responsiveness and capability*; 6 respondents agreed and 4 neither agreed nor disagreed, as well as
- *The Pre-Exercise tested HELCOM/EU procedures for alarming and requesting*; 1 respondent strongly agreed, 7 agreed, and 2 neither agreed nor disagreed.

3.3 National Processes and Procedures

Five objectives were expressed in the DoW with respect to the national processes and procedures. These were:

- Test national lines of communication,

- Test roles and procedures for alarming and requesting resources, in the exercise changed to test roles and procedures for identifying and offering resources.
- Identify who is responsible for alarming, identification of resource needs and how those tasks are solved,
- Improve roles and procedures for alarming and requesting resources at national level, and
- Highlight commonalities and singularities between participating Contracting Parties. To further increase knowledge about singularities and commonalities a seminar may be arranged presenting lessons learned from national Pre-Exercises.

In the exercise, each participating party was expected to, through a national process, identify available resources and decide on what assistance to offer Poland. The national aspects of the exercise were also expected to culminate in a supra-national understanding of overarching similarities and differences among parties.

3.3.1 Testing the Complete National Processes

An important indicator for all of these objectives was if the participating parties tested the complete internal process in the exercise. In the questionnaire the participants were asked the following question:

Did your country test the complete national process from receiving the alarm and a request for assistance via the identification of available national resource to the reply regarding assistance?

Leaving the European Commission aside, as they only have a supporting role as custodians of the CECIS-MP system, as well as Poland as organizers, a slight majority of the ten respondents replied that a complete process had been carried out.

However, the comments in the questionnaires and interviews indicate that the term “complete national process” was ambiguous to the participants. For some of the respondents, their answer relates to whether they during the exercise involved only the operational levels or if they involved also the Governmental, financial, and crisis communications levels. For others, their answer relate to whether or not they involved the relevant authorities for shore resources. These differences may partly be due to national differences. Some Contracting Parties have a decision-making process where the final decision is made by the Government, while others have competent authorities with the mandate to make the decisions at the operational level. Some Contracting Parties have an organization where the shore resources (or parts thereof) and the sea resources are controlled by the same competent authority, while others have different competent authorities responsible for shore and sea resources.

In earlier BALEX DELTA exercises the ALARM exercise has been limited to a communications check. In the BALEX DELTA 2018 Pre-Exercise the scope was wider, but it is not clear from the evaluation if this was fully disseminated and understood. The evaluation notes that for some participants the national process was treated somewhat superficially, leaving out certain above-mentioned aspects. On the other hand, for instance to involve the Governmental level would add a number of complexities to the exercise, increasing the risk that some Contracting Parties would choose not to participate.

Furthermore, the exercise instructions left some room for interpretation whether the participants should offer the resources available at the dates for the Pre-Exercise or the resources that they intended to participate with in the main exercise. The later interpretation meant that it was less meaningful to test the actual readiness of the resources. An important part of the national process was thus left out in some cases.

Finally, it was noted by some respondents that it was not clear from the exercise whether the ultimate goal should be to finalize agreements and contracts regarding resources. It was noted both by respondents and in the Polish report that agreements were not pursued for some (key) resources. One of the reasons why such an objective may not have been clearly formulated for the exercise, is the fact that the exercise changed from an alarming and requesting exercise to a responding and offering exercise for most participants.

3.3.2 Testing national lines of communication Test and Improve Roles and Procedures for Alarming and Requesting Resources

In the questionnaire the participants were given the following assertion:

The pre-exercise helped us to test our national lines of communications.

Two of the ten respondents strongly agreed, further three agreed and three neither agreed, nor agreed. One respondent disagreed.

The interviews indicate that most participants found it useful to test the national lines of communication, and these lines were generally seen as already in good working order and in many cases regularly tested. Although a few found issues for improvement, several respondents have underlined that they found the exercise to be a good opportunity to test their national processes and procedures. In the interviews and questionnaires, only one example of a participants implementing a minor improvement as a result of the exercise was found.

Based on the interviews and comments in the questionnaire, it is noted that there are some important differences between the Contracting Parties. In some Contracting Parties the same PoC handles requests for both sea and shore resources. In others, two different PoC's are responsible. In the HELCOM Manual (Volume 3), the country fact sheets lists the national PoCs concerning incidents on the shore, but the impression is that the list used in the Pre-Exercise to a large extent was the one for sea resources. In at least one case, the PoC receiving the Polish request was not responsible for the shore resources and did not pass it on. Although this may be an effect of BALEX DELTA being an exercise where not all participants carried out the full national process, this may also represent a structural challenge.

This raise some questions regarding the effectivity and comprehensiveness of national and international lines of communications for requesting assistance on the shore and for responding to such requests. In particular, HELCOM Contracting Parties need to determine whether:

- It is clear who to contact and how to do this regarding request for shore resources, nationally and multinationally.
- The process for identifying and offering shore resources is well-defined in national procedures.
- The case of two separate PoCs for sea and shore resources presents specific challenges, taking into consideration aspects such as access to SafeSeaNet and CECIS-MP.

The objective of testing national lines of communication was fulfilled, although these were the national lines of communication for offering assistance, not requesting assistance.

The objective of testing and improving the roles and procedures for alarming and requesting resources was only partly fulfilled as the exercise focused on the process of identifying and offering resources. However, the PET has found that this angle was also of importance to HELCOM and the Contracting Parties.

