



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Washington, D.C. 20594

September 25, 2017

### **Weather Study**

# **METEOROLOGY**

WPR17FA117

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## **A. AIRCRAFT ACCIDENT**

Location: Ventura, California  
Date: June 1, 2017  
Time: 1155 Pacific daylight time  
1855 universal coordinated time (UTC)  
Airplane: Cessna 180; Registration: N3683C

## **B. METEOROLOGIST**

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## **C. SUMMARY**

On June 1, 2017, about 1155 Pacific daylight time, a Cessna 180 airplane, N3683C, experienced an inflight break up and was destroyed when it impacted terrain about 7 miles northwest of Ventura, California. The private pilot was fatally injured. The airplane was registered to and operated by the pilot under the provisions of Title 14 *Code of Federal Regulations (CFR)* Part 91. Visual meteorological conditions (VMC) prevailed, and no flight plan had been filed. The local personal flight departed Santa Paula Airport (SZP), Santa Paula, California about 1110 PDT.

## **D. DETAILS OF THE INVESTIGATION**

The National Transportation Safety Board's (NTSB) Senior Meteorologist was not on scene for this investigation and conducted the meteorology phase of the investigation from the Washington D.C. office, collecting data from official National Weather Service (NWS) sources including the Weather Prediction Center and the National Center for Environmental Information (NCEI). All times are Pacific daylight time (PDT) based upon the 24 hour clock, local time is +7 hours to UTC, and UTC=Z. Directions are referenced to true north and distances in nautical miles. Heights are above mean sea level (msl) unless otherwise noted. Visibility is in statute miles and fractions of statute miles.

The main wreckage site was located at latitude 34°19'4.65" N and longitude 119°20'25.44" W.

## **E. FACTUAL INFORMATION**

### **1.0 Synoptic Situation**

The synoptic or large scale migratory weather systems influencing the area were documented using standard NWS charts issued by the National Center for Environmental Prediction (NCEP)

located in Camp Springs, Maryland, and the Aviation Weather Center (AWC) in Kansas City, Missouri. These are the base products used in describing weather features and in the creation of forecasts and warnings. Reference to these charts can be found in the joint NWS and Federal Aviation Administration (FAA) Advisory Circular “Aviation Weather Services”, AC 00-45H.

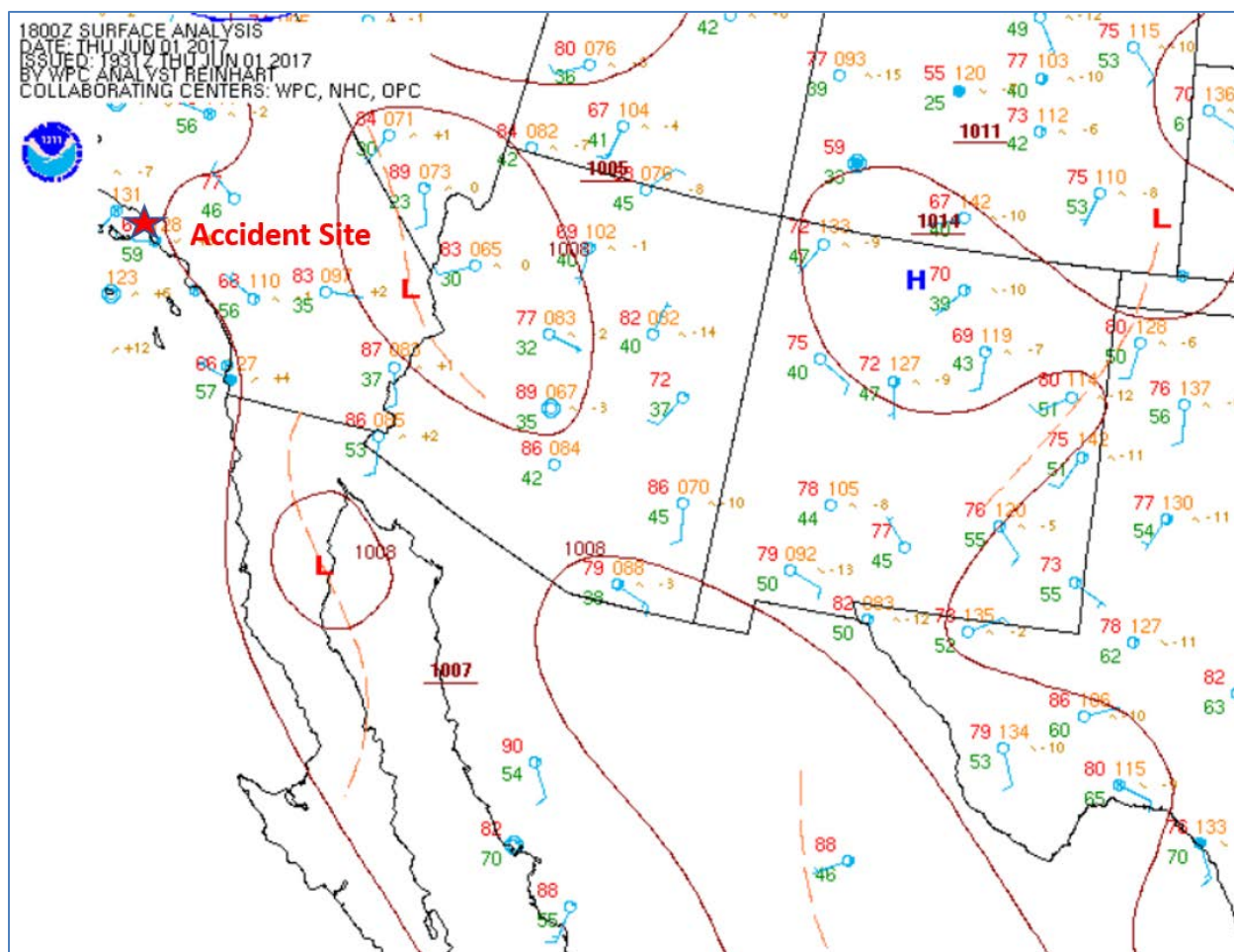
## **1.1 Surface Analysis Chart**

The southwest section of the NWS Surface Analysis Chart for 1100 PDT (1800Z) on June 1, 2017 from the NCEI archive is included as figure 1, with the approximate accident site marked by a red star. The chart depicted a thermal low<sup>1</sup> pressure system at 1005-hectopascals (hPa)<sup>2</sup> to the east of the accident site over southeastern California with a trough of low pressure extending northward into Nevada, and another trough extending southeastward from the low into Arizona. Another thermal low was also identified over northern Baja of California with similar troughs extending north and south of the low.

