Lovoy SMS Simplification and Improvement Workshop Proceedings

Proceedings summarizing lectures, case studies and discussions during the NorthStandard and Lovoy Safety Management 2.0 Workshop in Athens September 25-27, 2024.

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The presenters' backgrounds are available at https://lovoy.info/

The Story Behind this Workshop

Since 1989, the ISM Code called for a Safety Management System (SMS) aimed at managing ship safety systematically in response to repeated maritime accidents. SMSs have improved safety in the shipping industry, but they also introduced new challenges.

As one of the largest Protection and Indemnity (P&I) Clubs, NorthStandard insures over 260 million gross tons across various shipping sectors worldwide. With decades of expertise in maritime loss prevention, NorthStandard has traditionally relied on a systems-based approach to safety. This approach has historically proven effective in improving safety. In recent years, its effectiveness seems to have plateaued. The plateau in safety gains shows that traditional methods alone might not be enough to further improve safety standards. Because of this,

NorthStandard is committed to finding and using new strategies to achieve greater safety improvements.

Although human error has always been a risk, it now accounts for up to 80% of all marine losses, making it the biggest safety challenge today. This is because traditional methods have effectively addressed many technical errors, leaving human error as the main issue. To support this, NorthStandard suggests combining the systems-based approach with a focus on the human side of safety. This means paying more attention to preventing and managing human error. To help with this, NorthStandard recommends simplifying SMSs and making them easier to use.

In 2017, NorthStandard partnered with Lovoy to support members in improving safety. Both parties agreed that overly complex SMSs pose challenges but also present opportunities for improvement. A user-friendly SMS is

good for safety and efficiency. It is easier to use onboard, in the office, and during inspections. It also makes it easier to keep SMSs up to date and prepare for inspections.

Safety Management 2.0 Lovoy Workshop

Based on feedback from members and incident records, NorthStandard and Lovoy developed this workshop with 10 specialized lectures:

1. Lessons from aviation safety
2. Using simpler words and plain language
3. Eliminating double talk and filler words
4. Writing in an informal, inclusive style
5. Avoiding passive voice and long sentences
6. Process-oriented procedures
7. Compliance with SIRE 2.0, DryBMS, RightShip, and other guidance standards
8. Risk-based checklists
9. Improving contingency procedures
10. Why some companies succeed with SMS simplification

The agenda arranged topics to correspond with each speaker's session. This proceedings rearranged them to flow logically from familiar concepts to new ideas.


Learning from Aviation's Success with Simplicity

Since the late 1950s, the aviation industry has reduced accident rates by over 100%. Initial safety gains came from technical improvements. However, human error, responsible for up to 80% of accidents, remained a major issue. Focusing on the human element further lowered accident rates to today's low levels. The International Civil Aviation Organization (ICAO) is aviation's version of the International Maritime Organization (IMO). ICAO published standards similar to the ISM Code, and these standards also added excessive complexity.

In the old days, pilots often saw checklists as a nuisance. The checklists were overly complicated, blending trivial

and "killer items". Some experienced pilots even dismissed them as "checklists for dummies". Pilots often read them not because they wanted to, but because they had to. They were more concerned with the cockpit voice recorder. As a result, they read checklists quickly and superficially rather than carefully checking each item. This checklist complacency contributed to accidents like Delta Airlines Flight 1141 in 1988. After several similar accidents, the industry examined checklist complacency. The first checklists in the late 1930s, marked the shift from no checklists to increasingly complex ones. By the late 1990s, these checklists had become so complicated that they interfered with safety, common sense, and good airmanship. This prompted the industry to focus on simplifying procedures and checklists without losing facts. This approach proved to be highly effective. Today, pilots read checklists slowly and carefully—not because they have to, but because they want to. They recognize checklists as valuable tools.

Unnecessarily complicated procedures
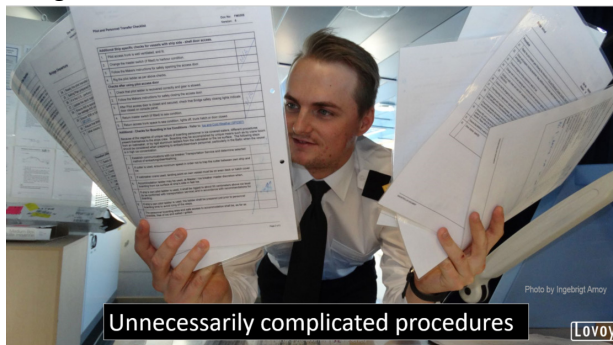
Introduction of SMS Simplification in Shipping

In 2009, Terje Lovoy was one of the first to introduce the concept of SMS simplification to the shipping industry, a revolutionary idea at the time. He went public with this issue through speaking, writing, and working with shipping companies to find solutions. Lovoy has 27 years of experience from aviation. He worked for Boeing and major airlines that had made significant safety improvements through effective procedures.

