

20.118934240	10:09:23.02	0.011791383	B05c
44.421224490	10:09:47.32	0.767709751	B05d
46.628571429	10:09:49.53	0.476009070	B05e
52.140408163	10:09:55.04	0.687891156	B05g

Want 595.04 = 10:09:55.04 for event B05g

B05g in 1st video starts at:

460.758163265 1 0.707142857 B05g

134.282 difference to align 1st to global real time and place B05g at 10:09:55.04
which is 2 minutes 14.282 seconds

Since event g starts at 52.140 in lvmpd vid then need 542.936, already have 134.282
leaving 408.654 used 408.618

82.142 offset from 1st for lvmpd should align two events

Detailed Video Information

General
Complete name : LVMPD, Clark County Sheriff Body Camera Footage Route 91 Warning Graphic Las Vegas Shooting.mp4
Format : MPEG-4
Format profile : Base Media / Version 2
Codec ID : mp42 (isom/mp42)
File size : 41.0 MiB
Duration : 3 min 3 s
Overall bit rate mode : Variable
Overall bit rate : 1 873 kb/s
Encoded date : UTC 2017-10-27 10:10:15
Tagged date : UTC 2017-10-27 10:10:15
gsst : 0
gstd : 183739

Video
ID : 1
Format : AVC
Format/Info : Advanced Video Codec
Format profile : Main@L3.1
Format settings : CABAC / 3 Ref Frames
Format settings, CABAC : Yes
Format settings, RefFrames : 3 frames
Codec ID : avc1
Codec ID/Info : Advanced Video Coding
Duration : 3 min 3 s
Bit rate : 1 744 kb/s
Width : 1 280 pixels
Height : 720 pixels
Display aspect ratio : 16:9
Frame rate mode : Constant
Frame rate : 29.970 (30000/1001) FPS
Color space : YUV
Chroma subsampling : 4:2:0
Bit depth : 8 bits
Scan type : Progressive
Bits/(Pixel*Frame) : 0.063
Stream size : 38.2 MiB (93%)
Title : ISO Media file produced by Google Inc. Created on: 10/27/2017.
Encoded date : UTC 2017-10-27 10:10:15

