



## TRUGRD STREAM TRIALS

- SOUTHWICK TUNNEL
- M275 MOTORWAY



**Presentation of two user cases today:**

**CASE1**

**SOUTHWICK TUNNEL HIGHWAYS ENGLAND TESTBED**

- a. Radar Verification
- b. tender - no
- c. Shoreham-by-Sea, Sussex
- d. 1 x TRUGRD and 1 x TRUGRD STREAM
- e. SVD, Incidents and data collection
- f. 6 months period
- g. Richard Quick, Smart Video & Sensing Ltd

**CASE2**

**M275 MOTORWAY, HIGHWAYS ENGLAND & PORTSMOUTH**

- a. Radar Verification
- b. tender - no
- c. M275 Portsmouth
- d. 1 x TRUGRD STREAM
- e. SVD, Incidents and data collection
- f. 6 months period
- g. Richard Quick, Smart Video & Sensing Ltd

**This presentation is available for smartmicro partners to use for marketing etc.**

## **SOUTHWICK HILLS TUNNEL**

A27 Trunk Road – main east/west coastal route

- One of busiest trunk roads in UK
- Accident blackspot



**Hosts the Highways England National Tunnel Detection Testbed**

- Designed, built, operated & maintained by SV&S Ltd
- 5 Year contract started 2019



## SOUTHWICK HILLS TUNNEL

- Built 1996
- 500m
- Twin bore (4 lanes)
- Tunnel has bends – not straight



## NATIONAL TUNNEL DETECTION TESTBED

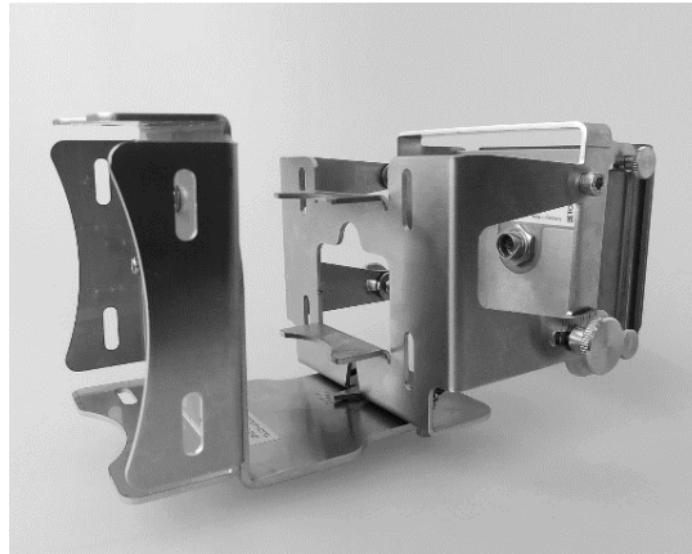


TEST POINT



VIEW OF VERIFICATION CAMERA AT  
TESTPOINT

## TRUGRD STREAM INSTALLATION



- USED ADVANCED BRACKET TO COMPENSATE FOR TUNNEL SLOPE
- CHANGED RADAR IP ADDRESS TO MATCH TESTBED

April 16, 2021

Customer Name: SVS, UK.

