Credits

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This document is to be controlled, stored, handled, transmitted, distributed, and disposed of in accordance with Department of Homeland Security (DHS) policy. This information should be disseminated only to personnel on a “need-to-know” basis. This guide is intended for use by local, state, federal, and private sector security partners as a reference for training and operations by emergency personnel in preparing for and responding to acts of terrorism.
Vehicle Inspection Guide Purpose

The purpose of this document, developed by the Technical Support Working Group (TSWG) for the Office for Bombing Prevention, DHS, is to provide guidelines to personnel assigned the responsibility of assessing and inspecting incoming traffic for the presence of explosive threats. The information herein is not all inclusive and should be applied in conjunction with previous training, experience, and standard procedures and policies. Be aware that each case presents its own unique circumstances. In all cases, use common sense and do not conduct any operations that would place personnel, equipment, or facilities at risk.

This book presents a comprehensive overview of methods to detect vehicle borne IEDs. Not all methods will be appropriate for use in all situations. Leaders, managers, and legal counsel should work together to ensure that these methods are employed in a manner consistent with legal requirements, the current threat level, and the facility’s security policy.
How to Use This Book

This book is divided into tabbed color-coded sections; the tabs separate sections and the colors correspond to the type of information and/or different vehicle types. Each tabbed vehicle section has a Quick Review that covers the “Hot Spots” (likely hiding places) and “Inspection Indicators” that may call for increased attention. Following each Quick Review is a detailed description of how to conduct a thorough inspection.

Supplemental reference information and guidance are provided at the end of the book, including a reference section that provides amplifying information on Example Concealments, Explosive Materials, and Homemade Explosives, as well as bomb threat standoff guidelines.

Also available as a supplement to this guide is a video (see inside back cover for more information).
Emergency Response Guidelines

In the event a potential threat device is discovered: SIN

- **S**ecure the vehicle with an appropriate perimeter.
- **I**solate the vehicle and deny entry.
- **N**otify your chain of command and response teams.
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Safety and Security Guidelines

- Do not wear jewelry or other “dangling” items that can become snagged on a vehicle.
- Wear brightly colored vests or hats so you can be seen easily by the vehicle drivers.
- Always position yourself so that you are highly visible to traffic with good approach sight distance.
- Be aware of escape routes and/or areas that can shield you from a blast in case of emergency, and always face oncoming traffic.
- Be aware of moving equipment in the inspection areas.
- Always establish eye contact with the driver before approaching the vehicle.
- Ensure that the engine is off and the parking brake is set prior to inspecting a vehicle.
- Do not smell air from a tire. If the air contained within is contaminated, it may cause harm.

- Use caution when inspecting engines, exhausts, refrigeration coils, auxiliary heaters, and other components. They may be hot. Gloves can be worn for extra protection.
- Do not reach through or near cooling fan blades. Cooling fans can turn on even though the engine is not running.
- Ensure chock blocks are used where necessary.
- Do not smoke while inspecting. Combustible vapors may exist around vehicles.
- Do not support yourself on adjustable load support poles in cargo areas.
- Seek supervisory assistance if you are unsure of how a specific vehicle functions or of the potential risks involved with a cargo.
- Use a team approach to inspect, if possible.
Safety and Security Guidelines (cont.)

- Always designate an area (within sight of inspection team if possible) where the driver and passengers are to remain at all times.
- The driver should be asked to place the keys on the dash. This will secure all mechanical movement of the vehicle and shut down power.
- The driver should open all interior/exterior doors, hood, trunk, compartments, etc.
- Never get in a position where you can possibly be locked in a container.
- If there is only one security officer present, ask the driver and any passengers to move to a position where they can be kept within view of the security officer.
- The value of using a detection dog should be assessed by the facility. If no canine support is available, the security officer will perform a walk-around inspection of the vehicle using a mirror with a creeper and a flashlight.
- Inspections should be done in a timely and efficient manner, which does not detract from the overall quality or safety of the process. The time it takes to conduct a vehicle inspection will vary based on the level of inspection required and the size of the vehicle.
- Stay alert for secondary devices!
- Never touch or move a suspicious item.
Dos and Don’ts

Do:

- Present a professional and positive image.
- Be assertive in questioning an individual and inspecting a vehicle.
- Be aware of the current situation and know:
  - Specific threats to your company/facility
  - National Terrorism Advisory System threat alerts
  - Available local support (bomb squad, etc.)
- Establish a systematic and thorough inspection technique to ensure no areas are missed or efforts duplicated.
- Maintain cultural awareness.

Don’t:

- Do not let your guard down.
- Do not inspect a vehicle while the motor is running.
- Do not allow yourself to get into a vulnerable situation with respect to the vehicle occupants.
- Do not perform search activities that violate legal limits or exceed the scope of your authority.
- Do not overlook items in plain sight. These are often the most overlooked.
- Do not touch or move discovered objects of concern.
An indicator is an item, occurrence, condition, or situation that suggests the presence of illicit material, such as explosive materials and devices, or other illegal or prohibited items.
Vehicle Inspection Guide (VIG)

September 2012
Quick Reference Interviewing Guidelines

Interview Purpose: to gather information about an individual that may indicate a threat situation. Information is gathered from the interview by:

- Observing the person’s behavior
- Observing the vehicle for physical abnormalities
- Questioning the driver/passenger
- Reading/recognizing deception, stress mannerisms, and the “fight or flight” mechanism
- Knowledge of local driver’s behavioral cues and typical documents carried
- Noting the presence of consistent odors

Background information required of the interviewer:

- Knowledge of local or typical traffic types
- Knowledge of vehicle types
- Knowledge derived from driver/vehicle documents
- Knowledge of existing intelligence and patterns

Typical Documentation to Check

Ask to see the following items as they pertain to your situation:

- Vehicle registration
- Vehicle insurance card
- Driver’s license
- Medical insurance card (C)
- Logbook (C)
- Manifest (C)
- Shipping papers (bill of lading) (C)
- Itinerary (C)
- Tachygraph (paper disk that automatically records vehicle use and schedule—required for all E.U. countries)

(C) = Commercial Vehicles Only
Typical questions to obtain driver knowledge specific to the vehicle type:

- Where are you going?
- What is the name and position of the person you are to see?
- What is your cargo?
- Where did you come from?
- By whom are you employed?
- Where is your place of work?
- Do you own the vehicle? If not, who owns it? How long have you known the owner of the vehicle? Is it a rental?
- Where does the owner live?
- Do you drive this vehicle most of the time?
- How long do you expect to be in the facility?
- Would you be aware of any contraband in the vehicle?
- Has the vehicle been worked on/repaired recently? If yes, what was repaired and where?
- Additional questions specific to the vehicle type.
- How long have you been employed by the present employer? (C)

- Did you observe this vehicle being loaded? (C)
- May I see your logbook? (C)

