Exhibit 1- References

[1] World Meteorological Organization, 2003: *Manual on the Global Observing System.* WMO-No. 544, Geneva.

[2] World Meteorological Organization, 2008: *Guide to Meteorological Instruments and Methods of Observation, Part I Chapter 5: Measurement of Surface Wind.* WMO-No. 8, Geneva.

[3] World Meteorological Organization, 2008: *Guide to Meteorological Instruments and Methods of Observation, Part II Chapter 1: Measurements at Automatic Weather Stations.* WMO-No. 8. Geneva.

[4] Peterka, J.A. and M. Poreh, Siting Guidelines for Low Level Windshear Alert System (LLWAS) Remote Facilities, for the Federal Aviation Administration (FAA), FAA Order 6560.21A, 1989.

[5] National Wildfire Coordinating Group, 2008: *NWCG Fire Weather Station Standards.*

[6] ESDU (1993a) Strong winds in the atmospheric boundary layer, Part 1: mean hourly wind speeds, ESDU Report 82026, ESDU International.

[7] ESDU (1993b) Strong winds in the atmospheric boundary layer, Part 2: discrete gust speeds, ESDU Report 83045, ESDU International.

[8] Cermak, J.E. (1971), "Laboratory Simulation of the Atmospheric Boundary Layer, *AIAA Jl.*, Vol. 9, September.

[9] Cermak, J.E. (1975), "Applications of Fluid Mechanics to Wind Engineering, A Freeman Scholar Lecture, *ASME Journal of Fluids Engineering*, Vol. 97, No. 1, March.

[10] Cermak, J.E. (1976), "Aerodynamics of Buildings, *Annual Review of Fluid Mechanics*, Vol. 8, pp. 75 – 106.

[11] Meroney, R. N. (1980), A Wind-Tunnel Simulation of the Flow Over Hills and Complex Terrain, Journal of Industrial Aerodynamics, Vol. 5, pp 297-321.

[12] Barlow, J.B., W.H. Rae, A. Pope (1999), Low-Speed Wind Tunnel Testing, Wiley-Interscience, pp 1-728.

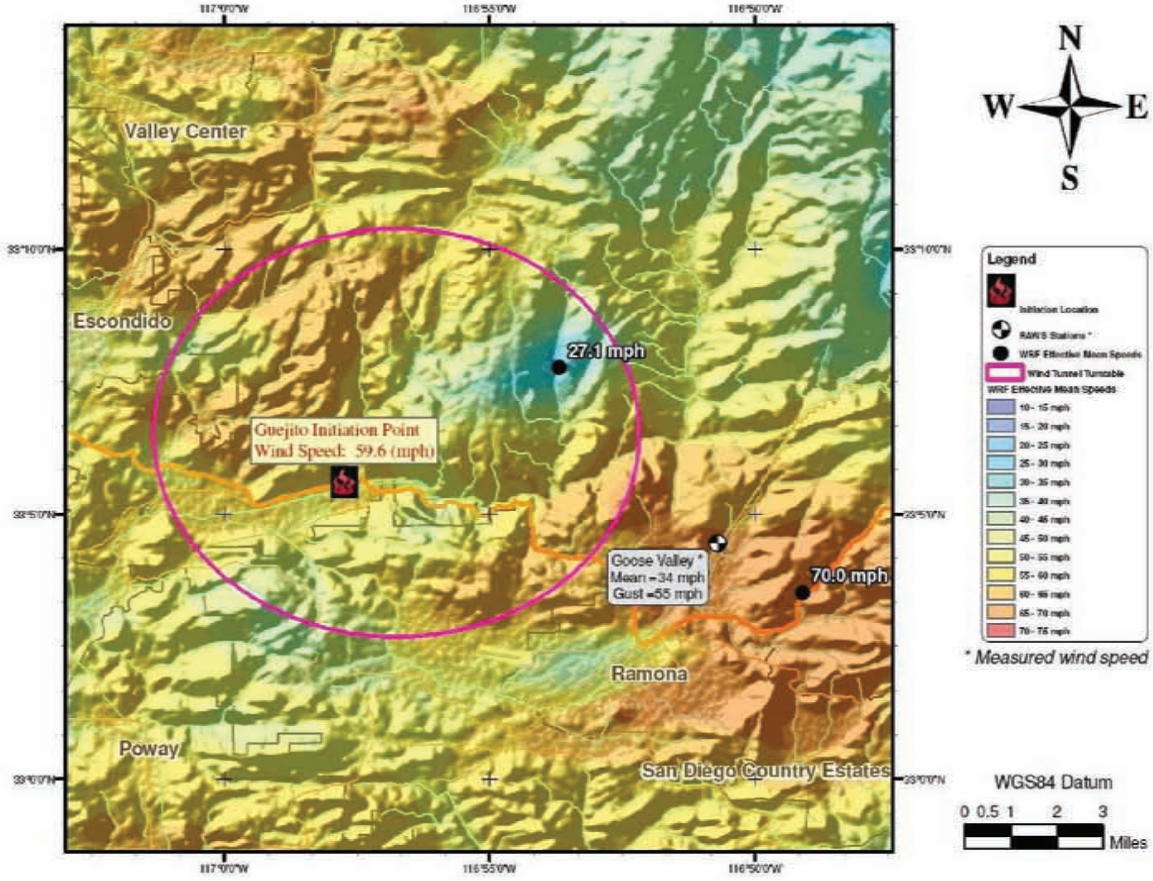

Exhibit 2. Wind speeds determined by WRF analysis at 10 m above the ground surface.

Exhibit 3a. Guejito wind tunnel model test turntable with upwind terrain.

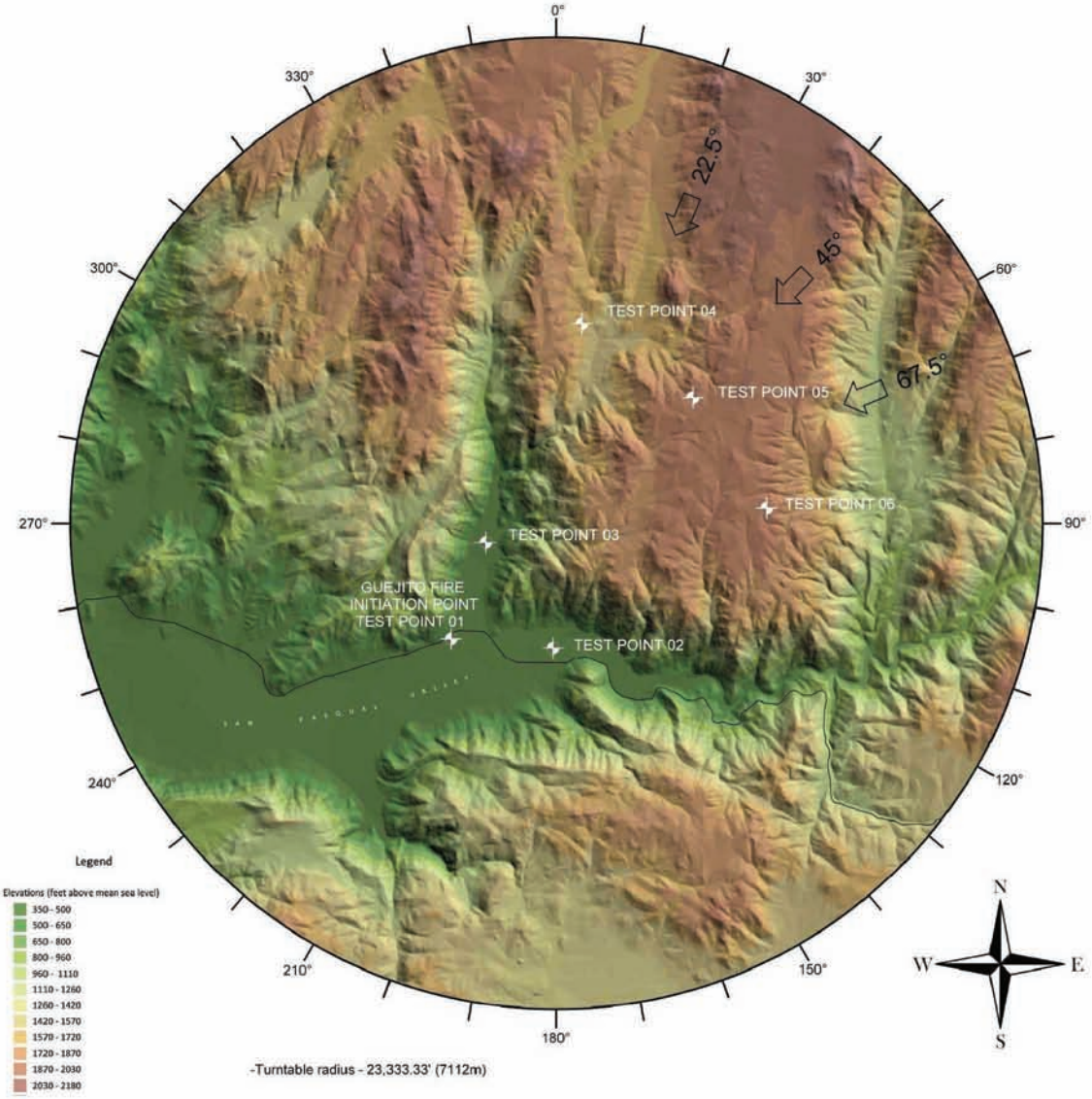

Exhibit 3b. Guejito wind tunnel model test turntable with upwind terrain.