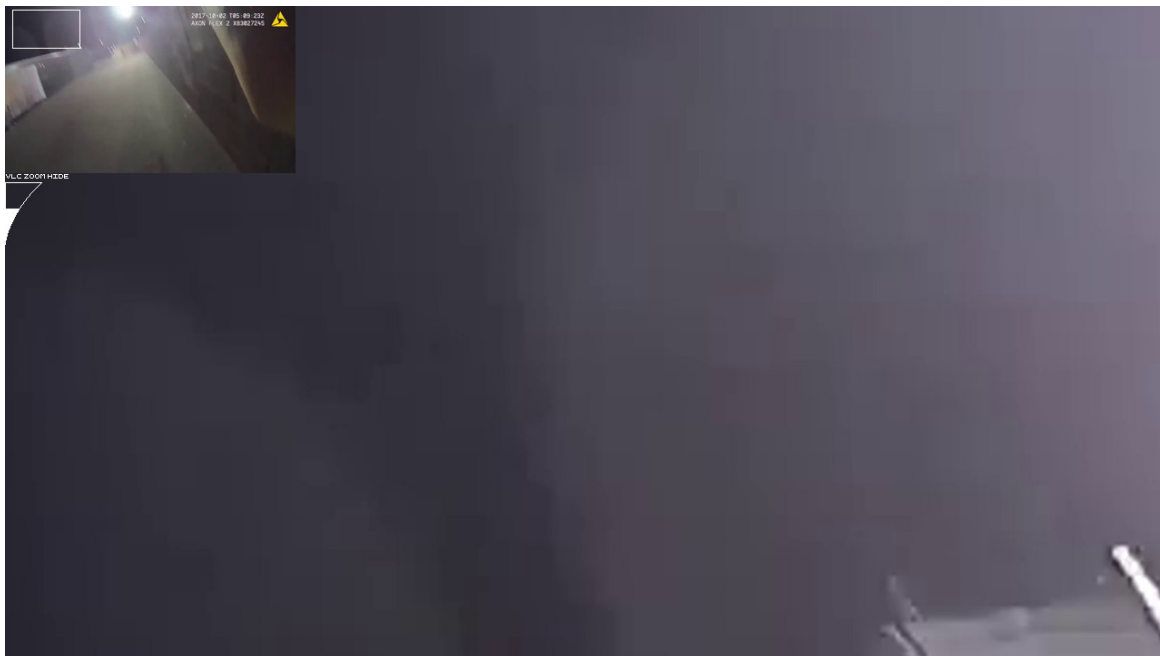
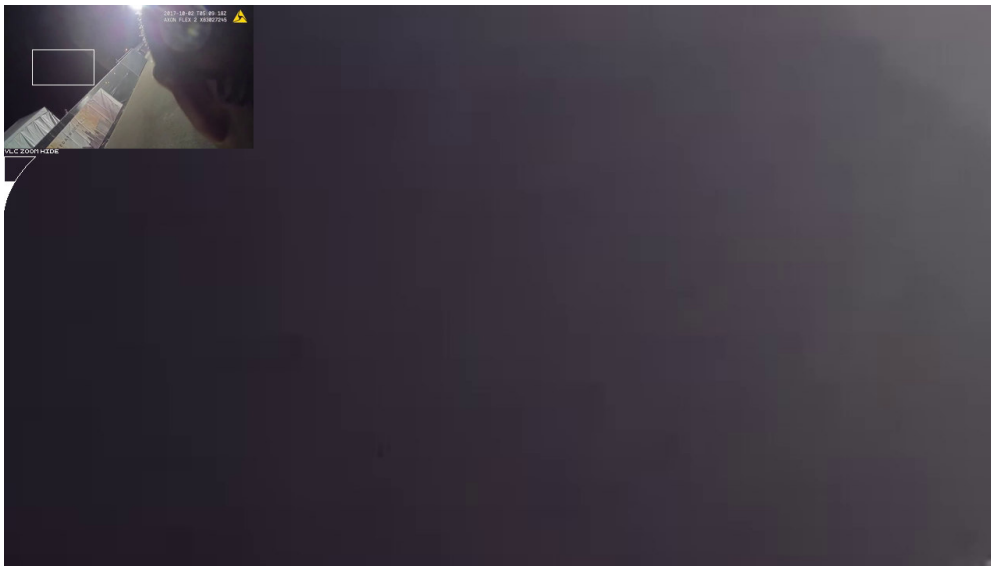
Tagged date : UTC 2017-10-27 10:10:15
Color range : Limited
Color primaries : BT.709
Transfer characteristics : BT.709
Matrix coefficients : BT.709

Audio

ID : 2
Format : AAC
Format/Info : Advanced Audio Codec
Format profile : LC
Codec ID : mp4a-40-2
Duration : 3 min 3 s
Bit rate mode : Variable
Bit rate : 126 kb/s
Channel(s) : 2 channels
Channel positions : Front: L R
Sampling rate : 44.1 kHz
Frame rate : 43.066 FPS (1024 SPF)
Compression mode : Lossy
Stream size : 2.75 MiB (7%)
Title : ISO Media file produced by Google Inc. Created on: 10/27/2017.
Encoded date : UTC 2017-10-27 10:10:15
Tagged date : UTC 2017-10-27 10:10:15

