Elaboração de ações preventivas e corretivas de segurança rodoviária, por meio de identificação e mapeamento dos segmentos críticos da malha viária do DNIT

Fase 1 – Identificação e Proposição de Melhorias em Segmentos Críticos da Malha Rodoviária Federal do DNIT

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UNIVERSIDADE FEDERAL DE SANTA CATARINA

LabTrans Laboratório de Transportes e Logística

NEA

Núcleo de Estudos sobre Acidentes de Tráfego em Rodovias

Destaque Orçamentário - Portaria nº 1.282 de 31 de outubro de 2008 - DNIT / UFSC

ELABORAÇÃO DE AÇÕES PREVENTIVAS E CORRETIVAS DE SEGURANÇA RODOVIÁRIA, POR MEIO DE IDENTIFICAÇÃO E MAPEAMENTO DOS SEGMENTOS CRÍTICOS DA MALHA VIÁRIA DO DNIT

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APRESENTAÇÃO

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Este relatório apresenta uma síntese das ações e atividades desenvolvidas na Fase 1 – Identificação e proposição de melhorias em segmentos críticos da malha rodoviária federal do DNIT, durante vigência do convênio referente ao Destaque Orçamentário - Portaria nº 1.282 de 31 de outubro de 2008 - firmado entre o Departamento Nacional de Infra-Estrutura de Transportes - DNIT e a Universidade Federal de Santa Catarina – UFSC.

Durante a execução da Fase 1 do Destaque Orçamentário foram elaborado 3 produtos tratando dos temas listados, a saber:

- Desenvolvimento de metodologia para definição de segmentos críticos;
    - *Metodologia para Identificação de Segmentos Críticos – Produto 1;*
- Levantamentos de dados de acidentes de transito em todo território nacional;
- Tratamento dos dados coletados;
    - *Relatório de Identificação de Locais Concentradores de Acidentes – Produto 2;*
- Levantamento de dados de tráfego; dados físicos, operacionais e funcionais; identificação dos segmentos de rodovia como travessia urbana e rural;
- Identificação e priorização de segmentos concentradores de acidentes;
    - *Relatório de Identificação e Priorização de Segmentos Críticos – Produto 3;*
- Levantamento de campo para avaliar as condições de seguranç viária dos segmentos priorizados;
- Estudos de melhorias possíveis nos segmentos críticos priorizados;
- Treinamento nas superintendências sobre a metodologia de análise e diagnóstico de segmentos críticos;
    - *Relatório Final da Fase – Produto 4.*

Além dos produtos listados no plano de trabalho do presente convênio, para esta fase, foram desenvolvidos diversos produtos complementares que vieram ao encontro de demandas das superintendências, coordenação geral de operações ou

ainda na complementação dos próprios produtos do plano de trabalho. Estes produtos complementares são listados a seguir:

- *Identificação e Priorização de Segmentos Críticos para Estudos de Intervenção – Produto Complementar*
- *Avaliação das Condições de Segurança Viária: BR 116/RS - km 79 a 81 - Campestre da Serra – Produto Complementar*
- *Avaliação das Condições de Segurança viária do trecho entre Belo Horizonte e Governador Valadares – BR-381/MG – Produto Complementar*

Neste documento é apresentado o método final de identificação e priorização de segmentos críticos com todas as alterações e aprimorados feitos ao longo do projeto e que culminaram numa nova listagem dos segmentos críticos identificados através da aplicação do método homologo neste produto. A amostra de dados submetida à identificação de segmentos críticos corresponde às rodovias federais da malha rodoviária federal em todo território nacional.

Acompanha este relatório um CD-ROM com uma cópia digital do presente volume para utilização em meio eletrônico.

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CAPÍTULO 1 – INTRODUÇÃO

1 INTRODUÇÃO

Durante o presente convênio, a Fase 1 teve como objeto a *Identificação e Proposições de Melhorias em Segmentos Críticos da Malha Rodoviária Federal do DNIT* onde dentro das diversas atividades propostas pelo Plano de Trabalho, foram apresentados diversos procedimentos a serem adotados com a intenção de obter uma listagem priorizada de segmentos rodoviários críticos.

Assim, o reconhecimento desses locais foi realizado, primariamente, com procedimentos que, ao longo de suas aplicações, foram sendo analisados e aprimorados até o alcance de um método que realizasse uma avaliação gradativa dos problemas de segurança viária nesses segmentos. Tal método pode estabelecer prioridades, analisando fatores que melhor definam a relevância do trecho a ser analisado numa avaliação das condições de segurança viária.

Com a definição das alterações de procedimentos e métodos de identificação e priorização de segmentos críticos, efetuou-se a aplicação do novo método à dados de segurança viária da malha viária federal, obtendo assim uma listagem dos segmentos críticos em todo território nacional.

Esta listagem indicará os segmentos críticos que poderão ser beneficiados com projetos de tratamento e adequação de sua segurança viária.

CAPÍTULO 2 – MÉTODO PARA IDENTIFICAÇÃO DE SEGMENTOS CRÍTICOS

2 MÉTODO PARA IDENTIFICAÇÃO DE SEGMENTOS CRÍTICOS

O método de identificação de segmentos críticos está inserido dentro das proposições que os métodos de análise “a posteriori” expõem. Estes métodos requerem o uso de registros de acidentes ocorridos em um dado período de tempo e, em determinados casos, utilizam dados relativos a volume de tráfego e/ou características físicas de um conjunto de rodovias ou simplesmente de uma rodovia ou de um trecho.

O presente método é classificado como um ‘método numérico’ que identifica os locais críticos a partir do cálculo de indicadores que são comparados com um valor pré-estabelecido e são declarados como locais críticos aqueles cujos indicadores calculados sejam maiores que o valor de referência.

Todos os resultados a serem obtidos da aplicação do método aqui exposto estarão fundamentados na probabilidade da ocorrência de um acidente em um determinado segmento, tendo como base de comparação uma amostra estudada. As amostras, neste caso, devem ser segmentadas de acordo classificação, a seguir descrita, sobre segmentos homogêneos. Se a probabilidade de ocorrência de acidentes de um segmento for maior do que a probabilidade de ocorrência da amostra envolvendo a mesma classificação o segmento é considerado como crítico.

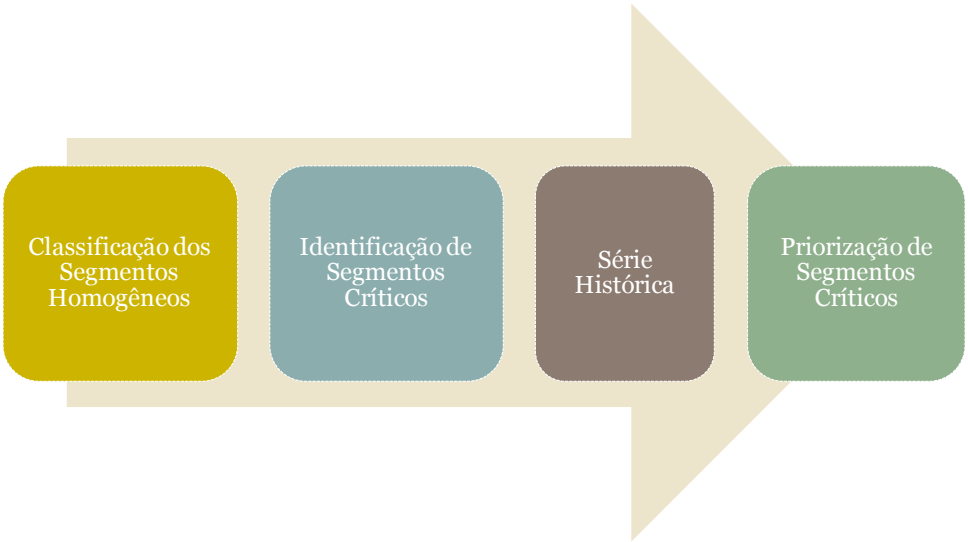

Figura 1 Método de Identificação de Segmentos Críticos

2.1 Condições iniciais

A seguir são listadas condições impostas pelo método, pela base de dados utilizada ou por requisições do Departamento Nacional de Infraestrutura de Transportes – DNIT as quais devem nortear a aplicação geral do método. O método deverá ser aplicado às seguintes condições, as quais são detalhadamente abordadas ao longo do documento:

- Trechos pavimentados;
- Trechos sob jurisdição do DNIT;
- Extensão dos segmentos de 1,0 a 1,9km;
- Segmentos com no mínimo 2 acidentes;
- Trechos com volume mínimo de 1000 v.p.d.;

2.2 Classes de segmentação homogênea

Alguns trechos de rodovias nacionais estão submetidos a atender simultaneamente diferentes requisitos em condições de segurança de modo a não comprometer suas funções e características. Assim, cada trecho rodoviário tem suas peculiaridades com relação às suas características operacionais, geométricas, sócio-econômicas, ambiente atravessado, dentre outras.

Em face dessas características diferenciadas, é vital dar a essas rodovias um tratamento homogeneizador, isto é, classificá-las de acordo grupos de trechos homogêneos. Esta classificação visa agrupá-los de acordo com um conjunto de características semelhantes, sendo que essas características podem ser diversas, dependendo da abordagem a ser realizada.

Para guiar os trabalhos de execução de projetos geométricos de rodovias, por exemplo, o Departamento Nacional de Estradas de Rodagem - DNER (1999) cita que é conveniente uma classificação técnica da rodovia (ou do projeto de uma rodovia), que permite a definição das dimensões e configuração espacial com que a rodovia deverá ser projetada, para atender satisfatoriamente à demanda que solicitará e, conseqüentemente, às funções que se destina. Esta classificação relaciona-se com elementos geométricos necessários para atender um determinado nível de qualidade de serviço como raios de curva, rampas, largura de pista e acostamentos, etc.

Em outra linha, intencionado atender os interesses de ordem administrativa, as rodovias podem, ainda, ser classificadas de acordo com sua localização/posição e entidade responsável (LEE, 2002).

Outra classificação pode ser também estabelecida levando em conta o tipo de serviço que as rodovias oferecem. Esta classificação funcional toma como base que o tipo de serviço oferecido poderá ser determinado a partir das funções de mobilidade e acessibilidade que a rodovia propicia, enquadrando as rodovias dentro de 3 (três) sistemas funcionais: arterial, coletor e local.

Após a implantação da rodovia, outras classificações podem ainda ser feitas a fim de, por exemplo, avaliar um pavimento asfáltico. Para isso, o DNER (2003) recomenda a separação dos segmentos com características homogêneas como aqueles que apresentam os mesmos: tipo de constituição de estrutura, tipo de materiais constituintes das camadas, incidência de tráfego, situação climática, defeitos ocorrentes, irregularidades horizontais e perfis de deflexão.

As diversas classificações, utilizadas hoje nas rodovias, levam em conta a desfragmentação das rodovias em função de uma variável em comum, geralmente relacionada às características físicas da rodovia.

Este documento trabalha com a premissa que os acidentes ocorrem atrelados à disfunção do sistema *VIA-HOMEM-VEÌCULO-MEIO AMBIENTE,* sendo possível supor que possuem, causas em comum o que permitirá análises e tratamentos padronizados no que diz respeito à sua segurança viária.

Assim, os segmentos são aqui classificados em função de uma segmentação homogênea a qual usa um conjunto de variáveis (e não apenas uma única característica) que se relaciona com esse sistema, e que leva em conta características físicas, operacionais e do local onde a rodovia está inserida.

Estas características deverão estar distribuídas ao longo da extensão do segmento de forma que realmente possam conferir o respectivo atributo ao segmento crítico de sendo possível caracterizá-lo dentro de respectiva classe do atributo.

Define-se como padrão de segmentação, trechos rodoviários com comprimento básico de 1 km, à exceção dos finais dos trechos inseridos no Plano Nacional de Viação - PNV, cujo comprimento ficará entre 1,1 km e 1,9 km, visto que os trechos do PNV não possuem obrigatoriamente um número inteiro de quilômetros.

A divisão de segmentos de rodovias em classes obedecerá às quatro seguintes características:

- ***Tipo de pista***: n° de faixas, em trechos pavimentados, seguindo informações sobre a superfície dos trechos listados no Sistema Nacional de Viação, que integra o PNV, classificadas em:
  - Simples (S): 1 faixa por sentido e trechos em obras de duplicação;
  - Dupla (D): 2 ou mais faixas por sentido.
- ***Uso do solo*** Nível de urbanização da área lindeira à rodovia, relacionado com a descrição dos dados geográficos de área de uso homogêneo do solo, adaptada de IBGE (2007), classificado entre:
  - Urbano (U): inseridos dentro do perímetro urbano de municípios ou áreas urbanizadas isoladas;
  - Rural (R): Quando fora de áreas urbanas.

Classificação IBGE (2007)	Proposta de divisão
Área urbana urbanizada	**Urbano**
Área urbana não-urbanizada	
Área urbana isolada	
Aglomerado rural de extensão urbana	
Aglomerado rural do tipo povoamento	
Aglomerado rural do tipo núcleo	
Aglomerado rural outros (assentamentos)	
Área rural	**Rural**

Figura 2 Proposta de divisão do nível de urbanização

- ***Perfil:*** perfil do terreno atravessado pela rodovia, classificado de acordo com o Manual de Projeto Geométrico de Rodovias Rurais (DNIT, 1999), através de valores de rampas máximas, em:
  - Plano (P): Condição em que as distâncias de visibilidade permitidas pela geometria podem resultar suficientemente longas e/ou qualquer combinação de alinhamentos que permita aos veículos pesados manter aproximadamente a mesma velocidade que os carros de passeio.

- Ondulado (O): Aquele em que as declividades do terreno natural passam a apresentar ocasionais inclinações mais acentuadas e/ou qualquer combinação que provoque redução substancial das velocidades dos veículos pesados.
- Montanhoso (M): Caracteriza-se por mudanças abruptas de elevações entre o terreno natural e a plataforma da rodovia, e/ou caracteriza-se como sendo como qualquer combinação de alinhamentos que obrigue os veículos pesados a operar com velocidade de arrasto por distâncias significativas e a intervalos freqüentes.

Rampa máxima do segmento (r máx)		
PERFIL	**Classe I** (VMDa ≥ 1400)	**Classe II** (VMDa <1400)
Plano	r máx ≤ 3,0%	r máx ≤ 3,0%
Ondulado	3,0% > r máx ≤ 4,5%	3,0% > r máx ≤ 5,0%
Montanhoso	r máx > 4,5%	r máx > 5,0%

Figura 3 Classificação do perfil do terreno

A união das variáveis apresentadas anteriormente gerou a classificação de trechos rodoviários conforme conjunto de características homogêneas, apresentada na Figura 4, através de 12 classes (códigos) de segmentos.

CLASSE	PISTA	USO DO SOLO	PERFIL
SUP	Simples	Urbano	Plano
SUO	Simples	Urbano	Ondulado
SUM	Simples	Urbano	Montanhoso
SRP	Simples	Rural	Plano
SRO	Simples	Rural	Ondulado
SRM	Simples	Rural	Montanhoso
DUP	Dupla	Urbano	Plano
DUO	Dupla	Urbano	Ondulado
DUM	Dupla	Urbano	Montanhoso
DRP	Dupla	Rural	Plano
DRO	Dupla	Rural	Ondulado
DRM	Dupla	Rural	Montanhoso

Figura 4 Classes de segmentação homogênea

Assim, sabe-se que as intervenções são baseadas nos acidentes ocorridos no trecho e que cada trecho possui características. Pode-se supor então que acidentes que ocorrem dentro de um mesmo conjunto de características estão relacionados a

causas comuns, sendo assim, segmentos classificados dentro da mesma classe de segmentação homogênea poderão então possuir um tratamento homogêneo.

2.3 Identificação de segmentos críticos

Respeitando os critérios apresentados, a identificação dos segmentos críticos deverá ser realizada conforme definem os seguintes procedimentos:

a) ***Cálculo do Índice de acidentes do segmento j (Ij):*** O índice de acidentes, relativo ao segmento j, referido a um volume médio de tráfego médio anual é dado pela relação apresentada na Equação 1:

$$I_j = \frac{10^6 \times N_j}{365(VMDa)_j E_j} \quad (1)$$

Onde,

N_j = número anual de acidentes ocorridos no segmento;
E_j = extensão* associada ao segmento j;
$(VMDa)_j$ = volume médio diário anual, observado no segmento j.

*extensões estipuladas em 1km à exceção de inícios e fins de códigos de PNV, os quais poderão ter de 1 a 1,9km.

b) ***Cálculo do índice crítico anual de referência para um grupo de segmentos de mesma classe (λc):*** Os dados que possuam mesma classificação de segmentação (SUPT, SROC, DRPT, etc.) serão agrupados de forma a criar trechos que possam ter um índice crítico anual de referência (λc).

$$\lambda_c = \frac{\sum_j N_j \, x10^6}{365 \sum_j (VMDa_j E_j)} \quad (2)$$

c) ***Índice crítico anual de um segmento j de classe c (ICj):*** Define-se, para um segmento j, um índice crítico de acidentes individual para vários níveis de significância determinados, detalhadamente expostos em *P1 - Metodologia para Identificação de Segmentos Críticos* (UFSC, 2009).

$$IC_j = \lambda_c + k\sqrt{\frac{\lambda_c}{m_j} - \frac{0,5}{m_j}} \quad (3)$$

Onde:

$$m_j = 365 \times VMDA_j \times E_j \times 10^{-6}$$

d) ***Identificação se o segmento é crítico:*** Os segmentos que tiverem, individualmente, seus índices críticos de acidentes maiores que os índices críticos anuais de referência de sua respectiva classe, obedecendo à desigualdade apresentada a seguir, são considerados como segmentos críticos:

$$I_j \geq (IC)_j \quad (4)$$

De maneira sintética o quadro da Figura 5 abaixo explicita os procedimentos da identificação de segmentos críticos:

Índice de acidentes do segmento j (Ij)	$I_j = \frac{10^6 \times N_j}{365(VMDa)_j E_j}$
Índice crítico anual de referência para uma classe de segmentação homogênea (λc):	$\lambda_c = \frac{\sum_j N_j \, x10^6}{365 \sum_j (VMDa_j E_j)}$
Índice crítico anual de um segmento j de classe c (ICj):	$IC_j = \lambda_c + k\sqrt{\frac{\lambda_c}{m_j}} - \frac{0,5}{m_j}$
Identificação se o segmento é crítico	$I_j \geq (IC)_j$

Figura 5 Identificação de segmentos críticos

2.4 Série Histórica

Após a identificação de cada segmento crítico é de fundamental importância que se estabeleça a evolução histórica de cada segmento anteriormente ao referido ano-base. Assim, deve-se preparar uma série histórica regressiva, a partir do ano-base e em seqüência, com um período de três anos, verificando-se a permanência do segmento crítico com quaisquer níveis de significância ao longo dos anos.

