

7 March 2012

Chair Mary K. Shallenberger and  
Members of the California Coastal Commission  
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**Re: Consistency Review of Navy Activities off Southern California, 2014-2019**

Dear Chair Shallenberger and Members of the Commission:

I wanted to provide comments to the commission on the Navy's activities off southern California. I have been conducting research on marine mammals off California for more than 25 years specializing in the abundance, movements, and behavior of large whale species including blue, humpback, and fin whales. More recently I have also been involved in several Navy supported research efforts focused on behavioral response of whales to ships (and ship noise) and also to mid-frequency sonar as part of the SOCAL Behavioral Response Study (Southall et al. 2012). That later study is a collaborate effort of numerous research groups including Cascadia Research but my comments here are my own and do not necessarily reflect those of others involved in this study.

I want to address a couple of specific issues related to your evaluation:

1. The importance of California and especially southern California to a number of large whale species and the existence of key important feeding areas where there would be added sensitivity to Navy activities.
2. The results of our research related to abundance trends and status of some of these species especially blue whales where we are concerned about their status and recovery.
3. Some threats that especially blue whales face to ship strikes and ways the Navy's actions might relate to that.

First I do want to acknowledge that the Navy has done an excellent job of supporting marine mammal monitoring and research efforts both off southern California and throughout the world. They have also been willing to support this research even when conducted by groups like ours who have sometimes been critical of Navy activities and have also allowed unrestricted reporting and publication of the findings of research.

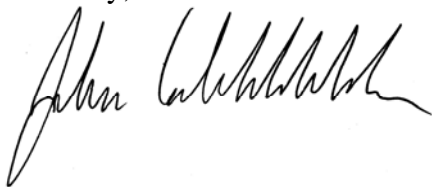
On my first point above, our research has demonstrated that southern California is one of the most important feeding areas in the eastern North Pacific for endangered large whales including blue, fin, and humpback whales (Barlow et al. 2011, Calambokidis et al. 2004, 2008, 2009, 2011, Calambokidis and Barlow 2004, Falcone et al. 2011). Whale species are not distributed randomly off southern California with clear areas of concentration based on presence of concentrations of prey. There are a number of ways of identifying these regions including concentrations based on sighting locations (such as submitted by NRDC or from some of the Navy sponsored aerial surveys), based on habitat models developed from systematic line-transect surveys done in

association with oceanographic sampling (Redfern et al In press), or from satellite tag data such as available for blue whales or fin whales (Schorr et al. Unpubl. Data, Bailey et al. 2009). The main point being that we have a number of sources for identifying important areas and the potential impacts of Navy activities in those areas are much more serious and could be reduced by avoiding activities near these areas. NOAA has recognized this and begun identifying some of these critical areas in US waters (CetMap program).

Our tracking of blue whale population trends has revealed that the abundance of blue whales off California has not shown the recovery expected in the last 20 years. Unlike fin and humpback whales that have shown strong increases as their populations recovered from commercial whaling, blue whale abundance estimates off the US West Coast have either remained stable (based on our photo-identification mark-recapture data) or declines (based on line-transect density and abundance estimates). I do not think the population has actually declined and the most likely explanation is that they have shifted away from feeding off California to other areas much farther north and south (Calambokidis et al. 2009). The reason for this stable or declining abundance, however, and the possible shifts away from California are not fully understood but are of concern in considering the high level of Navy activities in key feeding areas. Recent work in the SOCAL-BRS has demonstrated that playback of low levels of sonar like sounds disrupted blue whale feeding behavior when they were deep feeding (Goldbogen et al. In prep).

Finally I wanted to point that the Navy's use of a large portion of the southern California Bight has also interfered with attempts to reduce the potential impact of ship strikes on blue whales. One key area of documented ship strikes of blue whales has been the main shipping routes through the Santa Barbara Channel leading to the ports of LA/Long Beach. While efforts have been underway to find alternate shipping lane locations to route ships away from feeding concentrations, this effort has been constrained by the resistance of the Navy to placing shipping lanes south of the northern Channel Islands as an alternate route to the Santa Barbara Channel because that would traverse some of their operating areas. If the Navy was more willing to constrain their activities to more specific areas it would allow routing more shipping traffic through some of these alternate areas outside the Santa Barbara Channel.

Sincerely,

A handwritten signature in black ink, appearing to read "John Calambokidis". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

John Calambokidis  
Research Biologist

## References for some of Cascadia's recent work relevant to the above statement

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