3.3.3 Identify who is Responsible for Alarming, Identification of Resource Needs and how those tasks are solved

The Pre-Exercise facilitated national and multinational discussions regarding by whom, and how, tasks such as alarming and the identification of resource needs and resources, should be performed. However, the focus was on identifying available resources and offering, rather than on identifying needs and requesting. National discussions were held during the exercise, and multinational discussions were held during the evaluation. This could also be a possible theme for the BALEX DELTA 2018 Lessons Identified meeting in April 2019.

The objective of identifying who is responsible for alarming, identification of resource needs and how those tasks are solved was fulfilled although with a focus on identifying and offering resources.



3.3.4 Highlight Commonalities and Singularities

There were few discussions highlighting commonalities and singularities between participating Contracting Parties during the exercise or in the BALEX DELTA meetings held after the Pre-exercise, with the exception for the issue of Russia not having access to SSN and CECIS-MP. Some aspects regarding such commonalities and singularities are apparent in this evaluation, but there is need for further discussions and exchange of experiences. These discussions could be held in connection to other post-exercise workshops and conferences.

To further increase knowledge regarding commonalities and singularities between HELCOM participants, a seminar could be arranged to present lessons identified from national pre-exercises.

The objective of highlighting commonalities and singularities was partly fulfilled, although the results from Pre-Exercise could be used as basis for further discussions in a future seminar.

3.3.5 Conclusions and suggestions

From the analysis above the following conclusions are drawn:

- There were few lessons identified for how the national roles and procedures for alarming and requesting resources could be improved. However, the exercise highlighted that the process between national PoCs and the national authorities responsible for the shore resources may need further analysis and development.
- The exercise design allowed for the national lines of communication to be tested. Although minor improvements were identified, the lines of communication for requesting and offering sea resources were generally well-established and well-functioning.
- The exercise design allowed for the national roles and procedures for identifying and offering resources to be tested. However, the evaluation shows that this process, partly due to national differences, may not be clearly defined in all its aspects.
- The inclusion of the Governmental decision-making level is necessary to test the complete national/internal process in some Contracting Parties.
- There is need for further discussions and exchanges of experiences regarding commonalities and singularities between participating Contracting Parties.

The following suggestions are made:

- National procedures and processes:
 - To encourage the Contracting Parties to further develop their national processes especially concerning the link to the authorities responsible for the shore resources.
 - To include a Pre-Exercise further testing the national processes for requesting and offering shore resources in BALEX DELTA 2019, or arrange it as a separate BALEX BRAVO.
 - To include a session regarding the commonalities and singularities between participating Contracting Parties in the Lessons Identified meeting in April 2019.
 - To further increase knowledge regarding commonalities and singularities between HELCOM participants, a seminar could be arranged to present lessons identified from national Pre-Exercises.
- Exercise design:
 - To further clarify in the exercise invitation what parts of the national processes that should be tested. This could be done for instance by stating if the current availability of resources should be checked in the exercise or if it is enough to offer resources assumed to be available during the actual exercise.



- To offer a specific exercise opportunity to test the full decision-making process, involving appropriate the Governmental level. However, in the BALEX DELTA context it would typically be enough to include the operational level to ensure extensive participation.

3.4 Multinational processes and procedures

The ultimate aim of the HELCOM RESPONSE multinational process is to mitigate maritime pollution incidents in the Baltic by securing that appropriate assistance can be offered to a requesting Contracting Party. Four objectives within the DoW relate specifically to the multinational processes and procedures applied by the Contracting Parties to HELCOM:

- Train the participants in the procedures of how to request assistance in the case of oil spill or accident with hazardous or noxious substances.
- Test and improve roles and procedures for alarming and requesting resources at international level,
- Discuss sharing of information, collaboration, and how to include the environmental values when combatting oil and chemical spills,
- Discuss crisis communication.

3.4.1 Training Procedures Testing Roles and Procedures

In the exercise Poland assumed the role of a requesting party and issued a request for both sea and shore resources. As mentioned earlier, the structure and design of the Pre-Exercise was changed in favor of providing assistance rather than requesting assistance. As such, Poland was the only Contracting Party to which the stated objective is applicable. While no new objective was officially formulated, it may be assumed that the new objective of the exercise was to train participants in the procedures of how to *identify and offer* assistance in the case of oil spill or accident with hazardous and noxious substances. The exercise (48 hours) allowed enough time to carry out the national and multinational processes.

It seems that the process for requesting and offering sea resources in the multinational HELCOM context is a well-known. All participating states, and EMSA, offered sea resources. There was, as noted in the previous section on national processes, some confusion whether the Contracting Parties should check the actual availability of their resources or just assume that they were available, as well as confusion whether it was the currently available resources or the resources already designated for the main exercise that should be offered. Furthermore, no contract was signed between Poland and the contractor regarding the EMSA resources. As such, it may be necessary to clarify whether the signing of contracts should be considered part of the ultimate completion of this type of exercise. As will be discussed below, there were also some questions regarding the use of the EU CECIS-MP system. Neither of these issues seem to have affected the multinational process in a serious manner during the exercise, but meant that some aspects were not fully exercised.

