## Matriz 11




| | W | E | NE | Total |
|---|---|---|---|---|
| NW | 78 | 57 | 0 | 135 |
| W | 0 | 204 | 86 | 290 |
| E | 161 | 0 | 53 | 214 |
| Total | 239 | 261 | 139 | |

## Matriz 12




| | NW | NE | SW1 | SW2 | E | Total |
|---|---|---|---|---|---|---|
| NW | 0 | 0 | 0 | 43 | 48 | 91 |
| W | 42 | 0 | 34 | 2 | 29 | 107 |
| SW1 | 57 | 0 | 0 | 31 | 355 | 443 |
| SE | 6 | 16 | 20 | 3 | 83 | 128 |
| E | 41 | 7 | 310 | 55 | 0 | 413 |
| Total | 146 | 23 | 364 | 134 | 515 | |

NORTE

vectio

Ingeniero | Ingeniero | Fecha: Agosto 2012 | Referencia: P2012011.027 | Modificación: – | Escala: –

Plan de Movilidad Urbana Sostenible de Castro Urdiales

Matrices 11 y 12

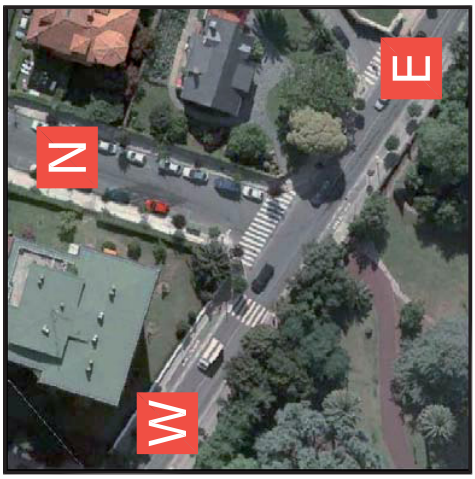
Ayuntamiento de Castro Urdiales

## Matriz 14




| | E | S | Total |
|---|---|---|---|
| W | 213 | 42 | 255 |
| S | 124 | 0 | 124 |
| Total | 337 | 42 | |

## Matriz 13




| | N | W | E | Total |
|---|---|---|---|---|
| N | 0 | 34 | 8 | 42 |
| W | 96 | 0 | 348 | 444 |
| E | 28 | 557 | 0 | 585 |
| Total | 124 | 591 | 356 | |

vectio

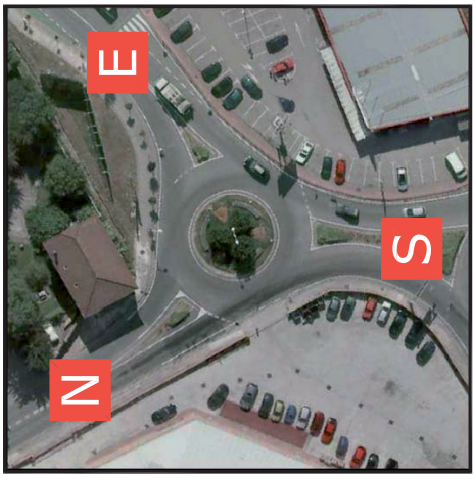
Plan de Movilidad Urbana Sostenible de Castro Urdiales
Matrices 13 y 14
Ayuntamiento de Castro Urdiales

Fecha: Agosto 2012
Referencia: P2012011.028
Modificación: -
Escala: -

NORTE

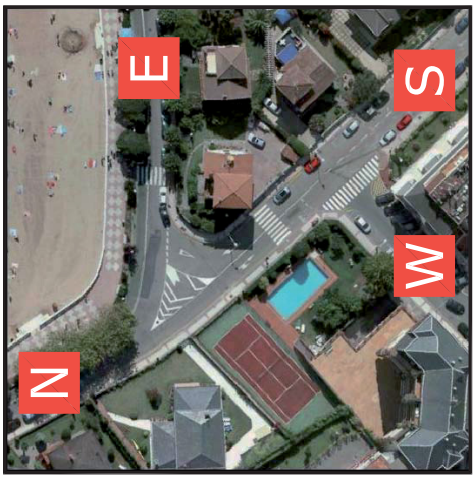
CVE-2014-9573

## Matriz 16




| | N | S | E | Total |
|---|---|---|---|---|
| N | 0 | 278 | 103 | 381 |
| S | 290 | 0 | 314 | 604 |
| E | 98 | 304 | 0 | 402 |
| Total | 388 | 582 | 417 | |

## Matriz 15




| | W | S | E | Total |
|---|---|---|---|---|
| N | 28 | 90 | 141 | 259 |
| S | 81 | 0 | 19 | 100 |
| Total | 109 | 90 | 160 | |

vectio

Plan de Movilidad Urbana Sostenible de Castro Urdiales

Matrices 15 y 16

Ayuntamiento de Castro Urdiales

Fecha: Agosto 2012

Referencia: P2012011.029

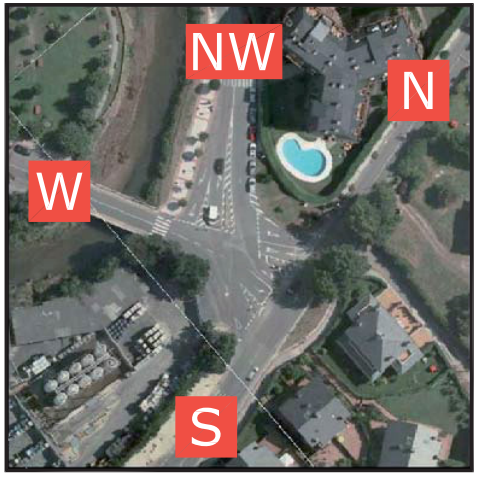
Modificación: -

Escala: -

NORTE

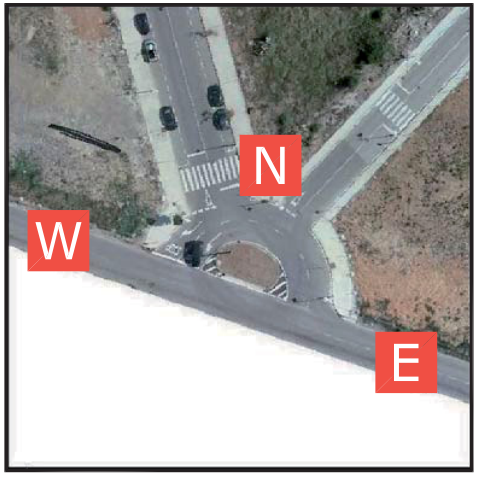
CVE-2014-9573

## Matriz 17




| | N | NW | W | S | Total |
|---|---|---|---|---|---|
| N | 0 | 11 | 24 | 139 | 174 |
| NW | 14 | 0 | 9 | 246 | 269 |
| W | 34 | 9 | 0 | 89 | 132 |
| S | 134 | 162 | 74 | 0 | 370 |
| Total | 182 | 182 | 107 | 474 | |

## Matriz 18




| | N | W | E | Total |
|---|---|---|---|---|
| N | 0 | 63 | 51 | 114 |
| W | 68 | 0 | 93 | 161 |
| E | 83 | 125 | 0 | 208 |
| Total | 151 | 188 | 144 | |

NORTE

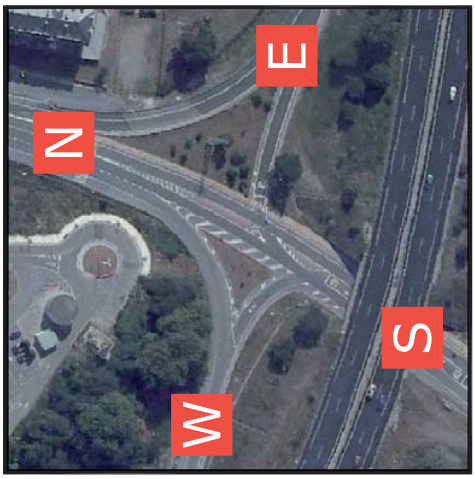
vectio

Agosto 2012 | – | Plan de Movilidad Urbana Sostenible de Castro Urdiales | Ayuntamiento de Castro Urdiales

P2012011.030 | – | Matrices 17 y 18

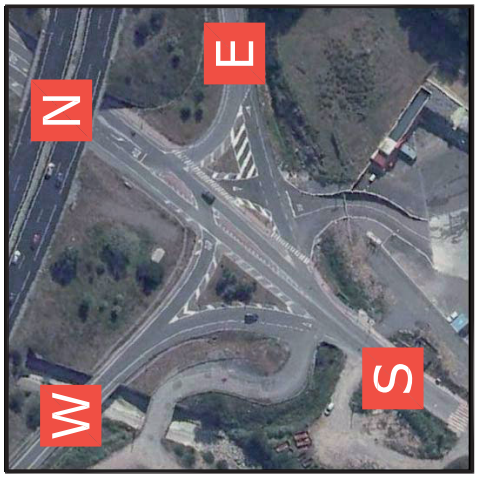
CVE-2014-9573

## Matriz 19




| | N | W | S | Total |
|---|---|---|---|---|
| N | 0 | 143 | 528 | 671 |
| S | 186 | 27 | 0 | 213 |
| E | 392 | 0 | 15 | 407 |
| Total | 578 | 170 | 543 | |

## Matriz 20




| | N | S | E | Total |
|---|---|---|---|---|
| N | 0 | 145 | 383 | 528 |
| W | 119 | 18 | 0 | 137 |
| S | 94 | 0 | 53 | 147 |
| Total | 213 | 163 | 436 | |

vectio

Plan de Movilidad Urbana Sostenible de Castro Urdiales

Matrices 19 y 20

Ayuntamiento de Castro Urdiales

Agosto 2012

P2012011.031

NORTE

CVE-2014-9573

# ANEJO I. AFOROS

CVE-2014-9573

# E. ANEJO 1. AFOROS

## 7. Datos del aforo 01

**Duración de los Aforos:**
00:00 lunes, 13 de septiembre 2012 => 23:00 domingo, 19 de septiembre 2012
**Identificador:**
Vectio TN-01 (Tubo Neumático)
**Tipo de Datos:**
Sensores de Ejes - En Pares (Clase, Velocidad, Recuento)
**Clases Incluidas:**
1, 2, 3, 4, 5
**Esquema:**
Clasificación Vehicular (FHWA)
**Intervalo de Velocidades:**
10 - 200 km/h.
**Sentido de Circulación:**
1: A-B = Ascendente (Entrada a Castro Urdiales)
2: B-A = Descendente (Salida de Castro Urdiales)
**Separación:**
Todos - (Intervalo Vehicular)
**Unidades:**
Métrico (metro, kilómetro, m/s, km/h, kg, Tonelada Métrica (kg))
**Localización del aforador:**
Carretera de Santander
**Localización geográfica:**
N 43°23'26.80" O 3°13'53.33"
**Imagen**



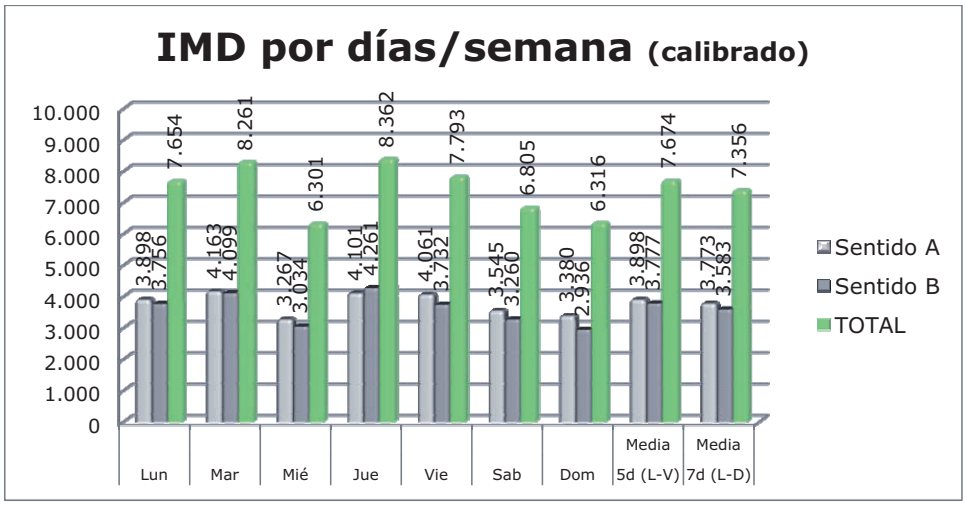
CVE-2014-9573

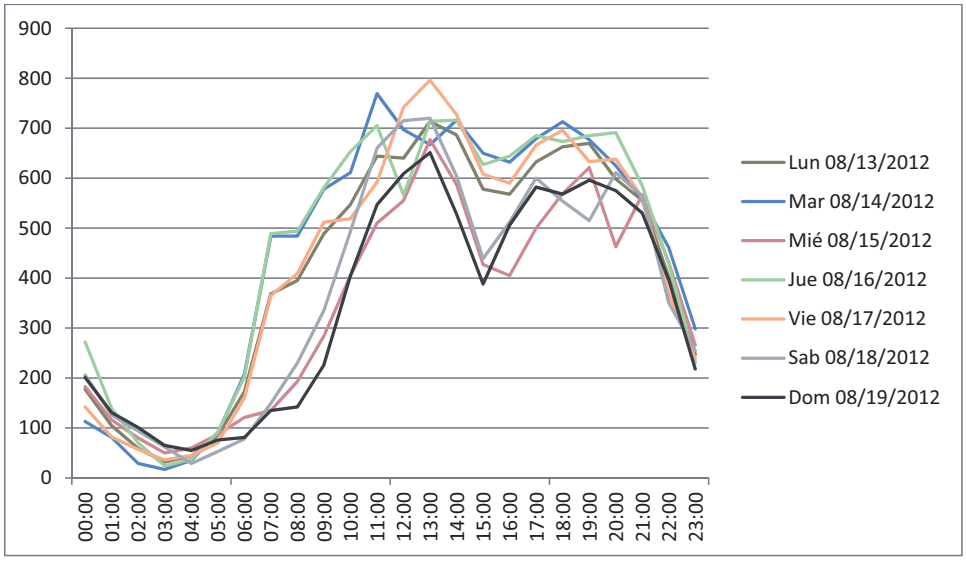
## 7.1. Volumen de vehículos – Total

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 178 | 113 | 183 | 272 | 142 | 206 | 201 | 178 | 185 |
| 01:00 | 105 | 81 | 116 | 139 | 82 | 126 | 131 | 105 | 111 |
| 02:00 | 59 | 29 | 80 | 70 | 57 | 94 | 101 | 59 | 70 |
| 03:00 | 32 | 17 | 50 | 24 | 36 | 62 | 65 | 32 | 41 |
| 04:00 | 44 | 35 | 60 | 37 | 45 | 29 | 55 | 44 | 44 |
| 05:00 | 85 | 90 | 87 | 92 | 70 | 53 | 76 | 85 | 79 |
| 06:00 | 173 | 207 | 121 | 202 | 160 | 78 | 81 | 173 | 146 |
| 07:00 | 368 | 484 | 135 | 489 | 365 | 149 | 135 | 368 | 304 |
| 08:00 | 395 | 484 | 193 | 494 | 409 | 230 | 142 | 395 | 335 |
| 09:00 | 489 | 578 | 284 | 581 | 512 | 335 | 226 | 489 | 429 |
| 10:00 | 547 | 611 | 405 | 653 | 519 | 493 | 404 | 547 | 519 |
| 11:00 | 644 | 769 | 510 | 705 | 592 | 660 | 547 | 644 | 632 |
| 12:00 | 640 | 697 | 555 | 566 | 742 | 715 | 609 | 640 | 646 |
| 13:00 | 714 | 667 | 677 | 714 | 796 | 720 | 651 | 714 | 706 |
| 14:00 | 687 | 716 | 587 | 716 | 727 | 604 | 528 | 687 | 652 |
| 15:00 | 578 | 650 | 427 | 627 | 608 | 439 | 388 | 578 | 531 |
| 16:00 | 568 | 632 | 405 | 644 | 590 | 512 | 506 | 568 | 551 |
| 17:00 | 633 | 679 | 500 | 685 | 666 | 600 | 582 | 633 | 621 |
| 18:00 | 663 | 713 | 569 | 673 | 696 | 554 | 568 | 663 | 634 |
| 19:00 | 670 | 677 | 621 | 685 | 633 | 515 | 596 | 657 | 628 |
| 20:00 | 598 | 625 | 463 | 691 | 638 | 611 | 575 | 603 | 600 |
| 21:00 | 555 | 557 | 567 | 585 | 561 | 564 | 530 | 565 | 560 |
| 22:00 | 402 | 461 | 431 | 428 | 369 | 350 | 396 | 418 | 405 |
| 23:00 | 248 | 298 | 266 | 231 | 239 | 255 | 218 | 256 | 251 |
| 12h, 7-19 | 6.924 | 7.680 | 5.247 | 7.547 | 7.222 | 6.011 | 5.286 | 6.924 | 6.560 |
| 16h, 6-22 | 8.920 | 9.746 | 7.019 | 9.710 | 9.214 | 7.779 | 7.068 | 8.922 | 8.494 |
| 18h, 6-24 | 9.570 | 10.505 | 7.715 | 10.369 | 9.822 | 8.384 | 7.682 | 9.596 | 9.150 |
| 24h, 0-24 | 10.071 | 10.870 | 8.291 | 11.003 | 10.254 | 8.954 | 8.311 | 10.098 | 9.679 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 644 | 769 | 510 | 705 | 592 | 660 | 547 | 644 | 632 |
| PM | 13:00 | 14:00 | 13:00 | 14:00 | 13:00 | 13:00 | 13:00 | 13:00 | 13:00 |
| Valor Punta | 714 | 716 | 677 | 716 | 796 | 720 | 651 | 714 | 706 |

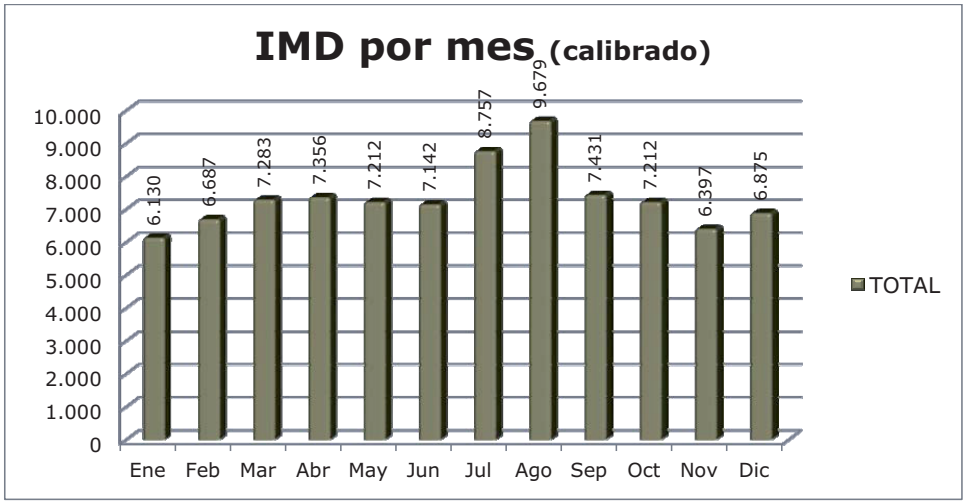
CVE-2014-9573

### 7.1.1. Gráficos de volumen de vehículos –Total




CVE-2014-9573



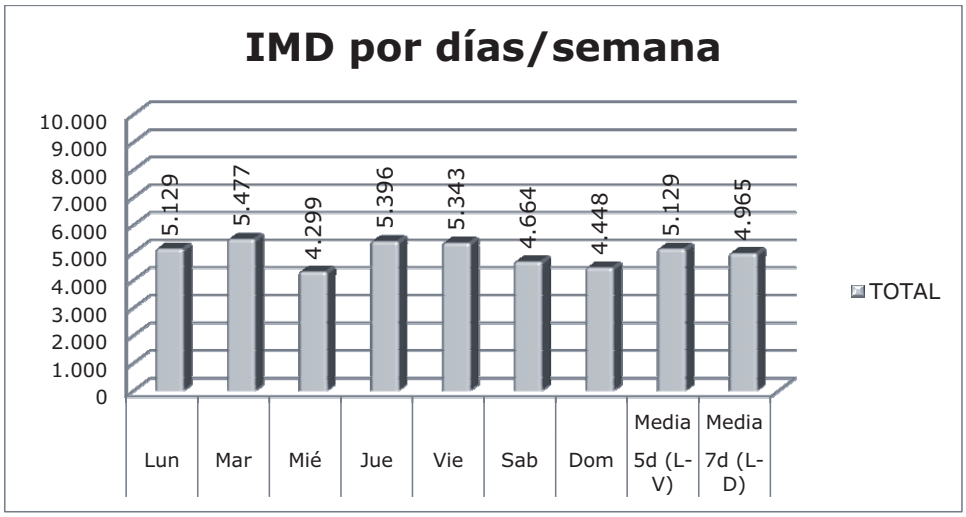

CVE-2014-9573

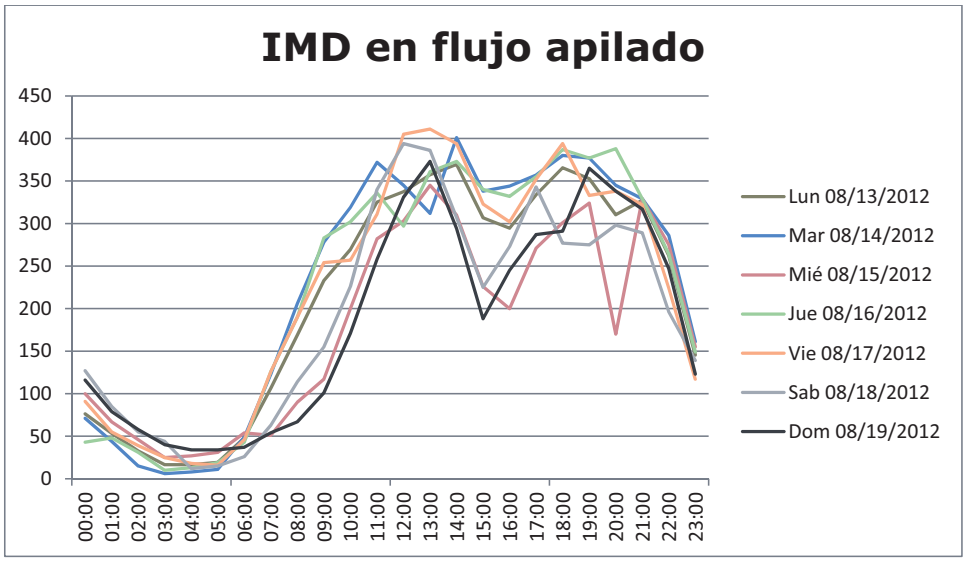
## 7.2. Volumen de vehículos – Sentido A

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 76 | 71 | 100 | 43 | 91 | 127 | 116 | 76 | 89 |
| 01:00 | 54 | 44 | 67 | 48 | 55 | 85 | 79 | 54 | 62 |
| 02:00 | 33 | 15 | 46 | 31 | 39 | 55 | 58 | 33 | 40 |
| 03:00 | 17 | 6 | 25 | 10 | 25 | 44 | 40 | 17 | 24 |
| 04:00 | 17 | 8 | 27 | 13 | 18 | 12 | 34 | 17 | 18 |
| 05:00 | 19 | 11 | 31 | 19 | 16 | 15 | 34 | 19 | 21 |
| 06:00 | 48 | 49 | 54 | 43 | 46 | 26 | 37 | 48 | 43 |
| 07:00 | 107 | 123 | 51 | 126 | 126 | 63 | 54 | 107 | 93 |
| 08:00 | 169 | 206 | 90 | 190 | 190 | 114 | 67 | 169 | 147 |
| 09:00 | 233 | 278 | 117 | 283 | 254 | 155 | 101 | 233 | 203 |
| 10:00 | 270 | 319 | 200 | 302 | 257 | 226 | 171 | 270 | 249 |
| 11:00 | 325 | 372 | 282 | 336 | 311 | 340 | 258 | 325 | 318 |
| 12:00 | 338 | 345 | 303 | 297 | 405 | 394 | 331 | 338 | 345 |
| 13:00 | 357 | 312 | 345 | 361 | 411 | 386 | 373 | 357 | 364 |
| 14:00 | 370 | 401 | 310 | 373 | 394 | 307 | 294 | 370 | 350 |
| 15:00 | 307 | 338 | 226 | 340 | 323 | 225 | 188 | 307 | 278 |
| 16:00 | 295 | 344 | 200 | 332 | 302 | 273 | 245 | 295 | 284 |
| 17:00 | 334 | 357 | 271 | 355 | 352 | 343 | 287 | 334 | 328 |
| 18:00 | 366 | 380 | 301 | 387 | 394 | 277 | 291 | 366 | 342 |
| 19:00 | 353 | 377 | 324 | 377 | 333 | 275 | 365 | 353 | 343 |
| 20:00 | 310 | 345 | 170 | 388 | 338 | 298 | 338 | 310 | 312 |
| 21:00 | 327 | 329 | 329 | 329 | 322 | 289 | 317 | 327 | 320 |
| 22:00 | 262 | 286 | 275 | 264 | 224 | 196 | 247 | 262 | 251 |
| 23:00 | 146 | 161 | 155 | 149 | 117 | 139 | 123 | 146 | 141 |
| 12h, 7-19 | 3.468 | 3.775 | 2.696 | 3.682 | 3.719 | 3.103 | 2.660 | 3.468 | 3.300 |
| 16h, 6-22 | 4.506 | 4.875 | 3.573 | 4.819 | 4.758 | 3.991 | 3.717 | 4.506 | 4.320 |
| 18h, 6-24 | 4.914 | 5.322 | 4.003 | 5.232 | 5.099 | 4.326 | 4.087 | 4.914 | 4.712 |
| 24h, 0-24 | 5.129 | 5.477 | 4.299 | 5.396 | 5.343 | 4.664 | 4.448 | 5.129 | 4.965 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 325 | 372 | 282 | 336 | 311 | 340 | 258 | 325 | 318 |
| PM | 14:00 | 14:00 | 13:00 | 20:00 | 13:00 | 12:00 | 13:00 | 14:00 | 13:00 |
| Valor Punta | 370 | 401 | 345 | 388 | 411 | 394 | 373 | 370 | 364 |

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### 7.2.1. Gráficos de volumen de vehículos –Sentido A



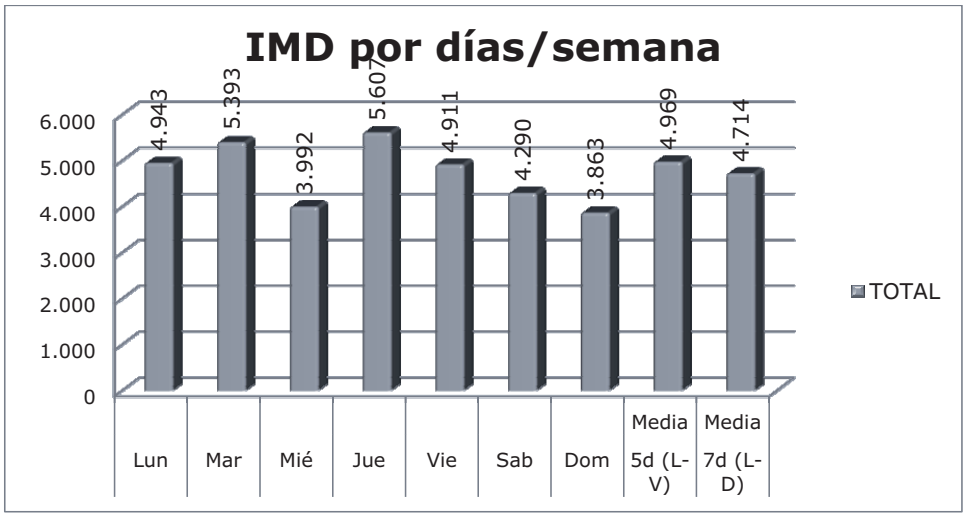

CVE-2014-9573

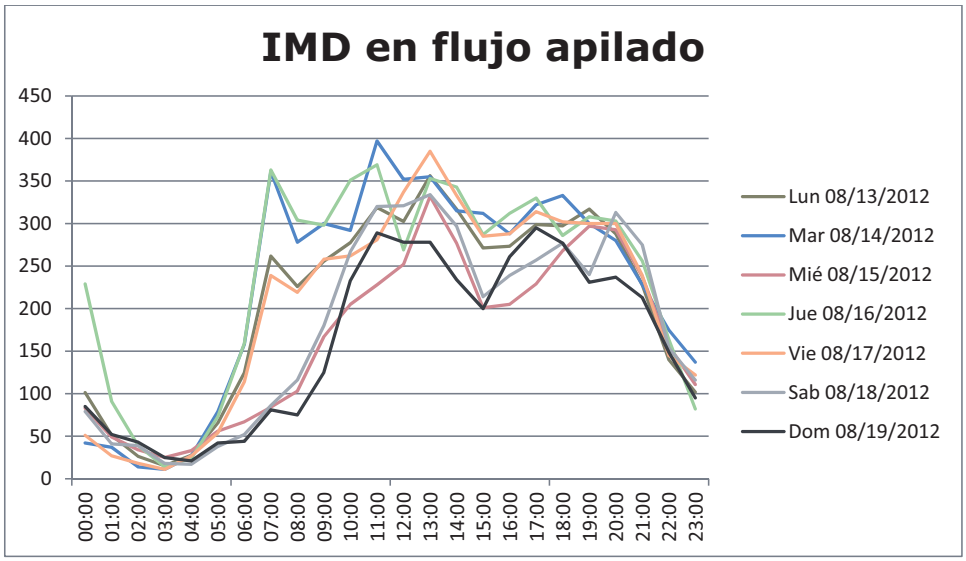
## 7.3. Volumen de vehículos – Sentido B

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 101 | 42 | 83 | 229 | 51 | 79 | 85 | 101 | 96 |
| 01:00 | 51 | 37 | 49 | 91 | 27 | 41 | 52 | 51 | 50 |
| 02:00 | 26 | 14 | 34 | 39 | 18 | 39 | 43 | 26 | 30 |
| 03:00 | 15 | 11 | 25 | 14 | 11 | 18 | 25 | 15 | 17 |
| 04:00 | 28 | 27 | 33 | 24 | 27 | 17 | 21 | 28 | 25 |
| 05:00 | 66 | 79 | 56 | 73 | 54 | 38 | 42 | 66 | 58 |
| 06:00 | 125 | 158 | 67 | 159 | 114 | 52 | 44 | 125 | 103 |
| 07:00 | 262 | 361 | 84 | 363 | 239 | 86 | 81 | 262 | 211 |
| 08:00 | 226 | 278 | 103 | 304 | 219 | 116 | 75 | 226 | 189 |
| 09:00 | 256 | 300 | 167 | 298 | 258 | 180 | 125 | 256 | 226 |
| 10:00 | 278 | 292 | 205 | 351 | 262 | 267 | 233 | 278 | 270 |
| 11:00 | 319 | 397 | 228 | 369 | 281 | 320 | 289 | 319 | 315 |
| 12:00 | 303 | 352 | 252 | 269 | 337 | 321 | 278 | 303 | 302 |
| 13:00 | 356 | 355 | 332 | 353 | 385 | 334 | 278 | 356 | 342 |
| 14:00 | 317 | 315 | 277 | 343 | 333 | 297 | 234 | 317 | 302 |
| 15:00 | 271 | 312 | 201 | 287 | 285 | 214 | 200 | 271 | 253 |
| 16:00 | 273 | 288 | 205 | 312 | 288 | 239 | 261 | 273 | 267 |
| 17:00 | 299 | 322 | 229 | 330 | 314 | 257 | 295 | 299 | 292 |
| 18:00 | 297 | 333 | 268 | 286 | 302 | 277 | 277 | 297 | 291 |
| 19:00 | 317 | 300 | 297 | 308 | 300 | 240 | 231 | 304 | 285 |
| 20:00 | 288 | 280 | 293 | 303 | 300 | 313 | 237 | 293 | 288 |
| 21:00 | 228 | 228 | 238 | 256 | 239 | 275 | 213 | 238 | 240 |
| 22:00 | 140 | 175 | 156 | 164 | 145 | 154 | 149 | 156 | 155 |
| 23:00 | 102 | 137 | 111 | 82 | 122 | 116 | 95 | 111 | 109 |
| 12h, 7-19 | 3.456 | 3.905 | 2.551 | 3.865 | 3.503 | 2.908 | 2.626 | 3.456 | 3.259 |
| 16h, 6-22 | 4.414 | 4.871 | 3.446 | 4.891 | 4.456 | 3.788 | 3.351 | 4.415 | 4.174 |
| 18h, 6-24 | 4.656 | 5.183 | 3.712 | 5.137 | 4.723 | 4.058 | 3.595 | 4.682 | 4.438 |
| 24h, 0-24 | 4.943 | 5.393 | 3.992 | 5.607 | 4.911 | 4.290 | 3.863 | 4.969 | 4.714 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 319 | 397 | 228 | 369 | 281 | 320 | 289 | 319 | 315 |
| PM | 13:00 | 13:00 | 13:00 | 13:00 | 13:00 | 13:00 | 17:00 | 13:00 | 13:00 |
| Valor Punta | 356 | 355 | 332 | 353 | 385 | 334 | 295 | 356 | 342 |

