

Harbor Safety Committee

of the San Francisco Bay Region

*Mandated by the California Oil Spill
Prevention and Response Act of 1990*

Harbor Safety Committee of the San Francisco Bay Region

Thursday, November 12, 2015

Port of San Francisco

Bay Side Conference Room, Pier 1

The Embarcadero

Capt. Lynn Korwatch (M), Marine Exchange of the San Francisco Bay Region (Marine Exchange), Chair of the Harbor Safety Committee (HSC); called the meeting to order at 10:04 am.

Alan Steinbrugge (A), Marine Exchange, confirmed the presence of a quorum of the HSC.

Committee members (M) and alternates (A) in attendance with a vote: **Jim Anderson** (M), CA Dungeness Crab Task Force; **John Berge** (M), Pacific Merchant Shipping Association; **Margot Brown** (M), National Boating Federation; **Mary Brown** (M), Sea-Logix, LLC; **Capt. Tom Dougherty** (M), Blue & Gold Fleet; **Jeff Ferguson** (M), NOAA; **Aaron Golbus** (M), Port of San Francisco; **Bob Gregory** (M), Foss Maritime Company; **LTC John Morrow**, (M), US Army Corps of Engineers; **Linda Scourtis** (A), Bay Conservation and Development Commission; **Capt. Greg Stump** (M), United States Coast Guard.

The meetings are always open to the public.

Approval of the Minutes

A motion to accept the minutes of the October 8, 2015 meeting was made and seconded. The minutes were approved without dissent.

Comments by Chair - Capt. Lynn Korwatch

Welcomed the committee members and audience.

Coast Guard Report - Capt. Greg Stump

- Announced his office is working with Caltrans on the logistics surrounding the implosion of Bay Bridge Pier 3 scheduled within the November 14-15 timeframe. The safety zone of 500 yards will increase to 1,500 yard radius 0600 November 13.
- Announced that a foreign-flagged tanker vessel hauling molasses was detained for inadequate fire response equipment.
- Two foreign-flagged research vessels are in port, each carrying a submersible. Sector is working with the operators on the application of Coastwise regulations to the subs if they are launched from and return to the Sector AOR.

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- Announced that the USCG will be hosting a Deep Draft Industry Day on December 2, 2015 on Coast Guard Island.
- LCDR Don Edmond read from the October-15 Prevention/Response Report (attached).

Army Corps of Engineers Report - Lt.Col. John Morrow

- Agreed with Capt. Stump that the Fleet Week seminar and exercises were exceptional.
- USACE will deploy its high-speed catamaran to collect debris from the Pier 3 implosion.
- Advised that the Army Corps recently held an El Nino preparedness workshop. Primary concerns include heavy rains leading to landslides, increased debris and channel shoaling.
- Introduced Capt. Antony Billes, who will be assisting in the duties of the Operations and Readiness Division for the coming year.
- Rob Lawrence read from the US Army Corps of Engineers, San Francisco District Report (attached).

Clearing House Report - Alan Steinbrugge (report attached)

OSPR Report - David Mighetto

- The HSC West Coast Summit was held October 21-22, 2015 in San Diego. Plans are being discussed to hold the 2016 summit in Portland to coincide with the National HSC Conference. Chair Korwatch added that HSC Chairs from Puget Sound to San Diego, including Hawaii, attended the summit, where they shared Best Maritime Practices.
- The SF HSC has two vacant tanker operations positions.

NOAA Report - Jeff Ferguson

- Advised that new berthing schemes at Anchorages 7 and 8 have been added to the nautical charts for the Bay.
- Introduced Charles Bell, meteorologist w/the NWS in Monterey, who presented a power point on this season's El Nino (attached).

State Lands Commission Report - Richard Hernandez (report attached)

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Work Group Reports

Ferry Operations Work Group - Tom Dougherty advised that he will be providing the HSC with regular reports on SF Bay Ferries, and plans to also include Golden Gate Ferry transit information. Bay Ferries carried 236,290 passengers in September 2015. This is a 30 percent increase over the same month in 2014. Four, or possibly five, new boats are scheduled to go online for existing routes over the next two-three years. Currently, there are no spare ferries.

Tug Work Group - Bob Gregory advised there was nothing to report.

Navigation Work Group - No report.

Dredge Issues Work Group - No report.

PORTS Work Group - No report.

Prevention through People Work Group - Margot Brown advised there was nothing to report.

PORTS Report - Alan Steinbrugge

- Advised that it may be a months before the Middle Harbor Park weather station is repaired.

Public Comment -

- Paul Leyda, with Cal Maritime, thanked the community for supporting CMA's recent gala. He advised that the Bay Ferry maritime safety exercise in partnership with Golden Gate Ferry is scheduled for January 20, 2016. A planning meeting is scheduled 1230 hours December 11 at the Safety and Security Center in Richmond.
- Ray Paetzold announced the annual Bar Pilots open house and toy drive will be held December 10th from noon-1600.
- A representative from Friends of the Earth spoke to the spill risk assessment requirements of SB 414 as they apply to OSPR and the HSC, effective January 1, 2016.
- LCDR Don Edmond announced that the USCG is conducting a Waterway Analysis Management System (WAMS) study in the Bay, and requested the maritime community participate in the surveys. The study will cover the channels Golden Gate to the Richmond-San Rafael Bridge (<https://www.surveymonkey.com/r/DJ9NLHW>) and the Oakland Inner and Outer Harbors

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(<https://www.surveymonkey.com/r/7RR7HHJ>). Questions may be directed to Mickey Price at
Mickey.T.Price@uscg.mil or 415.399-7442.

Old Business - None

New Business - None

Next Meeting -

1000-1200, January 14, 2016
California Maritime Academy, Richmond Maritime Safety & Security Center
756 West Gertrude Street
Richmond, CA

Adjournment

A motion to adjourn was made and seconded. The motion passed without dissent and the meeting adjourned at 11:27 am.

Respectfully submitted:



Capt. Lynn Korwatch

SIGNIFICANT PORT SAFETY AND SECURITY CASES (OCT 2015)

MARINE CASUALTIES

Loss of Propulsion, (04OCT15): A foreign flagged container vessel experienced a loss of propulsion while mooring at Oakland. A COTP order was issued requiring the vessel to remain at berth until documentation was received from the classification society. Class attended the vessel and witnessed satisfactory operation of the vessels main propulsion and associated systems. LOP was not attributed to fuel switching. COTP order was lifted. Case Closed

Loss of Propulsion, (04OCT15): A foreign flagged vehicle carrier experienced a loss of propulsion while departing berth. A COTP order requiring a three tug escort to Anchorage 9 was issued. Class attended the vessel and witnessed proper operation of the vessel's main propulsion and associated systems. LOP was not attributed to fuel switching. COTP order was lifted. Case Closed.

Equipment Failure, (22OCT15): A U.S. ferry vessel experienced an overheated starboard engine while getting underway from SF Ferry Building. The vessel safely returned to the SF Ferry Building and safely disembarked all 107 passengers. A verbal CG-835 was issued stating that the vessel shall not operate with passengers until a technicians report has been received. CG received proper documentation from company attesting to normal operation of the raw water pump and the engine temperature is stat. CG-835 No Sail was lifted. Case Closed.

Loss of Steering, (27OCT15): A U.S. passenger vessel experienced a loss of steering during departure with 10 with passengers. Vessel immediately returned to Pier and offloaded all passengers. A CG-835 No Sail was issued to the vessel prohibiting carriage of passengers until causative factors were determined. CG attended vessel and witnessed proper operation of the vessels steering system. CG-835 No Sail was lifted. Case Closed.

Equipment Failure, (30OCT15): A foreign flagged tank vessel experienced an unresponsive engine while attempting to anchor at Anchorage 9. The vessel was issued a COTP order requiring the vessel to remain at Anchorage 9 until documentation is received from the attending class surveyor. Class attended the vessel and witnessed satisfactory operation of the vessel's main engine, provided proper documentation to CG and COTP order was lifted. Case Closed.

VESSEL SAFETY CONDITIONS

Vessel Detention, (07OCT15): A foreign flagged bulk freight vessel was detained due to crew's inability to conduct proper fire drills and improper operation of the lifeboat launching mechanisms. Class and Coast Guard attended the vessel and witnessed team conduct satisfactory fire drill and proper operation of the lifeboats. All deficiencies were cleared and the detention was lifted. Case Closed.

Operational Control, (29OCT15): A U.S. flagged passenger vessel was issued a CG-835 due to improper operation of the bilge suction system. The vessel was prohibited from carry passengers until it renewed the port and starboard bilge piping for the engine rooms and demonstrates proper operation of the system. CG attended and witnessed new piping and proper operation. Case Closed.