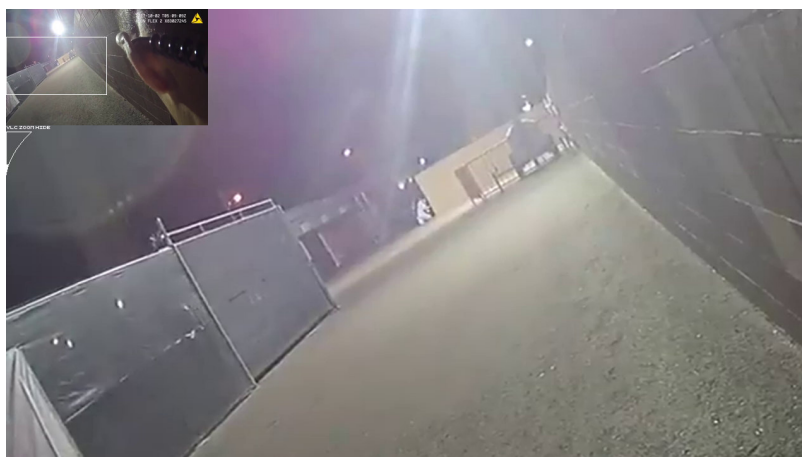
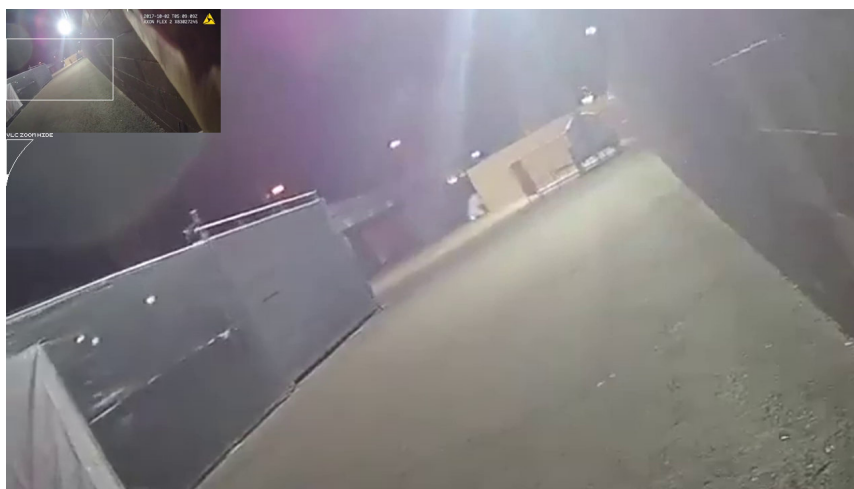
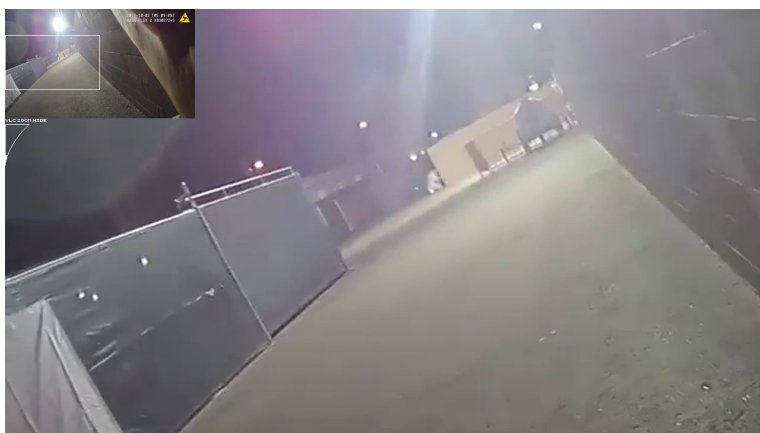
Camera/Video Posterization

The color bit depth is 8 bits, limiting the number of colors to 256. This leads to considerable "posterization" of images of similar tones. This effect is aggravated in regions of large lighting changes. The dark sky and fence netting are particular examples where "shadows" or images can be viewed which don't correspond to any real "objects", but are simply artifacts of the limited color depth and/or lighting.



Camera Pixil Issues

At times small movements of the camera result in massive loss of detail on the video, one example occurs at/near 6.333 seconds. There and for several more frames, an entire upright fence post "disappears" from the video. This phenomena is viewable several times over the course of the fifty-eight second video. This phenomena appears to be more prevalent in the left—right plane than the up-down plane. The following pictures were taken within a few frames of each other. The upper left corner of each picture contains the "zoom" box from VLC which was used to snapshot these images.