Lovoy understood that shipping companies could not just copy airline procedures. After extensive testing, his team were able to modify some airline principles to fit the shipping industry. This ultimately led to the Lovoy Method for SMS simplification and improvement. The goal was to make marine systems user-friendly to increase usage and reduce mistakes. 10 years later, most shipping companies recognized that an overly complex SMS is a problem.

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What Makes SMSs Too Complex?

There is usually a link between how well we understand problems we are trying to improve and the results. It is therefore worth spending some time discussing why SMSs often become overly complex. Lovoy's team analyzed 63 SMSs over a decade, many containing about half a million words. A survey of over 1,000 seafarers revealed common issues:

- Difficulty locating information
- Instructions that do not follow workflows
- Spaghetti mixing of explanations and tasks duplicated in too many different places
- Difficult words, too long, and passive sentences

Root Causes Analysis

Many shipping and marine insurance companies engaged Lovoy for root cause analysis of why SMSs become too complicated. Initially, they found that failure to follow procedures was a common issue. Further investigation revealed that many procedures were too complicated to use effectively. Some believed this complexity was intentional to pass inspections. But Lovoy discovered something else: Writers only know how to write complicated text because that is what we learn in school. Digging deeper, it became clear that this complexity was not a deliberate strategy. It was a lack of strategy altogether.

One of the root causes was the absence of writing standards, training, and ways to measure how user-friendly the SMS was. Contrary to common assumptions, Lovoy's research showed that the challenge was not information overload, but rather in how we present the information. Unnecessary complexity stemmed from factors like duplications, contradictions, excessive cross-referencing, and poor SMS structure. To tackle these issues, Lovoy developed text simplification techniques to streamline processes and create more concise text without sacrificing accuracy.

The Power of Simplicity in Compliance

Surprisingly, many believe it is impossible to make a SMS that complies with inspection standards and is user-friendly at the same time. Lovoy followed 23 shipping companies who simplified and improved their SMSs using their own people. They simplified by washing out filler words, double talk, and changing from passive to active sentences. They used the Lovoy Text Washing Method to simplify without removing facts or dumbing

down the text. They replaced overly complex words such as "elucidate" with more commonly used words such as "explain" or "make clear". They continued using maritime terms such as "enclosed space", "forecastle", and other IMO standard marine phrases. You can read more about text washing methods at https://lovoy.info/

Companies that successfully simplified their SMSs received positive feedback from seafarers with around 70% increased perceived usability. Companies performed better in inspections because inspectors could see that the procedures matched real-life practices. In summary, the simplified and improved procedures better complied with the true intentions of regulations and guidance. This led to new industry recommendations for more user-friendly SMSs.


The Dangers of Oversimplification

Contrary to popular belief, the problem with overly complicated SMSs is not an overload of information. Many shipping companies and articles mistakenly focus on this, but Lovoy strongly disagrees. Through their analysis, Lovoy found that the issue is not too much information but rather how SMSs present information. For example, cargo ships need procedures with sufficient details to manage their cargo safely. The challenge is to present this necessary information in a clear, concise manner without losing important facts. Lovoy argues that a well-structured SMS should function as a reference tool, not as a book that we read from start to finish in one go. New users will initially read the entire

system, but most use it to quickly look up specific information. With a logical structure, clear headings, and short, well-organized paragraphs, too much information ceases to be a problem. Like an encyclopedia, a SMS should allow users to find what they need quickly and efficiently.

A good simplification method usually reveals missing crucial information in the old SMS. Effective methods allow word reduction up to 50% and simultaneously include more facts. Contrary to what many think, precise simplification does not dumb down – it can strengthen the SMS. It adds more facts – less becomes more.

Lovoy cautions against the misconception that simplifying a SMS just means removing lots of information. What is perceived as unnecessary information might be essential at some point. When we try to simplify without a method, we often squeeze old problems into a form that is even harder to deal with. Instead of solving root causes, we make the old complexity compressed, stronger and worse. Without proper simplification methods, new SMSs are often shorter but more difficult to use.

