



FRA Highway-Rail Crossing Web Accident Prediction System (WBAPS)

STEP 1: Choose to search by Location (State, County, City) and/or Railroad, or by Crossing (Single Crossing or Range of Crossings):

- By Location/Railroad
- By Crossing

[Next >>](#)

WBAPS - 2003

The WBAPS query is simply following the prompts and make sure to choose the select boxes. Please see the following pages that will show how and what is available in this query.



FRA Highway-Rail Crossing Web Accident Prediction System (WBAPS)

STEP 2: Choose Location(s) and/or Railroad(s), and choose 'Select'

State:

County City

Railroad:

Selected:

Location:

Railroad:



FRA Highway-Rail Crossing Web Accident Prediction System (WBAPS)

STEP 3:

1. Specify number of records to output in report(s).
2. Select type of reports you want.
3. Choose to View or Download.

Then choose "Next" to view report(s).

How many records? <input checked="" type="radio"/> 30 <input type="radio"/> 50 <input type="radio"/> 100 <input type="radio"/> ALL <input type="radio"/> Specify <input type="text"/>
Reports <input checked="" type="checkbox"/> Cover Sheet <input checked="" type="checkbox"/> Disclaimer/Abbrev.Key <input checked="" type="checkbox"/> Prediction Report <input type="checkbox"/> Accident History <input type="checkbox"/> Crossing Profile <input type="checkbox"/> Contact Sheet
<input checked="" type="radio"/> View Report <input type="radio"/> Download



WBAPS

WEB ACCIDENT PREDICTION SYSTEM

*Accident Prediction Report for
Public at-Grade Highway-Rail Crossings*

Including:

*Disclaimer/Abbreviation Key
Accident Prediction List*

Provided by:

*Federal Railroad Administration
Office of Safety Analysis
Highway-Rail Crossing Safety & Trespass Prevention*

Data Contained in this Report:

Date Prepared: 05/19/2005



USING DATA PRODUCED BY WBAPS (Web Accident Prediction System)

WBAPS generates reports listing public highway-rail intersections for a State, County, City or railroad ranked by predicted collisions per year. These reports include brief lists of the current Inventory record and the collisions over the last 10 years along with a list of contacts for further information. These data were produced by the Federal Railroad Administration's Web Accident Prediction System (WBAPS).

WBAPS is a computer model which provides the user an analytical tool, which combined with other site-specific information, can assist in determining where scarce highway-rail grade crossing resources can best be directed. This computer model does not rank crossings in terms of most to least dangerous. Use of WBAPS data in this manner is incorrect and misleading.

WBAPS provides the same reports as PCAPS, which is FRA's PC Accident Prediction System. PCAPS was originally developed as a tool to alert law enforcement and local officials of the important need to improve safety at public highway-rail intersections within their jurisdictions. It has since become an indispensable information resource which is helping the FRA, States, railroads, Operation Lifesaver and others, to raise the awareness of the potential dangers at public highway-rail intersections. The PCAPS/WBAPS output enables State and local highway and law enforcement agencies identify public highway-rail crossing locations which may require additional or specialized attention. It is also a tool which can be used by state highway authorities and railroads to nominate particular crossings which may require physical safety improvements or enhancements.

The WBAPS accident prediction formula is based upon two independent factors (variables) which includes (1) basic data about a crossing's physical and operating characteristics and (2) five years of accident history data at the crossing. These data are obtained from the FRA's inventory and accident/incident files which are subject to keypunch and submission errors. Although every attempt is made to find and correct errors, there is still a possibility that some errors still exist. Erroneous, inaccurate and non-current data will alter WBAPS accident prediction values. While approximately 100,000 inventory file changes and updates are voluntarily provided annually by States and railroads and processed by FRA into the National Inventory File, data records for specific crossings may not be completely current. Only the intended users (States and railroads) are really knowledgeable as to how current the inventory data is for a particular State, railroad, or location.

It is important to understand the type of information produced by WBAPS and the limitations on the application of the output data. WBAPS does not state that specific crossings are the most dangerous. Rather, the WBAPS data provides an indication that conditions are such that one crossing may possibly be more hazardous than another based on the specific data that is in the program. It is only one of many tools which can be used to assist individual States, railroads and local highway authorities in determining where and how to initially focus attention for improving safety at public highway-rail intersections. WBAPS is designed to nominate crossings for further evaluation based only upon the physical and operating characteristics of specific crossings as voluntarily reported and updated by States and railroads and five years of accident history data.

PCAPS and WBAPS software are not designed to single out specific crossings without considering the many other factors which may influence accident rates or probabilities. State highway planners may or may not use PCAPS/WBAPS accident prediction model. Some States utilize their own formula or model which may include other geographic and site-specific factors. At best, PCAPS and WBAPS software and data nominates crossings for further on-the-ground review by knowledgeable highway traffic engineers and specialists. The output information is not the end or final product and the WBAPS data should not be used for non-intended purposes.

