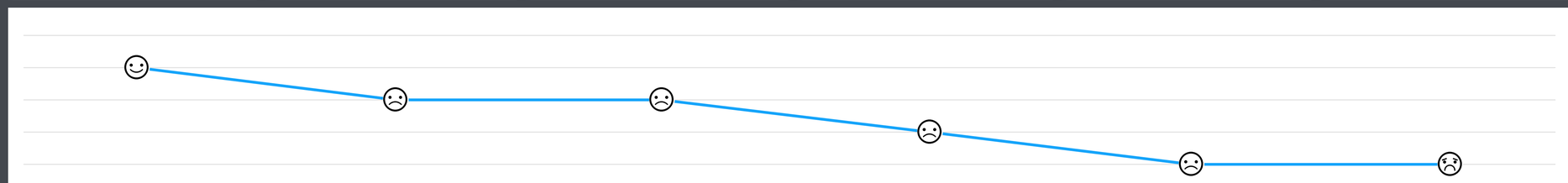
## Mark Thole
## Marine Inspector



Mark Spends most of his time in the depths of massive shipping vessels performing complex and lengthy inspections of bow thrusters, cooling systems, and forward generating rooms, Mark feels an obligation and duty to his country to ensure vessels entering and exiting Canadian water meet our strict safety and security regulations.

| | PRE-INSPECTION | PREPARE FOR INSPECTION SITE | PERFORM THE INSPECTION | GENERATE AND PRINT REPORT | RETRIEVE PHOTOS | CHECK-IN REPORT TO SIRS |
|---|---|---|---|---|---|---|
| User Goals / Scenarios | • Read the pre- inspection report<br>• Gather more information about class, type, and the size of the vessel<br>• Getting all the necessary tools to do the inspection.<br>• Get the forms loaded on the tablet before leaving the office | • Decide which work tools to use to perform the inspection | • Fill out the inspection forms such as:<br>  ◦ Adding deficiencies<br>  ◦ Searching for and adding codes<br>  ◦ Adding document number<br>  ◦ Signing the forms with stylus<br>• Take photos needed during the inspection process | • Print a copy of the report and deficiencies as entered (if using the tablet) | • Retrieve the photos taken with personal phone and Go Pro camera | • Connect to the TC network<br>• Check-in reports before synchronizing<br>• Attach photos as supporting documentation<br>• Synchronize data to upload the report |
| User Thinking | Prepare for all the necessary steps before the inspection | Go to inspection site and carry all the necessary tools and hardware to do the inspection. | Decide whether to complete the inspection using the tablet or paper forms | Connect the tablet to the printer and verify the printed copy of the forms | • Transfer photos to a personal computer then email it to the work email account | Decide how to get all the information (forms and photos) synchronized and saved in one place. |
| Touch Points | • pre-inspection report<br>• checklist, historical data (previous inspections)<br>• Inspection gears<br>• Hardware (tablet and printer)<br>• loading forms on tablet | • Hardware (tablet and printer)<br>• Paper forms<br>• Other inspection gear | • Tablet<br>• Paper forms, notebook<br>• Personal phones, Go Pro camera | • Sign report (paper or tablet)<br>• Print a copy (tablet)<br>• Give a signed copy of the report to the ship captain | • Personal Phone / Camera<br>• Laptop<br>• Email | • Tablet<br>• Photos<br>• Forms<br>• TC Network access |
| Experience |  | | | | | |
| Pain Points / Problems | • Weight of, and number of tools needed is a real pain<br>• Difficult to carry the hardware into tight spots<br>• Difficult to carry the hardware up ladders<br>• Do not carry the hardware into the ballast tanks | • Tablet performance issues (non-touch friendly) and tablet freezes often causing loss of data.<br>• Connectivity issues causing inspectors to use the paper forms<br>• For situations of inspecting around a ship, Inspectors leave the tablet in a safe place and go with their notebook and the paper form. | • Wifi connectivity issues and when it is connected, it is slow.<br>• Do not have full access to the SIRS system<br>• Searching for the deficiency codes in the paper form is faster than the mobile search which makes some of the inspectors rely on the paper copy to look for the codes.<br>• Tablet can't take photos, which forces the inspectors to use other time-consuming methods to get photos<br>• Software usability issues | • Tablet - Printer connectivity issues<br>• Printer is heavy. Inspectors have to buy their own bags to carry everything<br>• Printer/forms design configuration - The Port state application form fields are not sufficient for the data inspectors need to capture which results in having incomplete printed copies. | • Tablet can't take photos which forces the inspectors to use their own devices to take photos and transfer them to a personal computer, then emailing it to their work email before uploading it to the inspection report as supporting documents | • MSIRS only allows inspectors to record deficiencies while inspectors need more. |
