

CAL FIRE



CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

CAL FIRE / Butte County Fire Department

176 Nelson Avenue

Oroville, CA 95965

(530)538-7888

INVESTIGATION REPORT

CASE NUMBER:	17CABTU015954
CASE NAME:	La Porte
DATE:	October 8, 2017
INCIDENT TYPE:	Vegetation Fire
INCIDENT INVESTIGATOR:	Tom Kluge – Fire Captain Specialist - BTU

- 1 **1 - VIOLATION:**
- 2 **None Observed**
- 3

1 **2 - SUMMARY:**

2 On October 8, 2017, between the hours of 10:30 pm to 11:00 pm, a vegetation fire (La
3 Porte Fire) started near the community of Bangor, CA. The La Porte Fire burned 6,151
4 acres and burned into the Cascade Fire (Yuba County). The La Porte Fire was
5 managed as part of the Wind Complex, a series of fires that began burning within 24
6 hours of each other in the foothills of Northern California.

7
8 The La Porte Fire was a wind driven fire influenced by both terrain and fuels. My origin
9 and cause investigation led me to the property located at 167 Darby road. It is a mostly
10 wooded parcel with a natural drainage bisecting the property from west to east. PG&E
11 distribution lines follow the drainage through the property and terminate at 171 Darby
12 Road.

13
14 Near the origin area, as determined by methods described in the narrative of this
15 document and the Origin and Cause LE-71 supplemental report, I observed a broken
16 distribution pole with a broken cross arm and bent cross arm support. I also observed
17 distribution conductors that had fallen to the ground. The conductors were covered by a
18 seven-inch diameter limb that had broken off a nearby Valley Oak tree. The oak limb
19 had been charred by fire but did not burn. I observed a tall standing oak tree with
20 minimal fire damage at the base of the tree. The tall standing oak had a new break
21 which appeared from the ground to match the broken limb on the conductor wires.

22
23 The La Porte Fire was caused when the valley oak limb fell upon energized conductor
24 wires. The pole supporting the conductors catastrophically failed, as did one of the
25 conductor wires, causing an energized fault to ground. The fault to ground occurred
26 within a receptive fuel bed and started the fire.

27

- 1 **3 - SUSPECT:**
- 2 None identified at the time of this report.
- 3

1 **4 - VICTIMS & WITNESSES:**

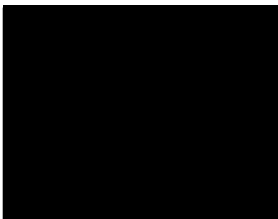
2

3

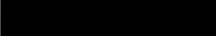
4

5

6



7

Home: 

8

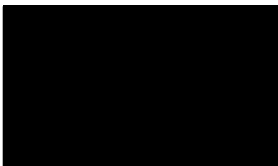
Owners of the property where the fire started

9

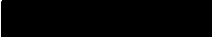
10

11

12



13

Cell: 

14

Was home when fire started. Stepped outside between 10:30 and 11:00 pm and saw fire in the drainage to the northwest of his house

16

17

See attachment f for list of victims

18

1 **5 - EVIDENCE:**

2 E1 - Length of conductor wire with several arc burns along its length

3 E2 - Section of tree branch that fell onto the energized conductors including point of
4 failure.

5 E3 - Photographs of the fire origin area

6

1 **6 – CONDITIONS:**

2 The weather was hot, dry with high winds recorded at over 30 miles per hour. North
3 winds in the region had blown for several days and the relative humidity was low and
4 had been low for several days (see attachment j). Night time fuel moisture recovery
5 was minimal with the dew point, well below ambient temperatures.

6
7 The area around Darby Road has limited cellular/ mobile telephone coverage limiting
8 the ability for people to report the fire once telephone lines were compromised.

9
10 Suppression efforts were hampered by limited telephone and cellular access. Butte
11 County and surrounding counties had multiple fires burning at the same time as the La
12 Porte Fire limiting the number of available resources to respond. The Cascade Fire had
13 been burning in Yuba County near the Butte County line prior to the start of the La Porte
14 Fire. The La Porte Fire was mistaken for the Cascade fire by local residents and fire
15 officials.

16
17

18 **Weather**

19 From Bangor RAWS station (BNGC1) located at N39.380747 W121.386228
20 Descriptive location is 446 Los Verjeles Rd Bangor, CA 95914
21 Approximately 2.70 miles SSW from the fire origin area.
22 Recorded on 10/08/2017 23:51 PDT (attachment i)

23 Temperature: 68 Degrees Fahrenheit
24 Relative Humidity: 13 percent
25 Winds: ENE 6 miles per hour, gusts to 30 miles per hour
26 Dew Point: 15 Degrees Fahrenheit

27
28
29

1 **7 – VEHICLE/EQUIPMENT:**

2 No vehicles were identified as being a factor in the ignition of the fire.

3

4 Distribution power lines were in the origin area. The energized conductors were

5 damaged because of mechanical failure and provided a heat source that started the La

6 Porte Fire.

7

1 **8 - PROPERTY:**

2 167 Darby Road

3 Bangor, CA 95914

4 *Location where the fire originated. In the drainage, just east of Darby road, north of the*
5 *residence located on the property. Property is rolling hills with a steep drainage running*
6 *through the north half of the property from west to east*

7

1 **9 - NARRATIVE:**

2 On October 9, 2017 at approximately 10:00 am, I responded as a Fire Investigator to an
3 actively burning vegetation fire in uniform while driving my department marked vehicle.
4 The fire was in the community of Bangor, CA. I arrived at the Incident Command Post
5 (ICP) at Butte County Fire Station 55 in Bangor at approximately 11:00 am. I met with
6 the Incident Commander, Division Chief (DC) Garret SJOLUND (D2104), and received
7 fire history information. SJOLUND told me the following in summary:

8
9 The fire was first confirmed by responding firefighters around 12:15 am on October 9.
10 The fire was moving at a critical rate of spread from the north, north east to the south,
11 south west. The fire had already destroyed an unknown number of structures and was
12 still burning at a critical rate. No firefighting personnel had yet identified an origin area.
13 Firefighters observed extreme fire behavior and high wind speeds.

14
15 Battalion Chief (BC) Jason MORRIS (B2109) was also with SJOLUND and I at the ICP.
16 MORRIS told me the following in summary:

17
18 MORRIS had first observed the fire's edge 200 feet east of the low water crossing on
19 Vierra Road at South Honcut Creek. The fire was burning erratically, driven by turbulent
20 winds. At one point in the evening, MORRIS used the intersection of La Porte Road
21 and Los Verjeles Road as a safety zone. MORRIS saw the roof of the Bangor Feed
22 Store was pulled up and cast off by the wind. Darby Road was in the geographical area
23 referred to as Division A, supervised by the operator on CAL FIRE Engine 2165
24 (E2165).

25
26 After speaking with SJOLUND and MORRIS I proceeded towards the intersection of
27 Darby and Vierra Roads in my department vehicle. As I drove north on La Porte Road, I
28 observed several macro indicators such as angle of char, foliage freeze, and protection,
29 indicating the fire advanced (head fire) through the area. As I drove, I observed
30 changes in the spread pattern that indicated the fire transitioned several times from an
31 advancing fire to a lateral fire.

1 The La Porte Fire had not crossed the La Porte Road as I approached Gold Pan Court.
2 I noted the road was spray painted with the word "CELL" at the top of the rise. As I
3 approached Darby Road, I saw E2165. I stopped and talked to the operator, Fire
4 Captain Kevin FLEMMING. I confirmed he was Division A Supervisor and notified him
5 that I would be working in his division for accountability. FLEMMING told me he had
6 just transitioned into the position having relieved the previous Engine Company Officer.
7 FLEMMING told me he was waiting for the La Porte Fire to burn towards this section of
8 road and was hoping to hold the fire in the area. He asked if I would assist in holding
9 traffic on the road as it had become dangerous for firefighters with low visibility and no
10 restrictions imposed on civilian traffic. I assisted for approximately one hour after which,
11 local law enforcement assumed control of the traffic control point.