If the multinational process is well-known regarding sea resources, there seem to be some confusion regarding the shore resources. Only four Contracting Parties offered shore resources during the Pre-Exercise, and in the first phase of the Pre-Exercise (using email) only one did. There seem to be at least two reasons for this: The first one is that some Contracting Parties actually did not have any adequate resources to offer. The second one, also mentioned in section 3.3.2, is that the lines of communication may not be clear-cut. In the latter case, this could further indicate that roles and mandates for requesting and offering sea resources are well known whereas the roles and mandates for requesting and offering shore resources, in a way that successfully triggers shore offers, is not as well understood. In some countries it is the same organization that handles requests and offers for both sea and shore resources, in others it is different organizations. In this respect, further discussion on the commonalities and singularities regarding how shore resources are managed at national levels may be necessary.

In at least two cases, the request for assistance was not seen as challenging enough to involve the full national process. Instead it could be handled by the sea national PoC. For some countries the request did not focus on resources they had readily available.



E-mail, SafeSeaNet and CECIS-MP

One of the main procedural aspects discussed in the Polish Pre-Exercise Report is the use of different technical systems to implement procedures. As previously mentioned, e-mail (available to all HELCOM parties) was used for all reporting in the first phase of the exercise whereas the European Commission's CECIS-MP and SafeSeaNet (available only to EU member states) was used in the second phase.

The Polish Pre-Exercise report highlights (with some support from interviewees) several aspects of the technical procedures of requesting and offering assistance:

- E-mail is the only inclusive means of communication as Russia is not an EU Member State, but also less structured and more difficult to manage than other channels,
- Phone communication should be used, where necessary, to supplement other communications channels and confirm that messages have been noted,
- CECIS-MP should be the recommended channel of communications as it is relatively easy to use, interoperable with other important systems, e.g. SafeSeaNet and MAR-ICE, although dual means of communication (e-mail and CECIS-MP) are not operationally practical, and
- More effective solutions for geographic mapping and tracing of pollution could facilitate more accurate information sharing and situational awareness.

CleanSeaNet could also have been used for requesting satellite imagery but was not used during the exercise. While this is noted in the Polish Report, it is not explained why the decision was made to not request satellite imagery. One interviewee observed that satellite imagery requests tend to be common in cases of actual pollution events.

MAR-ICE was likewise not used in the exercise as there was no information exchange between MRCC Gdynia and Centre of Documentation, Research and Experimentation (CEDRE), a French research center focusing on pollution at sea. CEDRE is the provider of MAR-ICE for EMSA.

Both the Polish Pre-Exercise report and the interviews highlight possible technical flaws as well as possible user shortcomings regarding the CECIS-MP and SafeSeaNet technical systems. For example:

- At least one Contracting Party experienced potential technical flaws in CECIS-MP such as an inability to acknowledge receipt of messages, and an inability to use the "resource trees", forcing parties to manually message the availability of resources,
- The exportation of logs to Microsoft Office may result in certain information disappearing from the Office version logs, i.e. numbering sequences, and
- Users may find certain classifications for request confusing, e.g. the distinction between *on-site experts* and *technical assistance personnel*,
- There were parties experiencing problems logging in to SafeSeaNet.

Furthermore, some of the interview respondents raised the problem that CECIS-MP and SafeSeaNet are two separate systems. Alarming goes through one system while reporting and information sharing is done in the other. In some Contracting Parties it is not the same organization that is responsible for the two systems.

Technical challenges such as the ones mentioned above are not trivial as they may impact the efficiency when handling a real crisis. In this respect it may be necessary to pursue more detailed insights into the operational strengths and weaknesses of CECIS-MP and similar systems as well as provided opportunities for structured input and learning. There could also be a need for an easy and straightforward reporting structure between HELCOM and the EU for technical issues regarding CECIS-MP.

Further and continuous training in the use of these systems may also be required.

The objectives of training procedures and of testing roles and procedures were largely fulfilled.



3.4.2 Improving roles and procedures

The technical focus of the Pre-Exercise has facilitated discussions on common tools and challenges that impact the efficiency of reporting and requesting, e.g. whether technical design slows reporting procedures or makes certain reporting formats and requests intuitively easier to use than others. The downside has been that organizational procedural aspects have taken a backseat role and not been fully addressed. This also meant that the technical interoperability of HELCOM and EU procedures were discussed, while the improvement of HELCOM procedures were not.

An overarching observation was that it is necessary to clarify what type of reports that warrant responses and from whom. For example, are negative responses necessary? Should Contracting Parties respond to each other's offers as well as requests? These types of queries reflect a necessity to manage the extent of communications and the flows of communications between Contracting Parties, both for administrative purposes as well as a function of procedural efficiency. In this respect, the Polish coordinating party suggests that a stricter messaging order should be established to organize communications and minimize unwanted types of communications such as negative offers.

The objectives of improving roles and procedures were partly fulfilled, in the sense that important issues for improvement were identified.

3.4.3 Discuss sharing of information, collaboration, and how to include the environmental values when combatting oil and chemical spills

This was not discussed during the exercise. However, the first part – sharing of information and collaboration were indirectly included in the discussions on what information to share in the different technical systems.

The objective of discussing sharing of information, collaboration, and how to include the environmental values when combatting oil and chemical spills was to only partly fulfilled during the Pre-Exercise.