Os níveis de significância sobre a criticidade dos segmentos deverá ser feita através uma categorização com a utilização do coeficiente (k) de forma a definir determinados intervalos que permitam a distinção de trechos ora considerados críticos ou ora desconsiderados, de acordo nível de significância adotado.

Intervalos entre graus de confiança (1 – α)	Categorização
$I_j < (IC)_{j\ 1 - 0,10}$	Segmento não é Critico
$(IC)_{j\ 1 - 0,10} < I_j < (IC)_{j\ 1 - 0,05}$	Segmento Crítico ***(levemente significativo)***
$(IC)_{j\ 1 - 0,05} < I_j < (IC)_{j\ 1 - 0,005}$	Segmento Crítico ***(significativo)***
$I_j > (IC)_{j\ 1 - 0,005}$	Segmento Crítico ***(altamente significativo)***

Figura 6 Categorização dos segmentos críticos

A fim de avaliar a evolução da criticidade de um segmento, deve-se verificar se o segmento crítico se mantém em todos os anos, mesmo que com um grau de confiança diferente. Após esta verificação devem-se realizar as seguintes análises:

- Análise 1: se o grau de confiança for igual ou superior a 95% (α = 0,05) para toda série histórica, o segmento configura-se como extremamente crítico;
- Análise 2: se nos anos avaliados no sentido crescente o segmento apresenta-se como crítico com graus de confiança gradativamente maiores e no ano base, grau de confiança igual ou superior a 95%, o segmento vem se tornando cada vez mais inseguro e deverá possuir estudos complementares;
- Análise 3: se o segmento apresenta-se como crítico no ano base e não aparece em um ou mais anos da série, mesmo com grau de confiança de 90% (α = 0,10), deve-se avaliar o trecho a fim de procurar o motivo da alteração

2.5 Priorização de segmentos críticos

A adoção do método de priorização dos segmentos previamente identificados como críticos baseou-se na escolha entre procedimentos que levem em conta a premissa de aplicar melhorias padronizadas para trechos com problemas de segurança viária similares.

Outro critério de escolha do método assume que o método deve ser quantitativo onde não seja necessário o conhecimento prévio de características especificas dos locais (visto que se pretende analisar uma amostra de significativa dimensão), podendo-se trabalhar com informações já conhecidas da amostra.

Assim, a sistemática de priorização acompanha os passos a seguir descritos, a partir da fixação do Fator de Gravidade em função de um Índice Relativo de Gravidade (IRG) do Acidente.

a) ***Cálculo do Índice Relativo de Gravidade (IRGj)*** de cada segmento crítico j: o qual toma a gravidade do acidente de acordo com o tipo.

$$IRG_j = \sum C_k f_k \quad (5)$$

Onde:

IRG_j= Índice Relativo de Gravidade de acidente no segmento crítico j;

f_k= freqüência de um tipo de acidente k no segmento crítico j;

C_k = custo médio de tipo de acidente k no segmento j.

A classificação dos tipos de acidentes, e respectivos custos, segue o estudo sobre custos de acidentes rodoviários elaborado por DNIT/IPR (2004), a saber:

Tipo de acidente	Custo médio unitário [R$]
Choque com objeto fixo	38.468,00
Capotagem	66.837,00
Atropelamento	154.539,00
Atropelamento de animal	19.396,00
Choque com veículo estacionado	8.789,00
Colisão traseira	30.116,00
Abalroamento lateral (mesmo sentido)	37.134,00
Colisão frontal	137.869,00
Abalroamento lateral (sentido oposto)	70.212,00
Abalroamento transversal	59.269,00
Tombamento	69.411,00
Saída de pista	49.255,00
Outros tipos	20.626,00

Figura 7 Custos associados aos tipos de acidentes

b) ***Cálculo do fator de gravidade (FGj)*** de um segmento crítico j.

$$FG_j = \frac{IRG_j}{365 \times VMDa_j \times E_j} \quad (6)$$

Onde:

$VMDa_j$ = volume médio diário de tráfego anual do segmento crítico j;

E_j = extensão do segmento crítico j.

c) ***Cálculo da média dos fatores de gravidade (μc)*** numa classe de segmentos homogêneos c***:***

$$\mu_c = \frac{\sum IRG_j}{365\sum(VMDa_j \times E_j)} \tag{7}$$

d) ***Cálculo do desvio padrão dos fatores de gravidade (σc)*** numa classe c de segmentos homogêneos:

$$\sigma_c = \frac{\sum(FG_j - \mu_c)^2}{n(n-1)} \tag{8}$$

Onde:

n = quantidade de segmentos críticos na classe c de segmentos críticos.

e) ***Cálculo de intervalo de confiança para cada classe c de segmentos homogêneos.*** Trabalhando com a Desigualdade de Tchebycheff para a hierarquização dos locais, a partir de um patamar mínimo dado pela expressão abaixo, em que X é uma variável aleatória discreta ou contínua, com média E(x)=μ, e a e variância V(X)=σ. Então, para qualquer número positivo C, tem-se:

$$P[|x-\mu| \geq C\sigma] \leq \frac{1}{C^2} \tag{9}$$

Tomando-se como de 10% a percentagem máxima de pontos acima do valor crítico Cσ, fornecido para o fator de gravidade, obtém-se:

$$\frac{1}{C^2} = \frac{1}{10} \therefore C = \sqrt{10} \tag{10}$$

O intervalo de confiança será então estipulado através de:

$$\mu_c + \sqrt{10}\sigma_c \tag{11}$$

f) ***Relação dos segmentos críticos em cada classe c de segmentos homogêneos***. Utilizando-se da desigualdade, determinou-se o intervalo no qual se espera que um valor qualquer de FG tenha 90% ou mais de probabilidade de estar

contido nesse intervalo. Consideraram-se como segmentos críticos aqueles cujos valores de FG estavam fora desse intervalo:

$$|FG_j| \geq \mu_c + \sqrt{10}\sigma_c \quad (12)$$

A priorização deve ser feita através da listagem, em ordem decrescente, dos segmentos críticos identificados conforme valores de desvios entre valores individuais de FG e limite do intervalo de confiança da classe na qual estão inseridos:

Ordem decrescente de: $|FG_j| - |VL|$

Onde:

VL = $\mu_c + \sqrt{10}\sigma_c$

2.6 Racionalização do processo – SGV

A fim de racionalizar o procedimento de cálculo de identificação e priorização de segmentos críticos, foi criada uma funcionalidade dento do Sistema Georreferenciado de Informações Viárias – SGV.

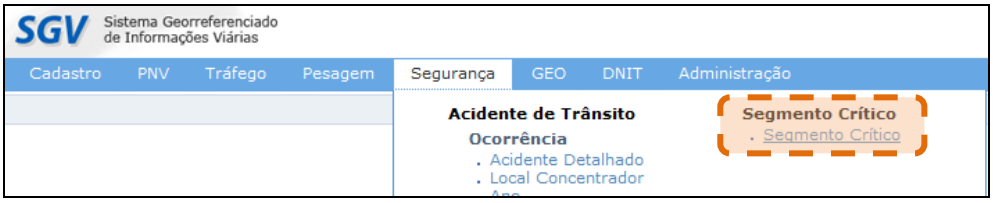

Figura 8 Ferramenta do SGV – Identificação de Segmentos Críticos

O sistema permite que todos os cálculos sejam feitos de maneira expedita sendo possível escolher a visualização dos resultados com opções de visualização dos dados utilizados como volume de tráfego, classe de segmentação homogênea ou código do trecho do Pano Nacional de Viação – PNV correspondente ao segmento crítico.

CAPÍTULO 4 – SEGMENTOS CRÍTICOS DAS RODOVIAS FEDERAIS SOB JURISDIÇÃO DO DNIT

3 SEGMENTOS CRÍTICOS DAS RODOVIAS FEDERAIS SOB JURISDIÇÃO DO DNIT

A listagem final da aplicação do método proposto resultou em 2600 segmentos críticos identificados e distribuídos em 10 das 12 classes de segmentação e em 24 das 27 unidades de federação do país. Todos os segmentos identificados e devidamente priorizados podem ser visualizados no Apêndice A.

Pela distribuição, é possível visualizar que as classes possuidoras de pista simples foram retentoras do maior número de segmentos críticos onde a classe SRM (Simples, Rural e Montanhosa) concentrou 43,81% dos segmentos, sendo seguida pelas classes SRP (Simples, Rural e Plano) e SRO (Simples, Rural e Ondulado) com 20,35% e 19,54% de retenção de segmentos críticos, respectivamente.

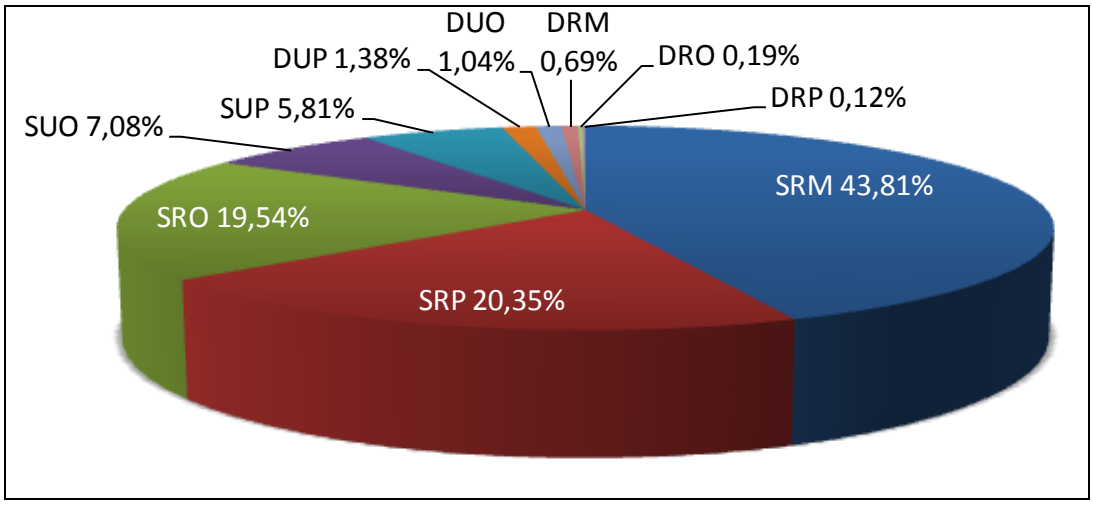

Figura 9 Distribuição dos segmentos críticos de acordo com classe de segmentação

Tratando das Unidades de Federação é possível analisar pela Figura 10 que no estado de Minas Gerais foi identificado o maior número de segmentos críticos (546 segmentos) onde em segundo lugar aparece o estado da Bahia com 372 segmentos críticos identificados e em terceira colocação o estado de Santa Catarina retendo 213 segmentos críticos.

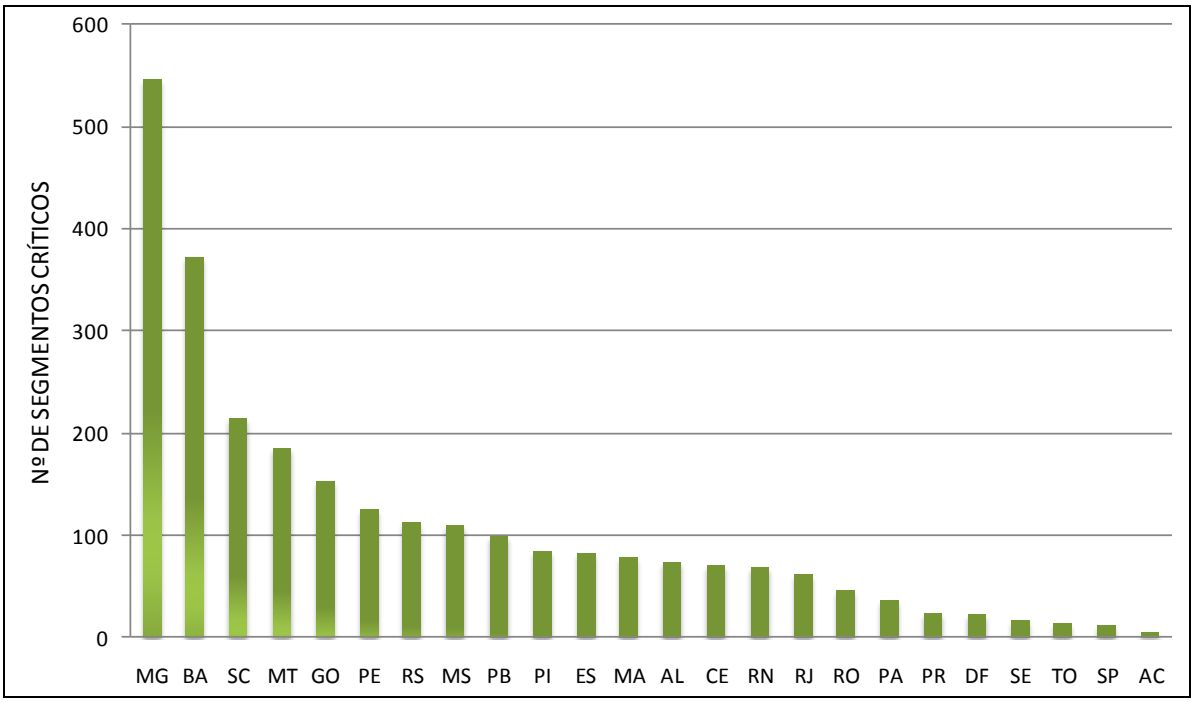

Figura 10 Distribuição dos segmentos críticos de acordo com Unidade de Federação

Ainda que Minas Gerais destaque-se com os maiores números de segmentos críticos, é pertinente comparar a quantidade de segmentos críticos em cada estado com a malha rodoviária federal analisada, pois, inicialmente, é presumível que, quanto maior a rede de rodovias analisada no estado, as chances de existirem segmentos críticos em maior quantidade são maiores.

Assim, elaborou-se o quadro a seguir (Figura 11) com o objetivo de analisar quanto da porcentagem da malha viária federal sobre a qual se aplicou o método em cada estado está composta por segmentos críticos. Observa-se que nos estados do Piauí, Mato Grosso e Acre grande parte de sua extensão analisada contendo segmentos críticos.

Estes dados expõem que, apesar do estado de MG possuir o maior número total de segmentos críticos, estes, quando comparados com a malha existente, mostram que o estado não é o detentor das maiores concentrações de segmentos críticos, assim esta constatação desfaz a presunção anteriormente exposta.

UF	N° de segmentos críticos *	Extensão total de segmentos críticos [km]	Extensão total de malha analisada [km]	% da malha composta por segmentos críticos
MG	546	791,7	2.515,25	31,48
BA	372	539,4	1.195,35	45,12
SC	213	308,85	1.024,81	30,14
MT	184	266,8	395,53	67,45
GO	152	220,4	976,33	22,57
PE	124	179,8	640,20	28,08
RS	113	163,85	518,47	31,60
MS	110	159,5	452,09	35,28
PB	99	143,55	381,88	37,59
PI	84	121,8	158,63	76,78
ES	81	117,45	500,34	23,47
MA	79	114,55	311,27	36,80
AL	74	107,3	257,05	41,74
CE	69	100,05	326,22	30,67
RN	68	98,6	200,16	49,26
RJ	62	89,9	259,90	34,59
RO	45	65,25	123,43	52,86
PA	35	50,75	93,86	54,07
PR	24	34,8	57,88	60,12
DF	21	30,45	73,63	41,36
SE	16	23,2	190,63	12,17
TO	13	18,85	151,27	12,46
SP	11	15,95	35,86	44,48
AC	5	7,25	11,95	60,69
TOTAL	**2600**	**3770**	**10.851,96**	**34,74**

* Extensão média so segmentos 1,45m

Figura 11 Dez rodovias federais com maior nº de segmentos críticos

Foram ainda identificadas 65 rodovias possuidoras de segmentos críticos e entre as dez mais concentradoras de segmentos críticos (Figura 12) destacaram-se as rodovias federais BR-101 ocupando a primeira posição, sendo seguida pela BR-262 e BR-116.