12
13 As I continued onto Darby Road, south from La Porte Road I observed macro indicators
14 (angle of char, depth of char, protection) indicating I was in the lateral progression area
15 of the fire. As I continued south on Darby Road, I observed two distribution conductor
16 wires hanging low across the road approximately one quarter mile south of La Porte
17 Road. I observed indicators indicating the fire had made an advancing run from the
18 drainage towards the southwest following topographical features. I set out on foot
19 towards the drainage. I observed a distribution pole, in line with the conductor wires,
20 that was broken and burning at the top of the pole but was not burning at the base. As I
21 approached the area, I observed micro indicators such as protection, stem fall, staining,
22 and sooting as well as macro indicators that directed me to an area 20 feet northeast of
23 the broken and burned power pole. I noted the area and continued walking beyond it. I
24 walked to the next power pole and followed a power line south towards the structures at
25 167 Darby Road, subsequently returned to my vehicle and continued driving to the east
26 side of the fire. I noted the location as 167 Darby Road and continued to Vierra Road.

27
28 As I approached the location indicated by MORRIS, 200 feet past the low water
29 crossing on Vierra Road, I observed macro indicators (angle of char, depth of char,
30 sooting and staining) that indicated that I was in a backing fire progression. I parked my
31 vehicle and set out on foot, recording my path on a Garmin Global Positioning System

1 (GPS) hand held module. I observed many micro indicators including cupping, sooting,
2 staining and stem fall. I considered the totality of several indicators to determine the
3 fire's path and progression across hundreds of points along the path. The fire had
4 burned in many directions transitioning from backing, to lateral, and advancing fires
5 which is consistence with turbulent winds.

6
7 The fire's path of progression led me back the property at 167 Darby Road. To ensure I
8 was being objective, I returned to Vierra Road and traveled further north east to 15460
9 block of Vierra Road and set out on foot again, observing the macro and micro
10 indicators. Again, the fire's progression led me back to 167 Darby Road. In all, seven
11 hours were spent observing the indicators to determine the general origin area (GOA).

12
13 I returned to my truck and drove to an access gate located at the property on 167 Darby
14 Road. The gate was locked and I made vehicle access by lifting the gate off the hinges.
15 I noted there were no foot prints or vehicle tracks in the area. I followed the micro and
16 macro indicators to the specific area of origin. Within the specific origin area (SOA) was
17 a conductor wire with blue and white burn marks indicating electrical discharge from the
18 conductor. Near the SOA, I observed a distribution pole that was broken with a broken
19 wooden cross arm still dangling from one of the conductor wires (photo 1). The cross
20 arm was still partially intact, but split along the mounting bolt holes. On the ground was
21 a bent metal cross arm support. On the ground east of the distribution pole, I observed
22 a seven-inch diameter oak branch that had a recent break at the base of the branch
23 (photo 7). I observed the break in the branch did not appear to be weathered. The oak
24 branch was partially scorched however mostly undamaged with leaf foliage still intact.
25 The oak branch was positioned on top of the conductor wire that was observed in the
26 SOA. I photographed the area and secured access to the GOA.

27
28 I ordered a Light Detection And Ranging (LIDAR) team to survey the area including the
29 broken limb and the tree from where I believed the broken limb came from. I ordered an
30 arborist to examine the oak tree that had broken to evaluate the health of the tree. The
31 arborist was also to determine whether the tree should have been assessed and

1 maintained by the responsible power company. Pacific Gas and Electric crew workers
2 in the area told me this was one of their poles..

3
4 The report provided by the contracted arborist, Mark Porter, stated the subject valley
5 oak did show signs of decay. The arborist report stated there may have been a crack at
6 the base of the limb. The arborist report stated it is possible there were no visible
7 outward signs of failure or weakness that would have been discovered with a normal
8 assessment.

9
10 I reviewed the report timeline from CAL FIRE Butte Unit Emergency Command Center
11 that included 911 calls and radio transmissions. The first 911 report of the fire was at
12 11:18 PM on October 8, 2017. There was conflicting information based on several fires
13 in the area as to whether it was a new fire.

14
15 Based on witnessed reports, observed facts, specialist reports, historical data available,
16 and my training and experience, I conclude the following:

17
18 The La Porte fire started between 10:30 p.m. and 11:00 p.m. on October 8, 2017 in the
19 drainage on the property located at 167 Darby Road, Bangor CA. The fire started when
20 gusty winds caused a tree limb to break and fall onto energized distribution powerlines.
21 In falling, the limb caused the power pole cross member to break along with other
22 crucial components of the pole resulting in a catastrophic failure of the pole. The failure
23 of the pole resulted in the failure of a conductor that discharged electrical energy
24 providing a heat source that resulted in a fire. The fire started upon natural vegetation
25 and forest ground litter that grew into a wildland fire.

26
27

1 **10 - ATTACHMENTS:**

- a. Photo Log
- b. Google Earth aerial view of fire origin location (pre-fire)
- c. La Porte Fire Damage Assessment Map
- d. Google Earth aerial view with final fire perimeter overlaid
- e. Google Street view of origin area showing subject tree, pre-fire
- f. Damage Assessment parcel spreadsheet
- g. LE-71 Origin and Cause report by Tom Kluge #3970
- h. LIDAR report
- i. BNGC1 weather observations from October 8-9, 2017
- j. BNGC1 weather observations from October 2-9, 2017



Tom Kluge
Peace Officer #3970
CAL FIRE Butte
176 Nelson Ave.
Oroville, CA 95965
(530)538-7888