It should also be noted that there are certain characteristics or factors which are not, nor can be, included in the WBAPS database. These include sight-distance, highway congestion, bus or hazardous material traffic, local topography, and passenger exposure (train or vehicle), etc. Be aware that PCAPS/WBAPS is only one model and that other accident prediction models which may be used by States may yield different, by just as valid, results for ranking crossings for safety improvements.

Finally, it should be noted that this database is not the sole indicator of the condition of a specific public highway-rail intersection. The WBAPS output must be considered as a supplement to the information needed to undertake specific actions aimed at enhancing highway-rail crossing safety at locations across the U.S. The authority and jurisdiction to appropriate resources towards the safety improvement or elimination of specific crossings lies with the individual States.



ABBREVIATION KEY

for use with WBAPS Reports

The lists produced are only for public at-grade highway-rail intersections for the entity listed at the top of the page. The parameters shown are those used in the collision prediction calculation.

RANK:	Crossings are listed in order and ranked with the highest collision prediction value first.
PRED COLLS:	The accident prediction value is the probability that a collision between a train and a highway vehicle will occur at the crossing in a year.
CROSSING:	The unique sight specific identifying DOT/AAR Crossing Inventory Number.
RR:	The alphabetic abbreviation for the railroad name.
CITY:	The city in (or near) which the crossing is located.
ROAD:	The name of the road, street, or highway (if provided) where the crossing is located.
NUM OF COLLISIONS:	The number of accidents reported to FRA in each of the years indicated. Note: Most recent year is partial year (data is not for the complete calendar year) unless Accidents per Year is 'AS OF DECEMBER 31'.
DATE CHG:	The date of the latest change of the warning device at the crossing which impacts the collision prediction calculation, e.g., a change from crossbucks to flashing lights, or flashing lights to gates. The accident prediction calculation utilizes three different formulas, on each for (1) passive devices, (2) flashing lights only, and (3) flashing lights with gates. When a date is shown, the collision history prior to the indicated year-month is not included in calculating the accident prediction value.
WD:	The type of warning device shown on the current Inventory record for the crossing where: FQ=Four Quad Gates; GT = All Other Gates; FL = Flashing lights; HS = Wigwags, Highway Signals, or Bells; SP = Special Protection (e.g., a flagman); XB = Crossbucks; SS = Stop Signs; OS = Other Signs; NO = No Signs or Signals.
TOT TRNS:	Number of total trains per day.
TOT TRKS:	Total number of railroad tracks between the warning devices at the crossing.
TTBL SPD:	The maximum timetable (allowable) speed for trains through the crossing.
HWY PVD:	Is the highway paved on both sides of the crossing?
HWY LNS:	The number of highway traffic lanes crossing the tracks at the crossing.
AADT:	The Average Annual Daily Traffic count for highway vehicles using the crossing.



**PUBLIC HIGHWAY-RAIL CROSSINGS RANKED BY PREDICTED
ACCIDENTS PER YEAR AS OF DECEMBER 31, 2002***

*Num of Collisions: Most recent year is partial year (data is not for the complete calendar year) unless Accidents per Year is 'AS OF DECEMBER 31'.