Exhibit 3c. Measurement probe to sample 3 components of velocity.

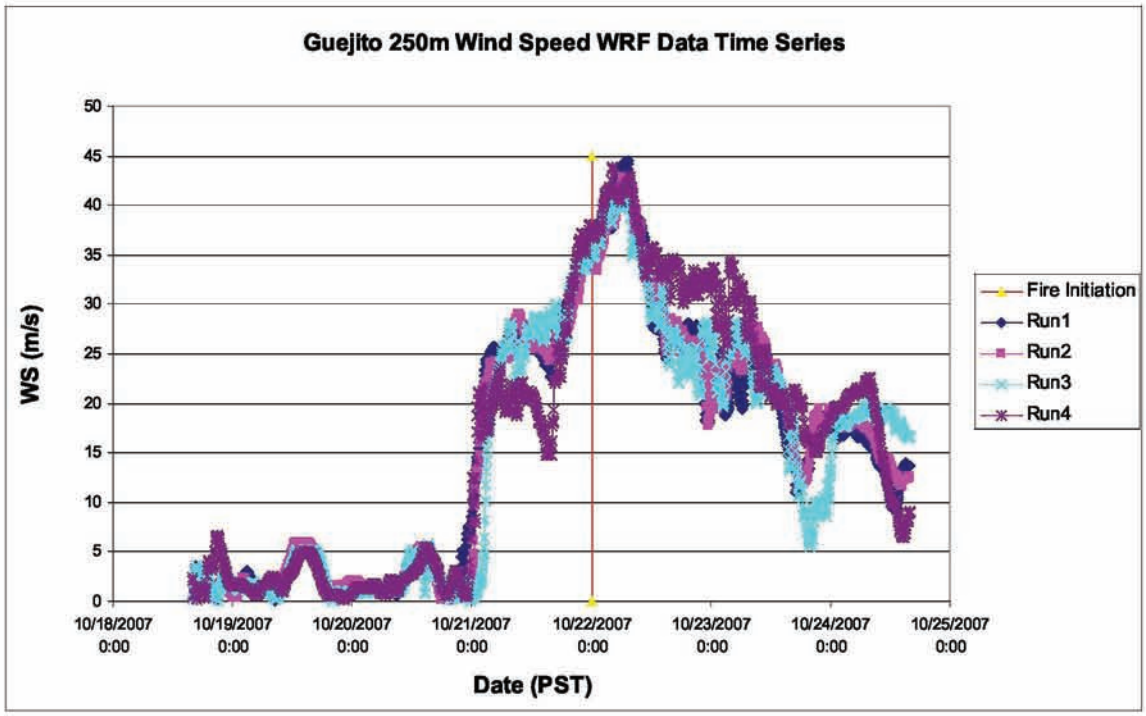

Exhibit 4. WRF 250m wind speed time histories for all four runs.

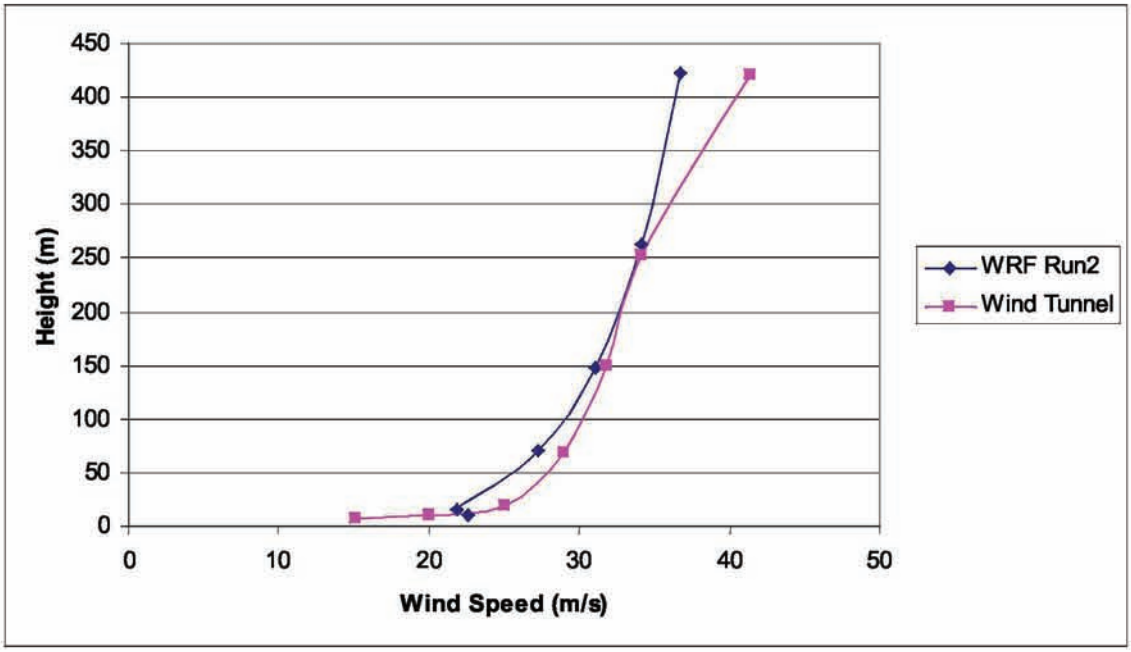

Exhibit 5. WRF wind speed profiles for the fire initiation time.

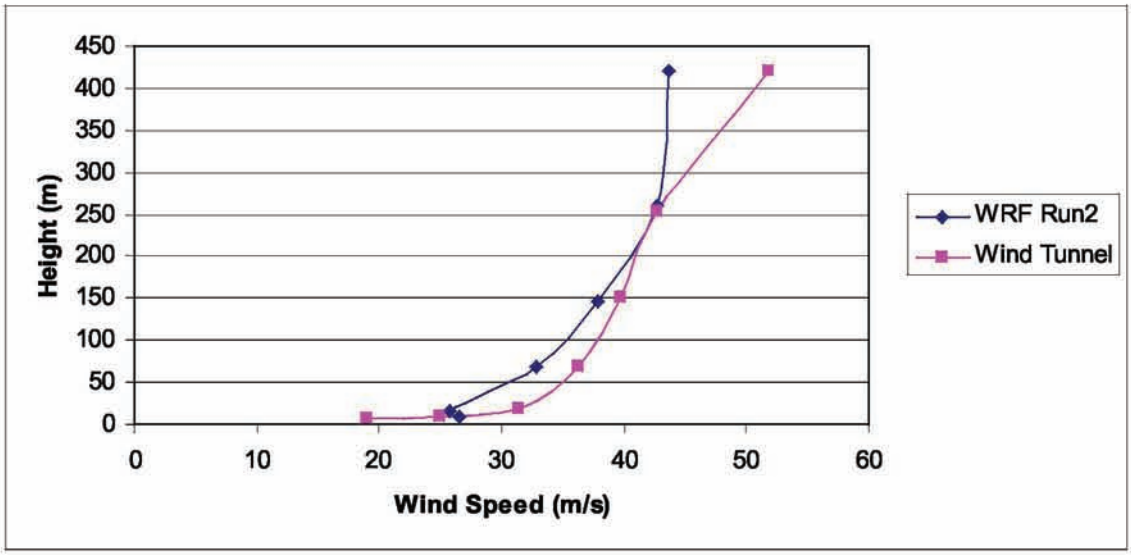

Exhibit 6. WRF wind speed profiles at the time of the peak 250m wind speed.

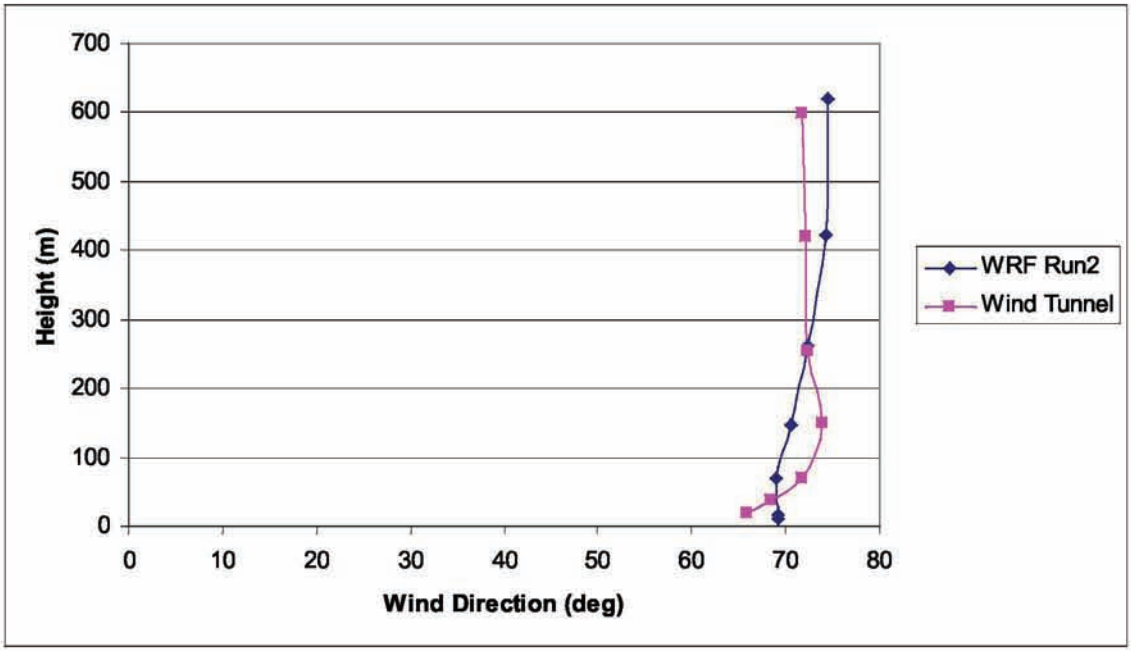

Exhibit 7. WRF wind direction profiles for the fire initiation time.

