

# MUNICIPAL COURT

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## Speed Measuring Device (SMD) Calibration Certificates for **STEILACOOM**

SUSAN ADAMS  
MUNICIPAL COURT  
JUDGE

DEANA L. WRIGHT  
MUNICIPAL COURT  
ADMINISTRATOR

Last updated 08/31/2020

*\*Calibrations are good for 2 years\**





## Stellacoom Police Department Speed Measuring Device (SMD) Inventory

	MODEL:	SERIAL #:	CERTIFICATION DATE:	UNIT ASSIGNED:	SMD TYPE:	
1	Genesis VPD	03971	12-Mar-20	Unit #1 Handheld	Radar	*
2	Genesis VPD	04025	12-Mar-20	Unit #2 Handheld	Radar	*
3	MPH BEE III	BEE-122201340	14-Feb-19	P1306	Radar	*
4	MPH BEE III	BEE-664016406	12-Mar-20	P1305	Radar	*
5	Genesis II Directional	G2S-22097	27-Mar-20	P1239	Radar	*
6	Genesis II Directional	G2S-22432	12-Mar-20	P1241	Radar	*
7	Genesis II Select	G2S-26208	12-Mar-20	P1242	Radar	*
8	Genesis II Select	G2S-36360	12-Mar-20	P1307	Radar	*
9	MPH Python	PYT546000274	12-Mar-20	P1236	Radar	*
10	MPH Python	PYT546004626	12-Mar-20	P1240	Radar	*
11	MPH Python	PYT546004627	12-Mar-20	P1228	Radar	*
12	MPH Python	PYT546006652	27-Mar-20	P1303	Radar	*
13	MPH Python	PYT546006653	12-Mar-20	P1238	Radar	*
14	MPH Python	PYT546007663	12-Mar-20	P1301	Radar	*
15	TruSpeed	TJ004601	12-Mar-20	Handheld	Laser	*

MPH Python	PYT546004625	11-Mar-10	Out of Service	
MPH Python	PYT546004628	27-Mar-08	Out of Service	
SpeedLaser	500312	10-Mar-14	Out of Service	
MPH Python	PYT546000562	10-Mar-13	State	Radar
MPH Python	PYT546000561	10-Mar-13	State	Radar



## CERTIFICATION CONCERNING DESIGN AND CONSTRUCTION OF ELECTRONIC SPEED MEASURING DEVICES

I, Raymond Fleming, do certify under penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that the following is true and correct:

I am employed with Pierce County as a Communications Systems Technician, Speed Measuring Device (SMD) Specialist, and assigned as the custodian of the SMD records. I have been employed in this capacity since Aug 29<sup>th</sup>, 2016. Part of my duties include the maintenance and repair of all types of electronic radar and laser speed measuring devices (SMD's) used by the Steilacoom Police Department.

The Steilacoom Police Department currently uses the following SMD's:

<b>SMD TYPE:</b>	<b>MODEL:</b>	<b>MANUFACTURE:</b>
Radar	Genesis VPD	Decatur Electronics
Radar	Genesis II Directional	Decatur Electronics
Radar	Genesis II Select	Decatur Electronics
Radar	BEE-III	MPH Industries
Radar	Python	MPH Industries
Laser	TruSpeed	Laser Technology

I have the following qualifications with respect to the above stated SMD's:

I have twenty-five years combined military and civilian experience as a communications specialist in the maintenance and repair of electronics equipment and four years with Pierce County repairing, maintaining, and certifying SMD's for cities throughout the state. I received training from the following manufacturers as well as from the Pierce County Lead Systems Technician. On March 22, 2017 I successfully completed the MPH Industries course in operation and maintenance of Doppler traffic radar and traffic laser. On April 4<sup>th</sup>, 2019 I successfully completed the Laser Technology Inc, course for factory service training on the LTI Tru-Speed series laser radar.

The Pierce County Radio Communications Division maintains manuals for all of the above listed SMD's. I am personally familiar with those manuals and know how each of the SMD's are designed and operated. From Mar 27, 2017 to August 28, 2020 I performed a majority of the SMD testing. The units are evaluated and certified to meet or exceed existing performance standards.