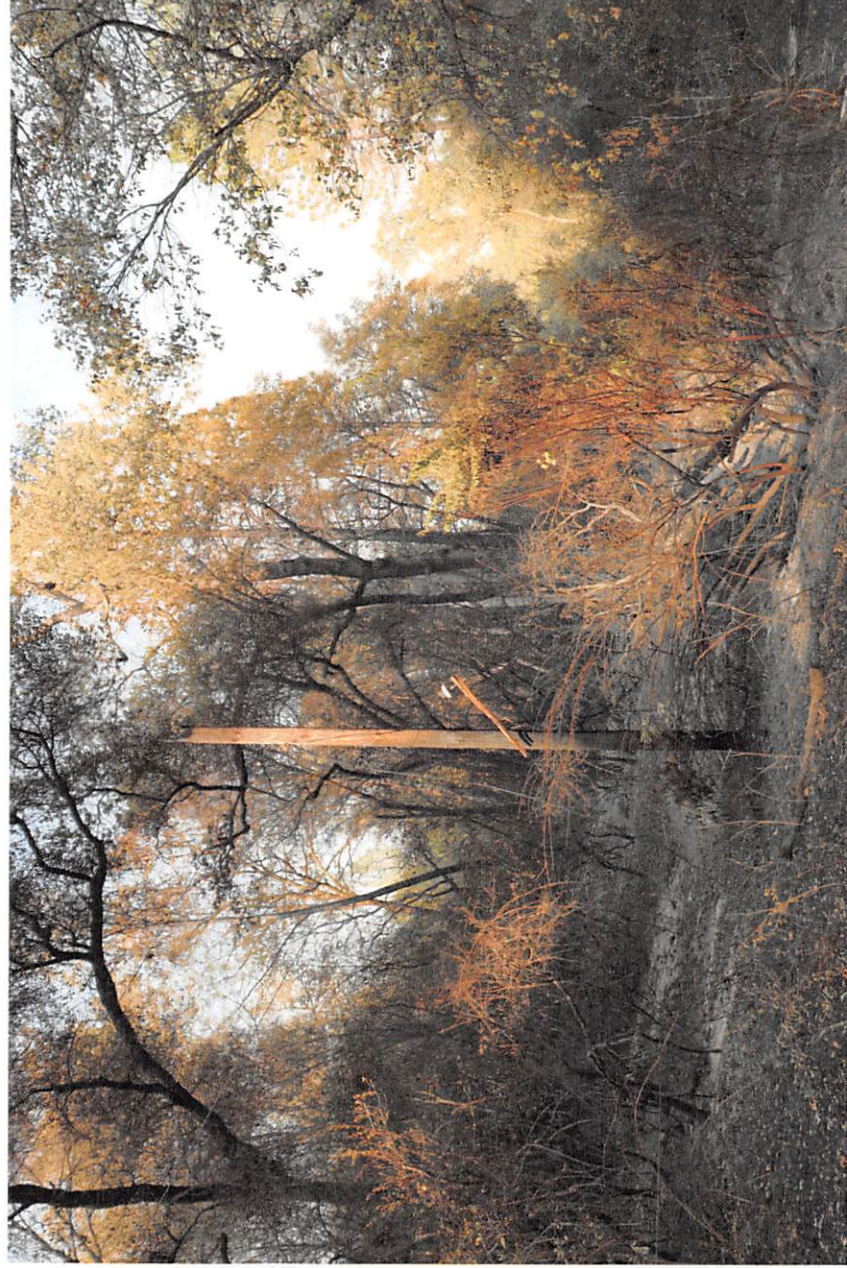


LA PORTE FIRE

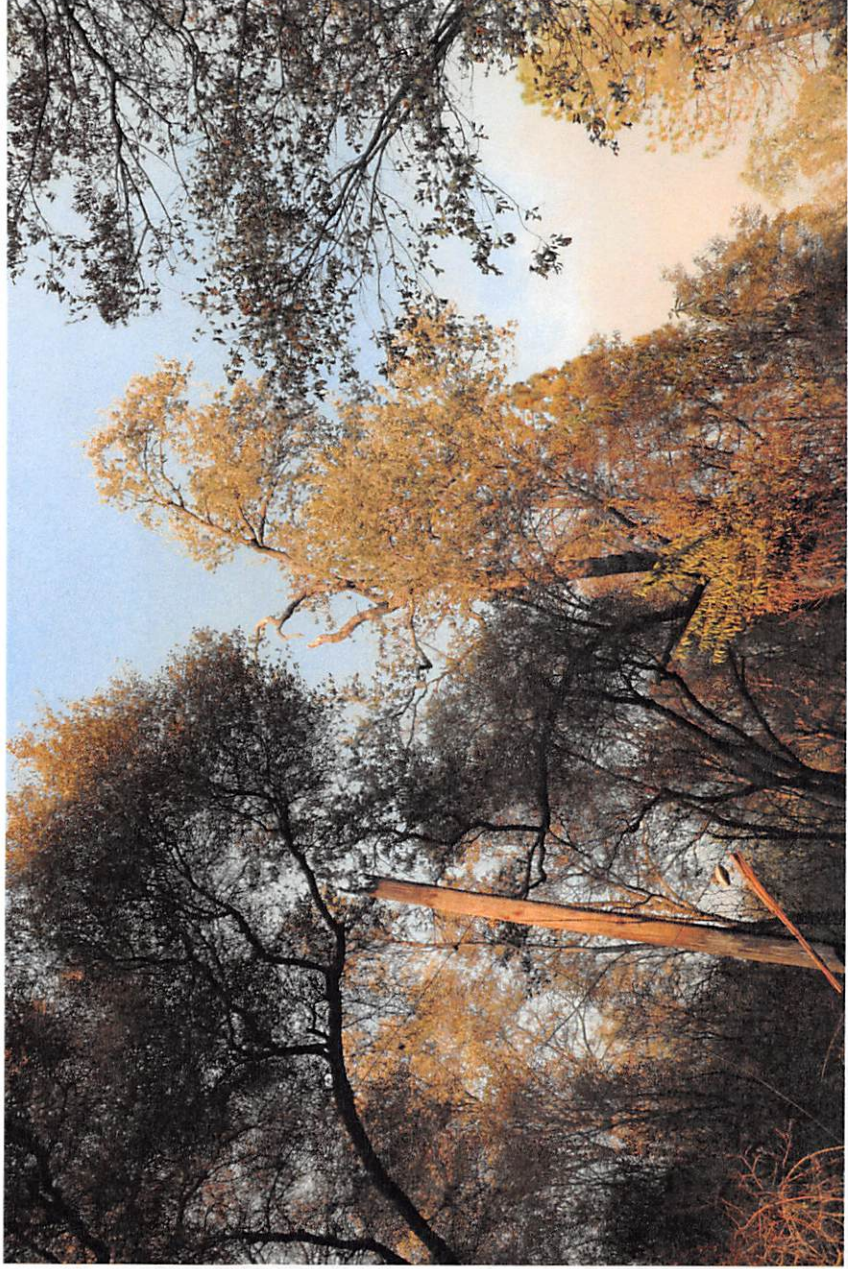
17CABTU015954-103

October 8, 2017

Photograph 1
General Origin Area (GOA)