Vessel Detention, (30OCT15): A foreign flagged vessel was detained due to the discovery of several cracks in the hull of the heavy fuel and settling oil tanks in the engine room. The vessel made repairs to bulkhead and CG received Class report. Both CG and Class attended to verify repairs. Case Closed

GENERAL SAFETY CASES

Nothing Significant to Report

NAVIGATIONAL SAFETY

Nothing Significant to Report

SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES

Nothing Significant to Report

PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS

October 1, 2015

PORT SAFETY CATEGORIES*	Oct-2015	Oct-2014	3yr Avg
1. Total Number of Port State Control Detentions for period:	2	0	0.75
SOLAS (2), STCW (0), MARPOL (0), ISM (0), ISPS (0)			
2. Total Number of COTP Orders for the period:	3	5	5.56
Navigation Safety (3), Port Safety & Security (0), ANOA (0)			
3. Marine Casualties (reportable CG 2692) within SF Bay:	7	13	13.00
Allision (0), Collision (0), Fire (0), Capsize (0), Grounding (0), Sinking (0)			
Steering (1), Propulsion (4), Personnel (0), Other (2), Power (0)			
4. Total Number of (routine) Navigation Safety issues/Letters of	5	1	4.11
Radar (0), Gyro (0), Steering (0), Echo Sounder (0), AIS (0)			
AIS-835 (5), ARPA (0), Speed Log (0), R.C. (0), Other (0)			
5. Reported or Verified "Rule 9" or other Navigational Rule Violations	0	1	0.69
6. Significant Waterway events or Navigation related cases for the	0	0	0.42
7. Maritime Safety Information Bulletins (MSIBs)	0	0	0.53
Total Port Safety (PS) Cases opened for the period:	17	20	25.06
MARINE POLLUTION RESPONSE			
Pollution Discharge Sources (VESSELS)	Oct-2015	Oct-2014	3yr Avg
U.S. Commercial Vessels	0	0	1.00
Foreign Freight Vessels	0	0	0.11
Public Vessels	0	1	0.69
Commercial Fishing Vessels	0	1	0.56
Recreational Vessels	1	3	4.97
Pollution Discharge Sources (FACILITIES)			
Regulated Waterfront Facilities	2	0	0.42
Regulated Waterfront Facilities - Fuel Transfer	0	0	0.00
Other Land Sources	0	1	1.75
Mystery Spills - Unknown Sources	3	10	4.47
Number of Pollution Incidents within San Francisco Bay for Period			
1. Spills < 10 gallons	3	5	7.33
2. Spills 10 - 100 gallons	0	1	1.33
3. Spills 100 - 1000 gallons	0	0	0.22
4. Spills > 1000 gallons	0	0	0.06
5. Spills - Unknown	3	10	5.03
Total:	6	16	13.97
OIL DISCHARGE/HAZARDOUS MATERIALS RELEASE VOLUMES BY SPILL SIZE:			
1. Estimated spill amount from U.S. Commercial Vessels:	0.00	0.00	15.15
2. Estimated spill amount from Foreign Freight Vessels:	0.00	0.00	0.08
2. Estimated spill amount from Public Vessels:	0.00	0.13	1.78
3. Estimated spill amount from Commercial Fishing Vessels:	0.00	50.00	13.90
4. Estimated spill amount from Recreational Vessels:	5.00	7.50	38.79
5. Estimated spill amount from Regulated Waterfront Facilities:	2.00	0.00	5.85
6. Estimated spill amount from Regulated Waterfront Facilities - Fuel	0.00	0.00	0.00
7. Estimated spill amount from Other Land Sources:	0.00	0.10	34.75
8. Estimated spill amount from Unknown sources: (MYSTERY SHEENS)	0.00	0.00	4.11
OIL DISCHARGE AND/OR HAZARDOUS MATERIAL RELEASE (GALLONS):	7.00	57.73	114.42
Civil Penalty Cases for Period	0	1	0.11
Notice of Violations (TKs)	2	0	0.78
Letters of Warning	1	3	2.64
TOTAL PENALTY ACTIONS:	3	4	3.53

Values represent all cases within the HSC jurisdiction during the period. Significant cases are detailed in the narrative.

** NOTE: Values represent an average month over a 36 month period for the specified category of information.

**Harbor Safety Committee
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**Report of the
U.S. Army Corps of Engineers, San Francisco District
November 12, 2015**

1. CORPS O&M DREDGING PROGRAM

The following is this year's O & M dredging program for San Francisco Bay. The FY15 O&M dredging program is subject to change, please refer to the Local Notice to Mariner for details dredge operations.

- a. **FY15 Main Ship Channel** – Completed 29 May 2015.
 - b. **FY15 Richmond Inner Harbor** – Clamshell dredging started October 2015, expected completion in December 2015.
 - c. **FY15 Richmond Outer Harbor (and Richmond Long Wharf)** – Complete.
 - d. **FY15 Pinole Shoal** – Complete.
 - e. **FY15 Suisun Bay Channel (and New York Slough)** – Clamshell dredging started late October 2015, expected completion by end of November.
 - f. **FY15 Oakland Harbor Dredging** – Clamshell dredging started late September 2015, expected completion in mid-January 2016.
 - g. **FY14 Redwood City Harbor I**– dredging complete mid-July 2015.
 - h. **FY15 Redwood City Harbor II**- Clamshell dredging expected to start in Mid-November 2015 and complete in January 2016.
- 2. DEBRIS REMOVAL** – Debris removal for October 2015 was 12.5 tons. Dillard: 9.5 tons, including 3 small abandoned vessels; Other boats: 3tons incl. 4 abandoned vessels; Raccoon: will be in the shipyard through Dec for routine maintenance. Debris mission will utilize Dillard and small boat fleet to cover during this period.). Average for October from 2005 to 2014 is 38 tons. (Range: 12 - 89 tons)

BASEYARD DEBRIS COLLECTION TOTALS:

MONTH	RACCOON	DILLARD	MISC	TOTAL
2015	TONS	TONS	TONS	TONS
JAN	0	45	15	60
FEB	0	49.5	7	56.5
MAR	7.5	21.5	0	29
APR	0	17	10	27
MAY	0	12.5	9.5	22
JUN	0	18	3	21
JUL	4	4	0	8
AUG	5	0	0	5
SEP	0	26.5	9	35.5
OCT	0	9.5	3	12.5
NOV				
DEC				

YR TOTAL
276.5

3. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS

None to report.

4. EMERGENCY (URGENT & COMPELLING) DREDGING

No urgent dredging in 2015.

5. OTHER WORK

San Francisco Bay to Stockton – No funds were received in 2015. The Tentative Selected Plan milestone is to be reached in FY16 with the use of carryover funds (from FY 14). A request is in progress for additional time and funding to complete the study in late 2017 (FY 18).

HYDROGRAPHIC SURVEY UPDATE

Address of Corps' web site for completed hydrographic surveys:

<http://www.spn.usace.army.mil/Missions/Surveys,StudiesStrategy/HydroSurvey.aspx>

The following surveys are posted;

Alameda Point Navigation Channel: Condition survey of Nov. 2014.

Berkeley Marina (Entrance Channel): Condition survey of September 23, 2014.

Bull's Head Shoal: February 15, 2013 condition survey.

Islais Creek Channel: Condition survey of September 25, 2014.

Main Ship Channel: Post-dredge survey of May 27, 2015.

Mare Island Strait: Condition survey of September 24, 2014.

Marinship Channel (Richardson Bay): Condition survey of September 21, 2014.

Napa River: Condition surveys of 23-24 October 2014.

New York Slough: Condition survey of mid-July 2015.

Northship Channel: Condition survey of late July 2015

Oakland Entrance Channel: Post-dredge survey of Dec 2014 – Jan 2015.

Oakland Inner Harbor: Condition survey of early July 2015.

Oakland Inner Harbor Turning Basin: As above.

Oakland Outer Harbor: Condition survey of early July 2015.

Petaluma River: Condition survey of mid-September 2014.

Pinole Shoal Channel: Condition survey of early July 2015.

Redwood City Harbor: Post-dredge survey of June/July 2015.

Richmond Inner Harbor: Condition survey of late July 2015.

Richmond Outer Harbor (Longwharf): Condition survey of late July 2015.

Richmond Outer Harbor (Southampton Shoal): Condition survey of late July 2015.

Sacramento River Deep Water Ship Channel: Condition Survey April 2015.

San Bruno Shoal: Condition survey of April 15, 2014.

San Leandro Marina (and Channel): Condition survey of March 30 – April 1, 2015.

San Rafael Across-the-Flats / San Rafael Creek: Condition surveys of May 2013.

Suisun Bay Channel: Condition survey of mid-July 2015.

Disposal Site Condition Surveys:

SF-08 (Main Ship Channel Disposal Site): Condition survey of March 2013

SF-09 (Carquinez): Condition survey of March 2, 2015.

SF-10 (San Pablo Bay): Condition survey of March 2, 2015.

SF-11 (Alcatraz Island): Condition survey of November 6, 2015.

SF-16 (Suisun Bay Disposal Site): Condition survey of May, 2012.

SF-17 (Ocean Beach Disposal Site): Condition survey of March 2013.

NEW WEB ADDRESS – USACE WORK PLAN: www.usace.army.mil/missions/civilworks/budget.



San Francisco Weather Briefing

November 12, 2015

Meteorologist Charles Bell
National Weather Service



Overview

- Introduction
- El Niño
- Past Events
- Winter Outlook



Introductions



National Weather Service

- Part of the Department of Commerce
- Located in Monterey
- Responsible for Monterey County northward to Napa/Sonoma
- Issues official watches, warnings, and advisories
- We are there 24/7/365!

El Niño

- What is El Niño?

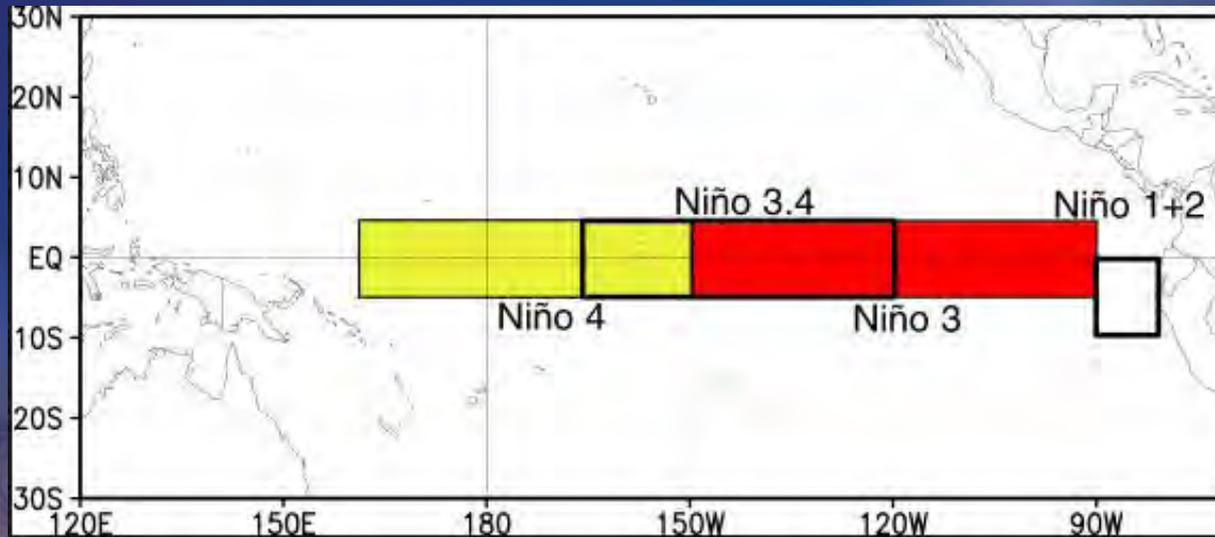
→ The term El Niño refers to the large-scale ocean-atmosphere climate interaction linked to a periodic warming in sea surface temperatures across the central and east-central Equatorial Pacific.

