



SNAP SHOT

The NTD data from January to December 2004 indicate a significant fluctuation in reported incidents of between 187 and 115 for motor buses, while after lows of 5 and 17 in May for heavy rail and light rail incidents, respectively, peaks of 30 and 38 were attained a few months later. 2005 data could not be used since several stakeholders, including a number of the larger operators, had either not reported or under reported their incidents during that time period.



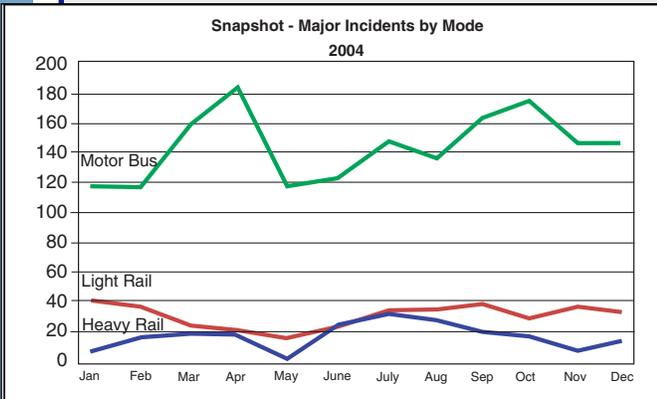
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Using NTD Data to Focus on Problem Security Issues

You can use the NTD to help identify and prioritize potential security problems within your agency, by comparing your monthly or quarterly data with information from your peers.

For example, let's say you are Agency A, one of the top 30 public transit agencies (by passenger-miles) in the NTD Program investigating security incidents. You could request a report from the Federal Transit Administration's NTD Program Administrator showing security-related incidents, and compare your monthly average to a composite monthly average of the top 30 agencies which would reflect agencies similar to your own. By comparing your monthly security-related incidents to the composite average, you could determine where your agency may have vulnerabilities.

The two bar-charts on page 2 provide an illustrative example. One set of bars represents the top 30 agency composite average, while the second set represents Agency A's monthly average of reported incidents. Trespassing is in its own chart, since the number of trespassing incidents is much larger than the numbers of other incidents.



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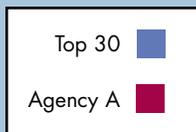
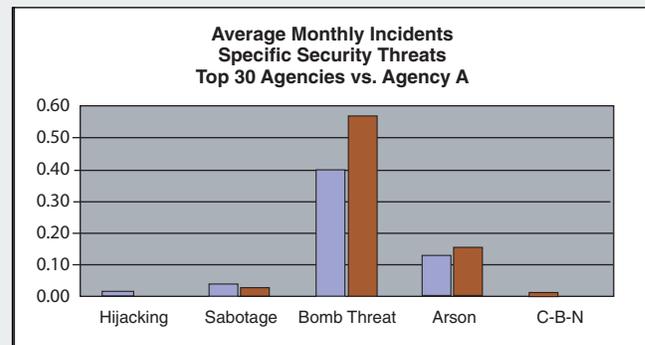
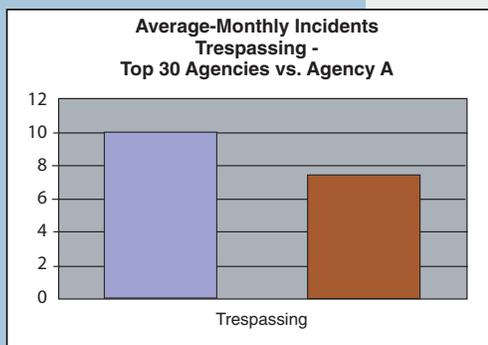
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TRANSIT SECURITY

Using these charts, you may conclude:

1. While trespassing is always a concern, the figures indicate that you actually had fewer trespassing incidents than your peers.
2. It appears that, on average, your agency reported more bomb threat incidents and slightly more arson incidents, than did your peers.
3. Your agency did not report many incidents in the other categories, which is consistent with the composite averages.



From these conclusions, you might recommend:

1. No changes to procedures or budgets to investigate trespassing, hijacking, sabotage or Chemical, Biological, or Nuclear (C-B-N) incidents for the next year.
2. Increases in funding to investigate ways to reduce bomb threats and arson within the agency property, and to develop procedures to address issues found.

When looking further into the causes of these incidents consider the following:

1. In cases where there is an increase in a particular security threat, was the increase a sudden spike, or was it a long-term trend?
2. Were the data entered incorrectly or duplicated?

The NTD program administrator can assist you in gathering information from the NTD. Please contact the following person:
Jerry Powers at FTA Email: gerald.powers@fta.dot.gov
Phone: 1-202-366-1080

With sufficient detail, NTD records can, in aggregate, help bus fire investigators in several ways:

- **Indicate common causes for the fires** (for example, electrical or hydraulic systems)
- **Reveal patterns** (for example, the makes or models of buses involved)
- **Provide a history of how past incidents were handled** (for example, "Put out by the fire suppression system," "Called in to control center")
- **Suggest solutions and preventative measures** (for example, "changed maintenance procedures").