The Pierce County Radio Communications Division maintains a testing and certification program for the Steilacoom Police Department wherein each SMD is inspected and checked every 24 months by the following means:

Radar SMD's utilize the Doppler effect to measure speed. Testing consists of using a precision signal generator to inject a signal into the SMD to simulate speeds of 35mph and 65mph for the stationary/moving radars. It also includes injection of a signal to simulate 35mph for stationary radar only. The signal must cause the SMD to display the exact speed,  $\pm 1$  mile per hour, in order to be certified for accuracy. I then measure the frequency of the tuning fork(s) assigned to each SMD to insure that they are within  $\pm 5$ Hz tolerance. I issue a certificate of accuracy for both the SMD and the tuning fork(s). The original certificates are issued to the Steilacoom Police Department who in turn issues a copy to the court. I also retain a copy for my records along with the maintenance and service records for each SMD serviced.

Laser SMD's measure speed based on the velocity of light and a precision time base reference. Testing consists of three accuracy certification checks (1) Internal Self Test (2) Pulse Check to include; pulse width, power output, pulse repetition rate, and double pulse (3) and a Distance Check to include; sight alignment, vertical, and horizontal beam width  $\geq 200$  feet. The checks insure that the SMD is within tolerance and functioning properly. I then issue a certificate of accuracy for each SMD. The original certificates are issued to the Steilacoom Police Department who

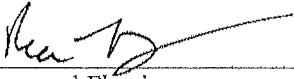


in turn issues a copy to the Court. I also retain a copy for my records along with the maintenance and service records for each SMD serviced.

All radar SMD's operated by the Steilacoom Police Department directly measure by digital message from the Doppler signal. They do not reconstitute the Doppler signal in any way, including the use of devices such as a phase lock loop (PLL), before the speed is measured.


Based upon my education, training and experience, and my knowledge of the radar 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 laser SMD's, 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.

I certify under the penalty of perjury, under the laws of the State of Washington, that the foregoing is true and correct.

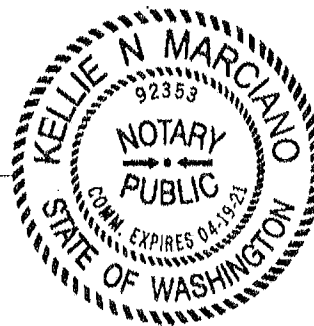
  
Raymond Fleming  
Communications Systems Technician/  
Speed Measuring Device Specialist

Signed and dated at Tacoma, Washington \_\_\_\_\_

SUBSCRIBED AND SWORN TO BEFORE ME THIS 27<sup>TH</sup> DAY OF  
August, 2020.

  
Notary Public in and for the State of Washington, County of Pierce.

Commission expires 04-19-2021





Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

**CERTIFICATE OF CALIBRATION & ACCURACY**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>08/27/2020</u>
Model:	<u>MPH Industries BEE III</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>BEE-122200782</u>		
Operating Frequency Band:	<u>Ka</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

**TUNING FORK**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>59505</u>	Date Certified:	<u>08/27/2020</u>
Oscillation (Cycles per Second):	<u>2016</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>20</u>		

When operated between the temperature of -22F to +140F no correction is required.

**TUNING FORK**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>59283</u>	Date Certified:	<u>08/27/2020</u>
Oscillation (Cycles per Second):	<u>5044</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>50</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 08/27/2020  
DATED

Raymond Fleming  
SIGNED



Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

**CERTIFICATE OF CALIBRATION & ACCURACY**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>08/27/2020</u>
Model:	<u>MPH Industries BEE III</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>BEE-122202781</u>		
Operating Frequency Band:	<u>Ka</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

**TUNING FORK**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>57819</u>	Date Certified:	<u>08/27/2020</u>
Oscillation (Cycles per Second):	<u>2016</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>20</u>		

When operated between the temperature of -22F to +140F no correction is required.