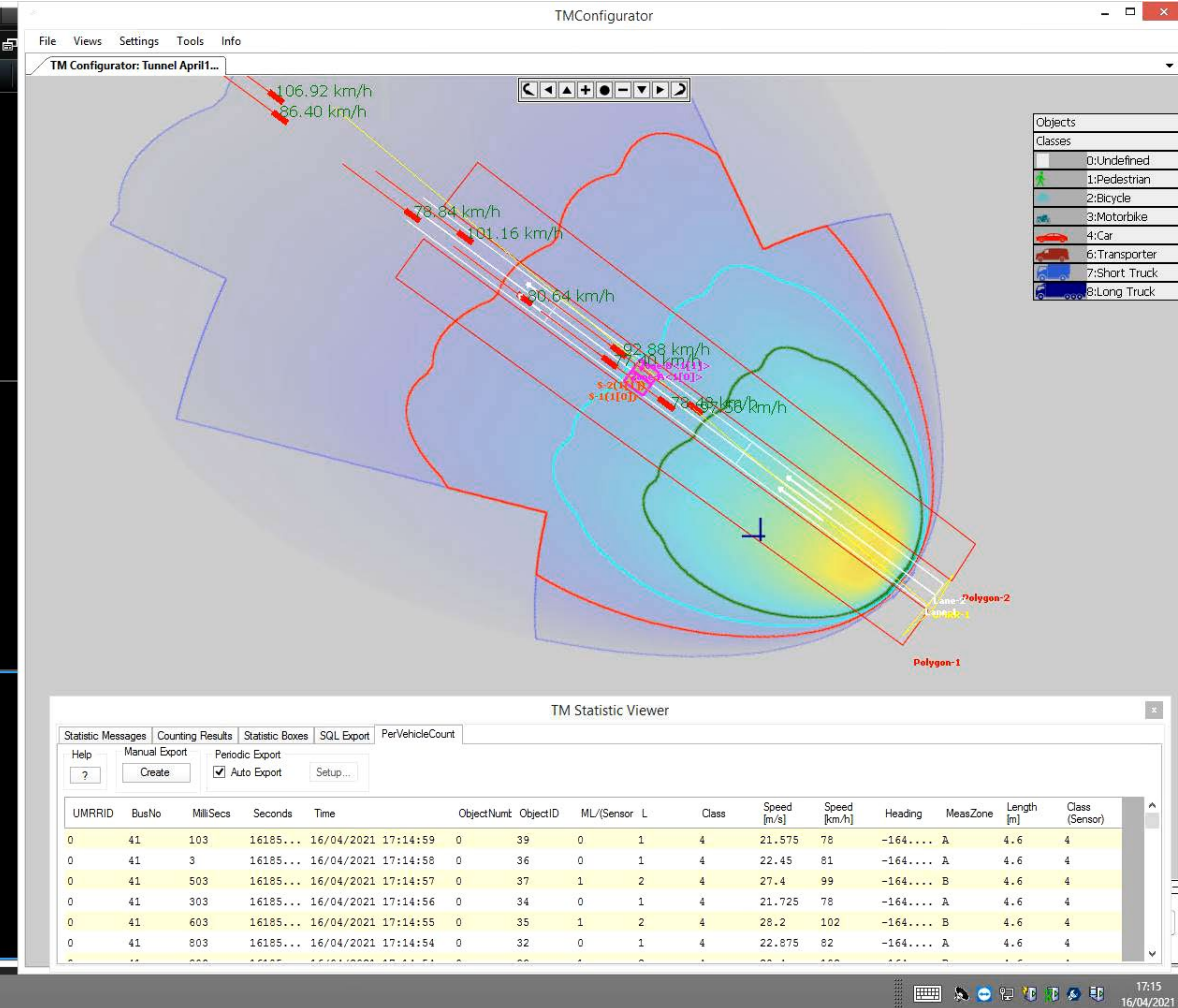
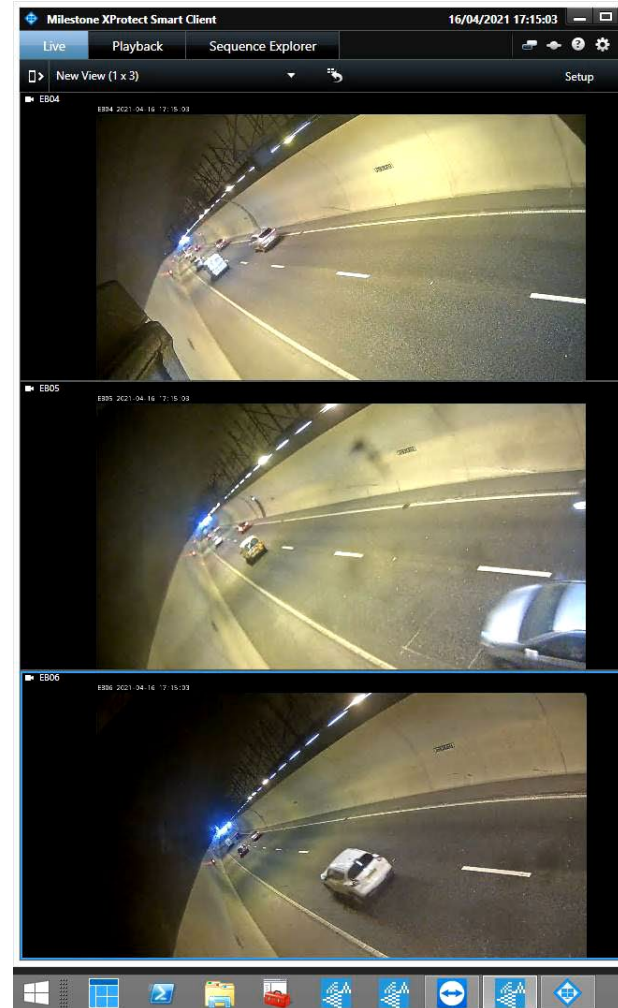
Site Location: Southwick Hill Tunnel.

