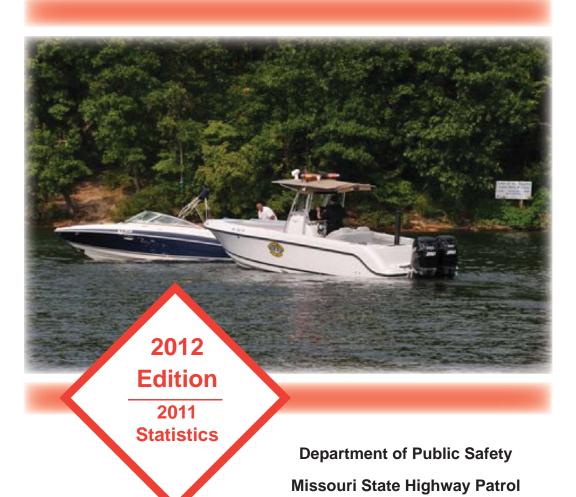
Missouri Boating Statistics & Drownings



Introduction

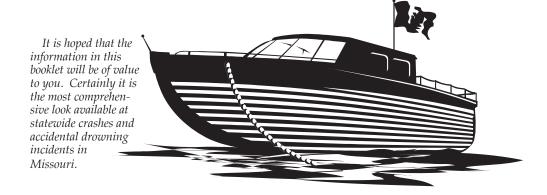
This booklet is published by the Missouri State Highway Patrol as an aid to persons who are interested in recreational boating crashes and accidental drowning incidents occurring in the state. It contains information which provides a comprehensive look at statewide crashes and accidental drowning incidents as experienced in 2011.

The Missouri State Highway Patrol is the central recreational boating data collection agency for the State of Missouri. The Patrol investigates all recreational boating crashes occurring in the state and either investigates or gathers data on accidental drowning incidents occurring in state and private waters.

Interesting Statistics

Here at a glance are some interesting statistics found in this booklet:

- In 2011 there were 19 persons killed and 87 persons injured in recreational boating crashes in the State of Missouri. This was five more killed and 33 fewer injured than in 2010. There was a decrease of 29% in total crashes statewide compared to 2010.
- In 2011 there were 166 total crashes including 86 property damage only, 64 injury, and 16 fatal.
- "Water conditions" was the leading contributing circumstance for all crashes followed by "failing to keep proper lookout" and "hazard in water." Alcohol was known to have been a contributing circumstance on 11 crashes statewide.
- Capsizing type crashes resulted in the deaths of eight persons. This was 42% of the total persons killed in crashes.
- Of all crashes reported statewide, 83.7% (139) occurred during the months of May through September.
- Most crashes occurred on Saturday (57) and Sunday (45) and most occurred between noon and 8:00 p.m.
- Of all crashes reported statewide, 78% (130) involved only one watercraft. Fifteen of the sixteen fatal crashes involved only one watercraft.
- Of 184 boat operators involved in crashes, 112 had no prior boater education.
- In 2011 there were 41 persons killed in accidental drowning incidents in the State of Missouri, 9 less than in 2010. Thirty-five of these incidents occurred in state waters and six in private.
- Most drowning incidents occurred on Saturday (10) and most occurred during the month of July (13).



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Boating Crashes by Year

Statewide Boating Crashes in Missouri

Statewide Crashes

Persons Involved

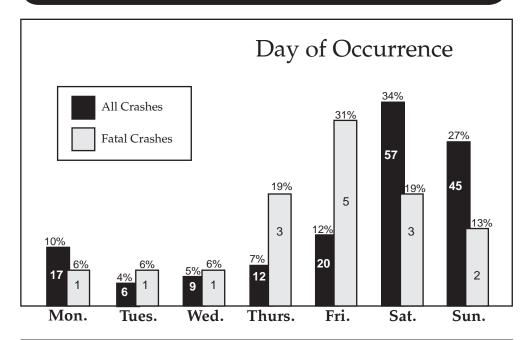
Year	Fatal	Injury	Property Damage	Total	Killed	Injury	Total
2007	7	122	115	244	7	155	162
2008	20	77	110	207	21	103	124
2009	16	89	114	219	17	118	135
2010	13	98	124	235	14	120	134
2011	16	64	86	166	19	87	106