RANK	PRED COLLS.	CROSSING	RR	STATE	COUNTY	CITY	ROAD	NUM OF COLLISIONS					DATE CHG	WD	TOT TRN	TOT TRK	TTBL SPD	HWY PVD	HWY LNS	AADT
								02*	01	00	99	98								
1	0.175863	754870J	ATK	CA	SAN MATEO	SAN BRUNO	SAN MATEO AVE	0	0	2	0	0		GT	67	2	70	YES	2	10,000
2	0.146162	755013M	ATK	CA	SANTA CLARA	MOUNTAIN VI	RENGSTORFF AVE	0	0	0	1	0		GT	67	2	70	YES	5	21,500
3	0.141821	755015B	ATK	CA	SANTA CLARA	MOUNTAIN VI	CASTRO ST	0	1	0	0	0		GT	67	2	70	YES	5	16,000
4	0.140665	755011Y	ATK	CA	SANTA CLARA	PALO ALTO	CHARLSTON ROAD	0	1	0	0	0		GT	67	2	70	YES	5	14,800
5	0.128404	754902M	ATK	CA	SAN MATEO	SAN MATEO	THIRD AVE.	0	0	1	0	0		GT	65	2	70	YES	3	17,721
6	0.125644	754891C	ATK	CA	SAN MATEO	BURLINGAME	HOWARD AVE	0	0	0	1	0		GT	79	4	70	YES	4	7,500
7	0.123067	754903U	ATK	CA	SAN MATEO	SAN MATEO	FOURTH AVE	0	1	0	0	0		GT	65	2	70	YES	3	12,461
8	0.115769	754991G	ATK	CA	SAN MATEO	MENLO PARK	RAVENSWOOD AVE	0	0	0	1	0		GT	67	2	70	YES	4	4,600
9	0.113676	754936G	ATK	CA	SAN MATEO	REDWOOD CIT	BREWSTER AVE	0	1	0	0	0		GT	67	2	45	YES	4	4,000
10	0.113092	754998E	ATK	CA	SANTA CLARA	PALO ALTO	CHURCHILL AVE	0	0	1	0	0		GT	67	2	70	YES	2	10,100
11	0.112944	754990A	ATK	CA	SAN MATEO	MENLO PARK	OAK GROVE AVE	0	1	0	0	0		GT	67	2	70	YES	2	10,000
12	0.107073	754904B	ATK	CA	SAN MATEO	SAN MATEO	FIFTH AVE	0	0	0	0	1		GT	67	2	70	YES	2	6,724
13	0.100276	754988Y	ATK	CA	SAN MATEO	MENLO PARK	ENCINAL AVE	0	1	0	0	0		GT	67	2	70	YES	2	4,200
14	0.090990	500656C	ATK	CT	NEW HAVEN	MERIDEN	MAIN STREET	0	1	0	0	0		GT	18	2	25	YES	3	10,600
15	0.088690	754895E	ATK	CA	SAN MATEO	SAN MATEO	BELLEVUE AVE	0	0	0	0	1		GT	65	2	70	YES	2	1,861
16	0.082565	754894X	ATK	CA	SAN MATEO	SAN MATEO	VILLA TERRACE	1	0	0	0	0		GT	73	2	70	YES	2	1,028
17	0.079908	500697G	ATK	CT	HARTFORD	WEST HARTFO	OAKWOOD AVENUE	1	0	0	0	0		GT	20	3	80	YES	2	6,500
18	0.077494	754876A	ATK	CA	SAN MATEO	MILLBRAE	MILLBRAE AVE	0	0	0	0	0		GT	71	3	70	YES	6	40,000
19	0.076267	500640F	ATK	CT	NEW HAVEN	WALLINGFOR	WARD ST	0	0	0	1	0		GT	20	1	25	YES	2	8,000
20	0.072453	500661Y	ATK	CT	NEW HAVEN	MERIDEN	BRITANNIA ST	0	0	1	0	0		GT	18	2	25	YES	2	3,800
21	0.068516	754869P	ATK	CA	SAN MATEO	SAN BRUNO	SAN BRUNO AVE	0	0	0	0	0		GT	67	2	60	YES	4	35,000
22	0.067784	518008P	ATK	PA	LANCASTER	MOUNT JOY	EBY CHIQUES RO	1	0	0	0	0		GT	50	2	75	YES	2	570
23	0.067770	754914G	ATK	CA	SAN MATEO	BELMONT	RALSTON AVE	0	0	0	0	0		GT	69	2	70	YES	4	31,000
24	0.065171	754749Y	ATK	CA	SAN FRANCIS	SAN FRANCIS	16TH & 7TH	0	0	0	0	0		GT	69	6	25	YES	6	8,600
25	0.063045	754922Y	ATK	CA	SAN MATEO	SAN CARLOS	HOLLY ST	0	0	0	0	0		GT	67	2	70	YES	4	18,000



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RANK	PRED COLLS.	CROSSING	RR	STATE	COUNTY	CITY	ROAD	NUM OF COLLISIONS					DATE CHG	WD	TOT TRN	TOT TRK	TTBL SPD	HWY PVD	HWY LNS	AADT	
								02*	01	00	99	98									
26	0.062963	754921S	ATK	CA	SAN MATEO	BELMONT	HARBOR BLVD	0	0	0	0	0		GT	67	2	70	YES	5	11,000	
27	0.062868	500734G	ATK	CT	HARTFORD	WINDSOR	PIERSONS	0	0	1	0	0		GT	18	2	80	YES	2	2,500	
28	0.062616	755037B	ATK	CA	SANTA CLARA	SUNNYVALE	MARY AVE	0	0	0	0	0		GT	73	6	70	YES	4	15,692	
29	0.060977	755042X	ATK	CA	SANTA CLARA	SUNNYVALE	SUNNYVALE AVE	0	0	0	0	0		GT	73	5	70	YES	4	12,900	
30	0.060168	754935A	ATK	CA	SAN MATEO	REDWOOD CIT	WHIPPLE AVE	0	0	0	0	0		GT	67	2	45	YES	7	3,000	
TTL:								2.854701			3	7	6	4	2						