RODOVIA	Nº SEGMENTOS CRÍTICOS
101	321
262	176
116	158
163	135
282	106
316	104
364	96
230	88
40	85
365	79

Figura 12 Dez rodovias federais com maior nº de segmentos críticos

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APÊNDICE A

Ranking	UF	Rodovia	Km Inicial	Km Final
1	PE	BR101	77,0	78,0
2	PE	BR101	80,0	81,0
3	RO	BR364	718,9	720,0
4	PE	BR101	76,0	77,0
5	PE	BR101	81,0	82,3
6	PA	BR230	120,0	121,5
7	PB	BR230	12,0	13,0
8	PA	BR222	244,0	245,2
9	PE	BR101	72,9	74,0
10	PB	BR230	14,0	15,0
11	RS	BR287	249,0	250,0
12	RS	BR287	247,4	249,0
13	GO	BR153	500,8	502,0
14	PB	BR230	15,0	16,0
15	PI	BR316	408,0	409,0
16	MT	BR070	277,4	279,0
17	PB	BR230	17,0	18,0
18	PI	BR316	4,0	5,0
19	PA	BR222	243,0	244,0
20	MG	BR251	474,0	475,0
21	MT	BR070	276,0	277,4
22	PR	BR476	116,0	117,0
23	GO	BR158	258,0	259,0
24	RN	BR304	39,0	40,0
25	RJ	BR356	135,0	136,7
26	RJ	BR465	4,0	5,0
27	MG	BR116	415,0	416,0
28	PA	BR222	242,0	243,0
29	AL	BR316	274,0	275,0
30	PI	BR343	42,0	43,0
31	PB	BR230	464,0	465,0
32	MG	BR262	381,0	382,0
33	PI	BR343	11,3	13,0
34	PR	BR476	115,0	116,0
35	BA	BR135	45,0	46,0
36	MT	BR070	694,0	695,0
37	PR	BR476	120,0	121,0
38	PE	BR232	411,0	412,2
39	PA	BR222	237,9	239,0
40	AL	BR316	275,0	276,1
41	ES	BR262	158,0	159,0
42	SC	BR470	37,0	38,0
43	RJ	BR356	108,0	109,0
44	MG	BR040	34,0	35,0
45	PB	BR230	16,0	17,0
46	PR	BR476	119,0	120,0

Ranking	UF	Rodovia	Km Inicial	Km Final
47	SC	BR280	5,0	6,0
48	PE	BR424	71,0	72,0
49	MA	BR010	253,6	255,0
50	BA	BR242	350,0	351,0
51	MA	BR010	255,0	256,0
52	MA	BR010	252,0	253,6
53	RN	BR427	97,0	98,0
54	RJ	BR493	1,0	2,0
55	MG	BR452	213,0	214,0
56	PA	BR222	227,0	228,0
57	PB	BR230	8,0	9,0
58	SC	BR282	217,7	219,0
59	AL	BR101	108,0	109,0
60	PE	BR424	72,0	73,0
61	AC	BR364	136,0	137,9
62	BA	BR101	877,0	878,0
63	RO	BR174	0,0	1,0
64	RN	BR101	80,5	82,8
65	MG	BR135	370,0	371,0
66	SC	BR282	4,0	5,4
67	PI	BR343	36,0	37,0
68	SC	BR282	433,0	434,0
69	PA	BR230	119,0	120,0
70	PI	BR316	10,0	11,0
71	MG	BR251	428,0	429,0
72	PR	BR476	140,0	141,0
73	PE	BR424	17,0	18,0
74	RJ	BR356	30,0	31,0
75	BA	BR101	666,0	667,0
76	MG	BR251	475,0	476,0
77	PE	BR104	120,0	121,0
78	GO	BR040	2,0	3,0
79	RO	BR364	516,0	517,5
80	MG	BR262	380,0	381,0
81	PB	BR104	89,0	90,0
82	GO	BR153	502,0	503,3
83	RN	BR101	97,0	98,0
84	AL	BR101	114,0	115,0
85	PA	BR230	115,5	117,0
86	MG	BR262	561,0	562,0
87	MT	BR070	70,0	71,0
88	CE	BR020	304,0	305,0
89	MG	BR040	213,0	214,0
90	MG	BR365	522,7	524,0
91	PE	BR316	311,0	312,0
92	BA	BR101	675,0	676,0

Ranking	UF	Rodovia	Km Inicial	Km Final
93	RJ	BR356	119,0	120,0
94	MT	BR070	369,0	370,0
95	SC	BR280	3,8	5,0
96	MT	BR158	768,0	769,0
97	PB	BR230	407,0	408,0
98	BA	BR101	878,0	879,0
99	MG	BR262	597,0	598,0
100	RO	BR364	424,0	425,0
101	RS	BR287	250,0	251,0
102	BA	BR101	663,0	664,0
103	PE	BR424	51,0	52,0
104	ES	BR101	147,0	148,0
105	MG	BR262	443,0	444,0
106	RN	BR406	153,0	154,0
107	PE	BR316	24,0	25,0
108	DF	BR070	5,0	6,0
109	PI	BR316	6,2	8,0
110	DF	BR070	1,0	2,0
111	MA	BR010	250,0	251,0
112	MT	BR070	213,0	214,0
113	BA	BR101	712,0	713,0
114	PE	BR424	76,0	77,0
115	BA	BR110	371,0	372,0
116	MG	BR459	95,0	96,0
117	PB	BR104	141,0	142,0
118	PA	BR316	198,0	199,0
119	GO	BR158	261,0	262,0
120	PI	BR316	271,0	272,1
121	MT	BR070	274,0	275,0
122	PE	BR316	302,0	303,0
123	MG	BR116	711,0	712,0
124	GO	BR364	88,0	89,6
125	RS	BR392	90,0	91,0
126	RJ	BR465	8,0	9,0
127	RO	BR364	197,0	198,0
128	MA	BR010	249,0	250,0
129	MG	BR116	416,0	417,0
130	PB	BR230	19,0	20,4
131	PA	BR222	235,0	236,0
132	SC	BR280	66,0	67,0
133	PE	BR407	120,0	121,0
134	GO	BR158	22,0	23,0
135	PE	BR104	65,0	66,0
136	RJ	BR356	107,0	108,0
137	ES	BR101	146,0	147,0
138	SP	BR101	48,6	50,0

Ranking	UF	Rodovia	Km Inicial	Km Final
139	MG	BR251	479,0	480,0
140	RJ	BR356	110,0	111,0
141	SC	BR282	442,0	443,0
142	BA	BR242	746,0	747,0
143	PE	BR407	123,0	124,6
144	MG	BR251	376,0	377,0
145	MG	BR365	25,0	26,0
146	RO	BR364	158,0	159,0
147	PI	BR343	24,0	25,0
148	PB	BR230	446,0	447,0
149	CE	BR020	239,0	240,0
150	MG	BR262	551,0	552,0
151	BA	BR242	780,0	781,0
152	MT	BR158	579,0	580,0
153	SC	BR153	58,0	59,5
154	PE	BR316	10,0	11,0
155	MG	BR452	191,0	192,0
156	DF	BR070	4,0	5,0
157	MS	BR419	259,0	260,0
158	SC	BR282	499,0	500,0
159	MT	BR163	835,0	836,0
160	BA	BR101	879,0	880,0
161	MT	BR070	718,0	719,0
162	MT	BR163	829,0	830,0
163	BA	BR242	779,0	780,0
164	MA	BR010	251,0	252,0
165	BA	BR110	1,0	2,0
166	MG	BR262	556,0	557,0
167	MT	BR158	520,0	521,0
168	GO	BR158	198,0	199,0
169	RN	BR406	36,0	37,0
170	PI	BR343	450,0	451,0
171	MG	BR356	277,0	278,0
172	MG	BR459	99,0	100,0
173	MS	BR163	34,0	35,0
174	PE	BR316	35,0	36,0
175	PE	BR424	97,0	98,0
176	PE	BR424	47,0	48,0
177	MG	BR262	566,0	567,4
178	RS	BR158	194,0	195,0
179	MT	BR070	376,0	377,4
180	BA	BR101	583,0	584,0
181	BA	BR242	781,0	782,0
182	DF	BR251	22,0	23,0
183	ES	BR262	118,0	119,0
184	RS	BR472	173,0	174,0

Ranking	UF	Rodovia	Km Inicial	Km Final
185	PI	BR316	3,0	4,0
186	PI	BR343	13,0	14,0
187	RN	BR427	95,6	97,0
188	MA	BR222	160,0	161,0
189	RN	BR304	33,0	34,0
190	RO	BR364	886,0	887,0
191	MA	BR010	127,0	128,8
192	SC	BR280	68,0	69,0
193	PE	BR423	109,0	110,0
194	PA	BR222	57,0	58,0
195	MG	BR251	340,0	341,0
196	MG	BR040	143,0	144,0
197	BA	BR116	823,0	824,0
198	BA	BR101	422,0	423,0
199	RJ	BR356	56,0	57,0
200	BA	BR242	327,0	328,0
201	MG	BR135	391,0	392,0
202	MS	BR060	64,0	65,0
203	MG	BR262	22,0	23,0
204	MG	BR356	276,0	277,0
205	BA	BR116	822,0	823,0
206	MA	BR222	210,0	211,0
207	MA	BR010	319,8	321,0
208	MG	BR381	338,0	339,0
209	DF	BR070	3,0	4,0
210	MG	BR135	579,0	580,0
211	MG	BR381	217,0	218,0
212	MA	BR222	173,0	174,0
213	GO	BR364	100,0	101,0
214	CE	BR116	374,0	375,0
215	SC	BR282	405,2	407,0
216	SC	BR101	215,5	217,0
217	MG	BR153	57,8	59,0
218	MG	BR459	13,0	14,0
219	PR	BR476	132,9	134,0
220	RN	BR304	249,0	250,0
221	SC	BR282	108,0	109,0
222	RS	BR472	174,0	175,0
223	MT	BR070	187,0	188,0
224	MG	BR251	402,0	403,0
225	MS	BR262	365,0	366,0
226	MG	BR135	451,0	452,0
227	GO	BR060	166,0	167,0
228	BA	BR242	326,0	327,0
229	BA	BR101	595,0	596,2
230	SC	BR280	7,0	8,0

Ranking	UF	Rodovia	Km Inicial	Km Final
231	GO	BR153	499,0	500,8
232	RN	BR304	35,0	36,0
233	RS	BR472	138,0	139,0
234	CE	BR020	294,0	295,0
235	AL	BR101	56,0	57,0
236	SC	BR280	125,0	126,0
237	BA	BR116	172,0	173,0
238	BA	BR242	632,0	633,0
239	MG	BR459	11,0	12,0
240	PB	BR230	406,0	407,0
241	SC	BR282	15,5	17,0
242	GO	BR364	178,0	179,0
243	BA	BR407	126,0	127,0
244	PI	BR316	22,0	23,0
245	SC	BR282	3,0	4,0
246	SC	BR470	195,0	196,0
247	BA	BR110	369,0	370,0
248	RO	BR364	717,5	718,9
249	MG	BR251	427,0	428,0
250	RJ	BR356	109,0	110,0
251	ES	BR262	75,0	76,0
252	PI	BR343	494,0	495,0
253	GO	BR060	162,1	164,0
254	MG	BR135	464,0	465,0
255	PI	BR343	14,0	15,3
256	BA	BR242	702,0	703,0
257	BA	BR110	58,0	59,0
258	PI	BR316	13,0	14,0
259	SC	BR282	380,0	381,0
260	MG	BR040	362,0	363,0
261	MG	BR365	407,0	408,4
262	AL	BR101	194,0	195,0
263	MG	BR262	1,0	2,0
264	PE	BR316	252,0	253,0
265	MG	BR135	403,0	404,0
266	BA	BR242	370,0	371,0
267	RS	BR392	66,0	67,0
268	BA	BR101	429,0	430,0
269	PB	BR101	73,6	75,0
270	MG	BR365	365,0	366,0
271	PR	BR476	131,0	132,9
272	MT	BR070	84,0	85,0
273	BA	BR242	716,0	717,0
274	PI	BR316	21,0	22,0
275	MG	BR262	386,0	387,0
276	CE	BR116	428,0	429,0

Ranking	UF	Rodovia	Km Inicial	Km Final
277	MT	BR163	715,0	716,0
278	MG	BR365	95,0	96,0
279	PB	BR230	13,0	14,0
280	SC	BR282	501,0	502,0
281	PI	BR316	9,0	10,0
282	MT	BR163	691,0	692,0
283	MG	BR365	259,0	260,0
284	BA	BR116	17,0	18,0
285	RJ	BR356	124,0	125,0
286	PE	BR424	96,0	97,0
287	MG	BR251	506,0	507,0
288	MA	BR010	248,0	249,0
289	MG	BR365	405,0	406,0
290	TO	BR153	188,0	189,0
291	BA	BR101	545,0	546,0
292	MG	BR116	412,0	413,2
293	RJ	BR356	101,0	102,0
294	PE	BR104	29,0	30,5
295	AL	BR316	253,0	254,5
296	BA	BR101	428,0	429,0
297	AL	BR316	92,0	93,0
298	GO	BR158	255,0	256,0
299	MG	BR459	83,0	84,0
300	PB	BR230	137,0	138,0
301	ES	BR262	147,0	148,0
302	MT	BR163	836,0	837,0
303	BA	BR101	940,0	941,0
304	BA	BR242	786,0	787,0
305	GO	BR070	3,0	4,0
306	GO	BR364	64,0	65,0
307	SE	BR235	54,0	55,0
308	RS	BR287	392,0	393,0
309	GO	BR040	1,0	2,0
310	PI	BR316	409,0	410,0
311	PB	BR230	66,0	67,0
312	RS	BR392	93,0	94,0
313	BA	BR101	876,0	877,0
314	BA	BR101	691,0	692,0
315	DF	BR070	8,2	10,0
316	PE	BR104	64,0	65,0
317	MS	BR262	371,0	372,0
318	PI	BR316	95,0	96,0
319	PB	BR104	99,0	100,0
320	SC	BR470	343,0	344,0
321	MT	BR158	761,0	762,0
322	MA	BR222	154,0	155,0

Ranking	UF	Rodovia	Km Inicial	Km Final
323	PI	BR316	179,0	180,0
324	MG	BR146	497,0	498,0
325	MT	BR163	692,0	693,0
326	ES	BR262	150,0	151,0
327	BA	BR101	808,0	809,4
328	RS	BR116	188,0	189,0
329	PR	BR476	125,0	126,0
330	GO	BR060	389,0	390,0
331	MA	BR010	256,0	257,0
332	MS	BR163	45,0	46,0
333	BA	BR101	882,0	883,0
334	MG	BR459	57,0	58,0
335	GO	BR060	384,0	385,0
336	BA	BR020	86,0	87,0
337	BA	BR101	667,0	668,0
338	RO	BR364	798,0	799,0
339	PI	BR230	305,0	306,0
340	RN	BR304	38,0	39,0
341	MG	BR135	404,0	405,0
342	CE	BR222	301,0	302,0
343	RN	BR406	80,0	81,0
344	BA	BR101	566,0	567,0
345	RN	BR101	66,2	68,9
346	MG	BR459	93,0	94,0
347	AL	BR101	138,0	139,3
348	MG	BR262	382,0	383,0
349	PI	BR343	41,0	42,0
350	SC	BR280	14,0	15,0
351	RN	BR406	150,0	151,0
352	BA	BR242	741,0	742,0
353	BA	BR101	912,0	913,0
354	MT	BR070	239,3	241,0
355	MT	BR163	966,0	967,0
356	BA	BR242	404,0	405,0
357	PI	BR316	143,0	144,0
358	PI	BR343	522,0	523,0
359	RS	BR158	185,0	186,0
360	BA	BR101	713,0	714,0
361	MG	BR365	447,0	448,0
362	BA	BR101	715,0	716,0
363	BA	BR242	311,0	312,0
364	PI	BR316	401,0	402,0
365	SC	BR282	448,0	449,0
366	RN	BR304	43,0	44,0
367	MG	BR262	62,0	63,0
368	SC	BR282	457,0	458,0

Ranking	UF	Rodovia	Km Inicial	Km Final
369	PE	BR316	26,0	27,0
370	PB	BR230	463,0	464,0
371	MG	BR251	416,0	417,0
372	PA	BR230	118,0	119,0
373	PE	BR423	60,0	61,3
374	MG	BR459	98,0	99,0
375	AL	BR316	267,0	268,0
376	BA	BR242	692,0	693,0
377	SP	BR101	51,0	52,0
378	PE	BR423	86,0	87,0
379	BA	BR101	745,0	746,0
380	PR	BR476	124,0	125,0
381	PE	BR232	253,1	253,4
382	MS	BR163	103,0	104,3
383	BA	BR101	423,0	424,0
384	BA	BR242	633,0	634,0
385	BA	BR242	715,0	716,0
386	PB	BR230	9,0	10,0
387	PI	BR316	18,0	19,0
388	BA	BR242	703,0	704,0
389	MG	BR365	712,0	713,0
390	SC	BR280	54,0	55,8
391	RN	BR406	104,0	105,0
392	PR	BR476	137,0	138,0
393	PE	BR424	53,0	54,0
394	RO	BR364	748,0	749,0
395	MG	BR251	497,0	498,0
396	MG	BR251	334,0	335,0
397	RN	BR101	96,0	97,0
398	MA	BR222	156,0	157,0
399	MG	BR050	68,9	70,0
400	MS	BR262	445,0	446,0
401	MG	BR365	475,0	476,0
402	ES	BR101	148,0	149,0
403	BA	BR242	231,0	232,0
404	ES	BR262	119,0	120,3
405	BA	BR242	347,0	348,0
406	BA	BR242	353,0	354,0
407	RJ	BR356	131,0	132,0
408	BA	BR020	119,0	120,0
409	RS	BR287	251,0	252,0
410	BA	BR242	268,0	269,0
411	BA	BR242	339,0	340,0
412	BA	BR020	128,0	129,0
413	RJ	BR493	23,0	24,0
414	BA	BR242	389,0	390,0

Ranking	UF	Rodovia	Km Inicial	Km Final
415	ES	BR101	67,0	68,0
416	MT	BR070	279,0	280,0
417	RN	BR427	21,0	22,0
418	BA	BR242	391,0	392,0
419	MG	BR459	65,0	66,0
420	GO	BR364	16,0	17,0
421	SC	BR282	600,0	601,0
422	RJ	BR465	11,0	12,3
423	BA	BR242	390,0	391,0
424	MG	BR040	126,0	127,0
425	MG	BR381	420,0	421,0
426	MG	BR040	655,0	656,0
427	CE	BR222	305,0	306,0
428	RJ	BR356	20,0	21,0
429	PI	BR222	69,0	70,0
430	BA	BR242	720,0	721,4
431	PB	BR230	451,0	452,0
432	MS	BR262	379,0	380,0
433	CE	BR116	459,0	460,0
434	BA	BR242	732,0	733,0
435	MT	BR163	688,0	689,4
436	SC	BR282	116,0	117,0
437	MG	BR116	519,8	521,0
438	MG	BR251	437,0	438,0
439	PB	BR230	465,0	466,0
440	MG	BR251	382,0	383,0
441	MT	BR070	53,0	54,0
442	PE	BR423	65,0	66,0
443	MG	BR459	70,0	71,0
444	GO	BR070	315,0	316,0
445	MG	BR365	115,0	116,0
446	PE	BR423	88,0	89,0
447	BA	BR101	791,0	792,0
448	MG	BR116	538,0	539,0
449	RS	BR287	253,0	254,0
450	SP	BR101	44,0	45,0
451	MG	BR262	383,0	384,0
452	MG	BR251	503,0	504,0
453	MG	BR262	46,0	47,0
454	RO	BR364	423,0	424,0
455	SC	BR280	141,0	142,0
456	BA	BR101	739,0	740,0
457	AL	BR101	112,3	114,0
458	BA	BR242	297,0	298,0
459	MT	BR163	753,7	755,0
460	BA	BR101	543,0	544,0

Ranking	UF	Rodovia	Km Inicial	Km Final
461	SC	BR470	38,0	39,0
462	PI	BR343	48,1	50,0
463	RJ	BR493	10,0	11,0
464	PI	BR343	35,0	36,0
465	MG	BR040	85,0	86,0
466	SC	BR280	123,0	124,0
467	SC	BR282	500,0	501,0
468	PI	BR230	248,0	249,0
469	BA	BR116	819,0	820,0
470	MG	BR365	8,6	10,0
471	BA	BR110	171,0	172,0
472	RS	BR392	96,0	97,0
473	MG	BR135	465,0	466,0
474	BA	BR110	368,0	369,0
475	RJ	BR356	111,0	112,0
476	MG	BR040	359,0	360,0
477	MG	BR040	349,0	350,0
478	BA	BR242	223,0	224,0
479	RS	BR158	326,2	328,5
480	MS	BR163	88,0	89,0
481	PI	BR316	1,8	3,0
482	MT	BR158	712,0	713,0
483	ES	BR262	136,0	137,0
484	MG	BR262	520,0	521,0
485	RS	BR287	348,0	349,0
486	DF	BR070	6,0	7,0
487	MA	BR230	422,0	423,0
488	MG	BR262	550,0	551,0
489	MG	BR365	14,0	15,0
490	PB	BR427	36,0	37,9
491	SC	BR153	35,0	36,0
492	AL	BR101	42,0	43,0
493	RS	BR472	172,0	173,0
494	MG	BR251	498,0	499,0
495	BA	BR101	427,0	428,0
496	PB	BR230	279,0	280,0
497	BA	BR110	172,0	173,0
498	SP	BR488	0,0	0,4
499	PE	BR424	11,0	12,0
500	MT	BR364	137,0	138,0
501	MT	BR158	777,5	779,0
502	PI	BR343	271,0	272,0
503	BA	BR101	209,0	210,0
504	MG	BR262	570,0	571,0
505	MG	BR381	423,0	424,0
506	MG	BR251	504,0	505,0