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### 7.3.1. Gráficos de volumen de vehículos –Sentido B




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## 7.4. Clases de vehículos

### 7.4.1. Esquema de clasificación FHWA

| Ejes | Grupos | Descripción | Clase | Parámetros | Vehículo Dominante | Conjunto |
|---|---|---|---|---|---|---|
| 2 | 1 | Bicicleta o Moto | 1 | d(1)<1.7m & Ejes=2 |  | 1 (Ligero) |
| 2, 3 o 4 | 1 o 2 | Turismo, Furgoneta ligera | 2 | d(1)>=1.7m, d(1)<=3.2m & Ejes=2 |  | |
| 2, 3 o 4 | 1 | Caravana, Remolque, etc. Pick-ups y furgonetas. | 3 | grupos=3, d(1)>=2.1m, d(1)<=3.2m, d(2)>=2.1m & Ejes=3,4,5 |  | |
| 2 o 3 | 1 | Bus | 5 | d(1)>3.2m & Ejes=2 |  | 2 (Medio) |
| 2 | 1 | Camión rígido de dos ejes | 3 | Ejes=2 & grupos=1 |  | |
| 3 | 1 | Camión rígido de tres ejes | 4 | Ejes>3 & grupos=2 |  | |
| 4 | 1 | Camión articulado rígido de tres ejes | 4 | d(1)>3.2m, Ejes=3 & grupos=4 |  | 3 (Pesado) |
| 2 o 4 | 2 | Camión articulado rígido de cuatro ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes = 4 & grupos>2 |  | |
| 5 o 6 | 2 | Camión articulado rígido de cinco ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes=5 & grupos>2 |  | |
| 6 o 7 | 2 | Camión articulado rígido de seis ejes (o más) | 5 | Ejes=6 & grupos>2 o Ejes>6 & grupos=3 |  | |
| 5 | 3 | Camion con remolque | 5 | grupos=4 & Ejes>6 |  | |
| 6 | 3 | Camion con remolque | 5 | grupos>=5 & Ejes>6 |  | |
| 7 | >3 | Camión con remolque | 5 | |  | |

Clase para vehículos inclasificables: 13

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### 7.4.2. Clases de vehículos absolutos

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 185 | 7 | 128 | 44 | 2 | 5 |
| 01:00 | 111 | 3 | 85 | 23 | 0 | 0 |
| 02:00 | 70 | 2 | 46 | 22 | 0 | 0 |
| 03:00 | 41 | 2 | 29 | 10 | 0 | 0 |
| 04:00 | 44 | 0 | 34 | 9 | 1 | 0 |
| 05:00 | 79 | 1 | 71 | 6 | 0 | 1 |
| 06:00 | 146 | 3 | 121 | 18 | 0 | 4 |
| 07:00 | 304 | 6 | 273 | 20 | 4 | 0 |
| 08:00 | 335 | 6 | 268 | 58 | 3 | 0 |
| 09:00 | 429 | 9 | 342 | 68 | 9 | 1 |
| 10:00 | 519 | 19 | 398 | 94 | 7 | 1 |
| 11:00 | 632 | 25 | 493 | 102 | 12 | 2 |
| 12:00 | 646 | 30 | 493 | 107 | 15 | 2 |
| 13:00 | 706 | 32 | 566 | 89 | 18 | 1 |
| 14:00 | 652 | 24 | 497 | 123 | 8 | 0 |
| 15:00 | 531 | 16 | 423 | 83 | 9 | 0 |
| 16:00 | 551 | 22 | 429 | 85 | 12 | 3 |
| 17:00 | 621 | 30 | 485 | 91 | 13 | 1 |
| 18:00 | 634 | 32 | 495 | 90 | 17 | 0 |
| 19:00 | 628 | 28 | 497 | 86 | 14 | 3 |
| 20:00 | 600 | 21 | 488 | 73 | 15 | 3 |
| 21:00 | 560 | 15 | 425 | 102 | 17 | 1 |
| 22:00 | 405 | 11 | 300 | 77 | 11 | 7 |
| 23:00 | 251 | 8 | 180 | 52 | 3 | 8 |
| Totales | | | | | | |
| 12H,7-19 | 6.560 | 249 | 5.163 | 1.011 | 126 | 10 |
| 16H,6-22 | 8.494 | 316 | 6.695 | 1.290 | 173 | 20 |
| 18H,6-24 | 9.150 | 335 | 7.174 | 1.420 | 186 | 34 |
| 24H,0-24 | 9.679 | 350 | 7.567 | 1.534 | 189 | 40 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 632 | 25 | 493 | 102 | 12 | 5 |

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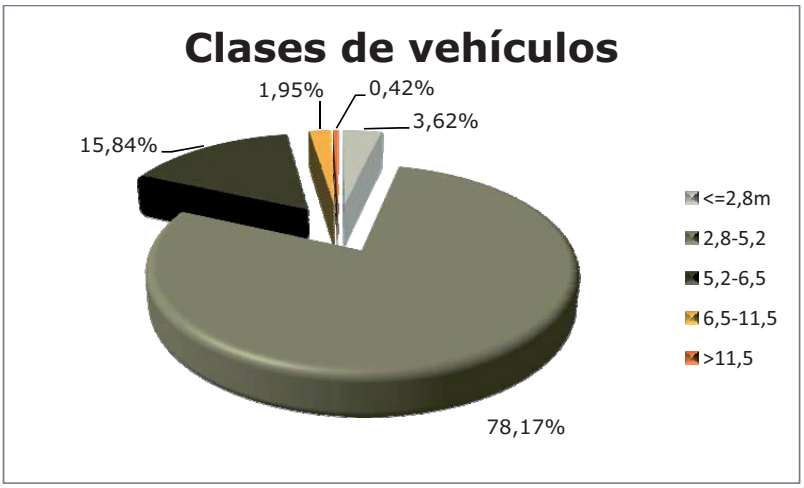
### 7.4.3. Clases de vehículos porcentuales

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 185 | 3,54% | 69,03% | 23,89% | 0,88% | 2,65% |
| 01:00 | 111 | 2,47% | 76,54% | 20,99% | 0,00% | 0,00% |
| 02:00 | 70 | 3,45% | 65,52% | 31,03% | 0,00% | 0,00% |
| 03:00 | 41 | 5,88% | 70,59% | 23,53% | 0,00% | 0,00% |
| 04:00 | 44 | 0,00% | 77,14% | 20,00% | 2,86% | 0,00% |
| 05:00 | 79 | 1,11% | 90,00% | 7,78% | 0,00% | 1,11% |
| 06:00 | 146 | 1,93% | 83,09% | 12,56% | 0,00% | 2,42% |
| 07:00 | 304 | 2,07% | 89,88% | 6,61% | 1,45% | 0,00% |
| 08:00 | 335 | 1,86% | 79,96% | 17,36% | 0,83% | 0,00% |
| 09:00 | 429 | 2,08% | 79,76% | 15,92% | 2,08% | 0,17% |
| 10:00 | 519 | 3,60% | 76,76% | 18,17% | 1,31% | 0,16% |
| 11:00 | 632 | 3,90% | 77,89% | 16,12% | 1,82% | 0,26% |
| 12:00 | 646 | 4,59% | 76,33% | 16,50% | 2,30% | 0,29% |
| 13:00 | 706 | 4,50% | 80,21% | 12,59% | 2,55% | 0,15% |
| 14:00 | 652 | 3,63% | 76,26% | 18,85% | 1,26% | 0,00% |
| 15:00 | 531 | 2,92% | 79,69% | 15,69% | 1,69% | 0,00% |
| 16:00 | 551 | 3,96% | 77,85% | 15,51% | 2,22% | 0,47% |
| 17:00 | 621 | 4,86% | 78,20% | 14,73% | 2,06% | 0,15% |
| 18:00 | 634 | 5,05% | 78,12% | 14,17% | 2,66% | 0,00% |
| 19:00 | 628 | 4,43% | 79,17% | 13,74% | 2,22% | 0,44% |
| 20:00 | 600 | 3,52% | 81,28% | 12,16% | 2,56% | 0,48% |
| 21:00 | 560 | 2,69% | 75,94% | 18,13% | 3,05% | 0,18% |
| 22:00 | 405 | 2,60% | 73,97% | 19,09% | 2,60% | 1,74% |
| 23:00 | 251 | 3,36% | 71,81% | 20,81% | 1,01% | 3,02% |
| Totals | | | | | | |
| 12H,7-19 | 6.560 | 3,80% | 78,71% | 15,42% | 1,92% | 0,15% |
| 16H,6-22 | 8.494 | 3,72% | 78,82% | 15,19% | 2,03% | 0,23% |
| 18H,6-24 | 9.150 | 3,66% | 78,41% | 15,52% | 2,03% | 0,38% |
| 24H,0-24 | 9.679 | 3,62% | 78,17% | 15,84% | 1,95% | 0,42% |
| | | Ligeros | | | Pesados | |
| Am | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Peak | 632 | 25 | 493 | 102 | 12 | 5 |

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### 7.4.4. Gráficos de clases de vehículos




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## 7.5. Velocidades

| | Total | 85th | Mean | Std. | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 | Bin 6 | Bin 7 | Bin 8 | Bin 9 | Bin 10 | Bin 11 | Bin 12 | Bin 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Vol. | %ile | Ave. | Dev. | <6Kph | 6-<11 | 11-<16 | 16-<21 | 21-<26 | 26-<31 | 31-<36 | 36-<41 | 41-<46 | 46-<51 | 51-<56 | 56-<61 | =>61 |
| 00:00 | 185 | 51,6 | 41,8 | 9,5 | 0 | 0 | 2 | 0 | 5 | 11 | 29 | 47 | 31 | 28 | 20 | 5 | 7 |
| 01:00 | 111 | 54,5 | 45,8 | 8,5 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 30 | 25 | 23 | 12 | 4 | 10 |
| 02:00 | 70 | 54,2 | 45,1 | 8,5 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 10 | 22 | 7 | 12 | 5 | 2 |
| 03:00 | 41 | 50,3 | 46,4 | 6,5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 14 | 17 | 2 | 0 | 2 |
| 04:00 | 44 | 57,3 | 45,8 | 9,0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 14 | 7 | 7 | 2 | 6 | 2 |
| 05:00 | 79 | 51,0 | 43,6 | 8,6 | 0 | 0 | 1 | 0 | 0 | 4 | 5 | 18 | 24 | 14 | 5 | 4 | 3 |
| 06:00 | 146 | 50,4 | 42,8 | 7,9 | 0 | 0 | 0 | 0 | 1 | 6 | 15 | 44 | 38 | 23 | 12 | 3 | 5 |
| 07:00 | 304 | 47,1 | 39,8 | 7,0 | 0 | 0 | 0 | 0 | 3 | 16 | 78 | 89 | 63 | 36 | 12 | 5 | 1 |
| 08:00 | 335 | 48,1 | 40,7 | 7,4 | 0 | 0 | 0 | 0 | 1 | 18 | 73 | 98 | 78 | 39 | 15 | 8 | 5 |
| 09:00 | 429 | 49,5 | 41,7 | 7,8 | 0 | 0 | 0 | 1 | 4 | 19 | 70 | 123 | 101 | 69 | 23 | 13 | 8 |
| 10:00 | 519 | 49,3 | 41,5 | 7,6 | 0 | 0 | 0 | 2 | 6 | 18 | 86 | 159 | 111 | 91 | 26 | 14 | 7 |
| 11:00 | 632 | 46,1 | 39,4 | 7,1 | 0 | 0 | 0 | 4 | 4 | 43 | 153 | 192 | 140 | 67 | 18 | 5 | 7 |
| 12:00 | 646 | 48,8 | 40,5 | 7,7 | 0 | 0 | 0 | 0 | 6 | 40 | 147 | 190 | 119 | 83 | 40 | 15 | 6 |
| 13:00 | 706 | 47,0 | 39,6 | 7,3 | 0 | 0 | 0 | 2 | 2 | 57 | 166 | 216 | 140 | 80 | 26 | 7 | 8 |
| 14:00 | 652 | 49,7 | 41,4 | 7,9 | 0 | 0 | 0 | 1 | 4 | 42 | 124 | 158 | 158 | 91 | 48 | 16 | 10 |
| 15:00 | 531 | 49,8 | 41,5 | 7,4 | 0 | 0 | 0 | 1 | 2 | 18 | 108 | 147 | 118 | 76 | 48 | 10 | 4 |
| 16:00 | 551 | 49,5 | 40,8 | 8,2 | 0 | 0 | 0 | 0 | 8 | 29 | 127 | 155 | 99 | 71 | 37 | 12 | 13 |
| 17:00 | 621 | 47,5 | 39,9 | 7,3 | 0 | 0 | 0 | 2 | 3 | 48 | 136 | 182 | 133 | 83 | 22 | 5 | 7 |
| 18:00 | 634 | 46,0 | 38,7 | 7,4 | 0 | 0 | 1 | 3 | 14 | 53 | 171 | 172 | 124 | 63 | 25 | 4 | 4 |
| 19:00 | 628 | 44,6 | 38,1 | 6,7 | 0 | 0 | 0 | 3 | 12 | 50 | 178 | 215 | 103 | 44 | 15 | 6 | 2 |
| 20:00 | 600 | 44,0 | 37,3 | 6,4 | 0 | 0 | 0 | 3 | 10 | 69 | 182 | 192 | 89 | 43 | 10 | 2 | 0 |
| 21:00 | 560 | 46,5 | 39,6 | 7,3 | 0 | 0 | 0 | 1 | 9 | 24 | 146 | 183 | 108 | 50 | 23 | 8 | 8 |
| 22:00 | 405 | 48,7 | 40,7 | 8,4 | 0 | 1 | 2 | 4 | 5 | 21 | 74 | 112 | 98 | 53 | 17 | 14 | 6 |
| 23:00 | 251 | 51,4 | 42,2 | 8,8 | 0 | 0 | 1 | 1 | 3 | 13 | 43 | 64 | 50 | 38 | 21 | 12 | 7 |
| Totales | | | | | | | | | | | | | | | | | |
| 12H,7-19 | 6560 | 49,8 | 41,7 | 8,2 | 0 | 0 | 1 | 15 | 55 | 400 | 1439 | 1880 | 1384 | 850 | 340 | 114 | 82 |
| 16H,6-22 | 8494 | 49,8 | 41,7 | 8,2 | 0 | 0 | 1 | 22 | 87 | 549 | 1960 | 2514 | 1721 | 1010 | 400 | 133 | 96 |
| 18H,6-24 | 9150 | 49,8 | 41,7 | 8,2 | 0 | 1 | 3 | 26 | 95 | 583 | 2077 | 2690 | 1869 | 1101 | 437 | 159 | 109 |
| 24H,0-24 | 9679 | 49,8 | 41,5 | 8,2 | 0 | 1 | 6 | 26 | 100 | 601 | 2134 | 2812 | 1992 | 1197 | 492 | 184 | 135 |
| AM | 11:00 | 04:00 | 03:00 | 00:00 | 11:00 | 11:00 | 11:00 | 11:00 | 10:00 | 09:00 | 09:00 | 11:00 | 11:00 | 10:00 | 10:00 | 10:00 | 11:00 |
| Valor Punta | 632 | 57,3 | 46,4 | 9,5 | 0 | 0 | 2 | 4 | 6 | 43 | 153 | 192 | 140 | 91 | 26 | 14 | 10 |
| PM | 23:00 | 23:00 | 23:00 | 23:00 | 23:00 | 22:00 | 22:00 | 22:00 | 18:00 | 20:00 | 20:00 | 19:00 | 14:00 | 14:00 | 15:00 | 14:00 | 16:00 |
| Valor Punta | 706 | 51,4 | 42,2 | 8,8 | 0 | 1 | 2 | 4 | 14 | 69 | 182 | 216 | 158 | 91 | 48 | 16 | 13 |

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## 8. Datos del aforo 02

**Duración de los Aforos:**
00:00 lunes, 13 de septiembre 2012 => 23:00 domingo, 19 de septiembre 2012
**Identificador:**
Vectio TN-02 (Tubo Neumático)
**Tipo de Datos:**
Sensores de Ejes - En Pares (Clase, Velocidad, Recuento)
**Clases Incluidas:**
1, 2, 3, 4, 5
**Esquema:**
Clasificación Vehicular (FHWA)
**Intervalo de Velocidades:**
10 - 200 km/h.
**Sentido de Circulación:**
1: A-B = Ascendente (Salida de Castro Urdiales)
2: B-A = Descendente (Entrada a Castro Urdiales)
**Separación:**
Todos - (Intervalo Vehicular)
**Unidades:**
Métrico (metro, kilómetro, m/s, km/h, kg, Tonelada Métrica (kg))
**Localización del aforador:**
N-634 (Paseo Paraíso)
**Localización geográfica:**
N 43°22'08.34" O 3°12'07.06"
**Imagen**

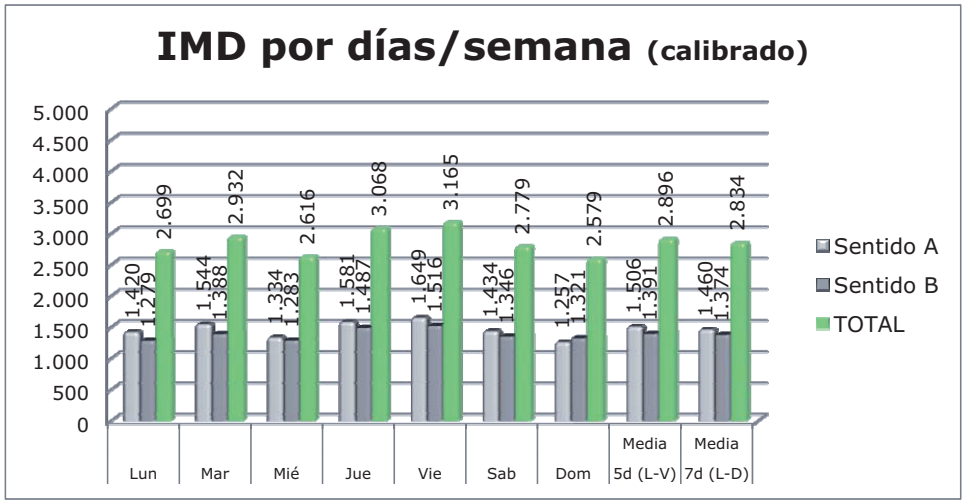
CVE-2014-9573

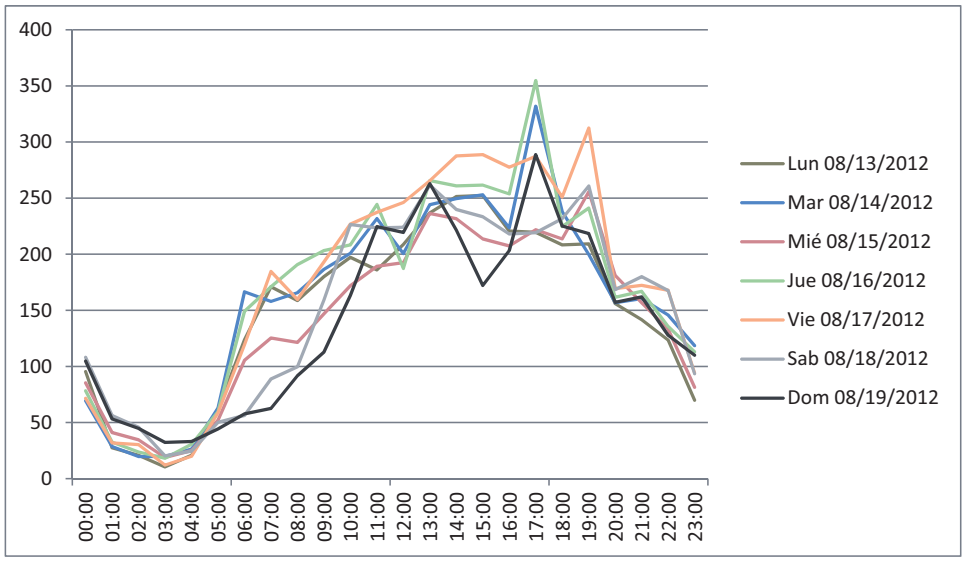
## 8.1. Volumen de vehículos – Total

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 95 | 69 | 85 | 78 | 72 | 108 | 105 | 80 | 88 |
| 01:00 | 27 | 29 | 41 | 33 | 32 | 56 | 53 | 32 | 39 |
| 02:00 | 21 | 20 | 35 | 24 | 30 | 46 | 45 | 26 | 31 |
| 03:00 | 10 | 20 | 19 | 18 | 12 | 20 | 32 | 16 | 19 |
| 04:00 | 21 | 26 | 25 | 31 | 20 | 25 | 33 | 25 | 26 |
| 05:00 | 62 | 63 | 52 | 60 | 59 | 50 | 44 | 59 | 56 |
| 06:00 | 124 | 167 | 105 | 149 | 119 | 56 | 58 | 133 | 111 |
| 07:00 | 171 | 158 | 125 | 171 | 185 | 89 | 63 | 162 | 137 |
| 08:00 | 159 | 166 | 121 | 191 | 160 | 100 | 92 | 159 | 141 |
| 09:00 | 180 | 186 | 147 | 203 | 193 | 159 | 113 | 182 | 169 |
| 10:00 | 197 | 201 | 172 | 208 | 227 | 227 | 163 | 201 | 199 |
| 11:00 | 186 | 232 | 189 | 244 | 237 | 223 | 225 | 218 | 220 |
| 12:00 | 209 | 201 | 193 | 187 | 246 | 224 | 219 | 207 | 211 |
| 13:00 | 237 | 244 | 236 | 266 | 266 | 262 | 263 | 250 | 253 |
| 14:00 | 251 | 250 | 232 | 261 | 288 | 240 | 222 | 256 | 249 |
| 15:00 | 252 | 253 | 214 | 262 | 289 | 233 | 172 | 254 | 239 |
| 16:00 | 221 | 224 | 207 | 254 | 278 | 218 | 203 | 237 | 229 |
| 17:00 | 220 | 332 | 222 | 355 | 287 | 219 | 289 | 283 | 275 |
| 18:00 | 208 | 238 | 214 | 225 | 251 | 232 | 225 | 227 | 227 |
| 19:00 | 209 | 200 | 256 | 241 | 312 | 261 | 218 | 244 | 242 |
| 20:00 | 156 | 157 | 181 | 162 | 169 | 168 | 157 | 165 | 164 |
| 21:00 | 142 | 160 | 157 | 167 | 172 | 180 | 162 | 160 | 163 |
| 22:00 | 124 | 146 | 133 | 136 | 168 | 168 | 128 | 141 | 143 |
| 23:00 | 70 | 119 | 81 | 113 | 94 | 93 | 110 | 95 | 97 |
| 12h, 7-19 | 2.491 | 2.683 | 2.272 | 2.826 | 2.905 | 2.425 | 2.248 | 2.635 | 2.550 |
| 16h, 6-22 | 3.121 | 3.367 | 2.971 | 3.545 | 3.678 | 3.091 | 2.843 | 3.337 | 3.231 |
| 18h, 6-24 | 3.315 | 3.631 | 3.185 | 3.794 | 3.940 | 3.352 | 3.081 | 3.573 | 3.471 |
| 24h, 0-24 | 3.552 | 3.858 | 3.442 | 4.037 | 4.165 | 3.657 | 3.393 | 3.811 | 3.729 |
| AM | 10:00 | 11:00 | 11:00 | 11:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 197 | 232 | 189 | 244 | 237 | 227 | 225 | 218 | 220 |
| PM | 15:00 | 17:00 | 19:00 | 17:00 | 19:00 | 13:00 | 17:00 | 17:00 | 17:00 |
| Valor Punta | 252 | 332 | 256 | 355 | 312 | 262 | 289 | 283 | 275 |

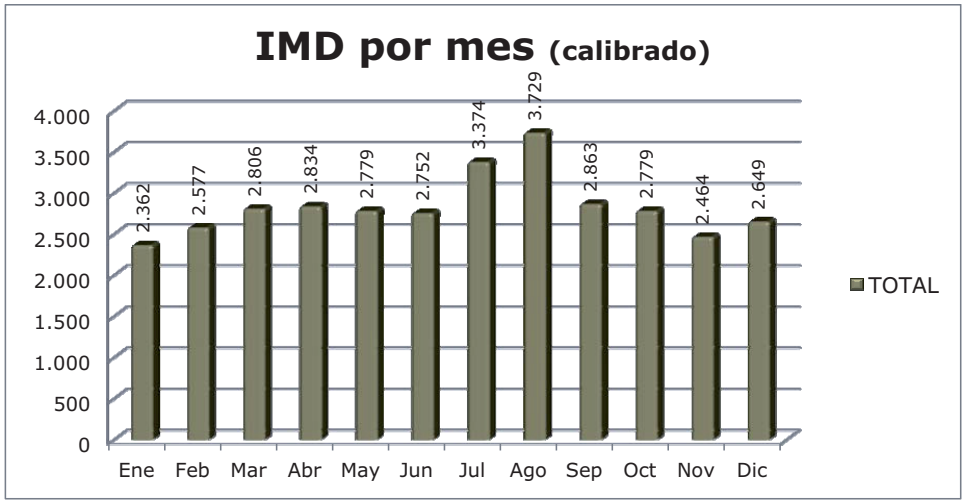
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### 8.1.1. Gráficos de volumen de vehículos –Total




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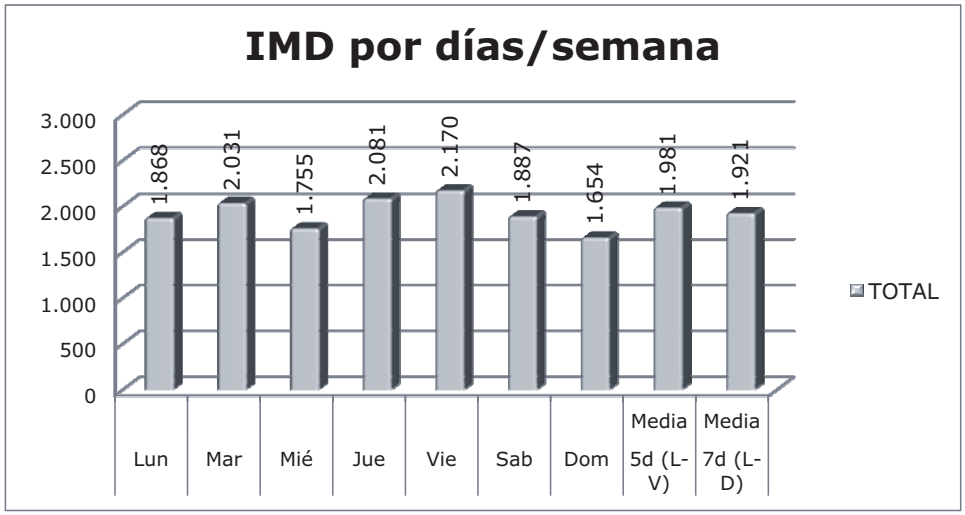

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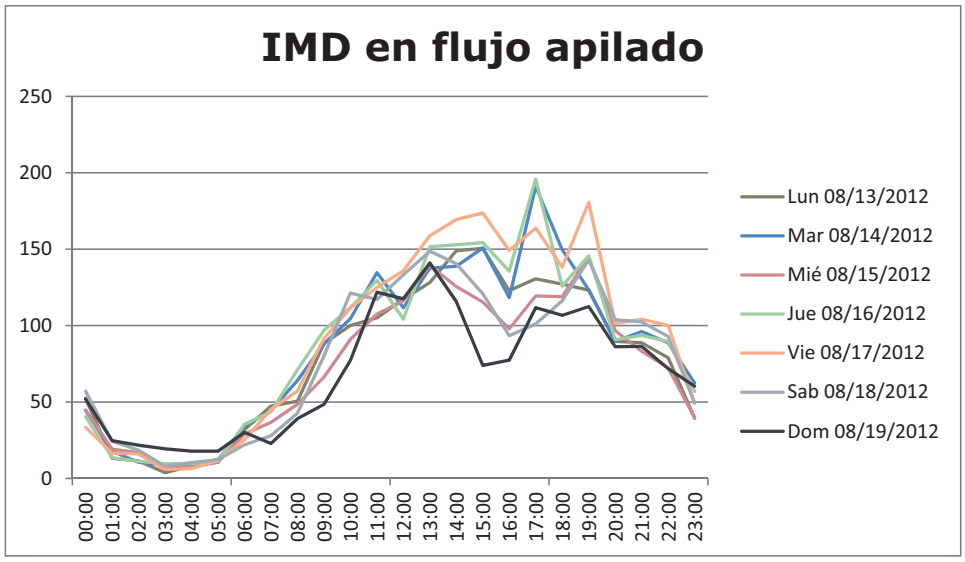
## 8.2. Volumen de vehículos – Sentido A

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 52 | 44 | 45 | 40 | 33 | 57 | 52 | 43 | 46 |
| 01:00 | 13 | 18 | 19 | 14 | 17 | 24 | 25 | 16 | 18 |
| 02:00 | 11 | 11 | 17 | 11 | 16 | 19 | 22 | 13 | 15 |
| 03:00 | 4 | 9 | 7 | 10 | 6 | 8 | 19 | 7 | 9 |
| 04:00 | 8 | 9 | 7 | 10 | 6 | 10 | 18 | 8 | 10 |
| 05:00 | 11 | 12 | 11 | 11 | 12 | 12 | 18 | 11 | 12 |
| 06:00 | 32 | 34 | 29 | 35 | 25 | 22 | 30 | 31 | 30 |
| 07:00 | 47 | 44 | 37 | 44 | 45 | 28 | 23 | 43 | 38 |
| 08:00 | 51 | 64 | 49 | 71 | 57 | 43 | 39 | 58 | 53 |
| 09:00 | 88 | 88 | 66 | 97 | 91 | 80 | 48 | 86 | 80 |
| 10:00 | 100 | 105 | 91 | 112 | 111 | 121 | 77 | 104 | 102 |
| 11:00 | 105 | 135 | 107 | 130 | 125 | 117 | 122 | 120 | 120 |
| 12:00 | 117 | 112 | 116 | 104 | 136 | 133 | 118 | 117 | 119 |
| 13:00 | 128 | 138 | 139 | 152 | 159 | 149 | 141 | 143 | 144 |
| 14:00 | 149 | 139 | 126 | 153 | 169 | 140 | 116 | 147 | 142 |
| 15:00 | 151 | 151 | 115 | 154 | 174 | 121 | 74 | 149 | 134 |
| 16:00 | 123 | 118 | 98 | 136 | 149 | 93 | 77 | 125 | 114 |
| 17:00 | 131 | 191 | 119 | 196 | 164 | 101 | 112 | 160 | 145 |
| 18:00 | 127 | 150 | 119 | 126 | 138 | 116 | 107 | 132 | 126 |
| 19:00 | 123 | 123 | 145 | 146 | 181 | 143 | 113 | 144 | 139 |
| 20:00 | 90 | 90 | 97 | 91 | 101 | 104 | 86 | 94 | 94 |
| 21:00 | 89 | 96 | 83 | 94 | 104 | 102 | 86 | 93 | 94 |
| 22:00 | 79 | 89 | 72 | 90 | 100 | 93 | 72 | 86 | 85 |
| 23:00 | 39 | 63 | 40 | 57 | 49 | 49 | 60 | 50 | 51 |
| 12h, 7-19 | 1.317 | 1.434 | 1.183 | 1.473 | 1.519 | 1.243 | 1.053 | 1.385 | 1.317 |
| 16h, 6-22 | 1.650 | 1.777 | 1.536 | 1.838 | 1.931 | 1.614 | 1.369 | 1.747 | 1.674 |
| 18h, 6-24 | 1.769 | 1.928 | 1.648 | 1.985 | 2.080 | 1.756 | 1.501 | 1.882 | 1.810 |
| 24h, 0-24 | 1.868 | 2.031 | 1.755 | 2.081 | 2.170 | 1.887 | 1.654 | 1.981 | 1.921 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 105 | 135 | 107 | 130 | 125 | 121 | 122 | 120 | 120 |
| PM | 15:00 | 17:00 | 19:00 | 17:00 | 19:00 | 13:00 | 13:00 | 17:00 | 17:00 |
| Valor Punta | 151 | 191 | 145 | 196 | 181 | 149 | 141 | 160 | 145 |

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### 8.2.1. Gráficos de volumen de vehículos –Sentido A