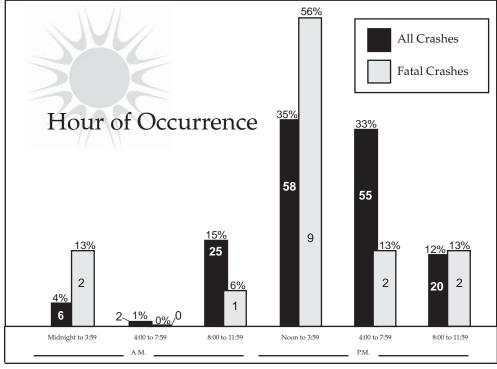
Boating Crashes by Month

Statewide Boating Crashes By Month

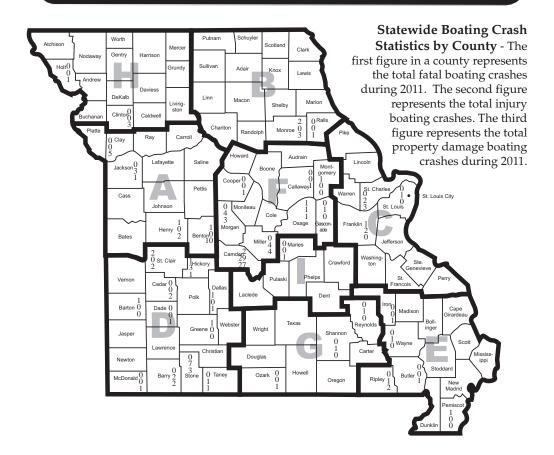
	Fatal	Injury	Property Damage	Total
January	1	0	0	1
February	0	0	1	1
March	3	0	1	4
April	2	0	7	9
May	1	2	13	16
June	0	11	8	19
July	3	26	14	43
August	2	15	18	35
September	3	9	14	26
October	0	1	7	8
November	1	0	3	4
December	0	0	0	0
Total	16	64	86	166

Crashes by Day and Hour





Boating Crashes by County



Boating Crashes by Troop

Troop	Fatal	Injury	Property Damage	Total	%
Troop A	2	3	18	23	13.86
Troop B	2	0	4	6	3.61
Troop C	1	5	3	9	5.42
Troop D	6	13	14	33	19.88
Troop E	1	2	4	7	4.22
Troop F	4	39	37	80	48.19
Troop G	0	2	1	3	1.81
Troop H	0	0	4	4	2.41
Troop I	0	0	1	1	.60
Total	16	64	86	66	100.0

Nationwide Information

Nationwide Boating Crashes

	2010	2011
Boating Crashes	4,604	4,588
Injured	3,153	3,081
Killed	672	758
Cost (Property Damage)	\$35.5 million	\$52 million

Source: United States Coast Guard

Water & Weather Conditions

Water Conditions	Fatal Crashes	Percent	All Crashes	Percent
Calm (waves less than 6")	11	68.75	79	47.59
Choppy (waves 6" to 2')	3	18.75	50	30.12
Rough (waves 2' to 6')	0	0	13	7.83
Very Rough (waves more than 6')	0	0	1	.60
Strong/Swift Current	1	6.25	22	13.25
Unknown	1	6.25	1	.60
Total	16	100.0	166	100.0

Weather Conditions	Fatal Crashes	Percent	All Crashes	Percent
Clear	13	81.25	135	77.59
Cloudy	2	12.50	33	18.97
Fog	0	0	1	.57
Rain	0	0	3	1.72
Snow	0	0	0	0
Hazy	0	0	1	.57
Unknown	1	6.25	1	.57
Total	16	100.0	174	100.0