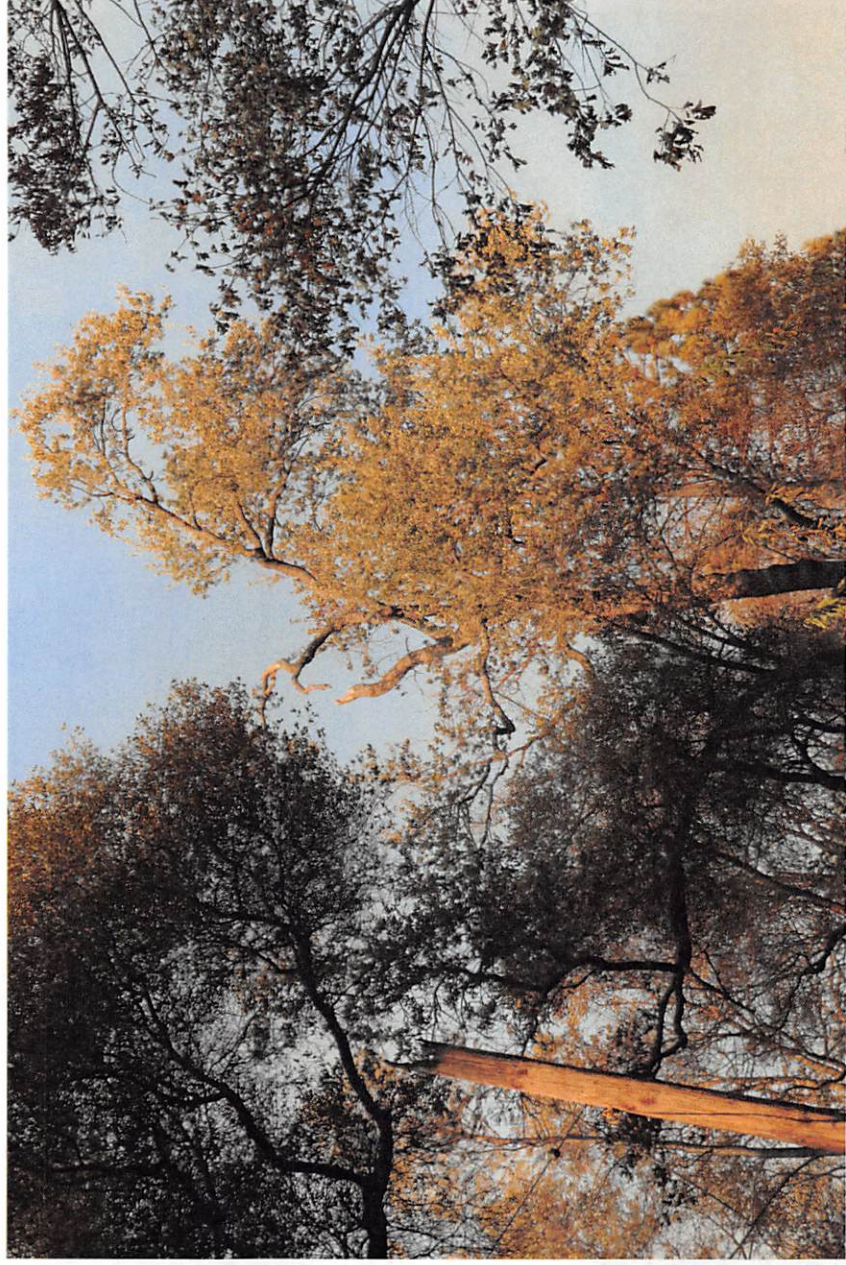
Photograph 2
Subject tree in GOA



Photograph 3
Closer view of subject tree in GOA



Photograph 4
Closer view of subject tree in GOA



Photograph 5
Subject limb break of subject tree



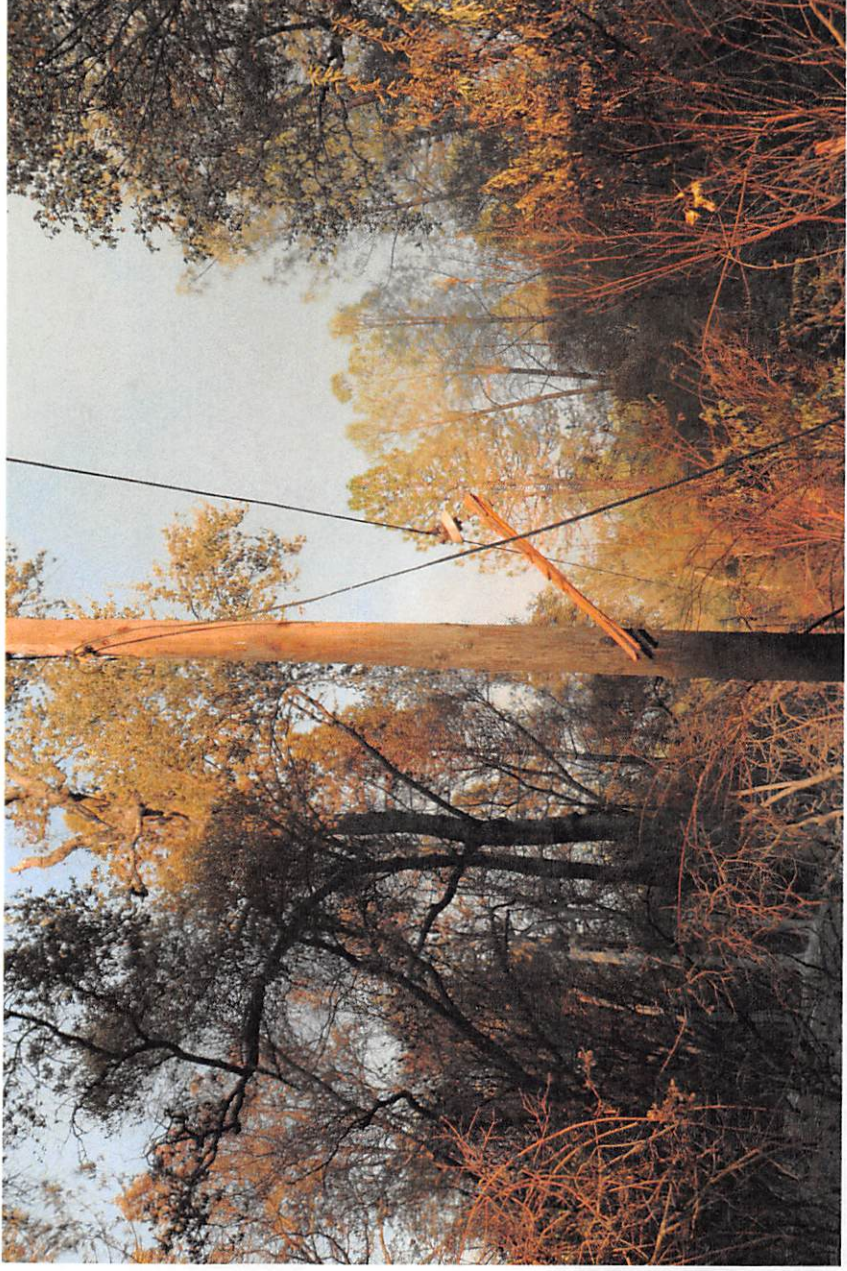
Photograph 6
Close up broken limb



Photograph 7
Broken oak limb in GOA



Photograph 8
close up view of broken cross arm





- Conductor
- Pole
- Origin
- Subject Tree

Google Maps 75 Darby Rd

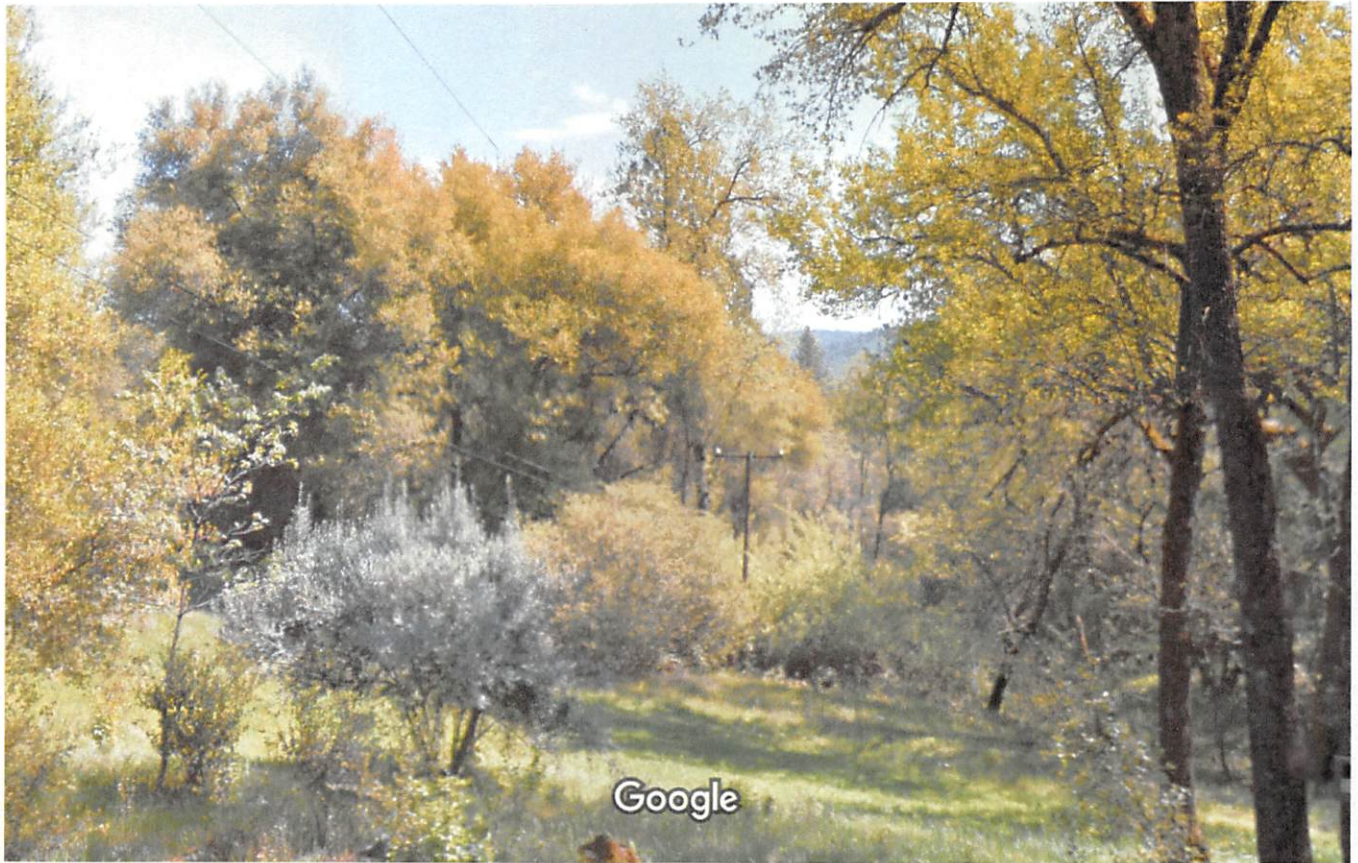
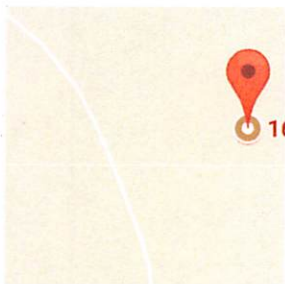


Image capture: Apr 2012 © 2018 Google

Bangor, California

Google, Inc.

