



White Sharks in San Clemente

JUNE 6, 2017

Overview

- Trends
- Public Safety
- Warnings
- Shark Policy
- Reducing Risks
- Junior Lifeguards
- Further Information



Trends

General increase in recent years -

- Positive for environment
 - Clean water & air acts
 - Gill nets & long lining bans
 - Marine Mammal Protection Act
 - Ban on killing white sharks
- Since May
 - Hundreds of sightings
 - Not just more people looking
 - New situation
 - Other factors for recent influx?



Picture from www.sanclementetimes.com

Public Safety

What are we doing to enhance safety?

- Morning & ongoing patrols
- Observation from towers & drone
- Working with LG agencies, Harbor Patrol, etc.
- Contacting public & commercial fishermen
- Request – see something!



Public Safety

Continued:

- Observing, warning, and educating
- Flags, weatherboards, surf report, website, signs
- Discouraging behaviors that could attract sharks – e.g. chumming from pier
- Working with experts to track and better understand situation
- Looking into electronic warning systems
- Reviewing policies and adjusting as we learn more

Public Safety



FLIR SYSTEMS 8187
38°28.3120' N 117°08.7017' W
878 0 MPH 1000 00 FT
ALT 300 FT

04/10/19 09:00:00

1.5F ARMED
4.1 ARMED

TRAIL 03070007
ENC HAZE 128 MAX 0.489
POW 407 TRAC 800
EMP 207 SLAVE READY

W 16 FT

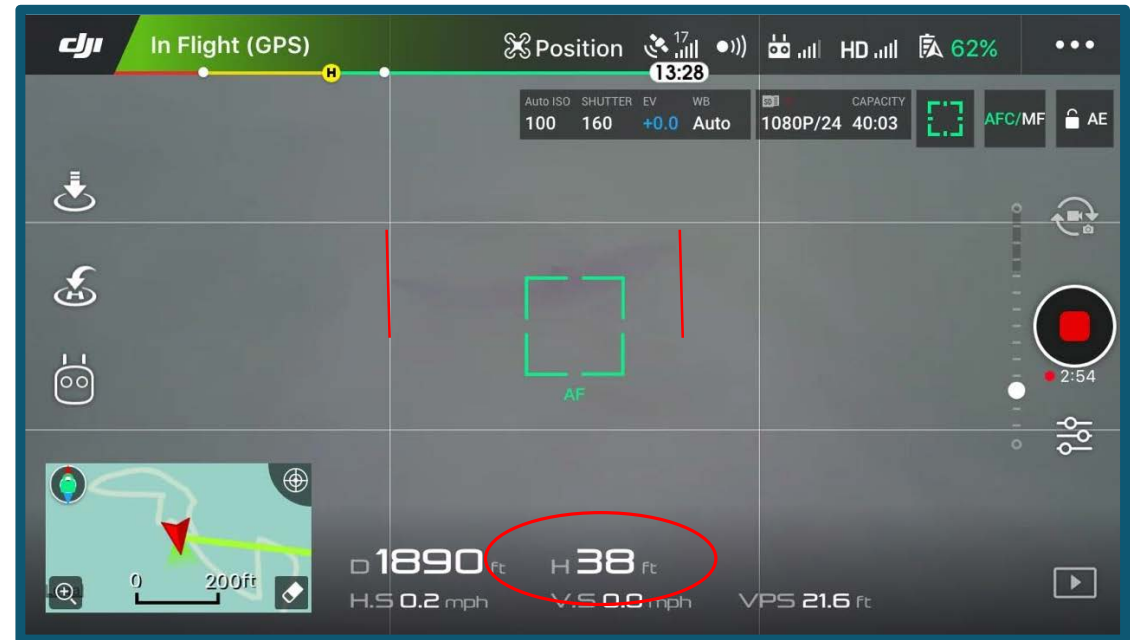


Public Safety

10'6" Paddleboard @ 38'
Elevation



White shark @ 38'
Elevation



Public Safety



Public Safety



Warnings



The screenshot shows the San Clemente website with the following elements:

- Header: "San Clemente THE SPANISH VILLAGE BY THE SEA" with navigation links for City Transparency, CM Report, Contact Us, Muni Codes, and Press Releases.
- Search bar and "Select Language" dropdown.
- Navigation menu: HOME, ABOUT US, DEPARTMENTS & SERVICES, GOVERNMENT, RECREATION & COMMUNITY, I AM A...
- Main content area with a large image of a building and a sidebar with links: PAY A BILL, RECREATION SIGN-UP, GRAFFITI & CODE COMPLAINTS, PERMITS & BUSINESS LICENSE, MEETINGS & AGENDAS, CURRENT PROJECTS.
- MEETING and CALENDAR sections.
- LATEST NEWS section with a red circle around the following item:
 - **UPDATE** City Beaches Reopen at 7:00am Under Shark Advisory**
 - Fiscal Year 2018 Proposed Budget Available Online
 - Help Build the Future Transit System for Orange
- A red circle around a "LIVE BEACH CAMERA SURF & WEATHER" link.



Shark Policy

- Regional policy
- Provides consistency
- Approved by SD, OC, & LA County lifeguard agencies
- Guidance from Dr. Chris Lowe, Cal State Long Beach

Shark Incident Report Form					
Incident Number:		Time of Report:		Date:	
Location					
Area: I, II, or III			Tower:		
Distance from Shore			Direction Swimming:		
Depth of water:					
Description					
Estimated Length: < 5 ft 5-8ft 8-11ft 11-14ft 14-17ft >17ft					
Note Markings on Img: (scars, fin amputation, white or black pigments on dorsal fin)					
			Photos taken? Yes or No		
			Body Color:		
			Notes for Image Markings		
			Did you notice any markings on the shark?		
			Did you notice any manmade objects on the shark?		
Action					
Swimming		Behavior		Bite	
Surface	<input type="checkbox"/>	Circle Individual	<input type="checkbox"/>	Animal	<input type="checkbox"/>
Underwater	<input type="checkbox"/>	Bump	<input type="checkbox"/>	Object	<input type="checkbox"/>
Inside Surfline	<input type="checkbox"/>	Rush	<input type="checkbox"/>	Human	<input type="checkbox"/>
Outside Surfline	<input type="checkbox"/>	Gape *	<input type="checkbox"/>		
Witness					
Witness Name:			Address:		
Birthdate:		Sex: M or F		Phone:	
Has Witness See Shark Before? Is so where?: Y or N					
Witness Name:			Address:		
Birthdate:		Sex: M or F		Phone:	
Has Witness See Shark Before? Is so where?: Y or N					
Narrative & Supplemental Questions					
Was the fin moving side to side or up and down?:					
*Gaping is when a shark opens and closes their mouth repeatedly					

SHARK SIGHTING ALGORITHM FORM

Use the 3 questions below to determine which protocol number best fits the scenario. Working left to right through the sections (size, behavior, bite) follow where "Yes" or "No" is applicable. Once you have established the number, refer to the *Shark Incident Response Action Form* to enact the proper protocol.

Questions

1. **Size:** Was the shark larger than 8 feet? (Should be confirmed by lifeguards or credible witness) If close to 8 feet, ask yourself, "Is it larger than me?"
Yes or No?
2. **Behavior:** "Did the shark display any aggressive behavior towards you?"
Aggressive behavior would include repeated circling, bumping, rushing, hunting or gaping (open and closing its mouth). This is entirely up to your judgement and doesn't have to be one of the above mentioned behaviors.
Yes or No?
3. **Bite:** Did the shark bite a human or a manmade object?
Yes or No?

Size	Behavior	Bite	Response
Over 8ft	Aggressive Behavior Displayed	Human or manmade object	Protocol Number
No	No	No	1
No	Yes	No	2
No	Yes	Yes	3
Yes	No	No	4
Yes	Yes	No	5
Yes	Yes	Yes	6