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<sup>1</sup> A thermal low or heat low, are non-frontal low-pressure systems that occur over the continents in the subtropics during the warm season, as a result of intense heating when compared to their surroundings environments. Thermal lows tend to have weak circulations, and can extend to 10,000 feet in height. Thermal lows over the western and southern portions of North America often lead to summer monsoon conditions, and inland from the coastline lead to the development of sea breezes.

<sup>2</sup> Hectopascals (hPa) is the new standard term referring to sea level pressure and is interchangeable with the term millibar (mb), with the same units. Standard sea level pressure is 1013.25-hPa at a temperature of 15° Celsius (C).



**Figure 1 - Southwest section of the NWS Surface Analysis chart for 1100 PDT**

The station models closest to the accident site depicted a westerly wind of about 5 knots, broken clouds, a temperature of 67° Fahrenheit (F), a dew point of 59° F, and a sea level pressure of 1012.8-hPa. Other stations along the coast also reported onshore wind flow with broken to overcast cloud conditions, while inland stations reported clear sky conditions.

## **1.2 Regional Radar Mosaic**

A review of the local mosaic of Weather Surveillance Radars for the hour prior to and after the accident, detected no significant weather echoes over the area during that period.

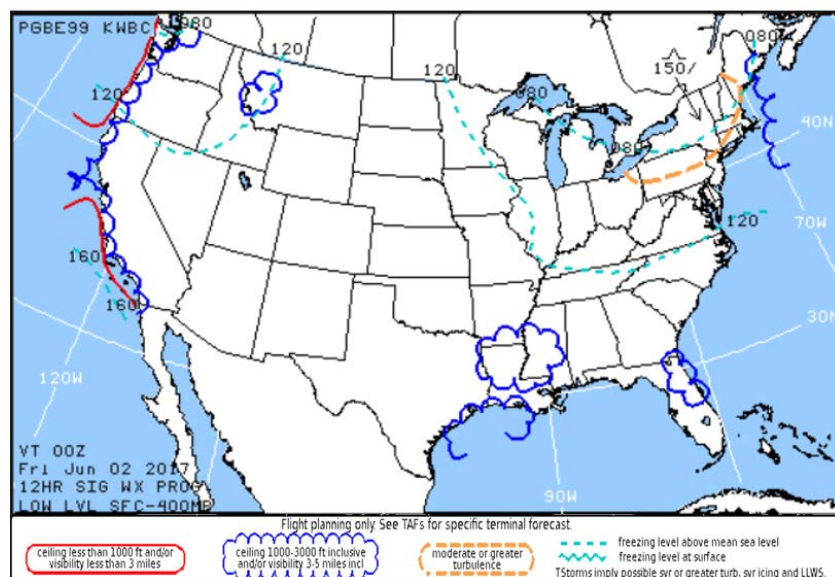
## **1.3 Low-Level Significant Weather Prognostic Chart**

The 12-hour Low-Level Significant Weather Prognostic Chart valid for the 1700 PDT on June 1, 2017 is included as figure 2, and depicted the general flight categories<sup>3</sup>, turbulence, and

<sup>3</sup> As defined by the NWS and the FAA Aeronautical Information Manual (AIM) section 7-1-7 defines the following general flight categories:

- Low Instrument Flight Rules (LIFR\*) – ceiling or lowest layer of clouds reported as broken, overcast or the

freezing levels over the continental United States expected during the period. The chart depicted an area of instrument flight rule (IFR) conditions off the southwest and central California coast by a red contour line. Surrounding that area and extending along the entire California coast was an area of marginal flight rule (MVFR) conditions indicated by a blue scalloped line. No turbulence was noted below 24,000 ft over the region, and the freezing level was identified above 12,000 ft.



**Figure 2 - Low-Level Significant Weather Prognostic Chart valid for 1700 PDT**

## 1.4 12-Hour Surface Prognostic Chart

Figure 3 is the 12-hour Surface Prognostic Chart valid for 2300 PDT (0600Z June 2, 2017) depicting the major pressure systems, frontal systems, and expected precipitation during the period. The chart depicted the thermal lows over the southwest moving little with no significant weather or rain over the southwest during the period.

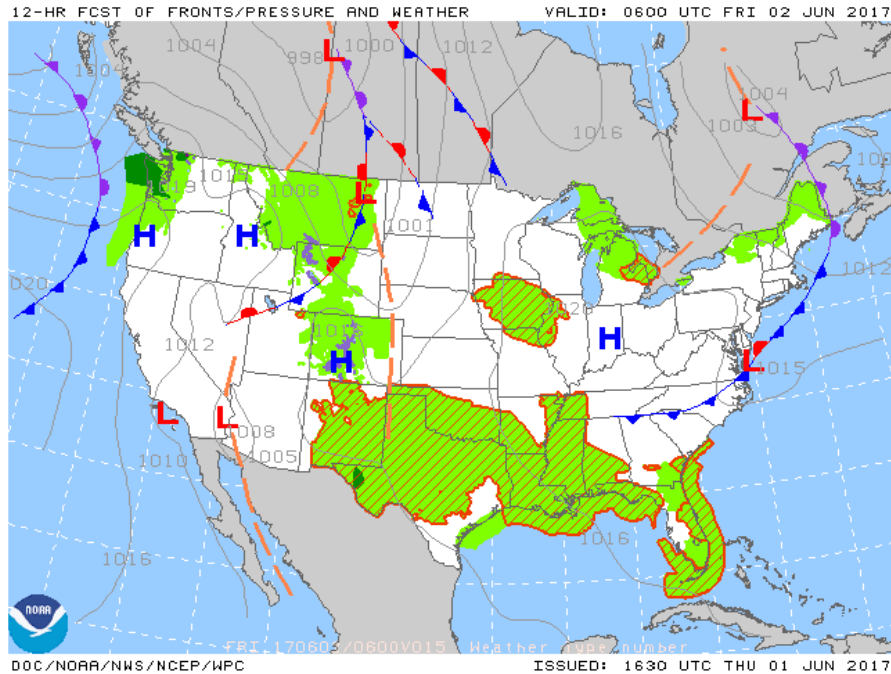
vertical visibility into a surface based obscuration below 500 ft agl and/or visibility less than 1 statute mile.