Street View - Apr 2012



SOLDANO, DONNA C

[REDACTED] Destroyed [REDACTED]

PARDINI, DAVID

[REDACTED] Destroyed Outbuilding [REDACTED]
[REDACTED] Destroyed Single Family Residence [REDACTED]

HEADLEY, ANDREW

[REDACTED] Destroyed Outbuilding [REDACTED]
[REDACTED] Destroyed Single Family Residence [REDACTED]

GOMEZ, MICHAEL F

[REDACTED] Destroyed Single Family Residence [REDACTED]

LEE, SYLVA K

[REDACTED] 10-25% Single Family Residence [REDACTED]

LODHI, SANAM

[REDACTED] Destroyed Single Family Residence [REDACTED]

ZORNE, SARAH

[REDACTED] Destroyed Single Family Residence [REDACTED]

FLAMMINI, CLARENCE JERRY

[REDACTED] Destroyed Single Family Residence [REDACTED]

AULT, LAWRENCE G

[REDACTED] Destroyed Mobile Home - [REDACTED]

SMITH, MICHAEL W

[REDACTED] Destroyed Mobile Home - [REDACTED]

ARNOLD, FORREST W

[REDACTED] Destroyed Mobile Home - [REDACTED]
[REDACTED] Destroyed Garage [REDACTED]

HUFFMON, STACY F

[REDACTED] Destroyed Mobile Home - Single Wide [REDACTED]
[REDACTED] Destroyed Mobile Home - Single Wide [REDACTED]

DALEY, GARRETT

[REDACTED] Destroyed Single Family Residence- [REDACTED]

DALEY, ROBERT M

[REDACTED] Destroyed Outbuilding gt 10'X12' [REDACTED]
[REDACTED] Destroyed Single Family Residence [REDACTED]

WHEATLEY, MATTHEW

Destroyed
Destroyed
Destroyed

Mobile Home - Double Wide
Outbuilding gt 10'X12'
Outbuilding gt 10'X12'

NICHOLS, GEORGE E

Destroyed
Destroyed

Mobile Home - Double Wide
Outbuilding gt 10'X12'

ARNOLDBSEN, KATHLEEN F

Destroyed
Destroyed

Outbuilding gt 10'X12'
Single Family Residence

QUESADA, DAVID

Destroyed

Mobile Home - Double Wide

SMITH, LINDSEY

Destroyed
Destroyed
Destroyed
Destroyed
Destroyed

Non-habitable-Shop
Outbuilding gt 10'X12'
Outbuilding gt 10'X12'
Outbuilding gt 10'X12'
Single Family Residence

CASSIANO, MAYRA

Destroyed
Destroyed

Mobile Home - Double Wide
Outbuilding gt 10'X12'

MILLER, LYNN M

Destroyed

Outbuilding gt 10'X12'

MORSE, ANDREW

Destroyed
Destroyed

Mobile Home - Single Wide
Single Family Residence

BROWN, MARY LYNN

Destroyed
Destroyed
Destroyed
Destroyed

Commercial Building 20 X 20
Commercial Building - 30 X 20
Commercial Building - 30 X 40
Commercial Building - Retail Feed store

95914

AYERS, EDWIN R

Destroyed
Destroyed
Destroyed
Destroyed

Mobile Home - Triple Wide
Non-habitable-Shop
Mobile Home - Double Wide
Outbuilding 66 X 28

RICH, KATHLEEN



Destroyed

Mobile Home - Double Wide



ALAEI, ALIREZA J



Destroyed

Single Family Residence



MOUTON, MARY Y



Destroyed

Garage-Shop



BLACKSON, THOMAS B

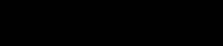


10-25%

Single Family Residence



WAUGH, JAMES

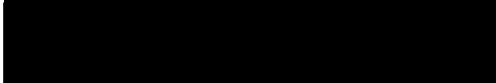


Destroyed

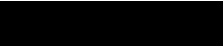
Outbuilding gt 10'X12'

Destroyed

Outbuilding gt 10'X12'



LEONARD, CAROL



Destroyed

Detached Garage

Destroyed

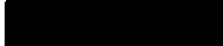
Single Family Residence-Single Story

Destroyed

Shop 500 sq ft



FOX, GARY P



Destroyed

Outbuilding shop

75-100%

Carport- metal



LONG, DAVID M



Destroyed

Outbuilding gt 10'X12'



FELLOWSHIP, MARANATHA CHURCH



Destroyed

Outbuilding gt 10'X12'

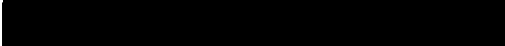


THOMAS, ARTHUR SCOTT



Destroyed

Mobile Home



BROWN, MARY LYNN



Destroyed

Non-habitable-Shop



BARICKMAN, FRED



Destroyed

Outbuilding gt 10'X12'



BICKFORD, ROY M



Destroyed

Outbuilding gt 10'X12'



METZ, DAVID C



Destroyed

Single Family Residence



GOULD, DENISE SS



Destroyed

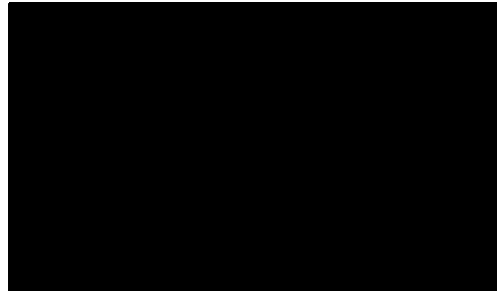
Outbuilding gt 10'X12'



WOOD, CAMIEL F

Destroyed
Destroyed

Mobile Home - Double Wide
Detached Garage



WARREN, FLOYD E

Destroyed
Destroyed
Destroyed

Outbuilding Barn 30 X 200
Outbuilding gt 10'X12'
Outbuilding gt 10'X12'

DALEY, GARRETT B

Destroyed
Destroyed
Destroyed
Destroyed

Mobile Home
Outbuilding gt 10'X12'
Single Family Residence - single story
Mobile Home - Single Wide



DAWSON, DARIAN W

Destroyed

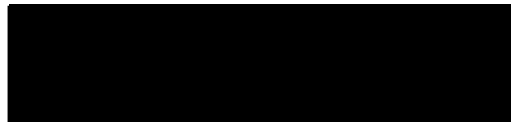
Single Family Residence-Single Story



BIGELOW, THOMAS THEODORE

Destroyed
Destroyed
Destroyed

Mobile Home - Double
Outbuilding 40'X12'
Shop/Garage 30 X 40



WISEMAN, WENDALL SEQUOIA

Destroyed
Destroyed

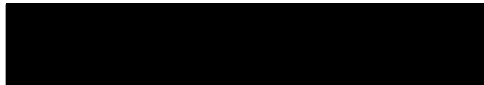
Detached Garage
Single Family Residence



RISSLER, ERNEST R

Destroyed
Destroyed

Non-habitable-Shop
Outbuilding gt 10'X12'



MICHAEL, LISA

Destroyed

Outbuilding gt 10'X12'





SUPPLEMENTARY INVESTIGATION REPORT

STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY AND FIRE PROTECTION
LE 71 (REV. 7/2011)

INCIDENT NUMBER
17CABTU015954
CASE NAME
LA PORTE
UNIT
CASE NUMBER
BTU 17CABTU015954-103

DAY	MONTH	DATE	YEAR	COUNTY	REGION	UNIT	CASE NUMBER
SUN	OCT	8	2017	BUTTE	CNR	BTU	17CABTU015954-103

1 On Monday, October 9, 2017 I responded to the La Porte fire in the community of Bangor CA. I
 2 responded in my law enforcement uniform a fire investigator in my marked department vehicle. I
 3 arrived at scene at approximately 11 am.

4
 5 I met with the B2109 (Jason MORRIS) at Butte County Bangor Fire Station 55. MORRIS told me
 6 that when he arrived at scene, the fire was backing on Vierra Road 220 feet east of the low water
 7 crossing at Vierra and Darby Road. D2104 (Garrett Sjolund) was the Incident Commander and
 8 showed me a crude sketch of the fire. SJOLUND also told me the initial reports of the La Porte fire
 9 were mistaken for the Cascade Fire that was in Yuba County close by. Chief SJOLUND also told
 10 me all power lines had been de-energized per Pacific Gas and Electric (PG&E). I collected Global
 11 Positioning Satellite (GPS) data from Chief MORRIS and drove into the fire area. As I turned north
 12 onto La Porte Road from Oro Bangor Highway, I became aware of the vast devastation and the loss
 13 of property.

14
 15 As I continued north on La Porte Road I observed several Macro indicators such as angle of char,
 16 depth of char, foliage freeze, ash deposits, and protection. The macro indicators clearly showed the
 17 fire advanced from north east to south west. I traveled to the intersection of Darby Road and La
 18 Porte Road and observed macro indicators that showed lateral movement of the fire with lower
 19 intensity. I knew by the indicators I was on the right flank of the fire (looking from the heel towards
 20 the head). Near the address of 167 Darby road, I observed powerlines that were sagging across
 21 Darby Road. I set out on foot and walked towards a broken and burned power pole in the same
 22 location adjacent to 167 Darby road.

