Cascade Engineering Services, Inc.

6640 185th Ave. NE, Redmond, WA 98052
T.425.895.8617, F.425.702.9358

CERTIFICATION CONCERNING DESIGN AND CONSTRUCTION OF ELECTRONIC SPEED MEASURING DEVICES

IRLJ RULE 6.6 EFFECTIVE 1/3/2006

I, Clifford W. Nahm, do certify under penalty of perjury, under the laws of the state of Washington as follows:

I am employed with Cascade Engineering Services, Inc. (CES) Metrology and Electronics Repair Services, as the Metrology Lab Manager. I have been employed in such a capacity since 1996. Part of my duties includes supervising the maintenance and repair of all doppler radar and laser speed measuring devices (SMD's) used by KITSAP COUNTY SHERIFFS OFFICE.

All SMD's currently used by KITSAP COUNTY SHERIFFS OFFICE are listed in Exhibit "A".

I maintain the following qualifications with respect to SMD(s): United States Navy trained electronics technician specializing in Precision Measurement Electronics (PMEL) C School & Systems/Communications/Radar A School. I have commercial experience in electronics and in the repair and calibration of Doppler and Lidar SMD's dating back to 2006. I am experienced and competent in the principles and fundamental requirements of calibration from DC to Microwave frequencies.

The CES laboratory maintains manuals for all of the SMD's listed in Exhibit "A". I am personally familiar with those manuals and how each of the SMD's are designed and operated. On the date indicated in Exhibit "A" testing of the SMD's was performed using CES procedures under the direction of an authorized SMD expert. The results were evaluated and certified to meet or exceed existing performance standards and entered into the CES certification management database. CES laboratory maintains a testing and certification program that requires each SMD to be tested and certified for accuracy at least once every two years.

The CES laboratory tests all Doppler SMD's used by KITSAP COUNTY SHERIFFS OFFICE, as recommended by the manufacturer, as follows: The Vocar HR, handheld Radar certification system is used to simulate speeds at 5 mph increments from 20 mph to 140 mph to verify accuracy in stationary and moving mode. Measurements are taken of the SMD transmit frequency, antenna/receiver sensitivity and any accompanying tuning forks are also tested for accuracy. All other operational functions of the SMD system are then tested for proper performance.

The Laser SMD's transmit a series of highly focused light wave pulses each time the trigger is pulled and utilizes two laws of physics; time and distance (i.e. 3.5 feet in diameter at 1000 feet). Since the speed of light is a known fixed value, the distance of the target is determined by calculating how long it takes for the signal to travel to the target and back. This series of measurements allows the SMD to calculate the speed of the target by measuring the distance the signal took to travel to the target and back. The displayed speed is accurate to within plus (+) or minus (-) one (1) mile per hour.

The CES laboratory tests all Laser / Lidar SMD(s) used by KITSAP COUNTY SHERIFFS OFFICE, as recommended by the manufacturer, as follows: The Laser Speed Measurement Simulator (LSMS) is utilized to simulate a moving target. This is accomplished by detecting the optical output pulses of the laser device and generating artificial return pulses. Different speed values and ranges are simulated by varying the time delays between the input pulses and the return pulses. The LSMS consists of a Digital Delay Generator (DDG), and an optical interface unit. The DDG produces precise time delays. The optical interface unit converts the optical energy of the laser instrument into electrical signals which are supplied to the DDG. The optical interface unit also converts the electrical signals received from the DDG into optical energy which is then transmitted to the Lidar. The Lidar's output power is tested using an Ophir Nova Display, with a PD300-SH power head.

On the date indicated in Exhibit "A", each SMD was tested by a trained technician listed therein and under my direction. All Technicians listed on Exhibit "A" received training in the proper use and operation of SMD test equipment and performance testing procedures used to test Laser and Doppler SMDs. After successfully completing training the technician is certified by myself and receives authorization allowing them to enter the results from the tests into the certificate management database. Individual Performance and Certification tests are entered into the certificate management database under the penalty of perjury by entering an authorized user id and password to authenticate it.