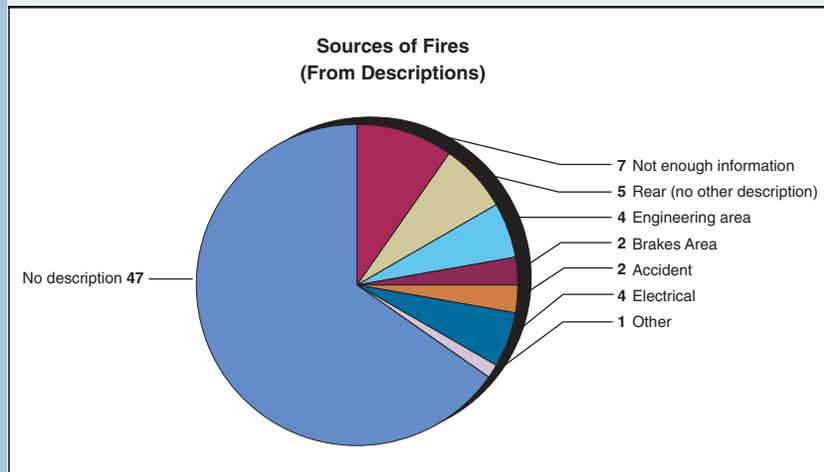
Reporting Focus: Bus Fires

Bus fires are a serious problem: they cause safety, financial, and service problems for transit agencies. In addition, bus fires often are reported by local news agencies, which can negatively affect ridership. Complete and accurate reporting of bus fires will help reveal their causes, so future fires can be prevented. (see sidebar for specific examples)

The NTD Program Administrator has noted some confusion over how bus fires are reported. This article will clarify some of the reporting issues concerning bus fires.

The FTA definition of a fire is as follows: *"Uncontrolled combustion made evident by flame and/or smoke that requires suppression by equipment or personnel...Arsons are not reported as fires, but as security incidents."*

The data collected in the NTD could be very useful for investigators trying to determine the causes of bus fires. Unfortunately, many participating agencies appear not to be reporting fires completely, and the information in the database often does not adequately describe those fires that are reported.



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When reporting a bus fire, a good description of the incident itself is important to capture critical details. These include the location of the fire, what may have caused the fire, and how was it put out. Unfortunately, of 72 non-major bus fire incidents reported (including a few that were described but the event category "fire" was not selected) 47 (65%) had no description whatsoever. Another 7 (9%) had descriptions that did not explain the fire incident itself, and instead usually focused on what transpired after the fire was discovered.

It is important to provide as much information about each fire incident as you can. Incident details often are the keys to identifying trends and common factors in bus fires. With this knowledge, agencies can develop effective measures to prevent fires.

Recording Bus Fires

This article provides an example to illustrate reporting incidents relating to bus fires.

Scenario:

A bus operated by the transit authority is traveling on its assigned route. A passenger yells that she sees and smells smoke. The driver pulls over and evacuates everyone. A fire appears from the engine compartment and starts to engulf the bus. The fire department arrives and puts out the fire. No one is injured. A subsequent investigation on the cause of the fire determines that the electrical wiring in the engine compartment was frayed and ignited some nearby oil. The estimated damage to the vehicle was \$125,000.

Some things to consider before you enter the incident in the database:

- Was the fire the "Primary" event (for example, electrical wiring ignited, resulting in flames and smoke) or "Secondary" event (for example, a collision between a bus and an automobile, caused a flammable substance to drip onto something hot and to ignite)?
- Were people forced to evacuate the bus as a "Life Safety Event?" If yes, regardless of injuries or damage, this is reported as a major incident. If not, the normal rules apply (ex. a death or two people transported for medical care).

- Was the fire on the bus or in a facility where the bus was parked? If the fire was in the bus, report it as a fire on a bus. If the fire was at a revenue facility and it met the threshold limits, report it as a major or non-major event within a revenue facility. If the fire was at a bus stop (e.g., a bus shelter catches on fire), it is not reportable in the NTD.
- Was the fire suppression system (including fire bottles and fire extinguishers) on the bus used? If so, the fire suppression use is reportable to the NTD.
- Were firefighters or transit personnel involved to put out the fire? If so, this is reportable to the NTD. If neither a fire suppression system nor personnel were involved in putting out a fire, it is not a reportable incident.
- Was the fire a result of arson? If so, this is reported as a security incident, not a safety incident.

Reports to Use:

A Major Incident Reporting form (S&S-40) is completed because the incident involved an evacuation due to a fire that could have come into the passenger area, which qualified as a life-safety event, and the total damage was estimated to be over \$25,000. You will also have to fill out the Fire Detail form.