Ranking	UF	Rodovia	Km Inicial	Km Final
507	MG	BR050	30,0	31,0
508	PI	BR343	28,0	29,0
509	MT	BR158	680,0	681,0
510	GO	BR153	577,0	578,0
511	BA	BR242	717,0	718,0
512	PI	BR316	20,0	21,0
513	GO	BR158	215,0	216,0
514	PI	BR343	15,3	17,0
515	MT	BR070	365,0	366,0
516	PE	BR104	119,0	120,0
517	MG	BR459	94,0	95,0
518	AC	BR364	135,0	136,0
519	MA	BR010	263,0	264,0
520	SP	BR101	52,0	53,6
521	ES	BR262	77,0	78,0
522	BA	BR242	747,0	748,0
523	BA	BR242	375,0	376,0
524	MG	BR116	595,0	596,0
525	MS	BR262	678,0	679,0
526	ES	BR101	268,0	269,0
527	MT	BR070	217,0	218,0
528	MT	BR070	280,0	281,0
529	ES	BR262	39,0	40,3
530	MG	BR459	23,0	24,0
531	PB	BR230	393,0	394,0
532	BA	BR101	875,0	876,0
533	GO	BR153	328,0	329,0
534	CE	BR116	171,0	172,0
535	RJ	BR356	79,0	80,0
536	MG	BR267	286,0	287,0
537	MG	BR381	365,0	366,0
538	RN	BR406	128,0	129,0
539	MA	BR010	266,0	267,0
540	RS	BR287	370,0	371,0
541	ES	BR262	6,0	7,1
542	RN	BR101	58,1	60,0
543	BA	BR116	441,0	442,0
544	BA	BR101	714,0	715,0
545	RS	BR116	187,0	188,0
546	BA	BR101	895,0	896,0
547	BA	BR101	947,0	948,0
548	BA	BR101	884,0	885,0
549	BA	BR101	719,0	720,0
550	MT	BR070	46,0	47,0
551	PI	BR230	202,0	203,0
552	BA	BR101	352,0	353,0

Ranking	UF	Rodovia	Km Inicial	Km Final
553	MG	BR135	437,0	438,0
554	RJ	BR356	126,0	127,0
555	MA	BR010	276,0	277,0
556	MG	BR040	389,0	390,0
557	MG	BR365	546,0	547,0
558	MG	BR381	353,0	354,0
559	PI	BR316	127,0	128,0
560	BA	BR116	777,0	778,0
561	BA	BR242	599,0	600,1
562	GO	BR158	12,0	13,0
563	GO	BR158	23,0	24,0
564	GO	BR158	32,0	33,0
565	MG	BR381	364,0	365,0
566	BA	BR101	541,0	542,0
567	AL	BR104	97,0	98,2
568	BA	BR116	163,0	164,0
569	MG	BR040	120,0	121,0
570	PI	BR316	377,0	378,0
571	BA	BR101	587,0	588,0
572	BA	BR101	504,0	505,0
573	MG	BR040	244,0	245,0
574	GO	BR158	262,0	263,3
575	BA	BR101	493,0	494,0
576	MG	BR262	103,0	104,0
577	BA	BR242	714,0	715,0
578	MG	BR040	656,0	657,0
579	BA	BR135	98,0	99,0
580	BA	BR116	420,0	421,0
581	GO	BR158	154,0	155,0
582	BA	BR135	62,0	63,0
583	PI	BR316	8,0	9,0
584	MG	BR459	55,0	56,0
585	SC	BR470	60,0	61,0
586	MG	BR459	17,0	18,0
587	BA	BR116	251,0	252,0
588	GO	BR060	171,0	172,0
589	PB	BR427	21,0	22,0
590	RJ	BR356	123,0	124,0
591	BA	BR242	392,0	393,2
592	RO	BR174	1,0	2,0
593	BA	BR242	309,0	310,0
594	BA	BR110	173,0	174,0
595	RJ	BR356	14,0	15,0
596	RS	BR287	518,0	519,0
597	GO	BR153	505,0	506,0
598	MG	BR040	100,0	101,0

Ranking	UF	Rodovia	Km Inicial	Km Final
599	PB	BR427	31,0	32,0
600	SC	BR470	99,0	100,0
601	PB	BR104	106,0	107,0
602	MG	BR251	425,0	426,0
603	SC	BR282	554,0	555,0
604	PA	BR316	152,0	153,0
605	PA	BR222	230,0	231,0
606	ES	BR262	55,0	56,1
607	SC	BR470	2,0	3,0
608	MG	BR365	92,0	93,2
609	MG	BR459	96,0	97,0
610	MG	BR365	17,0	18,0
611	MS	BR163	246,0	247,0
612	MG	BR135	372,0	373,0
613	MG	BR267	247,0	248,0
614	RS	BR285	449,0	450,0
615	MG	BR365	438,0	439,0
616	PI	BR343	527,0	528,0
617	BA	BR101	813,0	814,0
618	RS	BR472	171,0	172,0
619	RN	BR226	171,0	172,0
620	MS	BR163	36,0	37,0
621	MG	BR365	210,4	212,0
622	MG	BR251	473,0	474,0
623	ES	BR262	63,0	64,0
624	RO	BR364	904,0	905,0
625	MG	BR356	271,0	272,0
626	MG	BR251	413,0	414,0
627	MG	BR116	601,0	602,0
628	MG	BR354	741,0	742,0
629	AL	BR101	28,0	29,0
630	TO	BR153	489,0	490,0
631	BA	BR116	910,0	911,0
632	PE	BR424	26,0	27,0
633	MG	BR262	0,0	1,0
634	BA	BR116	265,0	266,0
635	BA	BR101	260,0	261,0
636	MT	BR070	304,0	305,0
637	BA	BR101	911,0	912,0
638	BA	BR101	809,4	811,0
639	GO	BR364	49,0	50,0
640	MG	BR262	508,0	509,0
641	SC	BR282	627,0	628,0
642	SC	BR282	177,0	178,0
643	MG	BR365	159,0	160,2
644	RS	BR287	414,0	415,0

Ranking	UF	Rodovia	Km Inicial	Km Final
645	GO	BR153	605,0	606,0
646	PB	BR230	157,0	158,0
647	BA	BR101	657,0	658,0
648	SC	BR282	416,0	417,0
649	MG	BR262	13,0	14,0
650	MT	BR070	716,0	717,0
651	MG	BR040	466,0	467,0
652	MT	BR163	827,0	828,0
653	BA	BR116	442,0	443,0
654	RS	BR392	73,0	74,0
655	CE	BR020	307,0	308,8
656	SC	BR282	25,0	26,0
657	BA	BR101	591,0	592,0
658	MT	BR158	633,0	634,0
659	PE	BR316	227,7	229,0
660	CE	BR116	162,0	163,0
661	MS	BR267	297,0	298,1
662	MS	BR163	316,0	317,0
663	BA	BR101	723,0	724,0
664	MT	BR158	687,0	688,0
665	MT	BR158	746,0	747,0
666	PB	BR230	250,0	251,0
667	SC	BR163	74,0	75,0
668	RO	BR364	882,8	884,0
669	RS	BR290	719,9	720,9
670	PE	BR232	420,0	421,0
671	PE	BR104	18,0	19,8
672	MG	BR459	119,0	120,0
673	GO	BR158	219,0	220,0
674	PA	BR316	193,0	194,0
675	MG	BR116	174,0	175,0
676	MG	BR365	194,0	195,0
677	SE	BR235	52,9	54,0
678	SC	BR470	149,0	150,0
679	CE	BR222	306,0	307,0
680	RS	BR472	584,0	585,0
681	PB	BR230	1,0	2,0
682	BA	BR242	221,0	222,0
683	BA	BR324	512,4	514,0
684	MS	BR262	369,0	370,0
685	SC	BR470	72,0	73,0
686	BA	BR101	859,0	860,0
687	MT	BR364	200,0	201,0
688	DF	BR251	32,9	34,0
689	MG	BR262	57,0	58,0
690	ES	BR101	445,0	446,0

Ranking	UF	Rodovia	Km Inicial	Km Final
691	MG	BR365	83,0	84,0
692	CE	BR116	517,0	518,0
693	MT	BR158	678,0	679,0
694	MG	BR116	710,0	711,0
695	RJ	BR356	128,0	129,0
696	MT	BR364	157,0	158,0
697	PI	BR316	399,0	400,0
698	PE	BR423	66,0	67,0
699	MA	BR316	210,0	211,0
700	MT	BR158	685,0	686,0
701	RJ	BR493	4,0	5,0
702	SC	BR470	12,0	13,0
703	MT	BR163	718,0	719,0
704	MT	BR163	687,0	688,0
705	TO	BR153	774,0	775,0
706	PI	BR230	154,0	155,0
707	MG	BR365	13,0	14,0
708	MT	BR163	839,0	840,0
709	BA	BR242	743,0	744,0
710	BA	BR116	264,0	265,0
711	MG	BR251	431,0	432,0
712	RS	BR392	104,0	105,0
713	PB	BR230	167,0	168,0
714	RO	BR364	514,0	515,0
715	SC	BR280	28,0	29,0
716	MG	BR365	216,0	217,0
717	PI	BR230	268,0	269,0
718	BA	BR135	121,0	122,0
719	MT	BR163	828,0	829,0
720	RJ	BR356	120,0	121,0
721	BA	BR116	25,0	26,0
722	MG	BR135	648,0	649,0
723	MG	BR135	388,0	389,0
724	PR	BR476	136,0	137,0
725	MG	BR381	319,0	320,0
726	BA	BR116	418,0	419,0
727	MG	BR262	476,0	477,6
728	PB	BR427	33,0	34,0
729	SC	BR282	379,0	380,0
730	CE	BR222	109,0	110,0
731	MS	BR419	310,3	312,0
732	MG	BR365	147,0	148,0
733	RO	BR364	940,0	941,0
734	CE	BR304	46,0	47,4
735	MT	BR163	774,0	775,0
736	MG	BR381	366,0	367,0

Ranking	UF	Rodovia	Km Inicial	Km Final
737	BA	BR101	811,0	812,0
738	RO	BR364	199,0	200,0
739	BA	BR242	655,0	656,0
740	BA	BR101	782,0	783,0
741	PB	BR104	188,0	189,0
742	MT	BR163	556,0	557,0
743	MS	BR158	269,0	270,0
744	RJ	BR493	22,0	23,0
745	MG	BR262	554,0	555,0
746	MT	BR163	568,0	569,0
747	RN	BR226	173,0	174,0
748	MG	BR262	755,0	756,0
749	MT	BR163	517,0	518,0
750	MG	BR262	43,0	44,0
751	GO	BR153	317,0	318,0
752	MG	BR262	438,0	439,0
753	MG	BR116	773,0	774,0
754	SP	BR459	5,0	6,0
755	MT	BR163	569,0	570,0
756	RS	BR285	666,0	667,0
757	RN	BR406	28,0	29,0
758	MG	BR365	661,0	662,0
759	RO	BR364	406,0	407,0
760	SC	BR282	498,0	499,0
761	GO	BR364	68,0	69,0
762	PB	BR230	226,0	227,0
763	RN	BR406	102,0	103,0
764	MA	BR316	359,0	360,0
765	ES	BR101	457,1	459,0
766	BA	BR101	614,0	615,0
767	MT	BR163	872,0	873,0
768	MT	BR163	748,0	749,0
769	PI	BR343	30,0	31,0
770	CE	BR116	117,0	118,0
771	BA	BR101	918,0	919,0
772	SC	BR470	268,0	269,0
773	BA	BR110	385,0	386,0
774	MG	BR135	558,0	559,0
775	BA	BR135	82,0	83,0
776	PI	BR343	455,0	456,0
777	GO	BR364	288,0	289,0
778	RO	BR364	672,0	673,6
779	MG	BR365	456,0	457,0
780	ES	BR262	138,9	140,0
781	RS	BR392	78,0	79,0
782	MT	BR163	826,0	827,0

Ranking	UF	Rodovia	Km Inicial	Km Final
783	MG	BR365	175,0	176,0
784	BA	BR101	751,0	752,0
785	MG	BR135	379,0	380,0
786	MG	BR251	455,0	456,0
787	MA	BR222	683,0	684,0
788	ES	BR262	95,0	96,0
789	MG	BR262	63,0	64,0
790	PI	BR230	265,1	267,0
791	MG	BR459	90,0	91,0
792	MT	BR070	100,0	101,0
793	BA	BR101	376,0	377,0
794	SP	BR459	3,0	4,0
795	MT	BR163	723,0	724,0
796	BA	BR101	812,0	813,0
797	SC	BR282	54,0	55,0
798	CE	BR304	71,0	72,0
799	MG	BR365	154,0	155,0
800	MG	BR356	285,0	286,0
801	SE	BR101	42,0	43,0
802	RS	BR392	83,0	84,0
803	DF	BR070	11,0	12,0
804	RS	BR287	328,0	329,0
805	MG	BR251	480,0	481,0
806	GO	BR364	167,0	168,0
807	CE	BR020	213,0	214,0
808	BA	BR110	395,0	396,0
809	MG	BR135	400,0	401,0
810	SC	BR282	418,0	419,0
811	RS	BR116	186,0	187,0
812	SC	BR282	44,0	45,0
813	SE	BR101	55,0	56,0
814	MG	BR365	387,0	388,0
815	MA	BR316	551,0	552,0
816	GO	BR364	296,2	298,0
817	MT	BR163	602,0	603,0
818	BA	BR101	590,0	591,0
819	CE	BR222	110,0	111,0
820	MA	BR222	682,0	683,0
821	SC	BR101	352,0	353,0
822	MG	BR262	188,0	189,0
823	MG	BR381	337,0	338,0
824	MG	BR040	92,0	93,0
825	MS	BR163	87,0	88,0
826	AL	BR316	107,0	108,0
827	BA	BR110	320,0	321,0
828	RJ	BR101	524,9	526,0

Ranking	UF	Rodovia	Km Inicial	Km Final
829	MG	BR135	389,0	390,0
830	RN	BR406	154,0	155,0
831	MG	BR135	510,0	511,0
832	MT	BR070	214,0	215,0
833	RS	BR293	182,0	183,0
834	AL	BR101	0,0	1,0
835	MS	BR262	529,0	530,0
836	PB	BR230	313,0	314,0
837	MT	BR070	76,0	77,0
838	BA	BR101	920,0	921,0
839	MG	BR365	253,0	254,0
840	MG	BR365	256,0	257,0
841	MG	BR365	269,0	270,0
842	SP	BR459	2,0	3,0
843	PE	BR316	271,0	272,0
844	PE	BR316	275,0	276,0
845	BA	BR101	874,0	875,0
846	PE	BR423	23,0	24,0
847	MG	BR135	380,0	381,0
848	MS	BR262	714,0	715,0
849	PE	BR232	491,0	492,0
850	ES	BR259	34,0	35,0
851	AL	BR316	144,0	145,0
852	MG	BR381	438,0	439,0
853	MG	BR381	216,0	217,0
854	RN	BR304	90,0	91,0
855	RN	BR304	46,0	47,2
856	MG	BR452	210,0	211,0
857	MG	BR381	290,0	291,0
858	BA	BR116	430,0	431,0
859	BA	BR101	525,0	526,0
860	MT	BR163	939,0	940,0
861	MS	BR262	414,0	415,0
862	MS	BR262	609,0	610,0
863	BA	BR101	664,0	665,0
864	BA	BR101	328,0	329,0
865	MG	BR251	490,0	491,0
866	MG	BR262	629,0	630,0
867	MG	BR262	420,0	421,0
868	PR	BR476	112,0	113,0
869	SC	BR280	23,0	24,0
870	SC	BR470	151,0	152,0
871	GO	BR158	38,0	39,5
872	SC	BR470	113,0	114,0
873	PB	BR230	166,0	167,0
874	RJ	BR356	132,0	133,0

Ranking	UF	Rodovia	Km Inicial	Km Final
875	AL	BR316	264,0	265,0
876	RS	BR287	399,0	400,0
877	BA	BR242	759,0	760,0
878	DF	BR251	30,0	31,9
879	MT	BR070	296,0	297,0
880	PE	BR424	78,0	79,0
881	SC	BR282	494,0	495,0
882	MG	BR267	81,0	82,0
883	MG	BR262	746,0	747,0
884	SC	BR470	66,0	67,0
885	CE	BR116	175,0	176,0
886	MS	BR163	24,0	25,0
887	RJ	BR356	64,0	65,9
888	BA	BR116	226,0	227,0
889	RN	BR406	152,0	153,0
890	MG	BR262	377,0	378,0
891	MG	BR262	439,0	440,0
892	GO	BR158	251,0	252,0
893	RS	BR386	100,0	101,0
894	ES	BR262	129,0	130,0
895	MG	BR135	642,0	643,0
896	PI	BR343	555,0	556,0
897	BA	BR116	173,0	174,0
898	DF	BR040	5,0	5,6
899	RS	BR472	147,0	148,0
900	RS	BR392	111,0	112,0
901	PE	BR424	8,0	9,0
902	MT	BR070	729,0	730,0
903	BA	BR110	293,0	294,0
904	MT	BR163	604,0	605,0
905	BA	BR135	50,0	51,0
906	GO	BR060	378,0	379,0
907	MG	BR251	359,0	360,3
908	PI	BR343	475,0	476,0
909	SC	BR153	81,0	82,0
910	BA	BR242	233,0	234,0
911	RS	BR287	408,0	409,4
912	PE	BR428	32,0	33,0
913	PI	BR316	5,0	6,2
914	MG	BR050	53,0	54,0
915	PI	BR230	197,9	199,0
916	BA	BR101	934,0	935,0
917	PE	BR232	401,0	402,0
918	MG	BR116	176,0	177,0
919	RN	BR405	5,0	6,0
920	RS	BR392	89,0	90,0