**TUNING FORK**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>59282</u>	Date Certified:	<u>08/27/2020</u>
Oscillation (Cycles per Second):	<u>5044</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>50</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 08/27/2020  
DATED

[Signature]  
SIGNED



# OFFICER COPY

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1422 112<sup>th</sup> Street East  
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(253) 798-7147

## CERTIFICATE OF ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the laser Speed Measuring Device (SMD) listed below. The SMD was found to meet or exceed all manufacturer's specifications.

### Laser SMD Information and Certification Summary

Manufacturer: <u>Laser Technology Inc</u>	Date Certified: <u>03/12/2020</u>
Model: <u>Tru-Speed S</u>	Agency: <u>PCSD</u>
Serial Number: <u>TJ004601</u>	

### Distance Tests

Long Range . . . . .	Expected: 204.5 ft	Tested: 204.3ft	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
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### Operational Tests

Controls Operational . . . . .	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
RFI Indicator . . . . .	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail

### Pulse Characteristics Tests

Pulse Frequency (Rep Rate) . . . . .	Expected: 199.98 to 200.00 Hz	Tested: 200.00 Hz	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Pulse Width . . . . .	Expected: <=25 nS	Tested: 6.88 nS	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Double Pulse . . . . .			<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail

### Beam Characteristics Tests

Optical Power . . . . .	Expected: 7-800uW	Tested: 728.05 uW	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Horizontal Beam Width . . . . .			<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Vertical Beam Width . . . . .			<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Sight Alignment . . . . .			<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail

I certify under penalty of perjury, under the laws of the State of Washington, that the foregoing is true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020  
DATE

Cody Hill  
SIGNED



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## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>Genesis VPD</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>03971</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>147346</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2391</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>33</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>147430</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>5602</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>77</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020

DATED

SIGNED





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Radio Communications

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## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>Genesis VPD</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>04025</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>147326</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2390</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>33</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>147436</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>5594</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>77</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020

DATED

SIGNED



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Radio Communications

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(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546004627</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>414870</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2519</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>414727</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>4680</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington

3-12-2020  
DATED

Cody Hill  
SIGNED



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Radio Communications

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(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546006653</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>416764</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2522</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>416738</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>4683</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020

DATED

SIGNED



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Pierce County  
Radio Communications

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Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>MPH Industries BEE III</u>	Agency:	<u>Stellacoom PS</u>
Serial Number:	<u>BEE-664016406</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>501420</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2819</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>28</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>501449</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>5035</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>50</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020  
DATED

Cody Hill  
SIGNED



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## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546000274</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>20669</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2541</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>19905</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>4792</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020

DATED

SIGNED



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(253) 798-7147

### CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>04/29/2020</u>
Model:	<u>MPH Industries BEE III</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>BEE-122201340</u>		
Operating Frequency Band:	<u>Ka</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>756609</u>	Date Certified:	<u>04/29/2020</u>
Oscillation (Cycles per Second):	<u>2016</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>20</u>		

When operated between the temperature of -22F to +140F no correction is required.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>756694</u>	Date Certified:	<u>04/29/2020</u>
Oscillation (Cycles per Second):	<u>5044</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>50</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 04/29/20  
DATED

[Signature]  
SIGNED



# OFFICER COPY

Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546007663</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>308539</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2521</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>308039</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>4681</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020

DATED

SIGNED



# OFFICER COPY

Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/27/2020</u>
Model:	<u>MPH Python</u>	Agency:	<u>Stellacoom PS</u>
Serial Number:	<u>PYT546006652</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>308554</u>	Date Certified:	<u>03/27/2020</u>
Oscillation (Cycles per Second):	<u>2519</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>308340</u>	Date Certified:	<u>03/27/2020</u>
Oscillation (Cycles per Second):	<u>4681</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-27-2020

DATED

SIGNED





Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

**CERTIFICATE OF CALIBRATION & ACCURACY**

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>04/13/2020</u>
Model:	<u>Genesis II Select</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>G2S-36360</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