Crash Type

Statewide Boating Crashes in Missouri

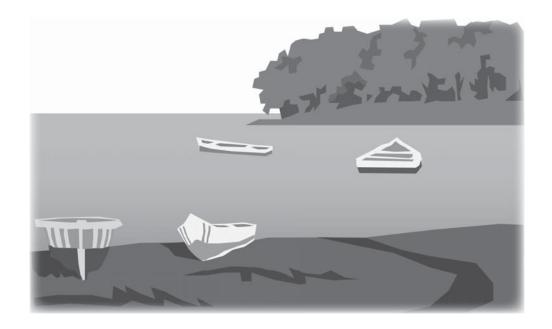
			Crashes			H	Persons Involved	Involvec	_
Type of Crash	Fatal	Injury	Property Damage	Total	%	Killed	Injury	Total	%
Capsizing	9	0	гC	11	6.63	8	1	6	8.49
Collision with Fixed Object	0	^	22	56	17.47	0	10	10	9.43
Collision with Floating Object	0	0	гO	ſΟ	3.01	0	0	0	
Collision with Vessel	1	ſΩ	25	31	18.67	2	14	16	15.09
Fall within Vessel	0	21	0	21	12.65	0	25	25	23.58
Fall Overboard	3	11	0	14	8.43	3	13	16	15.09
Fire or Explosion (Fuel)	0	2	₩	8	1.81	0	3	33	2.83
Fire or Explosion (Other)	0	0	2	2	1.20	0	0	0	l
Flooding/Swamping	2	0	15	17	10.24	2	0	2	1.89
Grounding	0	2	11	13	7.83	0	3	3	2.83
Person Ejected from Vessel	1	1	0	2	1.20	П	1	2	1.89
Person Left Vessel	2	0	0	2	1.20	2	0	2	1.89
Skier Mishap	0	13	0	13	7.83	0	15	15	14.15
Struck by Prop or Propulsion Unit	0	1	0	1	09:	0	I	1	.94
Sudden Medical Condition	1	0	0	1	09:	1	0	1	.94
Other Incident	0	1	0	1	09:	0	I	1	.94
Total	16	64	98	166		19	87	106	
Percentage	9.64	38.55	51.81			17.92	82.08		

Crashes by Body of Water/County

	_		Crash S	Severity		Perso	nal Sev	erity
Body of Water	County	Fatal	Injury	Property Damage	Total	Killed	Injured	Total
Black River	Butler	0	0	1	1	0	0	0
Blue Springs Lake	Jackson	0	1	1	2	0	1	1
Bull Shoals Lake	Ozark	0	0	1	1	0	0	0
Clearwater Lake	Reynolds	0	1	0	1	0	1	1
Council Bluff Lake	Iron	0	0	1	1	0	0	0
Current River	Ripley	0	1	2	3	0	2	2
Current River	Shannon	0	1	0	1	0	1	1
Elk River	McDonald	0	0	1	1	0	0	0
Gasconade River	Maries	0	0	1	1	0	0	0
James River	Stone	0	1	0	1	0	1	1
Lake of the Ozarks	Benton	0	0	2	2	0	0	0
Lake of the Ozarks	Camden	2	29	27	58	2	35	37
Lake of the Ozarks	Miller	0	3	3	6	0	3	3
Lake of the Ozarks	Morgan	0	4	3	7	0	5	5
Lake Springfield	Greene	1	0	0	1	1	0	1
Lamar City Lake	Barton	1	0	0	1	1	0	1
Lonedell Lake	Franklin	1	0	0	1	1	0	1
Longview Lake	Jackson	0	2	0	2	0	2	2
Maries River	Osage	0	1	0	1	0	3	3
Mark Twain Lake	Monroe	1	0	3	4	1	1	2
Mark Twain Lake	Ralls	0	0	1	1	0	0	0
Meramec River	Franklin	0	2	0	2	0	2	2
Meramec River	St. Louis	0	1	0	1	0	1	1
Mississippi River	Pemiscot	1	0	0	1	1	0	1
Mississippi River	St. Charles	0	2	3	5	0	5	5
Missouri River	Callaway	0	0	1	1	0	0	0
Missouri River	Cooper	0	0	1	1	0	0	0
Missouri River	Gasconade	0	1	0	1	0	1	1
Missouri River	Holt	0	0	1	1	0	0	0
Niangua	Dallas	1	0	1	2	3	0	3
Osage	Miller	0	1	1	2	0	1	1
Osage	Osage	1	0	1	2	2	4	6
Osage	St. Clair	1	0	0	1	1	0	1