Ranking	UF	Rodovia	Km Inicial	Km Final
921	MG	BR365	462,0	463,5
922	BA	BR135	131,0	132,0
923	BA	BR135	133,0	134,0
924	GO	BR153	492,0	493,0
925	RN	BR226	53,0	54,0
926	BA	BR116	462,0	463,0
927	PB	BR230	257,0	258,0
928	MG	BR153	155,0	156,0
929	ES	BR101	29,0	30,0
930	CE	BR116	534,0	535,0
931	SE	BR101	116,0	117,0
932	SC	BR282	378,0	379,0
933	SC	BR282	527,0	528,0
934	MS	BR262	375,0	376,0
935	PI	BR230	303,0	304,0
936	BA	BR242	440,0	441,0
937	SC	BR282	52,0	53,0
938	RJ	BR101	391,0	392,0
939	MT	BR163	540,0	541,0
940	MT	BR163	970,0	971,0
941	SC	BR282	497,0	498,0
942	ES	BR101	405,0	406,0
943	AL	BR101	177,0	178,0
944	MT	BR158	682,0	683,0
945	MT	BR158	722,0	723,0
946	MT	BR158	743,0	744,0
947	PI	BR316	17,0	18,0
948	MG	BR365	108,0	109,0
949	PA	BR222	232,0	233,0
950	PB	BR230	320,0	321,0
951	AL	BR101	238,0	239,0
952	RJ	BR101	490,0	491,5
953	SC	BR101	335,0	336,2
954	MG	BR262	583,0	584,0
955	GO	BR153	329,0	330,0
956	AL	BR101	55,0	56,0
957	RS	BR158	531,0	532,0
958	MT	BR163	590,0	591,0
959	SC	BR282	644,0	645,0
960	BA	BR242	241,0	242,0
961	MT	BR163	702,0	703,0
962	AL	BR101	149,0	150,0
963	BA	BR110	74,0	75,0
964	RS	BR471	646,0	647,0
965	MG	BR135	614,0	615,0
966	MG	BR365	391,0	392,0

Ranking	UF	Rodovia	Km Inicial	Km Final
967	GO	BR020	5,0	6,0
968	MG	BR365	53,0	54,0
969	MG	BR262	596,0	597,0
970	BA	BR101	900,0	901,0
971	SC	BR163	97,0	98,0
972	BA	BR116	389,0	390,0
973	SP	BR101	50,0	51,0
974	RS	BR158	316,0	317,0
975	MG	BR459	21,0	22,0
976	BA	BR407	55,0	56,0
977	MG	BR381	186,0	187,0
978	PE	BR232	297,0	298,0
979	BA	BR110	149,0	150,0
980	MG	BR381	184,0	185,0
981	MG	BR459	126,0	127,0
982	RS	BR392	334,0	335,0
983	MG	BR365	169,0	170,0
984	ES	BR259	12,0	13,0
985	MT	BR158	785,0	786,0
986	MG	BR251	228,0	229,0
987	BA	BR101	839,0	840,0
988	MG	BR267	156,0	157,0
989	MT	BR070	727,0	728,0
990	BA	BR101	388,0	389,0
991	MG	BR135	554,0	555,0
992	RN	BR304	180,0	181,0
993	PB	BR104	143,0	144,0
994	RN	BR226	132,0	133,9
995	MG	BR251	476,0	477,0
996	MG	BR116	424,0	425,0
997	PI	BR316	149,0	150,0
998	MG	BR381	409,0	410,0
999	PE	BR423	54,0	55,0
1000	PA	BR010	201,0	202,0
1001	PB	BR104	90,0	91,0
1002	BA	BR407	129,0	130,0
1003	PB	BR104	55,0	56,0
1004	MA	BR222	209,0	210,0
1005	RJ	BR495	18,0	19,0
1006	MS	BR262	372,0	373,0
1007	GO	BR153	190,0	191,0
1008	MG	BR050	25,0	26,0
1009	SC	BR282	80,0	81,0
1010	PB	BR230	472,3	474,0
1011	PB	BR104	134,0	135,0
1012	RN	BR304	269,0	270,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1013	MA	BR010	257,0	258,0
1014	GO	BR060	172,0	173,0
1015	PE	BR104	79,0	80,0
1016	MG	BR135	405,0	406,0
1017	AL	BR101	103,0	104,1
1018	MG	BR135	438,0	439,0
1019	MT	BR163	759,0	760,0
1020	MG	BR459	104,0	105,0
1021	PI	BR343	491,0	492,0
1022	AL	BR101	152,0	153,0
1023	AL	BR104	94,0	95,0
1024	AL	BR101	150,0	151,0
1025	SC	BR280	92,0	93,0
1026	MG	BR040	731,0	732,0
1027	MT	BR070	695,0	696,0
1028	MS	BR262	570,0	571,0
1029	MS	BR262	608,0	609,0
1030	MS	BR262	617,0	618,0
1031	MS	BR262	661,0	662,0
1032	PE	BR232	482,0	483,0
1033	MG	BR135	392,0	393,0
1034	MG	BR381	405,0	406,0
1035	PE	BR232	256,0	257,0
1036	SC	BR282	454,0	455,0
1037	RJ	BR356	23,0	24,0
1038	MG	BR365	459,0	460,0
1039	BA	BR116	447,0	448,0
1040	RS	BR158	492,0	493,0
1041	MG	BR251	274,0	275,0
1042	CE	BR116	465,0	466,0
1043	MG	BR381	324,0	325,0
1044	BA	BR116	90,0	91,0
1045	SC	BR101	445,0	446,0
1046	SC	BR280	53,0	54,0
1047	MT	BR070	50,0	51,0
1048	BA	BR116	459,0	460,0
1049	RJ	BR356	49,0	50,7
1050	MG	BR262	595,0	596,0
1051	BA	BR101	544,0	545,0
1052	MT	BR163	695,0	696,0
1053	BA	BR020	79,0	80,0
1054	MG	BR116	479,0	480,0
1055	BA	BR101	921,0	922,0
1056	BA	BR101	889,0	890,0
1057	SC	BR282	49,0	50,0
1058	MG	BR040	196,0	197,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1059	MG	BR251	494,0	495,0
1060	PE	BR104	42,0	43,2
1061	PE	BR104	74,0	75,0
1062	MG	BR040	246,0	247,0
1063	BA	BR101	351,0	352,0
1064	MG	BR365	173,0	174,0
1065	PE	BR316	56,0	57,0
1066	MG	BR040	727,0	728,0
1067	MG	BR365	281,0	282,0
1068	RJ	BR356	99,4	101,0
1069	PB	BR104	139,3	141,0
1070	MT	BR070	532,0	533,0
1071	MS	BR262	366,0	367,0
1072	MT	BR163	851,0	852,0
1073	MG	BR365	54,0	55,3
1074	MG	BR381	275,0	276,0
1075	MG	BR365	577,0	578,4
1076	PI	BR343	20,0	21,0
1077	MG	BR040	386,0	387,0
1078	MT	BR070	47,0	48,0
1079	RS	BR386	130,0	131,4
1080	MG	BR459	84,0	85,0
1081	BA	BR116	824,0	825,0
1082	BA	BR101	104,0	105,0
1083	SC	BR282	109,0	110,0
1084	SC	BR280	55,8	57,0
1085	PI	BR316	25,0	26,0
1086	RS	BR287	259,0	260,0
1087	MG	BR116	570,0	571,0
1088	MG	BR251	442,8	444,0
1089	BA	BR135	65,0	66,0
1090	RO	BR364	625,0	626,0
1091	MS	BR163	35,0	36,0
1092	MS	BR163	654,0	655,0
1093	CE	BR020	316,0	317,0
1094	PE	BR423	36,0	37,0
1095	BA	BR116	826,0	827,0
1096	RS	BR386	109,0	110,0
1097	PR	BR476	108,0	109,4
1098	MG	BR459	9,0	10,0
1099	RJ	BR356	26,1	28,0
1100	SC	BR282	631,0	632,0
1101	MG	BR135	419,0	420,0
1102	MG	BR116	222,0	223,0
1103	RS	BR287	524,0	525,0
1104	PE	BR232	166,0	167,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1105	RJ	BR356	44,0	45,0
1106	SC	BR282	463,0	464,0
1107	GO	BR020	58,0	59,0
1108	MT	BR070	186,0	187,0
1109	PE	BR316	312,0	313,8
1110	GO	BR060	380,0	381,1
1111	MT	BR364	115,0	116,0
1112	PI	BR316	218,0	219,0
1113	MS	BR262	420,0	421,0
1114	MG	BR365	404,0	405,0
1115	RJ	BR356	114,0	115,0
1116	BA	BR110	78,0	79,0
1117	SC	BR282	77,0	78,0
1118	MG	BR262	92,0	93,0
1119	GO	BR158	156,0	157,0
1120	RJ	BR356	86,0	87,0
1121	BA	BR101	804,0	805,0
1122	MT	BR070	275,0	276,0
1123	MG	BR116	718,0	719,0
1124	MG	BR135	373,0	374,0
1125	PE	BR232	243,0	244,0
1126	SC	BR282	446,0	447,0
1127	BA	BR110	323,0	324,0
1128	GO	BR060	383,0	384,0
1129	RJ	BR356	84,0	85,0
1130	AL	BR104	86,0	87,0
1131	BA	BR110	287,2	289,0
1132	MT	BR163	747,0	748,0
1133	PE	BR232	340,0	341,0
1134	MS	BR163	75,0	76,0
1135	MG	BR135	428,0	429,0
1136	GO	BR153	300,0	301,0
1137	SC	BR282	633,0	634,0
1138	MS	BR262	525,0	526,3
1139	MA	BR316	513,0	514,0
1140	RN	BR304	268,0	269,0
1141	RS	BR101	82,0	83,0
1142	GO	BR452	0,0	1,0
1143	CE	BR116	192,0	193,2
1144	PE	BR423	132,0	133,0
1145	RN	BR304	24,5	26,0
1146	MG	BR040	75,0	76,0
1147	BA	BR101	661,8	663,0
1148	BA	BR116	16,0	17,0
1149	AL	BR101	109,0	110,0
1150	ES	BR262	114,0	115,3