→ They usually last 9 to 10 months

→ They usually occur every 3 to 5 years.

El Niño

- Where is it located?

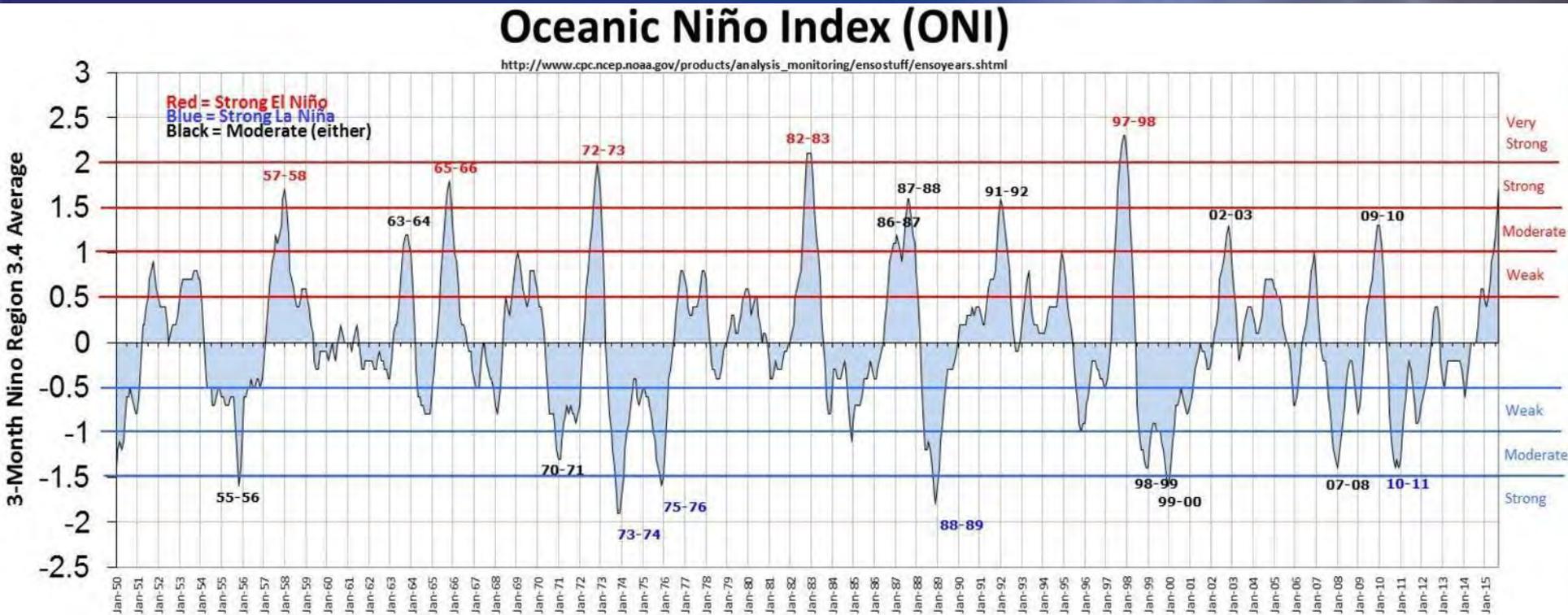


Note! This is well away from our region and is not related to warm temperatures in Monterey Bay

El Niño

- How is it measured?
 - Mostly through a network of buoys in the region.
- When do we reach an El Niño event?
 - 5 consecutive 3 month periods of 0.5C or greater.

ONI Back to 1950



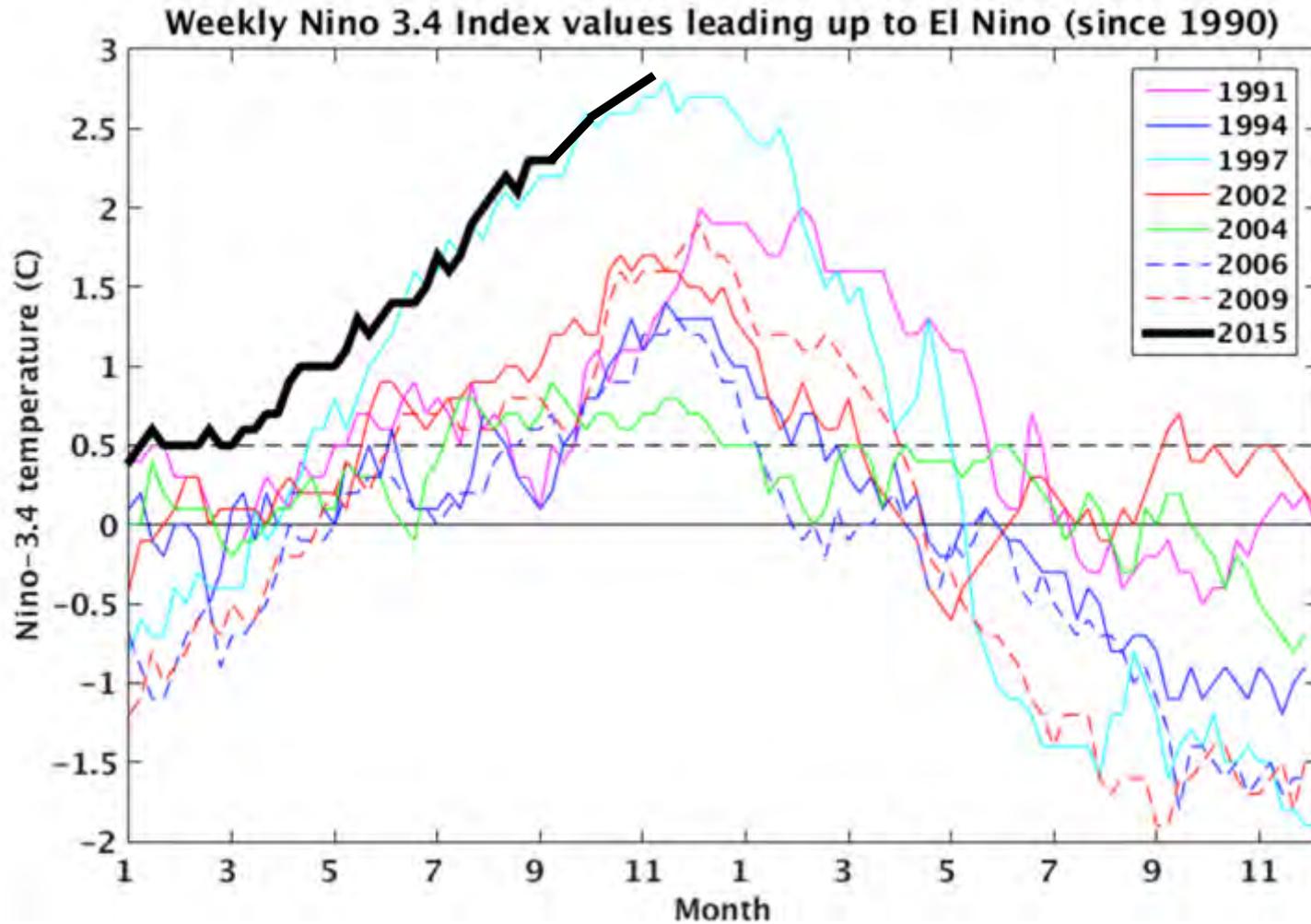
- ONI refers to the 3 month mean for temperatures in the 3.4 region.
- Latest Monthly ONI value is +2.5C.
- Latest weekly ONI value is +2.8C (record).

Past El Niño Events

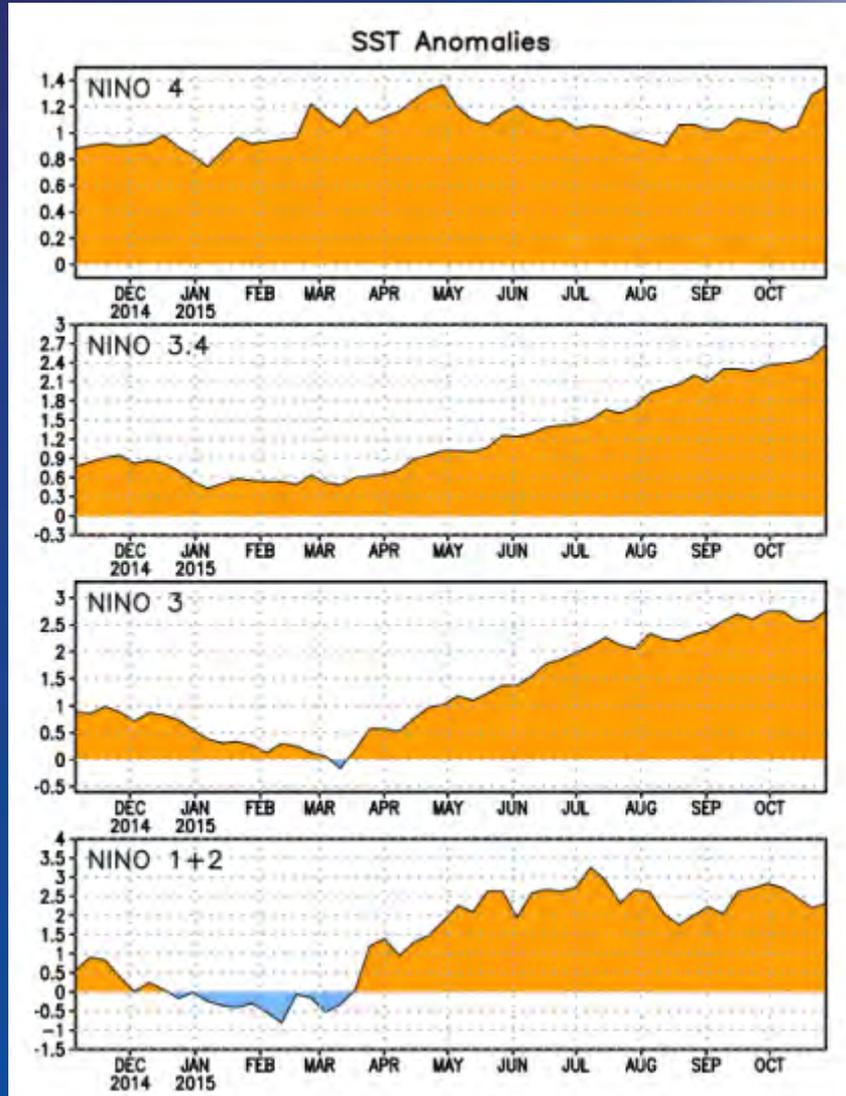
- Very Strong: 1982-83, 1997-98 (record)
- Strong: 1957-58, 1965-66,
1972-73, 1991-92