**TUNING FORK**

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>273601</u>	Date Certified:	<u>04/13/2020</u>
Oscillation (Cycles per Second):	<u>2535</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

**TUNING FORK**

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>277842</u>	Date Certified:	<u>04/13/2020</u>
Oscillation (Cycles per Second):	<u>4721</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 4-13-2020  
DATED

Cody Hill  
SIGNED



# OFFICER COPY

Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>02/18/2020</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546004626</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>290946</u>	Date Certified:	<u>02/18/2020</u>
Oscillation (Cycles per Second):	<u>2540</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>280652</u>	Date Certified:	<u>02/18/2020</u>
Oscillation (Cycles per Second):	<u>4731</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020

DATED

SIGNED



# OFFICER COPY

P1240  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>02/18/2020</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546004626</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>290946</u>	Date Certified:	<u>02/18/2020</u>
Oscillation (Cycles per Second):	<u>2538</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>280652</u>	Date Certified:	<u>02/18/2020</u>
Oscillation (Cycles per Second):	<u>4727</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 2-18-2020  
DATED

SIGNED



# OFFICER COPY

P1239  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/27/2020</u>
Model:	<u>Genesis II Directional</u>	Agency:	<u>Steilacoom PD</u>
Serial Number:	<u>G2S-22097</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>201412</u>	Date Certified:	<u>03/27/2020</u>
Oscillation (Cycles per Second):	<u>2536</u>	Agency:	<u>Steilacoom PD</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>201492</u>	Date Certified:	<u>03/27/2020</u>
Oscillation (Cycles per Second):	<u>4725</u>	Agency:	<u>Steilacoom PD</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington

3-27-2020

DATED

Cody Hill

SIGNED



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Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>Genesis II Directional</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>G2S-22432</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>204702</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2538</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>204778</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>4733</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington

3-12-2020

DATED

Cody Hill

SIGNED



# OFFICER COPY

Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/12/2020</u>
Model:	<u>Genesis II Select</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>G2S-26208</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>222754</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>2536</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Cody Hill, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>223309</u>	Date Certified:	<u>03/12/2020</u>
Oscillation (Cycles per Second):	<u>4736</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-12-2020 Cody Hill  
DATED SIGNED



## CERTIFICATION CONCERNING DESIGN AND CONSTRUCTION OF ELECTRONIC SPEED MEASURING DEVICES

I, Cody Hill, do certify under penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that the following is true and correct:

I am employed with Pierce County as a Communications Systems Technician, Speed Measuring Device (SMD) Specialist, and assigned as the custodian of the SMD records. I have been employed in this capacity since Aug 29<sup>th</sup>, 2016. Part of my duties include the maintenance and repair of all types of electronic radar and laser speed measuring devices (SMD's) used by the Steilacoom Police Department.

The Steilacoom Police Department currently uses the following SMD's:

<b>SMD TYPE:</b>	<b>MODEL:</b>	<b>MANUFACTURE:</b>	<b>SERIAL NUMBER:</b>	<b>TUNING FORKS:</b>
Radar	Genesis VPD	Decatur Electronics	03971	147346 33MPH / 147430 77MPH
Radar	Genesis VPD	Decatur Electronics	04025	147326 33MPH / 147436 77MPH
Radar	Genesis II Directional	Decatur Electronics	G2S-22097	201412 35MPH / 201492 65MPH
Radar	Genesis II Directional	Decatur Electronics	G2S-22432	204702 35MPH / 024778 65MPH
Radar	Genesis II Select	Decatur Electronics	G2S-26208	222754 35MPH / 223309 65MPH
Radar	Genesis II Select	Decatur Electronics	G2S-36360	273601 35MPH / 277842 65MPH
Radar	Python	MPH Industries	PYT380000562	226946 35MPH / 237221 65MPH
Radar	Python	MPH Industries	PYT546000274	20669 35MPH / 19905 65MPH
Radar	Python	MPH Industries	PYT546004626	292667 35MPH / 293093 65MPH
Radar	Python	MPH Industries	PYT546004627	55988 35MPH / 36347 65MPH
Radar	Python	MPH Industries	PYT546004781	294073 35MPH / 294581 65MPH
Radar	Python	MPH Industries	PYT546006652	308554 35MPH / 308340 65MPH
Radar	Python	MPH Industries	PYT546006653	416764 35MPH / 416738 65MPH
Radar	Python	MPH Industries	PYT546007663	308539 35MPH / 308039 65MPH
Laser	TruSpeed	Laser Technology	TJ004601	NA