The old SMS reflects the company's collective experience. A simplified SMS should improve safety and compliance without oversimplification. Lovoy therefore warns that oversimplifying leads to loss of critical details, ultimately compromising the effectiveness.
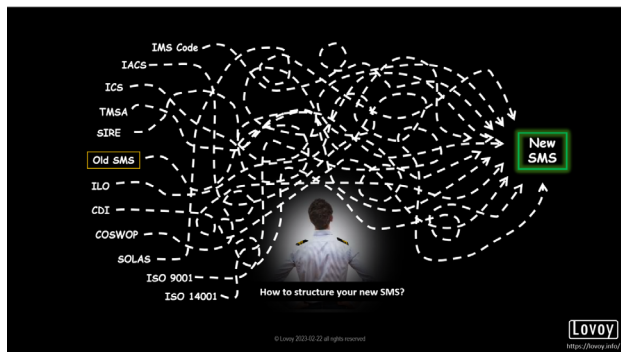
Spaghetti SMS Structure

Lovoy found a bigger problem than overly complex text. They called it spaghetti SMS structure. This results from copying text blocks from codes and guidance without adapting them to real-life workflows. How well we succeed with restructuring is an important success factor. Lovoy estimates that 80% of success comes from restructuring and 20% from text washing.

One cause of spaghetti SMS structure is that many believe we should not mix guidance and mandatory actions. They split these into different sections, which forces seafarers to read multiple sections simultaneously. Too many sections covering the same topic result in excessive cross-referencing.

A better approach is to group related material in one process, following the user's workflow. The text should follow the footsteps of the person doing the job. Some steps are mandatory, and other are guidance. But the most user-friendly way is to keep them together in process-oriented procedures.

We still need to clarify what is guidance and mandatory. The words we use tell the user if a step is mandatory or guidance.

- Shall is mandatory
- Should is a recommendation
- Consider indicates to use judgment and decide

The Big Picture SMS Structure

So far, we have focused on how to structure individual procedures. We discussed ensuring each procedure is clear, concise, and aligned with actual tasks. However, a SMS is made up of many procedures and documents, each serving a specific purpose. The question now is, how do we approach the overall structure of the entire SMS? It is crucial to design a big-picture framework that organizes these elements effectively.

SMSs must comply with many guidance standards, but each standard is different. When referring to standards here, we are talking about documents such as TMSA 3, SIRE 2.0, DryBMS, RightShip, the ISM Code, and similar. Some companies believe that matching the structure of one standard will simplify inspections. While it might seem smart to align with the structure of one standard, this leads to misalignment with the other standards.

Most standards present their information in an academic structure even though they require a process-oriented SMS. This academic organization of themes is highly effective for teaching complex subjects. Standards therefore often adopt a pedagogical building-block approach, starting from the known and progressing to the unknown. Their structures are primarily for companies to draft their SMSs. The table of contents aims to guide SMS designers on **what** to include but not necessarily **how** to organize it. They expand on how to comply with regulations. They give necessary details for

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specific types of operation. The content is crucial for anyone writing a SMS for the standard's topics.

The table of contents of many standards serve as a training course outline for SMS writers to study and understand. They often sort topics based on content rather than following a process-oriented timeline aligned with the workflow patterns onboard ships.

It is crucial to recognize that while the standard's organization is useful for presenting information, it may not be the most practical for structuring real-life operations. Instead, companies should extract relevant content from all standards and create a process-oriented SMS structure that best fits their operational needs.

Lovoy recommends not duplicating any one standard's structure. Instead, organize the SMS to follow the workflow of each job. This is a one-time effort. It makes the SMS easier to use, update, and ensures compliance with all relevant standards.

Effective Compliance Through Real-Life Alignment

To comply with standards, we must carefully extract relevant information and incorporate it into our procedures. You might wonder how to do this effectively. The key is to ensure that written procedures closely match real-life practices. When procedures reflect actual work, they are more effective and easier to follow. This alignment reduces confusion, boosts efficiency, and improves safety. Closing gaps between written procedures and real-life practices strengthen compliance, reduce errors, and build trust.

Well-aligned procedures lead to better outcomes in everyday operations and inspection results. Specific standards like SIRE 2.0 and COSWOP now recommend logical user-centered procedures reflecting actual tasks. ISO 9001 requires process-orientation. Many shipping companies with ISO 9001 approval fail to adapt it to real-life practices. However, it is possible to create a user-friendly, process-oriented SMS meeting all relevant standards.

Text Washing

Text Washing

The ISM Code requires SMSs written in a language that seafarers understand. Most SMSs use English. However, many seafarers come from countries where English is not the first language. Therefore, it is crucial to use a form of English that is clear and understandable for most seafarers. For this reason, guidelines like TMSA 3 and DryBMS call for plain language. Plain language is defined by governments and laws. It involves using simple, everyday words. This ensures that seafarers, regardless of their background, can easier understand procedures. Clear communication prevents misunderstandings and improves safety and compliance.

