Tom Lakosh

From: alan@spiltec.com
Sent: Wednesday, August 29, 2007 3:16 PM
To: Tom Lakosh
Subject: RE: All Purpose OSRV

Thanks Tom,

Yes, your idea just might work. It really does need to be tested full scale, and therein lies the problem. As indicated, I'll keep the ideas in mind and see if I can help identify interest/$ to help develop the ideas.

Take care,

Al

> Al;
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> The drives would tilt forward to suck up water from below the tunnel, thus
> thrusting upward to create a fast upward surface current well behind the
> skimmer. This accelerates the water throughout the tunnel but without
> disrupting the laminar flow established by the ~130' of tunnel forward of
> the CombiThrusters. Even with these relatively laminar flows, some mixing
> would be expected but the long collection surface and potentially air
> assisted collection should produce total efficiencies above 50% @ 3 knots
> with a ~150 encounter width in concentrated broken ice. This relates to a
> substantially higher oil recovery rate than any other deployable
> mechanical
> system can accomplish in ice, fast currents and/or high seas. Two of these
> barges could replace Shell's arctic tanker and response barge with a much
> more effective, versatile and safe automated recovery system that could
> also
> better support: deployment and operation of smaller/nearshore recovery
> teams, and; drilling/platform/pipeline operations. Tom
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> From: alan@spiltec.com [mailto:alan@spiltec.com]
> Sent: Wednesday, August 29, 2007 2:34 PM
> To: Tom Lakosh
> Subject: RE: All Purpose OSRV
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>
> Thanks Tom,
>
> Was good talking with you yesterday. Always open to "creative" ideas!
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> I can't open the auto cad drawings; however, I have a good solid image in
> my
> mind of the vessels/systems you were proposing.

>
> I wish I had the kind of money needed to test these ideas; however, I am a
> lonely, self-employed, oil spill consultant with marginal, at best,
> financial resources.
>
> Just a quick reaction: I've been humbled enough by the action of oil and
> ice to recognize the difficulty (on a large scale) to separate oil and ice
> in certain conditions. The vast range of ice thickesses and shapes make
> it
> very difficult to implement a system that can separate the ice from the
> oil
> without diverting the oil along with the ice and/or causing emulsification
> of the oil. Then when we actually get a system to work with relatively
> small (bread-box- to chair-sized pieces of ice), we find that the
> speed/swath (and therefore, encounter rate) issues preclude any reasonable
> rate of oil recovery. We also run into the problem of ice building up
> (even
> at low starting concentrations) and blocking the flow of oil. I know how
> you feel that the props could be used to pull the ice down and prevent
> buildup, but we'd probably get oil sucked down as well. The densities of
> sea water, ice and oil are so close!!
>
> I wish I had some "silver bullet" idea for you, but I don't! It is so
> hard
> to turn even the best of ideas into final products. I have three patents
> on
> spill control equipment and I nearly had to deplete my life's savings to
> get
> them through the patent stage. Even then, it is tough to find someone to
> fund the development and field-trial phases.
>
> I can only wish you good luck as you pursue your ideas. If I see or hear
> of
> any opportunity to help bring your ideas to fruition (perhaps with
> discussions within the oil companies, coops, etc.) I'll let you know.
> Please don't give up trying -- this is such an challenging and exciting
> field!
>
> Best regards,
>
> Al
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>> Al;
>>
>> The copied emails below included a multitude of pertinent attachments
>> but
>> I'm just sending the AutoCAD 2000 drawings of the large and small AP
>> OSRV
>> preliminary drawings done by BMT D&P. There are a number of quirks that
>> proved too detailed to work out within our limited budget but you'll see
>> a
>
>> fair amount of detail in the inclined plane/skimmer collection system