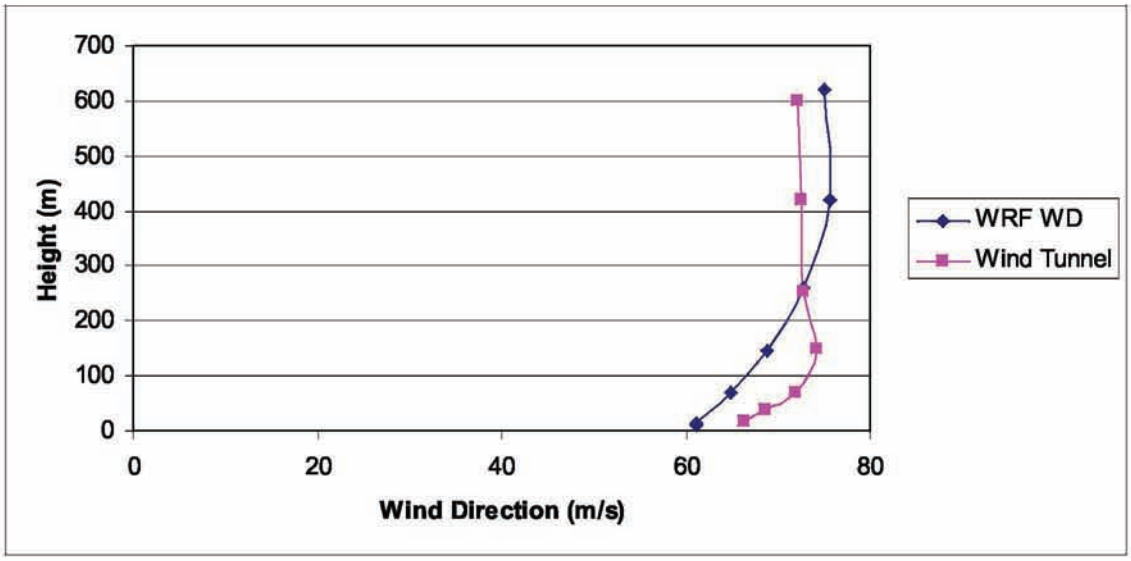

Exhibit 8. WRF wind direction profiles at the time of the peak 250m wind speed.

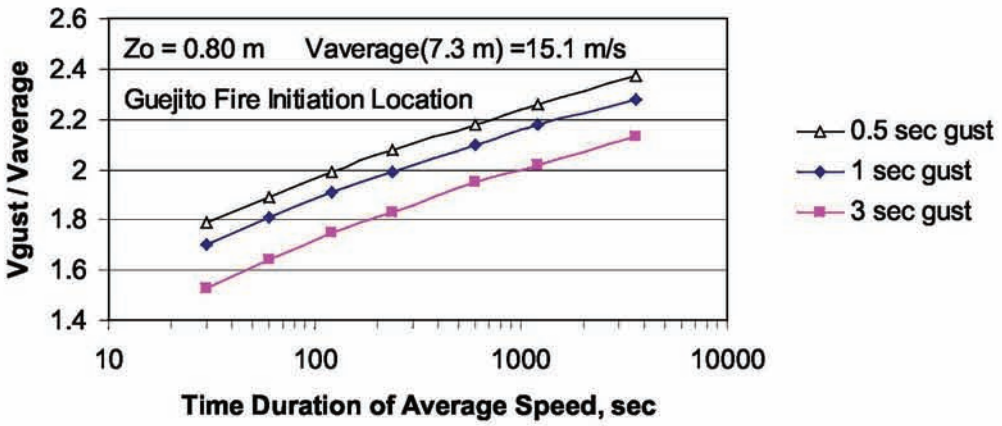

Exhibit 9. Gust factor as a function of averaging times for mean and gust.

Exhibit 10a. Goose Valley anemometer location as recorded and the actual location; note sheltering buildings and trees to the east-northeast.

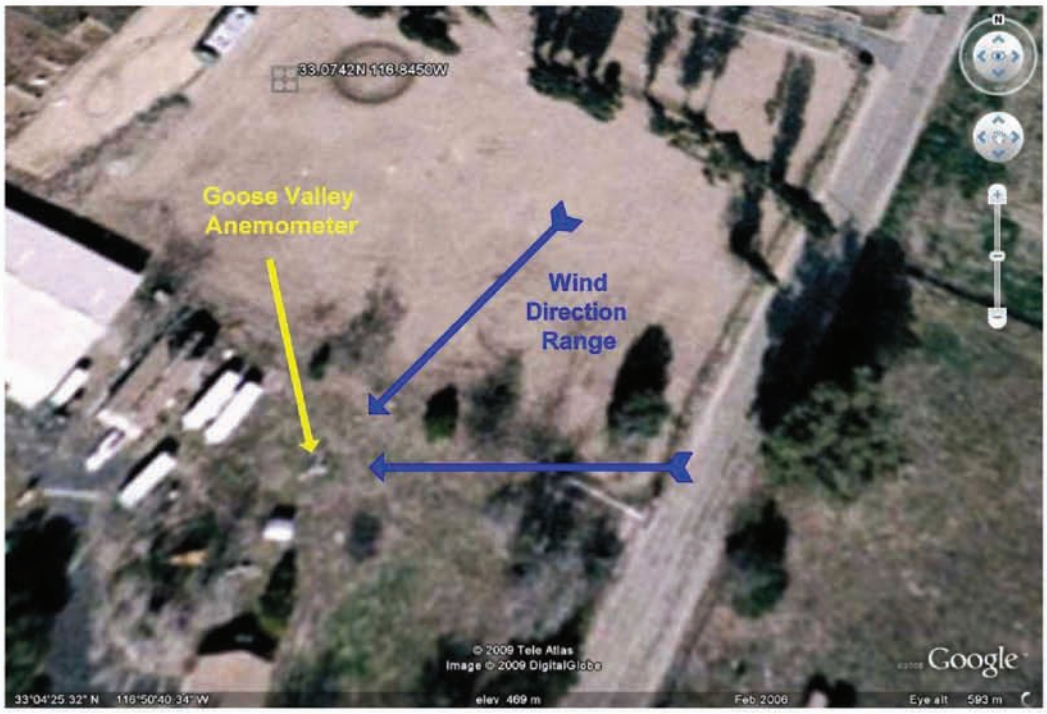

Exhibit 10b. Goose Valley anemometer location with wind direction range during the Santa Ana event; note sheltering trees upwind of anemometer.

looking northwest.

looking northeast - anemometer is below tree height

Exhibit 11. Goose Valley anemometer- photographs.

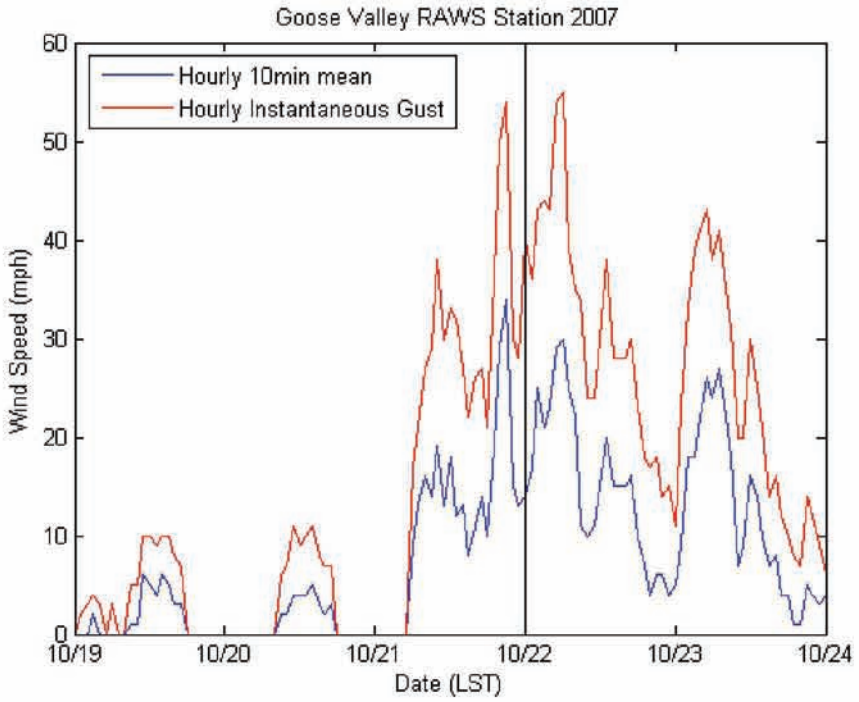

Exhibit 12a. Mean and gust speed time histories for Goose Valley during the Santa Ana event. The black line indicates the Guejito fire initiation time.