(C) = Commercial Vehicles Only
Indicators from Interview

Driver and Documentation:
- Driver inappropriately dressed or groomed for vehicle type
- Driver does not have commercial driver’s license
- Driver’s story does not match documentation
- Documentation is incomplete or does not make sense
- Driver does not know his or her purpose and/or destination or documentation
- Purpose of trip does not make economic sense
- Driver and passenger(s) do not appear to be on the same mission
- Driver does not know how to operate truck or equipment
- Presence or lack of significant odors (operator clothing odors should be consistent with cargo)
- Driver does not have logbook (C)
- Driver does not have tachograph disks for previous 24 hours (E.U. only)

(C) = Commercial Vehicles Only

Driver Flight or Fight* Behavioral Cues:
- Yawning
- Obvious shaking
- Refusing to make/keep eye contact
- Profuse sweating
- Hair on arms standing on end
- Wiping hands
- Patting/soothing/massaging any area of body
- Tugging at clothing
- Arms cannot stay still
- Constantly moving/inability to stay still
- Shaky voice/stuttering
- Does not answer the question, responds with unrelated information
- Deep sighs
- Answers question with a question
- Rapid movement of the carotid artery

* See page 20 concerning flight or fight mechanism.
Detailed Interviewing Guidelines

The vehicle inspection interview process gathers information on the vehicle driver and passengers (if any). How this process is conducted will determine the probability of identifying the presence of illicit material, such as explosive materials and devices, or other contraband, such as illegal or prohibited items. Remember that the interview process is not an exact science. An innocent driver could exhibit physical indicators, while a guilty person may have no physical indicators. Do not overcomplicate the interview. Ask all pertinent questions, make an assessment, confer with the other inspectors, and then hold or release the vehicle. Avoid the use of slang; speak slowly; be precise in your meaning. Drivers for whom English is a second language may have difficulty in understanding you. Someone may deliberately interpret your question literally, in order to avoid answering your questions.

Conducting the Interview

Be aware of the cultural customs in your area. This may affect the person’s manner toward you, particularly with different genders. Separate the behavior that is cultural from that which is stress-related.
Guidelines for Interviewing

- Does the driver appear knowledgeable regarding his vehicle?
- What are the typical types of passengers for this type of vehicle?
- What type of person do you normally encounter at your station at this particular time?
- How does the average person of this age and social status dress when entering the facility for a particular purpose?
- What is the normal amount and condition of the cargo of the vehicle?
- What is the normal type of vehicle entering the facility at this time of day?
- What are the most common reasons given for a specific type of vehicle to be entering the facility?
- What are the typical types of vehicles driven by persons of this particular age group, dress, occupation, and social status?
- What vehicle types have been identified as potential threats in the latest intelligence briefings?
- Do the identification documents match the person you are interviewing?
- What work groups are scheduled at what times throughout the day?
- What are the typical means of transportation for each work group?

Make an initial observation of the vehicle/driver entering the inspection area.
Observe the vehicle entering the facility. Does any area catch your eye as being out of the ordinary?
Examples to Look For

• Visible fingerprints or smudges around the
  – front bumper
  – head lamps
  – fenderwells
• License plate is clean, but the vehicle is dirty
• Tires are low, too clean for the vehicle, or do not match
• Vehicle looks overly heavy in either the front or the rear
• Driver appears unfamiliar with the clutch, brakes, or other details of operating the vehicle
• Unusual signs of illness, fatigue, or injury

• Occupants fail to “fit” the vehicle
  – Sloppy appearing person in a neat automobile
  – Neatly dressed person in a messy or very dirty vehicle
  – Bearing, attitude, or “feel” of the driver is inconsistent with expectations
  – Number of occupants is atypical
  – Inconsistencies in stories
  – Occupants appear to be tense, overly friendly, too casual—any emotion out of the ordinary

Check vehicle markings. All U.S. commercial vehicles are required by law to display vehicle markings. The markings should include either a U.S. DOT number (six digits or, if preceded by a “0,” seven digits) or an MC number (six digits or less). All commercial vehicles must have a U.S. DOT number. “For hire” vehicles must display an MC number or an old ICC number (six digits or less). “For hire” vehicles may or may not display their U.S. DOT numbers.
Vehicle markings may be found on:

- Doors
- Side of sleeper compartment
- Side steps
- Fuel tanks

During the interview:

- Obtain identification documents from the driver and occupants
  - Do the photo, age, and description match the person(s) in front of you?
  - Do the names on the identification suggest a relationship other than that stated?
  - Does an unexplained abnormally large age difference exist between driver and vehicle occupants?
  - Are the occupants from an address far removed geographically?

- Obtain vehicle documents from the driver
  - Commercial driver’s license
  - Insurance card
  - Logbook (U.S.) or tachagraph (E.U.)
  - Daily itinerary
  - Hazardous materials signage (as required)
  - Interstate inspection tags
  - Does the driver possess proof of ownership? If not, is the vehicle rented, leased, or borrowed? Why did the driver rent the vehicle?
  - Does the mileage on the rental agreement indicate travel in excess of declared itinerary?

- Obtain a cargo manifest, shipping papers, or bill of lading from the driver
  - Does the driver know what he or she is hauling?
  - Who is the point of contact for the delivery?
Questions to Ask

There are four types of questions you can use to elicit responses from the individual you are interviewing. They are relaxant, control, symptomatic, and neutral questions.

- **Relaxant questions** relate to direct involvement of the subject and are designed to elicit a physiological reaction from the guilty
  
  *What is the purpose of your visit?*
  *What are you carrying?*
  *Are you carrying any explosive devices?*

- **Control questions** are designed to evoke a known lie, a probable lie, or an emotional response and are used as a gauge to determine truth or deception regarding the relevant question
  
  *Have you ever smuggled anything?*
  *Have you ever had explosive or any other illegal devices in your possession?*

- **Symptomatic questions** are used to determine whether an outside influence is bothering the subject
  
  *Is something wrong?*
  *Are you nervous about something?*
  *Are you worried that your vehicle will be inspected?*

- **Neutral questions** should not cause the subject any concern and are designed to give some indication of the individual’s physiological norm
  
  *What is your name?*
  *Where do you live?*
  *How long has your trip been?*
During the Interview (cont.)

- If necessary, have the driver exit the vehicle and ask him/her to open any baggage, container, or vehicle. Do not lead the way—follow the driver. The driver should open all compartments or baggage unless he/she is physically unable to do so.

- Observe the person opening the compartment(s) and baggage
  - Is the person familiar with the vehicle?
  - Does the person hesitate or appear nervous?
  - Do the person’s hands shake while opening the compartment?
  - Do the person’s eyes dart back and forth?

