



## **TRANSPORT PLANNING TECHNICIAN END POINT ASSESSMENT PROJECT BRIEF (A)**

### **PROJECT TITLE**

Special Event Traffic Management Planning

### **PROJECT SCENARIO**

The Circuit of Wales will be located 22 miles north of Cardiff and just north of Ebbw Vale, close to the Rassau Industrial Estate. According to the developers, the £315m development will span 830 acres and represents the most significant capital investment programme in automotive and motor sports infrastructure in the UK in the last 50 years. The development includes motorsports and automotive testing facilities including a 5.3 km Grade A track, driver-training centre, karting facilities and automotive proving ground as well as a flexible space, The Hollow, for major events such as concerts and music festivals.

This end point assessment project involves the design and planning of traffic management arrangements for music events at a proposed major event site in Wales. The Circuit of Wales site to be constructed adjacent to the A465 strategic trunk road highway in Blaenau Gwent, Wales currently has outline Planning Permission.

The A465 is a strategic trunk road that has recently had a new offline section of dual carriageway constructed adjacent to the site, so there is currently no traffic congestion experienced for normal day to day situations. However, when major events occur there is a risk of short-term issues that need to be effectively managed through an approved event traffic management plan.

### **PROJECT BRIEF**

Traditionally, annual events such as music festivals (e.g. Glastonbury, Somerset) have been held in rural settings. However, as their popularity has grown the impact of high volumes of individuals wanting to access and egress a single site over a short time period has had significant impacts on the surrounding highway network, public transport systems and local communities. In recent years there has been a trend to relocate town centre based events to more rural locations to minimise town centre traffic disruption (eg Circuit of Wales). However, this brings with it a whole new set of transport related problems, including accommodating mass attendance and providing sufficient transport links and car parking space to allow the public to safely attend the event; whilst at the same time maintaining access for local residents and farmers. In addition, plans for emergency services also have to be

accommodated, as does the access and egress of traffic associated with the organisation of the event.

For this project, you need to design a traffic management scheme and signing plan to minimise the impacts of a single evening concert in a rural location, including contingency plans for emergency vehicle access and liaison with relevant stakeholders. Consideration will then be given to the changes that will be needed to the scheme for a major event that spans several days.

The possible event sizes that could occur at the site are: a conference for a day (1,000 people), a small event (up to 10,000 people), a minor event (up to 20,000 people), a major event (up to 40,000 people) or a once a year national event over an entire weekend (over 80,000 people).

### **Main Tasks:**

1. List the data required in order to appraise current traffic conditions for the 10,000 single evening concert – Doors open at 17:00 for an onstage performance at 19:00 with the event finishing at 22:30.
2. Estimate the likely volume and direction of traffic travelling to the event and consider the possible travel modes to the site.
3. Outline any potential necessary liaison with appropriate stakeholders involved in the event. Local residents, Police, Event Organisers, Local Authority etc.
4. Detail an action plan for the ensuring that the proposed traffic management plan can be implemented and outline any special provisions for transport to/from the event. This includes potential for sustainable transport – car sharing, public transport provision etc.
5. Assess the likely impacts and identify any amelioration measures for the event and local traffic – this could involve the use of a simple model of traffic movements to/from on-site car/coach parking locations.
6. Propose a set of traffic management measures to undertake the safe arrival and departure of people to the events and explain your reasoning behind your plans and decisions.
7. Develop a temporary sign posting location plan for the event accessing the site from both the east and the west along the A465. You can assume that further a field that the Trunk Road Matrix signs will direct traffic towards the A465.
8. For the once a year event of over 80,000 people, consider how the traffic patterns (arriving and leaving) would change and explain what changes you would make to the traffic management plan and where you could provide offsite park and ride facilities. You should assume planning permission will be granted and bus operators will be willing to operate a shuttle bus system to the event site. The traffic would start arriving at the event on a Thursday and will leave by lunchtime on the Monday. The music artists will be on stage from 19:00 to 24:00 on Friday, from 12:00 till 24:00 on Saturday and from 12:00 till 22:00 on Sunday.