I have the following qualifications with respect to the above stated SMD's:

I have twenty-five years of experience as a communications specialist in the maintenance and repair of electronics equipment and 5 years with Pierce County repairing, maintaining, and certifying SMD's for cities throughout the state. I received training from the following manufacturers as well as from the Pierce County Lead Systems Technician. On March 22, 2017 I successfully completed the MPH Industries course in operation and maintenance of Doppler traffic radar and traffic laser. On April 4<sup>th</sup>, 2019

The Pierce County Radio Communications Division maintains manuals for all of the above listed SMD's. I am personally familiar with those manuals and know how each of the SMD's are designed and operated. The units are evaluated and certified to meet or exceed existing performance standards.



The Pierce County Radio Communications Division maintains a testing and certification program for the Steilacoom Police Department wherein each SMD is inspected and checked every 24 months by the following means:

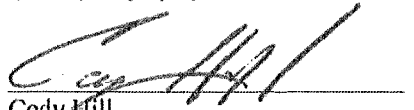
Radar SMD's utilize the Doppler effect to measure speed. Testing consists of using a precision signal generator to inject a signal into the SMD to simulate speeds of 35mph and 65mph for the stationary/moving radars. It also includes injection of a signal to simulate 35mph for stationary radar only. The signal must cause the SMD to display the exact speed,  $\pm 1$  mile per hour, in order to be certified for accuracy. I then measure the frequency of the tuning fork(s) assigned to each SMD to insure that they are within  $\pm 5$ Hz tolerance. I issue a certificate of accuracy for both the SMD and the tuning fork(s). The original certificates are issued to the Steilacoom Police Department who in turn issues a copy to the court. I also retain a copy for my records along with the maintenance and service records for each SMD serviced.

Laser SMD's measure speed based on the velocity of light and a precision time base reference. Testing consists of three accuracy certification checks (1) Internal Self Test (2) Pulse Check to include; pulse width, power output, pulse repetition rate, and double pulse (3) and a Distance Check to include; sight alignment, vertical, and horizontal beam width  $\geq 200$  feet. The checks insure that the SMD is within tolerance and functioning properly. I then issue a certificate of accuracy for each SMD. The original certificates are issued to the Steilacoom Police Department who in turn issues a copy to the Court. I also retain a copy for my records along with the maintenance and service records for each SMD serviced.

All radar SMD's operated by the Steilacoom Police Department directly measure by digital message from the Doppler signal. They do not reconstitute the Doppler signal in any way, including the use of devices such as a phase lock loop (PLL), before the speed is measured.

Based upon my education, training and experience, and my knowledge of the radar 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 laser SMD's, 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.

I certify under the penalty of perjury, under the laws of the State of Washington, that the foregoing is true and correct.

  
Cody Hill  
Communications Systems Technician/  
Speed Measuring Device Specialist

Signed and dated at Tacoma, Washington, Pierce County

SUBSCRIBED AND SWORN TO BEFORE ME THIS 12<sup>th</sup> DAY OF  
March, 2020.

  
Notary Public in and for the State of Washington, County of Pierce.