To achieve this clarity, Lovoy developed a text washing technique. Text washing means to simplify difficult words, passive sentences, long sentences, and remove double talk and filler words. Filler words are words that add little value, such as "completely dead" or "round in shape". The table below has text washing examples:

Before Text Washing	After Washing
Give consideration to	Consider
During the period of	During
On an hourly basis	Hourly
Give the recognition to	Recognize
Because of the fact that	Since
20 words	**5 words**

Common everyday words are easier to understand and quicker to read. As required by the ISM Code, use them as much as possible to make the language understandable. Complex words take more time, even for native speakers. Lovoy published a free online maritime plain language dictionary at https://lovoy.info/dictionary/. It lists simpler alternatives for typical complex words found in older SMSs.

Successful companies measure their results. Lovoy designed Key Performance Indicators (KPIs) to help writers meet targets. Some examples are Percent Passive Sentences (PPS) and Average Words per

Sentence (AWS). Lovoy's cross-reference template helps ensure proper workflow structure in procedures and checklists.
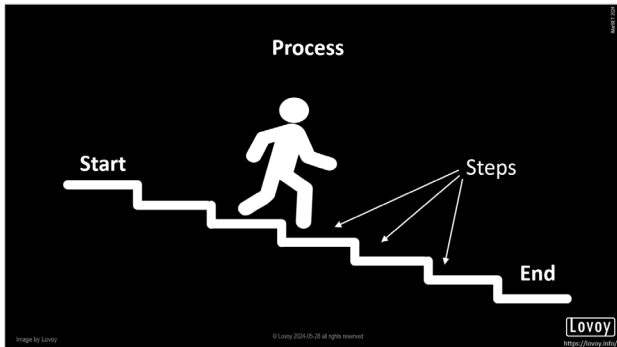
From Prose to Workflows

Prose text uses full sentences with a subject, verb, and object. Prose text are usually in paragraph format and not suitable for processes. This differs from vertical lists, like checklists or step-by-step procedures, which offer clear, actionable process-oriented instructions. Prose text is useful for explaining concepts, such as the hazards of entering an enclosed space. However, it is not suitable for describing the specific actions needed to ensure safe entry. SMSs need a mix of both prose text and step-by-step procedures. But SMSs should balance the mix based on the content. Lovoy found that older SMSs relied too much on prose and lacked clear step-by-step procedures.

Informal Writing Style

Plain language calls for an informal style to connect better with readers. Using informal "you, we, and us style" makes the text more inclusive and helps people feel involved. Some are rightly concerned that this style might make it unclear who is responsible. This is a valid concern. To address this, the Lovoy Team conducted extensive research, testing various approaches to find a solution. They spent significant time analyzing and refining the Lovoy Method, focusing on both clarity and effectiveness. The result is the **Clear Roles Rule**, a pillar in the Lovoy Controlled Language Rules, which elegantly balances informality with precision. This approach ensures that responsibilities are crystal clear while maintaining the you, we, and us style. When used correctly, the Clear Roles Rule gives the clearest option for assigning roles and responsibilities, offering a well-thought-out, research-backed solution that enhances both clarity and connection. The Clear Roles Rule is a fundamental pillar in the Lovoy Method, supporting other rules like those for writing process-oriented step

procedures. This approach shortens procedures, making them easier to follow and more user centered. It ensures better compliance and effectiveness compared to the traditional, bureaucratic stilted style used in older SMSs.

### Understanding Risk-Based Versus Read and Do Checklist

When designing effective checklists, Lovoy recommends distinguishing between a "read and do" approach and a risk-based approach. A read and do checklist expects one person to read each item and immediately perform each action on their own. The read and do checklist guides individuals before their tasks. It typically works as a reminder before each step. Lovoy notes that this method covers basic compliance but fails to unlock a checklist's full safety potential. We must do the action, then check a bit later for the result. Detecting errors before they happen is often impossible.

Advantages of Risk-Based Checklists

In contrast, Lovoy suggests using a risk-based checklist. This approach involves completing all actions first, often by different team members. This matches the practical methods most seafarers use. After completing all items, the team verifies them together in one go. This method adds multiple safety barriers. First, the system is set up correctly before verification. Second, more than one person can verify. To allow several crew members to verify, we must read the checklist aloud in one go. It is a short time-out for safety to ensure we are ready for the next phase. As many crew members as possible involved in the task should listen in. This method encourages active participation and ownership. It ensures every crew member feels their feedback is valuable. Emphasizing **what** is right or wrong with the checklist, rather than **who** is right or wrong, encourages junior crew members to speak up. This is true even if masters make mistakes. This aligns with good bridge resource management by formalizing recommended communication in a predictable and observable way.