Crashes by Body of Water/County

	_		Crash S	Severity		Perso	nal Seve	erity
Body of Water	County	Fatal	Injury	Property Damage	Total	Killed	Injured	Total
Pomme De Terre Lake	Hickory	1	3	1	5	1	4	5
Private Pond	Monroe	1	0	0	1	1	0	1
Private Pond	Montgomery	1	0	0	1	1	0	1
Smithville Lake	Clay	0	0	5	5	0	0	0
Smithville Lake	Clinton	0	0	3	3	0	0	0
Stockton Lake	Cedar	0	0	2	2	0	0	0
Stockton Lake	Dade	0	0	1	1	0	0	0
Table Rock Lake	Barry	0	2	2	4	0	3	3
Table Rock Lake	Stone	0	6	3	9	0	8	8
Table Rock Lake	Taney	0	1	1	2	0	1	1
Truman Lake	Benton	1	0	8	9	1	0	1
Truman Lake	Henry	1	0	2	3	1	0	1
Truman Lake	St. Clair	1	0	2	3	1	0	1
Wappapello Lake	Wayne	0	1	0	1	0	2	2
Total		16	64	86	166	19	87	106



Probable Contributing Circumstances

Probable Contributing		Crash S	Severity		Personal Severity			
Circumstance	Fatal	Injury	Property Damage	Total	Killed	Injured	Total	
Careless/Reckless Operation	0	6	9	15	0	7	7	
Congested Waters	0	0	1	1	0	0	0	
Equipment Failure (PFD, Bilge Pump, etc.)	0	1	5	6	0	1	1	
Excessive Speed	3	10	7	20	4	17	21	
Exhaustion	2	0	0	2	2	0	2	
Failed to Keep Proper Lookout	1	6	21	28	2	14	16	
Failed to Take Evasive Action	0	3	5	8	0	5	5	
Hazard in Water	2	0	26	28	2	1	3	
Health/Medical Problem	2	3	0	5	1	3	4	
Hull Failure	0	0	4	4	0	0	0	
Impairment (Alcohol/Drugs)	1	5	5	11	2	13	15	
Improperly Loaded Vessel	0	1	0	1	0	1	1	
Inattention	1	6	12	19	1	8	9	
Inexperience of Operator	1	13	12	26	1	17	18	
Mechanical Failure (Electric/Fuel, etc.)	1	3	9	13	1	6	7	
Navigation Lights (None/Partial)	0	0	1	1	0	0	0	
Obstructed Visibility in Vessel	0	1	0	1	0	2	2	
Off Throttle Steering	0	1	1	2	0	1	1	
Operated Too Close to Shoreline	0	2	7	9	0	3	3	
Overloaded	2	0	1	3	4	0	4	
Passenger/Skier Behavior	2	8	0	10	2	8	10	
Restricted Visibility (Fog, Rain, etc.)	0	1	3	4	0	1	1	
Swimming Ability (Weak/None)	6	0	0	6	6	1	7	
Type of Vessel	4	3	1	8	4	4	8	
Unknown	0	1	0	1	0	1	1	
Water Conditions (Rough, Chop, Current, etc.)	3	29	24	56	3	34	37	
Weather Conditions	0	0	7	7	0	0	0	