Stress is an uncontrollable instinct. The manifestations of stress are initiated instinctively. This means that when a threat to a person’s well being is perceived, an automatic, uncontrollable animal instinct occurs. Physical and psychological changes occur immediately, produced by the autonomic nervous system present in all animals. The common term for this process is the “fight or flight” mechanism. Upon the realization of an impending threat to one’s well being, the body automatically prepares to fight or flee the danger.
Look for a shift in attitude toward the inspector. In the course of an inspection, the individual may inadvertently tip off the inspector to the presence of a threat item. Sometimes, the inspector will initially be responded to politely, only to encounter hostility and verbal abuse later in the inspection period. Conversely, an inspector may be met with hostility, but later the individual may become sedate and compliant as clues to illegal activity are discovered.

Be careful. In your past experiences, you may have formed opinions about what is suspicious and what is not. Studies of police officers suggest that those who were the most confident in their ability to detect deception were actually the worst at knowing when a subject was lying. It is essential that you rely on strong and immediate evidence, using gut instinct along with knowledge of the following signals of deception to decide when to dig deeper.

Keep a Professional Appearance: There are several ways you can choose to see a person, and the same applies for how another person sees you. You can strongly affect the outcome of your interview by being well-groomed and neatly dressed. Avoid wearing unnecessary jewelry. When the screener presents himself as someone who is confident and professional, those with something to hide will think twice about attempting to come through.

How people perceive you strongly affects how people will react to being searched or questioned. How you conduct the interviewing, as well as how you act and dress, affects how both you and subject perceive the situation. If the person you are interviewing sees you as being a good interviewer, this will strongly affect your ability to spot trouble.

If you show that you are a competent, reasonable, and trustworthy person, truthful people will feel relaxed around you, and deceptive people will feel very uncomfortable.
Symptoms of Stress

- Turning red or blushing
- Turning white or pale
- Obvious shaking
- Averting eyes, refusing eye contact
- Darting eyes
- Moving eyes
- Excessive blinking
- Evasive eyes or looking at the floor
- Dilating pupils (especially during relevant questions)
- Closing eyes
- Squinting
- Frowning, consternation
- Looking bug-eyed
- Covering the eyes
- Rubbing or touching the nose
- Smoothing, twisting, or grooming the mustache
- Tugging the ears
- Covering the ears
- Patting the cheek (smoothing and reassuring gestures)
- Grooming or smoothing the hair
- Yawning
- Licking the lips
- Biting or chewing the lips
- Twisting the mouth
- Covering the mouth
- Protecting throat area with the hands
- Swallowing repeatedly/excessively
- Pulsating blood vessels in head or neck
- Sweating profusely when the environment, dress, or activity does not warrant it
- Exhibiting goose bumps
- Neck or arm hairs standing on end
- Fidgeting/nervous hands
- Playing with fingernails
- Toying with jewelry
Symptoms of Stress (cont.)

• Rubbing hands or fingers together
• Wiping hands
• Patting/smoothing/stroking/massaging any area of the body (reassuring gestures)
• Tapping the chest
• Scratching repeatedly
• Tugging at clothing or any area of the body
• Hiding the hands
• Pointing away (misdirection gesture)
• Continually picking lint
• Moving arms
• Folding arms across chest
• Locking onto anything, leaning/grasping/holding any physical thing

• Moving rapidly or tensely
• Displaying exaggerated movements
• Appearing restless
• Tapping foot
• Moving feet
• Restless shifting of weight from one foot to the other
• Placing the hands inside the groin area (protective reassuring gesture)
• Leg crossing/uncrossing
• Sitting on edge of seat (preparing for flight)
Symptoms of Stress (cont.)

- Inability to answer
- Reluctance to answer
- Answering a question with a question
- Repeating your question or asking you to repeat the question
- Continually asking you to clarify the question
- Shaking voice
- Stuttering
- Voice cracking
- Hesitant speech
- Not answering the question. Responds with unrelated information (rehearsed answers)
- Oral clicking sound (dry mouth)
- Deep sighing
- Repeatedly clearing throat
- Yawning
- Grinding teeth
- Attempting to influence the questioner by using words or qualifications such as:
  - “Honestly”
  - “Truthfully”
  - “Believe me”
  - “To tell the truth”
  - “To be perfectly frank”
  - “I swear”
  - “May God strike me dead”
  - “I wouldn’t lie to you.”
Cultural Anomalies

It is important to remember that other cultures may have ingrained mannerisms that seem odd compared to your own. It is essential to distinguish odd or conspicuous behavior from that which is culturally based. The following are examples of behavior that can easily be interpreted as an indicator of guilt or as strange behavior rather than as a cultural norm.

Eye Contact

• In some Asian, Puerto Rican, West Indian, and African American cultures, some consider it proper to avoid direct eye contact. Some Native Americans may avoid eye contact with elders as a sign of respect.
• For some individuals from British, Eastern European, and Jewish cultures, and for Canadians and Americans of European descent, direct eye contact is considered normal in a conversation, part of being truthful, honest, and open.

Whereas individuals who expect direct and frequent eye contact might see avoiding eye contact as a sign of deception, those who expect little or no eye contact might see looking directly as disrespectful and glaring.
Summoning and Pointing

Summoning someone by curling the index finger with the palm upward is considered rude in some parts of the world and will result in a negative attitude toward the screener.

Pointing with the index finger can also be considered rude; if it is necessary to point, do so with the whole hand.

Expected Personal Space

The amount of space between people that feels comfortable to a person when having a conversation varies with culture. If a person is acclimated and accustomed to standing farther away when having a conversation, he or she might be offended, be angered, or feel like the closer-standing person is trying to be intimidating. Likewise, if a person comes from a culture where two people generally stand very close together when speaking, then a person who stands farther away might seem cold and distant.
Quick Reference Passenger Vehicle Inspection

**General**
- Anything unusual in factory-built compartments
- New or shiny bolts and/or screws
- Unusual scratches, possibly made by screwdrivers, wrenches, or similar tools
- Signs of tampering, such as broken parts or bent sheet metal
- Areas and components cleaner or dirtier than surrounding areas
- Wire and tape stored in vehicle
- New or broken welds
- Unusual fingerprints of grease and/or oil in otherwise clean areas
- Fresh body work (fresh fiberglassing, fresh paint, etc.)
- Fresh undercoating, particularly on older vehicles
- New caulking found by smell or touch
- No vehicle identification number
- False compartments that are not part of vehicle design

**Exterior Rear**
- Taillights not working
- No access to rear bumper cavity

**Exterior Front**
- Headlights not working
- Front grill modified or has false compartment
- No access to front bumper cavity
Quick Reference Passenger Vehicle Inspection (cont.)