## **PROJECT OUTPUTS AND DELIVERABLES**

Project Brief Outline – Introduction

Full Project Report – including plans and diagrams

Project Presentation Slides & Materials

Supporting Documentation – Appendices and list of Key References

## **RELEVANT SKILLS**

Awareness of Current Practice in Event Traffic Management

Awareness of Legal Requirements and relevant Road Traffic Acts

Planning and Schedule of Workload

Survey & Data Collection Skills

Analytical & Data Processing Skills

Transport Modelling & Impact Assessment

Communication & Liaison Skills

Innovative & Critical Thinking

Technical Report Writing

## **RESOURCES**

Appendix 1: Location Plan

Appendix 2: Site Layout Plan

Appendix 3: Design and Access Statement extract

Appendix 4: List of Rural/Local Stakeholders

Appendix 5: Existing Traffic flow data

## **Additional background information**

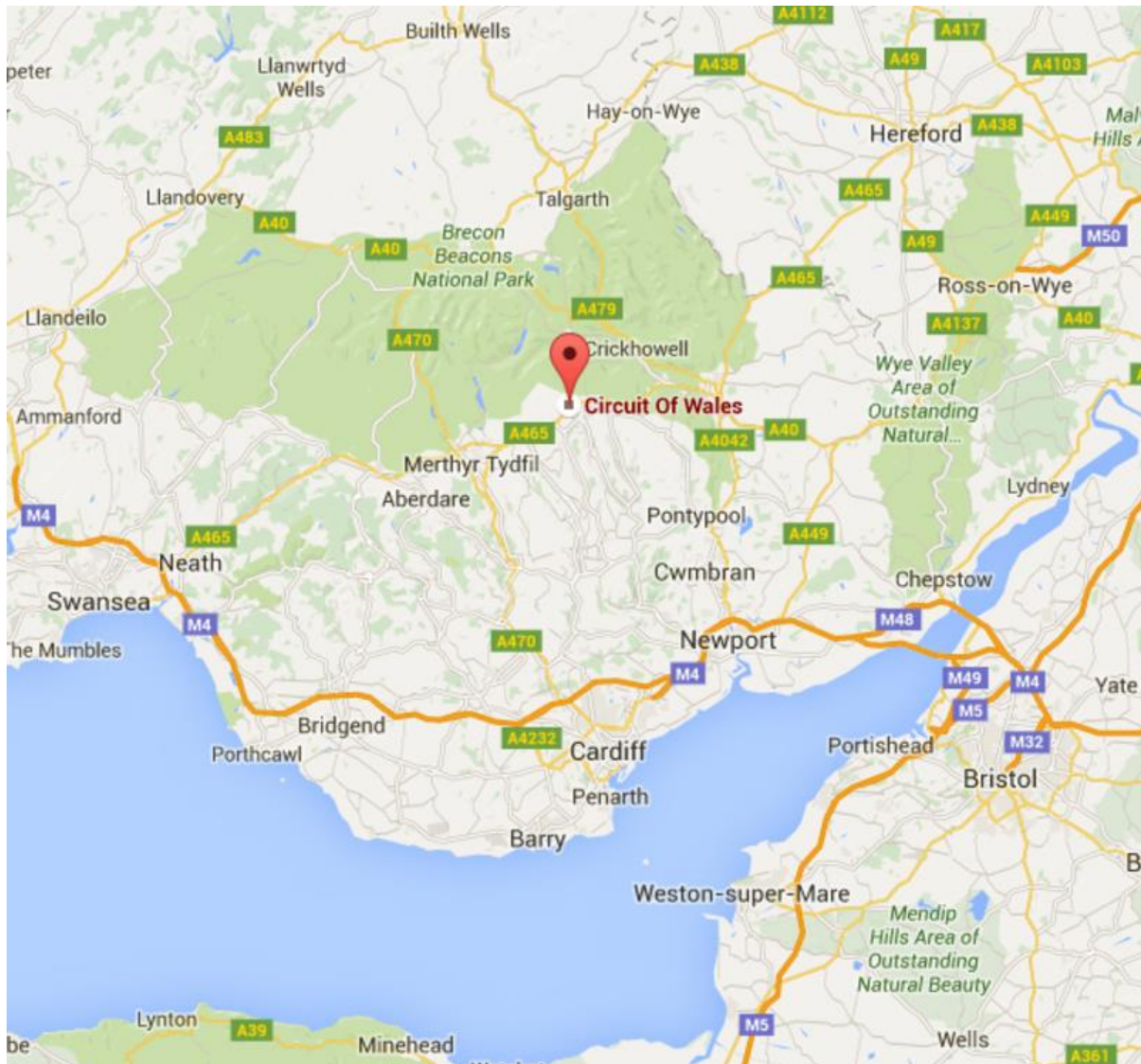
Link to Press Release for Original Planning Application