Recorded Time: 17_15_11 to 17_30_00 (about 15 minutes)			
	Manual/ CAMERA Count	TRUGRD Count	Count Accuracy %
Lane 1	219	217	99.1 %
Lane 2	238	228	95.8 %
Total Count Lane 1 + Lane 2	457	445	97.4 %

$$100 - \frac{(man.count - radar.score) \times 100}{man.count}$$

Tools:

- 1.) TMC ver. 3.1.1131941.1
- 2.) TRUGRD Fw ver. 6.4.1.0 cfg 9 Highway
- 3.) detection zone length is set to 6m.



TRUGRD STREAM  
(Tunnel maintenance closure)

**ZONES PROGRAMMED FOR:**

- STOPPED VEHICLE
- WRONGWAY VEHICLE
- PEDESTRIAN DETECTION

Video is from TRUGRD STREAM  
camera

EB07 2021-05-14 21:57:54



# A quick win?

- Certain UK manufacturers radar
  - High performance specification
  - Claimed worked in tunnel environment
- Numerous false alerts from one system
  - Crashed servers with over 5000 alarms and clears
- Unsure if device, or server at fault
  - Subsequently found it was device not server
- This is not a bad thing
  - Found problems on testbed not in a live situation
- Supplier working to improve
  - Product eventually withdrawn from market