Exterior

- Compartments, new welds, taped items, or fresh paint in front and rear fender wells
- Doors feel heavy when swung
- Inconsistent or non-hollow sounds when tapping on vehicle sides or in fender wells
- Inspect the open gas tank cover area with the removed gas cap
  - Open tube lid for inspection
  - Look for foreign items in the gas tank tube
  - Check filler neck to see if it has been removed or tampered with

Tires

- Sound solid when tapping
- Unusually clean or dirty lug nuts or hubcaps compared to other wheels
- Spare tire is incorrect size for the vehicle

Engine Compartment

- Large battery box or extra battery
- Odd and/or clean wires
- Cold spots on radiator
- False compartment in windshield washer container or contents smell like fuel
- Foreign object in air filter cavity
- Cold oil filter
- Freshly painted areas, new welds, shiny bolts, or sheet metal work on firewalls
- Clean engine in dirty car
- Hood feels heavy when opened and closed (Reminder: Have the driver open the hood, but move the hood yourself.)
- False wall or modified fender compartment
- Clean or wiped areas
Inside the Vehicle

• Dashboard
  – Electrical components function or LEDs are on when vehicle power is off
  – New, damaged, or scratched screws
  – Plugged air vents
  – Broken or missing blower
• Factory built-in compartments that are concealed from view
• Unusual lumps or bulges in front and/or rear seats
• Rigid front and/or rear seats
• False or modified ceiling
• Unusually thick floor
• Stress cracks in windshield (not rock chips)

Under the Vehicle

• Unusual or inconsistent sounds when tapping on fuel tank
• New frame welds
• Items taped or attached to frame
• Cold oil pan
• Cold or unusual muffler (vehicle may be loud)
• Signs of recent installation of components such as fuel tank, muffler, etc. (Ask driver about details of repair.)
• Spare gas cans (could indicate the vehicle’s gas tank has been reduced to accommodate a hidden compartment)

Exterior Compartments

• Factory built-in, concealed from view
• After-market type, unusual for vehicle
• Concealed type, unusual for vehicle
**Hot Spots**

- Dashboard
- False Ceiling
- Seats
- Trunk
- Trunk Lid
- Fenders
- Gas Tank
- Doors
- Floorboards
- Undercarriage
- Tires
- Bumper
- Hood and Engine Compartment

**Passenger Vehicles**
Indicators in Cargo Area of Automobiles

**Trunk Compartment**

- New trunk mat or carpet
- Trunk carpet is glued to floor
- Caulk, glue, or other strange smell
- Heavy trunk lid (i.e., loaded)
- Raised floor
- Non-hollow or inconsistent sounds in walls
- Unusual welds or seams
- Unusual space between back seat and trunk wall
- Spare tire not flush with floor
- Spare tire is removed or secured to floor
Hot Spots

- False Ceiling
- Seats and Floor
- Bed
- Tailgate
- Gas Tank
- Doors
- Undercarriage
- Tires
- Bumper
- Hood and Engine Compartment
- Dashboard
- Doors
- Undercarriage
- Tires
- Bumper
- Hood and Engine Compartment
- Dashboard
- Gas Tank
- Tailgate
Indicators in Cargo Area of Pickup Trucks

Tailgate
- Heavy tailgate
- Fresh paint or body filler/fiberglass
- Inconsistent or non-hollow sounds when tapped

Bed
- Inconsistent or non-hollow sounds when tapped
- Fresh paint or body filler/fiberglass
- Unusually thick floor
- Unusual weld and/or seams
- Any caulking
- Unusual distance between cab and bed
- Bed raised with material between frame

Cargo Area
- Fresh paint or body filler/fiberglass
- Inconsistent or non-hollow sounds in walls when tapped
- Thick floor
- False ceiling
- Caulk, glue, or other strange smell
Hot Spots

- Fresh Paint or Body Filler
- False Ceiling
- Caulking or Strange Smell
- Seats
- Dashboard
- Hood and Engine Compartment
- Heavy Rear Door
- Tires
- Doors
- Thick Floor
- Fenders
- Gas Tank
- Undercarriage
- Bumper
Indicators in Cargo Area of Flat Panel Vans

Rear Doors
- Heavy rear door
- Fresh paint or body filler/fiberglass
- Inconsistent or non-hollow sounds when tapped

Floor
- Inconsistent or non-hollow sounds when tapped
- Fresh paint or body filler/fiberglass
- Unusually thick floor
- Unusual weld and/or seams
- Any caulking

Cargo Area
- Fresh paint or body filler/fiberglass
- Inconsistent or non-hollow sounds in walls when tapped
- Thick floor
- False ceiling
- Caulk, glue, or other strange smell
Hot Spots

- Fresh Paint or Body Filler
- False Ceiling
- Seats
- Caulking or Strange Smell
- Dashboard
- Hood and Engine Compartment
- Heavy Rear Door
- Fenders
- Gas Tank
- Doors
- Thick Floor
- Undercarriage
- Bumper
Indicators in Cargo Area of Minivans

Rear and Side Doors

• Heavy rear door
• Fresh paint or body filler/fiberglass
• Inconsistent or non-hollow sounds when tapped

Floor

• Inconsistent or non-hollow sounds when tapped
• Factory built-in components that are concealed from view
• Fresh paint or body filler/fiberglass
• Unusually thick floor
• Unusual weld and/or seams
• Any caulking

Cabin Area

• Fresh paint or body filler/fiberglass
• Inconsistent or non-hollow sounds in walls when tapped
• Thick floor
• False ceiling
• Caulk, glue, or other strange smell
Hot Spots

- Built-in Components Concealed from View
- False Ceiling
- Seats
- Dashboard
- Hood and Engine Compartment
- Heavy Tailgate
- Fenders
- Gas Tank
- Thick Floor
- Doors
- Tires
- Undercarriage
Indicators in Cargo Area of SUVs

**Rear Door**
- Heavy tailgate
- Fresh paint or body filler/fiberglass
- Inconsistent or non-hollow sounds when tapped

**Floor**
- Inconsistent or non-hollow sounds when tapped
- Factory built-in components that are concealed from view
- Fresh paint or body filler/fiberglass
- Unusually thick floor
- Unusual weld and/or seams
- Any caulking

**Cabin Area**
- Fresh paint or body filler/fiberglass
- Inconsistent or non-hollow sounds in walls when tapped
- Thick floor
- False ceiling
- Caulk, glue, or other strange smell
Detailed Passenger Vehicle Inspections

General

• **Factory built compartments.** These compartments can be excellent areas for hiding items.

• **New or shiny bolts and/or screws.** New or shiny bolts and/or screws indicate that something in that area has been altered, modified, or moved. A scratched bolt or screw indicates removal and reinsertion.

• **Unusual scratches or other signs of tampering,** that indicate that the area possibly has been modified and the repair or replacement was completed sloppily. Examine sheet metal for scratches and small dents.

• **Unusually clean or dirty components** in all areas. Clean components in an otherwise dirty area indicate that these items are new or recently repaired or modified. The driver or owner of the vehicle should be able to explain why new or clean components are in the vehicle. Be especially aware of clean or new wiring, which can be directly connected to an explosive device.

• **Examine any spools or remnants of electrical wire, tape, or similar items.** These materials are widely used in making vehicle bombs, and may indicate that some type of device was constructed in the vehicle.

