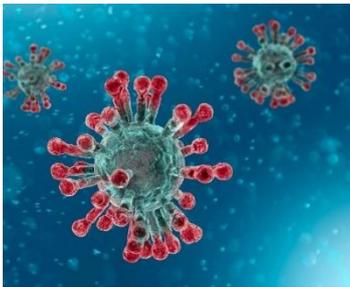


Non-Member Vessel Grounding Incident in Straits of Singapore: *Proactive Pre-Mobilisation by OSRL*

Date: 11th May 2020



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1. Executive Summary

a) Incident Information

Oil Spill Response Limited (OSRL) was notified by a non-member company (herein referred to as ‘the client’) on 11 May 2020, at approximately 1800hrs, of vessel grounding incident in the Straits of Singapore in Batu Waters near Sambu Island, Batam, Riau Islands (refer to **Figure 1**). The grounding incident, which involved an Iran-flagged container ship and an Indonesian-flagged bulk carrier, took place around 0232 WIB (UTC+7) on the same day. The container ship sustained hull damage and reported to be leaking fuel oil. The amount of spilled oil and source of leakage were not known at time of notification.

The client who contacted OSRL was representing the above-mentioned Iranian container ship. At the request of the client, OSRL provided recommendations on response strategy and the corresponding equipment list. A daily estimated cost based on the proposed OSRL resources, including both equipment and personnel were also provided for the client.

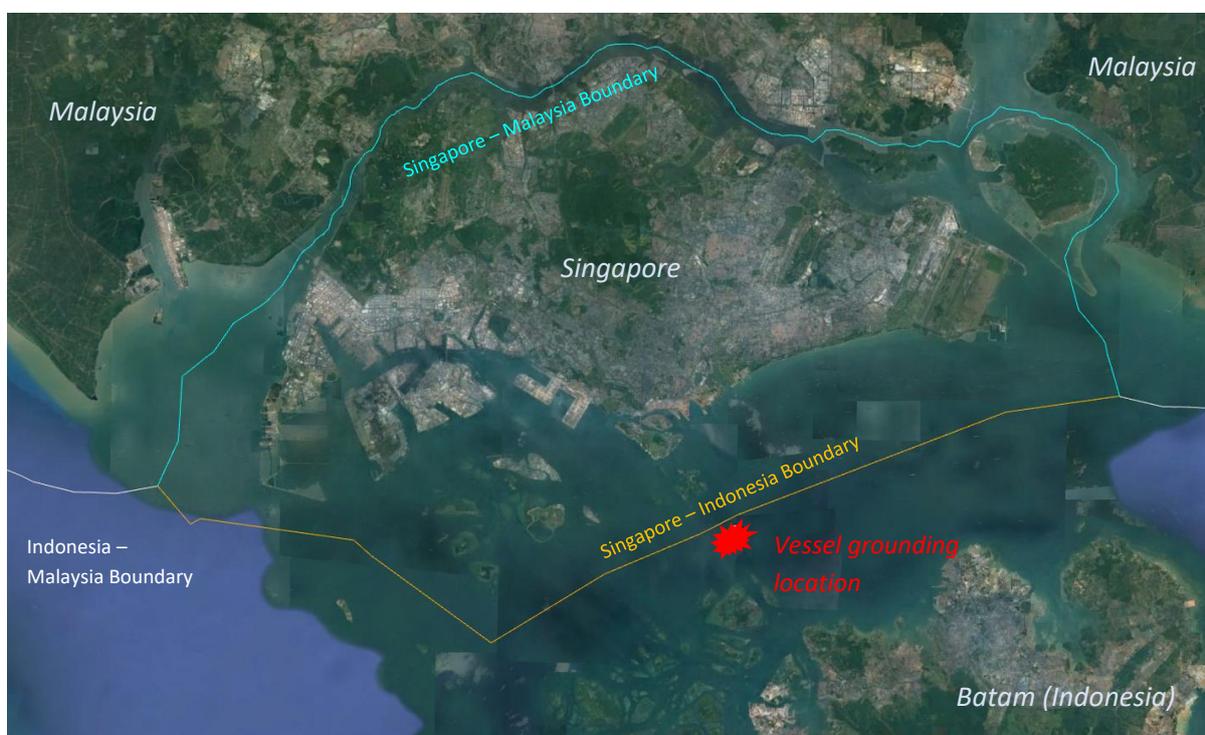


Figure 1: Overview map showing the vessel grounding location in relative to the maritime boundaries.