Commission expires 5-5-22







## Steilacoom Police Department Speed Measuring Device (SMD) Inventory

	MODEL:	SERIAL #:	CERTIFICATION DATE:	UNIT ASSIGNED:	SMD TYPE:	
1	Genesis VPD	03971	28-Mar-18	Unit #1 Handheld	Radar	*
2	Genesis VPD	04025	28-Mar-18	Unit #2 Handheld	Radar	*
	MPH BEE III	BEE-664016406	26-Apr-18	P1237	Radar	*
3	Genesis II Directional	G2S-22097	24-Jun-16	P1239	Radar	
4	Genesis II Directional	G2S-22432	28-Mar-18	P1241	Radar	*
5	Genesis II Select	G2S-26208	18-Apr-18	P1242	Radar	*
6	Genesis II Select	G2S-36360	28-Mar-18		Radar	*
7	MPH Python	PYT380000562	28-Mar-18	Spare	Radar	*
8	MPH Python	PYT546000274	28-Mar-18	P1236	Radar	*
9	MPH Python	PYT546004626	28-Mar-18	P1240	Radar	*
10	MPH Python	PYT546004627	19-Apr-16	P1228	Radar	
11	MPH Python	PYT546004781	28-Mar-18	P1232	Radar	*
12	MPH Python	PYT546006652	28-Mar-18	P1229	Radar	*
13	MPH Python	PYT546006653	28-Mar-18	P1238	Radar	*
14	MPH Python	PYT546007663	28-Mar-18	P1301	Radar	*
15	TruSpeed	TJ004601	15-Apr-16	Handheld	Laser	



Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445

(253) 789-7147

**CERTIFICATE OF ACCURACY**

I, Shawn Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the laser Speed Measuring Device (SMD) listed below. The SMD was found to meet or exceed all manufacturer's specifications.

**Laser SMD Information and Certification Summary**

Manufacturer:	<u>Laser Technology, Inc.</u>	Date Certified:	<u>23-Apr-18</u>
Model:	<u>TruSpeed</u>	Agency:	<u>Stellacoom PD</u>
Serial Number:	<u>TJ004601</u>		

**Distance Tests**

Long Range . . . . .	Expected: 204.5 ft	Tested: 204.5 ft	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
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**Operational Tests**

Controls Operational . . . . .	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
RPI Indicator . . . . .	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail

**Pulse Characteristics Tests**

Pulse Width . . . . .	Expected: $\leq 25$ nS	Tested: 7.81 nS	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
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**Beam Characteristics Tests**

Optical Power . . . . .	Expected: 700 to 800 mW	Tested: 729.57 uW	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Horizontal Beam Width . . . . .			<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Vertical Beam Width . . . . .			<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Sight Alignment . . . . .			<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail

I certify under penalty of perjury, under the laws of the State of Washington, that the foregoing is true and correct.

Dated and Signed at Tacoma, Washington 4-23-2018

DATE

SIGNED



Hand Held #1

Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

### CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>Genesis VPD</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>03971</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>147346</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2391</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>33</u>		

When operated between the temperature of -22F to +140F no correction is required.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>147430</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>5589</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>77</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018  
DATED

Raymond Fleming  
SIGNED



Hand Held # 2  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

### CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>Genesis VPD</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>04025</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>147326</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2391</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>33</u>		

When operated between the temperature of -22F to +140F no correction is required.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>147436</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>5589</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>77</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018 Raymond Fleming  
DATED SIGNED



# OFFICER COPY

P1228  
Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>10/16/2019</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546004627</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>414870</u>	Date Certified:	<u>10/16/2019</u>
Oscillation (Cycles per Second):	<u>2545</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>414727</u>	Date Certified:	<u>10/16/2019</u>
Oscillation (Cycles per Second):	<u>4734</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 10/16/2019

DATED

SIGNED



# 4 P1238

Pierce County  
Radio Communications1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147**CERTIFICATE OF CALIBRATION & ACCURACY**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546006653</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

**TUNING FORK**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>416764</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2523</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

**TUNING FORK**

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>416738</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>4681</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018  
DATED

Raymond Fleming  
SIGNED



P-1305

Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

### CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>04/26/2018</u>
Model:	<u>MPH Industries BEE III</u>	Agency:	<u>Stellacoom PS</u>
Serial Number:	<u>BEE-664016406</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>501420</u>	Date Certified:	<u>04/26/2018</u>
Oscillation (Cycles per Second):	<u>2817</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>28</u>		