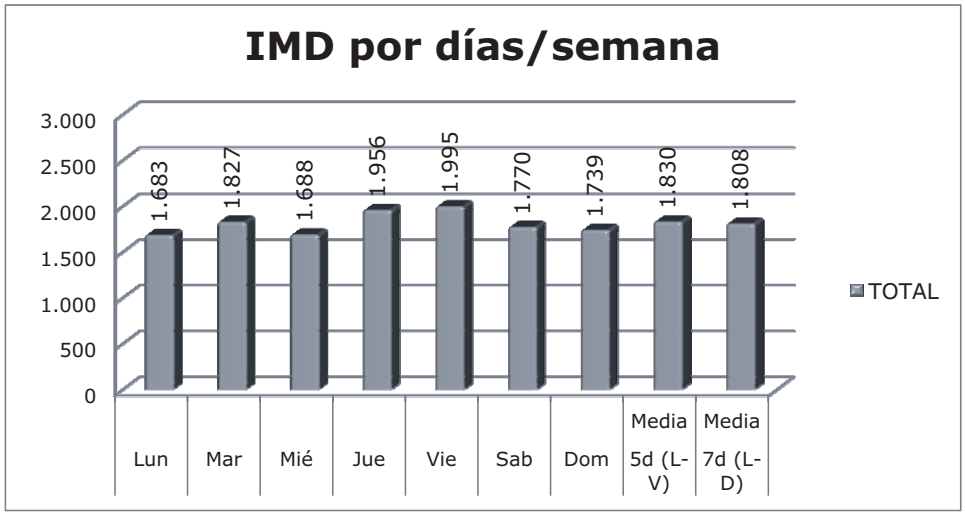

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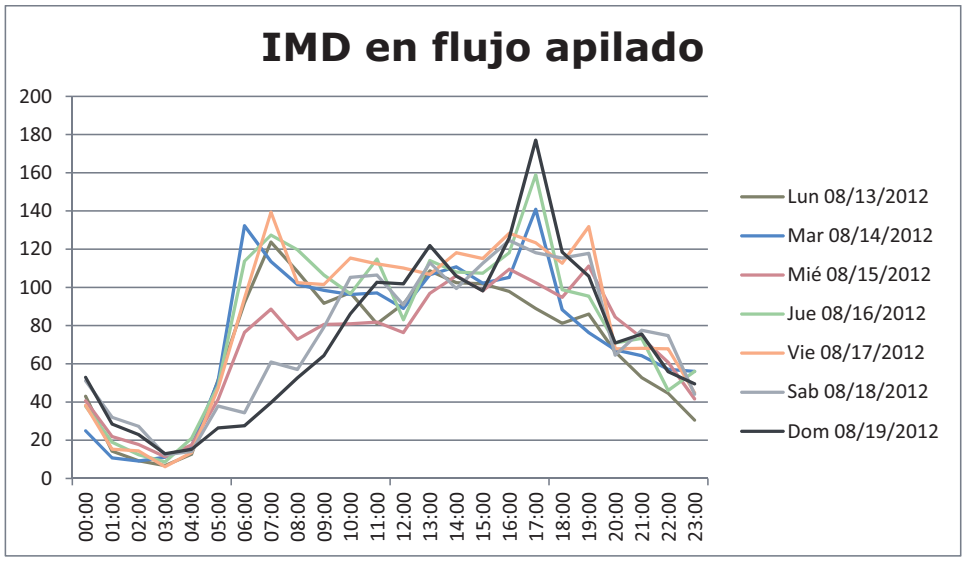
## 8.3. Volumen de vehículos – Sentido B

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 43 | 25 | 41 | 38 | 38 | 51 | 53 | 37 | 41 |
| 01:00 | 14 | 11 | 22 | 19 | 15 | 32 | 28 | 16 | 20 |
| 02:00 | 9 | 9 | 18 | 12 | 14 | 27 | 23 | 13 | 16 |
| 03:00 | 7 | 11 | 11 | 9 | 6 | 12 | 13 | 9 | 10 |
| 04:00 | 13 | 17 | 18 | 21 | 14 | 14 | 15 | 16 | 16 |
| 05:00 | 51 | 51 | 41 | 48 | 47 | 38 | 26 | 48 | 43 |
| 06:00 | 92 | 132 | 76 | 114 | 94 | 34 | 28 | 102 | 81 |
| 07:00 | 124 | 114 | 89 | 127 | 139 | 61 | 40 | 119 | 99 |
| 08:00 | 108 | 102 | 73 | 120 | 102 | 57 | 53 | 101 | 88 |
| 09:00 | 92 | 98 | 81 | 106 | 102 | 79 | 64 | 96 | 89 |
| 10:00 | 97 | 96 | 81 | 97 | 115 | 105 | 86 | 97 | 97 |
| 11:00 | 81 | 97 | 82 | 115 | 112 | 106 | 103 | 97 | 99 |
| 12:00 | 91 | 89 | 76 | 83 | 110 | 91 | 102 | 90 | 92 |
| 13:00 | 109 | 107 | 97 | 114 | 107 | 113 | 122 | 107 | 110 |
| 14:00 | 102 | 111 | 106 | 108 | 118 | 99 | 106 | 109 | 107 |
| 15:00 | 102 | 102 | 98 | 107 | 115 | 113 | 98 | 105 | 105 |
| 16:00 | 98 | 105 | 110 | 118 | 128 | 125 | 126 | 112 | 116 |
| 17:00 | 89 | 141 | 102 | 159 | 123 | 118 | 177 | 123 | 130 |
| 18:00 | 81 | 88 | 95 | 99 | 113 | 115 | 118 | 95 | 101 |
| 19:00 | 86 | 76 | 111 | 95 | 132 | 118 | 106 | 100 | 103 |
| 20:00 | 66 | 67 | 84 | 71 | 68 | 65 | 71 | 71 | 70 |
| 21:00 | 53 | 64 | 74 | 73 | 68 | 78 | 76 | 66 | 69 |
| 22:00 | 45 | 57 | 61 | 46 | 68 | 75 | 56 | 55 | 58 |
| 23:00 | 31 | 56 | 42 | 56 | 45 | 44 | 50 | 46 | 46 |
| 12h, 7-19 | 1.174 | 1.250 | 1.089 | 1.353 | 1.386 | 1.183 | 1.194 | 1.250 | 1.233 |
| 16h, 6-22 | 1.471 | 1.590 | 1.435 | 1.707 | 1.747 | 1.477 | 1.474 | 1.590 | 1.557 |
| 18h, 6-24 | 1.546 | 1.703 | 1.537 | 1.809 | 1.860 | 1.596 | 1.580 | 1.691 | 1.662 |
| 24h, 0-24 | 1.683 | 1.827 | 1.688 | 1.956 | 1.995 | 1.770 | 1.739 | 1.830 | 1.808 |
| AM | 11:00 | 11:00 | 07:00 | 07:00 | 07:00 | 11:00 | 11:00 | 07:00 | 07:00 |
| Valor Punta | 124 | 132 | 89 | 127 | 139 | 106 | 103 | 119 | 99 |
| PM | 13:00 | 17:00 | 19:00 | 17:00 | 19:00 | 16:00 | 17:00 | 17:00 | 17:00 |
| Valor Punta | 109 | 141 | 111 | 159 | 132 | 125 | 177 | 123 | 130 |

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### 8.3.1. Gráficos de volumen de vehículos –Sentido B




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## 8.4. Clases de vehículos

### 8.4.1. Esquema de clasificación FHWA

| Ejes | Grupos | Descripción | Clase | Parámetros | Vehículo Dominante | Conjunto |
|---|---|---|---|---|---|---|
| 2 | 1 | Bicicleta o Moto | 1 | d(1)<1.7m & Ejes=2 |  | 1 (Ligero) |
| 2, 3 o 4 | 1 o 2 | Turismo, Furgoneta ligera | 2 | d(1)>=1.7m, d(1)<=3.2m & Ejes=2 |  | |
| 2, 3 o 4 | 1 | Caravana, Remolque, etc. Pick-ups y furgonetas. | 3 | grupos=3, d(1)>=2.1m, d(1)<=3.2m, d(2)>=2.1m & Ejes=3,4,5 |  | |
| 2 o 3 | 1 | Bus | 5 | d(1)>3.2m & Ejes=2 |  | 2 (Medio) |
| 2 | 1 | Camión rígido de dos ejes | 3 | Ejes=2 & grupos=1 |  | |
| 3 | 1 | Camión rígido de tres ejes | 4 | Ejes>3 & grupos=2 |  | |
| 4 | 1 | Camión articulado rígido de tres ejes | 4 | d(1)>3.2m, Ejes=3 & grupos=4 |  | 3 (Pesado) |
| 2 o 4 | 2 | Camión articulado rígido de cuatro ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes = 4 & grupos>2 |  | |
| 5 o 6 | 2 | Camión articulado rígido de cinco ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes=5 & grupos>2 |  | |
| 6 o 7 | 2 | Camión articulado rígido de seis ejes (o más) | 5 | Ejes=6 & grupos>2 o Ejes>6 & grupos=3 |  | |
| 5 | 3 | Camion con remolque | 5 | grupos=4 & Ejes>6 |  | |
| 6 | 3 | Camion con remolque | 5 | grupos>=5 & Ejes>6 |  | |
| 7 | >3 | Camión con remolque | 5 | |  | |

Clase para vehículos inclasificables: 13

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### 8.4.2. Clases de vehículos absolutos

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 88 | 2 | 48 | 33 | 2 | 2 |
| 01:00 | 39 | 1 | 21 | 16 | 0 | 0 |
| 02:00 | 31 | 1 | 17 | 13 | 0 | 0 |
| 03:00 | 19 | 1 | 10 | 9 | 0 | 0 |
| 04:00 | 26 | 0 | 11 | 15 | 0 | 0 |
| 05:00 | 56 | 1 | 15 | 38 | 1 | 0 |
| 06:00 | 111 | 2 | 35 | 72 | 1 | 1 |
| 07:00 | 137 | 3 | 52 | 79 | 2 | 1 |
| 08:00 | 141 | 5 | 65 | 68 | 2 | 0 |
| 09:00 | 169 | 5 | 94 | 66 | 3 | 0 |
| 10:00 | 199 | 9 | 119 | 65 | 5 | 1 |
| 11:00 | 220 | 10 | 138 | 65 | 6 | 1 |
| 12:00 | 211 | 12 | 135 | 57 | 6 | 2 |
| 13:00 | 253 | 13 | 163 | 69 | 8 | 1 |
| 14:00 | 249 | 12 | 158 | 72 | 7 | 1 |
| 15:00 | 239 | 8 | 151 | 75 | 6 | 0 |
| 16:00 | 229 | 8 | 131 | 84 | 6 | 0 |
| 17:00 | 275 | 11 | 169 | 88 | 7 | 1 |
| 18:00 | 227 | 10 | 144 | 66 | 6 | 1 |
| 19:00 | 242 | 13 | 158 | 63 | 8 | 1 |
| 20:00 | 164 | 9 | 109 | 41 | 5 | 0 |
| 21:00 | 163 | 8 | 106 | 45 | 3 | 0 |
| 22:00 | 143 | 4 | 93 | 43 | 3 | 1 |
| 23:00 | 97 | 3 | 54 | 37 | 2 | 2 |
| Totales | | | | | | |
| 12H,7-19 | 2.550 | 106 | 1.519 | 854 | 64 | 7 |
| 16H,6-22 | 3.231 | 139 | 1.927 | 1.075 | 81 | 10 |
| 18H,6-24 | 3.471 | 146 | 2.073 | 1.155 | 85 | 12 |
| 24H,0-24 | 3.729 | 152 | 2.195 | 1.279 | 88 | 15 |
| AM | 11:00 | 11:00 | 11:00 | 07:00 | 11:00 | 00:00 |
| Valor Punta | 220 | 10 | 138 | 79 | 6 | 2 |
| PM | 17:00 | 13:00 | 17:00 | 17:00 | 19:00 | 23:00 |
| Valor Punta | 275 | 13 | 169 | 88 | 8 | 2 |

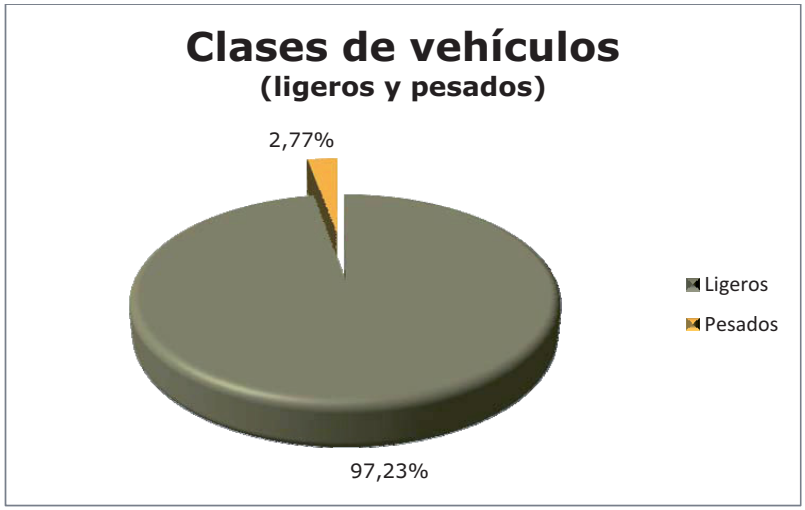
CVE-2014-9573

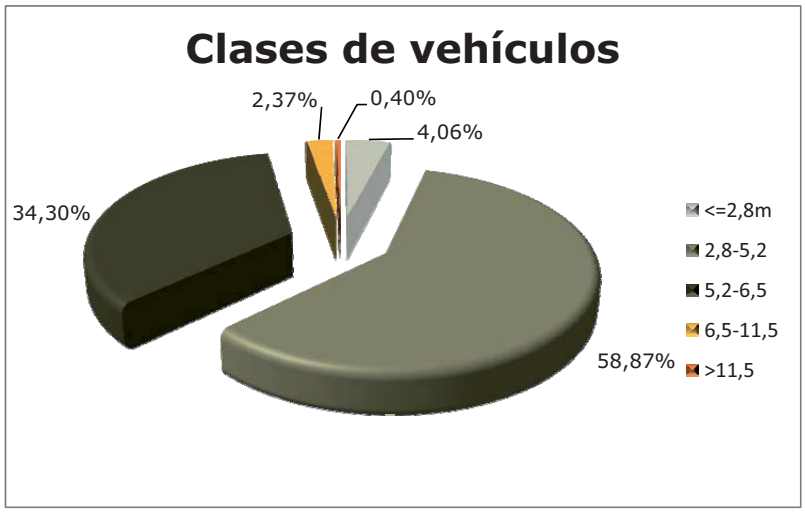
### 8.4.3. Clases de vehículos porcentuales

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 88 | 2,05% | 55,23% | 38,18% | 2,37% | 2,17% |
| 01:00 | 39 | 2,78% | 53,44% | 42,30% | 0,97% | 0,51% |
| 02:00 | 31 | 2,89% | 53,89% | 42,34% | 0,00% | 0,87% |
| 03:00 | 19 | 3,03% | 51,52% | 45,45% | 0,00% | 0,00% |
| 04:00 | 26 | 1,16% | 41,86% | 56,98% | 0,00% | 0,00% |
| 05:00 | 56 | 2,30% | 27,64% | 68,53% | 1,00% | 0,52% |
| 06:00 | 111 | 2,04% | 31,60% | 64,56% | 1,18% | 0,62% |
| 07:00 | 137 | 2,35% | 37,98% | 57,61% | 1,67% | 0,39% |
| 08:00 | 141 | 3,50% | 46,25% | 48,38% | 1,52% | 0,35% |
| 09:00 | 169 | 2,89% | 55,67% | 39,37% | 1,92% | 0,15% |
| 10:00 | 199 | 4,56% | 59,91% | 32,66% | 2,60% | 0,26% |
| 11:00 | 220 | 4,73% | 62,86% | 29,62% | 2,54% | 0,25% |
| 12:00 | 211 | 5,47% | 63,99% | 26,80% | 3,01% | 0,73% |
| 13:00 | 253 | 4,98% | 64,45% | 27,13% | 3,23% | 0,21% |
| 14:00 | 249 | 4,63% | 63,41% | 29,11% | 2,65% | 0,21% |
| 15:00 | 239 | 3,30% | 62,98% | 31,25% | 2,36% | 0,11% |
| 16:00 | 229 | 3,61% | 57,10% | 36,70% | 2,49% | 0,11% |
| 17:00 | 275 | 4,11% | 61,37% | 31,89% | 2,42% | 0,22% |
| 18:00 | 227 | 4,59% | 63,36% | 29,02% | 2,70% | 0,34% |
| 19:00 | 242 | 5,41% | 64,96% | 25,91% | 3,14% | 0,59% |
| 20:00 | 164 | 5,76% | 66,08% | 24,86% | 3,03% | 0,28% |
| 21:00 | 163 | 4,76% | 65,15% | 27,88% | 1,95% | 0,25% |
| 22:00 | 143 | 3,08% | 64,77% | 29,87% | 1,84% | 0,44% |
| 23:00 | 97 | 2,59% | 55,69% | 37,81% | 2,03% | 1,88% |
| Totals | | | | | | |
| 12H,7-19 | 2.550 | 4,16% | 59,58% | 33,50% | 2,50% | 0,27% |
| 16H,6-22 | 3.231 | 4,29% | 59,63% | 33,27% | 2,50% | 0,30% |
| 18H,6-24 | 3.471 | 4,20% | 59,73% | 33,26% | 2,46% | 0,35% |
| 24H,0-24 | 3.729 | 4,06% | 58,87% | 34,30% | 2,37% | 0,40% |
| | | | Ligeros | | Pesados | |
| Am | 11:00 | 11:00 | 11:00 | 07:00 | 11:00 | 00:00 |
| Peak | 220 | 10 | 138 | 79 | 6 | 2 |
| Am | 17:00 | 13:00 | 17:00 | 17:00 | 19:00 | 23:00 |
| Peak | 275 | 13 | 169 | 88 | 8 | 2 |

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### 8.4.4. Gráficos de clases de vehículos




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## 8.5. Velocidades

| | Total | 85th | Mean | Std. | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 | Bin 6 | Bin 7 | Bin 8 | Bin 9 | Bin 10 | Bin 11 | Bin 12 | Bin 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Vol. | %ile | Ave. | Dev. | <6Kph | 6-<11 | 11-<16 | 16-<21 | 21-<26 | 26-<31 | 31-<36 | 36-<41 | 41-<46 | 46-<51 | 51-<56 | 56-<61 | =>61 |
| 00:00 | 88 | 48,8 | 41,0 | 10,0 | 0 | 0 | 0 | 0 | 0 | 3 | 17 | 25 | 17 | 12 | 7 | 4 | 2 |
| 01:00 | 39 | 50,5 | 42,9 | 9,8 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 11 | 9 | 6 | 4 | 2 | 1 |
| 02:00 | 31 | 51,4 | 43,1 | 10,3 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 9 | 6 | 5 | 4 | 2 | 1 |
| 03:00 | 19 | 52,5 | 44,0 | 10,7 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 4 | 3 | 3 | 1 | 1 |
| 04:00 | 26 | 55,2 | 46,0 | 11,1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 5 | 5 | 5 | 4 | 2 | 2 |
| 05:00 | 56 | 57,3 | 48,2 | 10,7 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 8 | 11 | 12 | 9 | 7 | 4 |
| 06:00 | 111 | 54,1 | 46,4 | 10,0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 18 | 25 | 24 | 18 | 11 | 5 |
| 07:00 | 137 | 50,4 | 43,9 | 9,0 | 0 | 0 | 0 | 0 | 1 | 2 | 13 | 28 | 37 | 30 | 17 | 7 | 3 |
| 08:00 | 141 | 50,2 | 42,8 | 9,7 | 0 | 0 | 0 | 0 | 1 | 4 | 19 | 32 | 32 | 26 | 15 | 8 | 3 |
| 09:00 | 169 | 48,4 | 41,0 | 9,5 | 0 | 0 | 0 | 0 | 2 | 9 | 34 | 36 | 38 | 25 | 16 | 6 | 3 |
| 10:00 | 199 | 45,9 | 38,4 | 9,2 | 0 | 0 | 0 | 1 | 3 | 15 | 57 | 44 | 35 | 25 | 13 | 5 | 2 |
| 11:00 | 220 | 44,5 | 37,0 | 9,1 | 0 | 0 | 0 | 1 | 6 | 25 | 68 | 47 | 34 | 24 | 10 | 4 | 2 |
| 12:00 | 211 | 44,0 | 36,3 | 9,6 | 0 | 0 | 1 | 2 | 6 | 25 | 65 | 45 | 30 | 21 | 10 | 4 | 1 |
| 13:00 | 253 | 45,2 | 37,6 | 9,4 | 0 | 0 | 0 | 1 | 4 | 24 | 75 | 63 | 37 | 27 | 13 | 7 | 3 |
| 14:00 | 249 | 46,4 | 38,7 | 9,6 | 0 | 0 | 0 | 1 | 3 | 19 | 67 | 63 | 43 | 27 | 17 | 7 | 3 |
| 15:00 | 239 | 48,7 | 40,8 | 9,7 | 0 | 0 | 0 | 0 | 1 | 9 | 53 | 68 | 44 | 30 | 17 | 11 | 5 |
| 16:00 | 229 | 49,4 | 41,5 | 9,8 | 0 | 0 | 0 | 0 | 2 | 8 | 47 | 59 | 43 | 34 | 22 | 10 | 5 |
| 17:00 | 275 | 47,2 | 39,7 | 9,6 | 0 | 0 | 0 | 0 | 3 | 17 | 67 | 70 | 50 | 35 | 19 | 9 | 5 |
| 18:00 | 227 | 45,5 | 38,0 | 9,5 | 0 | 0 | 0 | 1 | 5 | 19 | 65 | 54 | 38 | 25 | 13 | 6 | 2 |
| 19:00 | 242 | 43,6 | 36,6 | 9,0 | 0 | 0 | 0 | 1 | 4 | 28 | 76 | 57 | 38 | 23 | 11 | 4 | 2 |
| 20:00 | 164 | 42,7 | 35,8 | 9,1 | 0 | 0 | 0 | 1 | 4 | 23 | 54 | 35 | 23 | 14 | 6 | 3 | 1 |
| 21:00 | 163 | 44,4 | 36,9 | 9,2 | 0 | 0 | 0 | 0 | 2 | 19 | 55 | 34 | 24 | 17 | 8 | 3 | 1 |
| 22:00 | 143 | 47,1 | 39,4 | 9,7 | 0 | 0 | 0 | 0 | 1 | 8 | 41 | 38 | 23 | 17 | 11 | 3 | 2 |
| 23:00 | 97 | 48,7 | 41,0 | 10,1 | 0 | 0 | 1 | 0 | 1 | 3 | 20 | 26 | 18 | 15 | 8 | 4 | 2 |
| Totales | | | | | | | | | | | | | | | | | |
| 12H,7-19 | 2550 | 50,4 | 43,9 | 9,8 | 0 | 0 | 1 | 6 | 35 | 177 | 631 | 609 | 461 | 328 | 183 | 83 | 36 |
| 16H,6-22 | 3231 | 50,2 | 42,8 | 9,8 | 0 | 0 | 1 | 8 | 46 | 248 | 825 | 752 | 572 | 405 | 226 | 104 | 44 |
| 18H,6-24 | 3471 | 49,4 | 41,5 | 9,8 | 0 | 0 | 2 | 8 | 47 | 259 | 886 | 815 | 613 | 437 | 245 | 111 | 48 |
| 24H,0-24 | 3729 | 49,4 | 41,5 | 9,8 | 0 | 0 | 2 | 8 | 47 | 265 | 923 | 878 | 664 | 479 | 275 | 128 | 60 |
| AM | 11:00 | 05:00 | 05:00 | 04:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 09:00 | 07:00 | 06:00 | 06:00 | 06:00 |
| Valor Punta | 220 | 57,3 | 48,2 | 11,1 | 0 | 0 | 0 | 1 | 6 | 25 | 68 | 47 | 38 | 30 | 18 | 11 | 5 |
| PM | 17:00 | 16:00 | 16:00 | 23:00 | 12:00 | 12:00 | 12:00 | 12:00 | 12:00 | 19:00 | 19:00 | 17:00 | 17:00 | 17:00 | 16:00 | 15:00 | 17:00 |
| Valor Punta | 275 | 49,4 | 41,5 | 10,1 | 0 | 0 | 1 | 2 | 6 | 28 | 76 | 70 | 50 | 35 | 22 | 11 | 5 |

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## 9. Datos del aforo 03

**Duración de los Aforos:**
00:00 lunes, 13 de septiembre 2012 => 23:00 domingo, 19 de septiembre 2012
**Identificador:**
Vectio RD-03 (Aforador Radar)
**Tipo de Datos:**
Sensores de Ejes - En Pares (Clase, Velocidad, Recuento)
**Clases Incluidas:**
1, 2, 3, 4, 5
**Esquema:**
Clasificación Vehicular (FHWA)
**Intervalo de Velocidades:**
10 - 200 km/h.
**Sentido de Circulación:**
1: A-B = Ascendente (Salida de Castro Urdiales)
2: B-A = Descendente (Entrada a Castro Urdiales)
**Separación:**
Todos - (Intervalo Vehicular)
**Unidades:**
Métrico (metro, kilómetro, m/s, km/h, kg, Tonelada Métrica (kg))
**Localización del aforador:**
N-634 (Paseo de Menéndez Pelayo)
**Localización geográfica:**
N 43°22'30.55" O 3°12'52.42"
**Imagen**



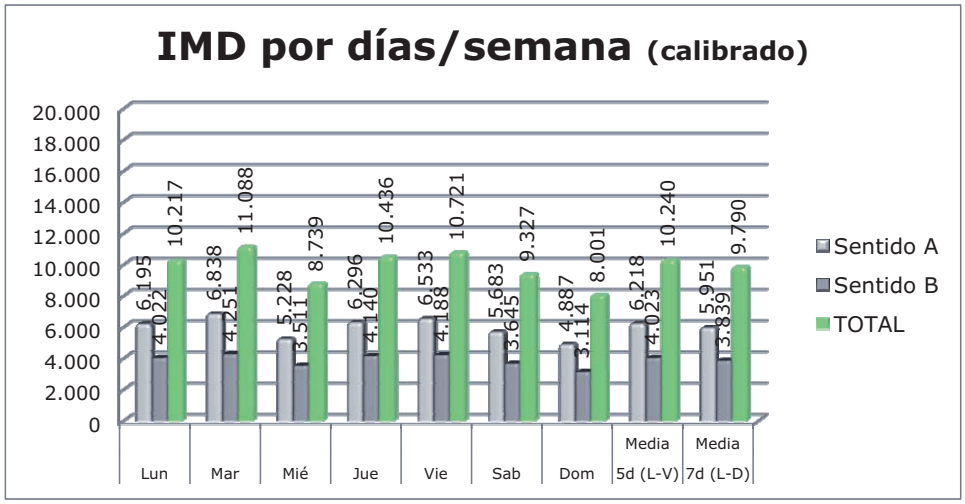
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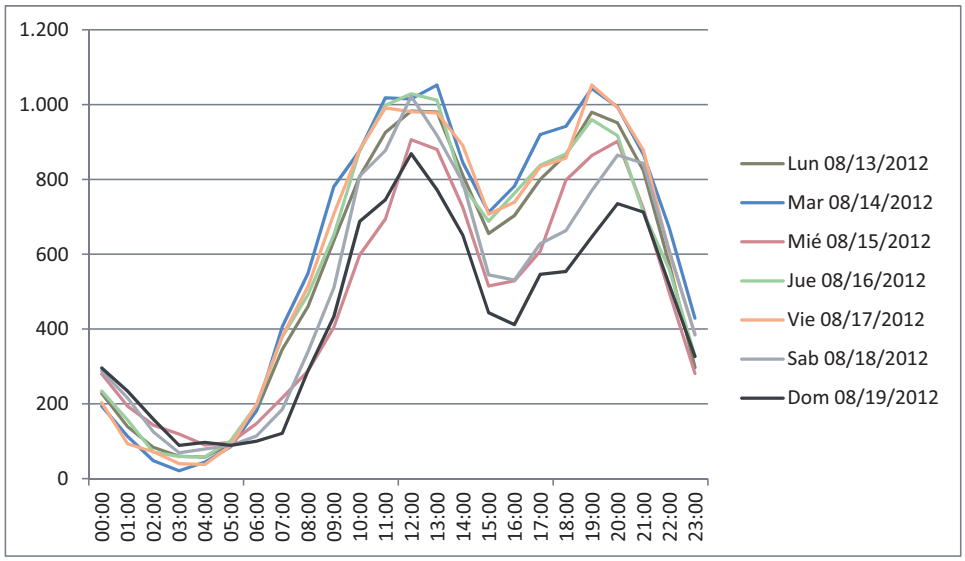
## 9.1. Volumen de vehículos – Total

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 228 | 194 | 280 | 234 | 203 | 288 | 296 | 228 | 246 |
| 01:00 | 139 | 113 | 194 | 157 | 93 | 216 | 234 | 139 | 164 |
| 02:00 | 84 | 48 | 143 | 71 | 72 | 125 | 159 | 84 | 100 |
| 03:00 | 60 | 21 | 119 | 59 | 40 | 69 | 89 | 60 | 65 |
| 04:00 | 58 | 44 | 90 | 58 | 38 | 79 | 97 | 58 | 66 |
| 05:00 | 93 | 85 | 97 | 101 | 88 | 89 | 89 | 93 | 92 |
| 06:00 | 181 | 182 | 147 | 196 | 198 | 114 | 100 | 181 | 160 |
| 07:00 | 346 | 406 | 216 | 379 | 381 | 185 | 121 | 346 | 291 |
| 08:00 | 461 | 549 | 288 | 492 | 514 | 340 | 289 | 461 | 419 |
| 09:00 | 637 | 781 | 405 | 652 | 708 | 510 | 434 | 637 | 589 |
| 10:00 | 808 | 877 | 598 | 877 | 880 | 809 | 688 | 808 | 791 |
| 11:00 | 925 | 1.018 | 694 | 998 | 991 | 877 | 745 | 925 | 893 |
| 12:00 | 983 | 1.015 | 906 | 1.029 | 981 | 1.022 | 869 | 983 | 972 |
| 13:00 | 981 | 1.052 | 880 | 1.012 | 978 | 918 | 772 | 981 | 942 |
| 14:00 | 811 | 845 | 725 | 783 | 891 | 792 | 651 | 811 | 785 |
| 15:00 | 656 | 712 | 515 | 688 | 707 | 545 | 444 | 656 | 609 |
| 16:00 | 703 | 782 | 529 | 763 | 739 | 531 | 412 | 703 | 637 |
| 17:00 | 800 | 920 | 608 | 838 | 834 | 628 | 546 | 800 | 739 |
| 18:00 | 866 | 942 | 798 | 868 | 857 | 663 | 554 | 866 | 793 |
| 19:00 | 980 | 1.043 | 864 | 960 | 1.052 | 770 | 646 | 980 | 902 |
| 20:00 | 951 | 994 | 902 | 917 | 992 | 865 | 735 | 951 | 908 |
| 21:00 | 824 | 867 | 722 | 712 | 878 | 843 | 713 | 801 | 794 |
| 22:00 | 575 | 671 | 498 | 560 | 605 | 611 | 519 | 582 | 577 |
| 23:00 | 297 | 429 | 281 | 328 | 387 | 384 | 326 | 344 | 347 |
| 12h, 7-19 | 8.975 | 9.899 | 7.162 | 9.379 | 9.461 | 7.820 | 6.524 | 8.975 | 8.460 |
| 16h, 6-22 | 11.911 | 12.985 | 9.797 | 12.164 | 12.581 | 10.412 | 8.718 | 11.888 | 11.224 |
| 18h, 6-24 | 12.783 | 14.085 | 10.576 | 13.052 | 13.573 | 11.407 | 9.564 | 12.814 | 12.149 |
| 24h, 0-24 | 13.444 | 14.590 | 11.499 | 13.732 | 14.107 | 12.273 | 10.528 | 13.474 | 12.882 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 925 | 1.018 | 694 | 998 | 991 | 877 | 745 | 925 | 893 |
| PM | 12:00 | 13:00 | 12:00 | 12:00 | 19:00 | 12:00 | 12:00 | 12:00 | 12:00 |
| Valor Punta | 983 | 1.052 | 906 | 1.029 | 1.052 | 1.022 | 869 | 983 | 972 |