- Instrument Flight Rules (IFR) – ceiling between 500 to below 1,000 feet agl and/or visibility 1 to less than 3 miles.
- Marginal Visual Flight Rules (MVFR\*\*) – ceiling from 1,000 to 3,000 ft agl and/or visibility 3 to 5 miles.
- Visual Flight Rules (VFR) – ceiling greater 3,000 ft agl and visibility greater than 5 miles.

\* By definition, IFR is a ceiling less than 1,000 ft agl and/or visibility less than 3 miles while LIFR is a sub-category of IFR.

\*\*By definition, VFR is a ceiling greater than or equal to 3,000 ft agl and visibility greater than 5 miles while MVFR is a sub-category of VFR.

## 12 Hours Surface Prognostic



**Figure 3 - 12-Hour Surface Prognostic Chart for 2300 PDT**

## 2.0 Surface Observations

The surrounding area was documented using official Meteorological Aerodrome Reports (METARs) and special observations (SPECI) across the region. The magnetic variation over the area was estimated at 15° East based on the local sectional chart. Cloud heights are reported in ft above ground level (agl) in this section.

### 2.1 Oxnard, California

The closest weather reporting station to the accident site was from Oxnard Airport (KOXR), Oxnard, California, located approximately 9 1/2 miles southeast of the accident site at an elevation of 45 ft. The airport had an Automated Surface Observation System (ASOS). At the approximate time of the accident KOXR reported the following conditions:

KOXR weather observation at 1151 PDT, wind from 240° at 7 knots, visibility 10 miles or more, scattered clouds at 2,300 ft agl, temperature 19° C, dew point temperature 13° C, altimeter 29.89 inches of mercury (Hg). Remarks: automated weather observation system with a precipitation discriminator, sea level pressure 1012.2-hPa, temperature 19.4° C, dew point 13.3° C.

A review of the observations from approximately 0450 through 1400 PDT, noted a period of low overcast clouds to 1,200 ft agl during the morning hours, which lifted or increased in height with the heating of the day and eventually becoming broken, scattered, and then clearing by the afternoon. No significant precipitation or obscurations to visibility were reported during the

period. The following raw observations and the general flight categories were reported surrounding the period:

MVFR METAR KOXR 011151Z AUTO 27004KT 10SM OVC015 16/14 A2986 RMK AO2 SLP110 T01610139  
10167 20150 55001  
MVFR SPECI KOXR 011211Z AUTO 00000KT 9SM OVC014 16/14 A2986 RMK AO2 T01610139  
MVFR METAR KOXR 011251Z AUTO 00000KT 10SM OVC012 16/14 A2987 RMK AO2 SLP114 T01610139  
MVFR METAR KOXR 011351Z 29003KT 9SM BKN013 OVC020 17/14 A2987 RMK AO2 SLP114 T01670139  
MVFR SPECI KOXR 011408Z 28003KT 9SM SCT013 OVC022 17/13 A2988 RMK AO2 T01670133  
MVFR METAR KOXR 011451Z 28005KT 10SM OVC024 17/14 A2988 RMK AO2 SLP118 T01720139 51008  
MVFR METAR KOXR 011551Z 00000KT 10SM OVC023 18/14 A2988 RMK AO2 SLP119 T01780139  
MVFR METAR KOXR 011651Z VRB03KT 10SM OVC025 18/14 A2989 RMK AO2 SLP122 T01780139  
MVFR METAR KOXR 011751Z 25006KT 10SM OVC024 19/13 A2990 RMK AO2 SLP123 T01890133 10194  
20161 53005=  
**VFR METAR KOXR 011851Z 24007KT 10SM SCT023 19/13 A2989 RMK AO2 SLP122 T01940133=**  
**Accident 1857Z**  
VFR METAR KOXR 011951Z 24008KT 10SM CLR 20/13 A2989 RMK AO2 SLP120 T02000128=  
VFR METAR KOXR 012051Z 24009KT 10SM CLR 20/13 A2988 RMK AO2 SLP117 T02000133 58006=

## 2.2 Camarillo, California

The next closest reporting site was from Camarillo Airport (KCMA), Camarillo, CA, located approximately 7 miles east of KOXR and 14 miles southeast from the accident site, at an elevation of 77 ft. The airport also had an ASOS and reported the following conditions:

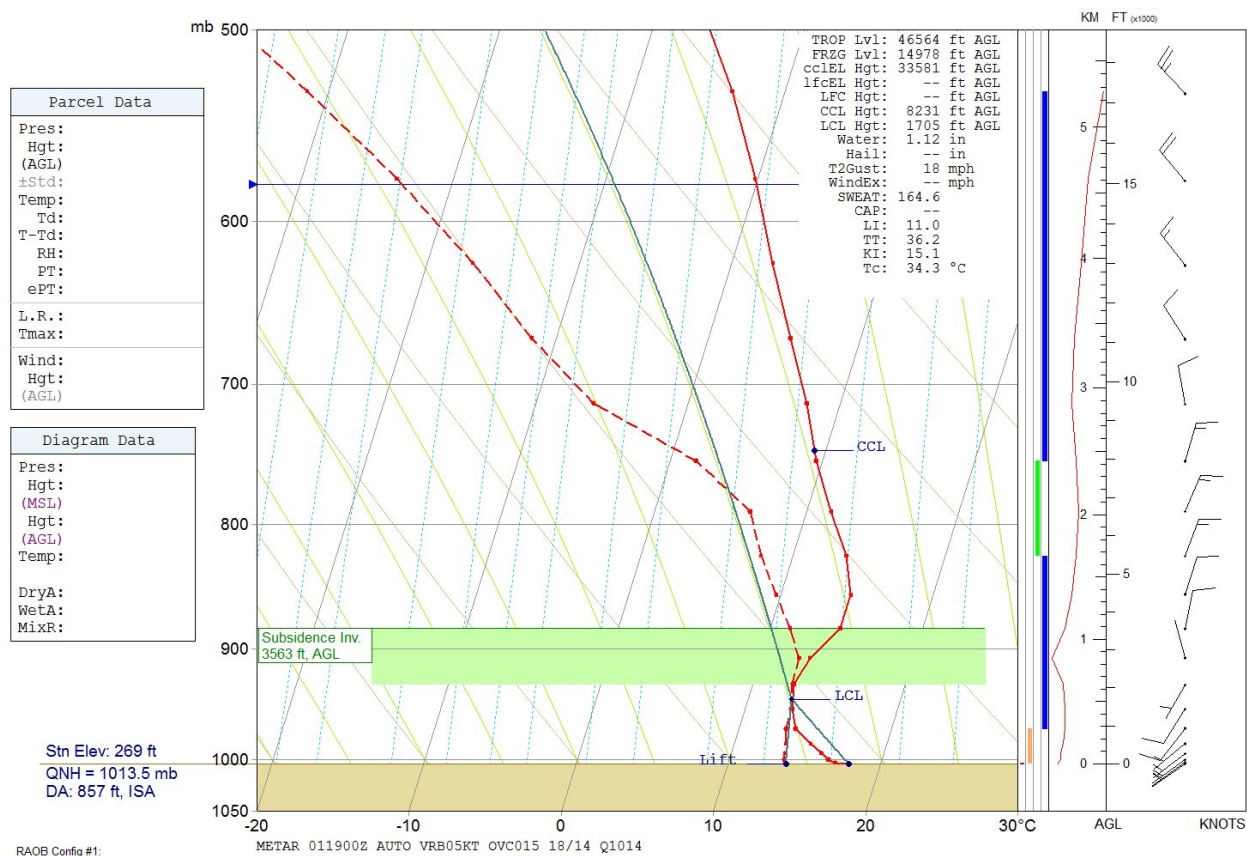
KCMA weather observation at 1155 PDT, wind from 240° at 7 knots, visibility 10 miles or more, ceiling broken at 2,300 ft agl, temperature 21° C, dew point temperature 14° C, altimeter 29.89 inches of Hg. Remarks: automated weather observation system with a precipitation discriminator, sea level pressure 1012.9-hPa, temperature 21.1° C, dew point 13.9° C.

A review of the weather conditions also noted morning low overcast clouds, lifting and clearing with the afternoon. No precipitation was reported during the period. Visibility was reported at 7 miles between 0755 and 0855 PDT, with no reported obscuring phenomena or restrictions to visibility, with the ceiling varying between 2,100 ft and 1,200 ft agl during that time. The raw observations and general flight categories were as follows:

MVFR METAR KCMA 011255Z 28003KT 9SM OVC013 17/13 A2987 RMK AO2 SLP122 T01670133  
MVFR METAR KCMA 011355Z 7SM SCT013 OVC021 17/13 A2988 RMK AO2 SLP125 T01670133  
MVFR METAR KCMA 011455Z 00000KT 7SM OVC021 17/14 A2988 RMK AO2 SLP127 T01720139 51009  
MVFR SPECI KCMA 011520Z 00000KT 7SM BKN012 OVC020 17/14 A2988 RMK AO2 T01720139  
MVFR SPECI KCMA 011530Z 00000KT 7SM SCT012 OVC020 17/14 A2989 RMK AO2 T01720139  
MVFR METAR KCMA 011555Z 00000KT 7SM OVC020 18/14 A2989 RMK AO2 SLP129 T01780139  
MVFR METAR KCMA 011655Z 00000KT 9SM OVC019 18/14 A2989 RMK AO2 SLP130 T01830139  
MVFR METAR KCMA 011755Z 27006KT 10SM OVC018 19/14 A2989 RMK AO2 SLP130 T01940139 10194  
20167 50003  
**MVFR METAR KCMA 011855Z 24007KT 10SM BKN023 21/14 A2989 RMK AO2 SLP129 T02110139**  
**Accident 1857Z**  
VFR SPECI KCMA 011906Z 21009KT 10SM SCT024 21/13 A2989 RMK AO2 T02110133  
VFR METAR KCMA 011955Z 24009KT 10SM CLR 22/13 A2988 RMK AO2 SLP126 T02220133  
VFR METAR KCMA 012055Z 23010KT 10SM CLR 22/14 A2987 RMK AO2 SLP123 T02220139 58006

### 3.0 Upper Air Conditions

A High Resolution Rapid Refresh (HRRR) numerical model sounding was obtained from the NOAA Air Resource Laboratory database for the approximate location of the accident at 1200 PDT (1900Z) and was plotted on a Skew-T log P diagram<sup>4</sup> from the surface to 500-hPa or about 18,000 ft utilizing RAOB software<sup>5</sup>, and is included as figure 4.



**Figure 4 - HRRR numerical model sounding over the accident site at 1200 PDT**

The HRRR 1200 PDT sounding depicted a surface temperature of 64° F (17.9° C), a dew point temperature of 57° F (13.8° C), a relative humidity of 77% and a density altitude of 857 ft. The lifted condensation level (LCL) was identified at 1,705 ft agl and represented the base of the clouds, with the layer to 3,800 ft having a relative humidity greater than 90% (representing near-saturated conditions). A defined temperature inversion due to subsidence was noted between 2,100 to 3,563 ft agl, which was associated with the marine layer. Above the inversion dry air was noted with the relative humidity's decreasing to 10% by 18,000 ft. The freezing level was identified above 15,000 ft. The precipitable water content was 1.12 inches. The atmosphere was characterized as stable with a Lifted Index of +11.0, and supported stratiform type clouds.

<sup>4</sup> Skew T log P diagram – is a standard meteorological plot or thermodynamic diagram using temperature and the logarithmic of pressure as coordinates, used to display winds, temperature, dew point, and various indices used to define the vertical structure of the atmosphere.

<sup>5</sup> RAOB software – The complete Rawinsonde Observation program is an interactive sounding analysis program developed by Environmental Research Services, Matamoras, Pennsylvania.

The sounding wind profile indicated southwesterly low-level winds below the inversion. Above the inversion, the wind veered (wind barbs turned clockwise with height) to the north through 10,000 ft. Above 10,000 ft, the wind backed (wind barbs turned counter-clockwise with height) to the northwest and increasing in speed with height. The mean 0 to 6 kilometer or 18,000 ft wind, was from 330° at 13 knots, and the maximum wind was identified at 39,900 ft from 285° at 37 knots. The tropopause was identified at 46,800 ft.