<https://www.walesonline.co.uk/news/wales-news/planning-application-submitted-250m-circuit-2495595>

Link to current renewal of Planning Application

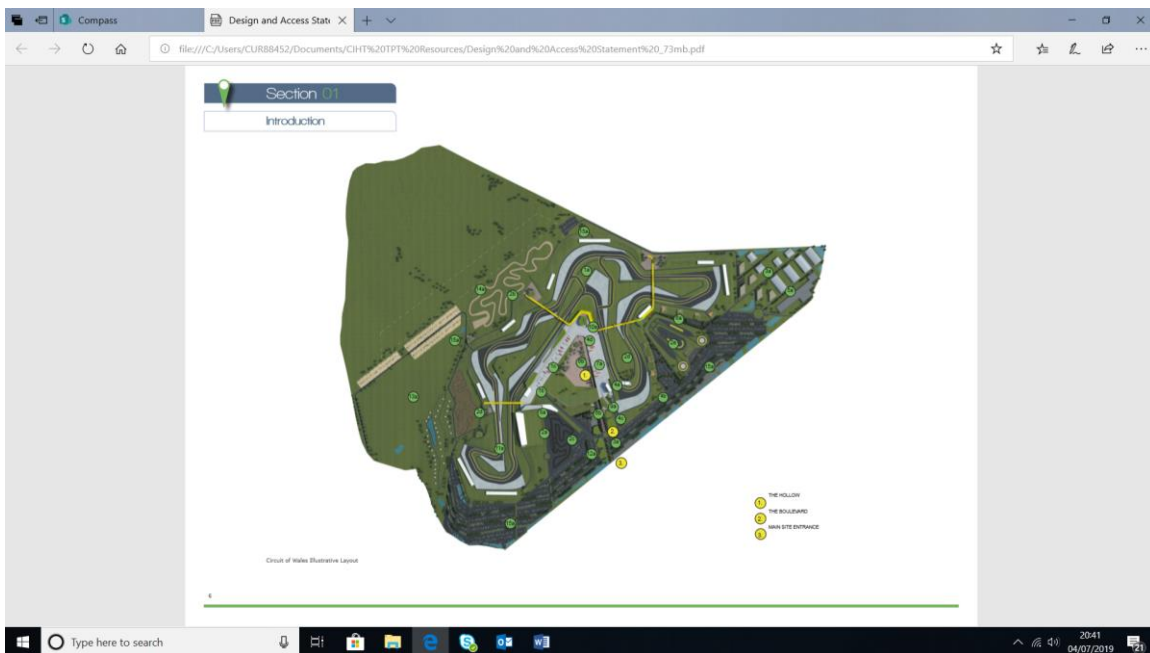
<https://www.blaenau-gwent.gov.uk/en/resident/planning/circuit-of-wales/>

## Appendix 1: Location Plan





## Appendix 2: Site Layout Plan (for information on the on-site facilities)



### **Appendix 3: Design and Access Statement extract (proposals summary)**

The Circuit of Wales proposes to deliver a high quality sport, business and leisure destination in Rassau. Essential to the establishment of this destination is the motorsport offer, and in particular the high performance circuit, which is the core of the development. The high performance circuit has been designed to conform to industry regulations to enable it to host World Championship events like Moto GP and World Superbikes. In addition to the main racing circuit, the Circuit of Wales will also provide the following motorsport facilities: karting circuit, motocross circuit, dirt oval, rider academy, driver training centre, 4x4 circuit and Urban 4x4. The high performance circuit will establish the Circuit of Wales as a prestigious business venue and create commercial demand amongst companies who want to test and showcase their products in a fantastic setting. To ensure that the Circuit of Wales is equipped to respond to private sector demand, the development will include office, light industrial and storage and distribution space. To provide visitors to the Circuit of Wales with sufficient accommodation, two new hotels will be located in the development. One of the hotels will offer 4\* accommodation, and the other 3\*. A campsite will also be included to cater for event visitors, and ensure the development offers a range of accommodation. In addition to the provision of the hotels, the Circuit of Wales will provide a range of restaurants, cafes, brand centres, showrooms and retail units. The location of the site provides the Circuit of Wales with the opportunity to implement a wide range of low carbon energy generation technologies. To ensure that local people are able to benefit from this asset, the Circuit of Wales has identified an energy vision, which when implemented will deliver green energy generation and community benefit.