What to enter:

Main Form (S&S-40)

- **01 Mode/Service:** Select the appropriate mode type (Bus, Directly Operated). The options in the list are pulled from Safety and Security Setup form (S&S-10) submitted annually.
- **06 Primary Event:** Select "Fire." You will need to fill out information in the Fire Event Detail form. It is important to provide as much detail as possible.
- **07 Secondary Event:** Select "Evacuation." You will need to fill out information in the Evacuation Detail. It is important to provide as much detail as possible.
- **08 Total Estimated Property Damage:** This field is calculated from all the property damage estimates in the incident detail forms. Therefore, no action is needed.

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REPORTING FOCUS

- **15 Description of Incident:** Use specific details that fully describe the event. In this example, details would include: the fire's location, any findings from investigations, whether the fire department was called to the scene, and other facts that will help determine the cause of the fire and how the incident was handled.
- **19 Actions/Existing Conditions (Non Rail Modes):** Select "Vehicle Equipment: Batteries and electrical system."
- **20 Action Description:** Enter any other information related to the electrical system. In this instance, you could enter text stating that it was in the engine compartment and that frayed wires ignited some oil they contacted.
- **21-27** Weather and environmental related fields pertaining to the incident. In this case nothing else was considered significant enough to enter.
- **28** Contact Information For Person Reporting Incident. Your contact information.

Fire Details Form

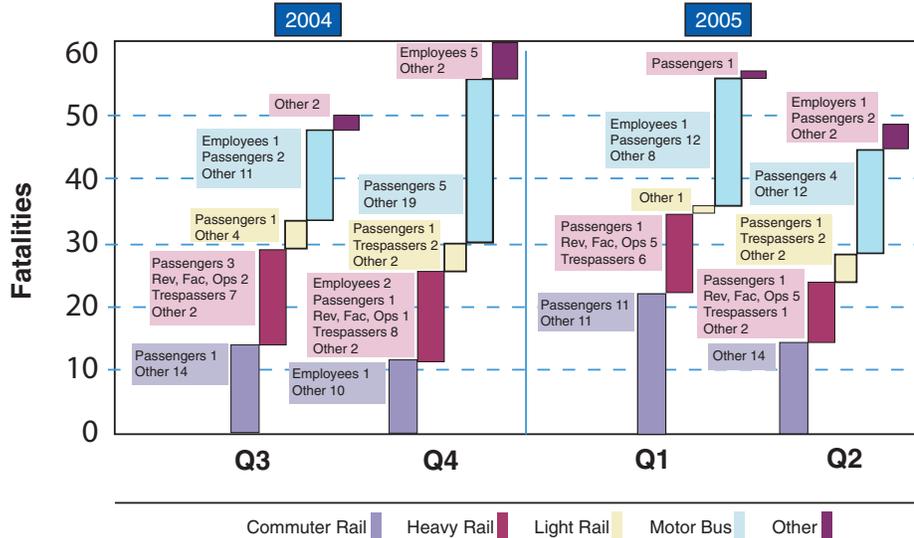
- **01 Fire Details:** Select the option that best describes the incident. In this case, "Electrical Fire: Cable Fire."
- **02 Fuel Type:** In this case, it was motor oil that caught fire, not fuel. Therefore, keep this blank.
- **03 Fire Location:** Select "In vehicle."
- **04 Estimated Property Damage:** Enter an estimated dollar amount that resulted directly from fire damage.
- **05 Fire Description:** Enter additional information about the fire. Include anything that further explains options selected in the above fields.
- **06 Fatalities and 07 Injuries:** No changes, since none were mentioned.
- **08 Vehicle Actions:** In this case, no other vehicles were involved. Therefore, no action is needed: leave the field blank.

Evacuation Detail Form

- **01 Evacuation Type:** Select "Due to Fire/Smoke."
- **02 Evacuation Location:** Select "In Vehicle."
- **03 Fuel Type:** In this instance, fuel is not the cause of the fire, so, this field is left blank.
- **04 Estimated Property Damage:** This was already reported in the Fire Details form, and should not be entered here: leave blank.
- **05 Evacuation Description:** Enter details of the evacuation. Include anything that further explains options selected in the above fields.
- **06 Fatalities and 07 Injuries:** No one was injured or killed in this incident, so enter 0 for both.
- **08 Vehicle Action:** No other vehicles were involved, so nothing should be entered here.

UPDATES

Fatalities (No Suicides) - By Mode



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National Transportation
Systems Center
Kendall Square
55 Broadway
Cambridge, MA 02142

Authors:
Jerry Powers
Josh Hassol
Craig Austin

Special thanks to:
James Harrison
Dartanyan Danier
Scott Cunnane

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Questions?
National Transit Database
P.O. Box 457, Merrifield, VA 22116-0457
Email: NTD_Program@signalcorp.com Phone: 703-205-2475

If you have any comments on previous articles or suggestions for new topics for future issues, please contact us at: gerald.powers@fta.dot.gov