23
 24 As I approached the area, I observed micro indicators such as protection, stem fall, staining, and
 25 soot deposit as well as macro indicators that pointed to an area 20 feet north east of the broken and
 26 burned power pole. I noted the area and continued walking past. I walked to the next power pole
 27 and followed the branch line up towards 167 Darby Road and subsequently returned to my vehicle
 28 and continued driving to the east side of the fire.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33

I parked at the location given to me by Chief MORRIS, 34° 24.260N 121° 21.450W in Vierra Road. Using the macro and micro indicators I determined I was on the left flank of the fire (looking from the heel towards the head). I walked north from this location into the fire area observing and following the macro and micro fire progression indicators. The fire progression through the area was very erratic and consistent with the wind patterns reported during the time of the fire as it passed through the area. I followed the indicators across Robinson Ravine to the home of [REDACTED]

I spoke with [REDACTED] at his home. He told me the following in summary:

[REDACTED] was at his home when he heard the roar of the fire around 11 p.m. He went outside and saw from his front porch, the fire travel from the north east to the south west. He said he observed the fire sheeting across the field next to his drive way. [REDACTED] told me he thought the fire must have started about a quarter mile north of this driveway on Darby Road based on his observations of the fire.

I walked back to the east from [REDACTED] property and observed macro and micro indicators that lead me to determine I was in the outside heel of the fire and the fire had backed into the area from the origin.

Using the three points of reference and the macro and micro indicators I determined the fire started in the area of the powerlines that run through the property at 167 Darby Road owned by [REDACTED]

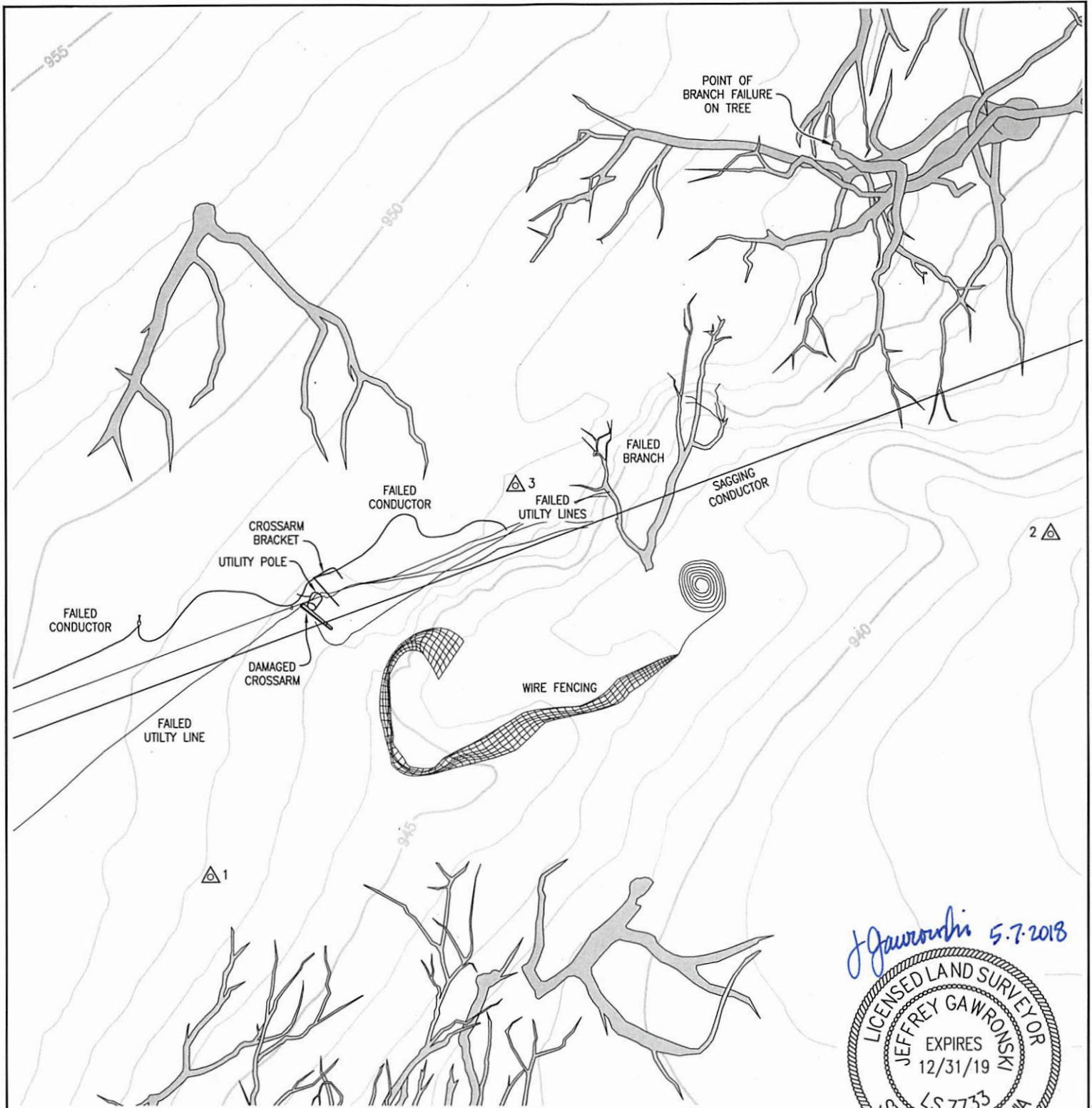
[REDACTED] I returned to the sagged powerlines across Darby Road. As I reentered the area, I observed the following facts:

There were powerlines that were down in the area. A power pole had been broken and burned. One of the metal supports for the cross beam was bent in an ell where it should have been straight. One conductor was broken. The insulators for one of the conductors was broken. The cross beam was split into two pieces at the point where the bolt holes were drilled through. There was a seven inch diameter oak branch laying on the broken conductor. The oak branch had most of it leaves still intact. There was a valley oak near the broken branch that had one of the top limbs broken off. The diameter and distinct features of the failed limb of the tree were very similar to the broken limb on the ground. There were signs of arcing on the broken conductor wire.

1 On October 12, 2017, I met [REDACTED], 171 Darby Road, Bangor CA. [REDACTED] told me he was home
2 with his wife at the time the fire started. [REDACTED] said the lights dimmed in the house sometime
3 between 10:30 pm and 11:00 pm. [REDACTED] said he stepped outside and saw the glow in the drainage
4 behind his neighbor's house (167 Darby Road). [REDACTED] said he knew it was a fire and left his property
5 to notify everyone he could as he evacuated. [REDACTED] said Darby Road was overrun by fire blocking his
6 egress to the north.

7
8 Based on the facts observed, witness statements, and my training and experience of 20 years in the
9 fire service, I believe the La Porte fire started between 10:30 p.m. and 11:00 p.m. on October 8,
10 2017 in the drainage on the property located at 167 Darby Road, Bangor CA. The fire started when
11 abnormally high gusty winds did cause an otherwise healthy tree to be broken at a high limb and did
12 fall onto energized distribution powerlines. In falling, the limb did cause the power pole cross
13 member to break along with other crucial components of the pole resulting in a catastrophic failure of
14 the pole. The failure of the pole resulted in the failure of a conductor that did discharge electrical
15 energy providing a heat source that resulted in a fire upon natural vegetation and forest ground litter
16 that grew into a wildland fire.

PRINTED NAME	SIGNATURE	BADGE NUMBER	DATE
TOM KLUGKE		3970	5/20/18

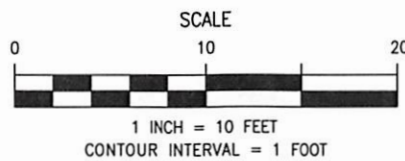


J. Gawronski 5.7.2018

LICENSED LAND SURVEYOR
 JEFFREY GAWRONSKI
 EXPIRES 12/31/19
 LS 7733
 STATE OF CALIFORNIA

NOTES

- A) THIS SURVEY WAS CONDUCTED ON WEDNESDAY, OCTOBER 11, AND THURSDAY, OCTOBER 12, 2017 BY JEFFREY GAWRONSKI AND JAMES DEGRAFF.
- B) LOCATED WITHIN BUTTE COUNTY, CALIFORNIA, WITHIN THE SW-1/4 OF SECTION 13, TOWNSHIP 18 NORTH, RANGE 5 EAST, MOUNT DIABLO BASELINE AND MERIDIAN.