Within the vision the main renewable energy generation will be generated through a 120,000sqm Solar Photovoltaic park. A summary of the main elements of the proposed development is provided.

#### **1. High Performance Circuit Facilities**

- Main circuit – approximately 5,400m in length with signature grandstand, secondary permanent grandstands and temporary grandstands.
- Medical centre – located next to the finishing straight of the main circuit the centre will include a fully functioning operating theatre with access to two helipads for emergency air services.
- Pits building & paddocks – a building that will be the operational hub for race teams during competition days. The paddocks will accommodate race and support race trucks, hospitality structures, mobile homes, supplier vehicles, events organiser vehicles and corporate pitches.

#### **2. Motorsport Complex**

- Dirt oval – for skills training, 406m in length with seating space for 500 spectators.
- Motocross – the motocross circuit will be designed to world championship standards to ensure that it can host a range of competition levels (including world championship events) and accommodate leisure use.
- Karting circuit – A 1,200m kart circuit.
- 4x4 and Urban 4x4 circuits - providing a range of driver experiences for 4x4 vehicles on natural and urban terrain.
- Driver training centre – an open space of asphalt suitable to be configured into a number of training scenarios.

### 3. Innovation Centre

- 14 buildings for B1 uses accommodating automotive engineering and low carbon technology research and development uses.

### 4. Iconic Development

- 4\* hotel - providing 180 beds.
- Headquarters - the Circuit of Wales administrative headquarters.
- Restaurants and cafes – food retail including a range of cafes and restaurants.
- Exhibition space – showroom space available to businesses based within the Circuit of Wales.

### 5. Industrial and Storage

- 17 units accommodating industrial activity and storage space.

### 6. Brand Centres & Showrooms

- 8 Brand Centres – showrooms aimed at prestige car retailers, where customers can test drive a vehicle in a clean, professional and safe environment.
- 11 Showrooms – located along the main access road to accommodate mid-range car and motorcycle dealerships as well as race wear manufactures.

### 7. Retail

- 8 units providing motorsport retail and food and beverage outlets.

### 8. Hotel

- 3\* Hotel - providing 150 beds and overlooking the western section of the main circuit.

### 9. Welcome Centre

- The welcome centre will be the first point of call for leisure guests who have booked a motorsport activity in the Circuit of Wales.

### 10. Clubhouse

- A clubhouse will be provided in the centre of the development to offer excellent views of the circuit and event hospitality to members and Motorsport Lodge owners.

### 11. Motorsport Lodges

- 27 Motorsport Lodges offering views over the track and a ground floor workshop/showroom area where vehicles can be stored.

### 12. Petrol Filling Station

- Like many other motorsport destinations the Circuit of Wales will provide an on-site petrol filling station.

### 13. Camping

- A campsite providing permanent shower, wash and changing facilities.



#### 14. Solar Park

- 120,000sqm of Solar Photovoltaics in the area immediately north of the motocross circuit.

#### 15. Parking

- Two main areas of parking are proposed -core event parking and commercial parking allocated to specific units. This would be supplemented by additional spaces during major events.

#### 16. The Hollow

In addition to these key development components, the Circuit of Wales will also have a key event space. This is termed the Hollow, and it will be a flexible space which can be utilised during major events to accommodate stalls, displays and musical entertainment.



#### **Appendix 4: List of Stakeholders – not exhaustive**

- Local Bus Operators
- National Bus Operators
- Blaenau Gwent County Borough Council – Highways Department and Planning Departments
- Rhondda Cynon Taff County Borough Council – Highways Department, adjacent Authority through which event traffic will travel
- Merthyr Tydfil County Borough Council – Highways Department, adjacent Authority through which event traffic will travel
- St John Ambulance and Red Cross
- Temporary catering outlets
- Portaloo providers
- Transport for Wales (Rail Operator)
- Security firm
- Event marshals – could be used to direct traffic if necessary
- Traffic Management suppliers (signs and cones)
- Gwent Police and South Wales Police - as traffic will impact on both police force areas
- South Wales Trunk Road Agent (able to provide patrolling traffic officer units and live twitter updates on any traffic issues)
- Welsh Government (Transport) Network Management Division – this department coordinates major events and provides support in pre-event planning. Also able to make Matrix signs available for messages to guide long distance traffic towards the A465 (M4 and A470 approaches).