Figure 5 is the HRRR model output of height, pressure, temperature, dew point temperature, relative humidity, wind direction and speed, clear air turbulence (CAT), low-level wind shear (LLWS), structural icing, and mountain wave potential based on the RAOBs algorithms. The model sounding indicated a greater than 90% probability of moderate or greater turbulence between 2,300 and 3,300 feet, where the vertical wind shear of 8.6 knots per 1,000 ft in the temperature inversion was noted. The relative humidity and temperature profiles also supported a moderate to severe threat of carburetor type icing from the surface to 8,000 ft.

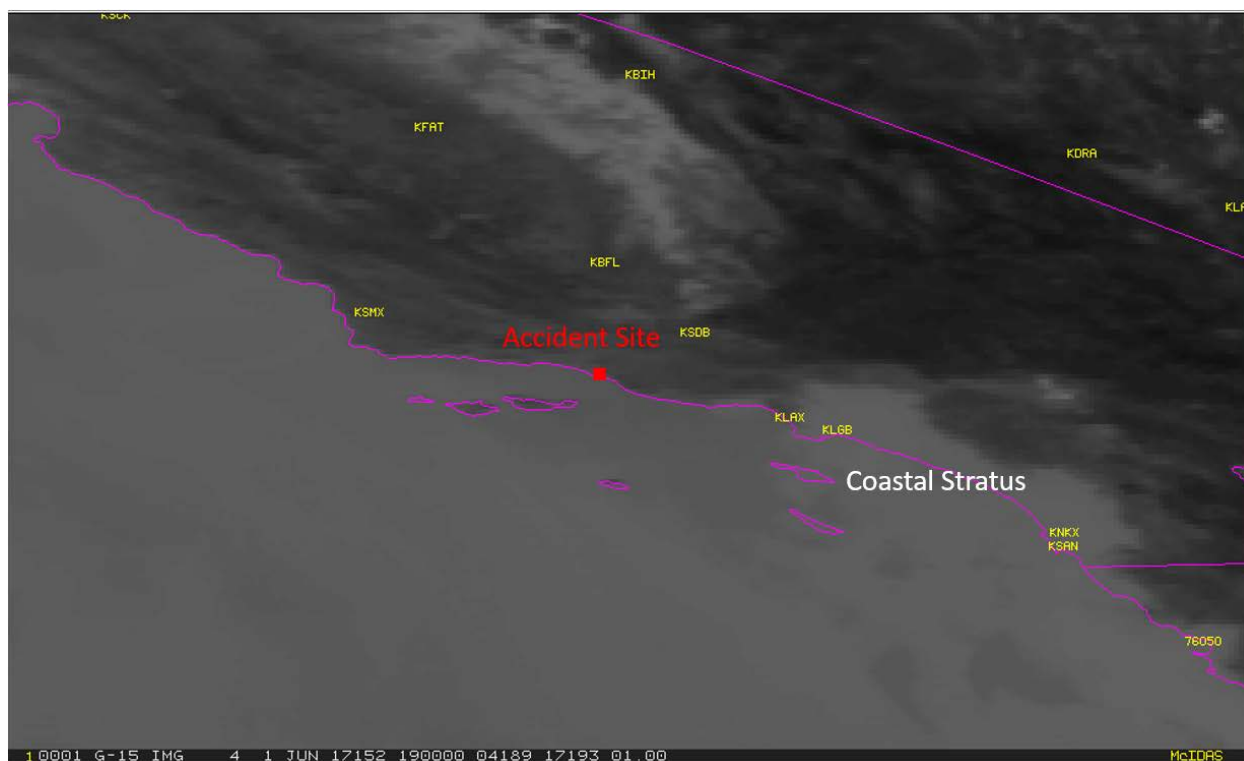
| Height<br>(ft-MSL) | Pres<br>(mb) | T<br>(C) | Td<br>(C) | RH<br>(%) | DD / FF<br>(deg / kts) | CAT<br>(FAA) | LLWS  | Icing - Type<br>(AFGWC method) | Wave/x--W--Turb<br>nm fpm max |
|--------------------|--------------|----------|-----------|-----------|------------------------|--------------|-------|--------------------------------|-------------------------------|
| 269                | 1004         | 17.9     | 13.8      | 77        | 233 / 5                |              |       |                                |                               |
| 297                | 1003         | 17.0     | 13.7      | 81        | 233 / 5                |              | LIGHT |                                |                               |
| 381                | 1000         | 16.5     | 13.6      | 83        | 232 / 6                |              |       |                                |                               |
| 549                | 994          | 15.9     | 13.5      | 86        | 231 / 6                |              |       |                                |                               |
| 803                | 985          | 15.0     | 13.4      | 90        | 228 / 7                |              |       |                                |                               |
| 1201               | 971          | 13.7     | 13.1      | 96        | 216 / 8                |              |       |                                |                               |
| 1719               | 953          | 13.1     | 13.0      | 99        | 210 / 8                |              |       |                                |                               |
| 2365               | 931          | 12.7     | 12.6      | 99        | 208 / 7                | MDT          |       |                                |                               |
| 3057               | 908          | 13.2     | 12.5      | 96        | 346 / 2                | MDT          |       |                                |                               |
| 3832               | 883          | 14.6     | 11.3      | 81        | 11 / 8                 | LGT          |       |                                |                               |
| 4728               | 855          | 14.6     | 9.7       | 72        | 16 / 11                |              |       |                                |                               |
| 5752               | 824          | 13.5     | 7.9       | 69        | 19 / 13                |              |       |                                |                               |
| 6914               | 790          | 11.6     | 6.3       | 70        | 22 / 14                |              |       |                                |                               |
| 8227               | 753          | 9.6      | 1.7       | 58        | 15 / 13                | LGT          |       |                                |                               |
| 9709               | 713          | 7.8      | -6.2      | 36        | 351 / 11               |              |       |                                |                               |
| 11384              | 670          | 5.4      | -11.6     | 28        | 329 / 12               |              |       |                                |                               |