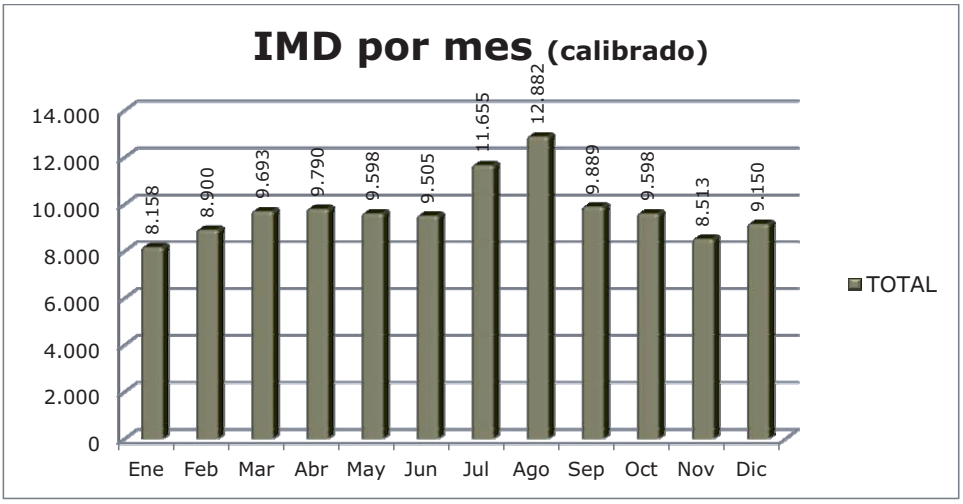
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### 9.1.1. Gráficos de volumen de vehículos –Total




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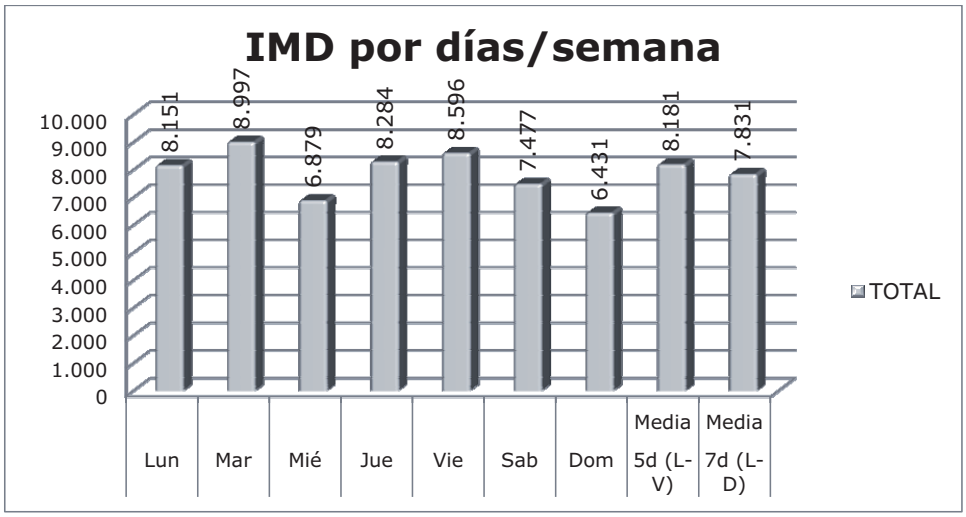

CVE-2014-9573

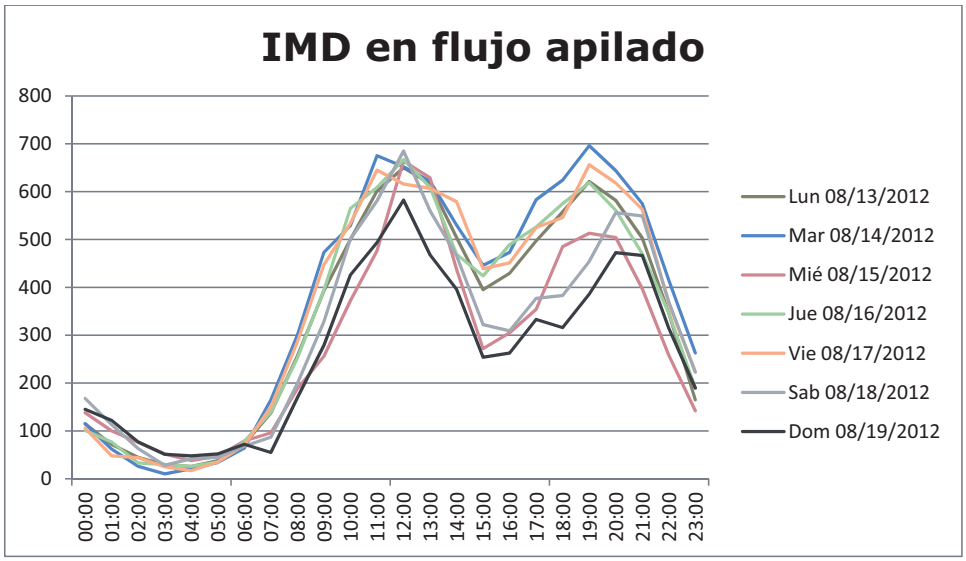
## 9.2. Volumen de vehículos – Sentido A

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 115 | 115 | 138 | 101 | 106 | 168 | 145 | 115 | 127 |
| 01:00 | 72 | 62 | 100 | 77 | 48 | 113 | 122 | 72 | 85 |
| 02:00 | 45 | 26 | 76 | 33 | 44 | 63 | 77 | 45 | 52 |
| 03:00 | 29 | 10 | 52 | 30 | 25 | 28 | 51 | 29 | 32 |
| 04:00 | 26 | 21 | 38 | 26 | 17 | 42 | 48 | 26 | 31 |
| 05:00 | 38 | 34 | 47 | 35 | 35 | 45 | 52 | 38 | 41 |
| 06:00 | 73 | 64 | 79 | 78 | 70 | 68 | 72 | 73 | 72 |
| 07:00 | 138 | 165 | 96 | 139 | 150 | 87 | 55 | 138 | 119 |
| 08:00 | 257 | 300 | 188 | 252 | 286 | 199 | 169 | 257 | 236 |
| 09:00 | 393 | 473 | 256 | 394 | 447 | 328 | 279 | 393 | 367 |
| 10:00 | 500 | 529 | 372 | 565 | 534 | 501 | 426 | 500 | 490 |
| 11:00 | 601 | 675 | 476 | 609 | 645 | 581 | 494 | 601 | 583 |
| 12:00 | 650 | 652 | 664 | 667 | 616 | 685 | 582 | 650 | 645 |
| 13:00 | 617 | 622 | 629 | 609 | 607 | 560 | 468 | 617 | 587 |
| 14:00 | 504 | 530 | 438 | 469 | 579 | 466 | 396 | 504 | 483 |
| 15:00 | 395 | 446 | 272 | 424 | 439 | 322 | 254 | 395 | 365 |
| 16:00 | 430 | 473 | 305 | 489 | 451 | 309 | 263 | 430 | 388 |
| 17:00 | 497 | 583 | 354 | 526 | 525 | 377 | 333 | 497 | 456 |
| 18:00 | 558 | 624 | 485 | 575 | 546 | 383 | 316 | 558 | 498 |
| 19:00 | 621 | 696 | 513 | 619 | 656 | 454 | 386 | 621 | 564 |
| 20:00 | 582 | 644 | 504 | 561 | 618 | 556 | 473 | 582 | 562 |
| 21:00 | 503 | 575 | 397 | 470 | 563 | 549 | 467 | 502 | 503 |
| 22:00 | 346 | 415 | 258 | 346 | 366 | 370 | 315 | 346 | 345 |
| 23:00 | 165 | 263 | 142 | 190 | 223 | 223 | 190 | 197 | 199 |
| 12h, 7-19 | 5.538 | 6.072 | 4.535 | 5.718 | 5.825 | 4.798 | 4.035 | 5.538 | 5.217 |
| 16h, 6-22 | 7.316 | 8.051 | 6.028 | 7.446 | 7.732 | 6.425 | 5.432 | 7.315 | 6.919 |
| 18h, 6-24 | 7.827 | 8.729 | 6.428 | 7.982 | 8.321 | 7.018 | 5.936 | 7.857 | 7.463 |
| 24h, 0-24 | 8.151 | 8.997 | 6.879 | 8.284 | 8.596 | 7.477 | 6.431 | 8.181 | 7.831 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 601 | 675 | 476 | 609 | 645 | 581 | 494 | 601 | 583 |
| PM | 12:00 | 12:00 | 12:00 | 12:00 | 19:00 | 12:00 | 12:00 | 12:00 | 12:00 |
| Valor Punta | 650 | 652 | 664 | 667 | 656 | 685 | 582 | 650 | 645 |

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### 9.2.1. Gráficos de volumen de vehículos –Sentido A



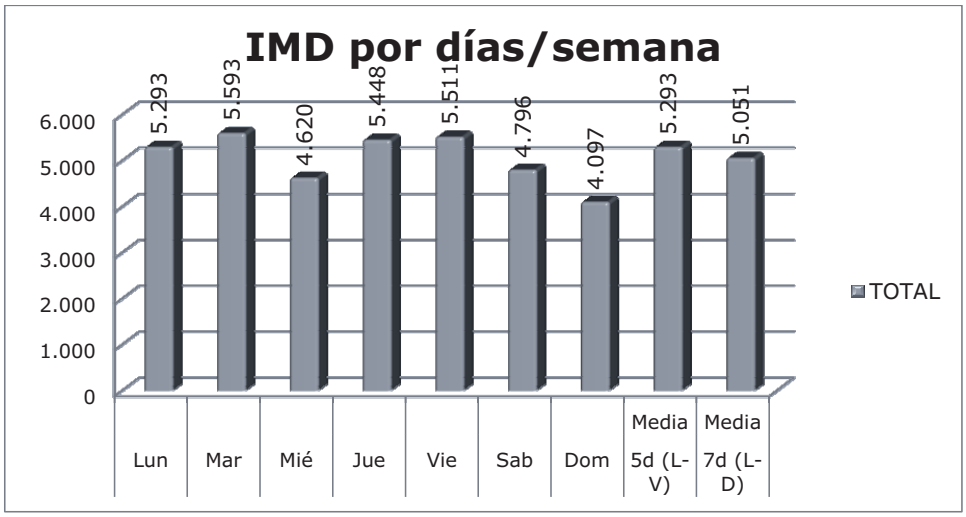

CVE-2014-9573

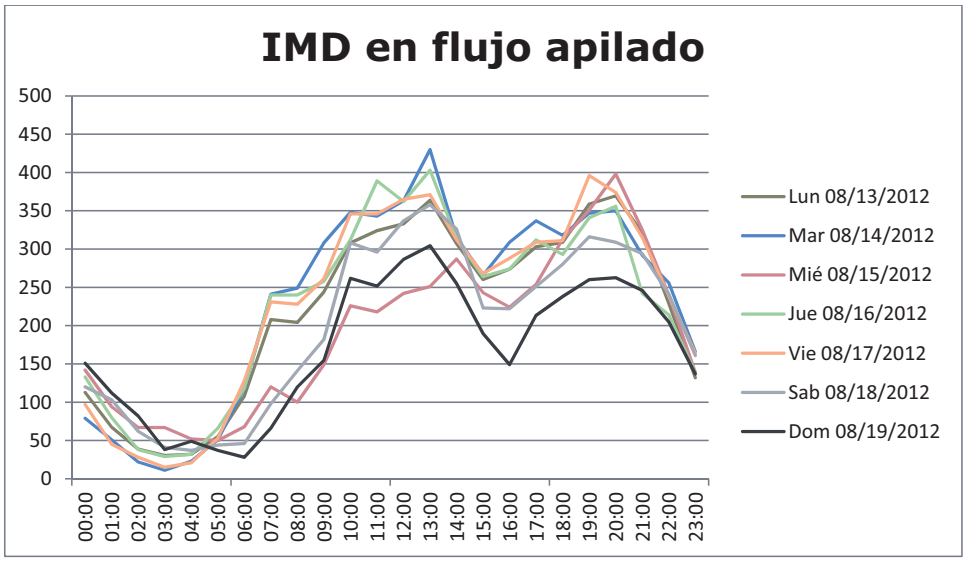
## 9.3. Volumen de vehículos – Sentido B

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 113 | 79 | 142 | 133 | 97 | 120 | 151 | 113 | 119 |
| 01:00 | 68 | 51 | 94 | 80 | 45 | 103 | 112 | 68 | 79 |
| 02:00 | 39 | 22 | 67 | 38 | 28 | 62 | 82 | 39 | 48 |
| 03:00 | 31 | 11 | 67 | 29 | 15 | 41 | 38 | 31 | 33 |
| 04:00 | 32 | 23 | 52 | 32 | 21 | 37 | 49 | 32 | 35 |
| 05:00 | 55 | 51 | 50 | 66 | 53 | 44 | 37 | 55 | 51 |
| 06:00 | 108 | 118 | 68 | 118 | 128 | 46 | 28 | 108 | 88 |
| 07:00 | 208 | 241 | 120 | 240 | 231 | 98 | 66 | 208 | 172 |
| 08:00 | 204 | 249 | 100 | 240 | 228 | 141 | 120 | 204 | 183 |
| 09:00 | 244 | 308 | 149 | 258 | 261 | 182 | 155 | 244 | 222 |
| 10:00 | 308 | 348 | 226 | 312 | 346 | 308 | 262 | 308 | 301 |
| 11:00 | 324 | 343 | 218 | 389 | 346 | 296 | 252 | 324 | 310 |
| 12:00 | 333 | 363 | 242 | 362 | 365 | 337 | 286 | 333 | 327 |
| 13:00 | 364 | 430 | 251 | 403 | 371 | 358 | 304 | 364 | 354 |
| 14:00 | 307 | 315 | 287 | 314 | 312 | 326 | 255 | 307 | 302 |
| 15:00 | 260 | 266 | 243 | 264 | 268 | 223 | 190 | 260 | 245 |
| 16:00 | 274 | 309 | 224 | 274 | 288 | 222 | 149 | 274 | 249 |
| 17:00 | 303 | 337 | 254 | 312 | 309 | 251 | 213 | 303 | 283 |
| 18:00 | 309 | 318 | 313 | 293 | 311 | 280 | 238 | 309 | 295 |
| 19:00 | 359 | 347 | 351 | 341 | 396 | 316 | 260 | 359 | 339 |
| 20:00 | 370 | 350 | 398 | 356 | 374 | 309 | 263 | 370 | 346 |
| 21:00 | 321 | 292 | 325 | 242 | 315 | 294 | 246 | 299 | 291 |
| 22:00 | 229 | 256 | 240 | 214 | 239 | 241 | 205 | 236 | 232 |
| 23:00 | 132 | 166 | 139 | 138 | 164 | 161 | 137 | 148 | 148 |
| 12h, 7-19 | 3.438 | 3.827 | 2.627 | 3.661 | 3.636 | 3.022 | 2.490 | 3.438 | 3.243 |
| 16h, 6-22 | 4.595 | 4.934 | 3.769 | 4.718 | 4.849 | 3.987 | 3.286 | 4.573 | 4.305 |
| 18h, 6-24 | 4.956 | 5.356 | 4.148 | 5.070 | 5.252 | 4.389 | 3.628 | 4.956 | 4.686 |
| 24h, 0-24 | 5.293 | 5.593 | 4.620 | 5.448 | 5.511 | 4.796 | 4.097 | 5.293 | 5.051 |
| AM | 11:00 | 10:00 | 10:00 | 11:00 | 11:00 | 10:00 | 10:00 | 11:00 | 11:00 |
| Valor Punta | 324 | 348 | 226 | 389 | 346 | 308 | 262 | 324 | 310 |
| PM | 20:00 | 13:00 | 20:00 | 13:00 | 19:00 | 13:00 | 13:00 | 20:00 | 13:00 |
| Valor Punta | 370 | 430 | 398 | 403 | 396 | 358 | 304 | 370 | 354 |

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### 9.3.1. Gráficos de volumen de vehículos –Sentido B




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## 9.4. Clases de vehículos

### 9.4.1. Esquema de clasificación FHWA

| Ejes | Grupos | Descripción | Clase | Parámetros | Vehículo Dominante | Conjunto |
|---|---|---|---|---|---|---|
| 2 | 1 | Bicicleta o Moto | 1 | d(1)<1.7m & Ejes=2 |  | 1 (Ligero) |
| 2, 3 o 4 | 1 o 2 | Turismo, Furgoneta ligera | 2 | d(1)>=1.7m, d(1)<=3.2m & Ejes=2 |  | |
| 2, 3 o 4 | 1 | Caravana, Remolque, etc. Pick-ups y furgonetas. | 3 | grupos=3, d(1)>=2.1m, d(1)<=3.2m, d(2)>=2.1m & Ejes=3,4,5 |  | |
| 2 o 3 | 1 | Bus | 5 | d(1)>3.2m & Ejes=2 |  | 2 (Medio) |
| 2 | 1 | Camión rígido de dos ejes | 3 | Ejes=2 & grupos=1 |  | |
| 3 | 1 | Camión rígido de tres ejes | 4 | Ejes>3 & grupos=2 |  | |
| 4 | 1 | Camión articulado rígido de tres ejes | 4 | d(1)>3.2m, Ejes=3 & grupos=4 |  | 3 (Pesado) |
| 2 o 4 | 2 | Camión articulado rígido de cuatro ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes = 4 & grupos>2 |  | |
| 5 o 6 | 2 | Camión articulado rígido de cinco ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes=5 & grupos>2 |  | |
| 6 o 7 | 2 | Camión articulado rígido de seis ejes (o más) | 5 | Ejes=6 & grupos>2 o Ejes>6 & grupos=3 |  | |
| 5 | 3 | Camion con remolque | 5 | grupos=4 & Ejes>6 |  | |
| 6 | 3 | Camion con remolque | 5 | grupos>=5 & Ejes>6 |  | |
| 7 | >3 | Camión con remolque | 5 | |  | |

Clase para vehículos inclasificables: 13

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### 9.4.2. Clases de vehículos absolutos3

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 246 | 20 | 204 | 20 | 2 | 0 |
| 01:00 | 164 | 11 | 140 | 12 | 1 | 0 |
| 02:00 | 100 | 8 | 83 | 9 | 1 | 0 |
| 03:00 | 65 | 5 | 52 | 8 | 1 | 0 |
| 04:00 | 66 | 4 | 55 | 6 | 1 | 0 |
| 05:00 | 92 | 4 | 79 | 7 | 2 | 0 |
| 06:00 | 160 | 6 | 140 | 10 | 3 | 1 |
| 07:00 | 291 | 16 | 246 | 23 | 4 | 2 |
| 08:00 | 419 | 26 | 339 | 44 | 6 | 3 |
| 09:00 | 589 | 39 | 472 | 65 | 10 | 3 |
| 10:00 | 791 | 57 | 622 | 90 | 15 | 6 |
| 11:00 | 893 | 66 | 694 | 110 | 17 | 6 |
| 12:00 | 972 | 71 | 747 | 128 | 20 | 6 |
| 13:00 | 942 | 70 | 745 | 106 | 15 | 6 |
| 14:00 | 785 | 58 | 627 | 83 | 13 | 4 |
| 15:00 | 609 | 50 | 484 | 63 | 9 | 3 |
| 16:00 | 637 | 46 | 511 | 68 | 10 | 3 |
| 17:00 | 739 | 48 | 588 | 86 | 12 | 5 |
| 18:00 | 793 | 50 | 618 | 107 | 14 | 4 |
| 19:00 | 902 | 54 | 698 | 124 | 20 | 6 |
| 20:00 | 908 | 57 | 701 | 126 | 18 | 6 |
| 21:00 | 794 | 53 | 616 | 105 | 15 | 5 |
| 22:00 | 577 | 41 | 449 | 73 | 10 | 3 |
| 23:00 | 347 | 30 | 279 | 35 | 3 | 1 |
| Totales | | | | | | |
| 12H,7-19 | 8.460 | 597 | 6.694 | 973 | 145 | 51 |
| 16H,6-22 | 11.224 | 767 | 8.849 | 1.339 | 200 | 69 |
| 18H,6-24 | 12.149 | 838 | 9.577 | 1.446 | 214 | 73 |
| 24H,0-24 | 12.882 | 890 | 10.190 | 1.507 | 222 | 73 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 10:00 |
| Valor Punta | 893 | 66 | 694 | 110 | 17 | 6 |
| PM | 12:00 | 12:00 | 13:00 | 12:00 | 19:00 | 12:00 |
| Valor Punta | 972 | 71 | 747 | 128 | 20 | 6 |

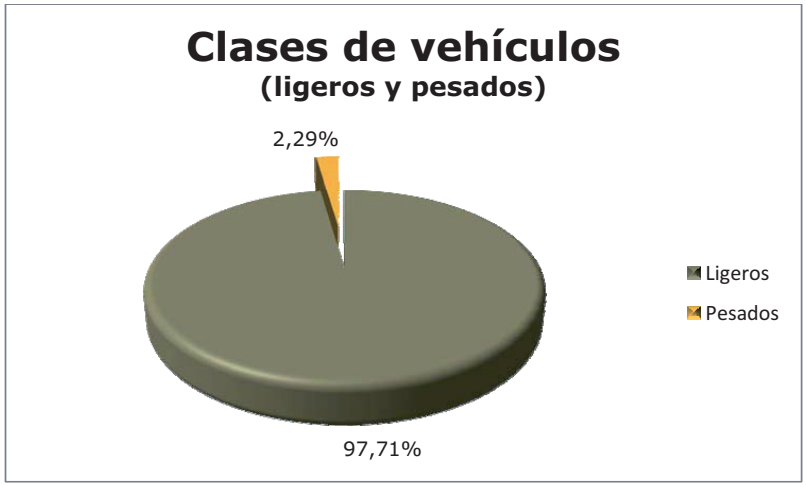
CVE-2014-9573

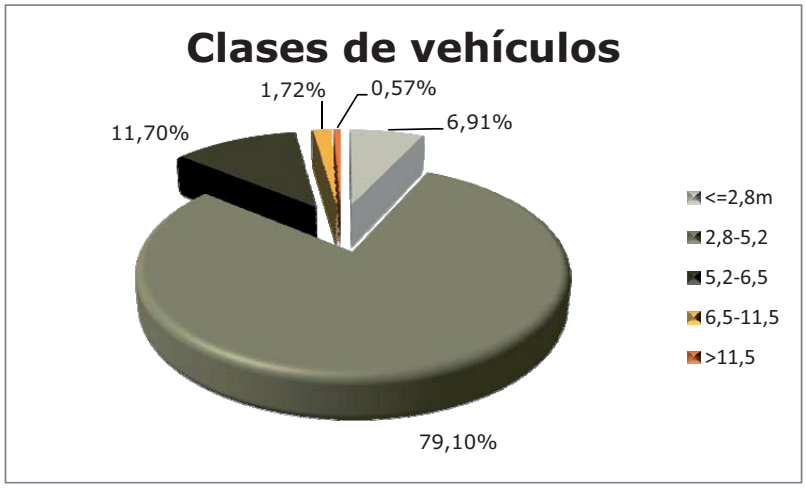
### 9.4.3. Clases de vehículos porcentuales

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 88 | 2,05% | 55,23% | 38,18% | 2,37% | 2,17% |
| 01:00 | 39 | 2,78% | 53,44% | 42,30% | 0,97% | 0,51% |
| 02:00 | 31 | 2,89% | 53,89% | 42,34% | 0,00% | 0,87% |
| 03:00 | 19 | 3,03% | 51,52% | 45,45% | 0,00% | 0,00% |
| 04:00 | 26 | 1,16% | 41,86% | 56,98% | 0,00% | 0,00% |
| 05:00 | 56 | 2,30% | 27,64% | 68,53% | 1,00% | 0,52% |
| 06:00 | 111 | 2,04% | 31,60% | 64,56% | 1,18% | 0,62% |
| 07:00 | 137 | 2,35% | 37,98% | 57,61% | 1,67% | 0,39% |
| 08:00 | 141 | 3,50% | 46,25% | 48,38% | 1,52% | 0,35% |
| 09:00 | 169 | 2,89% | 55,67% | 39,37% | 1,92% | 0,15% |
| 10:00 | 199 | 4,56% | 59,91% | 32,66% | 2,60% | 0,26% |
| 11:00 | 220 | 4,73% | 62,86% | 29,62% | 2,54% | 0,25% |
| 12:00 | 211 | 5,47% | 63,99% | 26,80% | 3,01% | 0,73% |
| 13:00 | 253 | 4,98% | 64,45% | 27,13% | 3,23% | 0,21% |
| 14:00 | 249 | 4,63% | 63,41% | 29,11% | 2,65% | 0,21% |
| 15:00 | 239 | 3,30% | 62,98% | 31,25% | 2,36% | 0,11% |
| 16:00 | 229 | 3,61% | 57,10% | 36,70% | 2,49% | 0,11% |
| 17:00 | 275 | 4,11% | 61,37% | 31,89% | 2,42% | 0,22% |
| 18:00 | 227 | 4,59% | 63,36% | 29,02% | 2,70% | 0,34% |
| 19:00 | 242 | 5,41% | 64,96% | 25,91% | 3,14% | 0,59% |
| 20:00 | 164 | 5,76% | 66,08% | 24,86% | 3,03% | 0,28% |
| 21:00 | 163 | 4,76% | 65,15% | 27,88% | 1,95% | 0,25% |
| 22:00 | 143 | 3,08% | 64,77% | 29,87% | 1,84% | 0,44% |
| 23:00 | 97 | 2,59% | 55,69% | 37,81% | 2,03% | 1,88% |
| Totals | | | | | | |
| 12H,7-19 | 2.550 | 4,16% | 59,58% | 33,50% | 2,50% | 0,27% |
| 16H,6-22 | 3.231 | 4,29% | 59,63% | 33,27% | 2,50% | 0,30% |
| 18H,6-24 | 3.471 | 4,20% | 59,73% | 33,26% | 2,46% | 0,35% |
| 24H,0-24 | 3.729 | 4,06% | 58,87% | 34,30% | 2,37% | 0,40% |
| | | | Ligeros | | Pesados | |
| Am | 11:00 | 11:00 | 11:00 | 07:00 | 11:00 | 00:00 |
| Peak | 220 | 10 | 138 | 79 | 6 | 2 |
| Am | 17:00 | 13:00 | 17:00 | 17:00 | 19:00 | 23:00 |
| Peak | 275 | 13 | 169 | 88 | 8 | 2 |

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### 9.4.4. Gráficos de clases de vehículos




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## 9.5. Velocidades

| | Total | 85th | Mean | Std. | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 | Bin 6 | Bin 7 | Bin 8 | Bin 9 | Bin 10 | Bin 11 | Bin 12 | Bin 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Vol. | %ile | Ave. | Dev. | <6Kph | 6-<11 | 11-<16 | 16-<21 | 21-<26 | 26-<31 | 31-<36 | 36-<41 | 41-<46 | 46-<51 | 51-<56 | 56-<61 | =>61 |
| 00:00 | 246 | 31,6 | 26,7 | 5,3 | 0 | 0 | 0 | 22 | 98 | 86 | 31 | 8 | 1 | 0 | 0 | 0 | 0 |
| 01:00 | 164 | 32,7 | 27,4 | 5,3 | 0 | 0 | 0 | 10 | 61 | 60 | 24 | 7 | 3 | 0 | 0 | 0 | 0 |
| 02:00 | 100 | 33,1 | 27,8 | 6,2 | 0 | 0 | 0 | 7 | 36 | 39 | 12 | 4 | 2 | 0 | 0 | 0 | 0 |
| 03:00 | 65 | 34,4 | 28,0 | 6,6 | 0 | 0 | 0 | 4 | 23 | 21 | 13 | 4 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 66 | 34,1 | 28,2 | 5,8 | 0 | 0 | 0 | 4 | 17 | 26 | 14 | 4 | 1 | 0 | 0 | 0 | 0 |
| 05:00 | 92 | 34,8 | 29,0 | 5,9 | 0 | 0 | 1 | 4 | 23 | 34 | 22 | 7 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | 160 | 34,3 | 28,6 | 6,1 | 0 | 0 | 3 | 8 | 37 | 67 | 33 | 8 | 3 | 0 | 0 | 0 | 0 |
| 07:00 | 291 | 33,2 | 27,9 | 5,4 | 0 | 0 | 3 | 14 | 87 | 123 | 49 | 13 | 2 | 0 | 0 | 0 | 0 |
| 08:00 | 419 | 31,8 | 27,2 | 5,0 | 0 | 0 | 5 | 19 | 144 | 179 | 58 | 11 | 2 | 0 | 0 | 0 | 0 |
| 09:00 | 589 | 30,6 | 26,3 | 4,9 | 0 | 0 | 6 | 47 | 227 | 243 | 55 | 9 | 2 | 0 | 0 | 0 | 0 |
| 10:00 | 791 | 29,6 | 24,7 | 4,9 | 0 | 1 | 26 | 106 | 372 | 231 | 47 | 6 | 2 | 0 | 0 | 0 | 0 |
| 11:00 | 893 | 28,9 | 24,0 | 4,9 | 0 | 0 | 28 | 172 | 438 | 206 | 41 | 6 | 1 | 1 | 0 | 0 | 0 |
| 12:00 | 972 | 28,8 | 23,8 | 4,9 | 0 | 5 | 32 | 200 | 468 | 217 | 42 | 7 | 1 | 0 | 0 | 0 | 0 |
| 13:00 | 942 | 29,6 | 24,8 | 4,8 | 0 | 0 | 19 | 138 | 448 | 270 | 56 | 9 | 2 | 0 | 0 | 0 | 0 |
| 14:00 | 785 | 30,5 | 25,8 | 5,0 | 0 | 2 | 11 | 90 | 329 | 259 | 77 | 15 | 2 | 0 | 0 | 0 | 0 |
| 15:00 | 609 | 31,9 | 27,0 | 5,2 | 0 | 1 | 4 | 39 | 226 | 233 | 79 | 21 | 6 | 1 | 0 | 0 | 0 |
| 16:00 | 637 | 30,5 | 26,1 | 5,0 | 0 | 1 | 8 | 54 | 265 | 235 | 56 | 13 | 4 | 1 | 0 | 0 | 0 |
| 17:00 | 739 | 29,7 | 25,1 | 4,8 | 0 | 2 | 11 | 87 | 366 | 218 | 44 | 8 | 3 | 0 | 0 | 0 | 0 |
| 18:00 | 793 | 29,2 | 24,5 | 4,6 | 0 | 0 | 12 | 131 | 401 | 203 | 38 | 8 | 0 | 0 | 0 | 0 | 0 |
| 19:00 | 902 | 28,5 | 23,7 | 4,6 | 0 | 2 | 16 | 199 | 453 | 195 | 32 | 4 | 1 | 0 | 0 | 0 | 0 |
| 20:00 | 908 | 28,8 | 24,1 | 4,7 | 0 | 5 | 16 | 162 | 475 | 204 | 37 | 9 | 1 | 0 | 0 | 0 | 0 |
| 21:00 | 794 | 28,8 | 24,2 | 4,6 | 0 | 0 | 10 | 149 | 414 | 180 | 33 | 7 | 2 | 0 | 0 | 0 | 0 |
| 22:00 | 577 | 29,7 | 24,9 | 4,9 | 0 | 0 | 10 | 87 | 279 | 157 | 35 | 10 | 0 | 0 | 0 | 0 | 0 |
| 23:00 | 347 | 30,7 | 26,2 | 5,0 | 0 | 0 | 1 | 38 | 146 | 118 | 33 | 9 | 3 | 0 | 0 | 0 | 0 |
| Totales | | | | | | | | | | | | | | | | | |
| 12H,7-19 | 8460 | 33,2 | 27,9 | 5,4 | 0 | 12 | 162 | 1096 | 3771 | 2617 | 643 | 126 | 29 | 3 | 0 | 0 | 0 |
| 16H,6-22 | 11224 | 31,9 | 27,2 | 5,2 | 0 | 19 | 207 | 1614 | 5151 | 3263 | 778 | 154 | 36 | 3 | 0 | 0 | 0 |
| 18H,6-24 | 12149 | 31,9 | 27,0 | 5,2 | 0 | 19 | 218 | 1739 | 5575 | 3538 | 845 | 173 | 39 | 3 | 0 | 0 | 0 |
| 24H,0-24 | 12882 | 31,9 | 27,0 | 5,2 | 0 | 19 | 219 | 1790 | 5833 | 3805 | 960 | 207 | 46 | 3 | 0 | 0 | 0 |
| AM | 11:00 | 05:00 | 05:00 | 03:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 | 09:00 | 08:00 | 11:00 | 06:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 893 | 34,8 | 29,0 | 6,6 | 0 | 1 | 28 | 172 | 438 | 243 | 58 | 6 | 3 | 1 | 0 | 0 | 0 |
| PM | 12:00 | 15:00 | 15:00 | 15:00 | 23:00 | 20:00 | 12:00 | 12:00 | 20:00 | 13:00 | 15:00 | 15:00 | 15:00 | 16:00 | 23:00 | 23:00 | 23:00 |
| Valor Punta | 972 | 31,9 | 27,0 | 5,2 | 0 | 5 | 32 | 200 | 475 | 270 | 79 | 21 | 6 | 1 | 0 | 0 | 0 |

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## 10. Datos del aforo 04

**Duración de los Aforos:**
00:00 lunes, 13 de septiembre 2012 => 23:00 domingo, 19 de septiembre 2012
**Identificador:**
Vectio TN-04 (Tubo Neumático)
**Tipo de Datos:**
Sensores de Ejes - En Pares (Clase, Velocidad, Recuento)
**Clases Incluidas:**
1, 2, 3, 4, 5
**Esquema:**
Clasificación Vehicular (FHWA)
**Intervalo de Velocidades:**
10 - 200 km/h.
**Sentido de Circulación:**
1: A-B = Ascendente (Entrada a Castro Urdiales)
2: B-A = Descendente (Salida de Castro Urdiales)
**Separación:**
Todos - (Intervalo Vehicular)
**Unidades:**
Métrico (metro, kilómetro, m/s, km/h, kg, Tonelada Métrica (kg))
**Localización del aforador:**
Carretera de Samano
**Localización geográfica:**
N 43°22'04.78" O 3°12'58.78"
**Imagen**