**Appendix 5: Existing Traffic flow data**

TIME	EASTBOUND								TOT	WESTBOUND								TOT
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	CAR		LGV	OGV1	OGV2	PSV	MCL	PCL			
00:00	35	0	0	0	0	0	0	35	27	2	2	5	0	0	0	36		
00:15	29	0	2	2	0	2	0	35	18	0	4	3	0	0	0	25		
00:30	34	0	0	2	0	0	0	36	16	0	1	5	0	0	0	22		
00:45	30	0	2	4	0	0	0	36	21	0	0	6	0	0	0	27		
<b>H/TOT</b>	128	0	4	8	0	2	0	142	82	2	7	19	0	0	0	110		
01:00	22	0	0	1	0	0	0	23	14	0	2	5	0	0	0	21		
01:15	15	0	2	4	2	1	0	24	16	1	1	1	1	0	0	20		
01:30	12	1	4	2	0	0	0	19	12	1	4	2	0	0	0	19		
01:45	13	0	0	4	0	0	0	17	5	1	0	3	0	0	0	9		
<b>H/TOT</b>	62	1	6	11	2	1	0	83	47	3	7	11	1	0	0	69		
02:00	14	1	1	5	0	0	0	21	16	0	1	4	0	0	0	21		
02:15	13	0	0	4	0	0	0	17	5	1	2	2	0	0	0	10		
02:30	9	0	0	9	0	0	0	18	9	0	1	4	0	0	0	14		
02:45	13	0	0	3	0	0	0	16	12	0	1	2	0	0	0	15		
<b>H/TOT</b>	49	1	1	21	0	0	0	72	42	1	5	12	0	0	0	60		
03:00	14	0	1	9	0	0	0	24	20	2	0	9	0	0	0	31		
03:15	11	0	0	8	0	0	0	19	9	0	1	5	0	0	0	15		
03:30	13	1	2	8	0	0	0	24	13	1	2	8	0	0	0	24		
03:45	14	3	5	7	0	0	0	29	15	0	1	9	0	0	0	25		
<b>H/TOT</b>	52	4	8	32	0	0	0	96	57	3	4	31	0	0	0	95		
04:00	13	5	2	7	0	0	0	27	18	2	1	7	0	0	0	28		
04:15	22	4	8	7	2	0	0	43	23	2	2	3	0	0	0	30		
04:30	17	6	4	10	0	0	0	37	25	6	1	6	0	0	0	38		
04:45	28	2	1	15	1	1	0	48	26	10	2	16	1	0	0	55		



<b>H/TOT</b>	80	17	15	39	3	1	0	155	92	20	6	32	1	0	0	151
05:00	29	12	2	6	1	0	0	50	45	8	2	6	3	1	0	65
05:15	38	7	5	13	1	1	0	65	85	8	3	16	0	0	0	112
05:30	71	15	9	14	0	1	0	110	97	12	6	9	0	2	0	126
05:45	55	17	15	15	0	1	0	103	96	16	8	18	0	1	0	139
<b>H/TOT</b>	193	51	31	48	2	3	0	328	323	44	19	49	3	4	0	442
06:00	76	17	7	18	1	2	0	121	90	32	7	28	0	1	0	158
06:15	124	24	9	17	0	0	0	174	131	32	8	15	1	0	0	187
06:30	125	25	8	26	0	0	0	184	186	41	15	9	0	1	0	252
06:45	122	42	16	22	0	0	0	202	180	55	10	11	4	3	0	263
<b>H/TOT</b>	447	108	40	83	1	2	0	681	587	160	40	63	5	5	0	860
07:00	171	59	9	26	2	1	0	268	284	62	15	19	0	1	0	381
07:15	218	68	27	28	2	0	0	343	332	73	21	29	1	1	0	457
07:30	271	49	19	26	1	0	0	366	367	75	14	16	1	7	0	480
07:45	253	64	21	16	1	1	0	356	412	71	13	19	1	0	0	516
<b>H/TOT</b>	913	240	76	96	6	2	0	1333	1395	281	63	83	3	9	0	1834
08:00	340	60	20	26	3	3	0	452	490	51	16	31	4	3	0	595
08:15	253	66	17	21	0	3	0	360	535	53	21	22	1	3	0	635
08:30	275	54	12	18	1	1	0	361	454	54	15	24	0	3	0	550
08:45	252	67	19	28	2	5	0	373	394	56	27	25	1	2	0	505
<b>H/TOT</b>	1120	247	68	93	6	12	0	1546	1873	214	79	102	6	11	0	2285
09:00	239	52	20	30	4	3	0	348	330	41	21	18	3	1	0	414
09:15	220	54	26	27	3	6	0	336	295	56	14	22	4	4	0	395
09:30	277	55	14	27	2	5	0	380	289	37	24	23	2	1	0	376
09:45	276	47	27	13	3	4	0	370	325	40	11	38	4	7	0	425
<b>H/TOT</b>	1012	208	87	97	12	18	0	1434	1239	174	70	101	13	13	0	1610
10:00	294	34	30	17	5	6	0	386	285	54	26	16	2	2	0	385
10:15	286	43	20	15	1	6	0	371	316	34	27	17	4	3	0	401
10:30	313	41	20	19	1	5	0	399	306	36	18	20	1	3	0	384
10:45	324	41	12	35	3	3	0	418	331	36	26	23	2	2	0	420