Figure 5 - HRRR model data at 1200 PDT

#### 4.0 Satellite Imagery

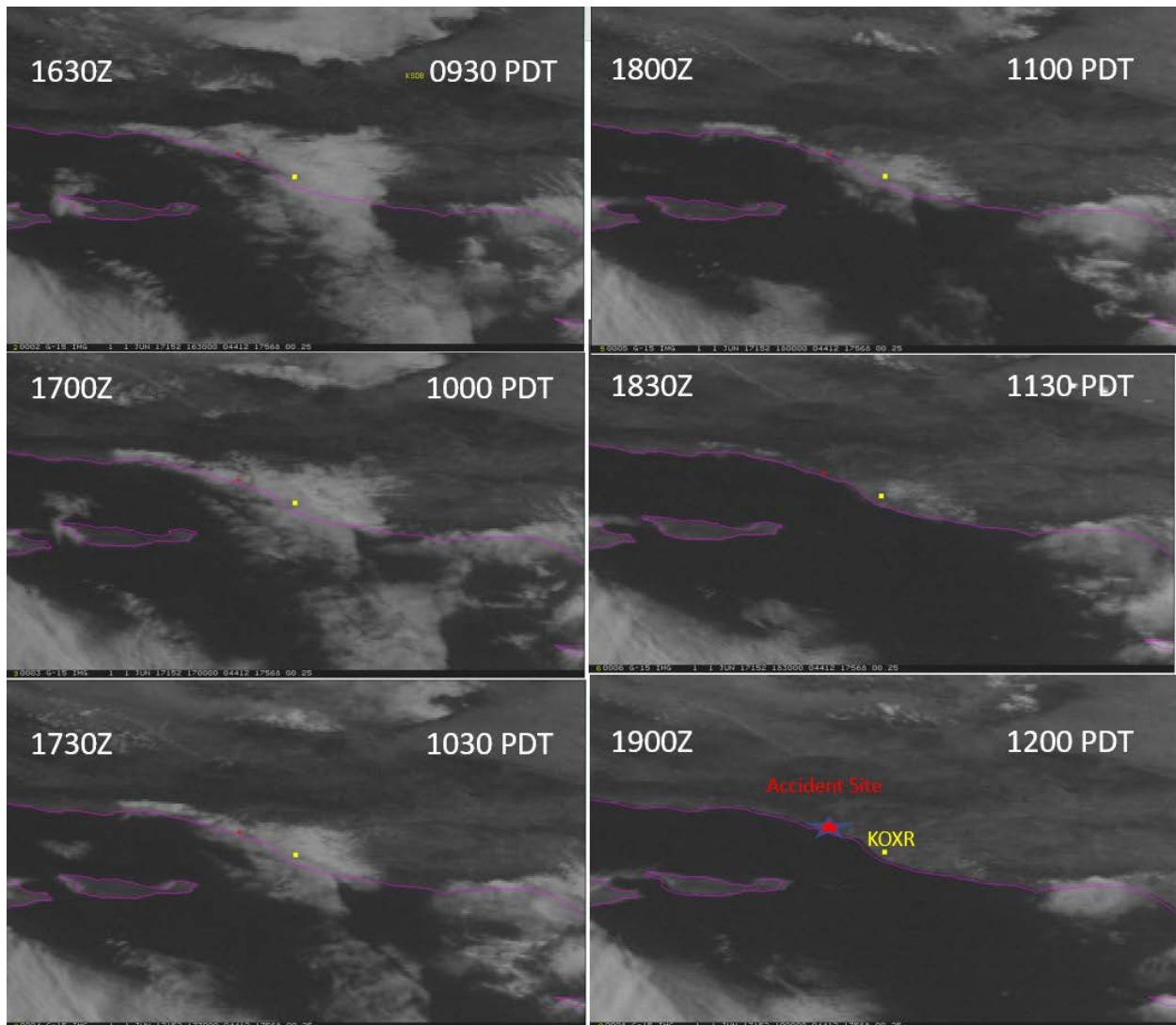
The Geostationary Operational Environmental Satellite number 15 (GOES-15) data was obtained from an archive at the Space Science Engineering Center at the University of Wisconsin-Madison in Madison, Wisconsin, and processed using the Man-computer Interactive Data Access System (McIDAS) software. Both the infrared long wave and visible band imagery were obtained surrounding the time of the accident. The infrared long wave imagery (band 4) at a wavelength of 10.7 microns (μm) provided a standard satellite image with radiative cloud top temperatures at a spatial resolution of 4 km. The visible imagery (band 1) at a wavelength of 0.65 μm provided a spatial resolution of 1 km.

Figure 6 is the GOES-15 infrared image at 4X magnification. The image depicted some stratiform type clouds extending over the coastal line of southern California bordering the accident site and south extending over the Los Angeles (KLAX), Long Beach (KLGB), and San Diego (KSAN) inland areas.



**Figure 6 - GOES-15 infrared image at 1200 PDT**

Figure 7 is a composite of the GOES-15 visible imagery at 30-minute intervals from 0930 PDT through 1200 PDT at 4x magnification, with the accident location marked by a red square and KOKR in yellow for reference. The imagery depicts a layer of coastal stratus type clouds over the accident site and KOKR, which slowly shrinks in coverage, receding towards the coast and dissipating near the time of the accident.



**Figure 7 - Composite of the GOES-15 visible images from 0930 through 1200 PDT**

## 5.0 Pilot Reports

The following pilot reports or PIREPs were recorded over southern California surrounding the period. The reports in standard code and abbreviations were as follows:

NKX UA /OV SAN270003/TM 1517/FL034/TP B737/SK OVC022-TOP034  
 LGB UA /OV LGB/TM 1523/FL017/TP C525/SK BKN017/RM BASES 017  
 SEE UA /OV SEE090002/TM 1530/FL016/TP C172/SK OVC016-TOP035  
 SAN UA /OV KSAN/TM 1537/FL035/TP P28A/SK OVC015-TOP035/RM COR SA-ID AND SKY. ZLA CWSU  
 KSMO UA /OV SMO030004/TM 1600/FL015/TP F900/SK BKN015-TOP030  
 KRNM UA /OV 2NM NE KRNM/TM 1625/FL023/TP P28A/SK BASES OVC023 TOPS OVC035  
 KSEE UA /OV SEE/TM 1640/FL020/TP C172/SK OVC020-TOP034  
 KCRQ UA /OV CRQ33005/TM 1733/FL038/TP CL30/SK BKN018-TOP036  
 KRNM UA /OV 7NM W KRNM/TM 1735/FL033/TP C172/SK TOPS OVC033  
 SEE UA /OV SEE/TM 1740/FLUNKN/TP C172/SK OVC023-TOP036  
 KRNM UA /OV 2NM W KRNM/TM 1740/FL024/TP C172/SK BASES OVC024  
 TOA UA /OV TOA/TM 1801/FL012/TP PA28/RM CEILING 012

SEE UA /OV SEE090003/TM 1850/FL020/TP C550/SK OVC025/RM DURD  
**Accident 1857Z**

The reports indicated overcast clouds with bases ranging from a low of 1,200 ft to 2,500 ft with tops from 3,000 to 3,600 ft. There were no reports of turbulence or LLWS, or other hazards over the area during the period.