Vessel Actions at Time of Crash

Vessel Action	Fatal	Injury	Property Damage	Total	%
Commercial Activity	0	0	2	2	.94
Fishing		2	13	25	11.79
Making Repairs	0	0	1	1	.47
Anchored		0	2	3	1.42
Being Towed	0	0	2	2	.94
Docked	0	0	13	13	6.13
Parasailing	0	1	0	1	.47
Towing Other Vessel	0	0	1	1	.47
Racing	0	0	1	1	.47
Recreational Boating	5	57	84	146	68.87
Relaxing	1	0	0	1	.47
Starting Engine	0	1	0	1	.47
Swimming	1	0	0	1	.47
Tubing	0	3	0	3	1.42
Water Skiing	0	8	0	8	3.77
Other	0	0	2	2	.94
Recovery Effort	0	0	1	1	.47
Total	18	72	122	212	100.00

Alcohol Involvement

Drinking and Crashes - Whether or not a person has been drinking cannot always be determined at the scene of a crash. It is generally impossible to determine the persons who have had one or a few drinks; yet, these individuals may be as much of a hazard as the obvious drunk. Because of the time lapse from the moment of occurrence until an officer arrives at the scene to make the investigation, a person's condition concerning drinking can change a great deal. In cases where the individual may have been removed to a hospital, doctor's office or funeral home, his condition may never be determined.

Alcohol Probable Contributing Circumstance

Persons Killed in Alcohol Related Crashes1
Persons Injured in Alcohol Related Crashes5

Fatal Boating Crashes:

Drinking Involved1	
No Drinking Involved7	
Information Not Known8	

All Boating Crashes

in bouting crustics.	
Drinking Involved	11
No Drinking Involved	135
Information Not Known	20

	Fatal	Injury	Property Damage	Total
Yes	1	5	5	11
No	7	53	75	135
Unknown	8	6	6	20
Total	16	64	86	166
Iotai	16	64	86	166

Number of Vessels Involved

Statewide Crashes by Number of Vessels Involved							
Number of		Cr	ashes		Per	sons Invol	ved
Vessels	Fatal	Injury	Prop. Damage	Total	Fatal	Injury	Total
1	15	57	58	130	17	71	88
2	0	7	25	32	0	12	12
3	1	0	2	3	2	4	6
4	0	0	1	1	0	0	0
Total	16	64	86	166	19	87	106

Vessel Type Involved

Vessel Type	Crash Severity			Persons Vesse	s in each l Type
	Fatal	Injury	Property Damage	Killed	Injured
Airboat	0	0	1	0	0
Bassboat	2	3	22	2	7
Canoe	1	0	0	1	0
Center Console	0	0	1	0	0
Commercial	0	0	3	0	0
Cruiser	0	1	12	0	1
Day Cruiser	0	2	2	0	3
Deck	0	9	4	0	11
Jon	6	1	8	8	1
Off Shore	0	1	4	0	1
Personal Watercraft	0	17	13	0	20
Pontoon	1	8	8	1	8
Runabout	3	26	31	5	46
Sail	0	0	1	0	0
Ski	1	0	0	1	0
Utility	4	6	10	5	12
Total	18	74	120	23	110

Age of Killed/Injured and Operators

Killed/Injured	
By Age Group	

Age of Person	Killed	Percent	Injured	Percent
Under 1	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	1	1.15
4	0	0	0	0
5	0	0	0	0
6 - 10	0	0	1	1.15
11 - 15	1	5.26	10	11.49
16 - 20	0	0	10	11.49
21 - 25	0	0	12	13.79
26 - 30	0	0	6	6.90
31 - 35	2	10.53	6	6.90
36 - 40	0	0	9	10.34
41 - 45	2	10.53	5	5.75
46 - 50	3	15.79	4	4.60
51 - 55	1	5.26	9	10.34
56 - 60	2	10.53	5	5.75
61 - 65	1	5.26	4	4.60
66 - 70	1	5.26	4	4.60
71 - 75	2	10.53	1	1.15
76 and Over	4	21.05	0	0
Not Stated	0	0	0	0
Total	19		87	