When operated between the temperature of -22F to +140F no correction is required.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>501449</u>	Date Certified:	<u>04/26/2018</u>
Oscillation (Cycles per Second):	<u>5030</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>50</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 4/26/2018  
DATED

[Signature]  
SIGNED



#6 P1236  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

### CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546000274</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>20669</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2545</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>19905</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>4794</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018  
DATED

Raymond Fleming  
SIGNED





P-1306

Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

### CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>02/14/2019</u>
Model:	<u>MPH Industries BEE III</u>	Agency:	<u>Stellacoom PS</u>
Serial Number:	<u>BEE-122201340</u>		
Operating Frequency Band:	<u>Ka</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>756609</u>	Date Certified:	<u>02/14/2019</u>
Oscillation (Cycles per Second):	<u>2017</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>Ka</u>		
MPH:	<u>20</u>		

When operated between the temperature of -22F to +140F no correction is required.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>756694</u>	Date Certified:	<u>02/14/2019</u>
Oscillation (Cycles per Second):	<u>5045</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>50</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 02/14/2019

DATED

SIGNED



#8 P1230  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546007663</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>308539</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2521</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>308039</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>4685</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018  
DATED

[Signature]  
SIGNED



#9 P1229  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546006652</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>308554</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2521</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>308340</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>4681</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018  
DATED

Raymond Fleming  
SIGNED



P. 1302  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

### CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>Genesis II Select</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>G2S-36360</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>273601</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2536</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

### TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>277842</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>4726</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018  
DATED

[Signature]  
SIGNED



#11 P1240  
Pierce County  
Radio Communications

1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>MPH Industries</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>MPH Python</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>PYT546004626</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>292667</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2521</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>293093</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>4680</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018

DATED

SIGNED



# OFFICER COPY

P. 1239  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>07/13/2018</u>
Model:	<u>Genesis II Directional</u>	Agency:	<u>Steilacoom PD</u>
Serial Number:	<u>G2S-22097</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>201412</u>	Date Certified:	<u>07/13/2018</u>
Oscillation (Cycles per Second):	<u>2536</u>	Agency:	<u>Steilacoom PD</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>201492</u>	Date Certified:	<u>07/13/2018</u>
Oscillation (Cycles per Second):	<u>4726</u>	Agency:	<u>Steilacoom PD</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 07/13/2018  
DATED

[Signature]  
SIGNED



P1241  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>03/28/2018</u>
Model:	<u>Genesis II Directional</u>	Agency:	<u>Stellacoom PS</u>
Serial Number:	<u>G2S-22432</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>204702</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>2536</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>204778</u>	Date Certified:	<u>03/28/2018</u>
Oscillation (Cycles per Second):	<u>4726</u>	Agency:	<u>Stellacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018  
DATED

Raymond Fleming  
SIGNED



#14 P1242  
Pierce County  
Radio Communications  
1422 112<sup>th</sup> Street East  
Tacoma, Washington 98445  
(253) 798-7147

## CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:

Manufacturer:	<u>Decatur Electronics</u>	Date Certified:	<u>04/18/2018</u>
Model:	<u>Genesis II Select</u>	Agency:	<u>Steilacoom PS</u>
Serial Number:	<u>G2S-26208</u>		
Operating Frequency Band:	<u>K</u>		

The aforesaid radar meets and exceeds all manufacturer's specifications.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>222754</u>	Date Certified:	<u>04/18/2018</u>
Oscillation (Cycles per Second):	<u>2538</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>35</u>		

When operated between the temperature of -22F to +140F no correction is required.

## TUNING FORK

I, Raymond Fleming, do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	<u>223309</u>	Date Certified:	<u>04/19/2016</u>
Oscillation (Cycles per Second):	<u>4725</u>	Agency:	<u>Steilacoom PS</u>
Operating Frequency Band:	<u>K</u>		
MPH:	<u>65</u>		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 4/18/2018  
DATED

[Signature]  
SIGNED