<b>H/TOT</b>	1217	159	82	86	10	20	0	1574	1238	160	97	76	9	10	0	1590
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11:15	344	45	20	20	5	6	0	440	308	45	34	24	1	2	0	414
11:30	389	40	12	12	7	5	0	465	298	40	28	19	1	9	0	395
11:45	332	42	17	18	1	7	0	417	320	42	29	13	1	3	0	408
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12:30	347	42	15	25	2	4	0	435	352	37	19	22	2	5	0	437
12:45	354	41	14	28	4	1	0	442	315	50	29	13	1	4	0	412
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13:30	403	43	19	18	3	6	0	492	326	40	28	16	1	5	0	416
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14:30	370	50	12	18	2	1	0	453	394	55	24	22	2	2	0	499
14:45	402	61	17	23	10	0	0	513	387	54	24	20	0	5	0	490
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16:00	484	59	15	17	6	6	0	587	437	59	22	13	6	5	0	542
16:15	446	53	11	12	2	6	0	530	426	79	20	16	6	3	0	550
16:30	506	54	9	7	4	2	0	582	400	36	9	10	2	9	0	466
16:45	546	38	9	9	1	5	0	608	419	45	13	9	2	2	0	490



<b>H/TOT</b>	1982	204	44	45	13	19	0	2307	1682	219	64	48	16	19	0	2048
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17:30	485	38	8	7	2	4	0	544	356	42	20	10	1	4	0	433
17:45	473	33	10	12	0	2	0	530	386	42	16	6	3	1	0	454
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18:30	399	26	9	7	1	5	0	447	286	25	7	4	1	6	0	329
18:45	349	21	5	11	4	3	0	393	288	36	16	9	0	0	0	349
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19:00	330	16	4	7	3	3	0	363	313	27	8	9	2	0	0	359
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19:30	324	22	0	5	2	1	0	354	240	40	7	7	0	3	0	297
19:45	307	17	7	5	2	2	0	340	217	20	10	12	0	2	0	261
<b>H/TOT</b>	1293	70	16	21	8	9	0	1417	1045	108	35	33	2	10	0	1233
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20:30	217	19	3	8	0	3	0	250	183	14	3	3	1	1	0	205
20:45	164	15	5	1	1	1	0	187	224	19	3	8	1	3	0	258
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21:00	146	12	4	5	0	0	0	167	155	8	4	0	0	2	0	169
21:15	159	11	4	5	1	1	0	181	161	9	4	0	0	5	0	179
21:30	163	4	4	2	0	3	0	176	126	10	3	2	0	2	0	143
21:45	119	7	3	7	1	0	0	137	130	12	4	5	1	1	0	153
<b>H/TOT</b>	587	34	15	19	2	4	0	661	572	39	15	7	1	10	0	644
22:00	97	5	1	2	1	0	0	106	125	7	2	2	0	0	0	136
22:15	116	4	2	4	0	0	0	126	128	0	1	6	0	0	0	135
22:30	115	10	1	0	0	1	0	127	115	3	0	4	0	0	0	122
22:45	99	6	1	3	1	2	0	112	109	1	0	4	0	0	0	114





<b>H/TOT</b>	427	25	5	9	2	3	0	471	477	11	3	16	0	0	0	507
23:00	97	0	1	2	0	1	0	101	86	2	0	1	0	1	0	90
23:15	65	0	0	5	0	1	0	71	102	2	1	2	1	0	0	108
23:30	63	0	1	3	0	0	0	67	51	0	0	4	0	1	0	56
23:45	61	0	1	3	0	0	0	65	46	0	0	3	0	0	0	49
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