Ranking	UF	Rodovia	Km Inicial	Km Final
1151	MG	BR251	457,0	458,0
1152	GO	BR153	308,0	309,0
1153	BA	BR101	885,0	886,0
1154	PE	BR104	117,0	118,0
1155	SC	BR282	144,0	145,0
1156	AC	BR364	131,0	132,0
1157	MG	BR262	19,0	20,0
1158	MG	BR251	379,0	380,0
1159	RS	BR287	270,0	271,0
1160	BA	BR116	170,0	171,0
1161	MG	BR262	436,6	438,0
1162	MT	BR163	792,0	793,0
1163	BA	BR116	674,0	675,0
1164	BA	BR242	240,0	241,0
1165	GO	BR060	379,0	380,0
1166	MS	BR060	179,0	180,0
1167	RO	BR364	670,0	671,0
1168	BA	BR101	529,0	530,0
1169	PR	BR476	77,0	78,0
1170	SC	BR101	412,0	413,0
1171	AC	BR364	133,0	134,0
1172	MT	BR070	356,0	357,0
1173	MT	BR070	297,0	298,0
1174	MT	BR158	736,0	737,0
1175	BA	BR242	358,0	359,0
1176	MG	BR153	114,0	115,0
1177	ES	BR101	307,0	308,0
1178	MG	BR354	752,0	753,0
1179	AL	BR101	111,0	112,3
1180	GO	BR153	212,9	214,0
1181	MG	BR356	284,0	285,0
1182	AL	BR423	37,0	38,0
1183	MA	BR316	400,0	401,1
1184	MG	BR459	103,0	104,0
1185	PR	BR476	135,0	136,0
1186	BA	BR242	253,0	254,0
1187	MG	BR116	417,0	418,0
1188	MS	BR163	251,0	252,0
1189	MT	BR163	734,0	735,0
1190	BA	BR101	705,0	706,0
1191	PE	BR104	72,0	73,0
1192	RN	BR101	77,0	78,0
1193	RS	BR285	568,0	569,0
1194	BA	BR242	663,0	664,0
1195	MG	BR365	26,0	27,0
1196	PB	BR230	507,0	508,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1197	PB	BR230	508,0	509,0
1198	SE	BR101	153,9	155,0
1199	CE	BR116	399,8	401,0
1200	AL	BR101	144,0	145,0
1201	BA	BR242	467,0	468,0
1202	BA	BR135	128,0	129,0
1203	GO	BR040	12,0	13,0
1204	MT	BR163	841,0	842,0
1205	ES	BR101	36,0	37,4
1206	MA	BR316	516,0	517,0
1207	MG	BR040	718,0	719,0
1208	ES	BR101	418,0	419,0
1209	GO	BR050	280,5	282,0
1210	MG	BR381	395,0	396,0
1211	SC	BR280	90,0	91,0
1212	MG	BR251	434,0	435,0
1213	BA	BR116	736,0	737,0
1214	MA	BR135	88,0	89,0
1215	SC	BR282	456,0	457,0
1216	AL	BR101	16,0	17,0
1217	MG	BR135	527,0	528,0
1218	MG	BR251	438,0	439,0
1219	GO	BR060	329,0	330,0
1220	PE	BR407	56,0	57,0
1221	PE	BR232	230,0	231,0
1222	MT	BR070	287,0	288,4
1223	MT	BR163	538,0	539,0
1224	RO	BR364	465,0	466,0
1225	MS	BR163	215,0	216,0
1226	BA	BR101	724,0	725,0
1227	RN	BR427	7,0	8,0
1228	RS	BR392	112,0	113,0
1229	CE	BR116	417,0	418,0
1230	BA	BR116	419,0	420,0
1231	BA	BR101	669,0	670,0
1232	MG	BR040	391,0	392,0
1233	MG	BR040	245,0	246,0
1234	SC	BR282	590,0	591,0
1235	RN	BR406	33,0	34,0
1236	MS	BR262	145,0	146,0
1237	AL	BR316	218,0	219,0
1238	CE	BR222	202,0	203,0
1239	MG	BR381	403,0	404,0
1240	MS	BR163	614,0	615,0
1241	BA	BR330	728,0	729,0
1242	BA	BR110	400,0	401,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1243	GO	BR153	606,0	607,0
1244	PE	BR232	258,0	259,0
1245	PE	BR104	21,0	22,0
1246	PA	BR316	175,0	176,0
1247	SC	BR470	15,0	16,0
1248	PE	BR232	396,0	397,0
1249	SE	BR235	58,0	59,0
1250	GO	BR153	589,0	590,0
1251	BA	BR101	238,0	239,1
1252	MG	BR452	209,0	210,0
1253	MG	BR459	161,0	162,0
1254	MT	BR163	969,0	970,0
1255	MG	BR153	113,0	114,0
1256	PI	BR316	241,2	243,0
1257	SC	BR282	427,0	428,0
1258	ES	BR101	69,0	70,0
1259	BA	BR101	528,0	529,0
1260	RS	BR471	558,0	559,0
1261	PE	BR316	29,0	30,0
1262	BA	BR116	632,0	633,0
1263	MS	BR262	625,0	626,0
1264	BA	BR101	681,0	682,0
1265	SC	BR280	95,0	96,0
1266	PI	BR343	202,0	203,0
1267	BA	BR330	741,0	742,0
1268	MG	BR040	2,0	3,0
1269	MG	BR356	280,0	281,0
1270	PB	BR104	132,0	133,0
1271	GO	BR153	182,0	183,0
1272	SC	BR282	78,0	79,0
1273	MS	BR262	389,0	390,0
1274	SP	BR101	37,0	38,0
1275	MG	BR381	410,0	411,0
1276	MG	BR267	55,0	56,0
1277	CE	BR116	426,0	427,0
1278	RO	BR364	759,0	760,0
1279	MT	BR163	722,0	723,0
1280	MG	BR251	463,0	464,0
1281	BA	BR101	703,0	704,0
1282	MT	BR163	652,0	653,0
1283	MT	BR163	603,0	604,0
1284	RO	BR364	663,0	664,0
1285	ES	BR101	374,0	375,0
1286	MG	BR262	31,0	32,0
1287	BA	BR101	814,0	815,0
1288	GO	BR050	177,0	178,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1289	BA	BR101	483,0	484,2
1290	GO	BR364	148,0	149,0
1291	MT	BR174	281,0	282,0
1292	MG	BR452	177,0	178,0
1293	MS	BR262	644,0	645,0
1294	ES	BR262	56,1	58,0
1295	MG	BR135	386,0	387,0
1296	MG	BR267	492,0	493,0
1297	PR	BR476	90,0	91,0
1298	RS	BR472	585,0	586,0
1299	PI	BR343	560,0	561,0
1300	MA	BR222	174,0	175,0
1301	RS	BR472	580,3	582,0
1302	SC	BR470	90,0	91,0
1303	SC	BR282	335,0	336,0
1304	PR	BR476	80,0	81,0
1305	DF	BR070	18,0	19,8
1306	BA	BR110	366,0	367,0
1307	SC	BR101	413,0	414,0
1308	MG	BR040	180,0	181,0
1309	RO	BR364	802,0	803,0
1310	ES	BR101	400,0	401,0
1311	GO	BR060	191,0	192,0
1312	MG	BR262	590,0	591,1
1313	PE	BR104	38,0	39,0
1314	RS	BR472	148,0	149,0
1315	MG	BR381	430,0	431,0
1316	MT	BR163	709,0	710,0
1317	MG	BR460	83,0	84,3
1318	MT	BR158	596,0	597,0
1319	MT	BR070	639,0	640,0
1320	BA	BR101	923,0	924,0
1321	AL	BR101	190,0	191,0
1322	PE	BR232	338,0	339,0
1323	BA	BR110	363,0	364,0
1324	BA	BR101	609,0	610,2
1325	BA	BR101	883,0	884,0
1326	BA	BR116	804,0	805,0
1327	GO	BR364	74,0	75,0
1328	MG	BR251	472,0	473,0
1329	MT	BR163	812,0	813,0
1330	BA	BR110	317,0	318,0
1331	SC	BR282	84,0	85,0
1332	PE	BR104	62,2	64,0
1333	MT	BR364	199,0	200,0
1334	RS	BR386	129,0	130,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1335	CE	BR222	81,0	82,4
1336	CE	BR222	120,0	121,0
1337	GO	BR452	153,0	154,0
1338	BA	BR101	881,0	882,0
1339	MT	BR364	190,0	191,0
1340	MG	BR040	142,0	143,0
1341	AL	BR316	88,0	89,0
1342	DF	BR070	10,0	11,0
1343	MG	BR262	511,0	512,0
1344	MS	BR262	521,0	522,0
1345	MG	BR354	737,0	738,0
1346	RS	BR287	340,0	341,0
1347	TO	BR153	214,0	215,0
1348	PE	BR232	510,0	511,0
1349	RO	BR364	429,0	430,0
1350	ES	BR101	30,0	31,0
1351	RJ	BR101	592,0	593,0
1352	RN	BR405	3,1	5,0
1353	CE	BR116	137,0	138,0
1354	MG	BR135	603,0	604,0
1355	MG	BR040	364,0	365,0
1356	RN	BR406	120,6	122,0
1357	MG	BR135	415,0	416,0
1358	MG	BR459	100,0	101,1
1359	SC	BR280	80,0	81,0
1360	BA	BR101	680,0	681,0
1361	MT	BR163	701,0	702,0
1362	MT	BR163	716,0	717,0
1363	ES	BR262	143,0	144,0
1364	MG	BR040	398,0	399,0
1365	BA	BR116	817,0	818,0
1366	RS	BR285	266,0	267,0
1367	CE	BR116	186,0	187,0
1368	MT	BR158	656,0	657,0
1369	RS	BR290	718,0	719,9
1370	MG	BR050	56,0	57,0
1371	MA	BR316	340,0	341,0
1372	MT	BR163	837,0	838,0
1373	PB	BR230	27,0	28,1
1374	MG	BR365	61,0	62,0
1375	SC	BR282	597,0	598,0
1376	BA	BR242	322,0	323,0
1377	PI	BR407	495,0	496,1
1378	MA	BR135	94,0	95,6
1379	MT	BR158	751,0	752,0
1380	MT	BR163	577,0	578,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1381	PB	BR104	133,0	134,0
1382	PE	BR316	16,0	17,0
1383	PR	BR476	75,0	76,0
1384	SC	BR282	419,0	420,0
1385	AC	BR364	132,0	133,0
1386	MG	BR040	194,0	195,0
1387	MG	BR040	739,0	740,0
1388	MG	BR116	692,0	693,0
1389	MT	BR070	533,0	534,0
1390	MG	BR262	631,0	632,0
1391	MT	BR163	539,0	540,0
1392	BA	BR116	461,0	462,0
1393	RS	BR158	151,0	152,0
1394	MG	BR365	114,0	115,0
1395	ES	BR101	28,0	29,0
1396	PB	BR101	19,0	20,0
1397	PE	BR101	20,0	21,0
1398	GO	BR364	2,0	3,0
1399	BA	BR110	142,0	143,0
1400	BA	BR101	562,0	563,0
1401	RN	BR226	46,0	47,0
1402	PE	BR104	23,0	24,0
1403	MT	BR070	332,0	333,0
1404	SC	BR282	495,0	496,0
1405	AL	BR316	235,0	236,0
1406	CE	BR116	316,0	317,0
1407	RN	BR304	23,0	24,5
1408	PI	BR316	170,0	171,0
1409	MG	BR365	63,0	64,0
1410	SC	BR101	336,2	338,0
1411	BA	BR101	496,0	497,0
1412	SC	BR282	361,0	362,0
1413	MT	BR174	259,0	260,0
1414	MS	BR267	385,0	386,0
1415	BA	BR101	817,0	818,0
1416	RJ	BR493	5,0	6,0
1417	MA	BR135	99,0	100,0
1418	MS	BR163	608,0	609,0
1419	MG	BR040	138,0	139,0
1420	PE	BR104	93,0	94,0
1421	MT	BR174	384,0	385,0
1422	MG	BR153	132,0	133,0
1423	GO	BR364	159,0	160,0
1424	BA	BR116	357,0	358,0
1425	RS	BR293	188,0	189,2
1426	PA	BR010	226,0	227,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1427	RO	BR364	648,0	649,0
1428	PE	BR423	71,0	72,0
1429	MG	BR116	457,0	458,0
1430	MG	BR459	56,0	57,0
1431	GO	BR364	112,0	113,2
1432	ES	BR101	267,0	268,0
1433	BA	BR020	82,0	83,0
1434	PB	BR230	408,0	409,0
1435	MG	BR365	372,0	373,0
1436	MG	BR365	88,0	89,0
1437	MT	BR364	125,0	126,0
1438	AL	BR104	61,0	62,0
1439	DF	BR251	26,0	27,0
1440	PI	BR316	235,0	236,0
1441	MT	BR364	25,0	26,0
1442	MT	BR070	254,0	255,0
1443	MG	BR116	101,0	102,0
1444	PB	BR230	290,9	292,0
1445	RN	BR304	31,0	32,0
1446	MA	BR222	681,0	682,0
1447	MG	BR459	66,0	67,0
1448	BA	BR101	169,2	171,0
1449	MG	BR116	540,0	541,0
1450	MG	BR365	130,0	131,0
1451	SC	BR282	570,0	571,0
1452	PA	BR010	298,0	299,0
1453	CE	BR222	316,0	317,0
1454	AL	BR316	237,0	238,0
1455	GO	BR452	132,0	133,0
1456	MG	BR040	131,0	132,0
1457	RJ	BR101	394,0	395,0
1458	RN	BR304	140,0	141,0
1459	MG	BR459	18,0	19,0
1460	RN	BR304	92,0	93,0
1461	SC	BR470	150,0	151,0
1462	MG	BR135	409,0	410,0
1463	CE	BR116	413,0	414,0
1464	GO	BR158	199,0	200,0
1465	AL	BR101	180,0	181,0
1466	RN	BR304	142,0	143,0
1467	MT	BR070	58,0	59,0
1468	RS	BR392	99,0	100,0
1469	RS	BR392	102,0	103,0
1470	ES	BR262	60,0	61,0
1471	TO	BR226	14,0	15,0
1472	MG	BR040	200,0	201,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1473	PI	BR316	135,0	136,0
1474	PR	BR476	87,0	88,0
1475	MS	BR267	122,0	123,0
1476	MG	BR262	178,0	179,0
1477	MG	BR365	448,0	449,0
1478	SC	BR282	525,0	526,0
1479	PA	BR010	8,0	9,0
1480	GO	BR070	287,0	288,0
1481	MG	BR251	466,0	467,0
1482	MG	BR354	743,0	744,1
1483	PE	BR232	179,0	180,0
1484	BA	BR101	914,0	915,0
1485	MG	BR153	129,7	131,0
1486	BA	BR407	97,0	98,0
1487	SC	BR101	362,0	363,0
1488	GO	BR153	663,0	664,0
1489	BA	BR242	653,0	654,0
1490	GO	BR060	203,0	204,0
1491	SC	BR282	577,0	578,2
1492	BA	BR116	421,0	422,0
1493	MG	BR365	441,0	442,0
1494	MT	BR163	737,0	738,0
1495	SC	BR470	3,0	4,0
1496	MG	BR251	505,0	506,0
1497	MA	BR316	595,0	596,0
1498	MG	BR262	530,0	531,0
1499	PE	BR423	119,0	120,0
1500	SC	BR282	410,0	411,0
1501	MT	BR163	509,0	510,0
1502	MS	BR262	599,0	600,0
1503	MG	BR365	142,0	143,0
1504	MG	BR381	407,0	408,0
1505	RN	BR406	132,0	133,0
1506	MG	BR365	557,0	558,0
1507	MG	BR365	227,0	228,0
1508	GO	BR060	193,0	194,0
1509	GO	BR050	273,0	274,0
1510	SC	BR282	640,0	641,0
1511	PE	BR423	112,0	113,0
1512	ES	BR262	31,0	32,0
1513	PE	BR232	252,0	253,1
1514	MG	BR040	212,0	213,0
1515	MG	BR116	779,0	780,0
1516	SC	BR280	102,0	103,0
1517	BA	BR101	582,0	583,0
1518	BA	BR101	917,0	918,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1519	MG	BR116	719,0	720,0
1520	GO	BR153	150,0	151,0
1521	SC	BR163	119,0	120,0
1522	MG	BR262	106,0	107,0
1523	RN	BR226	69,0	70,0
1524	MG	BR262	52,0	53,0
1525	MG	BR356	279,0	280,0
1526	GO	BR040	4,0	5,0
1527	MT	BR364	160,0	161,0
1528	RO	BR364	604,0	605,0
1529	RO	BR364	631,0	632,0
1530	MT	BR163	964,0	965,0
1531	MG	BR135	508,0	509,0
1532	RN	BR304	116,0	117,0
1533	MG	BR381	422,0	423,0
1534	ES	BR101	384,0	385,0
1535	MG	BR262	161,0	162,0
1536	BA	BR101	674,0	675,0
1537	ES	BR262	34,0	35,0
1538	MG	BR381	396,0	397,0
1539	MG	BR116	775,0	776,0
1540	MT	BR163	860,0	861,0
1541	ES	BR259	8,0	9,0
1542	DF	BR040	0,0	1,0
1543	BA	BR242	359,0	360,0
1544	PB	BR230	242,0	243,0
1545	PB	BR230	405,0	406,0
1546	BA	BR101	650,0	651,0
1547	RS	BR471	596,0	597,0
1548	MG	BR040	81,0	82,0
1549	MG	BR040	84,0	85,0
1550	RO	BR364	430,0	431,0
1551	CE	BR116	454,0	455,0
1552	MG	BR262	552,0	553,0
1553	RO	BR364	783,0	784,0
1554	RS	BR285	276,0	277,0
1555	MG	BR116	678,0	679,0
1556	BA	BR242	640,0	641,0
1557	ES	BR262	98,0	99,0
1558	PE	BR232	292,0	293,0
1559	PB	BR230	89,0	90,0
1560	RO	BR364	626,0	627,0
1561	BA	BR407	180,0	181,0
1562	RO	BR364	47,0	48,0
1563	MS	BR158	140,0	141,9
1564	CE	BR116	427,0	428,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1565	ES	BR101	373,0	374,0
1566	BA	BR324	566,0	567,1
1567	MT	BR163	684,0	685,0
1568	PI	BR343	243,0	244,0
1569	MT	BR174	227,0	228,0
1570	MG	BR251	380,0	381,0
1571	MG	BR365	494,0	495,0
1572	BA	BR116	26,0	27,0
1573	MS	BR163	726,0	727,0
1574	MA	BR135	174,0	175,0
1575	RS	BR392	329,0	330,0
1576	MS	BR163	2,0	3,0
1577	AL	BR316	106,0	107,0
1578	PB	BR230	106,0	107,0
1579	RS	BR287	288,0	289,0
1580	MS	BR262	489,0	490,0
1581	PI	BR316	164,0	165,0
1582	SC	BR153	99,0	100,0
1583	MG	BR251	421,0	422,0
1584	MS	BR262	653,0	654,3
1585	BA	BR101	491,0	492,0
1586	GO	BR153	239,0	240,0
1587	RN	BR304	173,0	174,0
1588	PE	BR104	28,0	29,0
1589	RJ	BR101	535,0	536,0
1590	MS	BR262	394,0	395,0
1591	ES	BR262	172,0	173,0
1592	MS	BR262	268,0	269,0
1593	MG	BR381	424,0	425,0
1594	PE	BR232	185,0	186,0
1595	MG	BR135	435,0	436,0
1596	MG	BR459	14,0	15,0
1597	SC	BR470	40,0	41,0
1598	ES	BR262	189,0	190,0
1599	SC	BR282	402,0	403,0
1600	MG	BR262	53,0	54,0
1601	PI	BR343	571,0	572,0
1602	SC	BR163	78,0	79,0
1603	SC	BR282	202,0	203,0
1604	MG	BR381	418,0	419,0
1605	PB	BR230	277,0	278,0
1606	MG	BR381	362,0	363,0
1607	RJ	BR465	6,0	7,0
1608	BA	BR110	59,0	60,0
1609	RS	BR386	128,0	129,0
1610	AL	BR101	37,4	39,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1611	PA	BR010	11,0	12,0
1612	MA	BR222	610,0	611,0
1613	MG	BR040	236,0	237,0
1614	RS	BR392	80,0	81,0
1615	RS	BR285	570,0	571,0
1616	BA	BR242	210,0	211,0
1617	SC	BR282	175,0	176,0
1618	SC	BR470	5,0	6,0
1619	BA	BR242	340,0	341,0
1620	MG	BR262	9,0	10,2
1621	RS	BR285	419,0	420,0
1622	BA	BR101	670,0	671,0
1623	MS	BR163	252,0	253,0
1624	BA	BR101	186,0	187,0
1625	MG	BR262	373,0	374,0
1626	RJ	BR356	4,0	5,0
1627	BA	BR101	905,0	906,0
1628	RS	BR285	274,0	275,0
1629	RS	BR285	437,0	438,0
1630	ES	BR262	53,0	54,0
1631	MG	BR262	490,0	491,0
1632	MG	BR365	110,0	111,0
1633	BA	BR110	352,5	354,0
1634	PB	BR230	471,0	472,3
1635	MG	BR040	729,0	730,0
1636	MG	BR381	416,0	417,0
1637	BA	BR110	374,0	375,1
1638	RN	BR427	13,0	14,0
1639	SC	BR282	166,9	168,0
1640	PA	BR010	132,0	133,0
1641	SC	BR280	145,0	146,0
1642	AL	BR101	18,0	19,0
1643	MG	BR116	741,0	742,0
1644	MG	BR381	427,0	428,6
1645	MT	BR163	560,0	561,0
1646	MG	BR040	201,0	202,0
1647	CE	BR222	237,0	238,0
1648	MG	BR251	433,0	434,0
1649	MG	BR135	412,0	413,0
1650	PE	BR423	64,0	65,0
1651	PA	BR010	289,0	290,0
1652	MT	BR070	309,0	310,2
1653	MG	BR381	296,0	297,0
1654	MA	BR316	561,0	562,0
1655	MG	BR040	176,0	177,0
1656	ES	BR262	169,1	171,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1657	PE	BR407	45,0	46,0
1658	GO	BR060	392,0	393,0
1659	PI	BR316	225,0	226,0
1660	RJ	BR356	12,0	13,0
1661	BA	BR407	48,0	49,0
1662	MT	BR364	20,0	21,0
1663	PI	BR230	166,0	167,6
1664	MG	BR040	431,0	432,0
1665	TO	BR153	239,0	240,0
1666	CE	BR222	311,5	313,0
1667	GO	BR153	168,0	169,0
1668	MG	BR381	302,0	303,0
1669	MG	BR262	632,0	633,0
1670	BA	BR101	865,0	866,0
1671	PB	BR104	146,0	147,9
1672	RO	BR364	403,0	404,0
1673	MG	BR365	626,0	627,0
1674	BA	BR110	2,0	3,0
1675	MS	BR060	191,2	193,0
1676	CE	BR020	358,0	359,0
1677	MA	BR316	259,0	260,9
1678	SC	BR470	235,0	236,0
1679	BA	BR242	461,0	462,0
1680	MG	BR040	285,0	286,0
1681	MG	BR365	239,0	240,0
1682	RS	BR285	240,0	241,0
1683	MG	BR262	474,0	475,0
1684	RO	BR364	617,0	618,0
1685	MG	BR262	104,0	105,0
1686	MG	BR354	703,0	704,0
1687	DF	BR020	36,4	38,0
1688	AL	BR104	34,0	35,7
1689	MG	BR040	282,0	283,0
1690	MG	BR040	660,0	661,0
1691	PB	BR230	99,0	100,0
1692	MG	BR262	729,0	730,3
1693	MG	BR116	223,0	224,0
1694	SC	BR282	549,0	550,0
1695	MT	BR070	728,0	729,0
1696	MG	BR459	136,0	137,0
1697	BA	BR101	495,0	496,0
1698	RN	BR304	74,0	75,0
1699	SC	BR163	95,0	96,0
1700	PI	BR316	35,0	36,0
1701	GO	BR060	199,0	200,0
1702	RN	BR304	279,0	280,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1703	PE	BR232	265,0	266,0
1704	PE	BR408	27,0	28,0
1705	PI	BR316	116,0	117,0
1706	GO	BR153	495,0	496,3
1707	PI	BR316	19,0	20,0
1708	BA	BR101	873,0	874,0
1709	SC	BR158	138,0	139,0
1710	MT	BR163	693,0	694,0
1711	GO	BR060	360,0	361,0
1712	MG	BR040	399,0	400,0
1713	RS	BR392	307,0	308,0
1714	RO	BR364	38,0	39,0
1715	RS	BR287	426,0	427,0
1716	MA	BR316	293,0	294,0
1717	GO	BR060	167,0	168,0
1718	BA	BR101	902,0	903,0
1719	BA	BR101	915,0	916,0
1720	PB	BR230	497,0	498,0
1721	CE	BR020	241,0	242,5
1722	PB	BR104	136,0	137,0
1723	BA	BR101	527,0	528,0
1724	BA	BR101	533,0	534,0
1725	BA	BR116	460,0	461,0
1726	GO	BR020	179,0	180,7
1727	MG	BR040	127,0	128,0
1728	MG	BR381	419,0	420,0
1729	MG	BR262	779,0	780,0
1730	MT	BR163	780,0	781,0
1731	MG	BR040	686,0	687,0
1732	RS	BR287	329,0	330,3
1733	BA	BR110	365,0	366,0
1734	RS	BR471	640,0	641,0
1735	ES	BR101	398,0	399,0
1736	PR	BR476	103,0	104,0
1737	MG	BR040	384,8	386,0
1738	PI	BR343	217,0	218,0
1739	GO	BR020	61,0	62,0
1740	PA	BR010	22,0	23,0
1741	MS	BR163	245,0	246,0
1742	GO	BR060	165,0	166,0
1743	MG	BR040	371,0	372,0
1744	MS	BR163	31,0	32,0
1745	MA	BR230	418,0	419,0
1746	RS	BR472	586,0	587,0
1747	MG	BR040	184,0	185,0
1748	MT	BR163	814,0	815,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1749	RS	BR472	166,0	167,0
1750	MG	BR116	778,0	779,0
1751	MA	BR230	412,0	413,0
1752	PI	BR316	11,0	12,0
1753	PR	BR476	98,0	99,0
1754	SC	BR282	513,0	514,0
1755	GO	BR040	92,0	93,0
1756	ES	BR101	173,0	174,0
1757	MG	BR116	278,0	279,0
1758	CE	BR020	339,0	340,0
1759	CE	BR222	299,0	300,0
1760	PE	BR116	25,7	27,0
1761	MS	BR262	378,0	379,0
1762	SC	BR470	186,0	187,0
1763	MG	BR365	385,0	386,0
1764	RO	BR364	488,0	489,0
1765	AL	BR101	41,0	42,0
1766	SC	BR282	568,0	569,0
1767	BA	BR242	380,0	381,0
1768	RS	BR287	378,0	379,0
1769	TO	BR153	408,6	410,0
1770	PE	BR101	198,0	199,0
1771	GO	BR153	318,0	319,7
1772	SC	BR282	491,0	492,0
1773	CE	BR020	324,0	325,0
1774	MG	BR262	594,0	595,0
1775	MG	BR153	75,0	76,0
1776	BA	BR101	565,0	566,0
1777	RO	BR364	224,0	225,0
1778	RN	BR304	280,0	281,0
1779	MG	BR040	672,0	673,0
1780	PA	BR010	302,0	303,0
1781	MA	BR010	229,0	230,0
1782	MG	BR135	618,0	619,0
1783	PE	BR423	46,0	47,0
1784	SC	BR282	429,0	430,0
1785	ES	BR101	25,0	26,0
1786	GO	BR040	140,0	141,0
1787	MA	BR230	464,0	465,0
1788	SC	BR101	274,0	275,0
1789	MT	BR070	377,4	379,0
1790	RS	BR392	276,0	277,0
1791	GO	BR364	319,0	320,0
1792	BA	BR101	101,0	102,0
1793	RJ	BR101	526,0	527,0
1794	ES	BR262	92,0	93,7