The Window of Checklist Opportunity

Although some checklists might involve only one person, high-risk operations always require multiple crew members. Therefore, arguing that multiple crew members are not available is not valid for most shipboard checklists. The time of formally reading checklists as a team must occur at a clearly defined point. The checklist designer must define this point and ensure it happens at the correct time. It must be neither too early nor too late. It must be between the point of possible error occurrence and the point of possible accident occurrence. Lovoy calls this "the window of checklist opportunity".
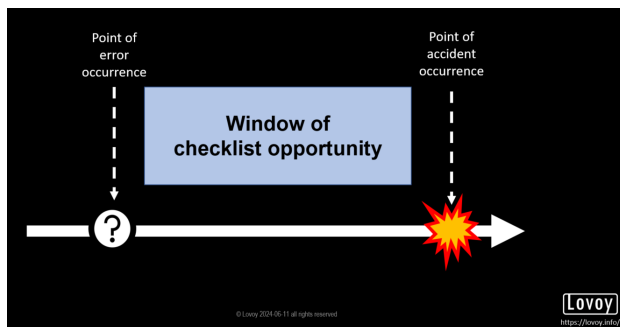
Limitations of Read and Do Checklists

Older SMSs often lack specifics about when to formally complete each checklist. As a result, older checklists rarely fit within relevant windows of checklist opportunities. This reduces their risk management potential. As discussed, we often use the read and do checklist as a basic aid memoir. This type of checklist simply prompts one person on what to do. It compensates for gaps in knowledge by providing step-by-step instructions. However, it does not maximize the checklist's potential to capture errors and reduce risk.

Checklist Complacency

Experienced seafarers usually know routine tasks well. The read and do checklist, requiring constant reference, can feel inefficient and time-consuming. It disrupts workflows, especially with multiple crew members involved. This inefficiency often leads to checklist complacency, with verification rushed and done superficially. Because of this, it is not uncommon for seafarers to bypass read and do checklists entirely. Sometimes crew members may even fill in checklists well in advance or long after completing jobs. This may look compliant but provides minimal safety value. This practice fails to meet the true intent of regulations.

Inspectors might discover this cheating and cause problems during inspections.

Human Error and Risk-Based Checklists

Incident reports often show that crew members had the required knowledge but failed to use it. Human error, not a lack of knowledge, often causes the incidents. Human error accounts for up to 80% of marine losses, even among experienced seafarers. One common human error is an error of omission caused by everyday distractions or interruptions. A risk-based checklist catches these errors more effectively.

Checklist Conclusion

A read and do checklist is mostly for compliance and a crutch for the inexperienced. Some may argue that inexperienced seafarers still need a read and do checklist as an aid memoir. However, a risk-based checklist provides superior protection. We can also use a risk-based checklist as an aid memoir. In contrast, a read and do checklist lacks the safety functions of a risk-based checklist.

As discussed, risk-based checklists offer all the benefits of the read and do method plus additional safety barriers. It reduces the risk of checklist complacency and improves compliance by better utilizing the checklists' safety potential. It all starts in the office. Clear checklists come from clear thinking by the person writing them. If the writer does not understand these concepts, they will most likely only be able to produce a basic read and do checklist. This checklist may not align with the relevant windows of checklist opportunity, resulting in a checklist that is not risk-based. We use a procedural risk assessment to identify windows of checklist opportunity. Procedural risk assessment is beyond the scope of this text but available in other Lovoy resources.

Note: The discussion here applies to normal checklists for routine tasks that we do regularly and know well. We will address contingency procedures and checklists later. We must design them differently due to their infrequent or unusual nature.

Contingency Procedures

In emergency situations on large ships, quick and effective action is crucial to restore failed systems, prevent incidents, or mitigate the consequences of a failure. We will refer to them as contingency for consistency.

Many companies use contingency procedures that are too generic. They think it is the only way to fit an entire fleet. While a one-size-fits-all approach is a good goal, it does not mean that procedures must be overly general. We can make a one-size-fits-all approach with more specific troubleshooting guidance. Unfortunately, this approach often becomes broader than necessary. One root cause seems to be overreliance on industry guidance without customization. Industry guidance serves as a starting point, offering inspiration, but it often becomes the final product.

Both contingency procedures and normal procedures require detailed steps. The key difference lies in the length and content of their checklists. Normal procedures use shorter checklists for routine tasks that users perform often. Users know these tasks well, so checklists only need to cover the most critical items. Detailed procedures back up these brief checklists for training and reference.