Source of Maritime Boundaries: Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marineregions.org/>.

It was quickly established in early stage of the incident that there was a very low likelihood for OSRL to be mobilised for the incident. However, consistent with the approach taken for any spill notification, OSRL carried out the normal assessment and pre-mobilisation activities on the basis that even if the incident does not materialise, there are valuable lessons and benefits to be gained.

The nature of this incident and implications of the COVID-19 pandemic enabled the following benefits to be achieved:

- Verify feasibility of seaward response from Singapore to an incident happening in Indonesia Waters.
- Verify internal processes and timescales relating to responding to a third-party incident for a responsible party subject to U.S. sanctions.
- Demonstrate OSRL’s ability to respond via the virtual Emergency Operations Centre (EOC) platform and verify virtual incident management team communication arrangements.
- Identify lessons learned on utilising virtual platform to facilitate duty team interface.

Following submission of the proposal, OSRL attempted follow-up but had no further contact nor escalation from the client.

b) Objectives Specific to EOC Duty Team

The objectives set for the EOC duty team are:

- Provide expected level of response support via virtual EOC platform in the face of the restrictions in place due to COVID-19 pandemic.
- Identify if there is any response challenge specific to the incident in parallel to the existing COVID-19 pandemic.

c) Oil Spill Modelling

Oil spill modelling was performed remotely by the duty team to predict the trajectory and fate of oil as well as to assess the potential for shoreline impact. **Figure 2** depicts the modelled oil trajectory, along with indicated shoreline impact. Due to the close proximity to Singapore – Indonesia maritime boundary, approximately 1.12 nautical miles away, it is expected that the oil will cross over into Singapore Waters and impact the Southern Islands in Singapore within hours.

