Marine Mammal Monitoring on Navy Ranges (M3R)
In Support of SOCAL-14

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Photo: Ari Friedlander
BRS Playback Acoustic Source
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SCORE RANGE and M3R
M3R in Action -- SCORE
M3R in Action – SCORE
(Sun 3 Aug 2014)
Symbiotic Technology Enablers
M3R combined with State of the Art Tags

Range Hydrophones

Blainville’s Beaked Whale w/ WHOI Digital Tag (DTag)
Blue Whale Tagging (Jeff Foster)

Courtesy of Cascadia Research
Symbiotic Technology Enablers
M3R combined with Tag Data

Md Dive Profile – Md not necessarily RARE just RARELY at the surface!
Real-time detection, localization and classification on Navy's 3 major undersea ranges
-- AUTEC (Bahamas), PMRF (Kauai, Hawaii), SCORE (So. California),
Average Number Of Beaked Whale Vocalizations Per Hour During 2007/2008 SCC

Before Sonar (0-17 hours)

During Sonar (17-92 hours)

After Sonar (92-115 hours)

Before Sonar (0-65 hours)

During Sonar (65-130 hours)

After Sonar (130-195 hours)

After Sonar (195-240 hours)