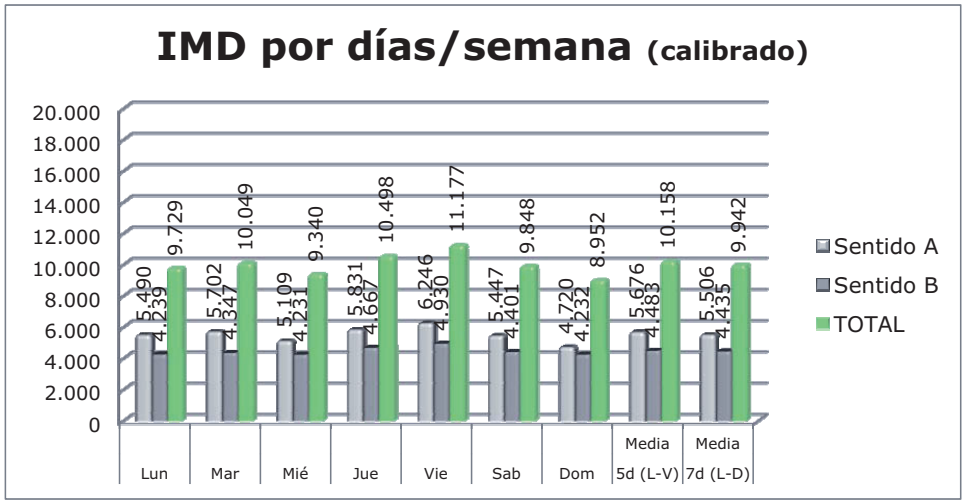
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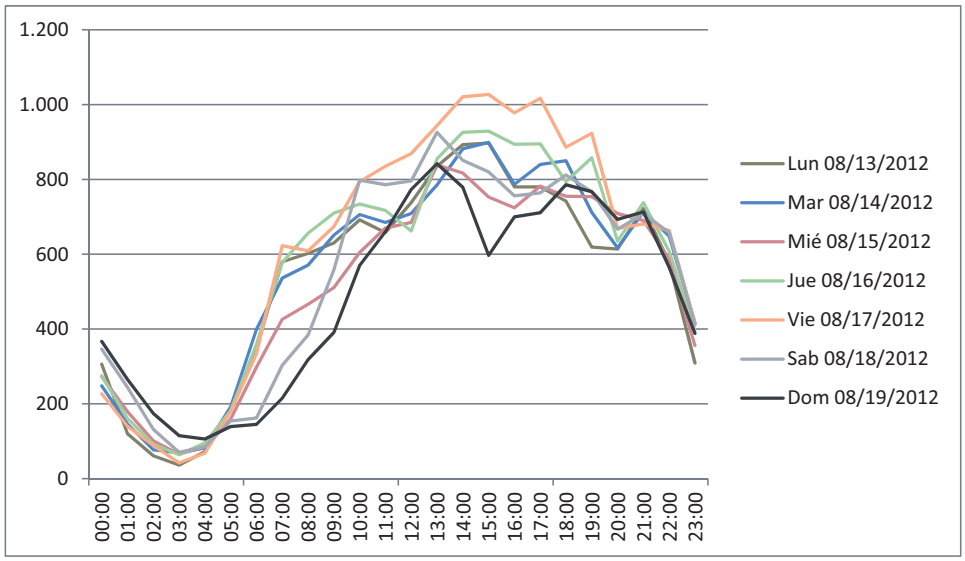
## 10.1. Volumen de vehículos – Total

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 306 | 248 | 273 | 275 | 227 | 346 | 367 | 266 | 292 |
| 01:00 | 120 | 146 | 179 | 161 | 140 | 244 | 265 | 149 | 179 |
| 02:00 | 61 | 77 | 101 | 92 | 89 | 132 | 174 | 84 | 104 |
| 03:00 | 36 | 69 | 65 | 64 | 42 | 70 | 115 | 55 | 66 |
| 04:00 | 72 | 82 | 85 | 95 | 68 | 85 | 106 | 80 | 85 |
| 05:00 | 188 | 192 | 159 | 182 | 179 | 154 | 139 | 180 | 170 |
| 06:00 | 349 | 399 | 298 | 359 | 334 | 162 | 145 | 348 | 292 |
| 07:00 | 580 | 536 | 426 | 578 | 623 | 303 | 215 | 549 | 466 |
| 08:00 | 602 | 571 | 466 | 656 | 609 | 384 | 318 | 581 | 515 |
| 09:00 | 630 | 651 | 511 | 710 | 674 | 558 | 391 | 635 | 589 |
| 10:00 | 692 | 706 | 605 | 734 | 794 | 798 | 570 | 706 | 700 |
| 11:00 | 658 | 685 | 670 | 717 | 835 | 786 | 660 | 713 | 716 |
| 12:00 | 738 | 709 | 685 | 662 | 869 | 796 | 773 | 733 | 747 |
| 13:00 | 835 | 785 | 839 | 855 | 944 | 926 | 842 | 852 | 861 |
| 14:00 | 893 | 882 | 817 | 926 | 1.021 | 851 | 779 | 908 | 881 |
| 15:00 | 897 | 899 | 753 | 929 | 1.027 | 820 | 597 | 901 | 846 |
| 16:00 | 780 | 787 | 724 | 894 | 978 | 756 | 700 | 833 | 803 |
| 17:00 | 780 | 840 | 782 | 895 | 1.017 | 764 | 711 | 863 | 827 |
| 18:00 | 742 | 850 | 755 | 794 | 886 | 812 | 786 | 805 | 804 |
| 19:00 | 619 | 712 | 754 | 858 | 923 | 767 | 767 | 773 | 771 |
| 20:00 | 614 | 617 | 709 | 635 | 669 | 667 | 693 | 649 | 658 |
| 21:00 | 722 | 713 | 690 | 738 | 681 | 708 | 713 | 709 | 709 |
| 22:00 | 578 | 649 | 587 | 608 | 663 | 658 | 565 | 617 | 615 |
| 23:00 | 309 | 417 | 356 | 396 | 414 | 411 | 388 | 378 | 384 |
| 12h, 7-19 | 8.827 | 8.901 | 8.033 | 9.350 | 10.277 | 8.554 | 7.342 | 9.078 | 8.755 |
| 16h, 6-22 | 11.131 | 11.342 | 10.484 | 11.940 | 12.884 | 10.858 | 9.660 | 11.556 | 11.186 |
| 18h, 6-24 | 12.018 | 12.408 | 11.427 | 12.944 | 13.961 | 11.927 | 10.613 | 12.552 | 12.185 |
| 24h, 0-24 | 12.801 | 13.222 | 12.289 | 13.813 | 14.706 | 12.958 | 11.779 | 13.366 | 13.081 |
| AM | 10:00 | 10:00 | 11:00 | 10:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 692 | 706 | 670 | 734 | 835 | 798 | 660 | 713 | 716 |
| PM | 15:00 | 15:00 | 13:00 | 15:00 | 15:00 | 13:00 | 13:00 | 14:00 | 14:00 |
| Valor Punta | 897 | 899 | 839 | 929 | 1.027 | 926 | 842 | 908 | 881 |

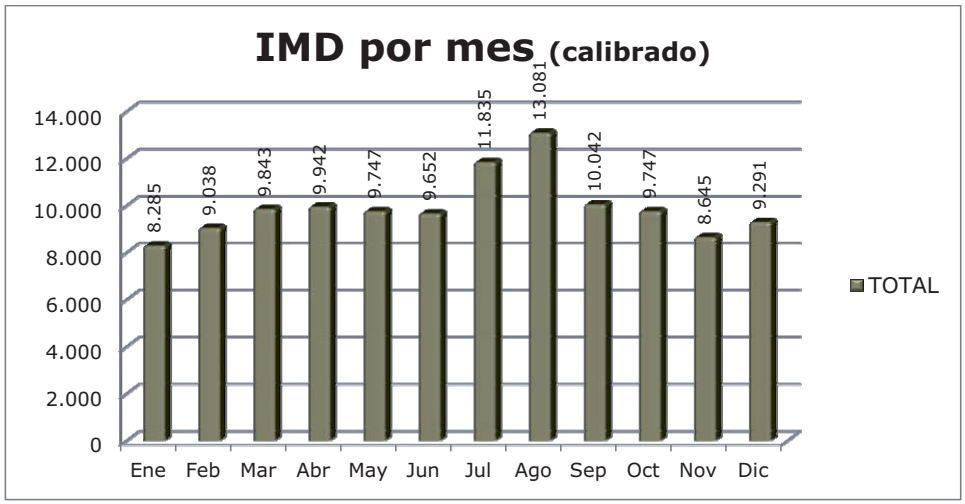
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### 10.1.1. Gráficos de volumen de vehículos –Total




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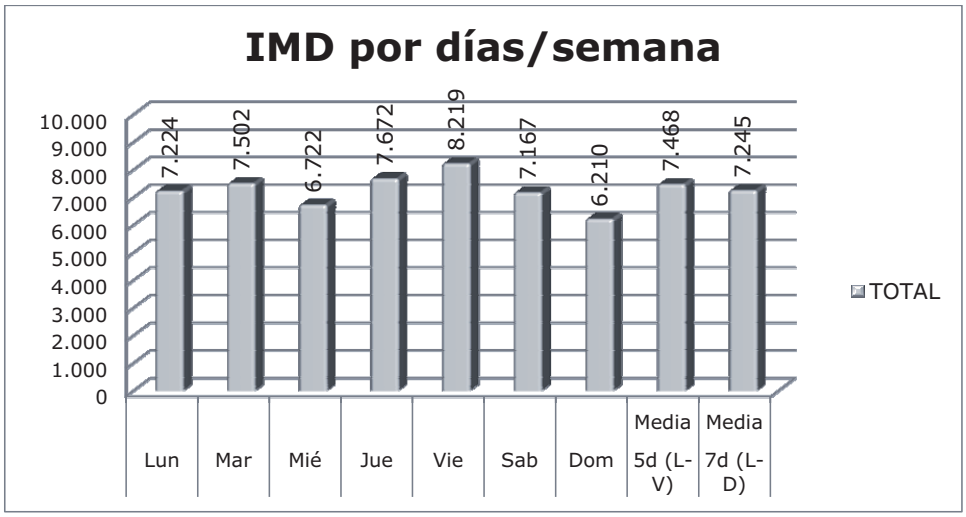

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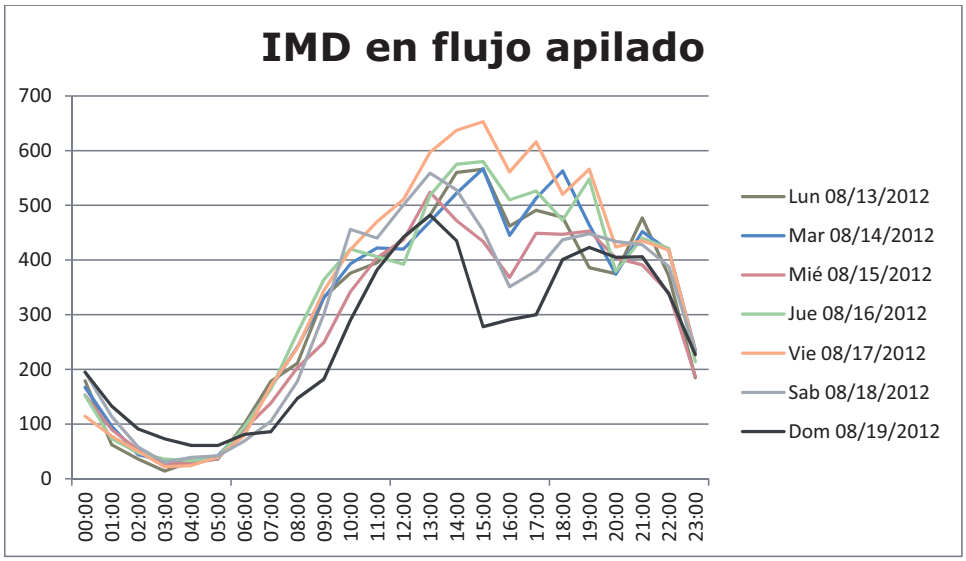
## 10.2. Volumen de vehículos – Sentido A

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 179 | 167 | 153 | 152 | 114 | 195 | 195 | 153 | 165 |
| 01:00 | 62 | 96 | 90 | 73 | 78 | 114 | 133 | 80 | 92 |
| 02:00 | 36 | 44 | 53 | 47 | 50 | 58 | 91 | 46 | 54 |
| 03:00 | 14 | 33 | 28 | 36 | 22 | 30 | 73 | 27 | 34 |
| 04:00 | 31 | 32 | 28 | 33 | 24 | 39 | 61 | 30 | 35 |
| 05:00 | 36 | 42 | 37 | 39 | 40 | 42 | 61 | 39 | 42 |
| 06:00 | 100 | 92 | 91 | 95 | 79 | 69 | 81 | 91 | 87 |
| 07:00 | 178 | 167 | 138 | 164 | 170 | 105 | 86 | 163 | 144 |
| 08:00 | 211 | 241 | 203 | 267 | 239 | 178 | 147 | 232 | 212 |
| 09:00 | 332 | 331 | 249 | 364 | 344 | 301 | 182 | 324 | 300 |
| 10:00 | 376 | 393 | 342 | 420 | 419 | 456 | 290 | 390 | 385 |
| 11:00 | 395 | 422 | 404 | 406 | 470 | 440 | 382 | 419 | 417 |
| 12:00 | 441 | 420 | 437 | 392 | 511 | 501 | 442 | 440 | 449 |
| 13:00 | 482 | 470 | 524 | 518 | 597 | 559 | 482 | 518 | 519 |
| 14:00 | 560 | 522 | 472 | 575 | 637 | 528 | 435 | 553 | 533 |
| 15:00 | 566 | 567 | 434 | 580 | 653 | 454 | 278 | 560 | 505 |
| 16:00 | 462 | 445 | 368 | 510 | 561 | 351 | 291 | 469 | 427 |
| 17:00 | 491 | 513 | 449 | 526 | 616 | 380 | 300 | 519 | 468 |
| 18:00 | 478 | 563 | 447 | 473 | 520 | 437 | 401 | 496 | 474 |
| 19:00 | 386 | 464 | 453 | 548 | 566 | 448 | 423 | 483 | 470 |
| 20:00 | 375 | 374 | 404 | 379 | 424 | 434 | 405 | 391 | 399 |
| 21:00 | 477 | 452 | 391 | 440 | 435 | 428 | 406 | 439 | 433 |
| 22:00 | 371 | 417 | 340 | 421 | 418 | 388 | 338 | 393 | 385 |
| 23:00 | 185 | 235 | 187 | 214 | 232 | 232 | 227 | 211 | 216 |
| 12h, 7-19 | 4.972 | 5.054 | 4.467 | 5.195 | 5.737 | 4.690 | 3.716 | 5.085 | 4.833 |
| 16h, 6-22 | 6.310 | 6.436 | 5.806 | 6.657 | 7.241 | 6.069 | 5.031 | 6.490 | 6.221 |
| 18h, 6-24 | 6.866 | 7.088 | 6.333 | 7.292 | 7.891 | 6.689 | 5.596 | 7.094 | 6.822 |
| 24h, 0-24 | 7.224 | 7.502 | 6.722 | 7.672 | 8.219 | 7.167 | 6.210 | 7.468 | 7.245 |
| AM | 11:00 | 11:00 | 11:00 | 10:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 395 | 422 | 404 | 420 | 470 | 456 | 382 | 419 | 417 |
| PM | 15:00 | 15:00 | 13:00 | 15:00 | 15:00 | 13:00 | 13:00 | 15:00 | 14:00 |
| Valor Punta | 566 | 567 | 524 | 580 | 653 | 559 | 482 | 560 | 533 |

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### 10.2.1. Gráficos de volumen de vehículos –Sentido A



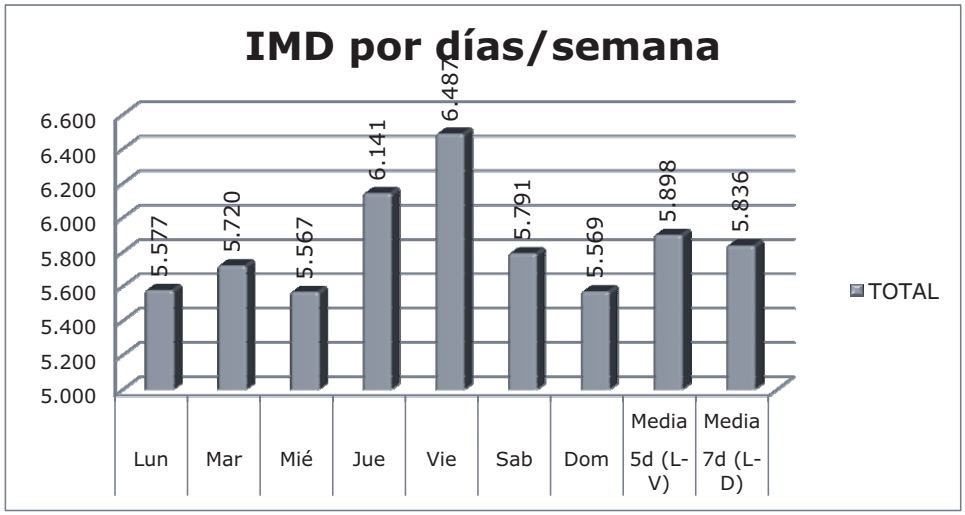

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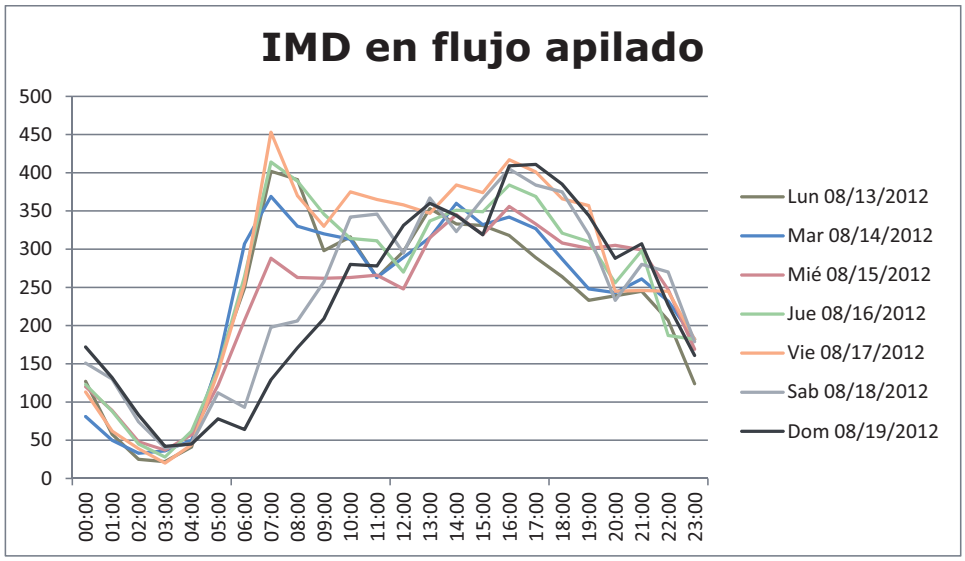
## 10.3. Volumen de vehículos – Sentido B

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 127 | 81 | 120 | 123 | 113 | 151 | 172 | 113 | 127 |
| 01:00 | 58 | 50 | 89 | 88 | 62 | 130 | 132 | 69 | 87 |
| 02:00 | 25 | 33 | 48 | 45 | 39 | 74 | 83 | 38 | 50 |
| 03:00 | 22 | 36 | 37 | 28 | 20 | 40 | 42 | 29 | 32 |
| 04:00 | 41 | 50 | 57 | 62 | 44 | 46 | 45 | 51 | 49 |
| 05:00 | 152 | 150 | 122 | 143 | 139 | 112 | 78 | 141 | 128 |
| 06:00 | 249 | 307 | 207 | 264 | 255 | 93 | 64 | 256 | 206 |
| 07:00 | 402 | 369 | 288 | 414 | 453 | 198 | 129 | 385 | 322 |
| 08:00 | 391 | 330 | 263 | 389 | 370 | 206 | 171 | 349 | 303 |
| 09:00 | 298 | 320 | 262 | 346 | 330 | 257 | 209 | 311 | 289 |
| 10:00 | 316 | 313 | 263 | 314 | 375 | 342 | 280 | 316 | 315 |
| 11:00 | 263 | 263 | 266 | 311 | 365 | 346 | 278 | 294 | 299 |
| 12:00 | 297 | 289 | 248 | 270 | 358 | 295 | 331 | 292 | 298 |
| 13:00 | 353 | 315 | 315 | 337 | 347 | 367 | 360 | 333 | 342 |
| 14:00 | 333 | 360 | 345 | 351 | 384 | 323 | 344 | 355 | 349 |
| 15:00 | 331 | 332 | 319 | 349 | 374 | 366 | 319 | 341 | 341 |
| 16:00 | 318 | 342 | 356 | 384 | 417 | 405 | 409 | 363 | 376 |
| 17:00 | 289 | 327 | 333 | 369 | 401 | 384 | 411 | 344 | 359 |
| 18:00 | 264 | 287 | 308 | 321 | 366 | 375 | 385 | 309 | 329 |
| 19:00 | 233 | 248 | 301 | 310 | 357 | 319 | 344 | 290 | 302 |
| 20:00 | 239 | 243 | 305 | 256 | 245 | 233 | 288 | 258 | 258 |
| 21:00 | 245 | 261 | 299 | 298 | 246 | 280 | 307 | 270 | 277 |
| 22:00 | 207 | 232 | 247 | 187 | 245 | 270 | 227 | 224 | 231 |
| 23:00 | 124 | 182 | 169 | 182 | 182 | 179 | 161 | 168 | 168 |
| 12h, 7-19 | 3.855 | 3.847 | 3.566 | 4.155 | 4.540 | 3.864 | 3.626 | 3.993 | 3.922 |
| 16h, 6-22 | 4.821 | 4.906 | 4.678 | 5.283 | 5.643 | 4.789 | 4.629 | 5.066 | 4.964 |
| 18h, 6-24 | 5.152 | 5.320 | 5.094 | 5.652 | 6.070 | 5.238 | 5.017 | 5.458 | 5.363 |
| 24h, 0-24 | 5.577 | 5.720 | 5.567 | 6.141 | 6.487 | 5.791 | 5.569 | 5.898 | 5.836 |
| AM | 11:00 | 11:00 | 07:00 | 07:00 | 07:00 | 11:00 | 10:00 | 07:00 | 07:00 |
| Valor Punta | 402 | 369 | 288 | 414 | 453 | 346 | 280 | 385 | 322 |
| PM | 13:00 | 14:00 | 16:00 | 16:00 | 16:00 | 16:00 | 17:00 | 16:00 | 16:00 |
| Valor Punta | 353 | 360 | 356 | 384 | 417 | 405 | 411 | 363 | 376 |

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### 10.3.1. Gráficos de volumen de vehículos –Sentido B




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## 10.4. Clases de vehículos

### 10.4.1. Esquema de clasificación FHWA

| Ejes | Grupos | Descripción | Clase | Parámetros | Vehículo Dominante | Conjunto |
|---|---|---|---|---|---|---|
| 2 | 1 | Bicicleta o Moto | 1 | d(1)<1.7m & Ejes=2 |  | 1 (Ligero) |
| 2, 3 o 4 | 1 o 2 | Turismo, Furgoneta ligera | 2 | d(1)>=1.7m, d(1)<=3.2m & Ejes=2 |  | |
| 2, 3 o 4 | 1 | Caravana, Remolque, etc. Pick-ups y furgonetas. | 3 | grupos=3, d(1)>=2.1m, d(1)<=3.2m, d(2)>=2.1m & Ejes=3,4,5 |  | |
| 2 o 3 | 1 | Bus | 5 | d(1)>3.2m & Ejes=2 |  | 2 (Medio) |
| 2 | 1 | Camión rígido de dos ejes | 3 | Ejes=2 & grupos=1 |  | |
| 3 | 1 | Camión rígido de tres ejes | 4 | Ejes>3 & grupos=2 |  | |
| 4 | 1 | Camión articulado rígido de tres ejes | 4 | d(1)>3.2m, Ejes=3 & grupos=4 |  | 3 (Pesado) |
| 2 o 4 | 2 | Camión articulado rígido de cuatro ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes = 4 & grupos>2 |  | |
| 5 o 6 | 2 | Camión articulado rígido de cinco ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes=5 & grupos>2 |  | |
| 6 o 7 | 2 | Camión articulado rígido de seis ejes (o más) | 5 | Ejes=6 & grupos>2 o Ejes>6 & grupos=3 |  | |
| 5 | 3 | Camion con remolque | 5 | grupos=4 & Ejes>6 |  | |
| 6 | 3 | Camion con remolque | 5 | grupos>=5 & Ejes>6 |  | |
| 7 | >3 | Camión con remolque | 5 | |  | |

Clase para vehículos inclasificables: 13

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### 10.4.2. Clases de vehículos absolutos

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 88 | 2 | 48 | 33 | 2 | 2 |
| 01:00 | 39 | 1 | 21 | 16 | 0 | 0 |
| 02:00 | 31 | 1 | 17 | 13 | 0 | 0 |
| 03:00 | 19 | 1 | 10 | 9 | 0 | 0 |
| 04:00 | 26 | 0 | 11 | 15 | 0 | 0 |
| 05:00 | 56 | 1 | 15 | 38 | 1 | 0 |
| 06:00 | 111 | 2 | 35 | 72 | 1 | 1 |
| 07:00 | 137 | 3 | 52 | 79 | 2 | 1 |
| 08:00 | 141 | 5 | 65 | 68 | 2 | 0 |
| 09:00 | 169 | 5 | 94 | 66 | 3 | 0 |
| 10:00 | 199 | 9 | 119 | 65 | 5 | 1 |
| 11:00 | 220 | 10 | 138 | 65 | 6 | 1 |
| 12:00 | 211 | 12 | 135 | 57 | 6 | 2 |
| 13:00 | 253 | 13 | 163 | 69 | 8 | 1 |
| 14:00 | 249 | 12 | 158 | 72 | 7 | 1 |
| 15:00 | 239 | 8 | 151 | 75 | 6 | 0 |
| 16:00 | 229 | 8 | 131 | 84 | 6 | 0 |
| 17:00 | 275 | 11 | 169 | 88 | 7 | 1 |
| 18:00 | 227 | 10 | 144 | 66 | 6 | 1 |
| 19:00 | 242 | 13 | 158 | 63 | 8 | 1 |
| 20:00 | 164 | 9 | 109 | 41 | 5 | 0 |
| 21:00 | 163 | 8 | 106 | 45 | 3 | 0 |
| 22:00 | 143 | 4 | 93 | 43 | 3 | 1 |
| 23:00 | 97 | 3 | 54 | 37 | 2 | 2 |
| Totales | | | | | | |
| 12H,7-19 | 2.550 | 106 | 1.519 | 854 | 64 | 7 |
| 16H,6-22 | 3.231 | 139 | 1.927 | 1.075 | 81 | 10 |
| 18H,6-24 | 3.471 | 146 | 2.073 | 1.155 | 85 | 12 |
| 24H,0-24 | 3.729 | 152 | 2.195 | 1.279 | 88 | 15 |
| AM | 11:00 | 11:00 | 11:00 | 07:00 | 11:00 | 00:00 |
| Valor Punta | 220 | 10 | 138 | 79 | 6 | 2 |
| PM | 17:00 | 13:00 | 17:00 | 17:00 | 19:00 | 23:00 |
| Valor Punta | 275 | 13 | 169 | 88 | 8 | 2 |

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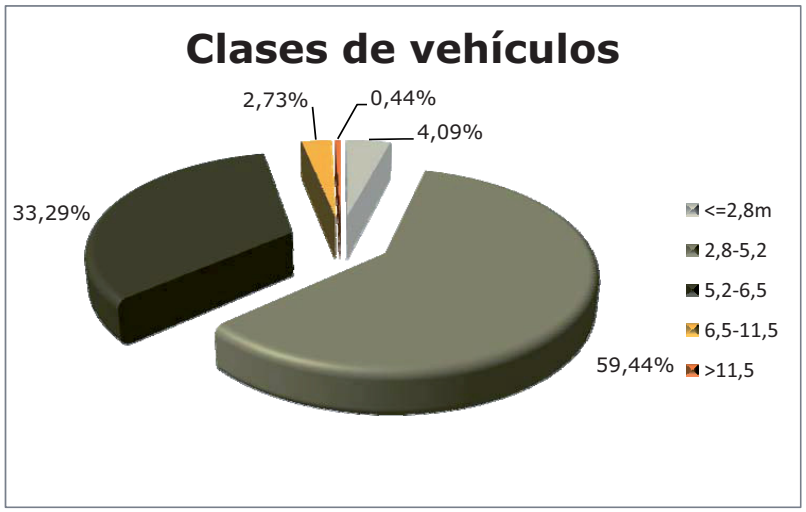
### 10.4.3. Clases de vehículos porcentuales

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 292 | 2,05% | 55,48% | 37,33% | 2,74% | 2,40% |
| 01:00 | 179 | 2,79% | 53,63% | 41,90% | 1,12% | 0,56% |
| 02:00 | 104 | 2,91% | 54,37% | 41,75% | 0,00% | 0,97% |
| 03:00 | 66 | 3,08% | 52,31% | 44,62% | 0,00% | 0,00% |
| 04:00 | 85 | 1,19% | 42,86% | 55,95% | 0,00% | 0,00% |
| 05:00 | 170 | 2,35% | 28,24% | 67,65% | 1,18% | 0,59% |
| 06:00 | 292 | 2,06% | 31,96% | 63,92% | 1,37% | 0,69% |
| 07:00 | 466 | 2,36% | 38,20% | 57,08% | 1,93% | 0,43% |
| 08:00 | 515 | 3,51% | 46,39% | 47,95% | 1,75% | 0,39% |
| 09:00 | 589 | 2,89% | 55,78% | 38,95% | 2,21% | 0,17% |
| 10:00 | 700 | 4,58% | 60,09% | 32,05% | 3,00% | 0,29% |
| 11:00 | 716 | 4,76% | 63,22% | 28,81% | 2,94% | 0,28% |
| 12:00 | 747 | 5,50% | 64,34% | 25,87% | 3,49% | 0,80% |
| 13:00 | 861 | 5,00% | 64,65% | 26,40% | 3,72% | 0,23% |
| 14:00 | 881 | 4,65% | 63,79% | 28,26% | 3,06% | 0,23% |
| 15:00 | 846 | 3,31% | 63,05% | 30,81% | 2,72% | 0,12% |
| 16:00 | 803 | 3,62% | 57,23% | 36,16% | 2,87% | 0,12% |
| 17:00 | 827 | 4,11% | 61,43% | 31,44% | 2,78% | 0,24% |
| 18:00 | 804 | 4,61% | 63,64% | 28,27% | 3,11% | 0,37% |
| 19:00 | 771 | 5,45% | 65,37% | 24,90% | 3,63% | 0,65% |
| 20:00 | 658 | 5,78% | 66,36% | 24,05% | 3,50% | 0,30% |
| 21:00 | 709 | 4,80% | 65,59% | 27,08% | 2,26% | 0,28% |
| 22:00 | 615 | 3,08% | 64,77% | 29,55% | 2,11% | 0,49% |
| 23:00 | 384 | 2,59% | 55,70% | 37,31% | 2,33% | 2,07% |
| Totals | | | | | | |
| 12H,7-19 | 8.755 | 4,17% | 59,74% | 32,90% | 2,88% | 0,30% |
| 16H,6-22 | 11.186 | 4,34% | 60,17% | 32,27% | 2,89% | 0,33% |
| 18H,6-24 | 12.185 | 4,22% | 60,26% | 32,29% | 2,83% | 0,39% |
| 24H,0-24 | 13.081 | 4,09% | 59,44% | 33,29% | 2,73% | 0,44% |
| | | Ligeros | | | Pesados | |
| Am | 11:00 | 11:00 | 11:00 | 07:00 | 11:00 | 00:00 |
| Peak | 716 | 34 | 453 | 266 | 21 | 7 |
| Am | 14:00 | 13:00 | 14:00 | 16:00 | 13:00 | 23:00 |
| Peak | 881 | 43 | 562 | 290 | 32 | 8 |

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### 10.4.4. Gráficos de clases de vehículos