• **New or broken welds.** A common technique in hiding items in “deep concealment” is to cover them with metal welded to the vehicle. Sometimes, existing welds are broken and rewelded to hide devices.

• **Use your sense of smell.** Be aware of the smell of caulking, glue, or any other unusual materials. Caulking, glue, and some other materials indicate that something has recently been modified or repaired. The driver should be able to identify any recent repairs.

• **Be aware of unusual dirty or greasy fingerprints** on exterior surfaces. Residue from a dirty hand or smudge left on an excessively dirty area can indicate tampering.
Exterior

- **Headlight/taillight wires.** The wiring for the lights can be used to connect an electrical source to a detonator.

- **Pay particular attention to any fresh body work.** A close inspection of the body will reveal new body work. A typical way to hide devices is to create a false compartment in a section of the body. This false compartment is then covered with fiberglass, paint, undercoating, etc. (Be aware that in parts of Europe the undercoating is the consistency of grease.)

- **Feel or look at the back of the bumpers for a false compartment.** The bumper should not be overly thick.

- **Visually inspect the area between the front grill and the radiator.** This area can be used to hold an explosive device. Electrical power from headlight wires is readily available.

- **Look at the fenders for an unusually thick or wide area.** False compartments can be integrated into the fenders, especially in the areas above the tires. Look for fresh bodywork and undercoating.

- **Swing the doors.** (Have the driver initially open the doors.) Be aware of the feel of a normal door. If the door feels heavy when swung, then something may be hidden inside. The door cavity is an excellent place for hiding materials. Inspection holes are also found on the edge of the door by the latch. Remove the rubber plug to inspect the inside of the door. Rolling down a window is another way to search a vehicle’s doors for concealed material.

- **Tap on the bodywork along the side of the vehicle using your hand or a small rubber mallet.** (Do not damage the vehicle.) Listen to the sounds. The length of the vehicle should sound hollow. If the sounds are inconsistent, there may be a change in density caused by material hidden inside the door(s).
Tires

• **Tap on the tires.** The tires should have a hollow or ringing sound. Any tire that sounds solid or does not sound hollow should be considered suspicious.

• **Unusually clean or dirty lug nuts.** Clean lug nuts indicate that the tires have been off the vehicle recently. Unusually dirty lug nuts indicate the possibility that someone may be attempting to hide a recent removal of the tire.

Use a cavity detector if possible. It is the best tool for checking within hollow voids such as body panels and tires.

Engine Compartment

• **Battery box.** Some vehicles have large battery boxes that may hold a smaller battery and have enough volume to act as a cavity for explosive materials.

• **Look for odd or additional wires running from the vehicle’s battery.** The battery is an excellent source of power for a detonator, and the vehicle wiring provides an easy way to connect the battery to the detonator.

• **Be suspicious of more than one spare tire or an extra rack/mount.** This could be used for the concealment of an explosive device or explosive materials.

• **Feel the radiator for cold spots,** if possible. The radiator temperature should feel consistent over the whole surface. Cold spots in the radiator or its hoses indicate that it is not functioning and could be a hiding area.
• Inspect the windshield washer container for a false compartment or signs of tampering. This container could contain a significant amount of explosive material. Ensure that the windshield washer hose is properly hooked up to the system. Open the container and examine the contents. This container could also be a false fuel tank. If so, the fuel tank may contain something other than fuel. In this case, follow up by inspecting the fuel tank.

• Inspect the air cleaner for foreign items. On most vehicles, the air filter cover is easily removed. The engine can run with a partially blocked air filter, so this area can hold a significant amount of explosive.

• Feel the oil filter to ensure that it is warm or hot. The oil filter can be modified, and the resulting cavity is large enough to hold a grenade or a few pounds of explosive materials. The oil filter can hold foreign materials while the engine is running properly.

• Inspect the firewall for any signs of modification or tampering. Especially look for signs of sheet metal work indicating the possibility of something hidden behind the firewall. Also look for new welds and new or shiny screws.
Inside the Vehicle

- **Look closely at the dash for new, damaged, or scratched screws.** Behind the dash is a factory-built cavity. To get access, the dash has to be removed. Removing and reinserting the screws can cause damage. A smuggler may decide to use new screws instead of reinstalling the old/damaged ones.

- **Look for plugged vents on the dash.** The vents are a primary location for hiding.

- **Glove box.** Be aware of the typical look and depth of a glove box. Be suspicious of any glove box that looks small and/or shallow. A false compartment could be present.

- **Seats,** especially the rear seat, for unusual bumps or bulges. If bumps and/or bulges are present, find out why they exist.

- **Roof liner** for bulges, rips, and/or repairs indicating possible concealment of an explosive device or explosive materials.

- **Look at the floor for anything that appears to be modified.** Remove floor mats if necessary. Typically, if anything is hidden in the floor, the floor will appear overly thick. Look for fresh welds or seams.

- **Look for packages, containers, travel bags, and devices that seem out of place.** An explosive device will not necessarily be hidden in the vehicle. It may be hidden in a cardboard box on or under the seat.

- **Look for possible indicators that the driver has been doing surveillance work.** Items like cameras, video recorders, maps, or diagrams of buildings, and terrorist-related propaganda or “how to” manuals.

Inside the vehicle, take a moment to observe everything within view. Pay attention to packages/devices (e.g., alarm clocks, iron or PVC pipe) that look out of place. Objects in plain sight are often overlooked.
• **Check the windshield for stress cracks.** A stress crack can be identified by the absence of an impact crater normally caused by a flying stone. A stress crack may indicate that the windshield was removed. When the windshield is removed, access can be gained to the area below the top of the dash, which can be used as a hiding area. Look closely at the dash area for indications of something hidden, such as scratches on the top-front of the dash.

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**Under the Vehicle**

- **Use a flashlight and mirror with a creeper (if possible) to carefully inspect under the vehicle.**

- **Be sure all connections are properly made** (e.g., the gas tank filler tube runs from the fill port to the tank, the exhaust pipe runs from the manifold to the muffler, wires are connected).

- **Use a rubber or brass mallet to tap the fuel tank.** The tank should not sound hollow, and the sounds should be consistent all along the bottom of the tank. The fuel tank is commonly used for hiding large items.

- **Look for anything taped or attached to the frame.** Nothing should be taped to the frame.

- **Feel the oil pan on the bottom of the engine.** It should feel hot or warm to the touch. If it has a cold spot, then it may contain a false compartment. Even if the oil pan contains a false compartment the engine could continue to operate properly.
• Be suspicious of signs of recently installed hardware such as a new muffler or fuel tank. The driver should be able to explain any repairs or modifications to the vehicle.
• Look for fresh undercoating or paint, which may indicate that something is hidden.