How Does the ONI Compare?



So, What About This Year?



So, What About This Year?

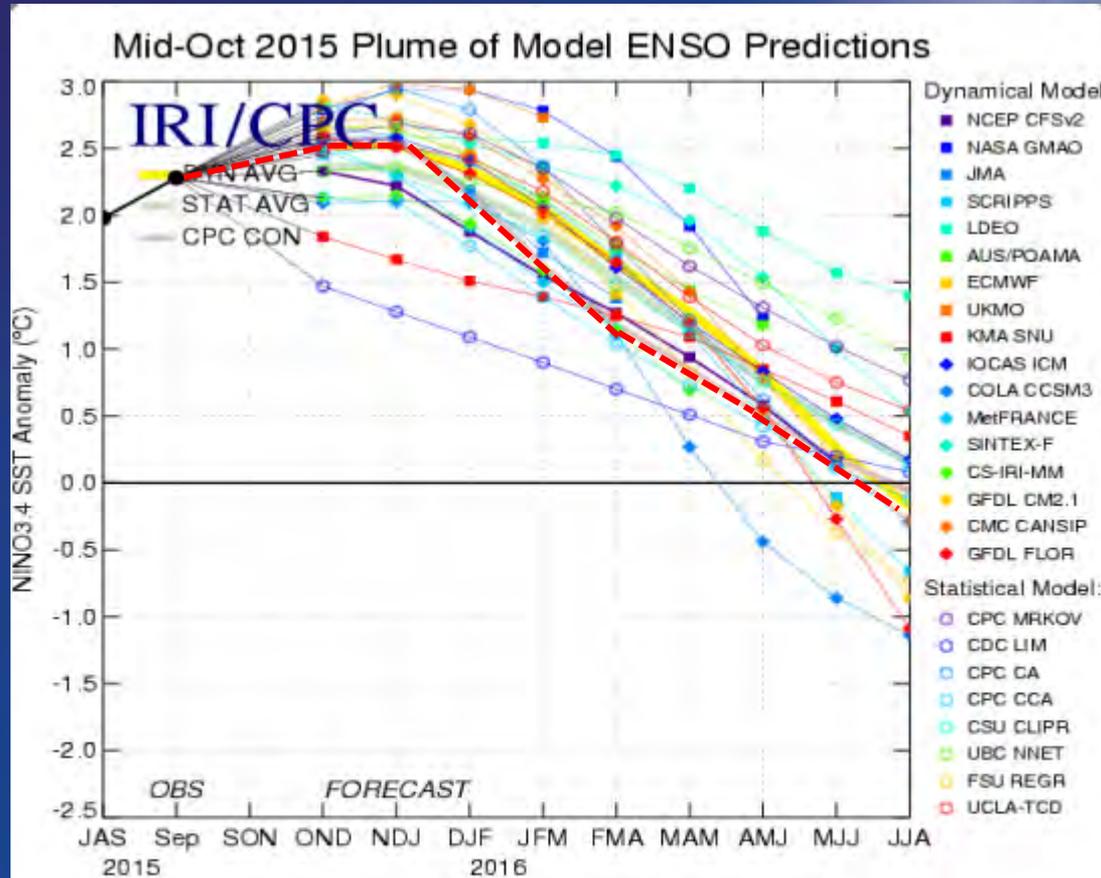
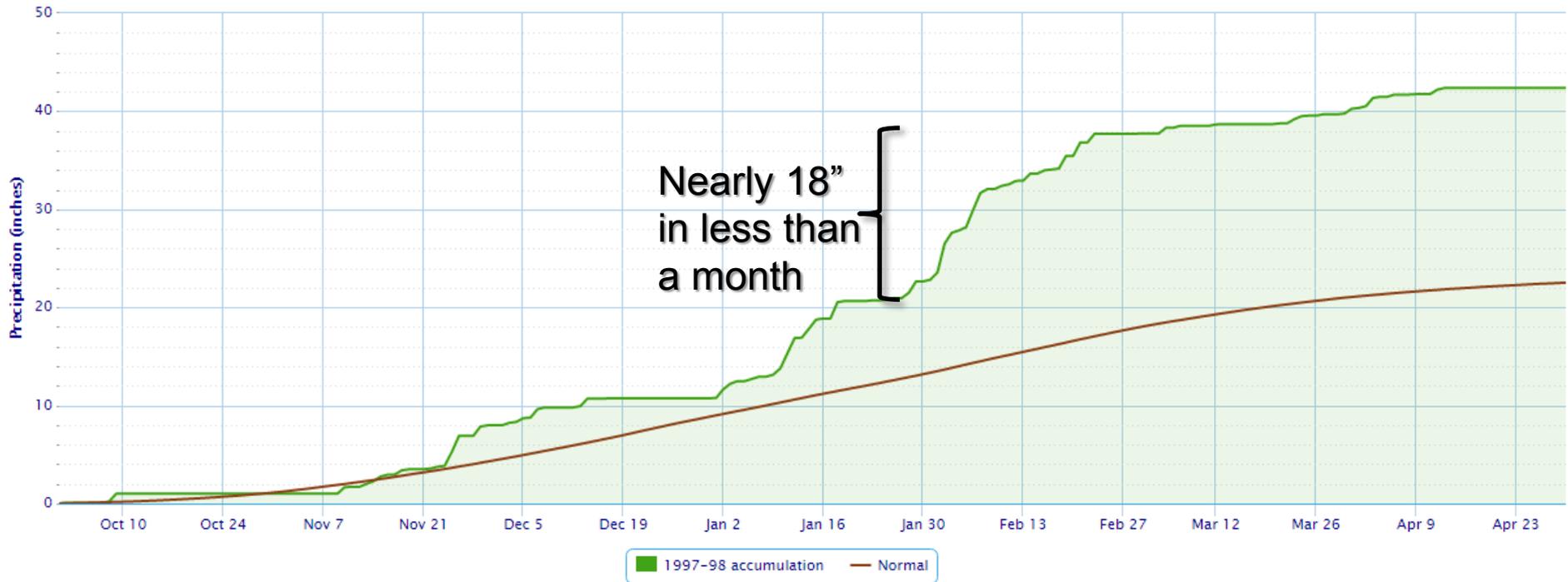


Figure provided by the International Research Institute (IRI) for Climate and Society (updated 13 October 2015).

1997-98 (very strong)

Accumulated Precipitation – SAN FRANCISCO DWTN, CA

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



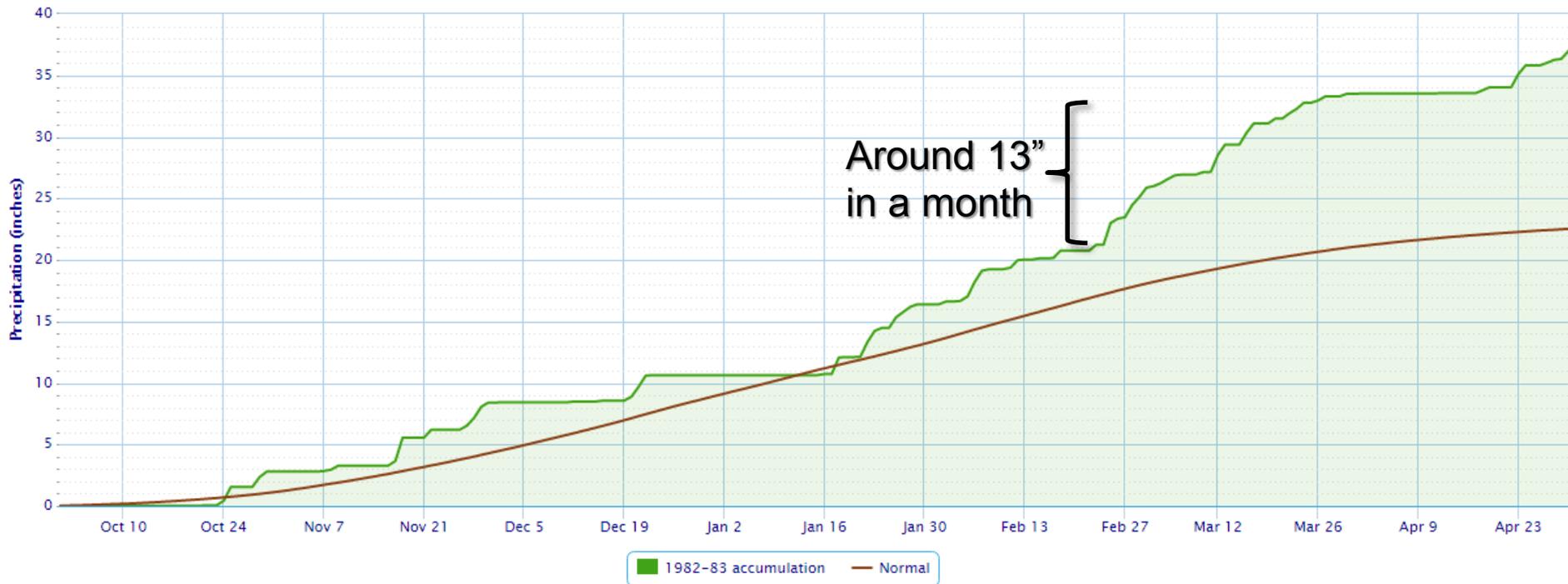
Powered by ACIS

42.38" total (188% of normal)