3.4.4 Discuss crisis communication

Crisis communication was not discussed during the Pre-Exercise.

The objective of discussing crisis communication was not fulfilled during the Pre-Exercise.

3.4.5 Conclusions and suggestions

From the analysis above, the following conclusions are drawn:

- The HELCOM procedures and processes used for alarming and for requesting and offering assistance at sea are well-known and perceived as straight-forward to use.
- The HELCOM procedures and processes used for alarming and for requesting and offering assistance on the shore are still in a development phase, both regarding who and how to alarm.
- A majority of participants prefer to use SSN/CECIS-MP for alarming and requesting, but recognize the challenge in Russia not having access to these systems.
- The exercise revealed a number of issues regarding SSN and CECIS-MP, both related to technical aspects and possibly to a lack of training/practice.
- There is some lack of clarity in how to use the systems correctly when it comes to issues such as negative responses to requests.
- Crisis communication, information sharing and how to include environmental values need to be discussed separately to fulfill these objectives.

The following suggestions are made:

- Multinational procedures and processes:



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- To carry out an analysis of the processes and procedures, including multinational as well as national roles and responsibilities, for alarming shore resources. This analysis should provide suggestions on how to alarm in an incident involving the shore, in order to make sure that the relevant national authorities are reached.
- To compile and analyze the operational strengths and weaknesses of CECIS-MP and similar systems as a basis for future development.
- To establish a structure between HELCOM and the EU for reporting and discussing technical issues regarding CECIS-MP.
- To have continuous training in the use of SSN/CECIS-MP for the relevant personnel.
- To, if necessary, develop the procedures for requesting and offering resources further, i.a. aspects such as the use of negative replies etc.

3.5 Overall Objectives and Outcomes

Three overarching objectives and outcomes were identified in the DoW:

- To train the HELCOM Contracting Parties in the procedures of how to request assistance in the case of oil spill or accident with hazardous or noxious substances.
- To prepare the Contracting Parties for the main exercise, held in Sweden in August 2018.
- To increase the responsiveness and capability of the participating organizations at sea and on the shore, allowing for more effective handling of spills, including crisis communication to the public and cooperation on the national and international level.

It is noted that the HELCOM Contracting Parties in BD 18 were trained in the procedures of identifying available resources and offering assistance, rather than in procedures of defining needs and requesting assistance. Having this in mind, it is the opinion of the PET that the Contracting Parties found the exercise both helpful and useful.

Furthermore, all ten respondents to the questionnaire agreed or strongly agreed with the statement that the exercise had helped them to prepare for the main exercise and for future alarms and requests.

Questionnaire and interview respondents clearly indicate that the Pre-Exercise alarming is an effective mechanism for maintaining and increasing the responsiveness of Contracting Parties. The fact that respondents have reflected over the efficacy and efficiency of both HELCOM procedures and EU technical systems show that this outcome is taken seriously by the participants. However, there are also opportunities for improvement. For example, despite the annual recurrence of the BALEX DELTA exercise, there are few substantive, measurable data points produced by the exercise to confirm an increase in responsiveness. Through logs and the Polish Pre-Exercise Report, it is possible to map alarming and response timelines for different Contracting Parties, and to determine to what degree offers have matched requests. Pursuing continued reporting of this nature and quality in future BALEX DELTA exercises could lead to interesting conclusions of relative responsiveness over time and how responsiveness is affected by varying degrees of incident complexity. However, it is less clear how the quality of communications can be measured in an objective manner.

It is the conclusion of the PET that the exercise also gave valuable contributions to the cooperation on the national and international level, e.g. by clarifying procedures and pointing out needs for development. However, the issue of crisis communication was not discussed.

The overall objectives and outcomes were fulfilled, although rather than requesting resources the Contracting Parties trained identifying and offering resources.

3.6 Design of future Pre-Exercises

As noted in previous sections, the Contracting Parties generally found the Pre-Exercise useful and realistic. To have an alarm exercise that include not only a communications check, but also the national processes,

helped testing the national systems in more profound manner. It could be considered to include the concept of Pre-Exercise in a future revision of the HELCOM RESPONSE exercise frameworks.

Several respondents underlined the general benefits regularly practicing the procedures, technical systems, lines of communication, etc. during exercises. Furthermore, seven out of ten respondents agreed with the statement that the Pre-Exercise helped to increase their national/internal responsiveness and capability. However, in the interviews few concrete examples of such increased responsiveness were given, apart from upholding functionality through regularly testing the routines. Several respondents stated that their national processes were already well-established and that the exercise had confirmed this.

However, in the previous sections some issues regarding the design of the pre-exercise have been highlighted:

- To further clarify in the exercise instructions exactly what parts of the national processes that are to be tested and how.
- To offer an exercise that would include also the political decision-making level.

The exercise report, compiled by the Polish Maritime Search and Rescue Service, furthermore noted that the scenario regarding hazardous and noxious substances presents a complicated mix of different hazards with different effects and consequences, hence in need of careful design. However, this is an issue more related to the inclusion of aspects regarding hazardous and noxious substances than the exercise design and procedures as such.