## **6.0 Terminal Aerodrome Forecast**

The NWS Los Angeles Weather Forecast Office was responsible for the issuance of the KOXR Terminal Aerodrome Forecast (TAF). The current forecast at the time of the accident was issued at 1020 PDT, and was valid for a 24-hour period beginning at 1100 PDT. The forecast expected MVFR conditions to prevail with west-southwesterly winds at 6 knots, visibility of 6 miles or more, and a broken ceiling at 2,500 ft agl. VFR conditions were expected at 1230 PDT with westerly winds at 10 knots, visibility 6 miles or more, and a few clouds at 2,500 ft agl, and with clear skies by 2000 PDT. IFR conditions due to ceilings overcast at 800 ft agl, and visibility of 5 miles in mist were expected after 0400 through 1000 PDT the following day, with clearing after 1000 PDT. The raw forecast was as follows:

*TAF KOXR 011720Z 0118/0218 25006KT P6SM BKN025  
FM011930 27010KT P6SM FEW025  
FM020300 VRB03KT P6SM SKC  
FM021100 VRB03KT 5SM BR OVC008  
FM021700 26006KT P6SM FEW010=*

## **7.0 Area Forecast**

The Area Forecast (FA) is a forecast of VFR clouds and weather conditions over an area as large as the size of several states. It must be used in conjunction with the Airmen's Meteorological Information (AIRMET) Sierra bulletins for the same area for any IFR conditions in order to get a complete picture of the weather. The area forecast together with the AIRMET Sierra bulletin are used to determine forecast en route weather and to interpolate conditions at airports which do not have a terminal forecast (TAF) issued. The NWS Aviation Weather Center (AWC) issues the FA at regular intervals and issues specials reports as necessary usually in the form of an AIRMET. The forecasts current at the time of the accident was issued at 0345 PDT and was valid through 1600 PDT, and was as follows:

*FAUS46 KKCI 011045  
FA6W  
SFOC FA 011045  
SYNOPSIS AND VFR CLDS/WX  
SYNOPSIS VALID UNTIL 020500  
CLDS/WX VALID UNTIL 012300...OTLK VALID 012300-020500  
WA OR CA AND CSTL WTRS  
.  
SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.  
TS IMPLY SEV OR GTR TURB SEV ICE LLWS AND IFR CONDS.  
NON MSL HGTS DENOTED BY AGL OR CIG.  
.  
SYNOPSIS...ALF..LRG TROF FROM OR CSTL WTRS-SE OR-NERN CA. A*

SECOND TROF FROM ERN WA-NERN OR. WK RIDGE SRN CA CSTL WTRS. BY  
05Z LRG RIDGE ACRS FCST AREA.  
SFC..CDFNT FAR SE OR. WK HI PRES ELSW. BY 05Z WK CDFNT FROM S  
CNTRL CA-SRN CA CSTL WTRS. ANOTHER CDFNT APCHG PAC NW. HI PRES  
WRN OR.

.  
NRN CA...STS-SAC-TVL LN NWD

CSTL SXNS...

CSTLN...OVC010 TOP 030. VIS 3-5SM BR. 16Z BKN010. 21Z SCT010. OTLK...VFR...03Z IFR CIG BR.

INLAND...BKN010 TOP 020. VIS 3-5SM BR. 16Z SCT010. 19Z SKC. OTLK...VFR...03Z MVFR CIG.

SAC VLY...SCT-BKN100 TOP FL180. 21Z SCT CI. OTLK...VFR.

SHASTA-SISKIYOU-SERN CA...SCT065 BKN100 TOP FL180. ISOL -SHRA. 21Z SCT100. OTLK...VFR.

NRN SIERNEV...SCT060 SCT120. VIS 3-5SM BR. 16Z SKC. OTLK...VFR.

.  
CNTRL CA

CSTL SXNS...

CSTLN...OVC010 TOP 025. VIS 3-5SM BR. BECMG 1618 SCT010. OTLK...VFR...04Z IFR CIG BR.

INLAND...BKN010 TOP 025. VIS 3-5SM BR. 15Z SKC. OTLK...VFR.

SAN JOAQUIN VLY...SKC. TIL 14Z SRN PTNS SCT035. OTLK...VFR.

SRN SIERNEV...SCT120. 15Z SKC. OTLK...VFR.

.  
SRN CA..VBG-NID-60NNW BIH LN SWD

CSTL SXNS...

CSTLN...OVC010 TOP 040. VIS 3-5SM BR. 21Z SCT015. OTLK...VFR...03Z IFR CIG BR.

INLAND...OVC010 TOP 040. BECMG 1618 SCT010. 21Z SKC. OTLK...VFR.

INTR MTNS-MOJAVE-SRN DESERTS...SKC. OTLK...VFR.