1982-83 (very strong)

Accumulated Precipitation – SAN FRANCISCO DWTN, CA

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



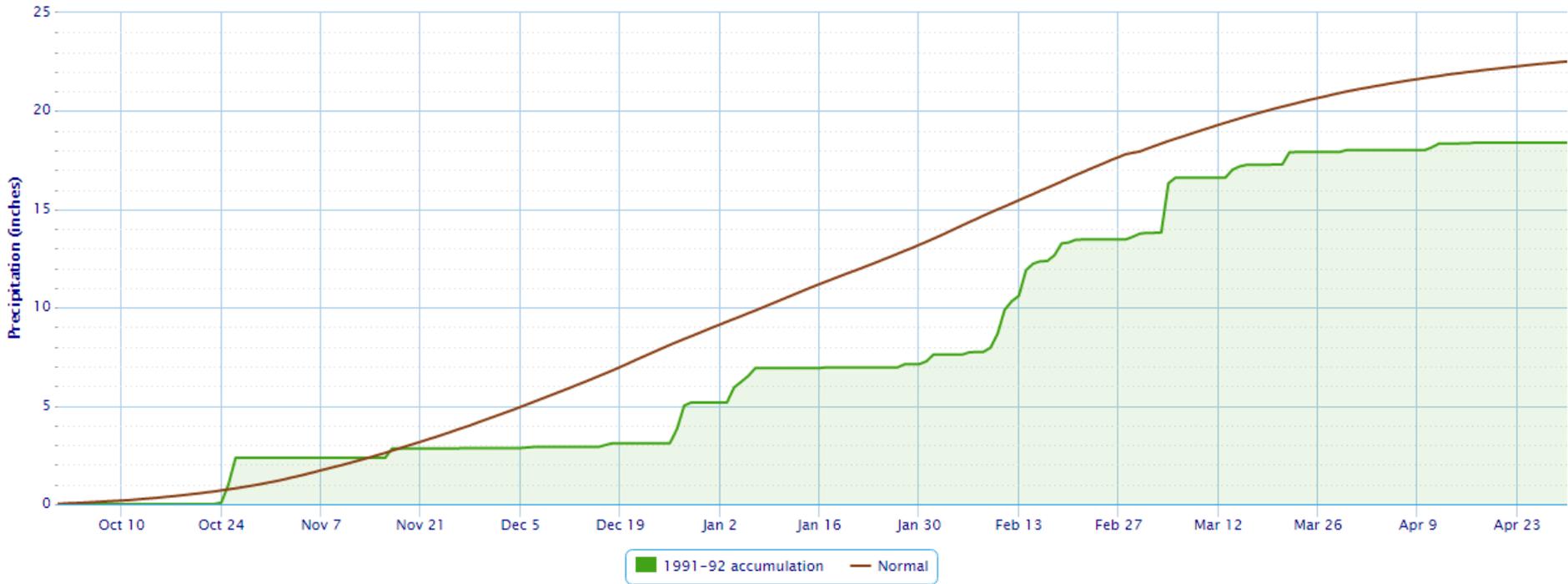
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36.98" total (164% of normal)

1991-92 (strong)

Accumulated Precipitation – SAN FRANCISCO DWTN, CA

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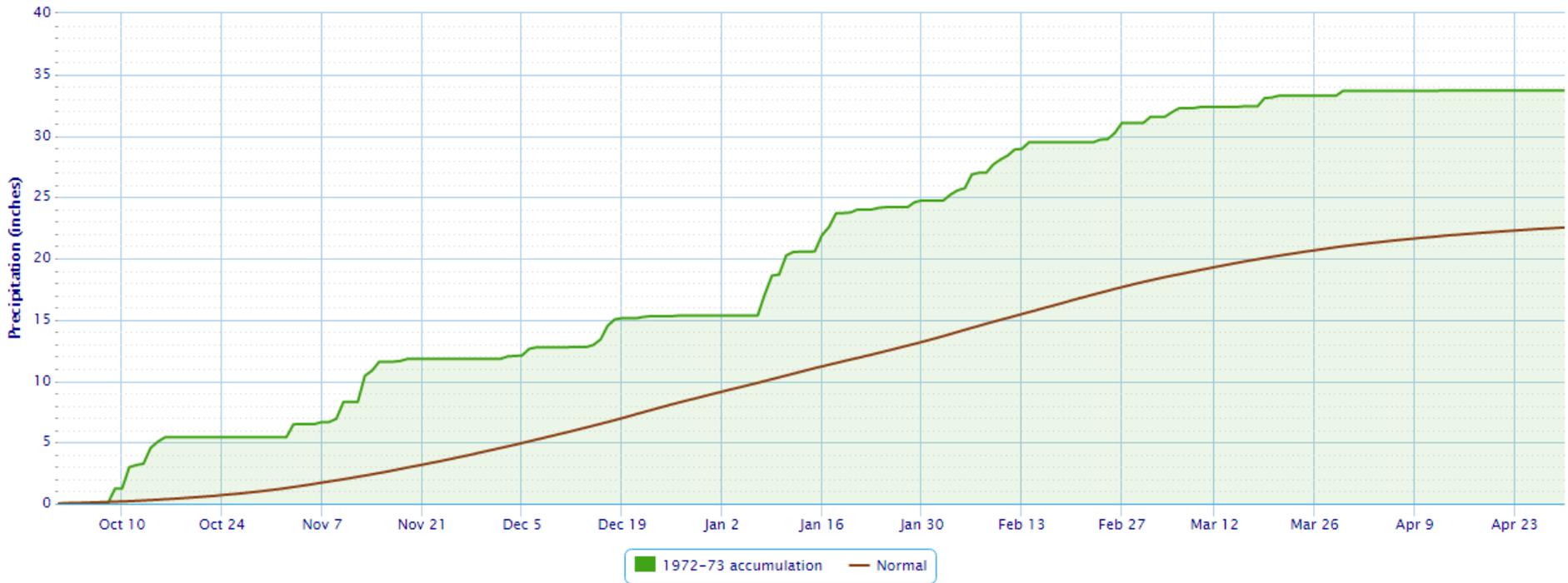
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18.39" total (82% of normal)

1972-73 (strong)

Accumulated Precipitation – SAN FRANCISCO DWTN, CA

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



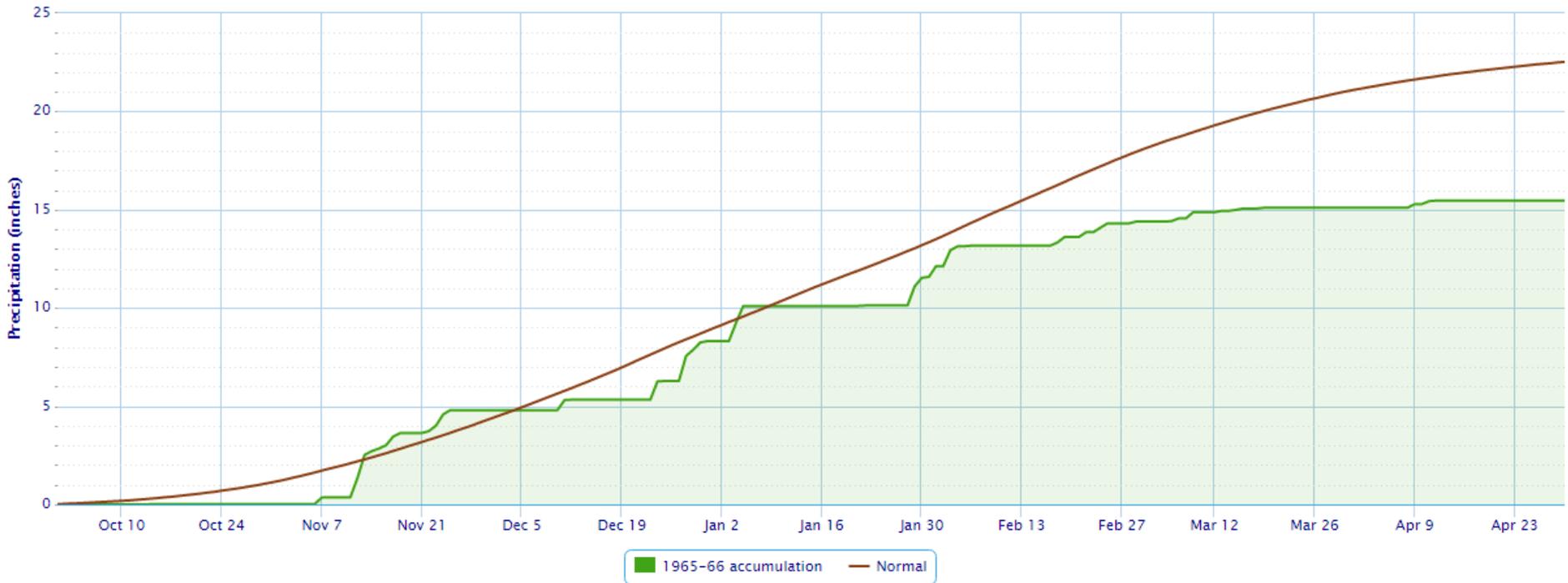
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28.33" total (150% of normal)