By separating the methods for requests into two different phases using e-mail (the traditional HELCOM method) and the SafeSeaNet and CECIS-MP systems respectively, the pros and cons of these different methods could be observed. As is noted in the section on the multinational procedures and methods, a majority of the respondents did prefer using the SSN/CECIS-MP method, while it is recognized that the issue of Russia's participation must be solved and that there are challenges in using two systems (SSN and CECIS-MP). Although separating the exercise into two phases did allow for this comparison, it should be noted that some participants found that the extra effort of having two exercises was somewhat of a burden.

In the BALEX DELTA 2018 Pre-Exercise a number of issues were identified regarding procedures and technical systems (see section 3.4). In some cases, these are areas for development, in other cases they highlight the need for regular training and testing. In both cases this underlines the importance of using the same means of communication in the exercise as would have been used in a real situation in order to make full use of the exercise. This is especially complicated in the case of for instance CECIS-MP where exercises have to use a specific exercise module.

Another important issue is the question of preannouncing the Pre-Exercise. In BALEX DELTA 2018 the week of the exercise was known, but not the exact day and time that it would start. While some respondents underlined that an alarm exercise should be unannounced to be realistic, other respondents found that it affected their ability to participate negatively. If the purpose is to *identify and develop* the national processes and lines of communication, preannouncement may actually be preferred as it allows the participant to prepare their participation to maximize the learning effect. If it is to test the processes (national and multinational), the exercise should not be preannounced to ensure that all participants will use their regular organizations in the event. Whether or not to pre-announce an alarm-exercise therefore depends on the purpose of the exercise.

Finally, it is noted that although the Pre-Exercise was carried out nationally by each Contracting Party, using a common scenario, there were no after action meetings where experiences and suggestions could be discussed. This means that the opportunity to learn from each other, and to compile suggestions for the development of the procedures and systems, was not fully explored.

3.6.1 Conclusions and Suggestions

From the analysis above the following conclusions are drawn:

- The overall design of the BALEX DELTA Pre-Exercise was adequate, and it seem to have served the purpose of testing the national and multinational processes for alarming and requesting



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assistance. To have an alarm exercise that goes beyond the level of a simple communications check seems vital for a functioning crisis management system.

- Although the participants found the exercise useful, there were few examples given of actual increases in responsiveness and capabilities as an effect of the exercise. However, several respondents underlined that the exercise confirmed their capabilities.
- The Contracting Parties interpreted the instructions somewhat differently, and consequently tested their national systems differently. Some did the complete national process, from request to decision on assistance, while others handle the exercise as a somewhat evolved communications check leaving out for instance the highest decision-making levels and/or the step of checking the actual availability of the offered resources.

The following suggestions are made:

- If the purpose of the exercise is to test the national and multinational procedures and systems, the exercise should not be pre-announced. Further, the same procedures, systems and personnel/organization that would be used in a real crisis should be employed in the exercise.
- To further clarify in the exercise invitation what parts of the national processes that are to be tested. This could be done in detail, for instance by stating if the current availability of resources should be checked in the exercise or if it is enough to offer resources thought to be available.
- To offer a specific exercise opportunity to test the full decision-making process, involving the appropriate political levels as well where applicable. However, in the BALEX DELTA context it would in most cases be enough to include the operational level to ensure broad participation.

To arrange an opportunity after the Pre-Exercise to discuss and compare experiences, and to compile suggestions for the development of procedures and technical systems, with the aim to increase the HELCOM responsiveness and capability

Appendix A Evaluation Plan

Evaluation is an important and integral part of BALEX DELTA 2018 and has two main strands: The evaluation of the HELCOM procedures and methods, and the evaluation of the exercise objectives and their fulfillment. The results from the evaluation will help HELCOM and the Contracting Parties to further develop the BALEX DELTA exercise format, including the exercise frameworks in the HELCOM manual, but also to develop the HELCOM procedures and methods regarding co-operation in response to marine pollution.

In this Appendix indicators and means of verification are attached to the aims and objectives identified in the DoW for the Pre-Exercise. The collection of information through interviews and observations will be further structured and clarified through an Interview Protocol and an Observation Protocol based on this analysis.

The overall objectives for the BALEX DELTA 2018 exercise

There are three overall objectives for the BALEX DELTA 2018 that are stated in the EU application:

- To train and improve the response capacity and the mutual understanding of at sea and on the shore actors.
- To increase the responsiveness and capability of the participating organizations at sea and on the shore, allowing for more effective handling of spills, including crisis communication to the public, and cooperation on the national and international level. (from “expected results”).
- To discuss how to handle incidents with regard to frameworks but also to discuss the responsibility and roles of the actors, how the actors can live up to the responsibility and need for cooperation. (from “Exercise phase/Main exercise”).

These objectives will be evaluated through an overall assessment based on all of the results in the evaluation. There are no specific indicators or measurement points associated with them.

The BALEX DELTA Exercise Framework for the pre-ex/alarm-ex and the main ex entails both *immediate aims* that will be achieved directly during the exercise as well as *follow-up aims* that are achieved through analysis and evaluation of the exercises. The immediate aims entail statements of the elements of HELCOM that are tested through the exercise, including the operative understanding and capabilities of the participants themselves. The follow-up aims are stated in terms of improvement of operational understanding, capabilities and frameworks.

The exercise framework further lays out indicators connected to the aims. These indicators are further clarified and refined into means of verification by the partners involved in the evaluation.