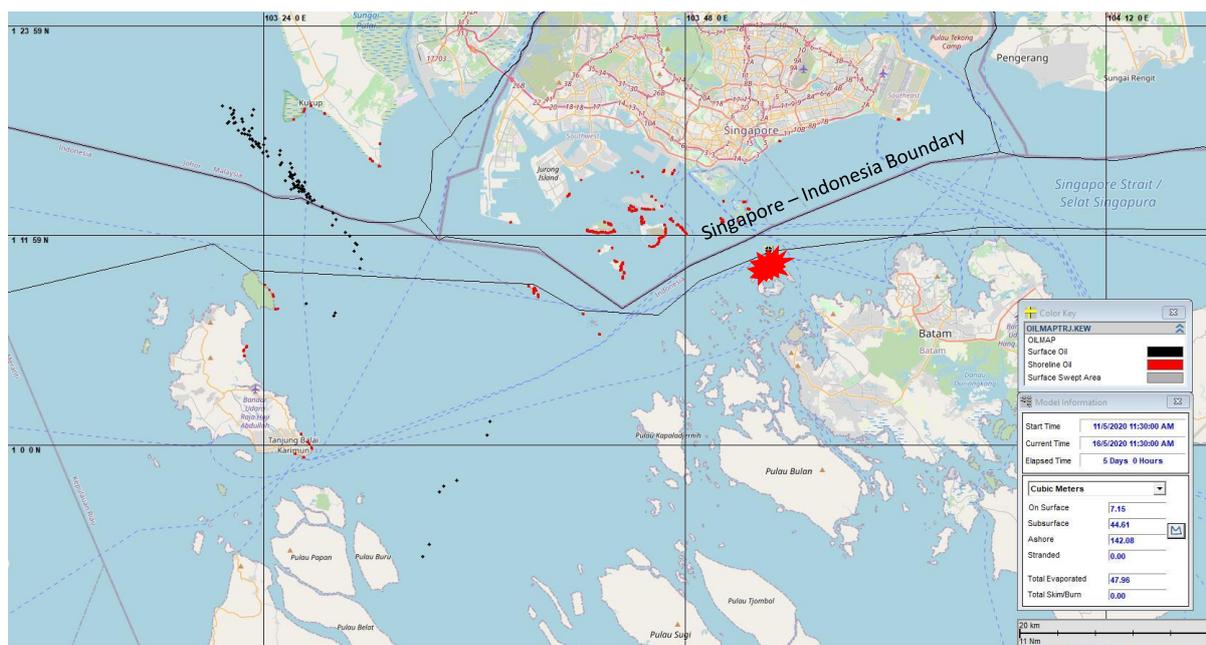


Figure 2: Oil spill modelling result which shows the predicted oil trajectory and the potential shoreline impact.

2. Execution of Virtual EOC

Following notification from the client, a virtual EOC involving duty team was set up via Microsoft Teams (MS Teams) and internal communication related to the incident were managed through the same platform. Two virtual meetings were scheduled every day, i.e. 9am and 1pm Singapore time (UTC+8). The Duty Manager (DM) provided incident briefing and delegated specific tasks to the duty team during the meeting scheduled in the morning. The team will then re-convene in the afternoon to provide updates on the assigned tasks. The duty team members also sought clarification with the DM separately as and when required. **Table 1** shows the key tasks delegated to the duty team on different areas of focus for the incident.

Communication with all external parties, e.g. service supplier and client, were carried out through telephone calls. The outputs produced by the duty team was documented in accordance to the pre-determined structure. The duty team was stood down from this incident after extending their support over a 4-day period.

Table 1: Taskings for the Duty Team.

Area of Focus	Key Tasks
Safety of Personnel	<ul style="list-style-type: none"> • Ascertain applicable safety processes and procedures. • Identify COVID-19 specific measures to be implemented to mitigate risk of infection in between teams. • Determine additional resources required specifics to COVID-19 pandemic in conjunction to standard Personal Protective Equipment (PPE) for the response operations; Assess needs on stockpiles replenishment. • Ensure alignment to the guidelines and advisories issued by authorities.
Modelling & Situational Awareness	<ul style="list-style-type: none"> • Perform oil spill trajectory simulation. • Research for information and monitor progress of incident.
Equipment Mobilisation / Operational Requirements	<ul style="list-style-type: none"> • Identify list of equipment based on the proposed strategy and generate relevant logistics documents. • Specify requirements on vessel of opportunity (VoO). • Shortlist potential VoO and service providers. • Detail the necessary permits and permissions required for OSRL to carry out operations in Indonesia Waters.
Personnel Travel and Mobilisation	<ul style="list-style-type: none"> • Consolidate information on country's restrictions due to COVID-19 pandemic and seek clarification with relevant parties if required. • Identify Indonesia working visa application process. • Evaluate personnel's travel option to respond in Indonesia Waters. • Develop plan for manpower deployment.

3. Major Findings

Summarised in **Table 2** are the major findings, categorised based on various elements of the incident.

Table 2: Major Findings from the Incident

Element	Major Findings
Responsible party - Vessel Owner	<ul style="list-style-type: none"> • The registered owner of the vessel is an Iranian company and is subjected to US sanctions. • OSRL will have to apply US Office of Foreign Assets Control (OFAC) Licence should the client wishes to contract with OSRL. The license application typically takes days for processing and does not guarantee an approval. <i>Implication: Until such license is obtained, OSRL cannot proceed with signing the contract with the client</i>
Safety of personnel – COVID-19 Specific Measures for Offshore Response	<ul style="list-style-type: none"> • The standard risk assessment is to be applied as with any other oil spill response operations. In view of the current COVID-19 pandemic, additional mitigation measures will have to be in place to reduce the risk of infection and this can be guided by COVID-19 Specific Measures for In-field Response. • Split-team arrangement¹ has been adopted in OSRL Singapore base since March 2020, where the workforces are distributed into two work populations, i.e. Team A and Team B. The similar arrangement is to be adopted for the manpower deployment at field, where the deployed personnel will be segregated into different strike teams according to their pre-assigned team arrangement. • References were also made to the official documents (e.g. guidance, health advisory, circular) published by the government authorities, i.e. Maritime & Port Authority of Singapore (MPA), Ministry of Health (MOH) to ensure alignment in the measures that OSRL is taking.
COVID-19 country restrictions (Singapore)	<ul style="list-style-type: none"> • All vessels are to submit the Maritime Declaration of Health along with sets of documents to the National Environment Agency's (Port Health Office) 12 hours before arrival at Port of Singapore. <i>(Extracted from Port Marine Circular No.16 of 2020)</i> • Personnel (Singapore Residents and Long-Term Pass Holders) on board vessel will be issued a 14-day Stay Home Notice (SHN)² upon arrival. <i>(Extracted from Port Marine Circular No.17 of 2020)</i> • In special circumstances, e.g. suspected case, the personnel on board vessel may be issued with 14 days stay on board quarantine. • This applies to all vessels which left Singapore Port Limit into foreign waters and regardless of whether the vessel has or has not disembarked on foreign land.