1965-66 (strong)

Accumulated Precipitation – SAN FRANCISCO DWTN, CA

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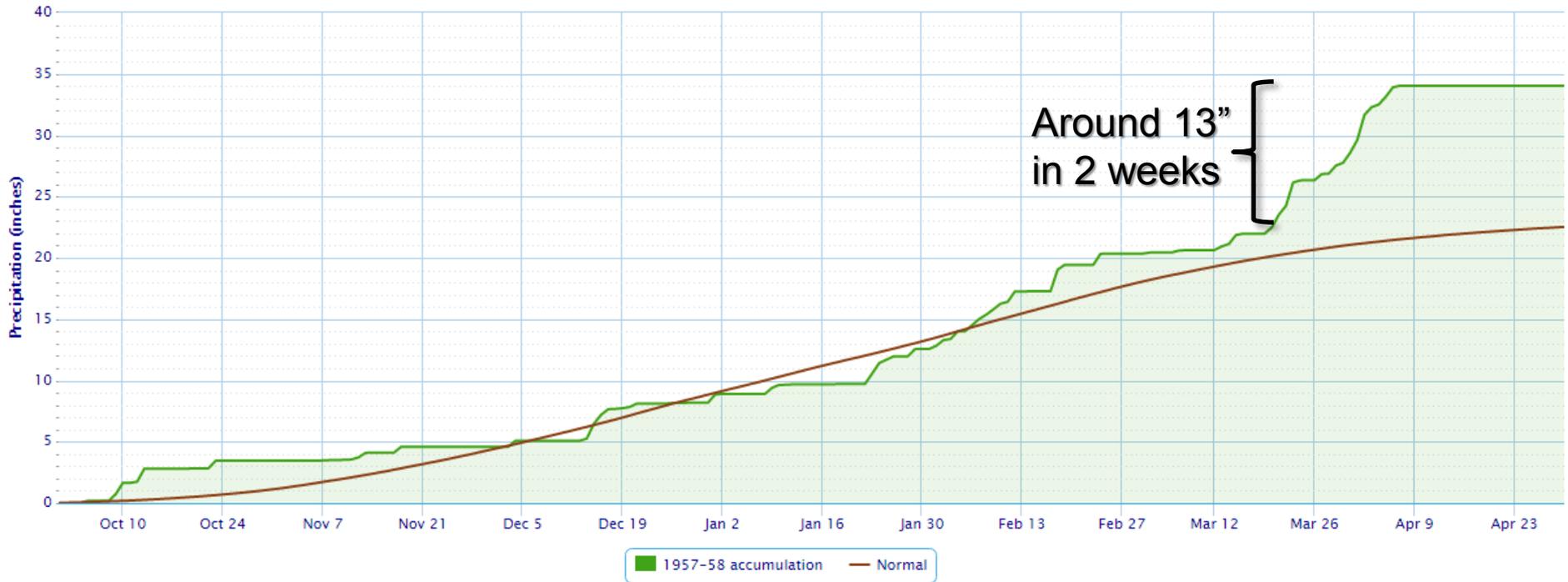
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15.46" total (69% of normal)

1957-58 (strong)

Accumulated Precipitation – SAN FRANCISCO DWTN, CA

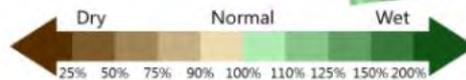
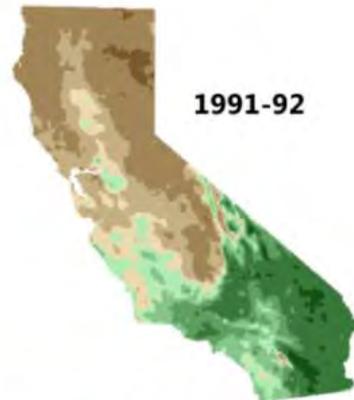
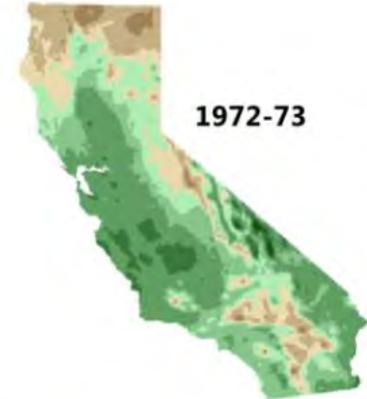
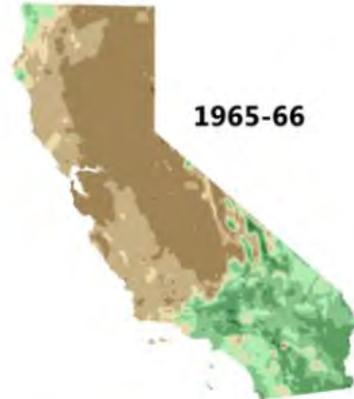
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

34.04" total (151% of normal)

Statewide Look



PRISM, Oregon State University



What is the Takeaway?

- No two events are the same!
- Dry start to the season does not mean a dry end to the season.
- Potential for periods of very substantial amounts of rain.
- Still possible we could end up with a drier than normal winter.

Latest Thinking

- 95% chance that El Niño will continue through Northern Hemisphere winter 2015-16, gradually weakening through spring 2016.
- Current atmospheric and oceanic anomalies reflect a strong El Niño event.

Latest Thinking

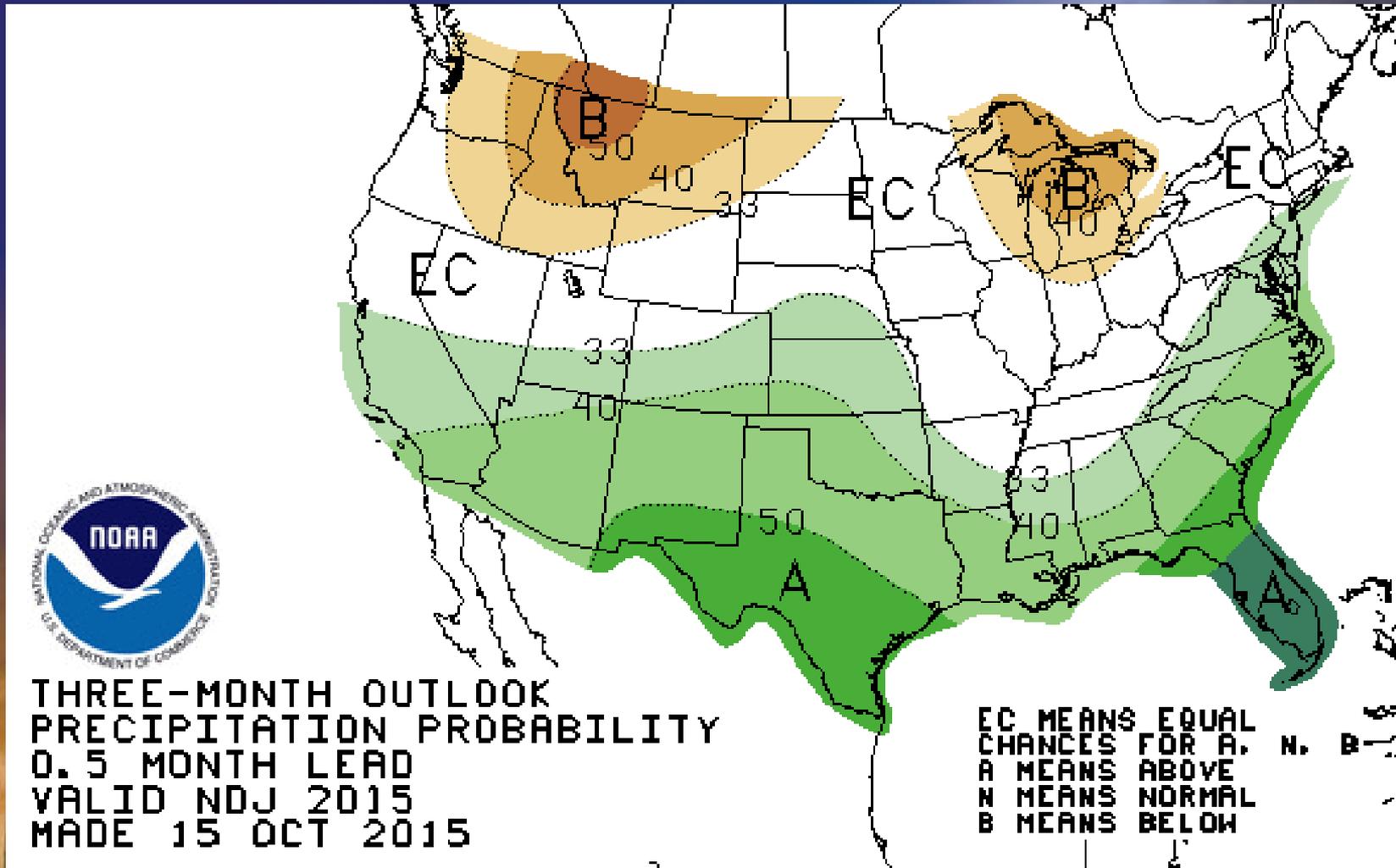
- The forecaster consensus unanimously favors a strong El Niño, with peak 3-month SST departures in the Niño 3.4 region near or exceeding $+2.0^{\circ}\text{C}$.
- There have only been 3 other recorded El Niño events where Niño 3.4 has equaled or exceeded 2.0°C , and those are: 72/73, 82/83, and 97/98.