The aims and objectives of the pre-ex and the alarm-ex

The DoW indicates a number of different aims and objectives for the pre-exercise and the alarm-exercise:

Aims and objectives for the alarm-ex/pre-ex
Aim 1) To train the participants in the procedures of how to alarm and request assistance in the case of oil spill or accidents with Hazardous or Noxious Substances.
Aim 2) To test the national lines of communication.
Aim 3) To test and improve the roles and procedures for alarming and requesting for national and international resources (from “expected results”).
Aim 4) To identify who is responsible for alarming, identification of resource needs, testing national lines of communication and how these tasks are solved.
Aim 5) The exercise participants on the shore, are able to use HELCOM, EU CIVIL PROTECTION frameworks, procedures and methods in response to a major pollution at sea and on the shore from the request of resources until the resources are disengaged. (from “expected results”).

- Aim 6) The *responsiveness* of participants is *increased* (from “expected results”)**
- Aim 7) Prepare participants for the main exercise, making them familiar with the common scenario and response procedures**
- Aim 8) To assure the alarm and response routines, and to confirm the ability to request and prepare for requesting international resources. (from “Exercise phase/HN Alarm exercise”).**
- Aim 9) Discuss sharing of information, collaboration, and how to include the environmental values when combatting oil and chemical spills.**
- Aim 10) Discuss crisis communication.**
- Aim 11) To highlight commonalities and singularities between participating Contracting Parties. To further increase knowledge about singularities and commonalities a seminar may be arranged presenting experiences from national pre-exercises.**

Verification of aims and objectives for the pre-exercise/alarm-exercise

<p>A1. Training in procedures of alarming and requesting.</p>	<p>Inclusion of training elements regarding alarming and requesting.</p> <p>---</p> <p>Increased ability to use the procedures.</p>	<p>The relevant procedures were included in the pre-exercise and alarm-exercise.</p> <p><i>Verified through analysis of the ex-plan.</i></p> <p>---</p> <p>1. Degree of participation in alarming/requesting assistance.</p> <p><i>Measured from the exercise report (by the Polish Maritime and Rescue Service).</i></p> <p>2. Alarming/requesting routines were followed by all participants.</p> <p><i>Measured from the polish report.</i></p> <p>3. Self-evaluation of increased ability.</p> <p><i>Measured using interviews (“did the exercise increase your ability to use the procedures for requesting/offering assistance and if so, how”) and questionnaires (“the exercise increased our ability to use the procedures for requesting/offering assistance”).</i></p>
<p>A2. To test the national lines of communication.</p>	<p>The national process was included in the exercise.</p> <p>---</p> <p>The national lines of communication were tested.</p>	<p><i>Questions in questionnaires and interviews regarding what parts of the national processes that were included in the exercise. Using the exercise report (by the Polish Maritime and Rescue Service).</i></p> <p>---</p> <p><i>Questions in the interviews and questionnaires regarding how the national lines of communication functioned. Using the exercise report (by the Polish Maritime and Rescue Service)</i></p>
<p>A3. To test and improve the roles and procedures for alarming and</p>	<p><u>TEST</u></p> <p>Inclusion of elements testing relevant roles and procedures.</p>	<p>The relevant procedures were included in the pre-exercise and alarm-exercise.</p>



<p>requesting.</p>	<p>---</p> <p>Participants can clearly formulate measurable expectations on roles and procedures.</p> <p>---</p> <p><u>IMPROVE</u></p> <p>Problems in the current roles and procedures are noted during the exercise (pre-ex, alarm-ex).</p> <p>---</p> <p>Problems identified are analyzed and discussed, improvements suggested and implemented.</p>	<p><i>Verified mainly through analysis of the ex-plan, but also through the interviews (“did the exercise test the relevant roles and procedures”) and the exercise report (by the Polish Maritime and Rescue Service).</i></p> <p>---</p> <p>1. Participants can formulate expectations on relevant roles and procedures.</p> <p><i>Verified and measured through interviews and observations at post-exercise meetings.</i></p> <p>2. Participants can assess whether relevant roles and procedures lived up to their expectations.</p> <p><i>Verified and measured through interviews and observations at post-exercise meetings.</i></p> <p>---</p> <p>Problems are noted in a systematic manner in reports and evaluations.</p> <p><i>Verified through the exercise report (by the Polish Maritime and Rescue Service), the PET evaluation of the pre-ex/alarm-ex and through interviews/questionnaire.</i></p> <p>---</p> <p>Analysis in reports and discussions at AAR- and LI-meetings.</p> <p><i>Verified in the polish analysis of the pre-ex, together with the PET evaluation of the pre-ex and the alarm-ex are relevant, but the most important measurement points are the discussions at the AAR and LI meetings</i></p>
<p>A4. To identify who is responsible for alarming, identification of resource needs, testing national lines of communication and how these tasks are solved.</p>	<p>The exercise includes element where the responsibilities are discussed.</p>	<p><i>Verified through analysis of the exercise plan, and the exercise report (by the Polish Maritime and Rescue Service)</i></p>