Ranking	UF	Rodovia	Km Inicial	Km Final
1795	SC	BR470	4,0	5,0
1796	MG	BR251	478,0	479,0
1797	MG	BR116	7,0	8,0
1798	MG	BR251	441,0	442,8
1799	MG	BR262	625,0	626,0
1800	SC	BR282	642,0	643,0
1801	MA	BR010	155,0	156,4
1802	CE	BR116	376,0	377,0
1803	PE	BR428	77,0	78,0
1804	MT	BR070	659,0	660,0
1805	SC	BR282	412,0	413,0
1806	MG	BR040	118,9	120,0
1807	MG	BR365	30,0	31,0
1808	BA	BR101	503,0	504,0
1809	MG	BR135	471,0	472,0
1810	MG	BR452	201,2	202,8
1811	DF	BR070	13,2	15,8
1812	MG	BR153	97,0	98,0
1813	RS	BR285	273,0	274,0
1814	MG	BR116	470,0	471,0
1815	PA	BR010	7,0	8,0
1816	BA	BR101	430,0	431,7
1817	CE	BR020	311,0	312,0
1818	CE	BR116	503,0	504,7
1819	GO	BR020	59,0	60,0
1820	ES	BR262	168,0	169,1
1821	MA	BR135	248,0	249,0
1822	CE	BR222	116,0	117,0
1823	SC	BR153	84,0	85,0
1824	ES	BR262	69,0	70,0
1825	RO	BR364	392,0	393,0
1826	RJ	BR101	390,0	391,0
1827	BA	BR242	693,0	694,0
1828	MS	BR163	741,0	742,0
1829	BA	BR101	948,0	949,0
1830	MG	BR267	269,0	270,4
1831	PI	BR343	46,0	47,0
1832	CE	BR116	128,0	129,0
1833	TO	BR226	25,0	26,0
1834	BA	BR101	498,0	499,0
1835	MA	BR316	232,0	233,0
1836	MG	BR381	295,0	296,0
1837	GO	BR060	390,0	391,0
1838	GO	BR153	348,0	349,0
1839	SC	BR470	148,0	149,0
1840	MG	BR262	502,0	503,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1841	MS	BR163	396,0	397,0
1842	GO	BR060	245,0	246,0
1843	SC	BR282	537,0	538,0
1844	MT	BR364	183,0	184,0
1845	ES	BR101	408,0	409,0
1846	BA	BR407	125,0	126,0
1847	AL	BR423	14,0	15,0
1848	PB	BR230	92,0	93,0
1849	PA	BR222	236,0	237,9
1850	GO	BR364	73,0	74,0
1851	BA	BR242	590,0	591,0
1852	MS	BR262	626,0	627,0
1853	MS	BR262	627,0	628,0
1854	MS	BR262	647,0	648,0
1855	MS	BR262	673,0	674,0
1856	MS	BR262	683,0	684,0
1857	MS	BR262	691,0	692,0
1858	MG	BR251	404,0	405,0
1859	AL	BR316	157,0	158,5
1860	RJ	BR493	11,0	12,0
1861	AL	BR101	19,0	20,0
1862	MG	BR365	630,0	631,0
1863	SC	BR282	453,0	454,0
1864	RS	BR392	286,0	287,0
1865	MG	BR459	16,0	17,0
1866	BA	BR242	718,0	719,0
1867	MS	BR262	242,0	243,0
1868	MG	BR365	97,0	98,0
1869	MG	BR040	696,0	697,0
1870	SC	BR282	185,0	186,0
1871	BA	BR116	192,0	193,0
1872	MS	BR163	66,0	67,0
1873	ES	BR101	381,0	382,0
1874	PA	BR010	158,0	159,0
1875	MG	BR365	38,0	39,8
1876	MG	BR116	29,0	30,0
1877	PE	BR423	75,0	76,0
1878	MS	BR262	699,0	700,0
1879	SC	BR153	106,0	107,0
1880	BA	BR110	355,0	356,0
1881	MS	BR267	80,0	81,0
1882	PA	BR308	155,0	156,0
1883	PE	BR423	70,0	71,0
1884	SC	BR280	24,0	25,0
1885	PE	BR316	28,0	29,0
1886	SC	BR101	438,0	439,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1887	PB	BR230	326,0	327,3
1888	BA	BR101	488,0	489,0
1889	MG	BR153	94,0	95,0
1890	MG	BR381	305,0	306,0
1891	MG	BR040	740,0	741,0
1892	MT	BR163	743,0	744,0
1893	CE	BR020	219,0	220,0
1894	MG	BR381	215,0	216,0
1895	SC	BR282	477,0	478,0
1896	BA	BR116	159,0	160,0
1897	RS	BR285	202,0	203,0
1898	MG	BR262	497,0	498,0
1899	SC	BR282	48,0	49,0
1900	MA	BR010	309,0	310,0
1901	PE	BR423	42,0	43,0
1902	SC	BR153	38,0	39,0
1903	CE	BR222	248,0	249,7
1904	MS	BR163	25,0	26,0
1905	MG	BR381	180,0	181,0
1906	PB	BR230	65,0	66,0
1907	PB	BR101	42,0	43,0
1908	BA	BR101	926,0	927,0
1909	MG	BR135	452,0	453,0
1910	RS	BR153	41,0	42,0
1911	PB	BR104	100,0	101,0
1912	MG	BR452	202,8	204,0
1913	BA	BR242	337,0	338,0
1914	MS	BR262	381,8	383,0
1915	RS	BR285	218,0	219,0
1916	AL	BR101	40,0	41,0
1917	PE	BR423	69,0	70,0
1918	BA	BR116	220,0	221,0
1919	MG	BR381	375,0	376,0
1920	BA	BR101	945,0	946,0
1921	MA	BR135	101,0	102,0
1922	MG	BR040	365,0	366,0
1923	SC	BR470	174,0	175,0
1924	PB	BR230	394,0	395,0
1925	MG	BR116	596,0	597,0
1926	ES	BR262	194,0	195,0
1927	TO	BR153	736,0	737,0
1928	MG	BR365	347,0	348,0
1929	MG	BR459	47,0	48,0
1930	MS	BR163	214,0	215,0
1931	ES	BR262	81,0	82,0
1932	MT	BR070	705,0	706,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1933	SE	BR101	62,0	63,3
1934	MG	BR262	107,0	108,0
1935	RN	BR406	81,0	82,0
1936	MG	BR135	385,0	386,0
1937	MG	BR040	313,0	314,0
1938	GO	BR153	575,0	576,0
1939	MT	BR163	845,0	846,0
1940	MA	BR316	579,0	580,0
1941	MG	BR365	243,0	244,0
1942	MG	BR365	257,0	258,0
1943	SE	BR101	58,0	59,0
1944	AL	BR101	236,0	237,0
1945	GO	BR153	426,0	427,0
1946	MG	BR354	738,0	739,0
1947	BA	BR116	185,0	186,0
1948	BA	BR407	12,0	13,0
1949	ES	BR262	49,0	50,0
1950	MG	BR381	339,0	340,0
1951	PE	BR423	61,3	63,0
1952	RS	BR290	452,0	453,0
1953	SC	BR280	139,0	140,0
1954	MG	BR135	500,0	501,4
1955	GO	BR060	356,0	357,0
1956	RJ	BR493	8,0	9,0
1957	PB	BR230	83,0	84,1
1958	RS	BR158	149,0	150,0
1959	MG	BR262	589,0	590,0
1960	GO	BR050	267,0	268,0
1961	AL	BR423	51,6	53,0
1962	MG	BR381	389,0	390,0
1963	MS	BR262	367,0	368,0
1964	BA	BR101	880,0	881,0
1965	PA	BR222	233,0	234,0
1966	BA	BR101	214,0	215,0
1967	BA	BR116	641,5	643,0
1968	ES	BR101	416,0	417,0
1969	MG	BR267	226,0	227,0
1970	BA	BR101	771,0	772,0
1971	GO	BR020	21,0	22,0
1972	MG	BR040	203,0	204,0
1973	GO	BR060	407,0	408,0
1974	BA	BR101	252,0	253,0
1975	SC	BR282	76,0	77,0
1976	MA	BR135	50,0	51,0
1977	SC	BR280	12,0	13,0
1978	MS	BR262	506,0	507,0

Ranking	UF	Rodovia	Km Inicial	Km Final
1979	BA	BR101	10,0	11,0
1980	BA	BR116	270,0	271,0
1981	SC	BR282	55,0	56,0
1982	MG	BR116	472,0	473,0
1983	SC	BR282	67,0	68,0
1984	PE	BR408	64,0	65,9
1985	MG	BR365	156,0	157,0
1986	PR	BR476	107,0	108,0
1987	MG	BR153	236,0	237,0
1988	MS	BR163	322,0	323,4
1989	SE	BR101	66,0	67,0
1990	MA	BR316	235,0	236,0
1991	MG	BR381	408,0	409,0
1992	BA	BR101	208,0	209,0
1993	MG	BR262	593,0	594,0
1994	MG	BR262	464,0	465,0
1995	MG	BR381	406,0	407,0
1996	CE	BR222	302,0	303,0
1997	MT	BR364	69,0	70,0
1998	MG	BR381	236,0	237,0
1999	MG	BR135	575,0	576,0
2000	MG	BR262	433,0	434,0
2001	MG	BR262	560,0	561,0
2002	MG	BR365	631,0	632,0
2003	PB	BR230	72,0	73,0
2004	MG	BR365	280,0	281,0
2005	MG	BR116	439,0	440,0
2006	ES	BR101	149,0	150,1
2007	SC	BR153	42,0	43,0
2008	MG	BR365	615,0	616,0
2009	MG	BR040	719,0	720,0
2010	MT	BR070	257,0	258,0
2011	MG	BR040	642,0	643,0
2012	MG	BR262	47,0	48,0
2013	GO	BR060	246,0	247,0
2014	MT	BR163	791,0	792,0
2015	MS	BR262	511,0	512,0
2016	MG	BR040	375,0	376,0
2017	BA	BR242	573,0	574,0
2018	MA	BR316	162,0	163,0
2019	BA	BR101	886,0	887,0
2020	BA	BR101	888,0	889,0
2021	RJ	BR101	567,0	568,0
2022	PA	BR010	32,0	33,0
2023	GO	BR050	313,0	314,2
2024	PB	BR230	413,9	415,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2025	BA	BR101	535,8	537,0
2026	PB	BR230	112,1	114,0
2027	GO	BR364	128,0	129,0
2028	GO	BR364	177,0	178,0
2029	GO	BR364	208,0	209,0
2030	MG	BR116	458,0	459,0
2031	MG	BR116	518,0	519,8
2032	MS	BR163	30,0	31,0
2033	MG	BR262	110,0	111,0
2034	SC	BR282	626,0	627,0
2035	MG	BR135	436,0	437,0
2036	BA	BR101	634,0	635,0
2037	PB	BR230	352,0	353,0
2038	GO	BR050	134,0	135,0
2039	ES	BR259	27,0	28,0
2040	RO	BR364	418,0	419,0
2041	ES	BR101	391,9	393,0
2042	MG	BR251	471,0	472,0
2043	SC	BR282	70,0	71,0
2044	MG	BR365	357,0	358,0
2045	BA	BR101	557,0	558,0
2046	RN	BR304	4,0	5,0
2047	SC	BR282	376,0	377,0
2048	PI	BR343	33,4	35,0
2049	MG	BR267	120,0	121,0
2050	GO	BR153	354,0	355,0
2051	BA	BR101	135,0	136,0
2052	MG	BR251	462,0	463,0
2053	MA	BR316	449,0	450,0
2054	RS	BR392	84,0	85,0
2055	RS	BR392	107,0	108,0
2056	MT	BR070	367,0	368,0
2057	BA	BR324	514,0	515,0
2058	SC	BR282	200,0	201,0
2059	CE	BR116	419,8	421,0
2060	PB	BR230	190,0	191,0
2061	GO	BR153	304,2	306,0
2062	DF	BR070	17,0	18,0
2063	AL	BR316	126,0	127,0
2064	MG	BR365	393,0	394,0
2065	RN	BR226	74,0	75,0
2066	AL	BR101	126,0	127,0
2067	MG	BR116	752,0	753,0
2068	BA	BR101	807,0	808,0
2069	MS	BR163	232,0	233,0
2070	AL	BR101	100,0	101,2