King Tides

- *One possible wild card.*
- Potential to make the flooding worse.
- November 24, 25, and 26, 2
December 22, 23, and 24
January 21 and 22, 2016

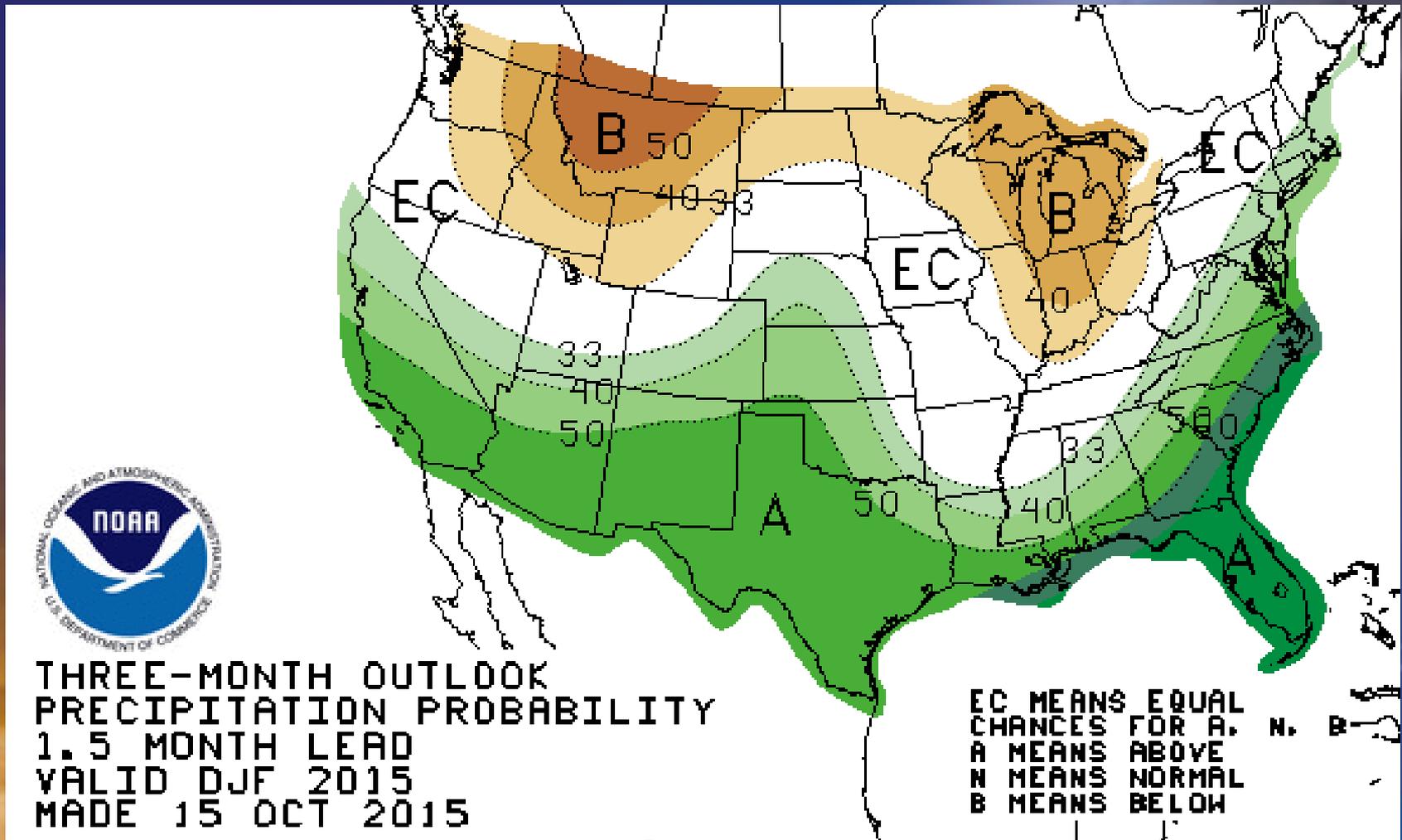


November - January



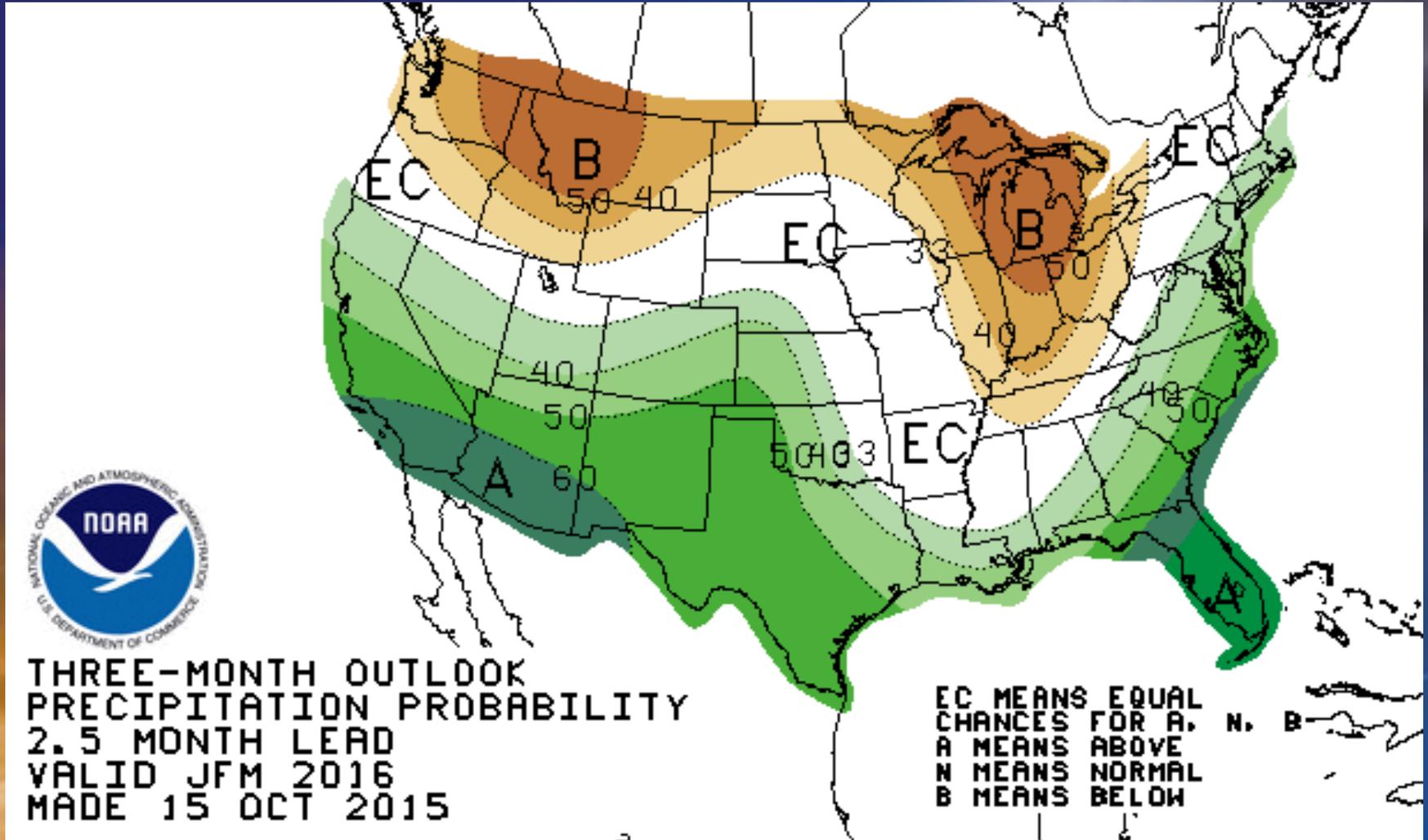
11% chance of highest 10% N-J on record.

December - February



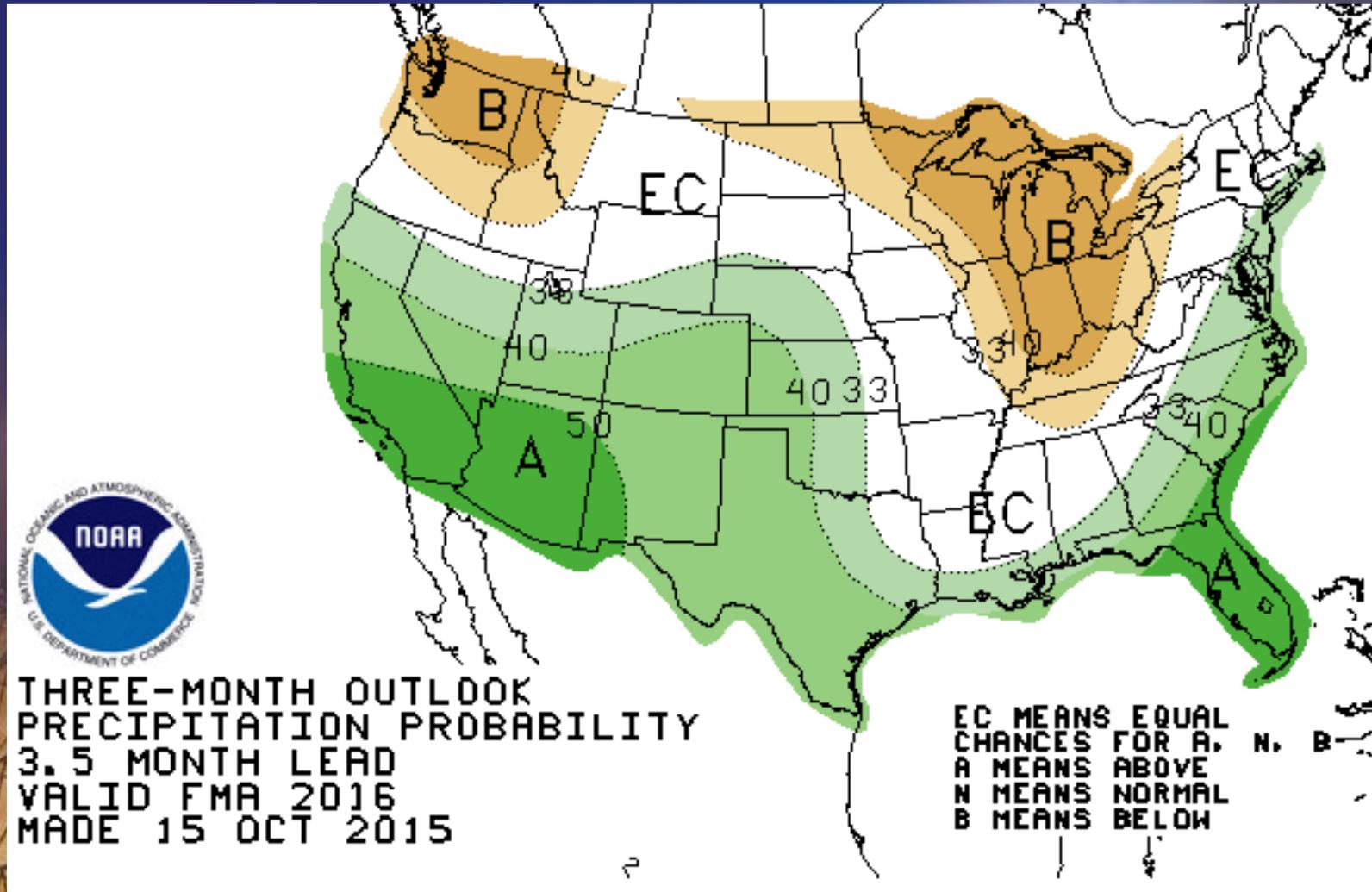
20% chance of highest 10% D-F on record.