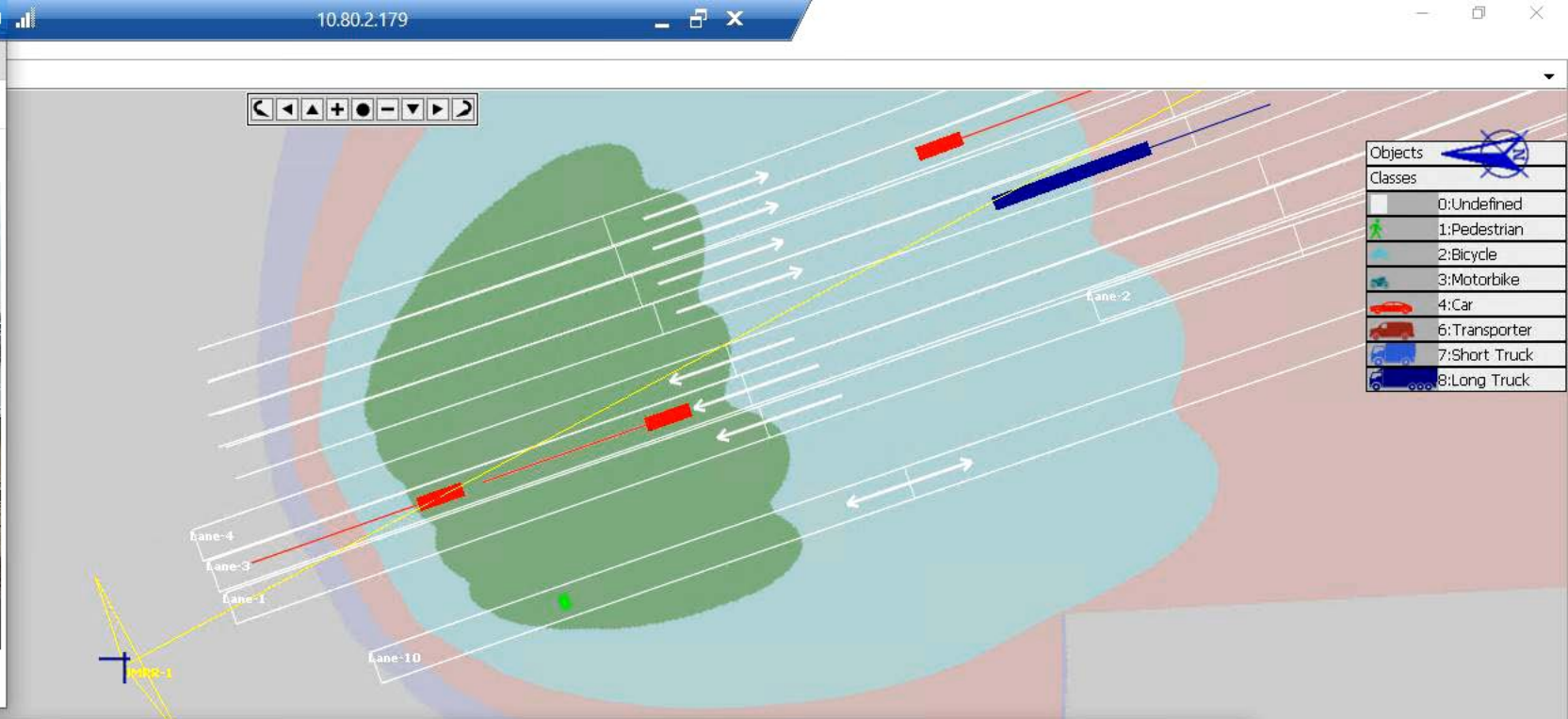
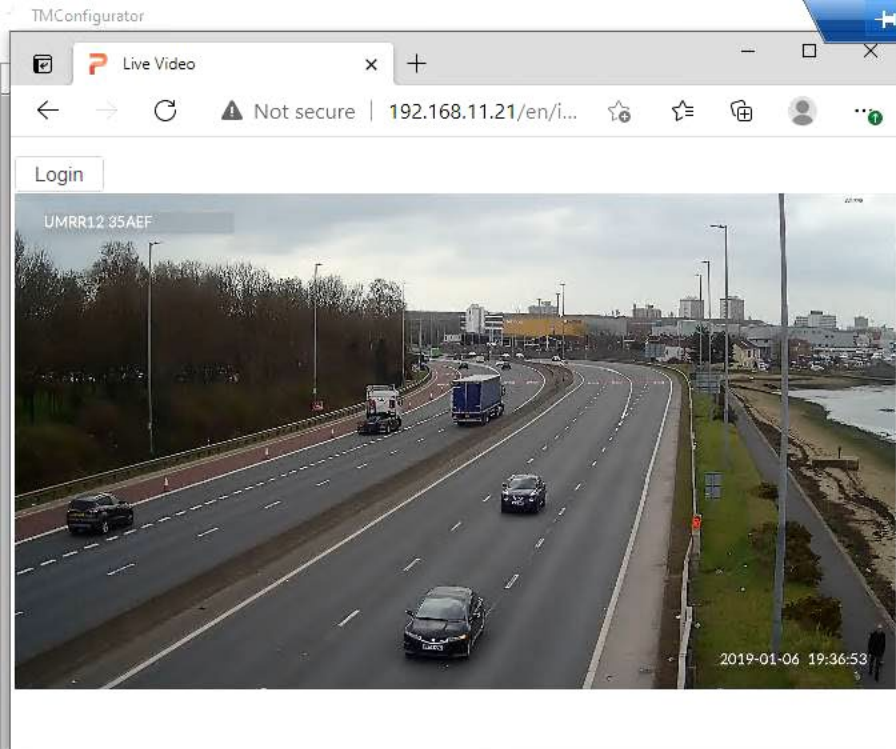
AGD 350 Traffic Control Radar withdrawn pending further development