**Cargo Area of Automobiles**

• Look for any new items in the trunk such as carpeting or mats. This indicates something has been changed recently.
• Move the trunk lid up and down. (Have the driver open the trunk for you.) Notice whether the trunk lid feels heavy, or if it will not stay up. A heavy trunk lid indicates that something may be hidden in it.
• Look for an unusually high or unusually thick trunk floor. A false floor can be used to hide items below it.
• Tap on the walls of the trunk to check for false compartments. Note the sounds. The sounds should be hollow. Any solid sounds indicate that something may be behind the wall and should be further investigated.

• Check the area behind the rear seat. This is an area where a false wall could be constructed.

• Look at the spare tire area. If the spare tire is not flush with the floor surface or does not look correctly installed, look for a false bottom to the tire well.

Cargo Area of Pickup Trucks

• Check the weight of the tailgate by lifting it. If it feels heavy, something may be inside.

• Look for fresh bodywork on the walls of the bed, the bed floor, and the tailgate. A close inspection will reveal new bodywork of fiberglass and paint. This work can be an attempt to hide a false compartment.

• Visually inspect the thickness of the floor from the rear with the tailgate down, if possible.

• Tap on the walls and bed of the cargo area to check for false compartments. Note the sounds. The sounds should be hollow. Any solid sounds indicate that something may be in the walls and should be further investigated.

• Look around the bed area for unusual welds or seams. These could indicate a hidden compartment.

• Inspect any cross-bed or job site tool boxes. Check for false bottoms and hidden wall space. If box or any containers are locked, have the driver open to gain access.
Cargo Area of Vans/SUVs

- **Tap on the walls and bed of the cargo area to check for false compartments.** The walls and bed should sound hollow. Any solid sounds indicate that something may be in the walls and should be further investigated.
- **Look around the floor area,** under the mat if necessary, for unusual welds or seams. Any of these could be there to hide a loaded false compartment.
- If equipped, **check the seat “stow-and-go” compartments** (seat stowage compartment in the floor).
- **Check roof rack** after-market storage compartment.

The primary locations for hiding explosives in the cargo area are the walls of the bed, the tailgate, and in and under the floor.
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Hot Spots

Exhaust Stack
Interior
False Ceiling
Engine Compartment
Fifth Wheel Area
Chassis
Tires
Fuel and Air Tanks
Bumper
Indicators in Non-Sleeper Day Tractors

Inside the Vehicle

- Odor should be consistent with cargo
- Dashboard
  - New, damaged, or scratched screws
  - Plugged vents
- Modifications to factory-installed or after-market compartments
- Fresh wiring and electrical tape
- Container(s) that contain fuel, possibly indicating the main fuel tank(s) is carrying something other than fuel
- Interior surfaces (firewall, ceilings, doors, bulkheads) are tampered with or modified
- Unusual lumps or bulges in the seats
- Rips, bulges, and repairs in roof liner
- Heavy doors
- Fresh welds or seams in floor
- Unusually clean or dirty cab area
- Total absence of personal items or travel bags
- Packages and devices that look out of place

Under the Vehicle

- Boxed-in sections of the frame
- Items taped or attached to frame
- Cold oil pan
- Thick floor
- Signs of recent installation of components (Ask driver about repairs.)
- Fresh undercoating or paint
- Spare items or tanks that have no obvious use
Hot Spots

- Modified Ceilings
- Thick Walls or Ceiling
- Unusually Clean or Dirty Cabin Area
- Compartments Under Mattress
- Unusually Heavy Mattress
Inside the Vehicle

• Odor should be consistent with cargo
• Dashboard
  – New, damaged, or scratched screws
  – Plugged vents
• Modifications to factory-installed or after-market compartments
• Fresh wiring and electrical tape
• Container(s) that contain fuel, possibly indicating the main fuel tank(s) is carrying something other than fuel
• Interior surfaces (firewall, ceilings, doors, bulkheads) are tampered with or modified
• Unusual lumps or bulges in the seats
• Rips, bulges, and repairs in roof liner
• Heavy doors
• Fresh welds or seams in floor
• Unusually clean or dirty cab area
• Total absence of personal items or travel bags
• Packages and devices that look out of place

• Sleeper area
  – Modified speaker cavities
  – Strangely clean or dirty areas
  – Caulk, glue, or other strange odor
  – Unusual items in compartment under mattress
  – Unusually heavy mattresses
  – Unusually thick walls or ceiling

Under the Vehicle

• Boxed-in sections of the frame
• Items taped or attached to frame
• Cold oil pan
• Thick floor
• Signs of recent installation of components (Ask driver about repairs)
• Fresh undercoating or paint
• Spare items or tanks that have no obvious use
Hot Spots

Floor
Air Tank
Chassis
Fifth Wheel Area
Tires
Indicators from General Inspection of Tractor/Trailer Undercarriage

Trailer Undercarriage

- Natural compartments in fifth wheel area are filled or welded shut
- Trailer decking or floor show signs of modification or tampering
- New welds on structure
- New or unusual plates on structure (typically, there would be no boxed-in areas on the trailer frame)
- New tires (typically trailers have retread or very worn tires)
- Inside tires are smaller than outside tires
- Strange or new tanks
- No air in air tank by rear trailer wheels
Hot Spots

- Walls
- Temperature Gauge
- Inside Tank
- HazMat signage
- Kingpin Area
- Undercarriage
- Odor
- Tires

Hot Liquid Asphalt Tanker
Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, log book, and driver’s license when inspecting this vehicle.

Indicators include:

- Tanker surface, especially bottom surface, is uniformly cool to touch from front to rear
- Discharge valves and supporting equipment show signs of rust and corrosion indicating lack of usage
- Temperature gauge is not between 300° and 500° F (150° and 260° C)
- Support equipment, such as discharge hoses and adapters, is missing

- Recent sheet metal work on exterior (Ask driver about repairs)
- Inability of the driver to identify point of contact
- Inability of the driver to operate or describe function of all valves, levers, etc.
- Lack of proper HAZMAT signage and copy of HAZMAT guide (mandatory in U.S.)

Note: The tank, in most cases, cannot be physically inspected.

Caution: Do not open either the tank or any discharge valves.
Hot Spots

- Inside Tank
- Kingpin Area
- Undercarriage
- Tires
Indicators from Inspection of Closed Hopper Vessel

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

Indicators include:

- Discharge valves and supporting equipment show signs of rust and corrosion indicating lack of usage
- Inconsistent sounds result when tapping on tanker surface
- Company insignia is not professionally applied to tanker
- Support equipment, such as discharge hoses and adapters, is missing
- New welds
- Shiny or new-looking bolts and screws
- New metalwork
- Inability of the driver to identify point of contact
- Cargo described by the driver does not match manifest

Common Cargo

Water, milk, dry bulk materials (e.g., cement, flour, wheat, corn)

Note: The tank, in most cases, cannot be physically inspected.