Age of Operators of Vessels Involved in Crashes

	NT 1	Severity			
Age of Operator	Number Involved	Fatal Crashes	Injury Crashes	Property Damage Crashes	
15 and Under	8	0	6	2	
16	0	0	0	0	
17	2	0	1	1	
18	1	0	1	0	
19	1	0	1	0	
20	4	0	1	3	
21 - 25	19	0	10	9	
26 - 30	9	1	3	5	
31 - 35	15	2	4	9	
36 - 40	19	1	7	11	
41 - 45	26	1	8	18	
46 - 50	19	2	5	12	
51 - 55	18	0	9	9	
56 - 60	14	1	6	7	
61 - 65	11	2	4	5	
66 - 70	10	1	4	5	
71 - 75	1	1	0	0	
76 and Over	4	2	0	2	
Not Stated	2	1	0	1	
Total Drivers	183	15	70	99	

Buoy/Regatta/Dive Team/ Boater Education Statistics

Buoy/Regatta/Dive Team/Boater Education Statistics					
	2009	2010	2011		
Buoy Permitting					
Permits (in hundreds)	3,462	3,531	3,598		
Approved Applications	59	61	51		
Denied Applications	18	13	19		
Revoked Permits	58	19	150		
Updated Permits	156	48	15		
Other Modifications/Reinstate	29	27	29		
Regatta Permitting					
Total Permitted Events	2,118	2,078	1,933		
Dive Team Missions			\		
Total Dives	48	43	41		
/ / / /					
Boater Education					
Students Taught by Troopers	7,208	8,141	4,647		
Internet Courses Taught	6,439	7,581	8,168		
Total Education Cards Issued	8,179	9,120	8,731		
			V		

Drownings by Year

Statewide Drowning Incidents in Missouri

Year	State Waters	Private	Total
2007	39	5	44
2008	43	1	44
2009	25	2	27
2010	44	6	50
2011	35	6	41

Drownings by Month

Statewide Drowning Incidents By Month

Month	State Waters	Private	Total
January	1	2	3
February	1	0	1
March	0	0	0
April	2	0	2
May	4	1	5
June	7	0	7
July	11	2	13
August	5	0	5
September	2	0	2
October	1	1	2
November	0	0	0
December	1	0	1
Total	35	6	41

Drownings by Day and Hour

Drowning Incidents by Day of Week

Day of Week	State Waters	Private	Total	Percent
Sunday	6	1	7	17.07
Monday	4	1	5	12.20
Tuesday	3	0	3	7.32
Wednesday	3	0	3	7.32
Thursday	5	1	6	14.63
Friday	6	1	7	17.07
Saturday	8	2	10	24.39
Total	35	6	41	
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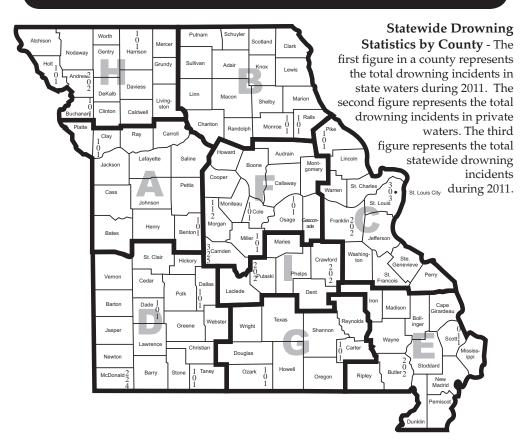
Drowning Incidents by Time of Day

Time of Day	State Waters	Private	Total	Percent
Midnight to 3:59 a.m.	3	0	3	7.32
4:00 a.m. to 7:59 a.m.	1	0	1	2.44
8:00 a.m. to 11:59 a.m.	4	0	4	9.76
	12	Ü	_	
Noon to 3:59 p.m.		4	16	39.02
4:00 p.m. to 7:59 p.m.	10	1	11	26.83
8:00 p.m. to 11:59 p.m.	5	1	6	14.63
Total	35	6	41	

Statewide Drownings by Troop

Troop	State Waters	Private	Total
Troop A	2	0	2
Troop B	2	0	2
Troop C	6	0	6
Troop D	5	2	7
Troop E	2	1	3
Troop F	7	3	10
Troop G	2	0	2
Troop H	5	0	5
Troop I	4	0	4
Total	35	6	41

