

Party Comments requested by: MARCH 29, 2019

NTSB *USS John S McCain/Alnic MC* Draft Reconstruction Study Technical Review Party Comments

Page/Line	PARTY COMMENTS	NTSB – Disposition of Party Comments
general	<p>Preliminarily, Energetic Tank Inc. (“Owner”) notes that it was only provided a draft of the Collision Reconstruction Study on Monday, March 25, 2019 and was asked to provide its comments by Friday, March 29. This was too short a period in which to conduct any detailed analysis of the calculations and methodology used to prepare the report. Accordingly, Owner’s comments below are strictly qualitative in nature. Additionally, we note that the report refers to certain “.gif” files that are incorporated in the report; however, we were not provided a copy of those files.</p>	<p>NTSB will provide the “.gif” files upon receipt of the executed “Certification of Party Representative” form from Owner’s newly appointed party representative.</p>
p.3	<p>For the sake of clarity, please note that the M/T MEXICO, for which vessel the Results of Sea Trial were provided, was not a sister ship of the ALNIC MC but was, in fact, her original name (IMO No. 9396725).</p>	<p>AGREE. Study language will be changed consistent with this comment.</p>
p.3	<p>We note that the Results of Sea Trial, at p. 10/26, indicates that the crash astern test was performed in 38.8 knots of wind on the bow and in swells of 4.0 meters. At the time of the collision, however, Owner understands the wind was only about 8 knots with calm seas. This suggests that the ALNIC MC would have taken longer to decelerate at the time of the collision than indicated in the sea trial results. An indication of the effect of the wind and sea conditions can be seen by comparing the actual sea trial results (time to stop = 8'47", distance to stop = 2,508m) with the data on the wheelhouse poster for the loaded condition (time to stop = 12'06", distance to stop = 2,962m), which Owner understands includes an adjustment for the assumption of calm conditions.</p>	<p>OWNER’S understanding is correct. Study language will be revised consistent with OWNER’s comment.</p>
p.3	<p>As Owner understands, in either the crash stop or crash astern scenario, once the command to stop the engine is activated on the bridge, the engine's automation system will initially shut down the fuel injection to all cylinders. It takes a number of seconds for the automation system to</p>	<p>Study language will be revised consistent with OWNER’s observation in this comment</p>

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	<p>stop fuel being injected into the cylinders and for the rotational inertia of the engine, shaft and propeller to stop propelling the vessel. The engine will then continue to rotate, driven by the propeller "windmilling" due to the water flow over the blades, until the shaft speed has reduced to about 25 to 30% of full ahead. At this speed the engine can then be stopped and started in the reverse direction using starting air in the crash astern test. The effect of this process (<i>i.e.</i>, fuel injection stop and rotational inertia to cease) on ship speed is demonstrated on the table on p. 13/26 of the Sea Trial results, where it can be seen that the vessel does not decelerate at all for the first 20 seconds or so. This effect is less visible on the crash astern table on p. 11/26; however, we note that the scale of that table is smaller which appears to deemphasize this effect. The result, however, should be the same in either case.</p>	
<p>p.3</p>	<p>We note that the NTSB analysis uses the tables at pp. 11/26 and 13/26 of the Sea Trial results to interpolate the ALNIC MC's deceleration from her assumed speed of 10 knots over the first few minutes after an order is made. Given the point made immediately above, however, Owner submits that any such analysis must still account for the time that it takes for the fuel supply to be cut and for the engine to stop providing additional thrust. This would indicate that the vessel's deceleration would be less in the first minute than assumed in the report.</p>	<p>Study language will be revised consistent with OWNER's observation in this comment</p>

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