Caution: Do not open either the vessel or any discharge valves.
Hot Spots

Walls
Inside Tank
HazMat signage
Fifth Wheel Area
Storage Areas
Undercarriage
Tires
Outside Storage Tubes
Indicators from Inspection of Gasoline Trailer

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

Indicators include:

- Gasoline odor is present
- Discharge valves and supporting equipment show signs of rust and corrosion indicating lack of usage
- Support equipment, such as discharge hoses and adapters, is missing
- New welds
- Shiny or new-looking bolts and screws
- Company insignia is not professionally applied to tanker
- Inconsistent sounds occur when tapping sides of trailer
- Temperatures along tank length are inconsistent
- Driver cannot identify point of contact

- Configuration of outside storage tube endcaps: typical is open, continuous weld closed; not typical is partial weld closed
- Cargo described by the driver does not match manifest
- Lack of proper HAZMAT signage and copy of HAZMAT guide (mandatory in U.S.)

Note: The tank, in most cases, cannot be physically inspected.

Caution: Do not open either the tank or any discharge valves.
Hot Spots

- Inside Tank
- Walls
- HazMat signage
- Undercarriage
- Fifth Wheel Area
- Storage Tubes
- Storage Areas
- Tires
- Storage Areas
Indicators from Inspection of Liquid Tanker

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

Indicators include:

- Presence of cargo odor
- Discharge valves and supporting equipment show signs of rust and corrosion indicating lack of usage
- Support equipment, such as discharge hoses and adapters, is missing
- New welds; shiny or new-looking bolts, screws
- Company insignia is not professionally applied to tanker
- Inconsistent sounds occur when tapping side of tanker
- Temperatures along tank length are inconsistent
- Driver cannot identify point of contact
- Cargo described by the driver does not match manifest
- Inability of driver to operate or describe function of all valves, levers, etc.

- Configuration of outside storage tube endcaps: typical is open, continuous weld closed; not typical is partial weld closed
- Lack of proper HAZMAT signage and copy of HAZMAT guide (mandatory in U.S.)

Common Cargo:

Hazardous chemicals; water; food products.

Note: The tank, in most cases, cannot be physically inspected.

Caution: Do not open either the tank or any discharge valves.
Hot Spots

Refrigeration Unit
Cargo
False Ceiling
Walls

Refrigeration Unit Cargo
Undercarriage
Floor
Fuel/Air Tanks
Kingplate/Fifth Wheel Area

Doors
Bumper
Tires
Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

**Trailer**

- Company insignia is not professionally applied to trailer
- Inconsistent spacing of wall panel screws or rivets
- Missing screws or rivets in walls
- Areas with shiny or new-looking screws or rivets
- Misaligned or overlapped seams at the exterior roof/wall intersection
- Outside and inside dimensions (length, height, width) do not match, indicating false walls
- Discrepancies in number of wall ribs of interior and exterior walls
- Hinges or signs of tampering at exterior roof/wall intersection
- False compartments in roof/walls found by tapping
- Roof appears too thick
- Higher-than-normal floor
- Loaded trailer not between 32° and 55°F (0° and 13°C)
- Sealed or covered inspection ports in front and rear
- Drain holes in each corner of trailer on floor are blocked or missing
- Foreign objects in hanging refrigeration tarp on ceiling
- Repairs to floor, particularly at the floor and wall intersection
- Fuel tank for refrigeration unit modified, tampered with, or missing

**Cargo**

- Inability to see front of trailer area when a light is shined below cargo pallets
- Level of boxed, uniform cargo not consistent from front to rear; cargo is stacked sloppily
- U-haul boxes used for cargo items
- Damage to top of cargo boxes indicating someone has walked or crawled on top of cargo
- Non-perishable cargo

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**Indicators from Inspection of Refrigeration Trailer**

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Refrigeration Trailer
Detailed Inspections of Tractors/Trailers and Tankers

General

• **Factory-built compartments.** When vehicles are built, natural or factory-built compartments are present throughout the vehicle. These compartments can be excellent areas for hiding items.

• **New or shiny bolts and/or screws.** New or shiny bolts and/or screws indicate that something in that area has been altered, modified, or moved. A scratched bolt or screw indicates removal and reinsertion.

• **Look for unusual scratches or other signs of tampering.** Unusual scratches or other signs of tampering indicate that the area possibly has been modified and the repair or replacement was completed sloppily. Look at sheet metal for tears, rips, and small dents.

• **Examine spools or remnants of electrical wire, tape, or similar items.** These materials are widely used in making vehicle bombs and may indicate that some type of device was constructed or installed in the vehicle.

• **Check for unusually clean or dirty components in all areas.** Clean components in an otherwise dirty area indicate that these items are new or recently repaired or modified. The driver or owner of the vehicle should be able to explain why new or clean components are in the vehicle. Be especially aware of clean or new wiring because these can be connected directly to an explosive device.

• **New or broken welds.** A common technique in hiding items in “deep concealment” is to cover them with metal welded to the vehicle. Sometimes existing welds are broken and re-welded to hide devices.

• **Be aware of oily or greasy fingerprints.** Residue from a dirty hand or a smudge left on an excessively dirty area can indicate tampering.
Exterior

- **Headlight and taillight wires.** The wiring for the lights can be used to connect an electrical source to a detonator.

- **Look around the fifth wheel area.** The fifth wheel is the large plate behind the cab where the trailer is connected to the tractor. Check this plate where it is attached to the chassis for signs of modifications. Be sure to check in any factory-built compartments.

- **Frame rails.** The frame rails are normally open. Compartments can be installed using welding techniques, so look for new welds there.

- **Pay particular attention to any fresh bodywork.** A close inspection of the body will reveal new bodywork. A typical way to hide devices is to create a false compartment in a section of the body. This false compartment is then covered with fiberglass, paint, undercoating, etc.

- **Vertical exhaust pipe.** The exhaust pipe should be warm, or you should see the exhaust exit the pipe when the motor is running. Since the motor can run on only one exhaust pipe, the second pipe can be used as a hiding device.

- **Visually inspect the area between the front grill and the radiator.** This area can be used to hold an explosive device. Electrical power from the headlight wires is readily available.

- **Battery box.** Ensure that all batteries appear to be connected properly. Empty battery shells can be used as false compartments.

- **Look at the fenders for any unusually thick or wide area.** False compartments can be integrated into the fenders, especially in the areas above the tires. Look for fresh bodywork and undercoating.
Fuel Tanks

- **Fuel tanks are a primary area for hiding explosives** and explosive devices because of the volume of the tanks. Look at these very carefully.

- **Look for unusual welds under the holding straps.** The holding straps offer cover for new welds. Look on top of the tank where the straps are not in contact with the tank. You should be able to see any welds in this uncovered area.

- **Split fuel tanks.** Assure two halves contain fuel and hydraulic fluid.

- **Tap on the tanks and listen for inconsistent sounds.** If there is something in the tanks other than fuel, you will hear different sounds on different areas of the tanks.

- **Missing connections on the tanks.** If something other than fuel is in the tank, the smuggler may not bother hooking the fuel lines to the tank.