¹ Split-team arrangement is made as one of the measures to ensure continuity of OSRL to provide services to the Members. Team A and Team B are physically segregated to avoid the risk of infection between teams

² Persons issued a SHN will have to serve a 14-day self-isolation at dedicated Stay-Home Notice (SHN) facilities.

	<ul style="list-style-type: none"> • 14-day SHN starts after they disembark from vessel to Singapore ports or jetties and exemption is unlikely to be granted. <p><i>Implication: If OSRL is mobilised, responders are to stay on board vessel throughout the response instead of commuting daily through Port of Singapore.</i></p>
<p>COVID-19 country restrictions (Indonesia)</p>	<ul style="list-style-type: none"> • Entry and transit for all foreign nationals is barred until further notice with exception for certain groups of personnel. OSRL has yet to explore with the client if special arrangement or exemption for OSRL non-Indonesian responder can be secured from the authorities. • OSRL personnel, be it Indonesian nationals or non-Indonesian nationals, may subject to 14-day self-isolation before joining the response. <p><i>Implication: The current COVID-19 pandemic may heighten the difficulty level for OSRL to obtain working visa for non-Indonesian responder.</i></p>
<p>Logistics – Equipment Mobilisation</p>	<ul style="list-style-type: none"> • Temporary export permit (TEP) will be required even if OSRL equipment will not be offloaded on foreign land. The TEP can be applied for through local freight forwarder. • Two options for loading of equipment onto VoO: <ul style="list-style-type: none"> ○ Option 1: Loading at Loyang Offshore Supply Base (LOSBS)'s jetty (where OSRL Singapore base is located). ○ Option 2: Loading at another yard as designated by the vessel provider/client. • For Option 1, it has been confirmed with TOLL (facility owner for LOSBS) that external vessel can berth at the jetty for loading of equipment and sailing off, so long as vessel crew does not disembark from vessel. • OSRL personnel can board the vessel to do loading of equipment and disembark before vessel sails off.
<p>Logistics – Personnel Travel and Mobilisation</p>	<ul style="list-style-type: none"> • The most efficient route for personnel to access the incident site would be to disembark through Port of Singapore via vessel. • If OSRL personnel were to be mobilised, the first wave of responders would be those that hold Indonesian citizenship. • Working visa will be required for OSRL non-Indonesian responder to perform any work in Indonesia Waters.
<p>Logistics – Vessel of Opportunity</p>	<ul style="list-style-type: none"> • VoO will have to be chartered to carry out the oil spill response operations. • It is possible to engage vessel registered under the flag of either Singapore or Indonesia. However, based on the information gathered from various vessel providers, it is recommended to engage Indonesia-flagged vessel if she is to carry out operations in Indonesia water. • There is limited vessel providers in Singapore with vessels registered under Indonesia flag. The team has yet to explore with Indonesia vessel provider. • For vessel to cross maritime boundary, be it from Singapore Waters to Indonesia Waters or vice versa, clearance/ declaration or license will have to be applied for to the governing authorities.