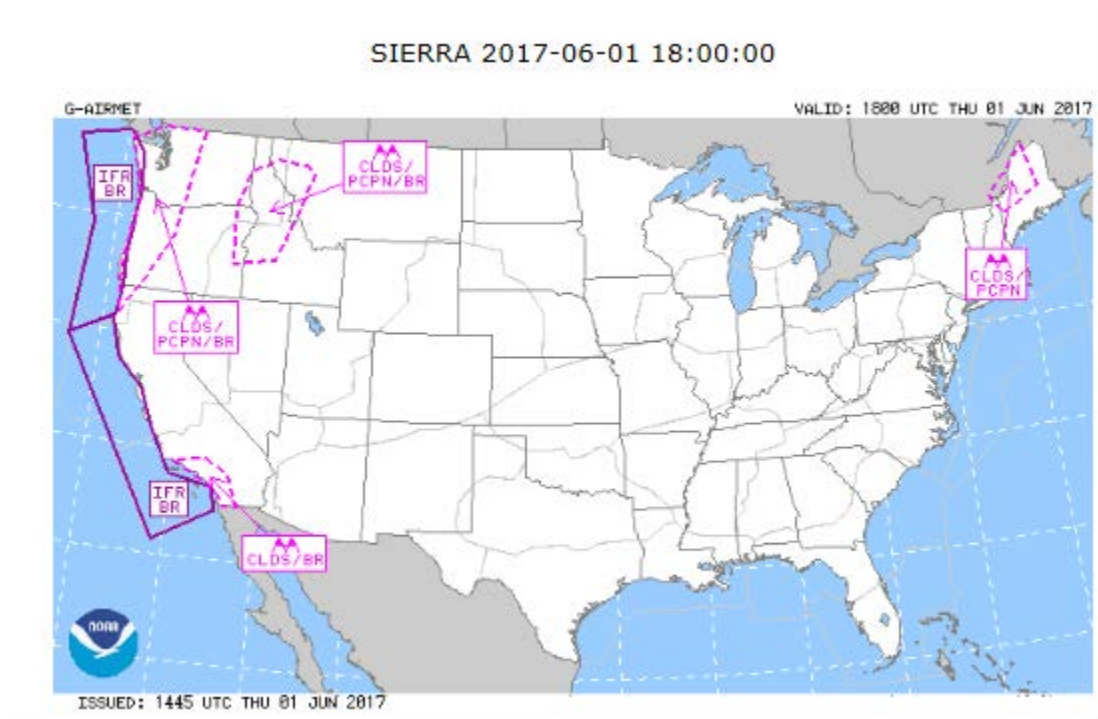
IMPERIAL-COACHELLA VLYS...SKC. OTLK...VFR.

The forecast expected along the southern California coastal sections expected overcast clouds at 1,000 ft with tops near 4,000 ft, and visibilities 3 to 5 miles in mist, with conditions becoming scattered clouds at 1,500 ft and visibility unrestricted after 1400 PDT. The inland sections expected to same overcast clouds at 1,000 ft with tops to 4,000 ft, with clouds becoming scattered between 0900 and 1100 PDT.

## 8.0 Inflight Weather Advisories

The NWS AWC issued a series of AIRMETs for IFR conditions along the western coastal of the continental U.S. for ceilings below 1,000 ft agl and visibility below 3 miles in fog or mist, and another advisory for southwestern California for mountain obscuration in clouds and mist. Figure 8 is the Graph-AIRMET depiction of the advisories valid at 1100 PDT followed by the text bulletins that were issued at 0745 PDT.

There were no Significant Meteorological Information (SIGMETs), Convective SIGMETs, Center Weather Advisories (CWA), or AIRMET Tango advisories for turbulence or LLWS issued for the area surrounding the time of the accident.



WAUS46 KKCI 011445

WA6S

SFOS WA 011445

AIRMET SIERRA UPDT 2 FOR IFR AND MTN OBSCN VALID UNTIL 012100

AIRMET IFR...WA OR CA AND CSTL WTRS

FROM 20NNW HUH TO SEA TO 30WNW BTG TO 20NE FOT TO 140WSW FOT TO 100W ONP TO 140W TOU TO 30NNW TOU TO 20NNW HUH

CIG BLW 010/VIS BLW 3SM BR. CONDS CONTG BYD 21Z THRU 03Z.

AIRMET IFR...CA AND CSTL WTRS

FROM 20NE FOT TO 20WSW ENI TO 20E OAK TO 20SE SNS TO 40NW RZS TO 30SW TRM TO 20SE MZB TO 220SW MZB TO 140WSW FOT TO 20NE FOT

CIG BLW 010/VIS BLW 3SM BR/FG. CONDS CONTG BYD 21Z THRU 03Z.

AIRMET MTN OBSCN...WA OR CA

FROM 20WNW HUH TO 30S YDC TO 50N DSD TO 30ESE LKV TO 90SSE LKV TO 20S FOT TO 70WNW OED TO 50SSE HQM TO 20NW TOU TO 20WNW HUH

MTNS OBSC BY CLDS/PCPN/BR. CONDS CONTG BYD 21Z THRU 03Z.

AIRMET MTN OBSCN...CA

FROM 60SE EHF TO 40SSW HEC TO 60S TRM TO 20S MZB TO 40NNW MZB TO 20W RZS TO 60SE EHF

MTNS OBSC BY CLDS/BR. CONDS ENDG 18-21Z.

AIRMET MTN OBSCN...CA

FROM 30SW SAC TO 30E SNS TO 40S SNS TO 20S PYE TO 30SW SAC

MTNS OBSC BY CLDS/BR. CONDS ENDG 15-18Z.

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An advisory for mountain obscuration in clouds and mist was current over the accident site, with the conditions expected to end between 1100 and 1400 PDT.

## 9.0 Winds and Temperature Aloft Forecast

The NWS Winds and Temperature Aloft Forecast current at the time was as follows:

*WINDS ALOFT FORECASTS*

*DATA BASED ON 011200Z*

*VALID 011800Z FOR USE 1400-2100Z. TEMPS NEG ABV 24000*

|     |      |         |         |         |         |         |        |        |        |
|-----|------|---------|---------|---------|---------|---------|--------|--------|--------|
| FT  | 3000 | 6000    | 9000    | 12000   | 18000   | 24000   | 30000  | 34000  | 39000  |
| SBA | 3508 | 3619+12 | 3514+08 | 3313+04 | 3231-06 | 3035-19 | 305136 | 295945 | 286256 |
| WJF |      | 9900+13 | 9900+09 | 2008+03 | 3017-07 | 2929-19 | 294236 | 295745 | 286055 |
| ONT | 9900 | 0805+15 | 9900+09 | 1808+03 | 3014-07 | 3027-19 | 303736 | 295645 | 295756 |

The forecast was valid for 1100 PDT and was intended for use between 0700 and 1400 PDT. The forecast for Santa Barbara (SBA) for 3,000 ft expected a wind from 350° at 8 knots and the forecast for Ontario (ONT) at 3,000 ft was for a light and variable wind with speeds of 5 knots or less.

Submitted by:

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Don Eick  
Senior Meteorologist