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## 10.5. Velocidades

| | Total | 85th | Mean | Std. | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 | Bin 6 | Bin 7 | Bin 8 | Bin 9 | Bin 10 | Bin 11 | Bin 12 | Bin 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Vol. | %ile | Ave. | Dev. | <6Kph | 6-<11 | 11-<16 | 16-<21 | 21-<26 | 26-<31 | 31-<36 | 36-<41 | 41-<46 | 46-<51 | 51-<56 | 56-<61 | =>61 |
| 00:00 | 292 | 46,7 | 37,3 | 9,1 | 0 | 0 | 1 | 0 | 9 | 56 | 83 | 55 | 38 | 22 | 14 | 7 | 6 |
| 01:00 | 179 | 48,3 | 39,0 | 8,9 | 0 | 0 | 0 | 1 | 4 | 24 | 48 | 39 | 26 | 20 | 8 | 5 | 5 |
| 02:00 | 104 | 49,2 | 39,2 | 9,4 | 0 | 0 | 0 | 0 | 2 | 15 | 27 | 18 | 16 | 12 | 5 | 4 | 3 |
| 03:00 | 66 | 50,2 | 40,0 | 9,7 | 0 | 0 | 0 | 0 | 1 | 10 | 16 | 13 | 10 | 8 | 4 | 3 | 2 |
| 04:00 | 85 | 52,8 | 41,8 | 10,1 | 0 | 0 | 0 | 0 | 2 | 10 | 15 | 15 | 14 | 12 | 7 | 6 | 4 |
| 05:00 | 170 | 54,8 | 43,8 | 9,7 | 0 | 0 | 0 | 0 | 2 | 13 | 23 | 31 | 35 | 26 | 19 | 13 | 9 |
| 06:00 | 292 | 51,8 | 42,2 | 9,1 | 0 | 0 | 1 | 1 | 2 | 20 | 46 | 65 | 61 | 47 | 28 | 13 | 8 |
| 07:00 | 466 | 48,2 | 39,9 | 8,2 | 0 | 0 | 0 | 3 | 8 | 43 | 92 | 126 | 99 | 56 | 23 | 9 | 6 |
| 08:00 | 515 | 48,0 | 38,9 | 8,8 | 0 | 0 | 1 | 5 | 13 | 69 | 117 | 117 | 94 | 53 | 29 | 11 | 7 |
| 09:00 | 589 | 46,3 | 37,3 | 8,6 | 0 | 0 | 0 | 6 | 25 | 116 | 140 | 126 | 84 | 55 | 21 | 10 | 6 |
| 10:00 | 700 | 43,9 | 34,9 | 8,4 | 0 | 0 | 3 | 12 | 53 | 201 | 154 | 122 | 86 | 42 | 17 | 6 | 4 |
| 11:00 | 716 | 42,6 | 33,6 | 8,3 | 0 | 0 | 3 | 19 | 81 | 220 | 152 | 109 | 78 | 34 | 12 | 5 | 4 |
| 12:00 | 747 | 42,1 | 33,0 | 8,7 | 1 | 2 | 6 | 27 | 89 | 230 | 159 | 106 | 69 | 35 | 14 | 4 | 4 |
| 13:00 | 861 | 43,3 | 34,2 | 8,5 | 0 | 0 | 2 | 18 | 81 | 253 | 210 | 125 | 90 | 45 | 22 | 9 | 6 |
| 14:00 | 881 | 44,4 | 35,2 | 8,7 | 0 | 0 | 2 | 14 | 66 | 235 | 221 | 144 | 95 | 58 | 25 | 11 | 11 |
| 15:00 | 846 | 46,6 | 37,1 | 8,8 | 0 | 0 | 0 | 4 | 31 | 184 | 236 | 153 | 103 | 70 | 37 | 17 | 10 |
| 16:00 | 803 | 47,3 | 37,7 | 8,9 | 0 | 0 | 0 | 6 | 29 | 162 | 202 | 147 | 117 | 74 | 36 | 16 | 13 |
| 17:00 | 827 | 45,2 | 36,1 | 8,7 | 0 | 0 | 0 | 9 | 50 | 198 | 209 | 149 | 104 | 58 | 26 | 15 | 8 |
| 18:00 | 804 | 43,5 | 34,5 | 8,6 | 0 | 1 | 2 | 17 | 68 | 227 | 189 | 135 | 87 | 46 | 18 | 7 | 6 |
| 19:00 | 771 | 41,7 | 33,3 | 8,2 | 0 | 1 | 3 | 19 | 87 | 239 | 178 | 118 | 72 | 33 | 11 | 5 | 4 |
| 20:00 | 658 | 40,9 | 32,5 | 8,3 | 0 | 0 | 2 | 29 | 91 | 213 | 136 | 91 | 54 | 25 | 10 | 4 | 4 |
| 21:00 | 709 | 42,5 | 33,5 | 8,4 | 0 | 0 | 1 | 13 | 81 | 242 | 143 | 102 | 70 | 32 | 14 | 5 | 5 |
| 22:00 | 615 | 45,1 | 35,8 | 8,8 | 0 | 0 | 0 | 3 | 35 | 171 | 158 | 95 | 73 | 44 | 20 | 8 | 8 |
| 23:00 | 384 | 46,6 | 37,3 | 9,2 | 0 | 2 | 0 | 2 | 11 | 78 | 99 | 71 | 57 | 32 | 16 | 8 | 7 |
| Totales | | | | | | | | | | | | | | | | | |
| 12H,7-19 | 8755 | 48,2 | 39,9 | 8,9 | 1 | 3 | 19 | 140 | 594 | 2138 | 2081 | 1560 | 1107 | 627 | 280 | 120 | 85 |
| 16H,6-22 | 11186 | 48,0 | 38,9 | 8,9 | 1 | 4 | 26 | 202 | 856 | 2852 | 2584 | 1936 | 1365 | 764 | 343 | 147 | 106 |
| 18H,6-24 | 12185 | 47,3 | 37,7 | 8,9 | 1 | 6 | 26 | 207 | 902 | 3101 | 2841 | 2102 | 1495 | 840 | 379 | 163 | 121 |
| 24H,0-24 | 13081 | 47,3 | 37,7 | 8,9 | 1 | 6 | 27 | 208 | 922 | 3229 | 3054 | 2274 | 1634 | 939 | 436 | 201 | 150 |
| AM | 11:00 | 05:00 | 05:00 | 04:00 | 11:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 | 11:00 | 09:00 | 07:00 | 07:00 | 08:00 | 06:00 | 05:00 |
| Valor Punta | 716 | 54,8 | 43,8 | 10,1 | 0 | 0 | 3 | 19 | 81 | 220 | 154 | 126 | 99 | 56 | 29 | 13 | 9 |
| PM | 23:00 | 16:00 | 16:00 | 23:00 | 12:00 | 12:00 | 12:00 | 20:00 | 20:00 | 13:00 | 15:00 | 15:00 | 16:00 | 16:00 | 15:00 | 15:00 | 16:00 |
| Valor Punta | 881 | 47,3 | 37,7 | 9,2 | 1 | 2 | 6 | 29 | 91 | 253 | 236 | 153 | 117 | 74 | 37 | 17 | 13 |

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## 11. Datos del aforo 05

**Duración de los Aforos:**
00:00 lunes, 13 de septiembre 2012 => 23:00 domingo, 19 de septiembre 2012
**Identificador:**
Vectio TN-05 (Tubo Neumático)
**Tipo de Datos:**
Sensores de Ejes - En Pares (Clase, Velocidad, Recuento)
**Clases Incluidas:**
1, 2, 3, 4, 5
**Esquema:**
Clasificación Vehicular (FHWA)
**Intervalo de Velocidades:**
10 - 200 km/h.
**Sentido de Circulación:**
1: A-B = Ascendente (Salida de Castro Urdiales)
2: B-A = Descendente (Entrada a Castro Urdiales)
**Separación:**
Todos - (Intervalo Vehicular)
**Unidades:**
Métrico (metro, kilómetro, m/s, km/h, kg, Tonelada Métrica (kg))
**Localización del aforador:**
Calle de Leonardo Rucabado
**Localización geográfica:**
N 43°22'37.00" O 3°12'03.18"
**Imagen**



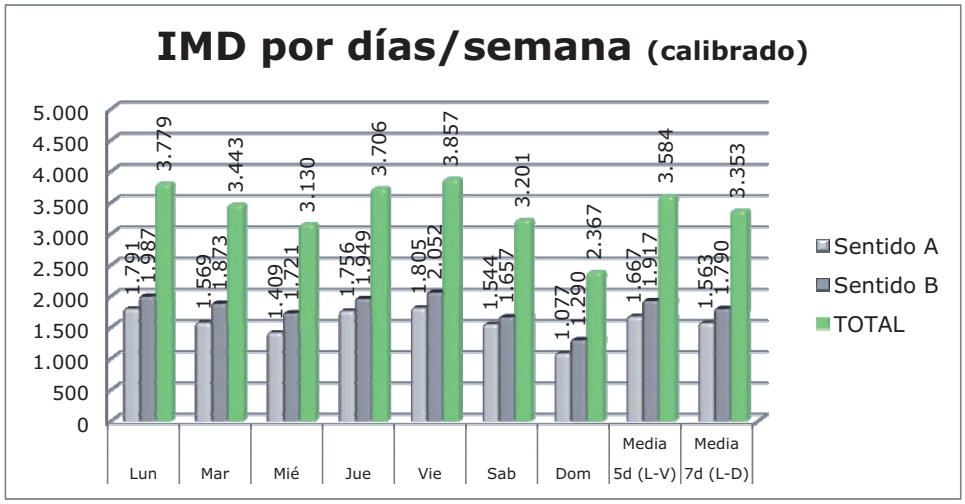
CVE-2014-9573

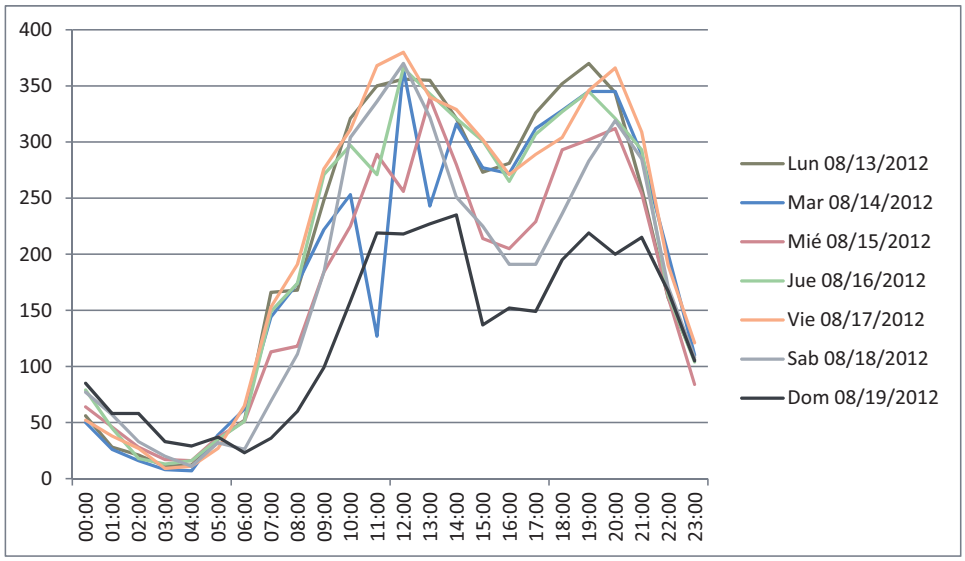
## 11.1. Volumen de vehículos – Total

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 56 | 50 | 64 | 79 | 52 | 77 | 85 | 60 | 66 |
| 01:00 | 28 | 26 | 46 | 45 | 38 | 57 | 58 | 37 | 43 |
| 02:00 | 21 | 16 | 28 | 18 | 27 | 33 | 58 | 22 | 29 |
| 03:00 | 11 | 8 | 17 | 13 | 9 | 20 | 33 | 12 | 16 |
| 04:00 | 12 | 7 | 16 | 16 | 11 | 11 | 29 | 12 | 15 |
| 05:00 | 35 | 39 | 37 | 35 | 27 | 32 | 37 | 35 | 35 |
| 06:00 | 52 | 62 | 51 | 51 | 65 | 26 | 23 | 56 | 47 |
| 07:00 | 166 | 144 | 113 | 149 | 153 | 69 | 36 | 145 | 119 |
| 08:00 | 168 | 174 | 118 | 174 | 191 | 111 | 60 | 165 | 142 |
| 09:00 | 248 | 222 | 184 | 271 | 276 | 184 | 99 | 240 | 212 |
| 10:00 | 321 | 253 | 225 | 297 | 311 | 304 | 158 | 281 | 267 |
| 11:00 | 350 | 127 | 289 | 271 | 368 | 336 | 219 | 281 | 280 |
| 12:00 | 356 | 365 | 256 | 366 | 380 | 370 | 218 | 345 | 330 |
| 13:00 | 355 | 243 | 339 | 343 | 340 | 322 | 227 | 324 | 310 |
| 14:00 | 321 | 316 | 280 | 321 | 329 | 251 | 235 | 313 | 293 |
| 15:00 | 273 | 277 | 214 | 301 | 302 | 225 | 137 | 273 | 247 |
| 16:00 | 281 | 272 | 205 | 265 | 271 | 191 | 152 | 259 | 234 |
| 17:00 | 326 | 312 | 229 | 307 | 289 | 191 | 149 | 293 | 258 |
| 18:00 | 352 | 328 | 293 | 327 | 304 | 236 | 195 | 321 | 291 |
| 19:00 | 370 | 345 | 302 | 345 | 346 | 283 | 219 | 342 | 316 |
| 20:00 | 344 | 345 | 312 | 321 | 366 | 319 | 200 | 338 | 315 |
| 21:00 | 259 | 289 | 254 | 293 | 309 | 285 | 215 | 281 | 272 |
| 22:00 | 161 | 200 | 162 | 164 | 190 | 171 | 167 | 175 | 174 |
| 23:00 | 106 | 110 | 84 | 104 | 121 | 108 | 105 | 105 | 105 |
| 12h, 7-19 | 3.517 | 3.033 | 2.745 | 3.392 | 3.514 | 2.790 | 1.885 | 3.240 | 2.982 |
| 16h, 6-22 | 4.542 | 4.074 | 3.664 | 4.402 | 4.600 | 3.703 | 2.542 | 4.256 | 3.932 |
| 18h, 6-24 | 4.809 | 4.384 | 3.910 | 4.670 | 4.911 | 3.982 | 2.814 | 4.537 | 4.211 |
| 24h, 0-24 | 4.972 | 4.530 | 4.118 | 4.876 | 5.075 | 4.212 | 3.114 | 4.714 | 4.414 |
| AM | 11:00 | 10:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 | 10:00 | 11:00 |
| Valor Punta | 350 | 253 | 289 | 297 | 368 | 336 | 219 | 281 | 280 |
| PM | 19:00 | 12:00 | 13:00 | 12:00 | 12:00 | 12:00 | 14:00 | 12:00 | 12:00 |
| Valor Punta | 370 | 365 | 339 | 366 | 380 | 370 | 235 | 345 | 330 |

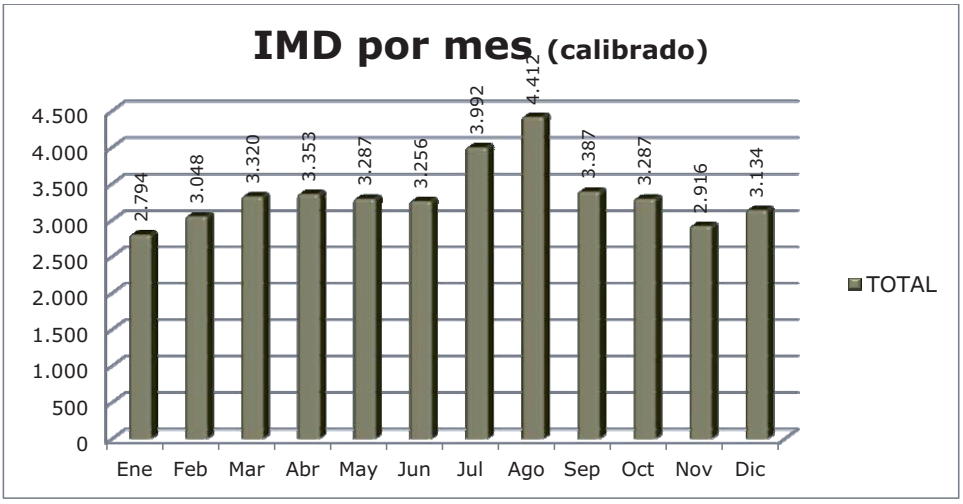
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### 11.1.1. Gráficos de volumen de vehículos –Total




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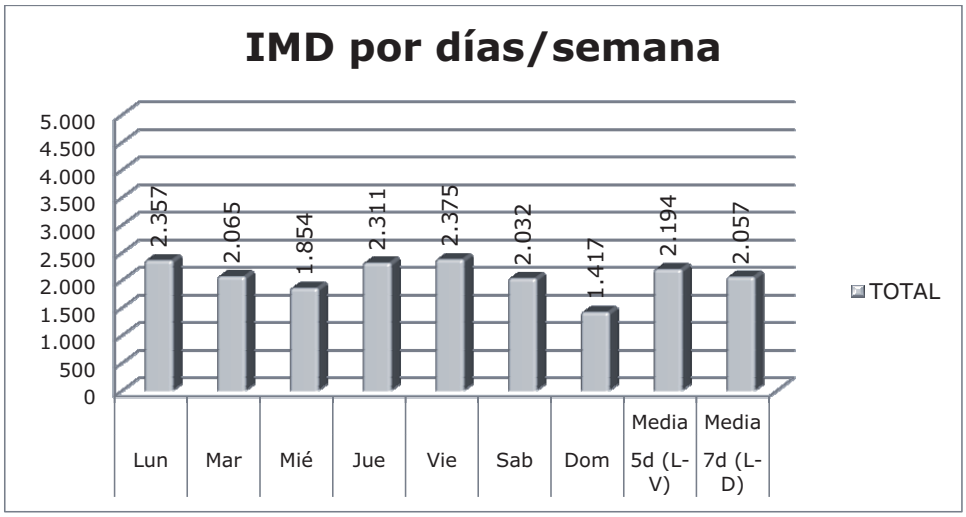

CVE-2014-9573

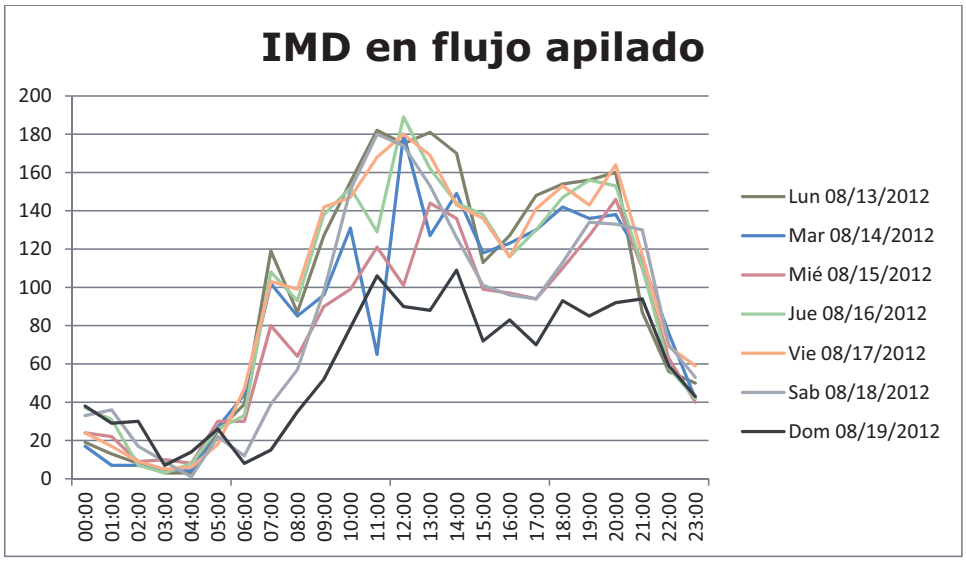
## 11.2. Volumen de vehículos – Sentido A

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 19 | 17 | 24 | 37 | 24 | 33 | 38 | 24 | 27 |
| 01:00 | 13 | 7 | 22 | 31 | 17 | 36 | 29 | 18 | 22 |
| 02:00 | 8 | 7 | 9 | 7 | 9 | 17 | 30 | 8 | 12 |
| 03:00 | 3 | 5 | 10 | 3 | 5 | 9 | 7 | 5 | 6 |
| 04:00 | 3 | 4 | 8 | 8 | 6 | 1 | 14 | 6 | 6 |
| 05:00 | 25 | 27 | 30 | 26 | 18 | 22 | 26 | 25 | 25 |
| 06:00 | 39 | 44 | 30 | 33 | 47 | 12 | 8 | 39 | 30 |
| 07:00 | 119 | 102 | 80 | 108 | 103 | 39 | 15 | 102 | 81 |
| 08:00 | 87 | 85 | 64 | 93 | 99 | 57 | 35 | 86 | 74 |
| 09:00 | 127 | 96 | 90 | 138 | 142 | 98 | 52 | 119 | 106 |
| 10:00 | 155 | 131 | 99 | 152 | 147 | 151 | 79 | 137 | 131 |
| 11:00 | 182 | 65 | 121 | 129 | 168 | 180 | 106 | 133 | 136 |
| 12:00 | 175 | 180 | 101 | 189 | 180 | 174 | 90 | 165 | 156 |
| 13:00 | 181 | 127 | 144 | 162 | 169 | 153 | 88 | 157 | 146 |
| 14:00 | 170 | 149 | 136 | 144 | 143 | 126 | 109 | 148 | 140 |
| 15:00 | 113 | 118 | 99 | 138 | 136 | 101 | 72 | 121 | 111 |
| 16:00 | 127 | 123 | 97 | 116 | 116 | 96 | 83 | 116 | 108 |
| 17:00 | 148 | 130 | 94 | 130 | 141 | 94 | 70 | 129 | 115 |
| 18:00 | 154 | 142 | 110 | 147 | 153 | 113 | 93 | 141 | 130 |
| 19:00 | 156 | 136 | 127 | 156 | 143 | 134 | 85 | 144 | 134 |
| 20:00 | 160 | 138 | 146 | 153 | 164 | 133 | 92 | 152 | 141 |
| 21:00 | 87 | 114 | 110 | 111 | 117 | 130 | 94 | 108 | 109 |
| 22:00 | 56 | 76 | 63 | 58 | 69 | 70 | 59 | 64 | 64 |
| 23:00 | 50 | 42 | 40 | 42 | 59 | 53 | 43 | 47 | 47 |
| 12h, 7-19 | 1.738 | 1.448 | 1.235 | 1.646 | 1.697 | 1.382 | 892 | 1.554 | 1.434 |
| 16h, 6-22 | 2.180 | 1.880 | 1.648 | 2.099 | 2.168 | 1.791 | 1.171 | 1.997 | 1.848 |
| 18h, 6-24 | 2.286 | 1.998 | 1.751 | 2.199 | 2.296 | 1.914 | 1.273 | 2.108 | 1.959 |
| 24h, 0-24 | 2.357 | 2.065 | 1.854 | 2.311 | 2.375 | 2.032 | 1.417 | 2.194 | 2.057 |
| AM | 11:00 | 10:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 | 10:00 | 11:00 |
| Valor Punta | 182 | 131 | 121 | 152 | 168 | 180 | 106 | 137 | 136 |
| PM | 13:00 | 12:00 | 20:00 | 12:00 | 12:00 | 12:00 | 14:00 | 12:00 | 12:00 |
| Valor Punta | 181 | 180 | 146 | 189 | 180 | 174 | 109 | 165 | 156 |

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### 11.2.1. Gráficos de volumen de vehículos –Sentido A



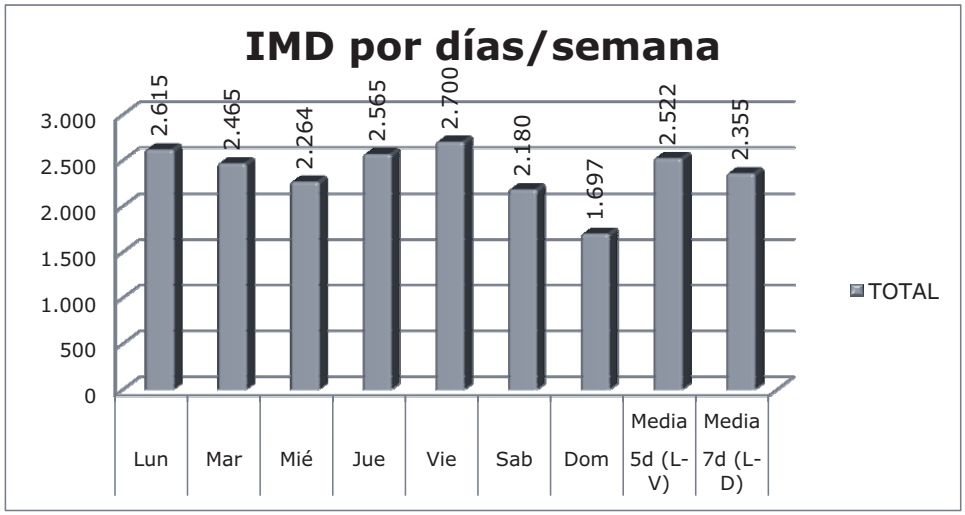

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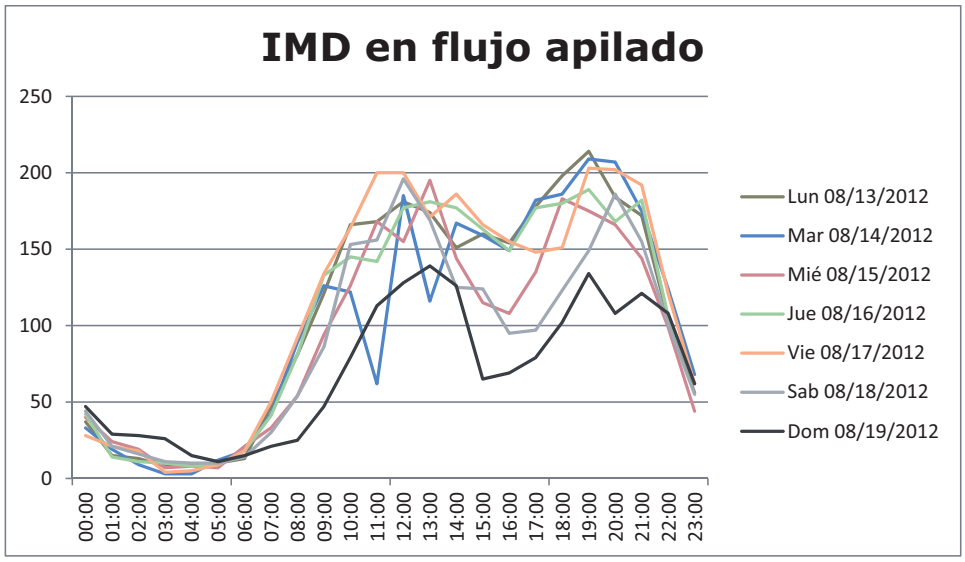
## 11.3. Volumen de vehículos – Sentido B

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 37 | 33 | 40 | 42 | 28 | 44 | 47 | 36 | 39 |
| 01:00 | 15 | 19 | 24 | 14 | 21 | 21 | 29 | 19 | 20 |
| 02:00 | 13 | 9 | 19 | 11 | 18 | 16 | 28 | 14 | 16 |
| 03:00 | 8 | 3 | 7 | 10 | 4 | 11 | 26 | 6 | 10 |
| 04:00 | 9 | 3 | 8 | 8 | 5 | 10 | 15 | 7 | 8 |
| 05:00 | 10 | 12 | 7 | 9 | 9 | 10 | 11 | 9 | 10 |
| 06:00 | 13 | 18 | 21 | 18 | 18 | 14 | 15 | 18 | 17 |
| 07:00 | 47 | 42 | 33 | 41 | 50 | 30 | 21 | 43 | 38 |
| 08:00 | 81 | 89 | 54 | 81 | 92 | 54 | 25 | 79 | 68 |
| 09:00 | 121 | 126 | 94 | 133 | 134 | 86 | 47 | 122 | 106 |
| 10:00 | 166 | 122 | 126 | 145 | 164 | 153 | 79 | 145 | 136 |
| 11:00 | 168 | 62 | 168 | 142 | 200 | 156 | 113 | 148 | 144 |
| 12:00 | 181 | 185 | 155 | 177 | 200 | 196 | 128 | 180 | 175 |
| 13:00 | 174 | 116 | 195 | 181 | 171 | 169 | 139 | 167 | 164 |
| 14:00 | 151 | 167 | 144 | 177 | 186 | 125 | 126 | 165 | 154 |
| 15:00 | 160 | 159 | 115 | 163 | 166 | 124 | 65 | 153 | 136 |
| 16:00 | 154 | 149 | 108 | 149 | 155 | 95 | 69 | 143 | 126 |
| 17:00 | 178 | 182 | 135 | 177 | 148 | 97 | 79 | 164 | 142 |
| 18:00 | 198 | 186 | 183 | 180 | 151 | 123 | 102 | 180 | 160 |
| 19:00 | 214 | 209 | 175 | 189 | 203 | 149 | 134 | 198 | 182 |
| 20:00 | 184 | 207 | 166 | 168 | 202 | 186 | 108 | 185 | 174 |
| 21:00 | 172 | 175 | 144 | 182 | 192 | 155 | 121 | 173 | 163 |
| 22:00 | 105 | 124 | 99 | 106 | 121 | 101 | 108 | 111 | 109 |
| 23:00 | 56 | 68 | 44 | 62 | 62 | 55 | 62 | 58 | 58 |
| 12h, 7-19 | 1.779 | 1.585 | 1.510 | 1.746 | 1.817 | 1.408 | 993 | 1.687 | 1.548 |
| 16h, 6-22 | 2.362 | 2.194 | 2.016 | 2.303 | 2.432 | 1.912 | 1.371 | 2.261 | 2.084 |
| 18h, 6-24 | 2.523 | 2.386 | 2.159 | 2.471 | 2.615 | 2.068 | 1.541 | 2.431 | 2.252 |
| 24h, 0-24 | 2.615 | 2.465 | 2.264 | 2.565 | 2.700 | 2.180 | 1.697 | 2.522 | 2.355 |
| AM | 11:00 | 09:00 | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 168 | 126 | 168 | 145 | 200 | 156 | 113 | 148 | 144 |
| PM | 19:00 | 19:00 | 13:00 | 19:00 | 19:00 | 13:00 | 13:00 | 19:00 | 19:00 |
| Valor Punta | 214 | 209 | 195 | 189 | 203 | 196 | 139 | 198 | 182 |

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### 11.3.1. Gráficos de volumen de vehículos –Sentido B




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## 11.4. Clases de vehículos

### 11.4.1. Esquema de clasificación FHWA

| Ejes | Grupos | Descripción | Clase | Parámetros | Vehículo Dominante | Conjunto |
|---|---|---|---|---|---|---|
| 2 | 1 | Bicicleta o Moto | 1 | d(1)<1.7m & Ejes=2 |  | 1 (Ligero) |
| 2, 3 o 4 | 1 o 2 | Turismo, Furgoneta ligera | 2 | d(1)>=1.7m, d(1)<=3.2m & Ejes=2 |  | |
| 2, 3 o 4 | 1 | Caravana, Remolque, etc. Pick-ups y furgonetas. | 3 | grupos=3, d(1)>=2.1m, d(1)<=3.2m, d(2)>=2.1m & Ejes=3,4,5 |  | |
| 2 o 3 | 1 | Bus | 5 | d(1)>3.2m & Ejes=2 |  | 2 (Medio) |
| 2 | 1 | Camión rígido de dos ejes | 3 | Ejes=2 & grupos=1 |  | |
| 3 | 1 | Camión rígido de tres ejes | 4 | Ejes>3 & grupos=2 |  | |
| 4 | 1 | Camión articulado rígido de tres ejes | 4 | d(1)>3.2m, Ejes=3 & grupos=4 |  | 3 (Pesado) |
| 2 o 4 | 2 | Camión articulado rígido de cuatro ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes = 4 & grupos>2 |  | |
| 5 o 6 | 2 | Camión articulado rígido de cinco ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes=5 & grupos>2 |  | |
| 6 o 7 | 2 | Camión articulado rígido de seis ejes (o más) | 5 | Ejes=6 & grupos>2 o Ejes>6 & grupos=3 |  | |
| 5 | 3 | Camion con remolque | 5 | grupos=4 & Ejes>6 |  | |
| 6 | 3 | Camion con remolque | 5 | grupos>=5 & Ejes>6 |  | |
| 7 | >3 | Camión con remolque | 5 | |  | |

Clase para vehículos inclasificables: 13

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### 11.4.2. Clases de vehículos absolutos