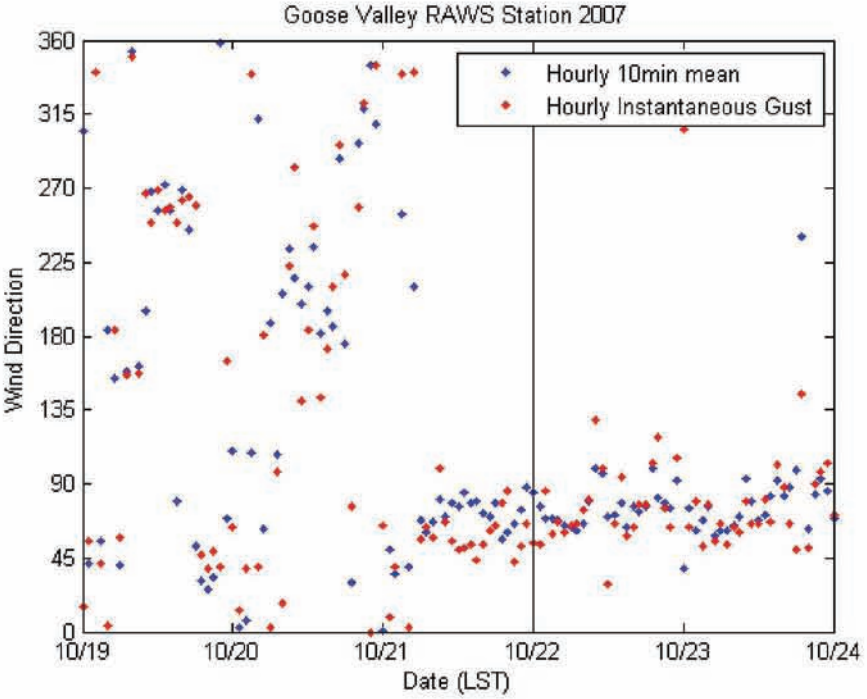

Exhibit 12b. Wind direction time histories for Goose Valley during the Santa Ana event. The black line indicates the Guejito fire initiation time.

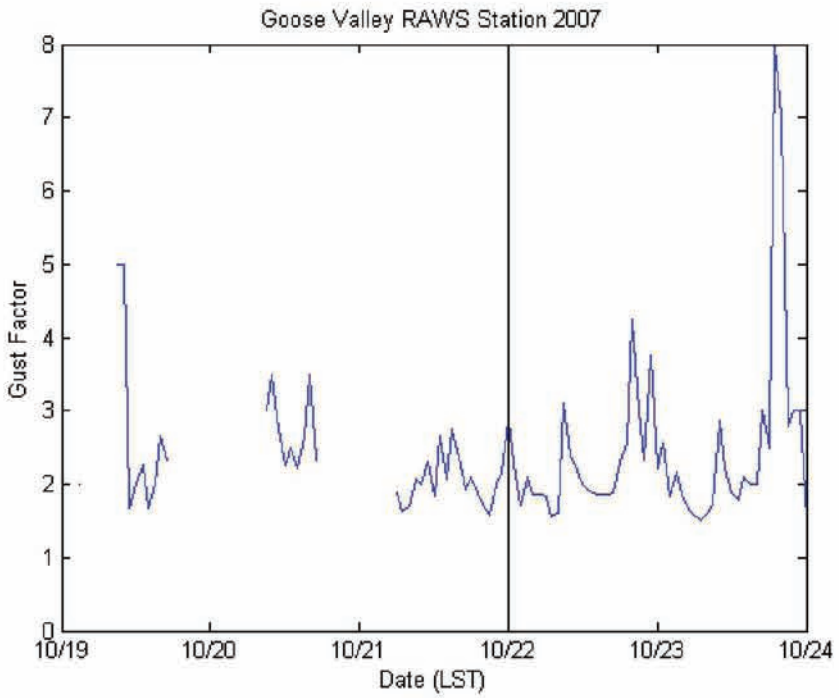

Exhibit 12c. Gust factor time history for Goose Valley during the Santa Ana event. The black line indicates the Guejito fire initiation time.

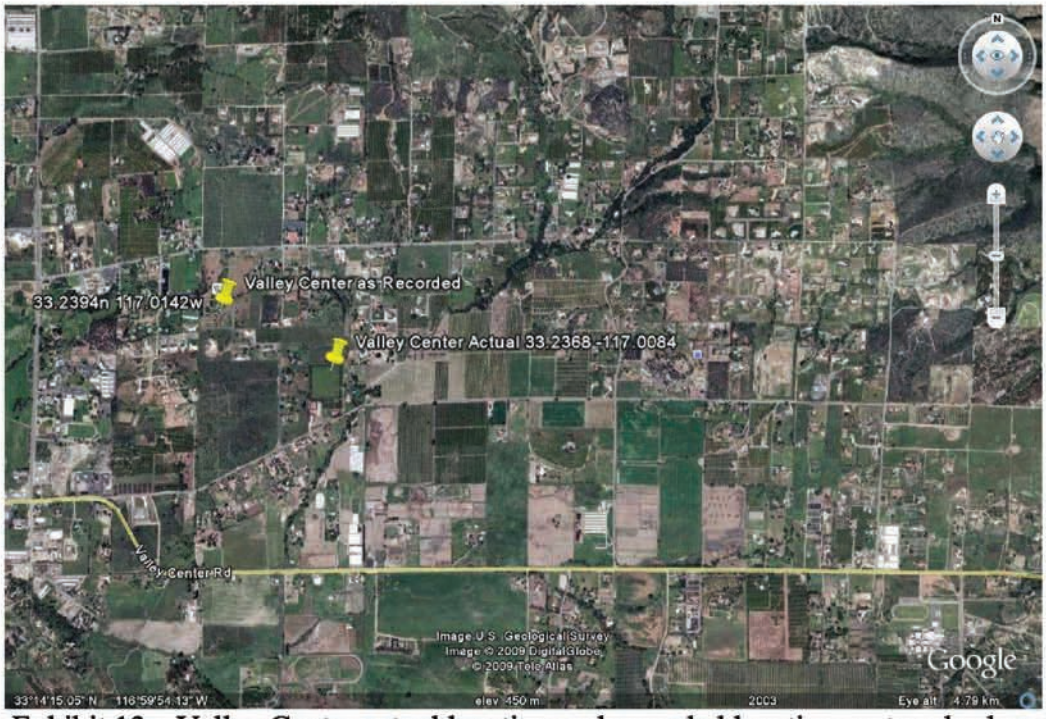

Exhibit 13a. Valley Center actual location and recorded location; note suburban or agricultural roughness to northeast and east where storm winds originated.

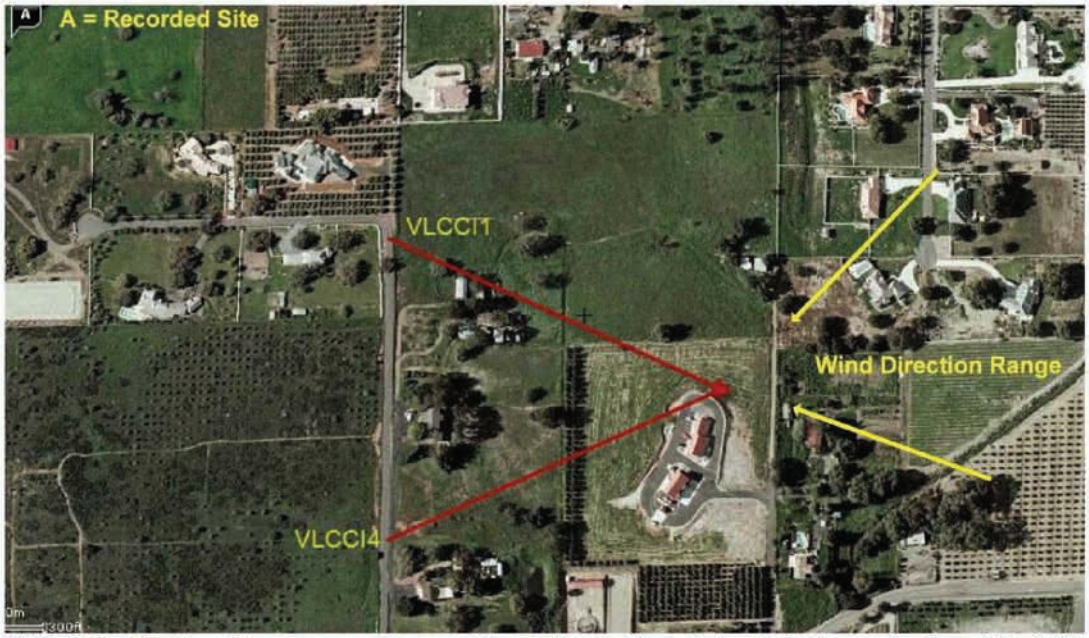

Exhibit 13b. Valley Center anemometer location and position of photographs of Exhibits 13c and 13d.