## NEXT STEPS

- ALL DETECTION DATA PRESENTED TO INDEPENDENT CONSULTANT FOR EVALUATION
- REPORT SUBMITTED TO HIGHWAYS ENGLAND
- PRODUCT INFORMATION ENTERED INTO THE TECHNOLOGY SECTION OF THE “DESIGN MANUAL FOR ROAD & BRIDGES” (DMRB)
- DMRB IS RECOGNISED IN MANY OTHER COUNTRIES AS A ‘REFERENCE MANUAL’



JOINT TRIAL OF  
TRUGRD STREAM  
AND THE SV&S  
NOVUS DATA  
AGGREGATOR  
FOR HIGHWAYS  
ENGLAND AND  
PORTSMOUTH CITY  
COUNCIL



TM Statistic Viewer

Statistic Messages Counting Results Statistic Boxes SQL Export PerVehicleCount

Help Manual Export Periodic Export

? Create ☒ Auto Export Setup...

UMRRID	BusNo	MilliSecs	Seconds	Time	ObjectNum	ObjectID	ML/(Sensor L	Class	Speed [m/s]	Speed [mph]	Heading	MeasZone	Length [ft]	Class (Sensor)
0	41	692	1616067894	18/03/2021 11:44:54	0	108	6 7	4	21.85	49	-166.4612	G	16	4
0	41	992	1616067893	18/03/2021 11:44:53	0	108	8 9	4	21.775	49	-166.4612	I	16	4
0	41	192	1616067893	18/03/2021 11:44:53	0	107	4 5	8	21.95	49	-166.4612	E	58	8
0	41	292	1616067892	18/03/2021 11:44:52	0	105	1 3	4	19.775	44	-165.0452	B	16	4
0	41	92	1616067892	18/03/2021 11:44:52	0	106	4 5	4	25.625	57	-166.4612	E	15	4
0	41	192	1616067891	18/03/2021 11:44:51	1	105	2 2	4	19.5	44	-165.0452	C	15	4
0	41	192	1616067891	18/03/2021 11:44:51	0	105	0 1	4	19.5	44	-165.0452	A	15	4
0	41	692	1616067890	18/03/2021 11:44:50	0	104	7 8	4	23.6	53	-166.4612	H	15	4
0	41	991	1616067887	18/03/2021 11:44:47	0	99	7 8	4	22.375	50	-166.4612	H	15	4
0	41	691	1616067887	18/03/2021 11:44:47	0	101	2 2	4	19.95	45	-165.0452	C	16	4
0	41	191	1616067887	18/03/2021 11:44:47	1	104	6 7	4	23.55	53	-166.4612	G	15	4
0	41	191	1616067887	18/03/2021 11:44:47	0	103	5 6	4	22.525	50	-166.4612	F	15	4
0	41	891	1616067886	18/03/2021 11:44:46	0	96	7 8	4	23.95	54	-166.4612	H	15	4

Information Box

☒ Sensor Flags

Wizard STOP

## Contact us:



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