| User Quotes | • Carrying all the hardware (Device, printer, cables, etc.. is a pain<br>• Carrying all the hardware (device, printer, cables etc) is a pain. Easier to write manually and then transpose the findings to the system once they are back in the office.<br>• Not able to use the tablet as a replacement to paper-based inspections (large ship inspector). Therefore only uses it for referencing information. Not interested in carrying a tablet, printer, cables, paper etc. | • Over 2+ years of using a tablet, on three separate occasions the tablet will freeze and be unusable without doing a hard reset of the device. This removes all the data that has been downloaded for the inspection. [The inspector always carries paper-based copies of all forms just in case]."<br>• Tablet is not nearly as good as other operating systems (e.g. Android)."<br>• But because the tablet is not connected, we "go paper".<br>• Sometimes have to go in ballast tanks - would NOT want to drop the Tablet or phone into these muddy and dirty places. | • Wifi Connectivity issues especially when getting close to the US border. It connects automatically to US wi-fi signals.<br>• When using an encrypted device (e.g. memory stick), connecting to the ships' computers, connectivity is not guaranteed.<br>• MSIRS does not provide all the information available in SIRS. The device is only being used to record deficiencies, if at all. If the device gave full access to SIRS, then it would be good for inspections. Right now, no.<br>• Software is not user friendly for mobility<br>• Still use the paper version of the codes. (as it regular form B using MSIRS), I can use the search function but it takes time.<br>• Tablets can't take photos, have to use our BBs/personal mobile phone. | • The fields in the current port state form are not large enough for the data we need to capture. On the sheet it may look ok, but when it is printed, the data is not printed correctly. Not all the data shows up.<br>• Printer used is heavy and too much stuff to carry and it is awkward to carry".<br>• When printing fails, we have a paper-based copy that we printed before we left the office. If we cannot print, we manually write the report on the paper-based form. The ship's master will then scan and print a copy for us to keep. The ship's master keeps the original. This is large waste of time and occurs approximately 50% of the time.<br>• The ink dries up when you are not using it enough. Over the winter it dried up and then inspector had to track down the ink cartridges to get it working again. | • I plug the samsung phone into the laptop to get the photos.<br>• Tablets can't take photos, have to use our BBs/personal mobile phones. Have to be at home and email to work, or plug in the device to my work machine. | • MSIRS does not provide all the information available in SIRS. The device is only being used to record deficiencies, if at all. If the device gave full access to SIRS, then it would be good for inspections. Right now, no.<br>• All that is transferred is Form B - For other elements - you have to go into SIRS |
| Suggestions / Ideas | • Provide a special custom bag to carry all the necessary tools.<br>• Provide a greater experience and value using the tablet to have the majority of the inspectors prefer it over the paper forms. | • Provide more stable tablets with an effective operating system that works in sensitive environments.<br>• Provide a rugged tablet case with a handle to protect the tablet from from water and falling considering the environment the inspectors work in | • Provide an efficient and engaging user experience through the tablet to help inspectors do their job on the tablets in less time with no frustrations.<br>• Improve the search functionality.<br>• Most tablets can take photos, it is very useful to provide tablet types that can take photos to have all the information in one place.<br>• If possible, allow the MSRIS to provide more information that are available in the SIRS | • Ensure all forms fields are designed based on the user needs. (port state form)<br>• Resolve printer failure issues as this is a critical efficiency factor to help inspectors avoid duplication of work in case of printer connectivity failures.<br>• Provide light weighted printers with a bag, if they are supposed to carry to inspection site.<br>• Provide a printer cable to connect to the Tablet (useful when the wireless connection issues exist). | • The process of taking photos and retrieving them to attach with the report as supporting documents can be optimized through providing a tablet that has a camera so the inspectors can take photos and email it to their work email directly whenever they have an internet connection.<br>• Another useful idea would be to build a functionality for inspectors to have the capability of inserting the photos directly in the report instead of uploading as supporting documentation which saves the inspectors the steps of uploading and emailing to themselves | • Provide more functionalities into MSIRS with time to do more than just recording deficiencies<br>• Incorporate ALL capabilities in MSIRS for inspectors to complete their inspection reports efficiently from within the application, and remove any additional steps outside of the application. |