Exhibit 13c. Valley Center anemometer; photo VLCCI1 looking southeast, see Exhibit 13b for location.

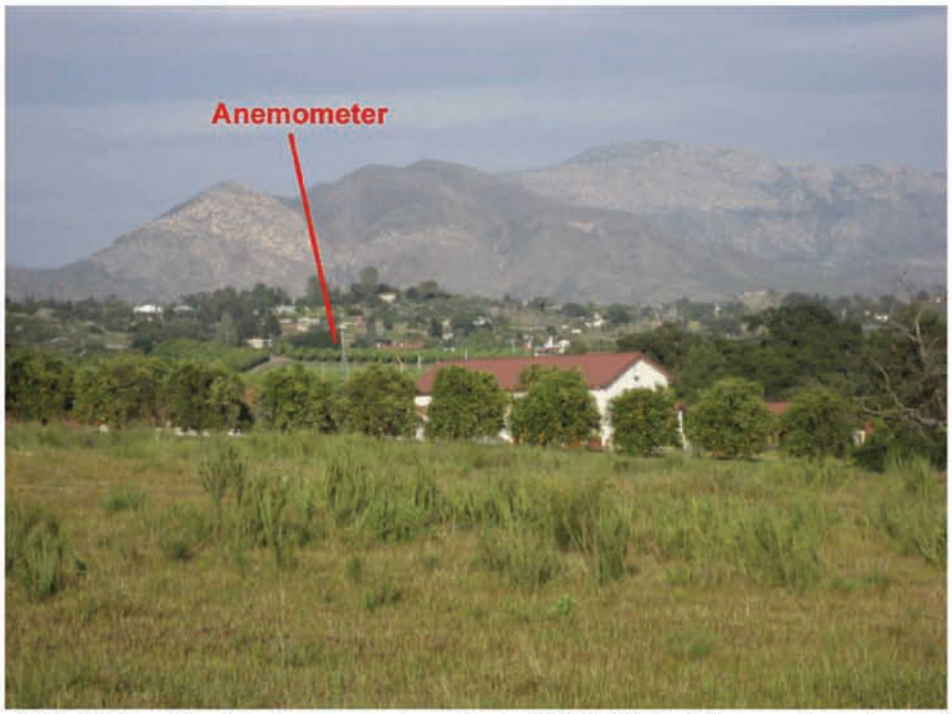

Exhibit 13d. Valley Center Anemometer; photo VLCCI4 looking northeast, see Exhibit 13b for location.

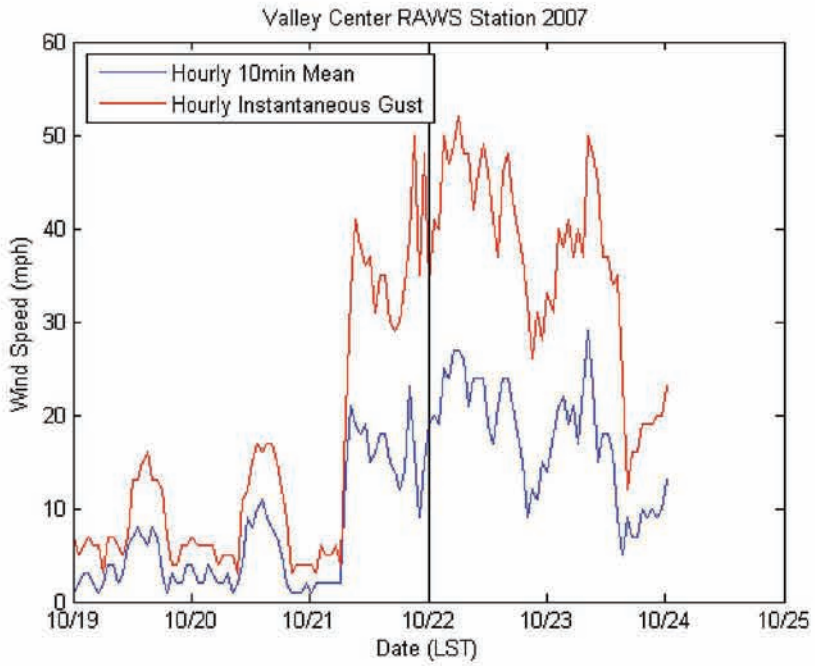

Exhibit 13e. Mean and gust speed time histories for Valley Center during the Santa Ana event. The black line indicates the Guejito fire initiation time.

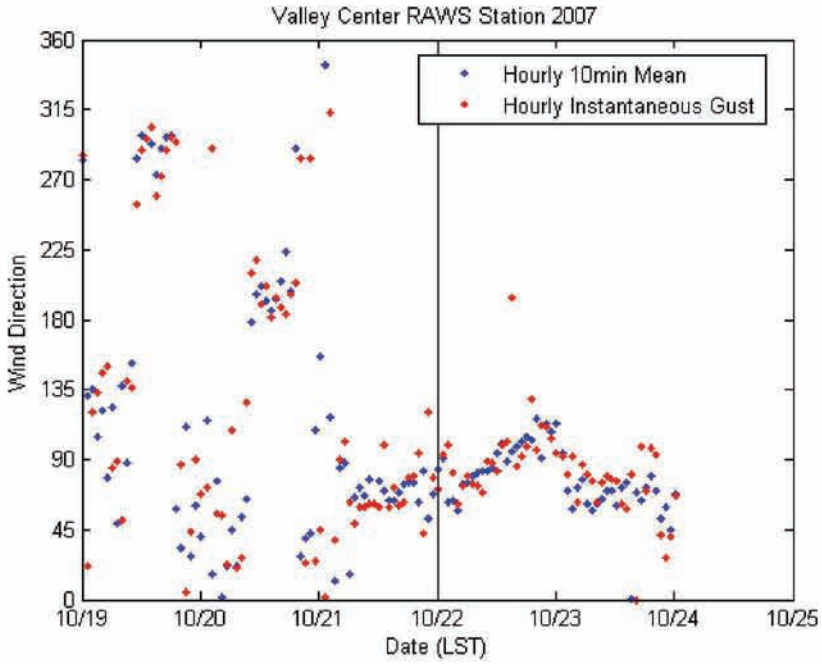

Exhibit 13f. Wind direction time histories for Valley Center during the Santa Ana event. The black line indicates the Guejito fire initiation time.

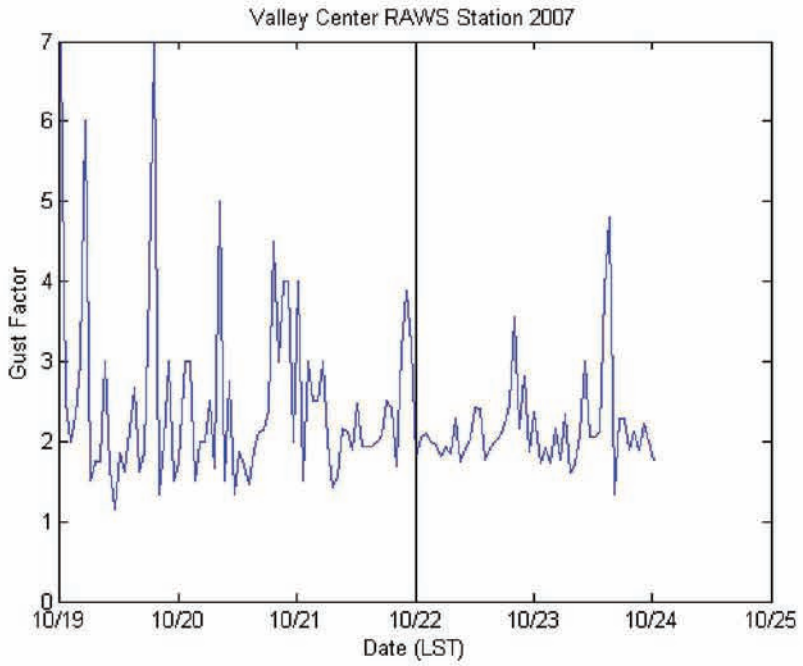

Exhibit 13g. Gust factor time history for Valley Center during the Santa Ana event. The black line indicates the Guejito fire initiation time.

Exhibit 14a. Ramona Airport ASOS station location. Note suburban development upwind for the Santa Ana event and airport buildings upwind causing some shielding.

Exhibit 14b. Ramona Airport ASOS station and location of photographs KRNM1 and KRNM3; "A is the anemometer site.