Contingency situations are less common. Since users are not as familiar with these scenarios, contingency checklists must have more details to guide users through complex tasks. As a result, contingency checklists become as detailed as their corresponding procedures.

Lovoy suggests combining detailed contingency procedures and equally detailed contingency checklists into one document. Separating them into two documents would lead to unnecessary duplication because both would be equally detailed. Combining them into a single document avoids this redundancy. Industry guidance uses the terms contingency checklists and contingency procedures interchangeably. Both serve the same purpose. We will use the term contingency procedures for consistency. Some companies use tick boxes in their contingency procedures, but this affects only the layout, not the content, sequence, or overall principle of the procedure. When we design them as we describe, they fulfill the same role.

We will discuss how we can improve today's common contingency procedures. The recommendations here come from lessons learned from incidents and P&I club studies.

Creating Effective Contingency Procedures

Contingency procedures typically begin by calling the master to the bridge, done simultaneously with taking immediate actions to restore systems or switch to alternate backup systems. It is crucial that the crew does not delay these immediate steps while waiting for the master, as timing is critical. We prioritize and execute actions to troubleshoot and bring the ship under control, as well as steps to prevent grounding or collisions, as early as possible.

If needed, next in sequence is contingency planning for the remainder of the voyage. After-incident cleanup tasks, such as preserving VDR and ECDIS data, conducting drug and alcohol testing, and contacting the P&I club are less urgent. Lovoy recommends placing these cleanup items in a separate after-incident procedure to avoid distractions during the most critical phase of the emergency. While these administrative tasks may be legally required, such as reporting to U.S. authorities within one hour, we should address them in a follow-up procedure.

Some emergencies, such as man overboard, are clear-cut when it comes to choosing the right contingency procedure. However, accurately diagnosing the problem and selecting the appropriate procedure from several similar options can pose challenges. For example, distinguishing between an ECDIS failure, GNSS problem, or sensor malfunction can complicate the decision-making process. Lovoy advises starting each contingency procedure with a condition statement to aid in managing emergencies effectively. In situations with multiple possible procedures, the condition statement can detail specific symptoms such as frozen screens, unresponsive controls, or warning lights. This helps the crew accurately diagnose the issue and choose the correct contingency procedure.

The ISM Code states that the company should identify potential emergency shipboard situations and establish procedures to respond to them. The International Association of Classification Societies (IACS) gives more details and typically requires these procedures:

- Structural failure/heavy weather damage
- Failure of main propulsion
- Steering gear failure
- Electrical power failure
- Collision
- Grounding/stranding
- Shifting of cargo
- Cargo/oil spillage/jettison
- Flooding
- Fire/explosion
- Abandoning ship
- Man overboard
- Search and rescue operations
- Serious injury
- Piracy/terrorism
- Helicopter rescue operations

Other industry guidelines expand more on this. As an example, RightShip mandates a checklist with clear instructions on managing ECDIS sensor input failures and their impact on safe navigation. In the following text, we will use steering gear failure and sensor input failure as examples to illustrate how to design effective contingency procedures.

Steering Gear Failure Procedure

Many steering gear failure procedures in older SMSs only mention engaging emergency controls, but this is too general. Every vessel has redundant backup systems, which should include at least four specific troubleshooting steps. Each step could quickly restore steering control.


Arguments against including detailed troubleshooting because each ship is unique are not valid. Regulations require redundant systems like mechanical and electrical backup controls on all vessels. These requirements should shape standardized contingency procedures. Effective procedures should include steps like switching to Non-Follow-Up (NFU) mode, alternative steering controls, and power sources. Although some ships have specific instructions on a bridge placard, SMS procedures should not be too generic. This case study from the grounding of the Orsula illustrates this clearly.

Sensor Input Failure Procedure

RightShip require a checklist to deal with sensor input failure of ECDIS. When designing this, we must think like a seafarer. We need to write the procedure from their perspective. Seafarers will not always know which systems have failed, and there will be no clear indication of which procedure to use. They will need to interpret multiple indications to diagnose the problem and decide which procedure to start with.