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 66 | 1 | 49 | 16 | 0 | 1 |
| 01:00 | 43 | 1 | 29 | 12 | 0 | 1 |
| 02:00 | 29 | 1 | 21 | 7 | 0 | 0 |
| 03:00 | 16 | 0 | 13 | 3 | 0 | 0 |
| 04:00 | 15 | 1 | 10 | 3 | 0 | 0 |
| 05:00 | 35 | 3 | 19 | 13 | 0 | 0 |
| 06:00 | 47 | 2 | 27 | 18 | 0 | 0 |
| 07:00 | 119 | 3 | 61 | 52 | 0 | 1 |
| 08:00 | 142 | 3 | 89 | 47 | 1 | 3 |
| 09:00 | 212 | 6 | 139 | 58 | 1 | 9 |
| 10:00 | 267 | 8 | 174 | 71 | 3 | 11 |
| 11:00 | 280 | 14 | 182 | 66 | 3 | 16 |
| 12:00 | 330 | 12 | 206 | 84 | 7 | 22 |
| 13:00 | 310 | 11 | 192 | 78 | 5 | 23 |
| 14:00 | 293 | 11 | 188 | 73 | 4 | 17 |
| 15:00 | 247 | 7 | 165 | 59 | 3 | 13 |
| 16:00 | 234 | 8 | 157 | 56 | 2 | 11 |
| 17:00 | 258 | 11 | 169 | 58 | 5 | 14 |
| 18:00 | 291 | 11 | 188 | 66 | 5 | 21 |
| 19:00 | 316 | 10 | 213 | 67 | 5 | 21 |
| 20:00 | 315 | 9 | 207 | 74 | 4 | 22 |
| 21:00 | 272 | 8 | 194 | 57 | 3 | 10 |
| 22:00 | 174 | 7 | 125 | 33 | 2 | 6 |
| 23:00 | 105 | 4 | 76 | 23 | 0 | 2 |
| Totales | | | | | | |
| 12H,7-19 | 2.982 | 105 | 1.909 | 768 | 40 | 160 |
| 16H,6-22 | 3.932 | 134 | 2.550 | 983 | 52 | 214 |
| 18H,6-24 | 4.211 | 145 | 2.752 | 1.040 | 54 | 221 |
| 24H,0-24 | 4.414 | 152 | 2.892 | 1.094 | 54 | 222 |
| AM | 11:00 | 11:00 | 11:00 | 10:00 | 10:00 | 11:00 |
| Valor Punta | 280 | 14 | 182 | 71 | 3 | 16 |
| PM | 12:00 | 12:00 | 19:00 | 12:00 | 12:00 | 13:00 |
| Valor Punta | 330 | 12 | 213 | 84 | 7 | 23 |

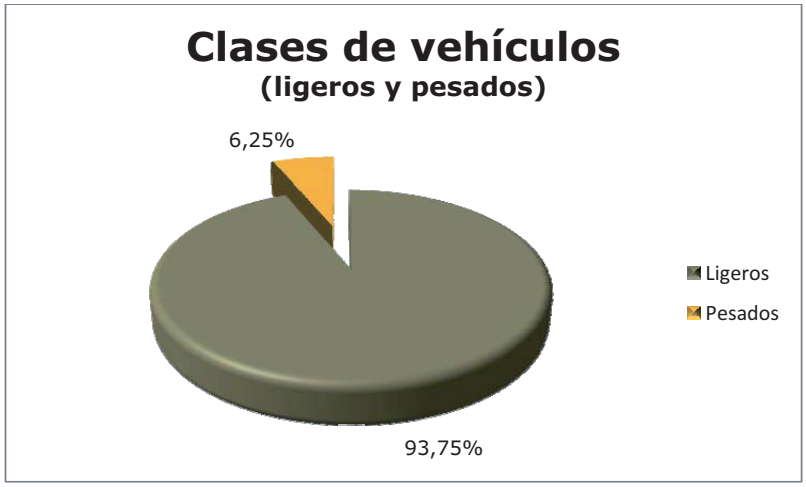
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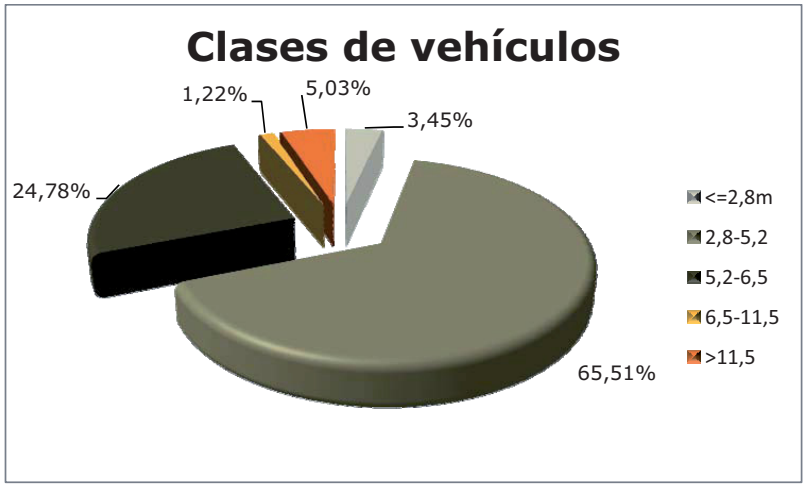
### 11.4.3. Clases de vehículos porcentuales

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 66 | 1,61% | 73,39% | 24,19% | 0,00% | 0,81% |
| 01:00 | 43 | 2,78% | 68,06% | 27,78% | 0,00% | 1,39% |
| 02:00 | 29 | 4,76% | 71,43% | 23,81% | 0,00% | 0,00% |
| 03:00 | 16 | 0,00% | 83,33% | 16,67% | 0,00% | 0,00% |
| 04:00 | 15 | 7,69% | 69,23% | 23,08% | 0,00% | 0,00% |
| 05:00 | 35 | 8,11% | 54,05% | 37,84% | 0,00% | 0,00% |
| 06:00 | 47 | 3,85% | 57,69% | 38,46% | 0,00% | 0,00% |
| 07:00 | 119 | 2,80% | 51,75% | 44,06% | 0,35% | 1,05% |
| 08:00 | 142 | 1,89% | 62,26% | 32,70% | 0,94% | 2,20% |
| 09:00 | 212 | 2,60% | 65,37% | 27,27% | 0,65% | 4,11% |
| 10:00 | 267 | 2,95% | 65,13% | 26,57% | 1,11% | 4,24% |
| 11:00 | 280 | 5,02% | 64,86% | 23,55% | 0,97% | 5,60% |
| 12:00 | 330 | 3,57% | 62,35% | 25,30% | 2,08% | 6,70% |
| 13:00 | 310 | 3,44% | 62,03% | 25,31% | 1,72% | 7,50% |
| 14:00 | 293 | 3,88% | 64,08% | 24,92% | 1,46% | 5,66% |
| 15:00 | 247 | 3,01% | 66,73% | 24,06% | 1,13% | 5,08% |
| 16:00 | 234 | 3,52% | 67,19% | 23,83% | 0,78% | 4,69% |
| 17:00 | 258 | 4,39% | 65,71% | 22,64% | 1,86% | 5,41% |
| 18:00 | 291 | 3,69% | 64,62% | 22,77% | 1,69% | 7,23% |
| 19:00 | 316 | 3,24% | 67,35% | 21,18% | 1,62% | 6,62% |
| 20:00 | 315 | 2,73% | 65,61% | 23,33% | 1,36% | 6,97% |
| 21:00 | 272 | 2,92% | 71,35% | 20,80% | 1,09% | 3,83% |
| 22:00 | 174 | 4,09% | 72,22% | 19,30% | 1,17% | 3,22% |
| 23:00 | 105 | 4,00% | 72,50% | 22,00% | 0,00% | 1,50% |
| Totals | | | | | | |
| 12H,7-19 | 2.982 | 3,52% | 64,01% | 25,76% | 1,33% | 5,38% |
| 16H,6-22 | 3.932 | 3,40% | 64,84% | 25,00% | 1,32% | 5,44% |
| 18H,6-24 | 4.211 | 3,44% | 65,34% | 24,69% | 1,28% | 5,25% |
| 24H,0-24 | 4.414 | 3,45% | 65,51% | 24,78% | 1,22% | 5,03% |
| | | | Ligeros | | Pesados | |
| Am | 11:00 | 11:00 | 11:00 | 10:00 | 10:00 | 11:00 |
| Peak | 280 | 14 | 182 | 71 | 3 | 16 |
| Am | 12:00 | 12:00 | 19:00 | 12:00 | 12:00 | 13:00 |
| Peak | 330 | 12 | 213 | 84 | 7 | 23 |

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### 11.4.4. Gráficos de clases de vehículos




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## 11.5. Velocidades

| | Total | 85th | Mean | Std. | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 | Bin 6 | Bin 7 | Bin 8 | Bin 9 | Bin 10 | Bin 11 | Bin 12 | Bin 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Vol. | %ile | Ave. | Dev. | <6Kph | 6-<11 | 11-<16 | 16-<21 | 21-<26 | 26-<31 | 31-<36 | 36-<41 | 41-<46 | 46-<51 | 51-<56 | 56-<61 | =>61 |
| 00:00 | 66 | 36,9 | 28,0 | 8,7 | 0 | 0 | 4 | 13 | 12 | 14 | 12 | 5 | 5 | 0 | 0 | 0 | 0 |
| 01:00 | 43 | 38,4 | 28,7 | 9,1 | 0 | 1 | 0 | 9 | 8 | 9 | 8 | 6 | 2 | 0 | 0 | 0 | 0 |
| 02:00 | 29 | 38,0 | 28,7 | 8,4 | 0 | 0 | 0 | 4 | 7 | 7 | 4 | 5 | 2 | 0 | 0 | 0 | 0 |
| 03:00 | 16 | 37,6 | 28,6 | 9,7 | 0 | 0 | 0 | 3 | 2 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |
| 04:00 | 15 | 40,1 | 30,5 | 10,1 | 0 | 0 | 0 | 3 | 4 | 3 | 3 | 1 | 1 | 0 | 0 | 0 | 0 |
| 05:00 | 35 | 42,3 | 31,9 | 9,9 | 0 | 0 | 0 | 2 | 6 | 8 | 7 | 6 | 6 | 1 | 0 | 0 | 0 |
| 06:00 | 47 | 40,1 | 30,6 | 9,4 | 0 | 0 | 2 | 5 | 8 | 11 | 9 | 6 | 3 | 3 | 0 | 0 | 0 |
| 07:00 | 119 | 40,2 | 30,3 | 9,6 | 0 | 1 | 4 | 11 | 22 | 27 | 23 | 14 | 8 | 6 | 2 | 0 | 0 |
| 08:00 | 142 | 37,2 | 28,0 | 9,3 | 1 | 2 | 5 | 20 | 33 | 34 | 23 | 13 | 7 | 5 | 0 | 0 | 0 |
| 09:00 | 212 | 34,7 | 26,0 | 9,0 | 4 | 6 | 15 | 36 | 48 | 53 | 26 | 14 | 8 | 4 | 0 | 0 | 0 |
| 10:00 | 267 | 33,9 | 25,1 | 8,8 | 5 | 9 | 19 | 48 | 68 | 57 | 34 | 16 | 7 | 3 | 0 | 0 | 0 |
| 11:00 | 280 | 33,9 | 24,9 | 9,0 | 8 | 11 | 21 | 49 | 73 | 54 | 37 | 16 | 7 | 3 | 1 | 0 | 0 |
| 12:00 | 330 | 33,3 | 24,6 | 8,9 | 8 | 15 | 25 | 58 | 83 | 73 | 40 | 17 | 7 | 2 | 1 | 0 | 0 |
| 13:00 | 310 | 33,5 | 23,9 | 9,6 | 11 | 16 | 30 | 60 | 69 | 62 | 36 | 17 | 6 | 2 | 1 | 0 | 0 |
| 14:00 | 293 | 34,6 | 25,2 | 9,3 | 7 | 11 | 23 | 51 | 68 | 61 | 39 | 21 | 7 | 4 | 0 | 0 | 0 |
| 15:00 | 247 | 35,5 | 26,3 | 9,5 | 5 | 8 | 19 | 41 | 53 | 51 | 38 | 18 | 10 | 4 | 2 | 0 | 0 |
| 16:00 | 234 | 34,9 | 26,1 | 8,6 | 2 | 6 | 17 | 40 | 53 | 54 | 34 | 18 | 6 | 3 | 1 | 0 | 0 |
| 17:00 | 258 | 34,1 | 25,0 | 9,1 | 7 | 11 | 20 | 48 | 53 | 59 | 36 | 15 | 5 | 4 | 0 | 0 | 0 |
| 18:00 | 291 | 33,3 | 24,0 | 9,0 | 7 | 14 | 31 | 53 | 71 | 55 | 34 | 17 | 6 | 3 | 0 | 0 | 0 |
| 19:00 | 316 | 31,5 | 23,0 | 8,8 | 8 | 16 | 33 | 77 | 77 | 54 | 28 | 12 | 7 | 2 | 0 | 0 | 0 |
| 20:00 | 315 | 30,6 | 22,4 | 8,7 | 10 | 19 | 40 | 65 | 81 | 55 | 25 | 11 | 5 | 3 | 0 | 0 | 0 |
| 21:00 | 272 | 33,2 | 24,5 | 8,7 | 5 | 7 | 25 | 59 | 75 | 48 | 28 | 14 | 7 | 2 | 1 | 0 | 0 |
| 22:00 | 174 | 35,1 | 25,9 | 9,0 | 1 | 4 | 11 | 39 | 37 | 36 | 25 | 13 | 6 | 2 | 0 | 0 | 0 |
| 23:00 | 105 | 35,4 | 27,1 | 9,0 | 0 | 2 | 6 | 17 | 22 | 24 | 18 | 8 | 4 | 3 | 1 | 0 | 0 |
| Totales | | | | | | | | | | | | | | | | | |
| 12H,7-19 | 2982 | 40,2 | 30,3 | 9,6 | 65 | 111 | 229 | 514 | 693 | 639 | 399 | 197 | 84 | 43 | 8 | 0 | 0 |
| 16H,6-22 | 3932 | 37,2 | 28,0 | 9,6 | 88 | 153 | 330 | 721 | 934 | 808 | 489 | 240 | 106 | 53 | 9 | 0 | 0 |
| 18H,6-24 | 4211 | 35,5 | 26,3 | 9,6 | 89 | 159 | 347 | 777 | 993 | 868 | 532 | 262 | 117 | 58 | 10 | 0 | 0 |
| 24H,0-24 | 4414 | 35,5 | 26,3 | 9,6 | 89 | 160 | 351 | 812 | 1032 | 912 | 569 | 286 | 134 | 59 | 10 | 0 | 0 |
| AM | 11:00 | 05:00 | 05:00 | 04:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 10:00 | 11:00 | 10:00 | 09:00 | 07:00 | 07:00 | 11:00 | 11:00 |
| Valor Punta | 280 | 42,3 | 31,9 | 10,1 | 8 | 11 | 21 | 49 | 73 | 57 | 37 | 16 | 8 | 6 | 2 | 0 | 0 |
| PM | 23:00 | 15:00 | 23:00 | 13:00 | 13:00 | 20:00 | 20:00 | 19:00 | 12:00 | 12:00 | 12:00 | 14:00 | 15:00 | 17:00 | 15:00 | 23:00 | 23:00 |
| Valor Punta | 330 | 35,5 | 27,1 | 9,6 | 11 | 19 | 40 | 77 | 83 | 73 | 40 | 21 | 10 | 4 | 2 | 0 | 0 |

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## 12. Datos del aforo 06

**Duración de los Aforos:**
00:00 lunes, 13 de septiembre 2012 => 23:00 domingo, 19 de septiembre 2012
**Identificador:**
Vectio TN-06 (Tubo Neumático)
**Tipo de Datos:**
Sensores de Ejes - En Pares (Clase, Velocidad, Recuento)
**Clases Incluidas:**
1, 2, 3, 4, 5
**Esquema:**
Clasificación Vehicular (FHWA)
**Intervalo de Velocidades:**
10 - 200 km/h.
**Sentido de Circulación:**
1: A-B = Ascendente (Entrada a Castro Urdiales)
2: B-A = Descendente (Salida de Castro Urdiales)
**Separación:**
Todos - (Intervalo Vehicular)
**Unidades:**
Métrico (metro, kilómetro, m/s, km/h, kg, Tonelada Métrica (kg))
**Localización del aforador:**
Calle de Leonardo Rucabado (Zona Estación)
**Localización geográfica:**
N 43°22'09.65" O 3°12'58.22"
**Imagen**



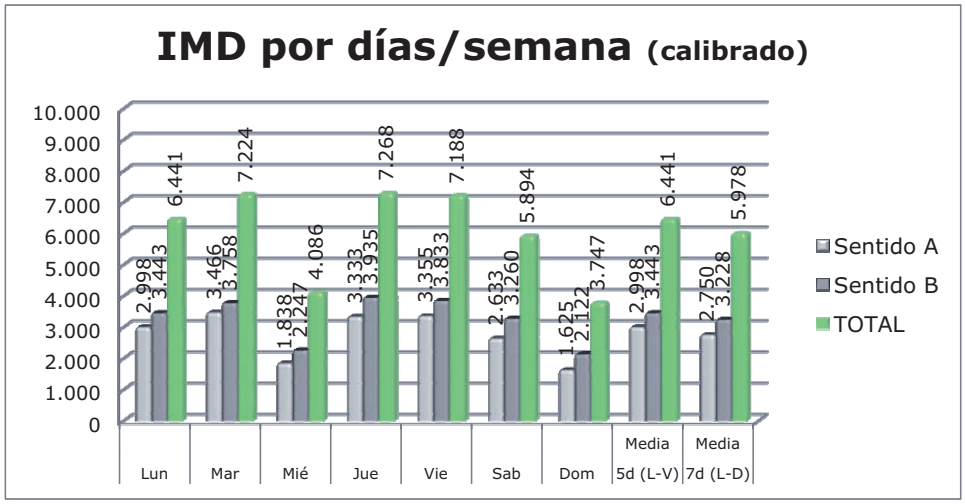

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## 12.1. Volumen de vehículos – Total

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 85 | 85 | 93 | 98 | 64 | 101 | 109 | 85 | 91 |
| 01:00 | 60 | 60 | 71 | 68 | 41 | 66 | 77 | 60 | 63 |
| 02:00 | 34 | 34 | 44 | 19 | 39 | 24 | 54 | 34 | 35 |
| 03:00 | 17 | 17 | 17 | 19 | 16 | 30 | 44 | 17 | 23 |
| 04:00 | 36 | 36 | 32 | 41 | 35 | 33 | 32 | 36 | 35 |
| 05:00 | 75 | 75 | 62 | 85 | 79 | 64 | 69 | 75 | 73 |
| 06:00 | 134 | 134 | 73 | 165 | 165 | 76 | 59 | 134 | 115 |
| 07:00 | 298 | 298 | 109 | 409 | 375 | 153 | 74 | 298 | 245 |
| 08:00 | 286 | 286 | 134 | 371 | 353 | 211 | 139 | 286 | 254 |
| 09:00 | 386 | 386 | 177 | 504 | 478 | 382 | 167 | 386 | 354 |
| 10:00 | 510 | 510 | 291 | 647 | 592 | 626 | 330 | 510 | 501 |
| 11:00 | 588 | 508 | 394 | 727 | 724 | 686 | 425 | 588 | 579 |
| 12:00 | 682 | 757 | 487 | 768 | 717 | 692 | 460 | 682 | 652 |
| 13:00 | 619 | 710 | 471 | 673 | 621 | 621 | 456 | 619 | 596 |
| 14:00 | 567 | 637 | 323 | 632 | 675 | 506 | 347 | 567 | 527 |
| 15:00 | 460 | 533 | 226 | 541 | 538 | 358 | 186 | 460 | 406 |
| 16:00 | 428 | 561 | 208 | 453 | 490 | 343 | 287 | 428 | 396 |
| 17:00 | 498 | 636 | 277 | 517 | 561 | 357 | 276 | 498 | 446 |
| 18:00 | 572 | 722 | 326 | 621 | 618 | 440 | 257 | 572 | 508 |
| 19:00 | 620 | 768 | 400 | 637 | 673 | 462 | 251 | 620 | 544 |
| 20:00 | 640 | 770 | 437 | 684 | 670 | 603 | 319 | 640 | 589 |
| 21:00 | 478 | 526 | 383 | 493 | 511 | 485 | 246 | 478 | 446 |
| 22:00 | 264 | 293 | 228 | 260 | 275 | 272 | 166 | 264 | 251 |
| 23:00 | 139 | 162 | 113 | 131 | 148 | 164 | 100 | 139 | 137 |
| 12h, 7-19 | 5.893 | 6.544 | 3.423 | 6.863 | 6.742 | 5.375 | 3.404 | 5.893 | 5.463 |
| 16h, 6-22 | 7.765 | 8.742 | 4.716 | 8.842 | 8.761 | 7.001 | 4.279 | 7.765 | 7.158 |
| 18h, 6-24 | 8.168 | 9.197 | 5.057 | 9.233 | 9.184 | 7.437 | 4.545 | 8.168 | 7.546 |
| 24h, 0-24 | 8.476 | 9.505 | 5.376 | 9.563 | 9.458 | 7.755 | 4.930 | 8.476 | 7.866 |
| AM | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 588 | 510 | 394 | 727 | 724 | 686 | 425 | 588 | 579 |
| PM | 12:00 | 20:00 | 12:00 | 12:00 | 12:00 | 12:00 | 12:00 | 12:00 | 12:00 |
| Valor Punta | 682 | 770 | 487 | 768 | 717 | 692 | 460 | 682 | 652 |

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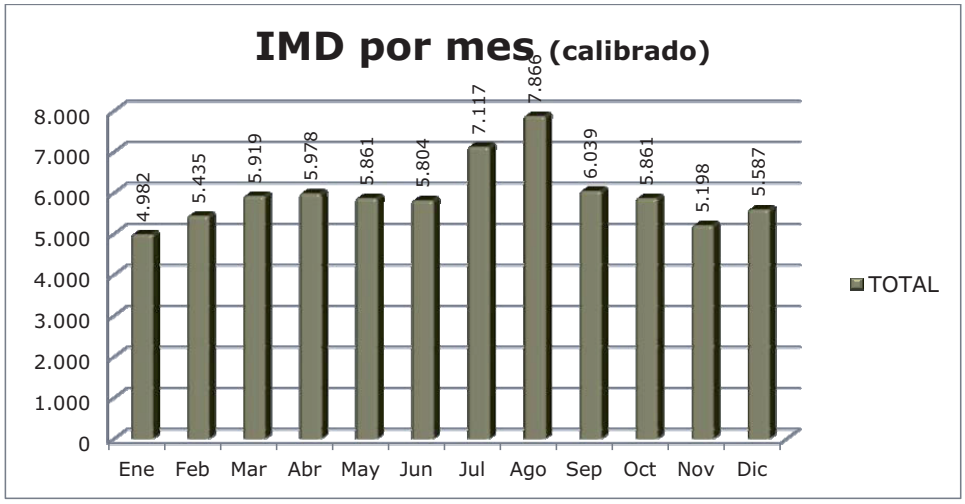
### 12.1.1. Gráficos de volumen de vehículos –Total







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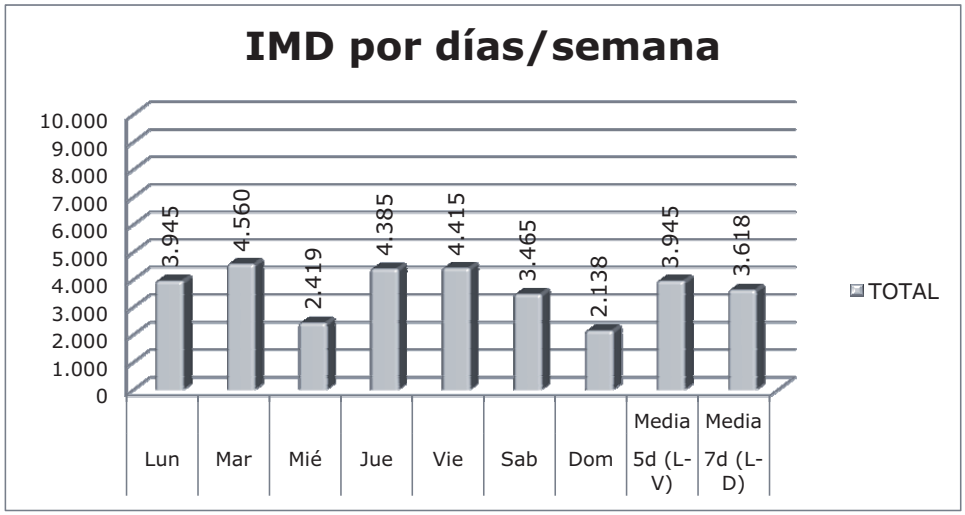

CVE-2014-9573

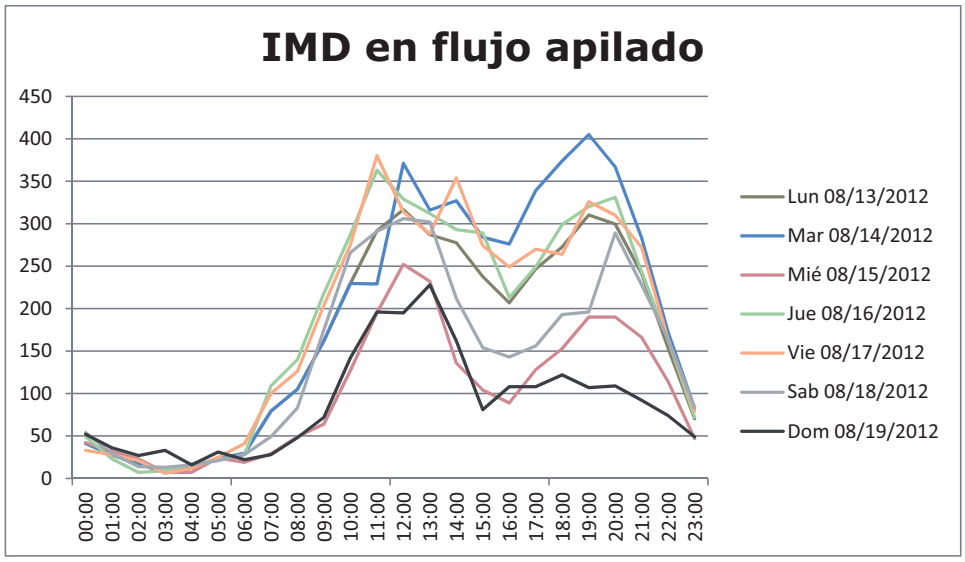
## 12.2. Volumen de vehículos – Sentido A

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 41 | 41 | 42 | 49 | 33 | 54 | 52 | 41 | 45 |
| 01:00 | 28 | 28 | 32 | 23 | 28 | 29 | 36 | 28 | 29 |
| 02:00 | 17 | 17 | 23 | 7 | 21 | 14 | 27 | 17 | 18 |
| 03:00 | 7 | 7 | 7 | 9 | 6 | 13 | 33 | 7 | 12 |
| 04:00 | 12 | 12 | 7 | 17 | 12 | 16 | 16 | 12 | 13 |
| 05:00 | 24 | 24 | 24 | 22 | 25 | 21 | 31 | 24 | 24 |
| 06:00 | 29 | 29 | 19 | 28 | 41 | 28 | 22 | 29 | 28 |
| 07:00 | 79 | 79 | 29 | 109 | 100 | 49 | 28 | 79 | 68 |
| 08:00 | 105 | 105 | 49 | 140 | 126 | 83 | 48 | 105 | 94 |
| 09:00 | 162 | 162 | 64 | 218 | 204 | 175 | 72 | 162 | 151 |
| 10:00 | 230 | 230 | 127 | 287 | 275 | 266 | 142 | 230 | 222 |
| 11:00 | 292 | 229 | 195 | 363 | 380 | 291 | 196 | 292 | 278 |
| 12:00 | 317 | 371 | 252 | 329 | 314 | 306 | 195 | 317 | 298 |
| 13:00 | 287 | 316 | 232 | 312 | 288 | 302 | 228 | 287 | 281 |
| 14:00 | 278 | 327 | 136 | 293 | 354 | 212 | 162 | 278 | 252 |
| 15:00 | 238 | 284 | 104 | 289 | 274 | 154 | 81 | 238 | 203 |
| 16:00 | 207 | 276 | 89 | 213 | 249 | 143 | 108 | 207 | 184 |
| 17:00 | 247 | 339 | 128 | 249 | 270 | 156 | 108 | 247 | 214 |
| 18:00 | 273 | 374 | 153 | 299 | 264 | 193 | 122 | 273 | 240 |
| 19:00 | 310 | 405 | 190 | 320 | 326 | 196 | 107 | 310 | 265 |
| 20:00 | 300 | 367 | 190 | 331 | 310 | 289 | 109 | 300 | 271 |
| 21:00 | 241 | 283 | 166 | 243 | 272 | 228 | 92 | 241 | 218 |
| 22:00 | 153 | 172 | 114 | 163 | 164 | 164 | 74 | 153 | 143 |
| 23:00 | 70 | 83 | 47 | 72 | 79 | 83 | 49 | 70 | 69 |
| 12h, 7-19 | 2.712 | 3.092 | 1.558 | 3.101 | 3.098 | 2.330 | 1.490 | 2.712 | 2.483 |
| 16h, 6-22 | 3.592 | 4.176 | 2.123 | 4.023 | 4.047 | 3.071 | 1.820 | 3.592 | 3.265 |
| 18h, 6-24 | 3.816 | 4.431 | 2.284 | 4.258 | 4.290 | 3.318 | 1.943 | 3.816 | 3.477 |
| 24h, 0-24 | 3.945 | 4.560 | 2.419 | 4.385 | 4.415 | 3.465 | 2.138 | 3.945 | 3.618 |
| AM | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 292 | 230 | 195 | 363 | 380 | 291 | 196 | 292 | 278 |
| PM | 12:00 | 19:00 | 12:00 | 20:00 | 14:00 | 12:00 | 13:00 | 12:00 | 12:00 |
| Valor Punta | 317 | 405 | 252 | 331 | 354 | 306 | 228 | 317 | 298 |

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### 12.2.1. Gráficos de volumen de vehículos –Sentido A