LEGEND

- 5 SURVEY CONTROL POINT
- 2620 CONTOUR AND ELEVATION

No.	DATE:	DESCRIPTION:	BY:
1	03.22.18	INITIAL RELEASE	JEFF GAWRONSKI



STATE OF CALIFORNIA
 DEPARTMENT OF FORESTRY
 AND FIRE PROTECTION
 TECHNICAL SERVICES SECTION

PROJECT TITLE
LA PORTE INCIDENT
 2017-CA-NEU-026295

EVIDENCE MAPPING

APPROVED:

DATE: 3/22/2018

SHEET NUMBER

1

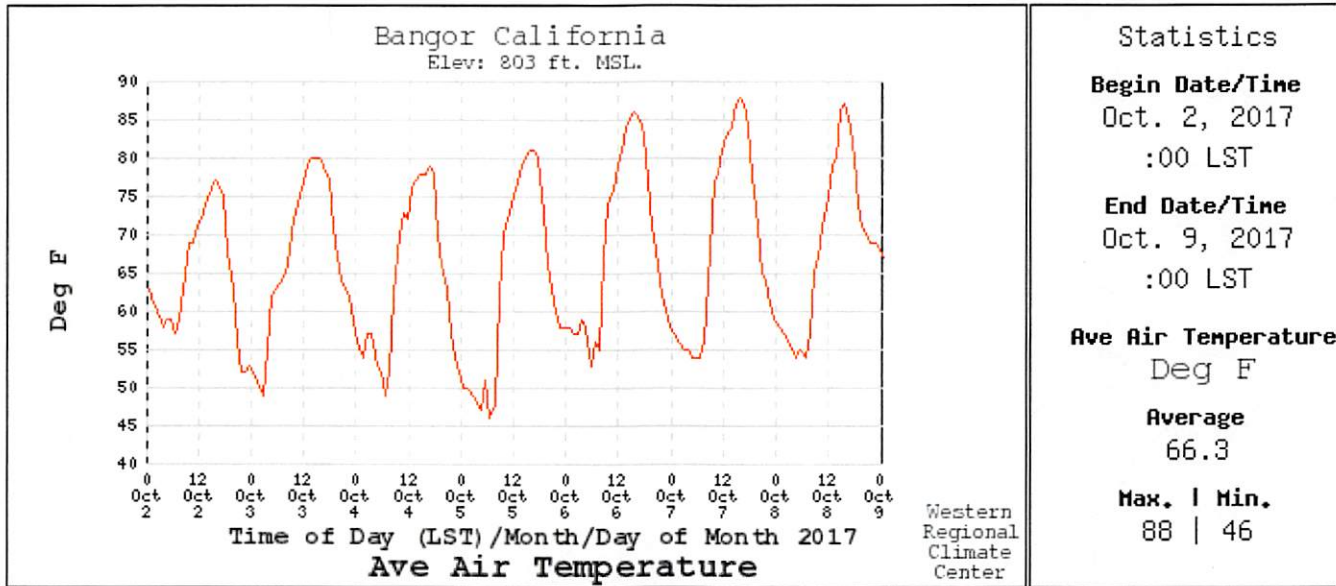
OF 1 SHEETS

STATION: BNGC1
 # STATION NAME: BANGOR
 # LATITUDE: 39.380747
 # LONGITUDE: -121.386228
 # ELEVATION [ft]: 803
 # STATE: CA

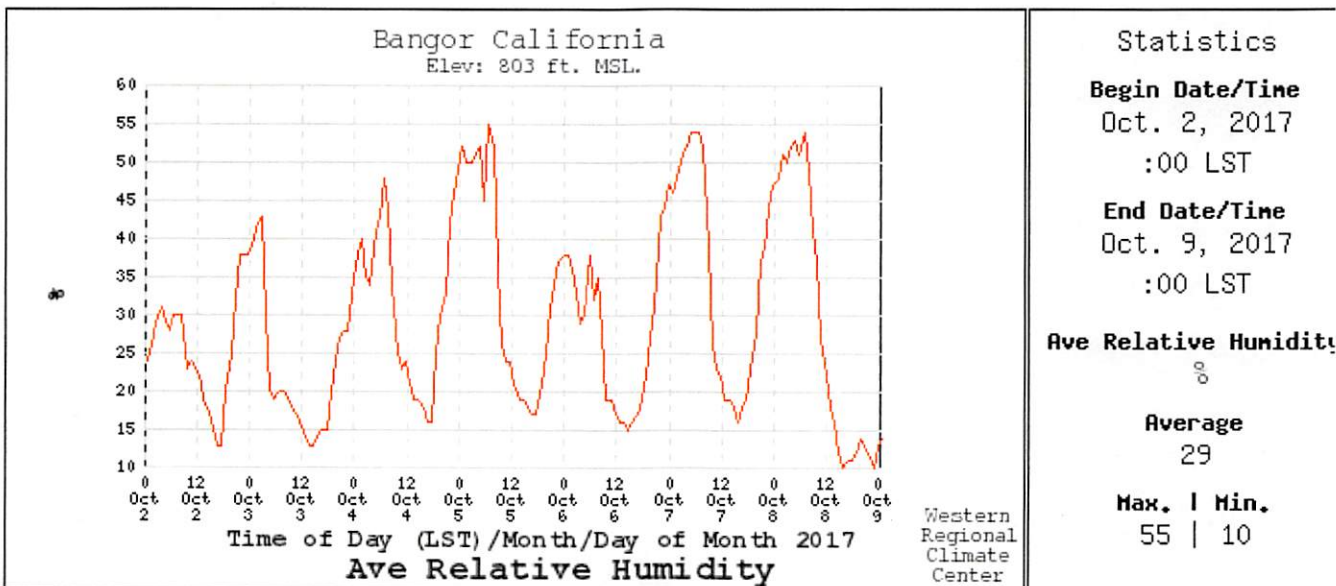
Station_ID	Date_Time	air_temp Fahrenheit	RH %	wind speed MPH	wind dir. Degrees	wind gust MPH	peak wind MPH	peak_wind Degrees	dew point Fahrenheit	wind dir. Code
BNGC1	10/08/2017 07:51 PDT	57	49	1.01	14	5.99	5.99	315	37.88	NNE
BNGC1	10/08/2017 08:51 PDT	64.99	41	1.01	242	4	4	256	40.6	WSW
BNGC1	10/08/2017 09:51 PDT	66.99	37	2.01	260	7	7	241	39.75	W
BNGC1	10/08/2017 10:51 PDT	71.01	27	4	294	10	10	282	35.27	WNW
BNGC1	10/08/2017 11:51 PDT	75	22	5.99	306	14.99	14.99	284	33.56	NW
BNGC1	10/08/2017 12:51 PDT	79	18	5.99	305	15.99	15.99	271	31.94	NW
BNGC1	10/08/2017 13:51 PDT	80.01	16	8.01	292	21	21	299	29.89	WNW
BNGC1	10/08/2017 14:51 PDT	86	12	5.99	321	18.01	18.01	272	27.75	NW
BNGC1	10/08/2017 15:51 PDT	87.01	10	3	326	17	17	341	24.21	NW
BNGC1	10/08/2017 16:51 PDT	84	11	4	336	15.99	15.99	336	24.11	NNW
BNGC1	10/08/2017 17:51 PDT	80.01	11	3	359	14	14	309	20.98	N
BNGC1	10/08/2017 18:51 PDT	73.99	12	3	25	15.99	15.99	339	18.26	NNE
BNGC1	10/08/2017 19:51 PDT	71.01	14	4	60	14.99	14.99	81	19.43	ENE
BNGC1	10/08/2017 20:51 PDT	70	13	4.99	43	23	23	76	16.92	NE
BNGC1	10/08/2017 21:51 PDT	69.01	12	4	62	23	23	64	14.32	ENE
BNGC1	10/08/2017 22:51 PDT	69.01	10	4.99	69	25.99	25.99	83	10.26	ENE
BNGC1	10/08/2017 23:51 PDT	68	13	5.99	69	28.99	28.99	75	15.33	ENE
BNGC1	10/09/2017 00:51 PDT	66.99	14	4.99	30	23	23	99	16.2	NNE
BNGC1	10/09/2017 01:51 PDT	66	13	4.99	22	24	24	2	13.73	NNE
BNGC1	10/09/2017 02:51 PDT	66.99	12	4	5	18.99	18.99	352	12.72	N
BNGC1	10/09/2017 03:51 PDT	69.01	11	5.99	145	14	14	304	12.37	SE
BNGC1	10/09/2017 04:51 PDT	66	11	1.01	281	13	13	106	10.01	W
BNGC1	10/09/2017 05:51 PDT	66.99	11	7	343	12.01	12.01	347	10.79	NNW
BNGC1	10/09/2017 06:51 PDT	64	14	4.99	358	10	10	359	13.8	N