Ranking	UF	Rodovia	Km Inicial	Km Final
2071	PE	BR104	25,0	26,0
2072	PB	BR230	135,5	137,0
2073	CE	BR116	53,0	54,0
2074	MT	BR070	305,0	306,0
2075	BA	BR101	492,0	493,0
2076	MA	BR135	172,0	173,0
2077	MG	BR040	750,0	751,0
2078	MT	BR070	637,0	638,0
2079	RS	BR153	19,0	20,8
2080	PI	BR343	438,0	439,0
2081	MG	BR381	352,0	353,0
2082	SC	BR470	16,0	17,0
2083	MT	BR163	782,0	783,0
2084	SC	BR470	121,0	122,0
2085	MG	BR262	778,0	779,0
2086	MG	BR354	740,0	741,0
2087	MG	BR153	90,0	91,0
2088	GO	BR153	169,0	170,0
2089	MT	BR158	661,0	662,0
2090	SP	BR459	10,0	11,0
2091	GO	BR153	397,0	398,0
2092	MT	BR070	69,0	70,0
2093	SE	BR101	43,0	44,0
2094	BA	BR101	655,0	656,0
2095	MG	BR262	562,0	563,0
2096	MG	BR452	180,0	181,0
2097	MG	BR262	571,0	572,0
2098	PB	BR230	158,0	159,0
2099	BA	BR407	96,0	97,0
2100	BA	BR110	10,0	11,0
2101	BA	BR116	19,0	20,0
2102	SC	BR470	165,0	166,0
2103	RS	BR287	280,0	281,0
2104	MT	BR070	688,0	689,0
2105	SE	BR101	59,0	60,0
2106	PB	BR230	412,0	413,9
2107	MG	BR365	71,0	72,0
2108	MG	BR116	804,0	805,0
2109	MA	BR135	193,0	194,0
2110	BA	BR101	198,0	199,0
2111	BA	BR116	451,0	452,0
2112	ES	BR101	349,0	350,0
2113	SC	BR470	11,0	12,0
2114	MT	BR163	834,0	835,0
2115	BA	BR116	909,0	910,0
2116	BA	BR116	417,0	418,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2117	ES	BR262	72,0	73,0
2118	DF	BR040	1,0	2,2
2119	BA	BR116	638,0	639,0
2120	AL	BR101	2,6	4,0
2121	MG	BR262	48,0	49,0
2122	CE	BR222	90,0	91,1
2123	BA	BR101	480,0	481,0
2124	MG	BR135	529,0	530,0
2125	BA	BR116	390,0	391,0
2126	PE	BR428	113,0	114,0
2127	BA	BR101	61,0	62,0
2128	ES	BR262	78,0	79,0
2129	CE	BR116	138,0	139,9
2130	MG	BR040	717,0	718,0
2131	RO	BR364	225,0	226,0
2132	GO	BR364	225,0	226,0
2133	GO	BR040	69,0	70,0
2134	MG	BR116	301,0	302,0
2135	ES	BR101	451,0	452,0
2136	SC	BR282	365,0	366,0
2137	RS	BR472	132,1	134,0
2138	RN	BR304	42,0	43,0
2139	SC	BR282	86,0	87,0
2140	AL	BR423	93,0	94,0
2141	MG	BR381	289,0	290,0
2142	MT	BR163	626,0	627,0
2143	BA	BR116	404,0	405,0
2144	GO	BR060	212,0	213,0
2145	MG	BR459	22,0	23,0
2146	MT	BR070	699,0	700,0
2147	MT	BR163	830,0	831,0
2148	MG	BR459	32,0	33,0
2149	RS	BR290	450,0	451,0
2150	TO	BR153	676,0	677,0
2151	MG	BR135	489,0	490,0
2152	PE	BR104	26,0	27,0
2153	RN	BR226	168,0	169,0
2154	SC	BR282	490,0	491,0
2155	MG	BR050	92,0	93,0
2156	MG	BR251	499,0	500,0
2157	RS	BR471	637,0	638,0
2158	BA	BR116	775,0	776,0
2159	AL	BR316	102,9	104,0
2160	SC	BR280	94,0	95,0
2161	SE	BR235	55,0	56,0
2162	MA	BR316	468,0	469,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2163	MT	BR364	176,8	178,0
2164	MG	BR381	428,6	430,0
2165	RJ	BR101	593,0	594,5
2166	BA	BR101	354,6	356,0
2167	RS	BR293	252,0	253,0
2168	MG	BR153	66,0	67,0
2169	GO	BR060	168,0	169,0
2170	RS	BR290	458,0	459,0
2171	MT	BR163	507,1	509,0
2172	SC	BR101	370,0	371,0
2173	SC	BR282	496,0	497,0
2174	PB	BR230	468,0	469,0
2175	GO	BR364	250,0	251,0
2176	BA	BR101	747,0	748,0
2177	SC	BR282	616,0	617,0
2178	MT	BR163	730,0	731,0
2179	CE	BR222	193,0	194,0
2180	SE	BR101	87,0	88,0
2181	PE	BR104	24,0	25,0
2182	PE	BR104	14,0	15,0
2183	SC	BR282	168,0	169,0
2184	SC	BR163	80,0	81,0
2185	MG	BR381	415,0	416,0
2186	GO	BR153	552,0	553,0
2187	BA	BR101	98,0	99,2
2188	BA	BR101	402,0	403,0
2189	MT	BR163	888,0	889,0
2190	GO	BR364	174,8	176,0
2191	PE	BR424	93,0	94,0
2192	DF	BR020	56,0	57,1
2193	RN	BR101	108,1	109,3
2194	MG	BR040	82,0	83,0
2195	MG	BR040	83,0	84,0
2196	MT	BR163	728,0	729,0
2197	MT	BR163	736,0	737,0
2198	GO	BR364	7,0	8,0
2199	MT	BR364	119,0	120,0
2200	PI	BR316	117,0	118,0
2201	BA	BR324	531,0	532,0
2202	RS	BR392	326,0	327,0
2203	PE	BR101	21,0	22,0
2204	MG	BR116	652,0	653,0
2205	SC	BR101	453,0	454,0
2206	MG	BR262	4,0	5,0
2207	MA	BR135	121,0	122,0
2208	MG	BR267	262,0	263,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2209	MT	BR364	133,0	134,0
2210	CE	BR222	160,0	161,0
2211	CE	BR222	162,0	163,0
2212	MS	BR262	308,0	309,0
2213	PR	BR476	66,0	67,0
2214	MS	BR262	588,0	589,0
2215	GO	BR060	134,0	135,0
2216	MT	BR163	844,0	845,0
2217	MG	BR267	277,0	278,0
2218	ES	BR262	80,0	81,0
2219	RJ	BR101	420,0	421,0
2220	BA	BR330	761,0	762,0
2221	BA	BR101	677,0	678,7
2222	SE	BR101	76,0	77,6
2223	MG	BR459	74,0	75,0
2224	MG	BR116	442,0	443,0
2225	MA	BR222	680,0	681,0
2226	MG	BR116	551,0	552,0
2227	MT	BR163	719,0	720,0
2228	MT	BR163	720,0	721,0
2229	PA	BR010	272,5	274,0
2230	PE	BR407	119,0	120,0
2231	BA	BR101	585,0	586,0
2232	SC	BR282	26,0	27,0
2233	MS	BR163	92,0	93,0
2234	PB	BR230	105,0	106,0
2235	PE	BR423	76,0	77,0
2236	PE	BR316	136,0	137,0
2237	GO	BR020	43,0	44,0
2238	CE	BR222	300,0	301,0
2239	RS	BR158	146,0	147,0
2240	PB	BR104	166,0	167,0
2241	MT	BR070	706,0	707,0
2242	MG	BR365	384,0	385,0
2243	MS	BR262	144,0	145,0
2244	PB	BR104	150,0	151,0
2245	CE	BR020	348,0	349,0
2246	MT	BR163	75,0	76,0
2247	RJ	BR101	395,0	396,0
2248	BA	BR242	348,0	349,0
2249	MA	BR135	84,0	85,0
2250	MG	BR050	70,0	71,0
2251	AL	BR104	46,1	48,0
2252	MG	BR251	412,0	413,0
2253	AL	BR101	17,0	18,0
2254	PB	BR230	304,0	305,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2255	GO	BR060	333,0	334,0
2256	MG	BR040	412,0	413,8
2257	SC	BR282	478,0	479,0
2258	MA	BR010	294,0	295,2
2259	GO	BR070	321,0	322,0
2260	MG	BR251	331,0	332,0
2261	MA	BR222	383,0	384,0
2262	MS	BR163	210,0	211,0
2263	MG	BR040	248,0	249,0
2264	GO	BR060	414,0	415,0
2265	GO	BR060	338,0	339,0
2266	BA	BR101	372,8	374,0
2267	BA	BR101	789,0	790,0
2268	BA	BR101	796,0	797,0
2269	BA	BR110	364,0	365,0
2270	MA	BR010	280,0	281,0
2271	PB	BR230	274,0	275,0
2272	MG	BR459	120,0	121,9
2273	MG	BR116	138,0	139,0
2274	MG	BR116	260,0	261,0
2275	MG	BR040	580,0	581,0
2276	RN	BR101	101,0	102,0
2277	MS	BR158	112,0	113,0
2278	GO	BR060	197,0	198,0
2279	BA	BR101	896,0	897,0
2280	MS	BR267	124,0	125,0
2281	GO	BR060	377,0	378,0
2282	AL	BR101	29,0	30,0
2283	MT	BR364	66,0	67,6
2284	AL	BR101	235,0	236,0
2285	PE	BR423	21,0	22,0
2286	RN	BR101	147,4	149,0
2287	PB	BR230	70,7	72,0
2288	PB	BR230	375,0	376,0
2289	BA	BR324	517,0	518,0
2290	AL	BR101	90,0	91,0
2291	BA	BR101	447,9	449,0
2292	MG	BR251	272,0	273,0
2293	SC	BR470	283,0	284,0
2294	MG	BR116	164,0	165,0
2295	MS	BR267	94,0	95,0
2296	SC	BR470	6,0	7,4
2297	BA	BR116	296,0	297,0
2298	MG	BR459	25,0	26,8
2299	BA	BR116	336,0	337,0
2300	BA	BR116	123,0	124,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2301	ES	BR101	40,0	41,0
2302	MS	BR163	10,0	11,0
2303	RJ	BR465	1,0	2,4
2304	SC	BR282	521,0	522,0
2305	PE	BR408	85,0	86,1
2306	SC	BR282	184,0	185,0
2307	CE	BR020	321,0	322,0
2308	AL	BR104	89,0	90,0
2309	AL	BR101	9,0	10,2
2310	SC	BR158	129,0	130,0
2311	MS	BR163	1,0	2,0
2312	PB	BR230	483,0	484,0
2313	MG	BR135	480,0	481,0
2314	MT	BR163	530,0	531,0
2315	BA	BR242	246,0	247,2
2316	MG	BR116	577,0	578,0
2317	CE	BR020	325,0	326,0
2318	MG	BR116	60,0	61,0
2319	SC	BR282	564,0	565,0
2320	MT	BR163	853,0	854,0
2321	CE	BR116	166,0	167,0
2322	GO	BR020	23,0	24,0
2323	PI	BR316	27,0	28,0
2324	PB	BR230	478,0	479,0
2325	MG	BR267	72,0	73,0
2326	GO	BR020	207,0	208,0
2327	MT	BR070	370,0	371,0
2328	MG	BR116	161,0	162,0
2329	SC	BR163	98,0	99,0
2330	SC	BR280	221,0	222,0
2331	MG	BR262	192,0	193,0
2332	MG	BR459	111,0	112,0
2333	PI	BR230	292,0	293,0
2334	MG	BR262	72,9	74,0
2335	RO	BR364	622,0	623,0
2336	ES	BR101	433,0	434,0
2337	PE	BR104	128,0	129,0
2338	PE	BR232	175,0	176,0
2339	MG	BR262	156,0	157,0
2340	SE	BR101	177,0	178,0
2341	SC	BR470	201,0	202,0
2342	AL	BR101	154,0	155,0
2343	RS	BR153	32,0	33,0
2344	PA	BR316	171,0	172,0
2345	RO	BR364	196,0	197,0
2346	ES	BR262	91,0	92,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2347	MA	BR222	642,0	643,0
2348	RN	BR406	142,0	143,0
2349	AL	BR101	169,0	170,0
2350	MS	BR163	276,0	277,0
2351	BA	BR101	359,0	360,0
2352	SC	BR153	97,5	99,0
2353	BA	BR101	296,0	297,0
2354	MG	BR459	160,0	161,0
2355	BA	BR242	736,0	737,0
2356	SC	BR282	552,0	553,0
2357	BA	BR101	665,0	666,0
2358	MS	BR163	767,0	768,0
2359	BA	BR116	580,0	581,0
2360	CE	BR222	131,0	132,0
2361	BA	BR116	828,0	829,0
2362	BA	BR101	725,0	726,0
2363	PE	BR424	99,0	100,0
2364	RS	BR392	79,0	80,0
2365	ES	BR262	108,0	109,0
2366	GO	BR153	611,0	612,0
2367	PB	BR101	52,0	53,0
2368	GO	BR060	109,2	111,0
2369	PE	BR408	83,0	84,0
2370	ES	BR101	313,0	314,0
2371	MG	BR116	217,0	218,0
2372	MG	BR251	502,0	503,0
2373	SC	BR101	340,0	341,0
2374	RN	BR406	126,0	127,0
2375	MG	BR381	202,0	203,0
2376	MA	BR316	520,0	521,0
2377	PB	BR230	501,0	502,0
2378	MS	BR163	263,0	264,0
2379	MG	BR354	712,0	713,0
2380	PB	BR104	131,0	132,0
2381	GO	BR050	218,0	219,0
2382	PR	BR476	76,0	77,0
2383	BA	BR101	913,0	914,0
2384	MS	BR262	132,0	133,0
2385	MG	BR381	363,0	364,0
2386	SC	BR282	524,0	525,0
2387	MT	BR163	838,0	839,0
2388	ES	BR262	32,0	33,0
2389	AL	BR316	156,0	157,0
2390	SC	BR282	569,0	570,0
2391	GO	BR364	149,0	150,0
2392	SC	BR280	97,0	98,0

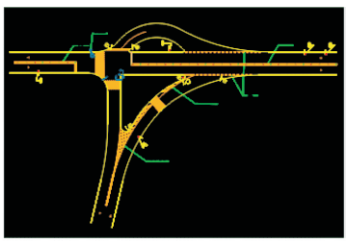
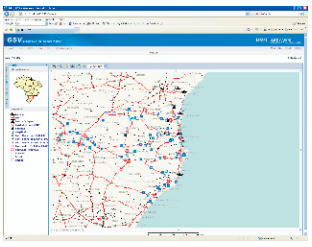
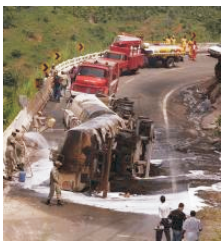
Ranking	UF	Rodovia	Km Inicial	Km Final
2393	BA	BR116	28,0	29,0
2394	GO	BR060	198,0	199,0
2395	PB	BR101	29,0	30,0
2396	SC	BR470	261,0	262,0
2397	RJ	BR493	3,0	4,0
2398	RN	BR427	25,0	26,0
2399	BA	BR101	329,0	330,0
2400	SC	BR470	213,0	214,0
2401	PB	BR230	165,0	166,0
2402	BA	BR101	349,0	350,0
2403	BA	BR101	257,0	258,0
2404	MS	BR262	363,0	364,0
2405	RS	BR290	576,0	577,0
2406	BA	BR110	379,5	381,0
2407	PE	BR407	85,0	86,0
2408	PI	BR343	553,0	554,0
2409	GO	BR364	135,0	136,0
2410	MG	BR262	509,0	510,0
2411	MG	BR262	392,0	393,0
2412	MS	BR262	499,0	500,0
2413	SC	BR280	29,0	30,0
2414	MG	BR040	305,0	306,0
2415	GO	BR153	382,0	383,0
2416	MT	BR070	664,0	665,0
2417	MA	BR135	62,0	63,0
2418	RS	BR392	77,0	78,0
2419	RS	BR285	268,0	269,0
2420	SC	BR470	271,0	272,0
2421	BA	BR110	66,0	67,0
2422	MG	BR116	564,0	565,0
2423	PE	BR408	74,0	75,0
2424	PI	BR343	198,0	199,0
2425	BA	BR101	624,0	625,0
2426	SC	BR470	110,0	111,0
2427	SC	BR470	196,0	197,0
2428	MG	BR381	322,6	324,0
2429	MG	BR365	458,0	459,0
2430	GO	BR060	343,0	344,0
2431	MT	BR070	24,0	25,0
2432	BA	BR110	13,0	14,0
2433	RJ	BR356	77,0	78,0
2434	MG	BR135	387,0	388,0
2435	DF	BR020	46,0	47,0
2436	SC	BR282	72,0	73,0
2437	SC	BR282	373,0	374,0
2438	SC	BR282	484,0	485,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2439	SC	BR163	107,0	108,0
2440	BA	BR110	370,0	371,0
2441	MG	BR135	406,0	407,0
2442	MG	BR116	771,0	772,0
2443	MG	BR040	113,0	114,0
2444	SC	BR280	210,0	211,0
2445	ES	BR101	140,0	141,0
2446	SC	BR282	617,0	618,0
2447	ES	BR262	65,0	66,0
2448	PB	BR230	355,0	356,0
2449	GO	BR251	31,0	32,0
2450	RS	BR285	420,0	421,0
2451	BA	BR101	925,0	926,0
2452	MA	BR010	201,0	202,0
2453	BA	BR116	440,0	441,0
2454	SC	BR282	45,0	46,0
2455	MS	BR163	29,0	30,0
2456	MG	BR153	153,0	154,0
2457	MG	BR251	481,0	482,0
2458	MS	BR060	93,0	94,0
2459	MS	BR262	278,0	279,0
2460	MT	BR364	131,0	132,0
2461	BA	BR101	803,0	804,0
2462	MG	BR459	41,0	42,8
2463	PB	BR230	189,0	190,0
2464	MG	BR251	496,0	497,0
2465	ES	BR101	346,0	347,0
2466	SC	BR470	251,0	252,0
2467	BA	BR116	249,0	250,0
2468	AL	BR101	227,0	228,2
2469	BA	BR101	816,0	817,0
2470	SC	BR282	506,6	508,0
2471	AL	BR101	212,0	213,0
2472	MA	BR135	155,0	156,0
2473	SC	BR282	464,0	465,0
2474	MS	BR163	101,0	102,0
2475	MT	BR163	1002,0	1003,0
2476	MT	BR070	660,0	661,0
2477	CE	BR116	533,0	534,0
2478	RJ	BR101	536,0	537,0
2479	MS	BR163	239,0	240,0
2480	MG	BR262	127,0	128,0
2481	MA	BR316	219,0	220,0
2482	PI	BR316	29,0	30,0
2483	GO	BR364	1,0	2,0
2484	BA	BR101	656,0	657,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2485	BA	BR101	659,0	660,0
2486	RJ	BR101	407,0	408,0
2487	MG	BR365	76,0	77,0
2488	MA	BR010	233,0	234,0
2489	MA	BR316	545,0	546,0
2490	MA	BR316	489,0	490,0
2491	AL	BR104	25,0	26,0
2492	MT	BR158	530,0	531,0
2493	MS	BR163	201,0	202,0
2494	GO	BR452	49,0	50,0
2495	TO	BR153	583,0	584,0
2496	TO	BR153	590,0	591,0
2497	BA	BR116	422,0	423,0
2498	BA	BR101	508,0	509,0
2499	MG	BR365	140,5	142,0
2500	AL	BR316	268,0	269,0
2501	MT	BR070	702,0	703,0
2502	MS	BR163	213,0	214,0
2503	RS	BR290	578,0	579,0
2504	GO	BR364	294,0	295,0
2505	SC	BR101	439,0	440,0
2506	BA	BR101	567,0	568,0
2507	MS	BR158	145,0	146,4
2508	TO	BR153	648,0	649,0
2509	MA	BR135	87,0	88,0
2510	MA	BR316	534,0	535,0
2511	RS	BR472	150,0	151,0
2512	BA	BR242	630,0	631,0
2513	SC	BR280	101,0	102,0
2514	PB	BR230	171,0	172,0
2515	PB	BR230	75,0	76,0
2516	GO	BR364	136,0	137,0
2517	AL	BR101	199,0	200,0
2518	BA	BR242	712,0	713,0
2519	PE	BR101	12,0	13,0
2520	CE	BR222	204,0	205,0
2521	SC	BR163	94,0	95,0
2522	CE	BR222	307,0	308,0
2523	GO	BR020	195,0	196,0
2524	SC	BR153	86,0	87,0
2525	RJ	BR101	393,0	394,0
2526	SC	BR470	152,0	153,0
2527	BA	BR242	772,0	773,0
2528	BA	BR242	783,0	784,0
2529	MG	BR262	387,0	388,0
2530	MG	BR365	442,0	443,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2531	PE	BR232	168,0	169,0
2532	PE	BR116	5,0	6,0
2533	ES	BR101	447,4	449,0
2534	MS	BR163	727,0	728,0
2535	GO	BR364	252,0	253,0
2536	ES	BR262	146,0	147,0
2537	GO	BR153	543,0	544,0
2538	RN	BR101	106,6	108,1
2539	RS	BR392	282,0	283,0
2540	MA	BR010	273,0	274,0
2541	MG	BR262	150,0	151,0
2542	RN	BR406	151,0	152,0
2543	SC	BR282	153,0	154,0
2544	MT	BR070	111,0	112,2
2545	GO	BR020	213,0	214,7
2546	MA	BR316	594,0	595,0
2547	MA	BR316	284,0	285,0
2548	BA	BR116	743,0	744,0
2549	MT	BR070	61,0	62,0
2550	BA	BR101	210,0	211,3
2551	MG	BR040	356,0	357,0
2552	MS	BR163	821,0	822,0
2553	BA	BR101	935,0	936,0
2554	ES	BR101	144,0	145,0
2555	AL	BR423	78,0	79,7
2556	AL	BR101	135,7	137,0
2557	MS	BR262	228,0	229,0
2558	SC	BR282	147,0	148,0
2559	MG	BR116	106,0	107,0
2560	GO	BR364	268,0	269,0
2561	MG	BR040	135,0	136,0
2562	SC	BR470	192,0	193,0
2563	SC	BR282	106,0	107,0
2564	GO	BR040	10,0	11,0
2565	BA	BR116	757,0	758,0
2566	GO	BR153	282,0	283,0
2567	SC	BR158	135,8	137,0
2568	PA	BR010	34,0	35,0
2569	BA	BR101	12,0	13,0
2570	MT	BR163	899,0	900,0
2571	MT	BR163	922,0	923,0
2572	BA	BR116	67,0	68,0
2573	PE	BR408	98,0	99,0
2574	BA	BR116	309,0	310,0
2575	CE	BR116	485,0	486,0
2576	MS	BR163	26,0	27,0

Ranking	UF	Rodovia	Km Inicial	Km Final
2577	RO	BR364	194,0	195,0
2578	SC	BR163	72,0	73,0
2579	BA	BR110	312,0	313,0
2580	MA	BR010	202,0	203,5
2581	RO	BR364	166,0	167,0
2582	MG	BR116	92,0	93,0
2583	RN	BR101	159,0	160,0
2584	PB	BR101	79,0	80,6
2585	MG	BR116	36,0	37,0
2586	MG	BR262	59,0	60,0
2587	RS	BR285	444,0	445,0
2588	MG	BR040	373,0	374,0
2589	BA	BR116	521,0	522,0
2590	MT	BR163	671,0	672,0
2591	MG	BR452	173,9	175,0
2592	BA	BR101	502,0	503,0
2593	SC	BR282	411,0	412,0
2594	MG	BR251	420,0	421,0
2595	BA	BR101	444,0	445,0
2596	SC	BR282	66,0	67,0
2597	AL	BR316	221,6	223,0
2598	PB	BR104	94,0	95,0
2599	MG	BR116	667,0	668,0
2600	SC	BR470	177,2	179,0

DNIT Departamento Nacional de Infraestrutura de Transportes

UNIVERSIDADE FEDERAL DE SANTA CATARINA

LabTrans Laboratório de Transportes e Logística

NEA Núcleo de Estudos sobre Acidentes de Tráfego em Rodovias