This agency, KITSAP COUNTY SHERIFFS OFFICE currently utilizes the following Laser SMD(s):

KUSTOM SIGNALS, INC. manufacturer's the following SMD(s):

I.D./Serial Number	Model Number	Antenna 1 S/N	Antenna 2 S/N	T.F. 1 S/N	T.F. 2 S/N	Cal. Date	Cal. Interval	Due Date	Technician
L-9/LP02712	PRO LITE +	N/A	N/A	N/A	N/A	03/14/2019	24 MONTHS	03/14/2021	NICOLAS T MOWRY

This agency, KITSAP COUNTY SHERIFFS OFFICE currently utilizes the following Doppler SMD(s):

DECATUR ELECTRONICS, INC manufacturer's the following SMD(s):

I.D./Serial Number	Model Number	Antenna 1 S/N	Antenna 2 S/N	T.F. 1 S/N	T.F. 2 S/N	Cal. Date	Cal. Interval	Due Date	Technician
90/GHS-4198	GENESIS	HANDHELD	N/A	170790	N/A	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
92/GHS-4210	GENESIS	HANDHELD	N/A	54712	N/A	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
37/GHS-4347	GENESIS	HANDHELD	N/A	57166	N/A	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
39/GHS-4353	GENESIS	HANDHELD	N/A	52833	51743	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
96/1072	GENESIS VPD	HANDHELD	N/A	92541	92682	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
110/6323	GENESIS VPD	HANDHELD	N/A	190837	190739	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
121/GHD-10972	GHD	N/A	N/A	72222	N/A	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
122/GHD-10969	GHD	HANDHELD	N/A	208889	208843	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
123/GHD-10968	GHD	HANDHELD	N/A	208895	208870	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
124/GHD-10964	GHD	HANDHELD	N/A	209001	208860	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
125/GHD-10967	GHD	HANDHELD	N/A	208901	208869	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY

KUSTOM SIGNALS, INC. manufacturer's the following SMD(s):

I.D./Serial Number	Model Number	Antenna 1 S/N	Antenna 2 S/N	T.F. 1 S/N	T.F. 2 S/N	Cal. Date	Cal. Interval	Due Date	Technician
54/E1712	EAGLE	EK10618	EK10629	52833	51743	12/03/2019	24 MONTHS	12/03/2021	NICOLAS T MOWRY
118/XE13327	GOLDEN EAGLE	K003266	K003259	37571	44055	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
119/XE14572	GOLDEN EAGLE	K003332	K003334	38150	67595	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
120/XE14594	GOLDEN EAGLE	K003341	K003281	38513	40477	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
9/K55267001379	K-55	PYT855005710	PYT831005372	286409	286288	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
140/RP02530	RAPTOR RP-1	RK04027	RK04026	47686	44685	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
141/RP02529	RAPTOR RP-1	RK04024	RK04025	47695	44796	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
142/RP02448	RAPTOR RP-1	RK03843	RK03838	47393	44633	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY

MPH INDUSTRIES manufacturer's the following SMD(s):

I.D./Serial Number	Model Number	Antenna 1 S/N	Antenna 2 S/N	T.F. 1 S/N	T.F. 2 S/N	Cal. Date	Cal. Interval	Due Date	Technician
15/BEE930000924	BEE III	BEN653009008	BEN653009009	852054	852080	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
17/BEE930000925	BEE III	BEN653009011	BEN653009010	852058	852078	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
19/BEE930001000	BEE III	BEN653009292	BEN653009291	852945	953228	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
20/BEE930000999	BEE III	BEN653009289	BEN653009290	749434	749447	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
21/BEE930000297	BEE III	BEN653006863	BEN653006862	744360	744535	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
22/BEE930000364	BEE III	BEN553007153	BEN653007154	745275	745253	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
23/BEE930000365	BEE III	BEN653007156	BEN653007155	745286	745238	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
24/BEE930000366	BEE III	BEN653009006	BEN653009007	445686	445742	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
25/BEE930000367	BEE III	BEN653007160	BEN653007159	490862	490850	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
26/BEE930000565	BEE III	BEN653007867	BEN6530067866	853365	853213	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
27/BEE930000566	BEE III	BEN653007870	BEN653007869	747584	966135	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
28/BEE930000921	BEE III	BEN653009003	BEN653009002	852062	852041	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
29/BEE930000922	BEE III	BEN653009005	BEN653009004	445690	445736	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
30/BEE930000926	BEE III	BEN653009012	BEN653009013	852068	852040	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
31/BEE930000923	BEE III	BEN653009006	BEN653009007	852057	852084	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
113/BEE930001324	BEE III	BEN653010452	BEN653010453	857554	857727	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
114/BEE930001646	BEE III	BEN653111158	BEN653111157	960136	960112	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
115/BEE930001714	BEE III	BEN653011343	BEN653011344	960785	960760	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
116/BEE930002158	BEE III	BEN653012573	BEN6530012574	964185	964222	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
117/BEE930002157	BEE III	BEN653012571	BEN653012572	964190	964221	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
132/BEE930002418	BEE III	BEN653013279	BEN653013280	966240	966275	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
133/BEE930002484	BEE III	BEN653013323	BEN653013324	966606	966915	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
14/BEE109006678	BEE III	BEN653033089	BEN653033024	978950	978940	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
35/PYT546000735	PYTHON	PYT315005939	PYT315005940	268445	268635	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
36/PYT546000736	PYTHON	PYT315005942	PYT315005941	268317	268645	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
86/PYT546000448	PYTHON	PYT315005430	PYT315005431	266964	266808	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
83/PYT546000338	PYTHON	PYT315005333	PYT315005334	266100	266419	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
84/PYT546000341	PYTHON	PYT315005339	PYT315005340	266069	266432	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
4/PYT546003508	PYTHON	PYT315010748	PYT315010749	21597	277049	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
80/PYT546000347	PYTHON	PYT315005351	PYT315010528	266126	266473	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
81/PYT546000342	PYTHON	PYT315005341	PYT315005342	181386	075650	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
60/PYT304000652	PYTHON	PYT315000967	PYT315000968	294026	294536	02/02/2021	24 MONTHS	02/02/2023	JOHN R GRAY
61/PYT304000660	PYTHON	PYT315000977	PYT315014816	181387	181900	01/26/2021	24 MONTHS	01/26/2023	JOHN R GRAY
62/PYT304000662	PYTHON	PYT315006972	PYT315002379	261776	965572	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
63/PYT304000663	PYTHON	PYT315000983	PYT315000981	277409	262584	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
64/PYT304000655	PYTHON	PYT315000971	PYT315005435	263453	072010	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
65/PYT304000653	PYTHON	PYT315000969	PYT315005433	47341	61030	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY

MPH INDUSTRIES manufacturer's the following SMD(s):

I.D./Serial Number	Model Number	Antenna 1 S/N	Antenna 2 S/N	T.F. 1 S/N	T.F. 2 S/N	Cal. Date	Cal. Interval	Due Date	Technician
66/PYT304000657	PYTHON	PYT315000973	PYT315005438	7043	181920	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
67/PYT304000656	PYTHON	PYT315000972	PYT315005439	181389	182082	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
68/PYT304000659	PYTHON	PYT315000975	PYT315005440	269776	262594	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
69/PYT304000638	PYTHON	PYT315000949	PYT315005436	10189	8907	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
71/PYT304000654	PYTHON	PYT315005434	PYT315000970	181606	181916	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
72/PYT304000650	PYTHON	PYT315000964	PYT315005437	181466	182027	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
73/PYT304000661	PYTHON	PYT315000978	PYT315005441	181521	182094	01/12/2021	24 MONTHS	01/12/2023	JOHN R GRAY
74/PYT546000346	PYTHON	PYT315005350	PYT315005349	266067	266437	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
75/PYT546000340	PYTHON	PYT315005337	PYT315005338	266058	266472	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
76/PYT546000343	PYTHON	PYT315005344	PYT315005343	266037	266422	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
77/PYT546000336	PYTHON	PYT315005330	PYT315005329	266000	266407	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
78/PYT546000339	PYTHON	PYT315005335	PYT315005336	266039	266406	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
98/PYT546004107	PYTHON	PYT315011784	PYT315011785	289306	289474	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
99/PYT546004110	PYTHON	PYT315011790	PYT315011791	289334	289443	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
1/PYT546002977	PYTHON	PYT315009834	PYT315009833	283380	282787	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
100/PYT546004106	PYTHON	PYT315011783	PYT315011782	289340	289500	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
101/PYT546004105	PYTHON	PYT3150011781	PYT315015032	289332	289502	01/27/2021	24 MONTHS	01/27/2023	JOHN R GRAY
102/PYT546004109	PYTHON	PYT315011788	PYT315011789	289343	289471	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
103/PYT546004102	PYTHON	PYT315011774	PYT315011775	49935	965721	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
104/PYT546004104	PYTHON	PYT315011779	PYT315011778	289304	289494	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
105/PYT546004103	PYTHON	PYT315011777	PYT315011776	289245	289475	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
106/PYT546004101	PYTHON	PYT315011772	PYT315011773	070202	070714	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
13/PYT854002848	PYTHON	PYT831006561	PYT831006562	412597	412877	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
33/PYT546000737	PYTHON	PYT315005944	PYT315005943	28876	074150	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
57/PYT304000120	PYTHON	PYT315000125	PYT315000112	074964	075435	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
58/PYT304000124	PYTHON	PYT315000118	PYT315000122	80124	280159	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
59/PYT304000651	PYTHON	PYT315000966	PYT315000965	5218	49014	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
3/PYT546002978	PYTHON	PYT315009835	PYT315009836	283379	282614	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
2/PYT546002976	PYTHON	PYT315009832	PYT315009831	283484	282703	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
85/PYT546000344	PYTHON II	PYT315005345	PYT315005346	266113	266475	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
79/PYT546000337	PYTHON II FS	PYT315012879	PYT315007782	53116	51622	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
7/PYT846004073	PYTHON III	PYT855005709	PYT831005371	268460	289504	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
5/PYT846004071	PYTHON III	PYT855005707	PYT831005369	286412	286285	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
6/PYT846004072	PYTHON III	PYT855005708	PYT831005370	286316	285935	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
130/PYT846002731	PYTHON III	PYT831003121	PYT855003380	965615	965648	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
131/PYT846002728	PYTHON III	PYT831003118	PYT855003377	965618	965642	01/08/2021	24 MONTHS	01/08/2023	JOHN R GRAY
32/PYT123900731	PYTHON III	PYT831013696	PYT831013697	57303	57503	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY

MPH INDUSTRIES manufacturer's the following SMD(s):

I.D./Serial Number	Model Number	Antenna 1 S/N	Antenna 2 S/N	T.F. 1 S/N	T.F. 2 S/N	Cal. Date	Cal. Interval	Due Date	Technician
08/PYT123900730	PYTHON III	PYT831013694	PYT831013695	57305	57496	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
134/PYT846002836	PYTHON III	PYT855003633	PYT831008223	967157	966762	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
135/PYT846002838	PYTHON III	PYT831003225	PYT855003635	967171	966761	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
137/PYT846002835	PYTHON III	PYT831003222	PYT855003632	967197	966959	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
138/PYT846002834	PYTHON III	PYT855003631	PYT831003221	967154	966952	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
139/PYT846002837	PYTHON III	PYT831003224	PYT855003634	967164	966954	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
126/PYT846002726	PYTHON III	PYT831003116	PYT835003375	965603	965635	02/05/2021	24 MONTHS	02/05/2023	JOHN R GRAY
127/PYT846002729	PYTHON III	PYT831003119	PYT855003378	965599	965649	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
128/PYT846002730	PYTHON III	PYT831003120	PYT855003379	07144	27796	02/19/2021	24 MONTHS	02/19/2023	JOHN R GRAY
129/PYT846002727	PYTHON III	PYT855003376	PYT831003117	265629	965658	01/22/2021	24 MONTHS	01/22/2023	JOHN R GRAY
34/PYT546000740	PYTHON SERIES II	PYT315013953	PYT315005949	268405	268599	02/18/2021	24 MONTHS	02/18/2023	JOHN R GRAY
82/PYT546000345	PYTHON SERIES II	PYT315005348	PYT315005347	6878	277071	01/26/2021	24 MONTHS	01/26/2023	JOHN R GRAY

Based upon my education, training, and experience and my knowledge of the SMD's listed above, it is my opinion that each of these electronic pieces of equipment is so designed and constructed as to accurately employ the Doppler effect in such a manner that it will give accurate measurements of the speed of motor vehicles when properly calibrated and operated by a trained operator or, in the case of the laser SMDs, each of these pieces of equipment is so designed and constructed as to accurately employ measurement techniques based on the velocity of light in such a manner that it will give accurate measurements of the speed of motor vehicles when properly calibrated and operated by a trained operator.

Exhibit "A" derives information from the certificate management database. See Exhibit "A" for details about individual SMD certifications.

State of Washington
County of King
Signed or attested before me on

3-1-2021 **by Clifford W. Nahm**
I have satisfactory evidence that the person described in this document: (a) is personally known to me; OR (b) is identified upon oath oraffirmation of credible witness personally know to me; OR (c) is identified on the basis of Indentification documents.

William Quoc Ang
Notary Public in and for the State of Washington,
Residing in Seattle, WA
My appointment expires January 29, 2022

Certified by: Clifford W. Nahm
Place: Redmond, WA

WILLIAM QUOC ANG NOTARY PUBLIC COMMISSION EXPIRES 1-29-22 STATE OF WASHINGTON