<p>A5. Ability to use HELCOM and EU CIVIL PROTECTION frameworks.</p>	<p>Inclusion of training elements regarding alarming and requesting.</p> <p>---</p> <p>Successful use of frameworks, procedures and methods.</p>	<p>The relevant procedures were included in the pre-exercise and alarm-exercise.</p> <p><i>Verified through analysis of the ex-plan. Verified through PET/EET observations.</i></p> <p><i>Verified using the exercise report (by the Polish Maritime and Rescue Service).</i></p> <p>---</p> <p>1. The relevant frameworks, procedures and methods are used by the exercise participants.</p> <p><i>Verified through the exercise report (by the Polish Maritime and Rescue Service).</i></p> <p>2. The exercise participants are able to offer resources in response to the polish request.</p> <p><i>Verified through the exercise report (by the Polish Maritime and Rescue Service).</i></p> <p>3. Observations regarding if procedures/frameworks (chosen procedures) were correctly used, any improvements are especially interesting.</p> <p><i>Verified through EET observations on specific issues/procedures.</i></p> <p>4. Self-evaluation of increased ability.</p> <p><i>Measured through self-evaluation using interviews (“did the exercise increase your ability to use the HELCOM and EU CIVIL PROTECTION frameworks and if so, how” and “were the HELCOM/EU frameworks adequate”) and questionnaires (“the exercise increased our ability to use the HELCOM and EU CIVIL PROTECTION frameworks”).</i></p> <p>If possible comparison with the alarm-ex in August to investigate an increased ability.</p> <p><i>Verified through analyzing the exercisereport from the alarm ex in August.</i></p>
<p>A6. Responsiveness is increased.</p>	<p>Participants react <i>quickly, clearly, positively, and according to routines.</i></p>	<p>1. Response rate.</p> <p>2. Timeliness of response.</p> <p>3. Responses are received and understood.</p> <p>4. Committed resources in responses and the level of parity between requested and offered resources.</p> <p><i>1-4 are measured from the exercise report (by the Polish Maritime and Rescue Service) (time/following routines), interviews (understanding/responsiveness regarding routines) and questionnaire (routines).</i></p>
<p>A7. Prepare</p>	<p>The scenario are well-</p>	<p>1. Self-evaluation of knowledge of</p>



<p>participants for the main exercise, making them familiar with the common scenario and response procedures.</p>	<p>known at the start of the alarm exercise.</p> <p>The response procedures are well-known at the start of the alarm-ex.</p>	<p>procedures and scenario.</p> <p><i>Measured using the questionnaire (“the pre-exercise and alarm-exercise made us familiar with the scenario and response procedures used in the main exercise”) and interviews.</i></p> <p>2. Observation of knowledge.</p> <p><i>Measured through observation of knowledge of scenario and procedures during the main exercise by PET and the EET.</i></p>
<p>A8. To assure the alarm and response routines, and to confirm the ability to request and prepare for requesting international resources.</p>	<p>Alarm and response routines are included in the exercise, and used by the participants.</p> <p>---</p> <p>Participants see routines as functional and show ability to request international resources.</p>	<p>The routines were included.</p> <p><i>Verified through analysis of the exercise plan, interviews and the exercise report (by the Polish Maritime and Rescue Service)</i></p> <p>The routines were used during the exercise and function well.</p> <p><i>Verified through interviews, questionnaire and the exercise report (by the Polish Maritime and Rescue Service).</i></p> <p>---</p> <p><i>Verified through interviews and questionnaires, as well as the exercise report (by the Polish Maritime and Rescue Service).</i></p>
<p>A9. Discuss sharing of information, collaboration, and how to include the environmental values when combatting oil and chemical spills.</p>	<p>Subject discussed at the After Action seminar in November.</p>	<p>Verified through observations</p>
<p>A10. Discuss crisis communication.</p>	<p>Same as above</p>	<p>Same as above</p>
<p>A11. To highlight commonalities and singularities</p>	<p>Same as above</p>	<p>Same as above</p>



Appendix B Interview Protocol

A) Questions regarding the pre-exercise goal fulfillment

- a. How did you use the pre-exercise for testing your national lines of communication and national processes for alarming and identification of resources?
 - i. The whole chain?

Did you know who to contact regarding on the shore resources

- ii. ? How did you contact them and what was the process?
 - iii. Did the exercise allow for working in “real time”? With the “real actors”? Using the “real process”?
 - iv. What did the process result in? An offer of assistance? Was that offer realistic? Given the information?
 - v. How come no shore resources offered?
- b. Did the exercise help you test/improve your national lines of communications and your national processes?
 - i. Can you exemplify such developments/improvements?
 - ii. Was it beneficial that the exercise was in two phases? In what ways were you better prepared during the second phase?
 - c. Would you say that the exercise has helped you in developing your country’s responsiveness and capability regarding alarming and providing assistance?
 - i. Did it help develop further the co-operation nationally? How?
 - ii. Did it help developing further the international co-operation? How?
 - iii. Were crisis communication to the public part of the national discussions? How?

B) Questions regarding the HELCOM and EU procedures

- a. You indicated neither agree/disagree on the functionality of the HELCOM procedures for alarming/requesting. Can you elaborate
- b. Functionality of the EU procedures
- c. We assume that the HELCOM procedures were well-known, but were the EU procedures, for the use of SSN and CECIS-MP also well-known
- d. EU tech systems – SSN/CECIS-MP? – functionality?
- e. Were the HELCOM procedures well-known in your organisation?
 - i. Did you use them? If not, why?
 - ii. Did you find them straight-forward to use? Were there any specific challenges?
 - iii. How could they be developed?
- f. Were the EU procedures well-known in your organisation?
 - i. Did you use them? If not, why?
 - ii. Did you find them straight-forward to use? Were there any specific challenges?
 - iii. How could they be developed?
- g. Were the HELCOM and EU procedures for alarming and requesting/offering assistance compatible with each other? How can their relationship be developed?