The indications will vary depending on the type of failure. The symptoms could look like an ECDIS failure, GNSS/GPS problem, or a position sensor failure. Combining all these scenarios into one troubleshooting procedure would be too complex. Therefore, we should have three separate contingency procedures, one for each type of failure.
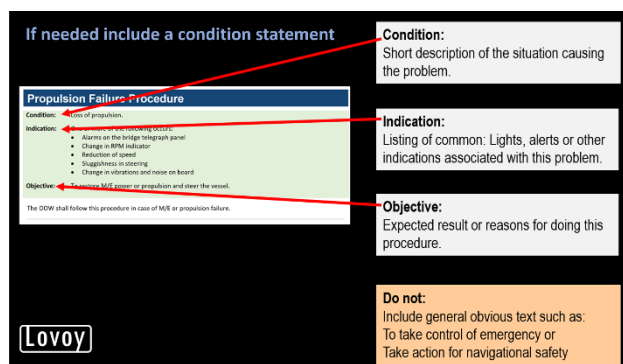
The condition statement will help us choose the right procedure. For example, if we assume there is a GNSS problem, we start with the GNSS failure procedure. If we find a sensor problem during this procedure, it will direct us to switch to the position sensor failure procedure. We then follow the position sensor failure procedure, which may involve selecting another sensor or turning off the failed one. If the issue persists, the position sensor failure procedure may send us to a DR procedure.

Contingency Procedure Conclusions

Rather than using vessel-specific differences as an excuse for overly generic procedures, companies should strive to develop robust, broadly applicable contingency procedures that meet regulatory requirements and enhance overall safety.

Different Terminology from Different Makers

Most shipping companies have equipment from various manufacturers. ECDIS often come from several manufacturers. Each manufacturer may use some different terms. When writing normal and contingency procedures, use maker's manuals and experienced seafarers to find the most common terms used by your seafarers. If necessary, procedures can clarify this. Example:

Note: Some ECDIS manufacturers use the term range instead of scale.

How to Comply with SIRE 2.0, DryBMS and RightShip

New standards for dry bulk and SIRE 2.0 focus closely on the human element in processes and procedures. For example, SIRE 2.0 inspectors will thoroughly examine your SMS procedures. They aim to prevent and mitigate risks effectively. Instead of simple yes/no answers, the assessments will use a graded scale. This scale ranges from "not as expected" to "exceeds expectations".

SIRE 2.0 introduces two key concepts: Subject of Concern (SoCs) and Nature of Concern (NoCs). These concepts set clear criteria for evaluating findings. Inspectors will assess processes and human factors. They will identify and address potential risks more effectively.

The workshop covered all these elements. We shared practical strategies to meet these requirements. The image below shows a typical tablet used by SIRE inspectors to record data. Notice how the electronic SIRE 2.0 inspector's checklist matches the topics we have discussed, such as procedure clarity, procedure understandability, and conflicting procedures.

NorthStandard and Lovoy are pleased to see that the new recommendations align closely with the standards they have supported for many years. It is gratifying to see these important areas now formalized as SIRE 2.0 inspection standards, reflecting the thoughtful direction that NorthStandard and Lovoy promotes.

Other Codes and Standards

Other standards and guidance are moving in the same direction. The 2024 version of COSWOP brings fresh recommendations for procedure ergonomics. Procedures should be clear and concise, with enough detail. They should encourage seafarers to take ownership. Use familiar language that everyone onboard can understand easily.

An IMO expert group is currently reviewing ways to improve the ISM Code. They are committed to making

SMSs more user-friendly and effective. The entire industry's inspection standards, guidance documents, and even the ISM Code are moving in the same direction. This focus on making SMS procedures more user-friendly and centered on human factors aims to reduce the risk of human error and enhance overall safety. This shows that NorthStandard and Lovoy's long-held ideas match the future. It proves that NorthStandard Safety Management 2.0 Program is leading the way on a track closely aligned with the latest inspection standards.

SMS Simplification Project Risks

Simplicity does not happen by itself it must be designed. Good tools are half the job. In this case the tools are the SMS writing method. A primary risk associated with SMS simplification is opting for an unsuitable writing method. This often results in over-simplification. Another risk involves opting for a quick fix by hiring external consultants rather than investing in your own people. Outsourcing to external consultants may seem like a convenient solution, but it is often a temporary fix. Consultants may lack an in-depth understanding of your company's specific needs and operational realities. This can result in a SMS not fitting your actual practices, potentially leading to further complications and inefficiencies.

Investing in your own people for SMS simplification ensures a more tailored approach. Your team, being familiar with the company's day-to-day operations, creates procedures reflecting real-life practices. This approach not only promotes long-term improvements but also builds internal expertise that prevents the recurrence of previous SMS complexities. Involving your people in the process fosters a deeper understanding and ownership of the SMS. This leads to more effective implementation and adherence to the procedures. Internal writers allow for continuing adjustments and improvements, enhancing the system's effectiveness over time.

Choosing to develop internal capabilities rather than external consultants is a longer-term solution. It ensures that the changes made truly reflect your company's needs. It supports continuous improvement and adaptation. This customization is evident to inspectors and clients, providing a competitive edge in the market. Investing in your own team is low risk and usually far outweigh any short-term extra costs. It will reduce costs in the long run.