Statewide Drownings by County



Drownings by Body of Water

Body of Water	State Waters	Private	Total
Big Piney River	1	0	1
Big Sugar Creek	1	0	1
Black River	1	0	1
Bull Shoals Lake	1	0	1
Calumet Creek	1	0	1
Crooked Creek	1	0	1
Current River	1	0	1
Elk River	1	0	1
Estes Creek	1	0	1
Gasonade River	2	0	2
Harrison County Lake	1	0	1
Lake of the Ozarks	5	0	5
Mark Twain Lake	1	0	1
Meramec River	6	0	6
Mississippi River	1	0	1
Missouri River	1	0	1
Missouri River Flood Waters	1	0	1
Niangua River	1	0	1
Platte River	3	0	3
Private Pond	0	3	3
Private Pool	0	2	2
Smithville Lake	1	0	1
Sports Complex Lake	0	1	1
St. Francis River	1	0	1
Stockton Lake	1	0	1
Truman Lake	1	0	1
Total	35	6	41

Age of Drowning Victim

	Age of Person	State Waters	Private	Total	Percent	
	1 - 5	1	0	1	2.44	
	6 - 10	0	1	1	2.44	
	11 - 15	0	1	1	2.44	
	16 - 20	3	1	4	9.76	
	21 - 25	6	1	7	17.07	
	26 - 30	3	0	3	7.32	
	31 - 35	3	0	3	7.32	
	36 - 40	3	0	3	7.32	
	41 - 45	3	0	3	7.32	
	46 - 50	1	1	2	4.88	
	51 - 55	5	0	5	12.20	
	56 - 60	2	0	2	4.88	
	61 - 65	1	0	1	2.44	-
	66 - 70	2	0	2	4.88	
	71 - 75	1	1	2	4.88	
	76+	1	0	1	2.44	
	Total	35	6	41		
•						

Highway Patrol Headquarters



Troop A

504 S.E. Blue Parkway Lee's Summit, MO 64063-4351 Phone: 816-622-0800 Fax: 816-622-0715

Troop B

308 Pine Crest Drive Macon, MO 63552-1030 Phone: 660-385-2132 Fax: 660-385-3920

Troop C

891 Technology Drive Weldon Spring, MO 63304 Phone: 636-300-2800 Fax: 636-300-2741

Troop C Service Center

P.O. Box 612 5268 Flat River Road Park Hills, MO 63601-0612 Phone: 573-431-0166 Fax: 573-431-4429

Troop D

3131 East Kearney Springfield, MO 65803-5044 Phone: 417-895-6868 Fax: 417-895-6877 Phone: 417-359-1500 Fax: 417-359-1506

Fax: 573-840-9509

Troop E 4947 Highway 67 North Poplar Bluff, MO 63901-8719 Phone: 573-840-9500

Troop E Service Center

105 Keystone Drive Sikeston, MO 63801-5603 Phone: 573-472-5200 Fax: 573-472-5204

Troop F

P.O. Box 568 2920 N. Shamrock Road Jefferson City, MO 65102-0568 Phone: 573-751-1000 Fax: 573-751-6814

Troop G

1226 West Business Highway 60/63 Willow Springs, MO 65793 Phone: 417-469-3121 Fax: 417-469-3105 Troop H

3525 North Belt Highway St. Joseph, MO 64506-1370 Phone: 816-387-2345 Fax: 816-387-2349

Troop I

P.O. Box 128 1301 Nagogami Road West Rolla, MO 65402-0128 Phone: 573-368-2345 Fax: 573-368-2352

General Headquarters

P.O. Box 568 1510 East Elm Street Jefferson City, MO 65102-0568 Phone: 573-751-3313

Fax: 573-751-9419

Emergency Assistance:

1-800-525-5555 or Cellular *55

Road Conditions:

1-888-275-6636



Information provided by:

Traffic Records Division

Produced by:

Public Information and Education Division

Printed by:

Missouri State Highway Patrol 1510 East Elm Street Jefferson City, Missouri 65101



An Internationally Accredited Agency

SHP-652 10/2013