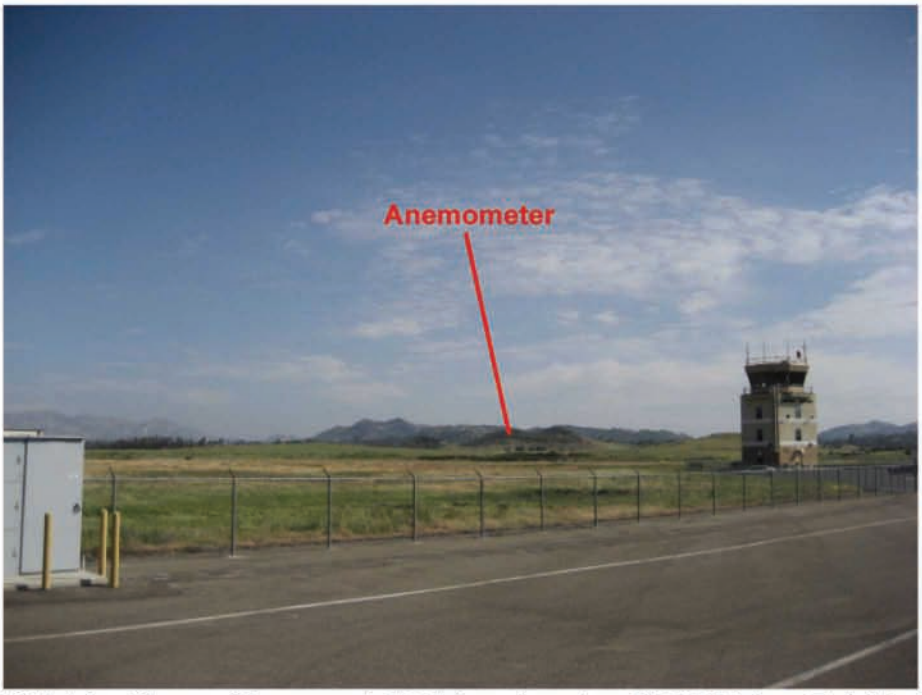

Exhibit 14c. Photo of Ramona ASOS from location KRNM1 (see Exhibit 14b).

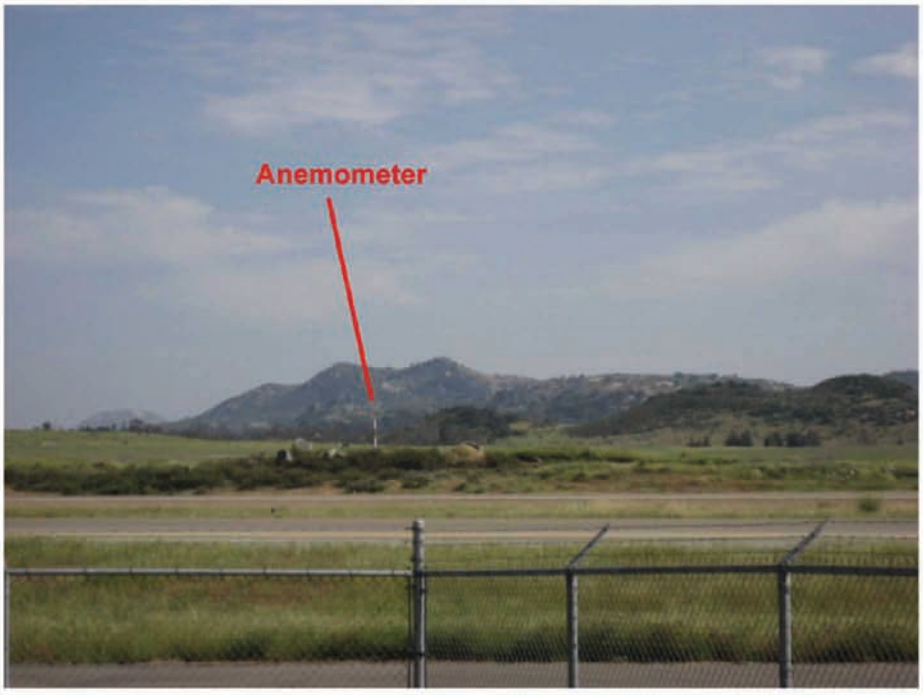

Exhibit 14d. Photo of Ramona ASOS from location KRNM3 (see Exhibit 14b).

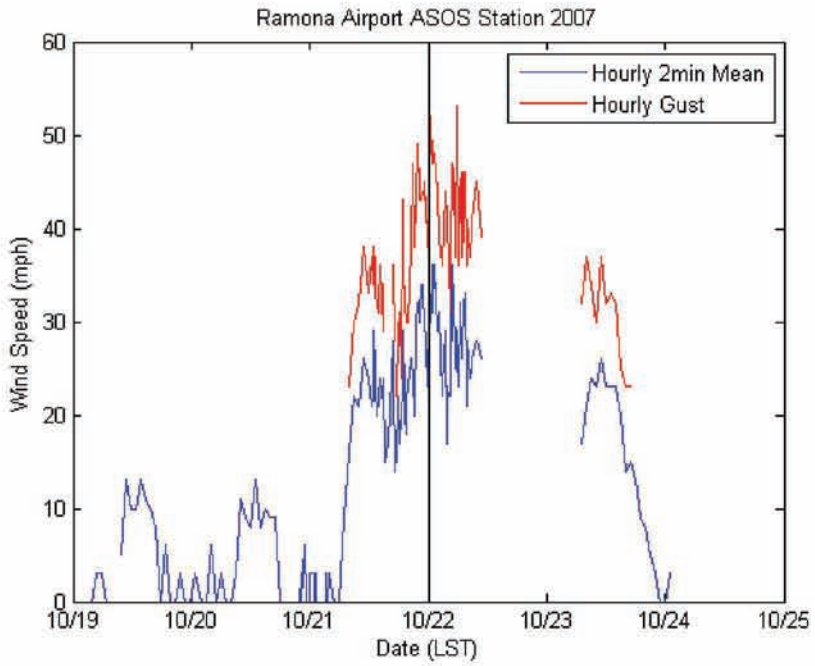

Exhibit 14e. Mean and gust speed time histories for Ramona Airport during the Santa Ana event. The black line indicates the Guejito fire initiation time.

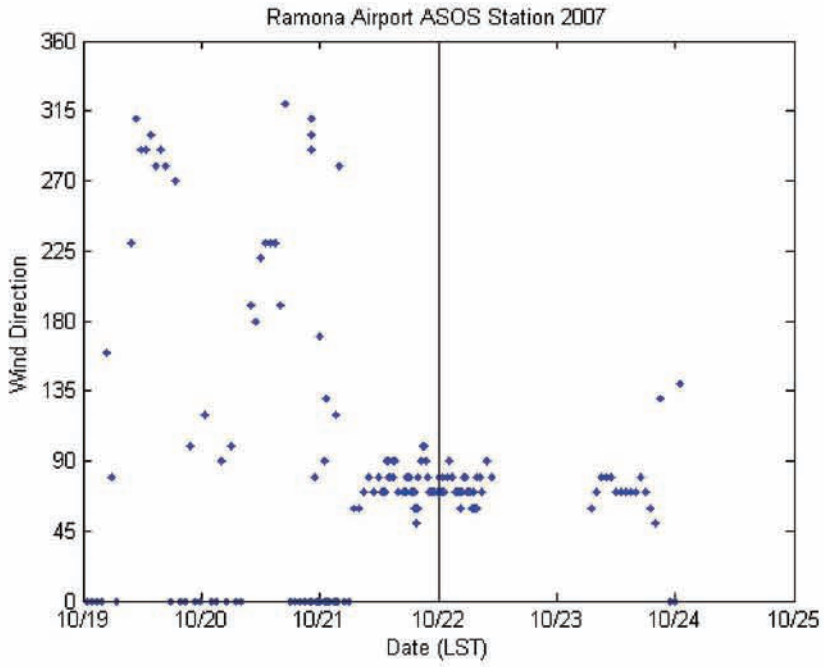

Exhibit 14f. Wind direction time histories for Ramona Airport during the Santa Ana event. The black line indicates the Guejito fire initiation time.

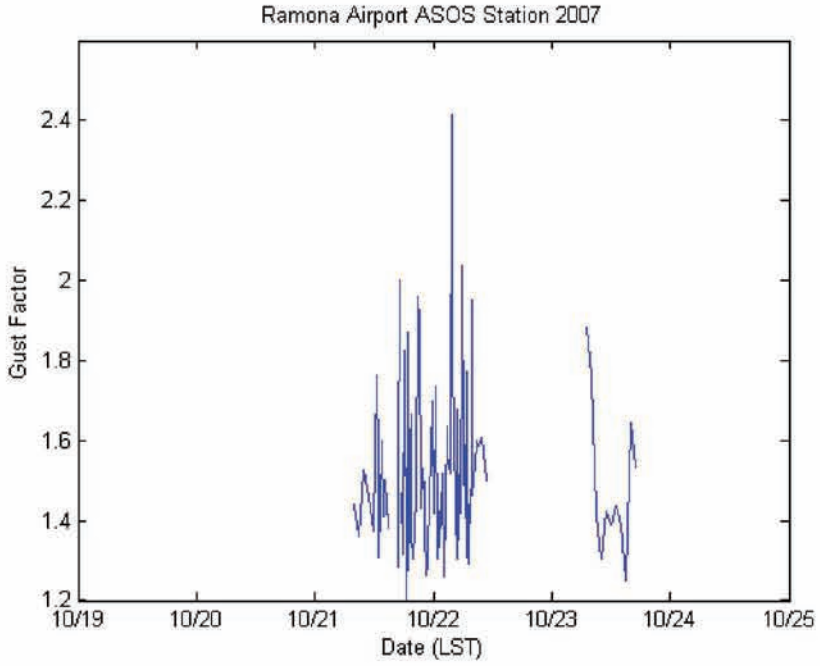

Exhibit 14g. Gust factor time history for Ramona Airport during the Santa Ana event.