←
prev
period
Bangor California
next
period
→

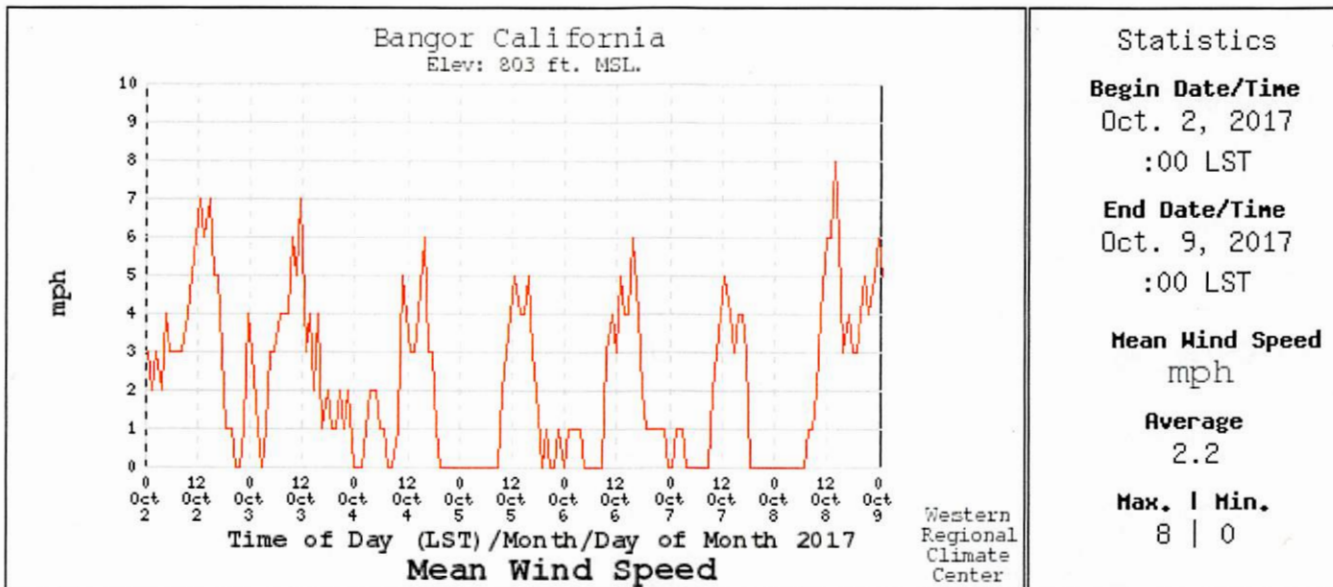
Ave Air Temperature



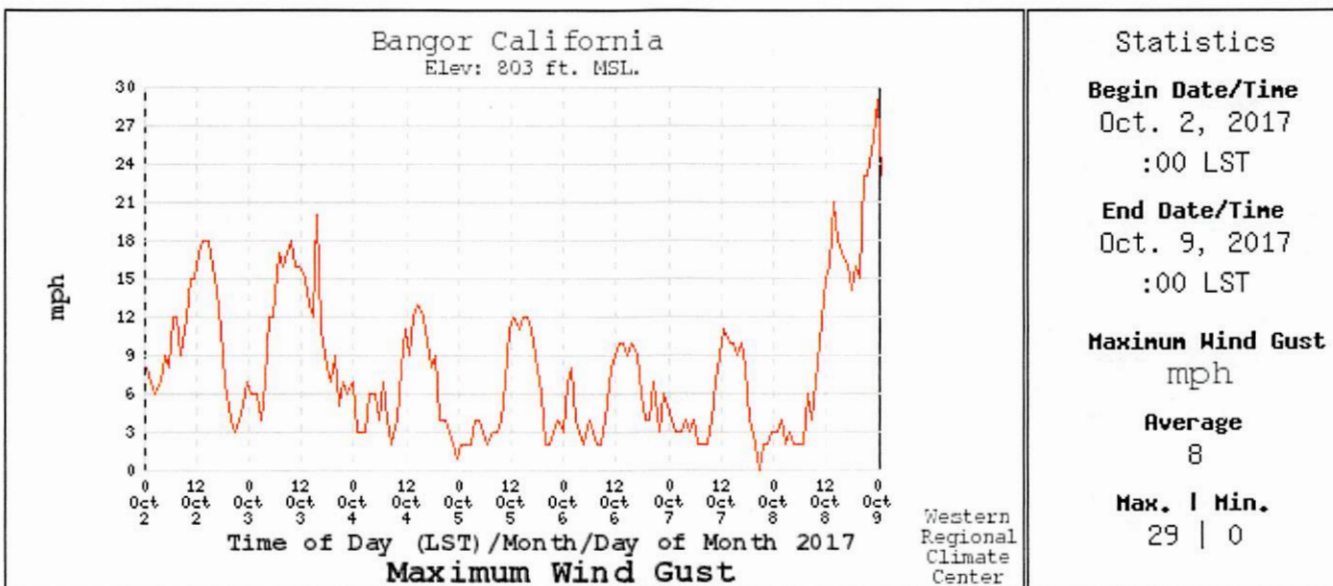
Ave Relative Humidity



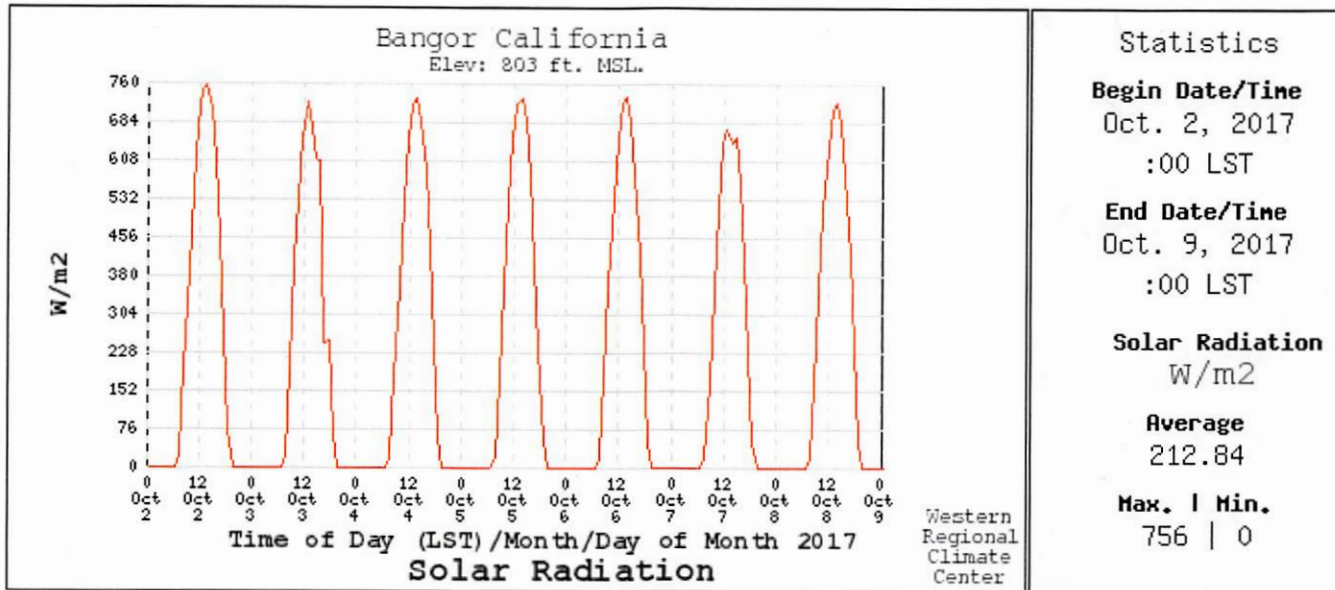
Mean Wind Speed



Maximum Wind Gust



Solar Radiation



Precipitation