	<ul style="list-style-type: none"> • Vessel provider will require charterer to appoint a ship agent to advise the requirements on pilotage, entry/exit permits, working permits, immigration etc.
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4. Lessons Learned

a) Learning from Past Experiences

OSRL recognises the ability to glean learnings from experience is key to continuous improvement. As such, lessons learned from past experiences were referred to and incorporated into the planning for this incident. These include the offshore oil spill incident that OSRL responded to in Indonesia in year 2019 and the Member exercises that OSRL participated in recently. In addition, existing COVID-19 resources that OSRL has developed such as Country Plan for both Singapore and Indonesia and Specific Measures for In-Field Response, were also adopted by the duty team. The most significant past learnings that were applied in this incident are illustrated in the table below.

Event / Source	Key Learnings Applied
Offshore oil spill incident in Indonesia (2019)	<ul style="list-style-type: none"> • Working visa application process in Indonesia • Equipment exportation requirement • Early anticipation of rehabilitation cost • Personnel deployment considerations, i.e. nationality, language etc.
Member exercises during COVID-19 pandemic	<ul style="list-style-type: none"> • Use of virtual platform as team's communication tool • Potential issues and obstacles due to COVID-19 pandemic
OSRL existing COVID-19 resources, e.g.: <ul style="list-style-type: none"> • Country Plan • COVID-19 Specific Measures for In-field Response Note: Both resources are available for download in OSRL corporate website (link).	<ul style="list-style-type: none"> • Country restrictions in place and the amended actions from OSRL • Considerations and mitigation measures to reduce risk of COVID-19 infection

b) Lessons Learned from The Incident

Hot wash was conducted to consolidate feedback from the duty team, especially on the utilisation of virtual EOC platform via MS Teams.

I. Virtual EOC Platform

In general, duty team felt positive on the use of virtual EOC platform. Below summarises the feedbacks received from the team:

- The two scheduled daily meetings worked well for the team. The team was able to follow-up and carry out the assigned tasks in between the meetings.
- Some members fed back that it is more conducive and efficient for them to work virtually than to work in physical EOC where occasionally external distractions may present. However, this vary from person to person as it depends on individual's home working environment.
- By utilising only one platform to capture information and all communications, it helps to raise awareness level on the incident progress. It also allows traceability of information and the team is more aware of the tasks delegated to each individual.
- Due to the features and tools in-built with the virtual platform (MS Teams), action items were able to be traced more efficiently and team's connectivity has also improved.

Despite the positive notes on the virtual platform, the team does recognise that there are certain activities that will not be able to achieve by working virtually, for example:

- Perform physical checks on the equipment to validate details
- Setting up multiple screens to aid visualisation of the incident

All in all, the duty team acknowledged that it was a valuable learning experience to be able to test out the virtual EOC platform and the adaptation that was required to make remote support works. Further testing and exercising are highly encouraged for OSRL to continue to evolve the processes and practices utilised by virtual EOC not only during COVID-19 pandemic, but also in the long run.

II. Other Learnings

There are also other notable learnings through this incident, which are:

- Existing COVID-19 resources developed by OSRL helped accelerate the information gathering process. However, this does require validation from time to time due to the dynamic nature of this COVID-19 pandemic.
- Training gaps were observed for some junior members of the team.
- Opportunities for improvement were identified on internal data management process.

Arrangement will be made to close out the identified gaps in the upcoming weeks.

5. Conclusion

To reiterate, OSRL recognised the very low potential of mobilisation during early stage of the incident but proceeded with undertaking proactive actions in view of the current COVID-19 pandemic and the opportunity to test and verify people and processes utilising the specific details provided by the real scenario.

With reference to the objectives set, the conclusions that can be drawn upon from the incident are:

- Being able to reflect on past experiences is crucial to preserve learning within an organisation; it was apparent in this incident where the team was able to identify and adopt the applicable lessons captured from past experiences.
- The duty team was very proactive in carrying out the detailed planning throughout the incident. The details gathered by the duty team enable the understanding on how a response would have evolved, should OSRL's involvement in the incident be escalated.
- The team managed to test and validate response assumptions against a real incident. This includes reaching out to various stakeholders for clarification through the established network.
- The use of MS Teams as virtual EOC platform has proven to be very effective to manage a mobilisation. Its potential for wider utilisation is being explored and accelerated for post-COVID-19 pandemic.