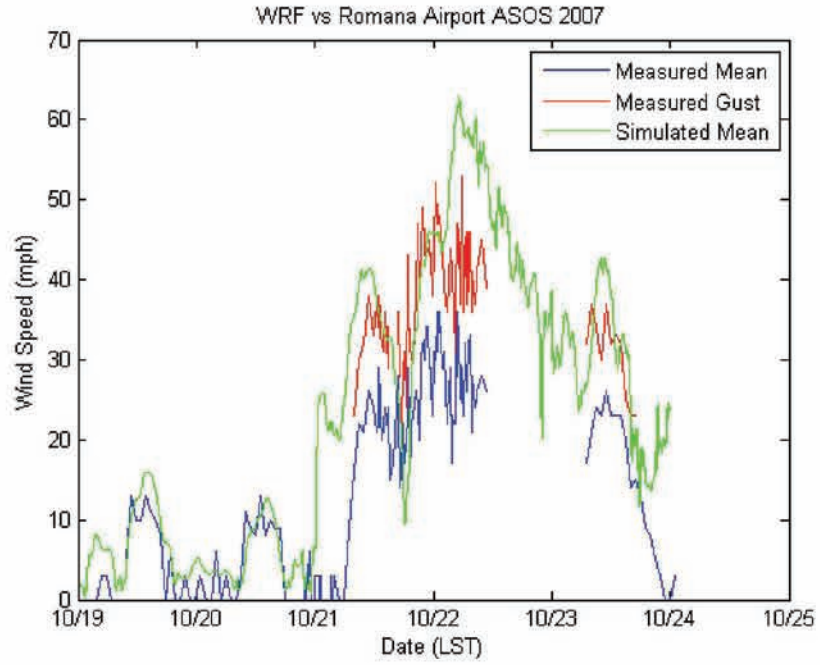

Exhibit 14h. Mean and gust speed time histories for Ramona Airport with WRF mean wind speeds imposed.

Appendix A— Qualifications of Jon A. Peterka

Jon A. Peterka

Co-founder and President, Cermak Peterka Petersen, Inc., Wind Engineering Consultants, Fort Collins, Colorado.
Professor Emeritus, Fluid Mechanics and Wind Engineering Program, Department of Civil Engineering, Colorado State University, Fort Collins, Colorado.

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Direct 970-498-2323
jpeterka@cppwind.com

EDUCATION

Ph.D.	Fluid Mechanics and Thermodynamics, Brown University, 1968
M.S., B.S.	Civil Engineering, Colorado State University, 1964, 1965

EXPERIENCE

35 years experience in wind-engineering applications and research. Evaluated over 1000 buildings and structures for wind loads (local cladding pressures and/or frame forces and moments) primarily through wind tunnel testing; evaluated pedestrian wind climate for many of these buildings; measured forces on numerous other structures including towers, stacks, bridges and solar collectors; defined snow loads for many structures; investigated pollutant dispersion from buildings and stacks; determined heat transfer rates from structure surfaces in the wind; helped define siting criteria for wind energy projects as well as wind tunnel and field testing to assist in the development of wind turbine technology; developed meteorological analysis procedures for power line rating.

Dr. Peterka's work in wind engineering includes membership on the national committee which writes the national wind load standard ASCE 7, development of the new wind hazard map for the national wind load standard, consulting for the FAA on aircraft wind shear, participation in a National Research Council report to the U.S. Congress on wind damage, and Board of Directors of the Wind Engineering Research Council. He is currently chairman of an ASCE Standards committee on wind tunnel testing of structures. Research in wind engineering includes statistical characteristics of fluctuating pressures, adjacent building effects, wind flow around and downwind of buildings, natural ventilation, transport of snow and sand, and siting criteria for anemometers. Other experience includes three years experience in development of liquid rocket propulsion systems for the U.S. Army Missile Command.

PROFESSIONAL ACTIVITIES/AWARDS

Registered Professional Engineer in Colorado, Florida and Mississippi. Organizational memberships include the American Society of Civil Engineers, American Association of Wind Engineers, American Society of Mechanical Engineers, American Institute of Aeronautics and Astronautics, and National Society of Professional Engineers. Professional committee activities within the American Society of Civil Engineers includes: ASCE-7 Wind Load Subcommittee, member (1990-present); Aerodynamics Committee, member (1978-present), chairman (1984-1988); Task Committee on Microclimate of Buildings, member (1980-1983); Task Committee on

Wind-Tunnel Testing of Structures, member (1981-1986, 1991-1994); Task Committee on Wind Forces on Solar Collectors, member (1982-1988); Task Committee on Mitigation of Severe Wind Damage, member (1985-1988); Task Committee on Modeling of Blowing Snow and Sand, member (1985-1989); Committee on Wind Effects, member (1982-1985, 1987-1993); Executive Committee, Aerospace Division, member (1987-1992), chairman (1991); Standards Committee on Wind Tunnel Testing (1993-present), chairman (1993-present). Other professional activity includes Secretary/Treasurer of the Wind Engineering Research Council (predecessor of the American Society of Wind Engineers (1979-1985), and board of directors (1979-1989); National Research Council Panel on Wind Engineering (1987-1990). Honorary societies include Sigma Xi, Phi Kappa Phi, Sigma Tau and Chi Epsilon; awards include two awards for excellence in teaching at Colorado State University, ASCE 1989 Aerospace Science and Technology Award, Wind Engineering Research Council 1990, Outstanding Wind Engineering Research Award, the ASCE 1999 Raymond C. Reese Research Prize, and the Engineering News Record Top 25 Newsmakers of 2006 award.

An incomplete list of some specific activities related to Wind Hazard Assessment and Mitigation –

Developed an anemometer siting guide for the Federal Aviation Administration

Developed the 3-second gust wind map that permitted ASCE 7 national wind load standard to move from a fastest mile map to a gust map – awarded the 1999 ASCE Raymond C. Reese Research Prize

Assessment of wind damage at the Limon Tornado site

Assessment of wind damage at the Pingree Park tornado site

Assessment of wind damage after Hurricane Andrew

Participated in a National Research Council report to Congress on Natural Hazards

Lead investigator to develop a Monte Carlo simulation for design level hurricane winds in Hawaii and Guam under NASA sponsorship

Routinely develop risk analyses for clients for design against hurricanes and tornadoes

Currently developing terrain-induced impacts for design against hurricane winds in Hawaii

Member of the ASCE 7 Wind Load Sub-committee that writes the national wind load standard ASCE 7, and that forms the basis for the wind load provisions for the IBC building code

Chairman of the ASCE standards committee writing a standard of practice for wind tunnel testing of buildings for design wind loads

Lead investigator in development of a wind uplift model for asphalt shingles, permitting the development of high-wind resistant shingles

Lead investigator to develop a wind uplift test for asphalt singles for Underwriters Laboratory

References for last 10 years

Cochran, L. S., J. A. Peterka, and R.L. Petersen, *Physical Modeling of Roof-Top Helicopter Exhaust Flow Dispersion*, Proceedings of the Fourth Asia Pacific Symposium on Wind Engineering, Surfers Paradise, Australia, July 1997.

Seong, S. H. and J. A. Peterka, *Computer simulation of non-Gaussian multiple wind pressure time series*, Journal of Wind Engineering and Industrial Aerodynamics, Vol. 72, (1997), pp 95-105.