January - March



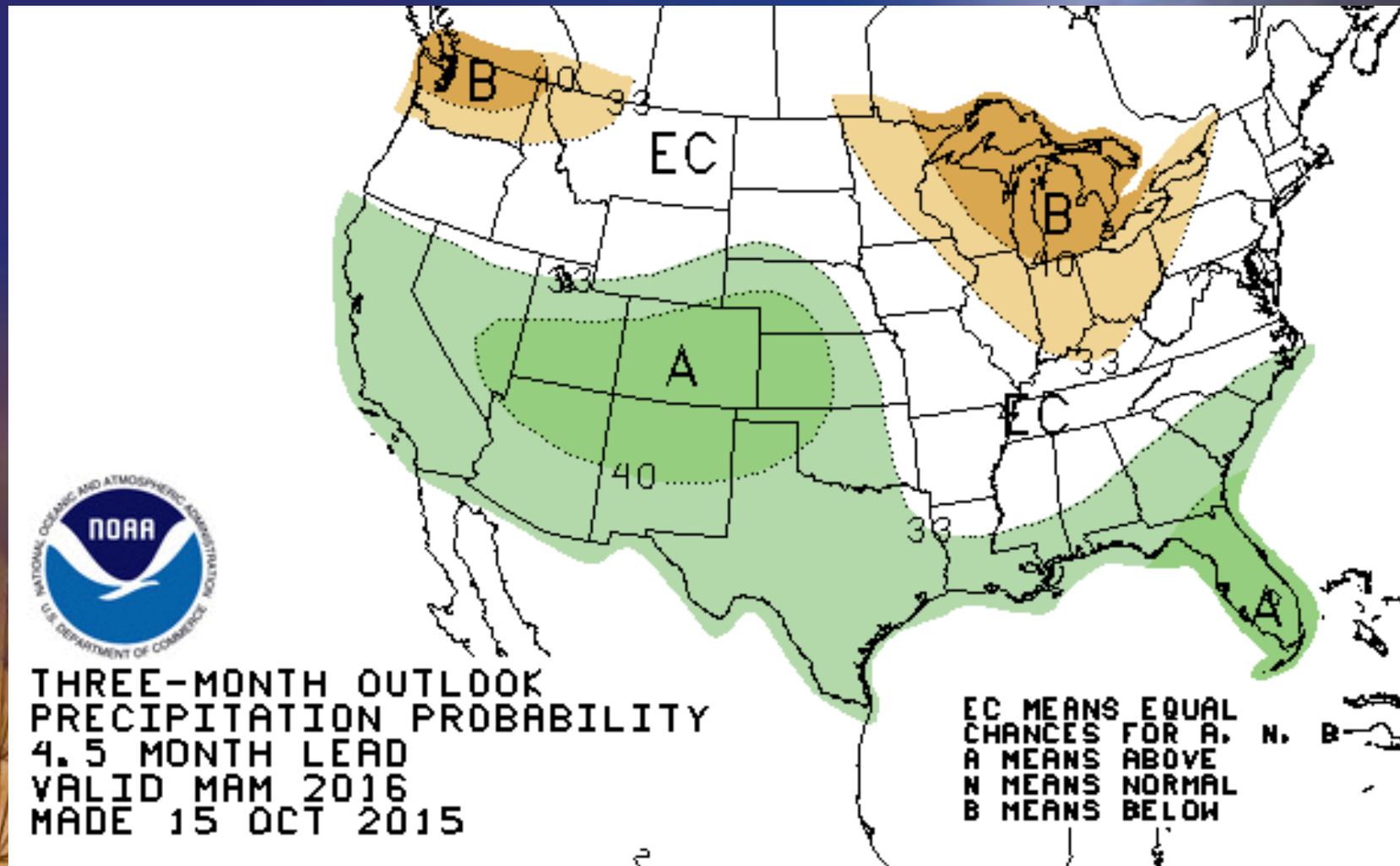
21% chance of highest 10% J-M on record.

February - April



18% chance of highest 10% F-A on record.

March - May



11% chance of highest 10% M-M on record.

How You Can Help

- Weather Service Spotter Program
matthew.mehle@noaa.gov
- CoCoRaHS: Community Collaborative
Rain, Hail & Snow Network
www.cocorahs.org

Follow Us

- Main website: weather.gov/monterey
- Facebook: www.facebook.com/nwsbayarea
- Twitter: twitter.com/nwsbayarea

Thank You!

- Questions?

Charles Bell

Charles.bell@noaa.gov

831-656-1710





Harbor Safety Committee of the
San Francisco Bay Region Clearing House
c/o Marine Exchange of the San Francisco Bay Region
505 Beach Street, Suite 300
San Francisco, California 94133-1131
415-441-6600 fax 415-441-3080 hsc@sfmtx.org

San Francisco Clearinghouse Report

November 12, 2015

- ✎ In October the clearinghouse did not contact OSPR regarding any possible escort violations.
- ✎ In October the clearinghouse did not receive any notifications of vessels arriving at the Pilot Station without escort paperwork.
- ✎ The Clearinghouse contacted OSPR 1 time so far in 2015 about possible escort violations. The Clearinghouse contacted OSPR 5 times regarding possible escort violations in 2014. The Clearinghouse contacted OSPR 1 time in 2013. The Clearinghouse contacted OSPR 3 times in 2012 regarding any possible escort violations, 3 times in 2011, 6 times in 2010, 8 time 2009; 4 times 2008; 9 times in 2007; 9 times in 2006; 16 times in 2005; 24 times in 2004; twice in 2003; twice in 2002; 6 times in 2001; 5 times in 2000.
- ✎ In October there were 98 tank vessel arrivals; 13 ATB's, 4 Chemical Tankers, 15 Chemical/Oil Tankers, 29 Crude Oil Tankers, 1 LPG's, 12 Product Tankers, and 24 Tugs with Barges.
- ✎ In October there were 283 total arrivals.

San Francisco Bay Clearinghouse Report For October 2015

San Francisco Bay Region Totals

	<u>2015</u>		<u>2014</u>	
Tanker arrivals to San Francisco Bay	61		59	
ATB arrivals	13			
Barge arrivals to San Francisco Bay	24		27	
Total Tanker and Barge Arrivals	98		86	
Tank ship movements & escorted barge movements	339		301	
Tank ship movements	201	59.29%	169	56.15%
Escorted tank ship movements	133	39.23%	118	39.20%
Unescorted tank ship movements	68	20.06%	51	16.94%
Tank barge movements	138	40.71%	132	43.85%
Escorted tank barge movements	52	15.34%	33	10.96%
Unescorted tank barge movements	86	25.37%	99	32.89%

Percentages above are percent of total tank ship movements & escorted barge movements for each item.

Escorts reported to OSPR 0 0

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	187		323		0		167		677	
Unescorted movements	64	34.22%	141	43.65%	0	0.00%	75	44.91%	280	41.36%
Tank ships	48	25.67%	83	25.70%	0	0.00%	44	26.35%	175	25.85%
Tank barges	16	8.56%	58	17.96%	0	0.00%	31	18.56%	105	15.51%
Escorted movements	123	65.78%	182	56.35%	0	0.00%	92	55.09%	397	58.64%
Tank ships	92	49.20%	131	40.56%	0	0.00%	62	37.13%	285	42.10%
Tank barges	31	16.58%	51	15.79%	0	0.00%	30	17.96%	112	16.54%

Notes:

1. Information is only noted for zones where escorts are required.
2. All percentages are percent of total movements for the zone.
3. Every movement is counted in each zone transited during the movement.
4. Total movements is the total of all unescorted movements and all escorted movements.



CALIFORNIA STATE LANDS COMMISSION

HARBOR SAFETY COMMITTEE MONTHLY REPORT - OCTOBER COMPARISON

VESSEL TRANSFERS

	Total Transfers	Total Vessel Monitors	Total Transfer Percentage
OCTOBER 1 - 31, 2014	208	89	42.79
OCTOBER 1 - 31, 2015	222	71	31.78

CRUDE OIL / PRODUCT TOTALS

	Crude Oil (D)	Crude Oil (L)	Overall Product (D)	Overall Product (L)	GRAND TOTAL
OCTOBER 1 - 31, 2014	12,427,290	0	18,412,089	7,587,661	25,999,750
OCTOBER 1 - 31, 2015	12,234,846	0	18,504,944	6,975,561	25,480,505

OIL SPILL TOTAL

	Terminal	Vessel	Facility	Total	Gallons Spilled
OCTOBER 1 - 31, 2014	0	0	0	0	0
OCTOBER 1 - 31, 2015	0	0	0	0	0

Disclaimer:

Please understand that the data is provided to the California State Lands Commission from a variety of sources; the Commission cannot guarantee the validity of the data provided to it.