Shark Policy

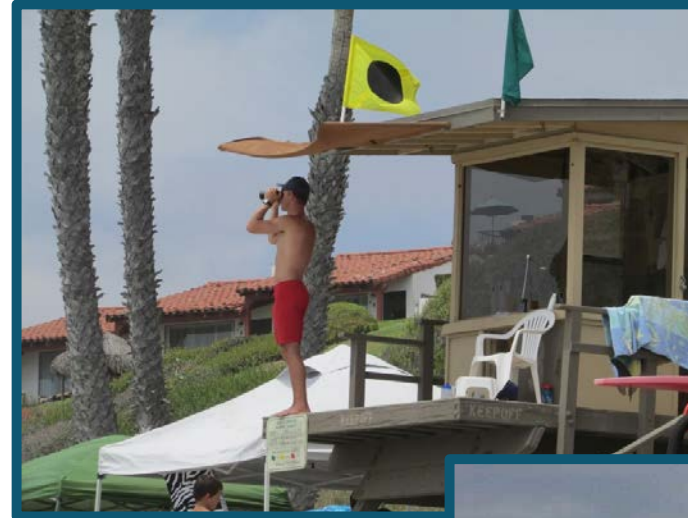
- Algorithm based on size, behavior, or bite
- Response Plan guides the response – warning or closure
- Lifeguards coordinate with neighboring agencies
- Warning or closure based on size, location, and behavior

Marine Safety - Shark Incident Response Action Plan Form							
	Field Supervisor Documentation	Supervision	Beach-Goer Notification	Beach Closure	Post Signs	Dispatcher Duties	Press Release
1**	Shark Incident Form	Elevated vantage point or vessel to last known location	< 500 yards offshore = clear water (Optional) >500 yards offshore = Optional	(Optional) Up to 4 hours or more/ Up to 1 mile in each direction or more (or Jurisdictional Boundary)	Post warning signs inside perimeter	1.Notify adjacent agencies 2.Support as requested	Fill Out Appendix A
2	Shark Incident Form & Medical (If Necessary)	Elevated vantage point or vessel to last known location	Clear water up to 1 mile in each direction (or Jurisdictional Boundary)	Up to 24 hours or more/ Up to 1 mile in each direction (or Jurisdictional Boundary)	Post closure signs Then warning signs after reopening water	1.Notify adjacent agencies 2.Support as requested	Fill Out Appendix 1B
3	Shark Incident Form & Medical	Elevated vantage point or vessel to last known location	Clear water up to 1 mile in each direction (or Jurisdictional Boundary)	Up to 48 hours or more/ Up to 1 mile in each direction (or Jurisdictional Boundary)	Post closure signs Then warning signs after reopening water	1.Notify adjacent agencies 2.Support as requested	Fill Out Appendix 1B (Non-Fatal) Or 1C (Fatal)
4	Shark Incident Form	Elevated vantage point or vessel to last known location	< 500 yards offshore = clear water >500 yards offshore = Optional	Up to 4 hours or more/ Up to 1 mile in each direction or more (or Jurisdictional Boundary)	Post closure signs Then warning signs after reopening water	1.Notify adjacent agencies 2.Support as requested	Fill Out Appendix A
5	Shark Incident Form & Medical (If Necessary)	Elevated vantage point or vessel to last known location	Clear water up to 1 mile in each direction (or Jurisdictional Boundary)	Up to 24 hours or more/ Up to 1 mile in each direction (or Jurisdictional Boundary)	Post closure signs Then warning signs after reopening water	1.Notify adjacent agencies 2.Support as requested	Fill Out Appendix B
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** Non-threatening sharks, such as leopard sharks, do not require beach closure or postings. Shark Incident Form should still be filled out.

Reducing Risks

- Swim near a lifeguard
- Avoid areas with known sharks
- Swim in groups – Never alone
- Avoid areas with seals and sea lions
- Obey warnings and closures
- Go to “International Shark Attack File” for more tips



Junior Lifeguards

- Children's safety is our number one priority
- Program may be modified
- Still fun, exciting, and students will learn ocean safety
- Certain activities may be eliminated this year
- Shark sightings → land and classroom activities



Further Information

- CSU Long Beach Shark Lab – Dr. Chris Lowe
- YouTube: “*Return of the Big Marine Predators to California Waters*”
- Donations to Dr. Lowe’s research: <http://www.csulb.edu/sharks>
- California Fish and Wildlife: <https://www.wildlife.ca.gov>
- International Shark Attack File

Thank you