PROFESSIONAL HISTORY – J.A. PETERKA

1959 – 1964	B.S. Civil Engineering, Colorado State University, Fort Collins, CO
1964 – 1965	M.S. Civil Engineering (Engineering Mechanics), Colorado State University, Fort Collins, CO
1965 – 1968	Ph.D. Engineering (Fluid Mechanics and Thermodynamics), Brown University, Providence, RI
1968 – 1970	1st Lt. And Capt. U.S. Army, Missile Development, Army Missile Command, Huntsville, AL
1970 – 1971	Research Engineer, Rocket Propulsion Laboratory, Army Missile Command, Huntsville, AL
1971 – 1976	Assistant Professor of Civil Engineering, Colorado State University, Fort Collins, CO
1976 – 1983	Associate Professor of Civil Engineering, Colorado State University, Fort Collins, CO
1983 – 1993	Professor of Civil Engineering, Colorado State University, Fort Collins, CO (½ time 1985 – 1993) Retired 1993. Emeritus status 1993-present.
1981 – 2008	Vice President, Cermak Peterka Petersen, Inc., Fort Collins, CO (called Cermak/Peterka & Associates, Inc. 1981 - March 1987)
2008 – Present	President, Cermak Peterka Petersen, Inc., Fort Collins, CO

Wind Engineering – Years of Experience	
1963 - 1965 (2 Years)	M.S. level research in physical modeling of atmospheric winds and dispersion of pollutants.
1971 - 2008 (37 years)	Research and applied studies in physical modeling of atmospheric winds; wind loads on buildings, bridges, stadia, arenas and towers; dispersion of pollutants; pedestrian wind environment; snow loads; wind structure downwind of obstacles; wind-tunnel instrumentation. Wind loads defined for over 1000 buildings; pedestrian wind evaluation for over 500 buildings; wind loads on numerous bridges, towers and stacks; dispersion measured for several power plant stacks and numerous laboratory or industrial buildings; analysis of meteorological data.

Legal Cases - Jon Peterka - 1998 - 2008

No.	Case	Year	Court	Case #	Lawyer	Activity
1	Wisher, et al. v. Mitsubishi, et al. Miller Park Crane	1999-2000	Circuit Court of Milwaukee County, State of Wisconsin	99CV006553	Don Carlson -- Crivello, Carlson & Mentkowski	Report Deposition Trial
2	Fairway Point II vs. Oriole Fairway Point, Inc., et al. Fairway Point 2 & 3 Boca Raton, FL	2000-2001	Unknown	Unknown	Scott Marder -- Ruden McClosky Smith Schuster & Russel	Report
3	Sandcastle Condominium Assoc. vs. Columbia Smyrna Group et al. New Smyrna Beach	2001-2002	Circuit Court of Seventh Judicial Circuit, Volusa County, FL	2001-30012 -CICI	Michael T. Haire -- Fisher, Rushmer, Werrenrath, Dickson, Talley & Dunlap	Report
4	World Trade Center Model Tests	2002-2003	Unknown	Unknown	Akshay Gupta - Engineer -- Exponent	Report
5	Kenneth Conti, etc. vs. C.J. Systems Aviation, Inc. et.al. Univ Health Center Helicopter Cleveland	2002	Cuyahoga County Court of Common Pleas, Ohio	CV 02486829	Charles M. Young -- Sindell, Young, Guidubaldi & Sucher	Report
6	Hindery v. WedgCor, et al. Metal Buildng Snow Douglas Cnty, CO	2006-2007	District Court, Dougles County, Colorado	04CV404	Brett Godfrey -- Godfrey & Lapuyade	Report
7	Eleuterius v. State Farm	2006-2007	District Court for Southern District of Mississippi, Southern Division	1:06cv647	Michael McCabe -- Allen, Cobb, Hood & Atkinson	Report
8	Lanier v. State Farm	2006-2007	District Court for Southern District of Mississippi, Southern Division	1:06cv563	Ben Mullen -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report
9	Melvin v. State Farm	2006-2007	Circuit Court of Hancock County, Mississippi	06-0153	Scott Corlew -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report
10	Best v. State Farm	2006-2007	District Court for Southern District of Mississippi, Southern Division	1:06cv00074	Ben Mullen -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report
11	Mullins v. State Farm	2006-2007	Unknown	Unknown	Michael McCabe -- Allen, Cobb, Hood & Atkinson	Report
12	Green v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv451	Dion Shanley -- Hickman, Goza & Spragins	Report
13	Lucore v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv629	Dion Shanley -- Hickman, Goza & Spragins	Report
14	Chapoton v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv471	Dion Shanley -- Hickman, Goza & Spragins	Report Deposition
15	Lott v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv519	Dion Shanley -- Hickman, Goza & Spragins	Report
16	Richard v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv753	Ernie Schroeder -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report

No.	Case	Year	Court	Case #	Lawyer	Activity
17	Illing v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv513	Dion Shanley -- Hickman, Goza & Spragins	Report
18	Laborde v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv521	Michael McCabe -- Allen, Cobb, Hood & Atkinson	Report
19	Eagan v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv704	Dion Shanley -- Hickman, Goza & Spragins	Report
20	Marion v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:06cv969	Vincent Castigiola -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report
21	Owen v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv617	Vincent Castigiola -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report
22	Daudert v. State Farm	2007-2008	District Court for Eastern Michigan	2:06cv13269	Doug Foster -- Webb, Sanders & Williams	Report
23	Willis v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv902	Dion Shanley -- Hickman, Goza & Spragins	Report Deposition
24	Gagne v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:06cv711	Doug Foster -- Webb, Sanders & Williams	Report Deposition
25	Huynh & Nguyen v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:06cv1061	Doug Foster -- Webb, Sanders & Williams	Report
26	Luffey v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv901	Doug Foster -- Webb, Sanders & Williams	Report Deposition
27	Roberts v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv1022	Doug Foster -- Webb, Sanders & Williams	Report
28	Travers v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv1102	Doug Foster -- Webb, Sanders & Williams	Report
29	Adams v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv864	Doug Foster -- Webb, Sanders & Williams	Report
30	Lawler v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:07cv104	Dion Shanley -- Hickman, Goza & Spragins	Report
31	Palermo v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:06cv905	Vincent Castigiola -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report
32	Barber v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:07cv37	Vincent Castigiola -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report
33	Benjamin v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:06cv1132	Vincent Castigiola -- Bryan, Nelson, Schroeder, Castigliola & Banahan	Report
34	Gurrisi v. State Farm	2007	Circuit Court of Hancock County, Mississippi	05-378	Michael McCabe -- Allen, Cobb, Hood & Atkinson	Report
35	Cates v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:07cv61	Doug Foster -- Webb, Sanders & Williams	Report

No.	Case	Year	Court	Case #	Lawyer	Activity
36	Myers v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:07cv52	Doug Foster -- Webb, Sanders & Williams	Report
37	Hoang v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:07cv475	Mindy Johnson -- Allen, Cobb, Hood & Atkinson	Report
38	Benfatti v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:07cv14	Michael McCabe -- Allen, Cobb, Hood & Atkinson	Report
39	Vaughn-Winfree v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:07cv76	Doug Foster -- Webb, Sanders & Williams	Report
40	Sekul v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:07cv369	Michael McCabe -- Allen, Cobb, Hood & Atkinson	Report
41	Timidaiski v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:07cv464	Dion Shanley -- Hickman, Goza & Spragins	Report
42	Perronne v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:07cv650	Doug Foster -- Webb, Sanders & Williams	Report
43	Ridgeway v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:07cv561	Doug Foster -- Webb, Sanders & Williams	Report
44	Schaefer v. State Farm	2007	District Court for Southern District of Mississippi, Southern Division	1:07cv959	Dion Shanley -- Hickman, Goza & Spragins	Report
45	Peters v. State Farm	2007-2008	District Court for Southern District of Mississippi, Southern Division	1:07cv67	Dion Shanley -- Hickman, Goza & Spragins	Report
46	Coca Cola Enterprises v. Carl E. Woodward, LLC	2007-2008	24th Judicial District Court for the Parish of Jefferson State of Louisiana	635-290	Richard S. Vale Blue Williams, LLP	Report Deposition

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Revised 2008-04

Appendix B—WRF Specifications

Parameterization Schemes

Schemes	Run 1	Run 2	Run 3	Run 4
FDDA	yes	yes	no	yes
Initialization	20km RUC	20km RUC	20km RUC	32km NARR
Microphysics	WSM 5-class	WSM 5-class	WSM 5-class	WSM 5-class
Longwave Radiation	RRTM	RRTM	RRTM	RRTM
Shortwave Radiation	Dudhia	Dudhia	Dudhia	Dudhia
Convective	Kain-Fritsch*	Kain-Fritsch*	Kain-Fritsch*	Kain-Fritsch*
PBL	YSU	MYJ	YSU	YSU
Surface	Noah	Noah	Noah	Noah
Nesting	1-way	1-way	1-way	1-way

*Applied for outer grid only.

Appendix C—Wind Tunnel Specifications

Wind Tunnel Setup

Scale	1:5000
Upwind Roughness Height (in)	0.5
Trip Height (in)	11
Number of Spires	5
Spire Height (in)	36
Test Directions	22.5, 45, 67.5

Profile Measurement Heights

Model Scale (in)	Full-Scale (m)
0.15	18.9
0.30	37.9
0.55	69.4
1.19	150.3
2	252.5
3.33	420.5
4.75	600
24	3030.3

Profile Locations

Test Point	Test Point Name	Latitude	Longitude	Distance from Point 1 (km)	Elevation (m)
1	Guejito Fire Initiation	33.093549	-116.962275	0	133.3
2	Canyon point east of Point 1	33.09242	-116.946263	1.5	136.3
3	Canyon point north of Point 1	33.106314	-116.956968	1.5	138.4
4	NNE of Point 1	33.135315	-116.942107	5	489.8
5	NE of Point 1	33.125638	-116.924648	5	585.3
6	ENE of Point 1	33.111075	-116.912923	5	594.0