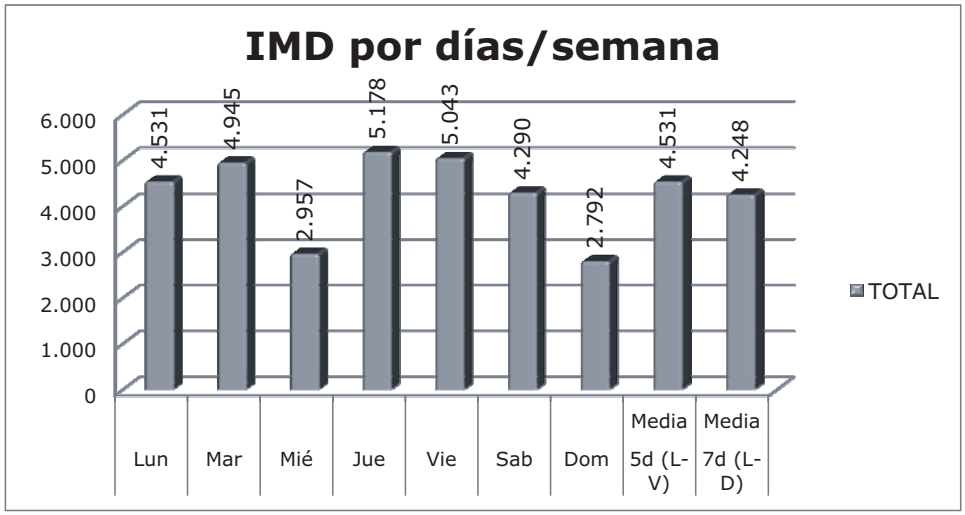

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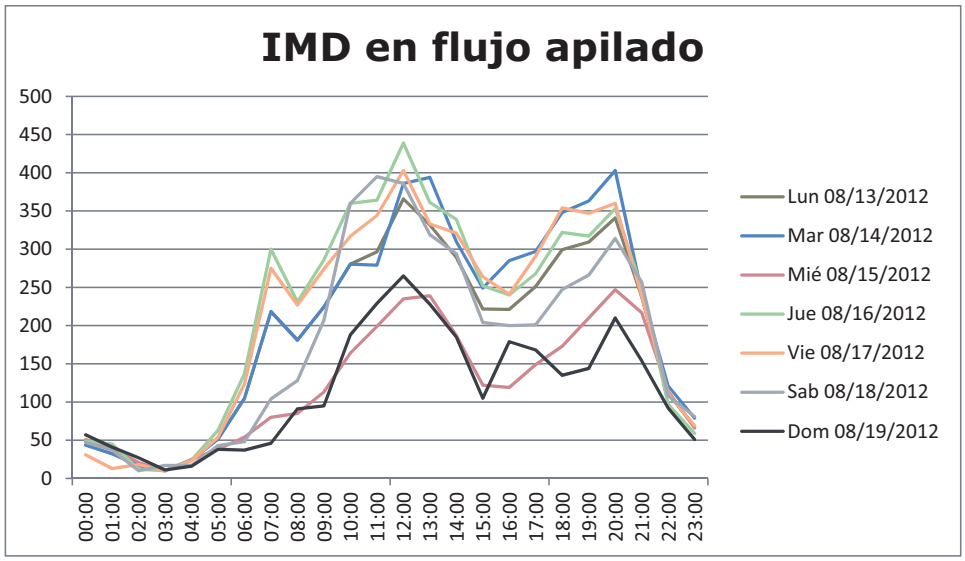
## 12.3. Volumen de vehículos – Sentido B

| | Lun | Mar | Mié | Jue | Vie | Sab | Dom | 5d (L-V) | 7d (L-D) |
|---|---|---|---|---|---|---|---|---|---|
| | 08/13/2012 | 08/14/2012 | 08/15/2012 | 08/16/2012 | 08/17/2012 | 08/18/2012 | 08/19/2012 | Media | Media |
| 00:00 | 44 | 44 | 51 | 49 | 31 | 47 | 57 | 44 | 46 |
| 01:00 | 32 | 32 | 39 | 45 | 13 | 37 | 41 | 32 | 34 |
| 02:00 | 17 | 17 | 21 | 12 | 18 | 10 | 27 | 17 | 17 |
| 03:00 | 10 | 10 | 10 | 10 | 10 | 17 | 11 | 10 | 11 |
| 04:00 | 24 | 24 | 25 | 24 | 23 | 17 | 16 | 24 | 22 |
| 05:00 | 52 | 52 | 38 | 63 | 54 | 43 | 38 | 52 | 48 |
| 06:00 | 105 | 105 | 54 | 137 | 124 | 48 | 37 | 105 | 87 |
| 07:00 | 218 | 218 | 80 | 300 | 275 | 104 | 46 | 218 | 177 |
| 08:00 | 181 | 181 | 85 | 231 | 227 | 128 | 91 | 181 | 161 |
| 09:00 | 224 | 224 | 113 | 286 | 274 | 207 | 95 | 224 | 203 |
| 10:00 | 280 | 280 | 164 | 360 | 317 | 360 | 188 | 280 | 279 |
| 11:00 | 297 | 279 | 199 | 364 | 344 | 395 | 229 | 297 | 301 |
| 12:00 | 366 | 386 | 235 | 439 | 403 | 386 | 265 | 366 | 354 |
| 13:00 | 332 | 394 | 239 | 361 | 333 | 319 | 228 | 332 | 315 |
| 14:00 | 289 | 310 | 187 | 339 | 321 | 294 | 185 | 289 | 275 |
| 15:00 | 222 | 249 | 122 | 252 | 264 | 204 | 105 | 222 | 203 |
| 16:00 | 221 | 285 | 119 | 240 | 241 | 200 | 179 | 221 | 212 |
| 17:00 | 251 | 297 | 149 | 268 | 291 | 201 | 168 | 251 | 232 |
| 18:00 | 299 | 348 | 173 | 322 | 354 | 247 | 135 | 299 | 268 |
| 19:00 | 309 | 363 | 210 | 317 | 347 | 266 | 144 | 309 | 279 |
| 20:00 | 341 | 403 | 247 | 353 | 360 | 314 | 210 | 341 | 318 |
| 21:00 | 237 | 243 | 217 | 250 | 239 | 257 | 154 | 237 | 228 |
| 22:00 | 111 | 121 | 114 | 97 | 111 | 108 | 92 | 111 | 108 |
| 23:00 | 68 | 79 | 66 | 59 | 69 | 81 | 51 | 68 | 68 |
| 12h, 7-19 | 3.181 | 3.452 | 1.865 | 3.762 | 3.644 | 3.045 | 1.914 | 3.181 | 2.980 |
| 16h, 6-22 | 4.173 | 4.566 | 2.593 | 4.819 | 4.714 | 3.930 | 2.459 | 4.173 | 3.893 |
| 18h, 6-24 | 4.352 | 4.766 | 2.773 | 4.975 | 4.894 | 4.119 | 2.602 | 4.352 | 4.069 |
| 24h, 0-24 | 4.531 | 4.945 | 2.957 | 5.178 | 5.043 | 4.290 | 2.792 | 4.531 | 4.248 |
| AM | 11:00 | 10:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 297 | 280 | 199 | 364 | 344 | 395 | 229 | 297 | 301 |
| PM | 12:00 | 20:00 | 20:00 | 14:00 | 12:00 | 12:00 | 12:00 | 12:00 | 12:00 |
| Valor Punta | 366 | 403 | 247 | 439 | 403 | 386 | 265 | 366 | 354 |

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### 12.3.1. Gráficos de volumen de vehículos –Sentido B




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## 12.4. Clases de vehículos

### 12.4.1. Esquema de clasificación FHWA

| Ejes | Grupos | Descripción | Clase | Parámetros | Vehículo Dominante | Conjunto |
|---|---|---|---|---|---|---|
| 2 | 1 | Bicicleta o Moto | 1 | d(1)<1.7m & Ejes=2 |  | 1 (Ligero) |
| 2, 3 o 4 | 1 o 2 | Turismo, Furgoneta ligera | 2 | d(1)>=1.7m, d(1)<=3.2m & Ejes=2 |  | |
| 2, 3 o 4 | 1 | Caravana, Remolque, etc. Pick-ups y furgonetas. | 3 | grupos=3, d(1)>=2.1m, d(1)<=3.2m, d(2)>=2.1m & Ejes=3,4,5 |  | |
| 2 o 3 | 1 | Bus | 5 | d(1)>3.2m & Ejes=2 |  | 2 (Medio) |
| 2 | 1 | Camión rígido de dos ejes | 3 | Ejes=2 & grupos=1 |  | |
| 3 | 1 | Camión rígido de tres ejes | 4 | Ejes>3 & grupos=2 |  | |
| 4 | 1 | Camión articulado rígido de tres ejes | 4 | d(1)>3.2m, Ejes=3 & grupos=4 |  | 3 (Pesado) |
| 2 o 4 | 2 | Camión articulado rígido de cuatro ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes = 4 & grupos>2 |  | |
| 5 o 6 | 2 | Camión articulado rígido de cinco ejes | 5 | d(2)<2.1m o d(1)<2.1m o d(1)>3.2m Ejes=5 & grupos>2 |  | |
| 6 o 7 | 2 | Camión articulado rígido de seis ejes (o más) | 5 | Ejes=6 & grupos>2 o Ejes>6 & grupos=3 |  | |
| 5 | 3 | Camion con remolque | 5 | grupos=4 & Ejes>6 |  | |
| 6 | 3 | Camion con remolque | 5 | grupos>=5 & Ejes>6 |  | |
| 7 | >3 | Camión con remolque | 5 | |  | |

Clase para vehículos inclasificables: 13

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### 12.4.2. Clases de vehículos absolutos

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 91 | 3 | 63 | 22 | 1 | 2 |
| 01:00 | 63 | 2 | 48 | 13 | 0 | 0 |
| 02:00 | 35 | 1 | 23 | 11 | 0 | 0 |
| 03:00 | 23 | 1 | 16 | 5 | 0 | 0 |
| 04:00 | 35 | 0 | 27 | 7 | 1 | 0 |
| 05:00 | 73 | 1 | 66 | 6 | 0 | 1 |
| 06:00 | 115 | 2 | 96 | 14 | 0 | 3 |
| 07:00 | 245 | 5 | 220 | 16 | 4 | 0 |
| 08:00 | 254 | 5 | 203 | 44 | 2 | 0 |
| 09:00 | 354 | 7 | 283 | 56 | 7 | 1 |
| 10:00 | 501 | 18 | 384 | 91 | 7 | 1 |
| 11:00 | 579 | 23 | 451 | 93 | 11 | 2 |
| 12:00 | 652 | 30 | 498 | 108 | 15 | 2 |
| 13:00 | 596 | 27 | 478 | 75 | 15 | 1 |
| 14:00 | 527 | 19 | 402 | 99 | 7 | 0 |
| 15:00 | 406 | 12 | 323 | 64 | 7 | 0 |
| 16:00 | 396 | 16 | 308 | 61 | 9 | 2 |
| 17:00 | 446 | 22 | 349 | 66 | 9 | 1 |
| 18:00 | 508 | 26 | 397 | 72 | 14 | 0 |
| 19:00 | 544 | 24 | 431 | 75 | 12 | 2 |
| 20:00 | 589 | 21 | 479 | 72 | 15 | 3 |
| 21:00 | 446 | 12 | 339 | 81 | 14 | 1 |
| 22:00 | 251 | 7 | 186 | 48 | 7 | 4 |
| 23:00 | 137 | 5 | 98 | 28 | 1 | 4 |
| Totales | | | | | | |
| 12H,7-19 | 5.463 | 208 | 4.296 | 846 | 105 | 8 |
| 16H,6-22 | 7.158 | 268 | 5.640 | 1.087 | 146 | 17 |
| 18H,6-24 | 7.546 | 279 | 5.924 | 1.164 | 154 | 26 |
| 24H,0-24 | 7.866 | 287 | 6.167 | 1.228 | 156 | 29 |
| AM | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Valor Punta | 579 | 23 | 451 | 93 | 11 | 3 |
| PM | 21:00 | 18:00 | 13:00 | 14:00 | 13:00 | 22:00 |
| Valor Punta | 652 | 30 | 498 | 108 | 15 | 4 |

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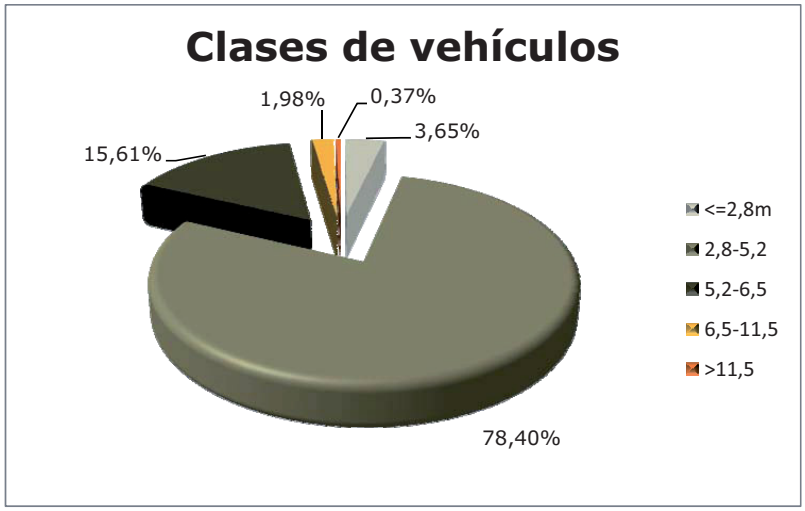
### 12.4.3. Clases de vehículos porcentuales

| | Total | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 |
|---|---|---|---|---|---|---|
| | Vol. | <=2,8m | 2,8-5,2 | 5,2-6,5 | 6,5-11,5 | >11,5 |
| 00:00 | 91 | 3,54% | 69,03% | 23,89% | 0,88% | 2,65% |
| 01:00 | 63 | 2,47% | 76,54% | 20,99% | 0,00% | 0,00% |
| 02:00 | 35 | 3,45% | 65,52% | 31,03% | 0,00% | 0,00% |
| 03:00 | 23 | 5,88% | 70,59% | 23,53% | 0,00% | 0,00% |
| 04:00 | 35 | 0,00% | 77,14% | 20,00% | 2,86% | 0,00% |
| 05:00 | 73 | 1,11% | 90,00% | 7,78% | 0,00% | 1,11% |
| 06:00 | 115 | 1,93% | 83,09% | 12,56% | 0,00% | 2,42% |
| 07:00 | 245 | 2,07% | 89,88% | 6,61% | 1,45% | 0,00% |
| 08:00 | 254 | 1,86% | 79,96% | 17,36% | 0,83% | 0,00% |
| 09:00 | 354 | 2,08% | 79,76% | 15,92% | 2,08% | 0,17% |
| 10:00 | 501 | 3,60% | 76,76% | 18,17% | 1,31% | 0,16% |
| 11:00 | 579 | 3,90% | 77,89% | 16,12% | 1,82% | 0,26% |
| 12:00 | 652 | 4,59% | 76,33% | 16,50% | 2,30% | 0,29% |
| 13:00 | 596 | 4,50% | 80,21% | 12,59% | 2,55% | 0,15% |
| 14:00 | 527 | 3,63% | 76,26% | 18,85% | 1,26% | 0,00% |
| 15:00 | 406 | 2,92% | 79,69% | 15,69% | 1,69% | 0,00% |
| 16:00 | 396 | 3,96% | 77,85% | 15,51% | 2,22% | 0,47% |
| 17:00 | 446 | 4,86% | 78,20% | 14,73% | 2,06% | 0,15% |
| 18:00 | 508 | 5,05% | 78,12% | 14,17% | 2,66% | 0,00% |
| 19:00 | 544 | 4,43% | 79,17% | 13,74% | 2,22% | 0,44% |
| 20:00 | 589 | 3,52% | 81,28% | 12,16% | 2,56% | 0,48% |
| 21:00 | 446 | 2,69% | 75,94% | 18,13% | 3,05% | 0,18% |
| 22:00 | 251 | 2,60% | 73,97% | 19,09% | 2,60% | 1,74% |
| 23:00 | 137 | 3,36% | 71,81% | 20,81% | 1,01% | 3,02% |
| Totals | | | | | | |
| 12H,7-19 | 5.463 | 3,82% | 78,63% | 15,48% | 1,93% | 0,15% |
| 16H,6-22 | 7.158 | 3,74% | 78,79% | 15,19% | 2,04% | 0,24% |
| 18H,6-24 | 7.546 | 3,69% | 78,51% | 15,42% | 2,04% | 0,34% |
| 24H,0-24 | 7.866 | 3,65% | 78,40% | 15,61% | 1,98% | 0,37% |
| | | | Ligeros | | Pesados | |
| Am | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 | 11:00 |
| Peak | 579 | 23 | 451 | 93 | 11 | 3 |
| Am | 21:00 | 18:00 | 13:00 | 14:00 | 13:00 | 22:00 |
| Peak | 652 | 30 | 498 | 108 | 15 | 4 |

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### 12.4.4. Gráficos de clases de vehículos




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## 12.5. Velocidades

| | Total | 85th | Mean | Std. | Bin 1 | Bin 2 | Bin 3 | Bin 4 | Bin 5 | Bin 6 | Bin 7 | Bin 8 | Bin 9 | Bin 10 | Bin 11 | Bin 12 | Bin 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Vol. | %ile | Ave. | Dev. | <6Kph | 6-<11 | 11-<16 | 16-<21 | 21-<26 | 26-<31 | 31-<36 | 36-<41 | 41-<46 | 46-<51 | 51-<56 | 56-<61 | =>61 |
| 00:00 | 91 | 40,3 | 34,1 | 6,7 | 0 | 1 | 0 | 2 | 6 | 15 | 23 | 15 | 14 | 10 | 2 | 2 | 1 |
| 01:00 | 63 | 43,2 | 35,8 | 6,0 | 0 | 0 | 0 | 0 | 2 | 2 | 17 | 14 | 13 | 7 | 2 | 5 | 1 |
| 02:00 | 35 | 41,4 | 34,6 | 6,0 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 11 | 4 | 6 | 2 | 1 | 1 |
| 03:00 | 23 | 40,7 | 34,5 | 4,6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 8 | 9 | 1 | 0 | 1 | 0 |
| 04:00 | 35 | 41,8 | 35,3 | 6,3 | 0 | 0 | 0 | 0 | 0 | 3 | 11 | 6 | 6 | 2 | 5 | 2 | 0 |
| 05:00 | 73 | 40,7 | 35,0 | 6,0 | 0 | 1 | 0 | 0 | 4 | 5 | 17 | 22 | 13 | 5 | 4 | 2 | 1 |
| 06:00 | 115 | 39,6 | 33,3 | 5,5 | 0 | 0 | 0 | 1 | 7 | 11 | 34 | 29 | 17 | 9 | 2 | 4 | 1 |
| 07:00 | 245 | 39,2 | 33,2 | 4,9 | 0 | 0 | 0 | 2 | 14 | 67 | 66 | 49 | 30 | 10 | 4 | 1 | 1 |
| 08:00 | 254 | 39,6 | 33,4 | 5,2 | 0 | 0 | 0 | 1 | 14 | 55 | 75 | 59 | 30 | 11 | 6 | 4 | 0 |
| 09:00 | 354 | 38,9 | 32,9 | 5,5 | 0 | 0 | 1 | 3 | 15 | 58 | 102 | 84 | 57 | 19 | 10 | 6 | 0 |
| 10:00 | 501 | 38,5 | 32,6 | 5,3 | 0 | 0 | 2 | 6 | 17 | 83 | 153 | 107 | 88 | 25 | 13 | 7 | 0 |
| 11:00 | 579 | 37,8 | 31,8 | 5,0 | 0 | 0 | 4 | 4 | 39 | 140 | 175 | 128 | 62 | 17 | 5 | 6 | 0 |
| 12:00 | 652 | 37,8 | 31,5 | 5,4 | 0 | 0 | 0 | 6 | 40 | 149 | 192 | 120 | 84 | 40 | 15 | 7 | 0 |
| 13:00 | 596 | 38,5 | 32,5 | 5,1 | 0 | 0 | 2 | 2 | 44 | 154 | 145 | 132 | 76 | 25 | 7 | 8 | 0 |
| 14:00 | 527 | 39,6 | 33,4 | 5,5 | 0 | 0 | 1 | 3 | 34 | 101 | 128 | 129 | 74 | 39 | 13 | 4 | 1 |
| 15:00 | 406 | 41,0 | 34,8 | 5,2 | 0 | 0 | 1 | 1 | 14 | 82 | 112 | 90 | 58 | 37 | 7 | 3 | 0 |
| 16:00 | 396 | 40,3 | 34,4 | 5,7 | 0 | 0 | 0 | 6 | 21 | 93 | 113 | 72 | 51 | 27 | 9 | 4 | 0 |
| 17:00 | 446 | 41,0 | 34,2 | 5,1 | 0 | 0 | 1 | 2 | 34 | 98 | 131 | 95 | 60 | 16 | 4 | 5 | 0 |
| 18:00 | 508 | 39,2 | 32,5 | 5,2 | 0 | 1 | 2 | 11 | 43 | 137 | 138 | 99 | 51 | 20 | 3 | 4 | 0 |
| 19:00 | 544 | 38,2 | 31,8 | 4,7 | 0 | 0 | 2 | 10 | 43 | 154 | 137 | 89 | 38 | 13 | 6 | 2 | 0 |
| 20:00 | 589 | 37,4 | 31,0 | 4,5 | 0 | 0 | 3 | 10 | 70 | 186 | 173 | 91 | 44 | 10 | 2 | 0 | 0 |
| 21:00 | 446 | 38,5 | 32,0 | 5,1 | 0 | 0 | 1 | 7 | 19 | 116 | 146 | 86 | 40 | 18 | 6 | 6 | 0 |
| 22:00 | 251 | 40,3 | 34,3 | 5,9 | 1 | 1 | 2 | 3 | 13 | 46 | 69 | 60 | 33 | 10 | 9 | 4 | 0 |
| 23:00 | 137 | 41,0 | 34,7 | 6,2 | 0 | 0 | 0 | 1 | 7 | 23 | 35 | 27 | 21 | 11 | 6 | 4 | 0 |
| Totales | | | | | | | | | | | | | | | | | |
| 12H,7-19 | 5463 | 41,0 | 34,8 | 5,7 | 0 | 1 | 13 | 46 | 329 | 1216 | 1530 | 1165 | 721 | 286 | 97 | 58 | 1 |
| 16H,6-22 | 7158 | 41,0 | 34,8 | 5,7 | 0 | 1 | 19 | 75 | 469 | 1684 | 2069 | 1460 | 860 | 336 | 113 | 70 | 2 |
| 18H,6-24 | 7546 | 41,0 | 34,8 | 5,7 | 1 | 2 | 22 | 79 | 489 | 1753 | 2173 | 1548 | 914 | 358 | 128 | 78 | 2 |
| 24H,0-24 | 7866 | 41,0 | 34,8 | 5,7 | 1 | 4 | 22 | 82 | 500 | 1785 | 2248 | 1623 | 972 | 389 | 145 | 91 | 5 |
| AM | 11:00 | 04:00 | 03:00 | 00:00 | 11:00 | 11:00 | 11:00 | 10:00 | 11:00 | 09:00 | 09:00 | 11:00 | 10:00 | 10:00 | 10:00 | 10:00 | 11:00 |
| Valor Punta | 579 | 43,2 | 35,8 | 6,7 | 0 | 1 | 4 | 6 | 39 | 140 | 175 | 128 | 88 | 25 | 13 | 7 | 1 |
| PM | 23:00 | 23:00 | 23:00 | 23:00 | 22:00 | 22:00 | 20:00 | 22:00 | 18:00 | 20:00 | 20:00 | 19:00 | 14:00 | 14:00 | 15:00 | 14:00 | 16:00 |
| Valor Punta | 652 | 41,0 | 34,8 | 6,2 | 1 | 1 | 3 | 11 | 70 | 186 | 192 | 132 | 84 | 40 | 15 | 8 | 1 |

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# F. CONTROL DE CALIDAD

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# F. CONTROL DE CALIDAD

## 13. Diseño y control del documento

### 13.1. Control de diseño

**Recopilación y análisis de documentación externa**

| Documento | Soporte | Entregado por | Fecha Recog | Fecha devol |
|---|---|---|---|---|
| Cartografía viario Castro Urdiales | Digital | Ana M. Jaurena | 20.07.2012 | N.P. |
| Estadísticas Viviendas/Población | Digital | Ana M. Jaurena | 20.07.2012 | N.P. |
| Semaforización | Digital | J.A.Arizmendi | 21.07.2012 | N.P. |
| Regulación estacionamientos | Digital | J.A.Arizmendi | 21.07.2012 | N.P. |
| Accidentabilidad | Digital | J.A.Arizmendi | 21.07.2012 | N.P. |
| Censo vehicular | Digital | J.A.Arizmendi | 21.07.2012 | N.P. |
| Demanda Transporte Interurbano | Digital | J.A.Arizmendi | 21.07.2012 | N.P. |
| Datos Económicos y Sociales | Digital | J.A.Arizmendi | 21.07.2012 | N.P. |
| Líneas Urbanas Alsa | Digital | Ana M. Jaurena | 22.08.2012 | N.P. |

**Revisión de etapas del proyecto**

| Persona | Fecha Edición | Responsabilidades |
|---|---|---|
| JRR | 22.10.2010 | Edición Memoria Técnica. Modelos matemáticos. Estudio de tráfico y movilidad. Validación de simulación de tráfico |
| RVP | 22.10.2010 | Planimetría y delineación. Infografía. Simulación de tráfico. |
| AAF | 11.10.2010 | Delineación. Edición de simulación de tráfico. Tratamiento de encuestas. Procesamiento de vídeos. Tratamiento de aforos. |

**Control de subcontratación**

| Empresa | Fecha | Responsabilidades |
|---|---|---|
| Ananda | 23/24.08.2012 | Selección y contratación de encuestadores. Realización de encuestas persona a persona |

**Legislación medioambiental aplicable**

N.P.

### 13.2. Control del documento técnico

**Revisión y verificación del documento técnico**

| Rev | Fecha Entrega | Persona | Comentarios |
|---|---|---|---|
| 00 | 19.11.2010 | CSV | Borrador de memoria |

**Validación del documento técnico**

| Rev | Fecha Verif. | Persona | Comentarios |
|---|---|---|---|

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# Anejo PMUS Castro Urdiales

## *Excmo. Ayuntamiento de Castro Urdiales*



Ayuntamiento Castro Urdiales

El presente informe fue realizado por el personal de la empresa Vectio Traffic Engineering, S.L. por encargo de la empresa Excmo. Ayuntamiento de Castro Urdiales. Los autores del presente proyecto fueron Carlos Suárez Vázquez (Director Técnico de la empresa Vectio, Ingeniero y Planificador de transportes), Jorge Luis Rodríguez Rodríguez (Ingeniero de Caminos Canales y Puertos), Ricardo de la Varga Prendes (Técnico de Simulación) y Ana Belén Alonso Fernández (Técnico delineante) durante el mes de Junio de 2014.

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3. Indicadores de Seguimiento .....
4. Cuantificación del ahorro energético y medioambiental .....

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# A. CRONOGRAMA PMUS CASTRO URDIALES

## 1. Introducción

Aun no siendo de obligado cumplimiento al carecer de carácter normativa, citaremos la "Guía práctica para la elaboración e implantación de un Plan de Movilidad Urbana Sostenible (PMUS), editada por el IDEA (Instituto para la diversificación y la eficiencia energética):

*"……Puesta en marcha del Plan de Acción*

*La aprobación definitiva del Plan de Acción debe corresponder, lógicamente, a las corporaciones locales y, en particular, al pleno municipal, una vez preparado el documento que recoge el Plan de Acción en la fase anterior.*

*La aplicación de medidas conlleva dos acciones de tipo complementario:*

*La primera consiste en emprender las medidas que se han definido como de tipo prioritario en el PMUS. Se trata de acciones a llevar a cabo a corto y medio plazo, que pueden llevar asociados estudios de tipo complementario antes de su implantación definitiva.*

*Por otro lado, se trata de aplicar de forma permanente los principios establecidos en el marco del PMUS. Esto consiste en un trabajo continuo de coordinación y de realización de estudios complementarios para asegurar la puesta en funcionamiento progresiva, y conforme a los objetivos a medio y largo plazo definidos en el PMUS….."*

Así mismo como recoge la citada Guía a continuación se describe para cada medida el cronograma y presupuesto:

| Medida | Estimación Presupuestaria | 2014-2015 | 2015-2019 | Largo Plazo |
|---|---|---|---|---|
| *Ejes estructurales ciclables (L. Rucabado y M. Pelayo)* | 66.000 € | | | |
| *Reordenación acceso Parking Amestoy* | 150.000 € | | | |
| *Caminos Escolares Seguros* | 18.000 € | | | |
| *Movilidad Eléctrica* | 90.000 € | | | |
| *Ampliación Red de Carriles Bici* | 240.000 € | | | |
| *Eje Este- Oeste Marítimo* | 800.000 € | | | |
| *Eje Este- Oeste urbano* | 1,300.000 € | | | |
| *Eje Norte Sur* | 220.000 € | | | |
| *Eje conexión ciclista y peatonal con Juntas Vecinales Sur* | 360.000 € | | | |
| *Plan de Seguridad Vial* | 170.000 € | | | |

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## 2. Financiación

*"…….En lo que se refiere a la financiación del plan, en principio, la realización de la mayor parte de las medidas de un PMUS serán de responsabilidad municipal y, por lo tanto, será el propio Ayuntamiento quien deberá gestionarlas y financiarlas con sus propios recursos. Sin embargo, no hay que perder de vista la posibilidad de buscar financiación en otras instituciones y la participación del sector privado.*

*Entre las instituciones que pueden participar en la financiación del plan de acción del PMUS están:*

- *La Unión Europea.*
- *La Comunidad Autónoma o el Estado, que pueden afectar partidas presupuestarias a objetivos de sostenibilidad.*
- *Operadores de transportes públicos, en lo referente a las líneas y servicios que operan……"*

## 3. Indicadores de Seguimiento

Tal y como indica la "Guía práctica para la elaboración e implantación de un Plan de Movilidad Urbana Sostenible (PMUS), editada por el IDEA (Instituto para la diversificación y la eficiencia energética):

*"……El seguimiento anual de cada una de las medidas por medio de indicadores tiene por objeto permitir una evaluación del PMUS implantado.*

*Antes de empezar a implantar las medidas a medio plazo, se debería evaluar la consistencia de las medidas implantadas en el corto plazo, evaluando las fortalezas y debilidades de las mismas, y lo mismo entre el medio y largo plazo.*

*Anualmente, se hará una evaluación por medio de estos indicadores de movilidad sostenible, que debería quedar recogida y publicada en un documento……."*

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| Tabla 1. Indicadores de resultado PMUS | | |
|---|---|---|
| Indicador | Actual | Seguimiento |
| % Reparto Modal a pie | | |
| % Reparto Modal en bicicleta | | |
| % Reparto Modal moto | | |
| % Reparto Modal en coche | | |
| % Reparto Modal en coche (compartido) | | |
| % Reparto Modal transporte público | | |
| Kilómetros Carriles Bici | | |
| Escolares Participantes “Caminos Escolares Seguros” | | |
| Vehículos eléctricos municipales | | |

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## 4. Cuantificación del ahorro energético y medioambiental

Como se explicado en el documento, el vehículo privado juega un papel fundamental en los desplazamientos diarios para los vecinos/as de Castro Urdiales por parte de los vecinos. Si no se buscan alternativas a este tipo de movilidad, dentro de una dinámica tendencial global en la que nuestra sociedad se encuentra, dicha dependencia del vehículo particular tenderá a incrementarse.

Las medidas propuestas en el PMUS de Castro Urdiales, provocarán un trasvase modal desde el vehículo privado, hacia otros medios más sostenibles, como el coche compartido, el transporte público y la movilidad ciclista y peatonal, entre otros.

Con la denominación de gases de efecto invernadero (GEI) identificamos cualquier gas que evita la salida del calor más allá de la atmósfera. El protocolo de Kioto cubre las emisiones introducidas por el hombre de seis gases: el dióxido de carbono (CO2, el más importante), metano (CH4), el óxido nitroso, los hidrofluorocarbonos (HFC), los perfluorocarbonos (PFC) y el hexafluoruro sulfúrico (SF6).

De cara a realizar los cálculos de emisiones de GEIS imputados a la movilidad de Castro Urdiales, se asumen kg de CO2 emitidos, ya que la proporción de otros gases derivados de la movilidad en vehículo privado son muy bajos. Por cada litro de gasolina consumido, un coche emite de media 2,35 kg de CO2 y por cada litro de gasóleo, unos 2,6 kg de CO2 1, teniendo en cuenta que un litro de combustible diesel podemos recorrer más distancia[2], asignaremos una tasa de emisión de 170 gr CO2/ Km para éstos últimos y 200 gr CO2/ Km para un vehículo impulsado por gasolina. Posteriormente estos valores teóricos serán corregidos en base a los resultados de la micro simulación de tráfico.

[1] Nivel de emisiones medio según el Instituto para la Diversificación y el Ahorro de Energía, IDAE)
[2] Se toma 6l/100 Km para motores diésel y 7,3l/Km para motores de gasolina.

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El método utilizado para el cálculo del consumo y las emisiones referidas a la movilidad ha sido a partir de las IMD – intensidades medias diarias- de los desplazamientos generados por los vecinos de Castro Urdiales analizados. Con el apoyo del micro simulador de tráfico AIMSUN[3], en base al modelo digital del casco urbano construido para el presente PMUS, se han obtenidos los resultados de emisiones ajustadas al trazado viario del entorno de los centros de trabajo.

Emisiones (ton. anuales) = (IMD x Desplaz. Medio x Consumo medio)

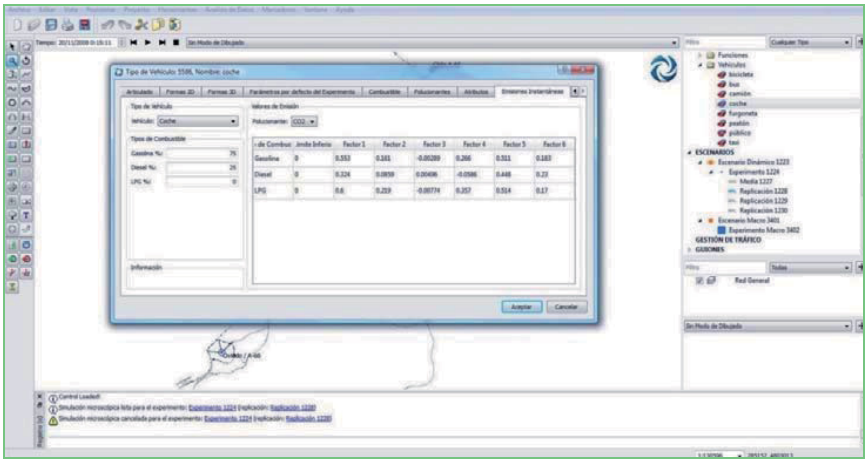


*Imagen 1. Módulo de emisiones del micro simulador de tráfico AIMSUN.*

A partir del análisis de las emisiones de gases de efecto invernadero, asociadas al transporte netamente urbano en vehículo privado, podemos cuantificar las emisiones anuales en **28.105 toneladas de CO2**). El objetivo de reducción de emisiones a través de la implantación del Plan de Movilidad Urbana Sostenible, será de un 10%**,** es decir conseguir que al menos un diez por ciento de los vecinos de Casto Urdiales comiencen a utilizar medios alternativos al vehículo privado, consiguiendo reducir su "huella de carbono" en 2810 toneladas de CO2/año.

[3] La IMD se han discretizado los vehículos según su carburante (gasolina y gasóleo) en función de los resultados de las encuestas, cada uno con su valor de consumo.

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