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- h. In the end, did your process lead up to an offer of assistance?
 - i. Did any crucial questions remain unanswered (in a way that would not have been acceptable in a real situation)? Could the procedures be developed to avoid this in a real situation?
 - ii. Were important aspects such as customs, financing, etc. covered in a satisfactory manner?

Last, apart from what we have already discussed, is there anything else you would like to add? As overall impression or more detailed information. (general impression of the pre-exercise? In what ways did it (or, did it not) trigger your national process?



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Appendix C Questionnaire

Country

Organisation

National PoC (responsible for answering the questionnaire)

Mail address

Telephone number

2. Background questions

Did your country participate in both part one and part two of the BALEX DELTA 2018 pre-exercise?

- Yes
- No

3.

If No, what part (if any) did you participate in?

4.

Did your country test the complete national process from receiving the alarm and a request for assistance via the identification of available national resources to the reply regarding assistance?

- Yes
- No



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5.

If No, what parts of the process did you test?

6. Offer of assistance

Did your country offer any SEA resources as assistance to Poland in the pre-exercise?

- Yes
 No

If Yes, did you offer the resources that you will participate with in the main exercise, or did you offer the resources that you had available at the time of the pre-exercise? If No, please elaborate on the reasons why.

Did your country offer any SHORE resources to Poland in the pre-exercise?

- Yes
 No

If your answer was No, please elaborate on the reasons why.

7. National lines of communication

	Strongly disagree	Disagree	Neither disagree, nor agree	Agree	Strongly agree
The pre-exercise helped us to test our national lines of communication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please elaborate on your answer, and on any suggestions you may have for how the pre-exercise could be further developed to test the national lines of communication.

What are the most important national lessons learned from the pre-exercise regarding the national lines of communication?



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8. National processes for alarming and identification of resources.

	Strongly disagree	Disagree	Neither disagree, nor agree	Agree	Strongly agree
The pre-exercise helped us to test our national processes for alarming and identification of resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please elaborate on your answer, and on any suggestions you may have for how the pre-exercise could be further developed to test the national processes for alarming and identification of resources.

What are the most important lessons learned from the pre-exercise regarding the national processes for alarming and for identification of resources?

9. National responsiveness and capability.

	Strongly disagree	Disagree	Neither disagree, nor agree	Agree	Strongly agree
The pre-exercise helped us to increase our national responsiveness and capability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please elaborate on your answer, and on any suggestions you may have for how the pre-exercise could be further developed to help increasing the national responsiveness and capability?

What are the most important lessons learned from the pre-exercise regarding national responsiveness and capability?



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10. Roles and procedures for alarming and requesting national and international resources.

	Strongly disagree	Disagree	Neither disagree, nor agree	Agree	Strongly agree
The pre-exercise tested the HELCOM/EU roles/procedures for alarming and requesting national and international resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please elaborate on your answer, and on any suggestions you may have for how the pre-exercise could further test the HELCOM/EU roles and procedures for alarming and requesting national and international resources:

11. Functionality of HELCOM procedures and systems for alarming and requesting assistance (mainly part one of the pre-exercise, using email/telephone for POLREP).

	Strongly disagree	Disagree	Neither disagree, nor agree	Agree	Strongly agree
The HELCOM procedures for alarming and requesting assistance worked well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The HELCOM procedures for alarming and requesting assistance were easy and straightforward to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please elaborate on any comments you may have regarding the functionality of the HELCOM procedures:



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12. Functionality of EU procedures for alarming and requesting assistance (this mainly applies to part two of the pre-exercise, where POLREP were sent using SAFESEANET and CECIS-MP).

	Strongly disagree	Disagree	Neither disagree, nor agree	Agree	Strongly agree
The EU procedures for alarming (POLWARN/POLINF via SAFESEANET and CECIS-MP) worked well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The EU procedures for requesting assistance (POLFAC via CECIS-MP) worked well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The EU procedures for alarming and requesting assistance were easy and straightforward to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The technical systems for alarming and requesting assistance (SAFESEANET/CECIS-MP) were easy and straightforward to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please elaborate on any comments you may have regarding the functionality of the EU procedures and the EU technical systems for alarming and requesting assistance:

13. How the EU and the HELCOM processes for alarming and requesting assistance worked together.

	Strongly disagree	Disagree	Neither disagree, nor agree	Agree	Strongly agree
The HELCOM and EU processes worked well together.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please elaborate on any comments you may have regarding how the HELCOM and EU processes for alarming and requesting assistance worked together:



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14. The effect of the pre-exercise.

	Strongly disagree	Disagree	Neither disagree, nor agree	Agree	Strongly agree
The BALEX DELTA 2018 pre-exercise helped us become better prepared (for BALEX DELTA 2018 main exercise and for future alarms and requests for assistance).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please elaborate on any overall comments you may have regarding the usefulness of a pre-exercise of the kind in BALEX DELTA 2018:
