From: Austin, Meredith CAPT
To: Bryant, Christal BM2; Carter, William CDR; Kennedy, John CDR; Schiro, Tabitha LCDR; Devereaux, Marc LCDR; '[redacted]'; McCleary, Stephen CAPT; [redacted] Boivin, Mark BMC
CC: Nash, Roy RADM; Knapp, Nathan CDR; Watson, Elizabeth CDR; Schultz, Richard J. CDR; Christopher Lee at HON x1233
Sent: 2/9/2011 9:20:20 PM
Subject: RE: OSC Report - Operations - Skimming 3.7
Attachments: Skimmers.doc

Good evening,

Attached is the input ICP Houma, including 3 separate Deputy ICs for Operations and I. This document was reviewed by members of the NSF who were on the front lines working with skimmers, and their annotations are in red. The document is still being reviewed by others and if I get any add'l input I will forward it. I was unable to get phone numbers for the folks listed at the end of the document. They are not in the CG but have intimate knowledge of how these assets were used.

r/

M. Austin

-----Original Message-----
From: Bryant, Christal BM2
Sent: Friday, January 21, 2011 1:38 PM
To: Austin, Meredith CAPT; Carter, William CDR; Kennedy, John CDR; Schiro, Tabitha LCDR; Devereaux, Marc LCDR; [redacted] McCleary, Stephen CAPT; [redacted]; Boivin, Mark BMC
Cc: Nash, Roy RADM; Watson, Elizabeth CDR
Subject: OSC Report - Operations - Skimming 3.7

Good afternoon,

As a follow-up to our I would like to thank you all for taking time out of your busy day to attend the call and contribute to the report.

As a recap we should be receiving a general outline from Commander Kennedy today to help the team assign areas of focus to begin drafting the section input.
I have copied Chief Boivin on this message and will attempt to locate a home point of contact in case he has demobilized from the response unless a team member has his contact information on hand.
I will set up a second section meeting for Tuesday February 1st at 1400 Eastern Time to review the current status and any input the Report Team has received.

We look forward to any input the team will be able to provide. Please do not hesitate to post information to Homeport or send it to the report team for distribution. If you have any contributions or general input please ensure you include all team members to help keep the duplication of effort to a minimum.

Thank you all again for your time and contributions.

Respectfully,
BM2 Christal Bryant
Deepwater Horizon
On-Scene Coordinator (OSC) Report Team
Coast Guard Headquarters, Room 6109
[redacted]
christal.d.bryant@uscg.mil

Input for Skimmers:

Introduction:

This input is from the vantage point of the Ops Section leadership at ICP Houma. It does not address 225 SORS issues in particular, but there will be some discussion on C2 of skimming assets.

1. Initial strategy is key to understanding the evolution of skimmer operations. Biggest most capable skimmers (purpose built) were there first and went to work near the source. As MSRC and NRC were fully engaged on the response their post OPA skimmers did what they were designed to do. They performed nearly as designed although when designed they were never expected to operate at this rate or for this duration. MSRC and NRC learned plenty and improved performance as the response continued.

2. CG VOSSs worked, but not well. We had numerous systems but we quickly exceeded trained personnel to keep these operational. These systems were not nearly as effective as the purpose built systems and were lumped together in "federal assets". So we had source skimming (major OSRVs) and VOSSs as the two skimming groups. There was great friction between the two groups especially at first as the purpose built fleet looked upon the VOSS fleet as amateurs. The VOSS fleet struggled throughout the response.

   DISCUSSION: The vessels on which the VOSS system was staged on, was manned by USCG personnel; and at times with a crew of contractors. Once these crews were trained in the operation of the VOSS system; (which only took a couple of days), USCG personnel were just an assist. So to say that there were not enough trained individuals to keep them operating, in my opinion is false. I would be interested in seeing the figures of volume that was skimmed via VOSS, compared to that of the OSRV's. The issues that the VOSS fleet ran into: the setting up of the vessels with the necessary gear; the offloading (pure) product, after decanting the tanks; and at times, locating product to skim. As far as the VOSS Fleet struggling; who didn't? The VOSS fleet adapted and overcame.

   The VOSS system was intended to be set-up and respond quickly due to the ability to fly or drive the equipment to an area and use it on the available fleet. The majority of the OSRVs needed to get u/w and can take days to get o/s especially in remote locations like the Pacific Coast.

3. As special assets came on line such as the HOSS barge they were placed in service at the source, and for the most part worked well.

4. Different skimmers worked dependent upon encounter rates, weathering of the oil, oil/water interface layer thickness. Brush skimmers worked well, weir skimmers not so well, drum skimmers not so well, vacuum skimmers in the marshes were invaluable (less SWBRs [and minus the LANGs concept], which did not work for this application.

Most; if not all the VOSS vessels, used WEIR skimmers. As mentioned above, the figures of volume skimmed via WIER compared to other devices, would be interesting too view. The dominant factors in not being able to skim more oil via the WEIR, would rest on the limited size of the TSD's onboard the vessels and the fact that these vessels were predominately out in the middle of the Gulf having to conduct search patterns to find the product.

5. Hundreds of skimmers were on-scene with factories around the world upping their throughput (Like Lamor in Finland). There were ample numbers of skimmers, but it did take time for them to arrive on scene and be employed. Many times, we were criticized because there were skimmers sitting in staging and that was because most of the persons criticizing the response did not account that a skimmer is just one part of a system that includes a prime mover (engine/motor), hoses and a collection tank, vessel, so systems had to be built AND as earlier stated, not every skimmer was effective at recovering this type of oil. To look at the raw numbers and not account for these facts, one would draw conclusions without understanding the confounders.

6. Foreign assets: Skimmer systems are just that, "systems". In order to placate groups in this country, intact foreign skimming systems were instead cannibalized, removing skimming equipment from the integrated power, storage systems from whence they came. As a result, time was lost taking the equipment off the foreign vessel, shipping it here, then trying to reconfigure US vessels to make the skimmer work. Precious time was lost. I fully understand Jones Act and "buy American" concerns, but in an emergency, the exceptions that exist to get the equipment in an expeditious manner should be allowed.

7. C2 of near shore skimmers, incl aviation coordination

   - See VOO discussion. Those near shore skimmers controlled directly by Ops in Houma were easier to account for and task and moved as a unit. Parish VOOs often exercised independent action, including failing to report to work, or heading out, but rafting up and failing to skim.

   This was validated during the October DEMOB processes when several of the Parish VOO vessels were discovered in owners yards, on broken trailers, no engines, and clearly not seaworthy.

   - In-shore skimmers controlled by the Parish Branches were managed by the Ops under each Branch and were well coordinated to go after oil where it had collected in the bays and marshes.

   -225s. While there is regular training w/ their crews on setting up the SORSs and turning on the skimmers, there has not been any drills exercising the C2 relationship between the 225s (used to JOPES) and their operational commanders (used to NIMS ICS, especially when working w/ interagency partners). As a result, there were several issues that came up due to a lack of understanding on both sides as to how each other does business. NIMS ICS is what HSPD-5, NRF and NCP tells us to use. In the future, each 225 should

have an LNO fm the ICP embarked to enable that asset to interface w/ the established Incident Command to get what it needs—be it task direction, or spare parts. When an incident organization is set up, it needs to be used, otherwise they will be competing for resources w/ other elements of the response. That said, it's also paramount that a 225 LNO be embedded in the ICP to be able to explain the vsl's capabilities, characteristics and other issues.

8. How the determination was made as to whether to skim, burn or disperse:

   - Much of this determined itself. Outside of setting some key operational and safety parameters for burns (downwind of any other vessels, NLT 3nm from shore, etc) in order to in-situ burn, environmental and sea conditions needed to be such that there was a proper thickness of oil to burn and be free of other obstructions. The area was surveyed for the presence of any marine mammals and then was lighted.

   - Same for dispersant. Only areas of accumulated oil that proved to be of sufficient size and thickness were considered. Watching the trajectory of the oil and ensuring that it had eluded skimming were also deciding factors.

   - The first choice was always to skim (mechanical recovery), but the fact of the matter was that the voluminous flow of oil exceeded the ability to skim all of it near source. At that point, it was time to decide if there were suitable pockets for burning or skimming.

   The disperant and fire groups did overlap on several occasions and we did disperse the burn fleet on at least one occasion. Early on, it was a constant battle that was waged between these two groups as many times they were fighting over the same oil. The ICP Ops Section solved this by making the command groups of each sit next to each other and a starndard grid system was employed to ensure everyone was talking on the same page.

   At the end of each day the burn group would take their days and pick the grids they wanted to burn. The dispersant group did the same. The Deputy IC for Ops broke any ties on grids.

9. Waste/pump off issues

   - Ability to decant back into containment. This is something that can be agreed to by the Unified Command, but which was unilaterally disapproved by the state at one point. This reduced skimmer efficiency to 10%, as oily water (90% water to 10% oil) had to be taken for disposal. Once we at the ICP got wind of this, we were able to intervene w/ the state to resume decanting (which enables the vac skimmer units and trucks to let the oily water settle, pump the water back into containment, and drive to disposal w/ 90% oil/10% water). These types of decisions must be documented early on in an incident so that if this situation were to arise again in the future, we can point to the document and get it resolved quickly.

-Pumping systems were a challenge and am not sure we ever really found the magic bullet. Supsalv, NRC, MSRC, and possibly some strike teamers would best address this issue.

Removing product from the TSDs onboard the VOSS vessels, was a huge problem. Those vessels that decanted their TSD's to pure product; were more times than not, unable to empty their TSDs. Rather than wasting time trying, they would empty the TSDs that had not been decanted and set off again in search of product to skim with half of the TSDs onboard already filled.

10. Oil to be skimmed was available in really only two places: near source, say 20 miles around the source, which was 44 nm from land…and then once it collected in the marshes after moving ashore and stacking up in places like Bay Jimmy in the back of Barataria Bay, or created tar balls on the beach after mixing with sediment. There wasn't a steady layer of black oil from the source to the bays, as I think some would picture in their minds eye image.

11. Also, the light nature of this LA crude, the hot, sunny, biologically rich environment, the evaporation rate of the oil, and the fact that with the violent plume of oil people saw on the subsurface camera was much methane and subterranean gasses escaping the well-head should be addressed because if we do not explain the science of "where the oil went", the general populace will be led to believe that we don't know and that we are covering for BP, which is total fallacy. There is science to this and it needs to be explained in layman's terms for the uninitiated.

12. More info on specific skimming assets (in no particular order):

    a. Dutch skimmer arms

-Effective, but largely needed calm water or else skimmer efficiency dropped off. They worked in heavy oil and moderate seas but their swath width was very small.

-Large capacity: 4 skimmer arms, placed on tankers has 36,500 bbls/day/each

-Using the bigger vessel platforms was essential as the arms had to be craned in and out so they could be serviced.

-Dutch offered early on, but these were held up for two months due to perceived Jones Act issues…caused great criticism of Administration and DWH Response Management

Recommendation: better inventory of worldwide response assets needs to be created, along w/ what is needed to get equipment into the US. In addition, determining what "associated" equipment is required needs to be spelled out in the planning document so

we're not faced w/ trying to figure out if we've got the necessary equipment to deploy the assets (e.g. large enough cranes, oversize truck permitting/escorts, etc)

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b. Big Gulps

-Very effective and once again proved that "necessity is the mother of all invention" and American ingenuity. Immediately became a resource in high demand. It was essentially a barge that was configured to transport oily water into it, and separate out the oil. Worked extremely well on this particular type of weathered, "clumpy" oil.

-Very efficient, great design. Success of initial Big Gulp spawned rapid building of add'l Big Gulps and Little Gulps

-Unintentional harvest of marine mammals (turtles) was a concern due to inherent design of system, so as a result, turtle observers were posted to prevent/minimize this.

-Offloading of the Big Gulp initially posed a challenge, but was overcome. I think this was due to the viscosity of the recovered product as it weathered, as well as, a fitting port to do the work. If memory serves me correctly, at one point we had to bring it from up around Biloxi/Gulfport area to Port Furchon for offload.

c. VOOs (this only covers VOOs operating in LA AOR; you'll need to speak to someone in Mobile for how their VOOs worked)

- A very mixed bag

- BP had given each parish $1M to contract their local watermen as VOOs, very early on in the response. Later, BP contracted VOOs directly. Accountability for the Parish contracted VOOs was a continual challenge, while the BP contracted VOOs were organized into Divisions and were centrally accounted for by the Response organization.

-Although all VOOs were thought of by observers outside of the organization as BP VOOS, the Incident organization did not have full visibility on how many vsls were involved w/ the "parish navies", what training they had, what safety equipment, and frankly what they did. This didn't matter-as far as the public was concerned, there was one overarching VOO program that controlled all VOOs, so that when a problem surfaced (i.e. safety mishap), the incident organization was to blame despite their lack of authority over these resources (which were controlled by the parish presidents). Bottom line, should VOOs be used in the future, they need to be brought into the organization at the beginning to ensure they all receive required inspections, training, safety equipment and oversight.