Cameras Segments (five)

The three minute long video is a **composite** of "samplings" of five camera segments:

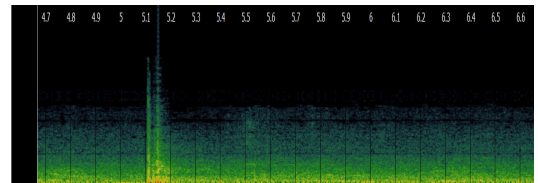
1. Officer 245, 0:00.000 – 0:57.166,
2. Officer 245, 0:57.166 – 1:28.533,
3. Officer xxx, 1:28.566 – 0:00.000,
4. Officer 514, 1:57.xxx – 0:00.000,
5. Officer 245, 2:49.xxx – 3:03.000, Z05:26:44

"Percussive" Events

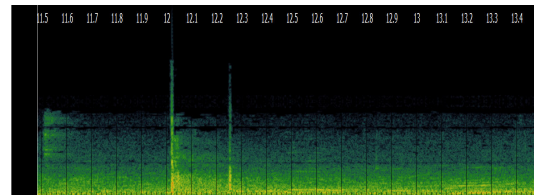
At least six "percussive" events are recorded in the first fifty-eight seconds of the video. Shown below are db² spectrums (sonic visualiser) for each segment.

#	<u>Start Time</u>	<u>Id</u>	<u>Type</u>	<u>Count</u>	<u>Notes</u>
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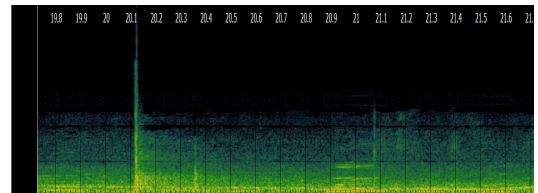
1		B05a	single	1	
---	--	------	--------	---	--



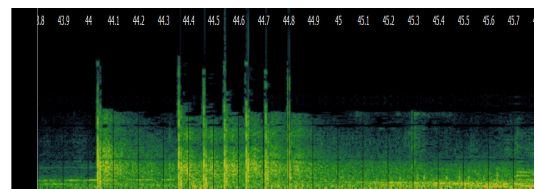
2		B05b	single	1	
---	--	------	--------	---	--



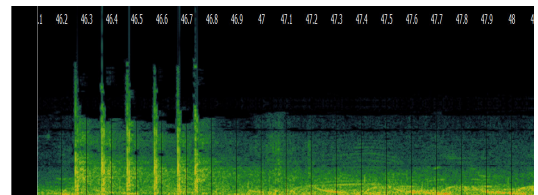
3		B05c	single	1	
---	--	------	--------	---	--



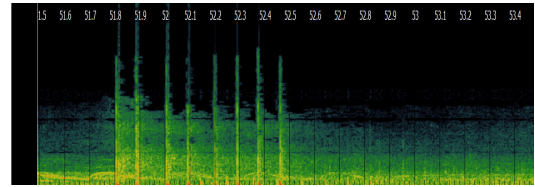
4		B05d	burst	7	
---	--	------	-------	---	--



5		B05e	burst	6	
---	--	------	-------	---	--



<u>#</u>	<u>Start Time</u>	<u>Id</u>	<u>Type</u>	<u>Count</u>	<u>Notes</u>
6		B05g	burst	8	



"Percussive" Sound Classification

<u>Id</u>	<u>Pic</u>	<u>Description</u>
thud		Pebble hitting board
ding		Pebble hitting 2 inch galvanized pipe
sanp		Fingers snapping, bull-whip crack
boom		Heavy door closing fast
whoosh		
zing		Coboy western gunshot ricoet
thump		Foot kicking hollow log
pop		

People Present on Video

At the start of the video and at the distant end of the side walk can be seen one person squatting and another roaming back and forth between the front and back of the fence. Eventually another person wearing a cowboy hat strolls into this same area.

Closer to the officer and behind the fence is one person standing on something in an elevated position, looking toward the Mandalay Bay. Eventually a total of three people visit this spot.

Closer examination may reveal many more people behind the fence.

A total of **four officers** are seen on this tape, two are prominent and two are just "glimpsed".

Body Camera Movement Over Time

1. Start

2. 27s starts moving south
3. 34s stops after moving about 12 ft to tell dude to get back and down
4. 39s still yelling at guy, other officer shows up in screen, position about equal to
end of cloth tent/booth
5. 43s starts moving
6. 48s stops again, about even with positionary portion of gate (north end)
7. end of tape, looks like 3 or 4 other officers there with him

Theories for Fence Buldge

Coincidental

Bullet Fragments

Fingers

People Wrestling Behind Fence

Elbow Recoil From Pistol Recoil