The Advantages of Using Subject Experts in Writing

Should companies use a writer with good English writing skills but little knowledge of the content, or should they use a subject expert? Lovoy tested both options and found that:

- True simplicity comes from thorough understanding.
- People without a good understanding of a subject often insist on unnecessary complexity.
- Simplification without understanding is difficult.

Based on this, Lovoy decided to test if they could train seafarers and internal staff to write good SMS procedures. Today, most seafarers come from countries where English is not the native language. Lovoy decided to include what language scientists call a controlled language in the Lovoy Method. It is English but with strict rules for grammar, vocabulary, layout, and structure. When used correctly, it reduces complexity without losing facts. It makes it easier for both native and non-native English speakers to write user-friendly procedures.

Global SMS Writer Training for Seafarers and Office Staff

Lovoy also designed an online training program to train seafarers to become SMS writers. They tested it with seafarers and office staff in different parts of the world. With training and practice, most writers produced high-quality procedures. They got good results from non-native English-speaking nations. The controlled language allowed shipping companies to use their own people to reduce large volumes of complicated, inconsistent text to clear, easy-to-use text.

Is Switching to a New Software the Solution?

Some believe that switching to new software for the SMS is a miracle fix for all their previous difficulties. They think that simply transferring old text into a new electronic format will solve the problem. However, the saying "garbage in, garbage out" applies here. If the content is flawed, moving it to a new system will not fix the issues.
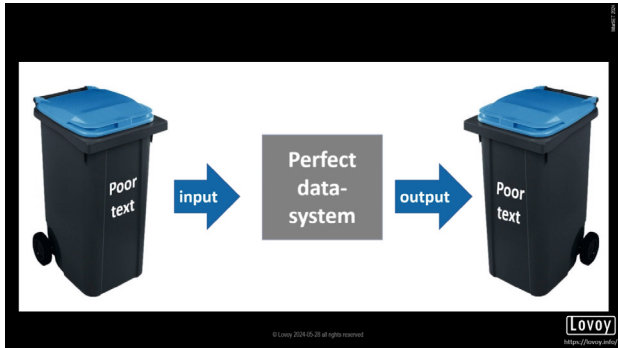
Seafarers often give feedback that it was hard to find information in the old SMS. After moving to new software, finding information became even more challenging. The real solution is to first address the content and then place it into a new system with a process structure matching real-life practices.

One common problem with many new electronic systems is that they have a fixed structure set by the software manufacturer. This can force shipping companies to use a structure not matching their needs. Instead, new software often forces SMSs into a spaghetti, non-process-oriented structure. Shipping companies should first refine their SMS content and create a process-oriented structure before selecting a new electronic system. This approach ensures that the software supports their specific needs rather than forcing them into a structure created by software developers who may not fully understand the practical workflows of seafarers.

The Biggest Challenge

Simplifying a SMS is a strategic move that improves safety and inspection results. Most DPAs and HSEQ managers recognize this, but convincing senior management can be challenging. Owners might assume simplifying the SMS is solely the DPA's job. But it requires tools, training, methods, and time — resources that DPAs often lack. Investing in these areas is a one-time expense that offers long-term benefits.

In successful SMS simplification, one key factor stands out: The DPA was capable of clearly presenting the advantages of inhouse SMS simplification. This ability to make a strong case to senior management is often the most important factor in whether a company succeeds or fails. Many DPAs want to simplify but struggle to convince owners of its importance.

Therefore, DPAs should gather relevant information, examples from other companies, and insights from new guidance and standards. This helps show that continuing with a complex SMS poses more risk than making the proposed changes. Simplifying the SMS is not only a safety issue but also a way to give the company a competitive advantage. Inspection and self-assessment standards increasingly focus on user-friendly SMSs. This makes SMS simplification a priority in many shipping companies. Although it may be challenging and require courage, it is achievable and worthwhile. Building a strong case to fund SMS simplification is a key factor for success. A DPA who can make a convincing case to owners is therefore probably the most important SMS simplification success factor.

Workshop Summary

Simplification requires the right tools and knowledge. While it may seem less urgent compared to technical projects, it is crucial for reducing human error. Human error accounts for up to 80% of marine losses. Simplifying SMSs can save time and money in the long run. Companies that simplify their SMS understand that safety and competitiveness go hand in hand. Successful companies have DPAs who can effectively advocate for SMS improvements—their safety and success depend on it.

References

SMS simplification articles, videos and case studies are available at https://lovoy.info/

For more information about the Lovoy Method, SMS writer training, and project support, contact: Lovoy Training Inc terje@lovoy.info