-VOOs contracted directly by BP were used for several different missions including but not limited to boom deployment, in situ burn program, transport, but the only one to be discussed here is as members of skimming Task Forces.

--Five VOOs made up a Strike Team, and 5 Strike Teams, plus a safety boat, skimmer support boats and a Command and Control vessel made up each Task Force. The Task Forces were deployed in the near shore environment. The C2 of these vessels worked very well, with air support leading the TFs into areas of high concentration when appropriate. The LA Task Forces did not have the same C2 problems encountered by the Mobile AOR.

--Initially, there were not enough skimmers to mount on VOOs or to train operators. VOO design, thus, took several forms. A couple of the most popular:

--Fishing vessels with outriggers rigged with hard boom, with sorbent boom lining the inside of the hard boom. These "skimmers" had to travel at a very slow speed (clutch or less) to allow the oil to adsorb/adhere to the sorbent. Efficiency was complicated by prop wash…not very effective at all, but was a way to employ local watermen and attempt to do some good with the resources available…and that is good when we had to use what we had and protect a lifestyle and the population's ability to earn a living.

--Fishing vessels with side-mounted Lamor/Slickbar brush skimmers. Much more effective, but took time to build. To build an effective skimming asset, the skimmer had to first arrive at the central warehouse, and then be trucked to the location where it would be mounted on a vessel. The mount would then need to be fabricated and the operators trained, and lastly put in the oil.

d. SWBR barges

-Shallow Water Barge Recovery System (SWBRs) should have never have been built. Their use stemmed from one event: The LA National Guard had been ordered to act by the Governor, and in so doing, they had taken two sections of floating bridge and placed a vacuum unit on it and then rigged this vacuum to a 3-4" piece of PVC pipe that would "vacuum the oil off the water". The Governor came to Barataria Bay/Grand Isle and during a visit to the LANG's impromptu creation…which was effective due to its ability to get into shallow water…stated "we should get more of these". While the use of a PVC pipe to suck up the oil was incredibly inefficient (which is why we use skimmer heads to concentrate the oil going up the vac hose), using the sections of floating bridge had real potential because it could get into very shallow areas. Unfortunately, that's not what was replicated. Disaster Response Corporation (DRC) had been contracted by Plaquemines Parish and somehow they quickly went to work building vacuum systems they described as SWBRs, but that were actually too deep drafted to be effective in the Barataria Bay environment and too unseaworthy to be used offshore, where they would have largely been ineffective anyway, due to sea state. In essence, DRC used deck barges and placed vacuum trucks on board them and then intended for these to be pushed around by tugs. The shallow environ of the Bay would not play host to the draft of the barges nor the tugs and so the SWBRs began being paid for, but collected, in total, less than a few thousand gallons of oil during the entire response, and the oil they did collect was the result of

being used as an offload platform for the smaller, shallow water vacuum units, such as MSRC's mentioned above, that could get into the shallow water environment and back bays. On more than one occasion, the SWBRs sat in the middle of the Bay, grounded, or without a crew.

- Bottom line: SWBRs, along with A-WHALE, were wastes of time, energy, and money in this response. They should have never been allowed to be created or operate. Governor Jindal should have been made aware that he was sold a concept that was already in place with the MSRC shallow water vacuum units.

e. A-WHALE: was not the right tool for this type of oil or sea state. For a full report, pls consult Mark Van Haverbeke of the RDC who worked this issue.

f. The Busters—Ocean Buster, Current Buster and Harbor Buster worked as designed but worked better in the near shore and inland realm then the offshore environment. Small swath width but design worked, and enabled skimming in much greater current velocities than skimmers alone.

13. –Beach Cleaners- Not sure if beach cleaners will be a separate chapter, but if not, they should be discussed with skimmers…some were mechanical, others chemical and the approval process for the hot water and chemical sand cleaner in Grand Isle is worth noting. CDR Randal Ogrydziak would be a good POC or be able to point to one.

14. Other people we think can add to this report who are not CG mbrs:

-Mark Ploen(Meredith Management Group): subcontracted to O'Briens I think (he's out of Minnesota)-unable to find a phone number/email thru Google

-Frank Paskewich-Clean Gulf

-Jon Sarubbi-independent contractor, was a sub to O'Briens