- **Feel the tanks with your hand for temperature inconsistencies.** Since the height of the fuel will be level, the temperature should be the same along the length of the tank, whether you are touching the filled or unfilled volume.
**Tires**

- **Tap on the tires.** The tires should have a hollow or ringing sound. Any tire that sounds solid or does not sound hollow should be considered suspicious.

- **Unusually clean or dirty lug nuts.** Clean lug nuts indicate that the tires have been off the vehicle recently. Unusually dirty lug nuts indicate that someone may be attempting to hide a recent removal of the tire.

- **Be suspicious of more than one spare tire or an extra rack/mount.** This could be used for the concealment of an explosive device or explosive materials.

Use a cavity detector if possible. It is the best tool for checking within hollow voids such as body panels and tires.

**Inside the Engine Compartment**

Take a moment to observe everything within view for anything obviously wrong or unusual.

- **Feel the radiator for cold spots.** The radiator temperature should be consistent over the whole surface. Cold spots indicate that part of the radiator is not functioning and therefore can be a hiding area.

- **Inspect the windshield washer container for a false compartment or signs of tampering.** This container could contain a significant amount of explosive material. Ensure that the windshield washer hose is properly hooked up to the system. Open the container and examine the contents. This container could also be a false fuel tank. If it is, the fuel tanks may contain something other than fuel.

- **Inspect the air cleaner for foreign items.** On most vehicles, the air filter cover is easily removed. The engine can run properly with a partially blocked air filter, so this area can hold a significant amount of foreign material.
• Feel the oil filter to ensure that it is warm or hot.
The oil filter can be modified, and the resulting cavity is large enough to hold a grenade or a few pounds of explosive materials. The oil filter can be modified so it can hold foreign material while the engine is running properly.

• Check under larger components (e.g., the air cleaner and fan blade shrouds) for unusual containers. If the container is legitimate, the driver should be able to explain its purpose. The container could carry explosive materials or fuel. If a vehicle has to move only a short distance, this container could be used as a short-range fuel tank. Open the containers if possible and smell the contents. If it is fuel, then the fuel tanks on the vehicle are probably being used for foreign materials. Look for wires going into the container. These wires could be connected to a detonator.

• Inspect the firewall for signs of modification or tampering. Especially look for signs of sheet metal work indicating the possibility of something hidden behind the firewall.

**Inside the Passenger Compartment**

Take a moment to observe everything within view. Pay close attention to packages/devices (e.g., alarm clock, iron or PVC pipe) that look out of place.

• Look closely at the dash for new, damaged, or scratched screws. Behind the dash is a factory-built cavity; to get access, the dash has to be removed. Removing and reinserting the screws can cause damage. A terrorist may decide to use new screws instead of reinstalling the old/damaged ones.

• Look for plugged vents on the dash. The vents are a primary location for hiding something.

• Glove box. Be aware of the typical look and depth of a glove box. Be suspicious of any glove box that looks small and/or shallow. A false compartment could be present.

• Seats, especially the passenger seat, for unusual bumps or bulges. If bumps and/or bulges are present, find out why they exist.
- **Roof liner** for bulges, rips, and/or repairs indicating possible concealment of an explosive device or explosive materials.
- **Swing the doors.** (Have the driver initially open the doors.) Be aware of the feel of a normal door. If the door feels heavy when swung, something may be hidden inside. The door cavity is an excellent place for hiding materials.
- **Look at the floor for anything that appears to be modified.** Remove floor mats if necessary. Typically, if anything is hidden in the floor, the floor will appear overly thick. Look for fresh welds or seams.
- **Look for the presence of personal items.** Know the purpose of the incoming vehicle. If the truck has been on a long haul, then the driver should have a suitcase and/or similar items present.

- **Look for packages, containers, travel bags, and devices that seem out of place.** An explosive device will not necessarily be hidden in the vehicle. A cardboard box on the seat, in the sleeper, or under the seat may be the device.
- **Check speakers** in the cab and sleeper area for anything unusual. Factory-built cavities behind the speakers are excellent locations for hiding items.
- **Use your sense of smell.** Be aware of the smell of caulking, glue, or any other unusual materials. These odors may indicate that something has recently been modified or repaired. The driver should be able to explain any recent repairs. Also, the presence of a large number of air fresheners may be an indicator that the driver is attempting to cover a strong smell.
- **Under the mattress.** Personal items are typically stored in this area. Be suspicious of any non-personal items.
• **Walls and ceiling of the sleeper.** These should not be overly thick. They are good places for hiding items, because the ceiling and walls are typically covered with padding material.

• **Look for possible indicators that the driver has been doing surveillance work.** Items like cameras, video recorders, maps, or diagrams of buildings, and violent extremist-related material or “how to” manuals.

**Under the Vehicle**

Use a flashlight and mirror with a creeper (if possible) to carefully inspect under the vehicle.

• **Be sure all connections are properly made** (for example: the gas tank filler tube runs from the fill port to the tank, the exhaust pipe runs from the manifold to the muffler, wires are connected, etc.).

• **Look at the frame for signs of a false compartment.** The frame rails are typically made of C-channel and do not contain any built-in compartments. The frame should not contain any compartments or boxed-in areas. Note: Outside the continental U.S., trailer frames have a large box beam as the support. This box beam is hollow and can be used to smuggle material.

• **The oil pan should feel hot or warm.** If it has a cold spot, then it may contain a false compartment.

• **Be suspicious of signs of recently installed hardware.** The driver should be able to explain any repairs or modifications to the vehicle.

• **Look for spare or extra tanks on the vehicle that have no obvious uses.** A smuggler may add tanks and supporting lines and connectors to the vehicle for the purpose of hiding explosives.

• **Check the floor for unusual thickness or evidence of modifications.** Evidence includes new floorboards, damaged floor boards, new or shiny screws, and an unusually high floor level.
• **Be suspicious of new tires on the trailer.** Most operators do not buy a complete set of new tires. Typically, trailer tires are heavily worn or are retreads.

![Trailer Undercarriages](image)

• **Look for new or strange air tanks.** An air tank is necessary for braking the vehicle and is typically near the rear axle of the trailer. This tank should be pressurized. Use the bleeder valve to check for air pressure. If there is no air pressure, the tank may contain an IED. Be suspicious of any other tanks on the vehicle. The driver should be able to explain the purpose of the other tank(s).

• **Look for tires obviously smaller than the adjoining tires.** The tire presents a good area for hiding material. However, a spinning tire presents a hot, hostile environment for explosives or explosive devices. A smaller tire will not spin and, therefore, will be a suitable environment for smuggling material. The smaller tire will almost always be on the inside of the axle.
Hot Liquid Asphalt Tanker

The hot liquid asphalt tanker has a cylindrical tank that consists of a hard steel inner tank surrounded by a layer of fiberglass insulation and covered by a thin sheet metal jacket on its exterior surface.

Congealed asphalt can be liquefied by two methods:

- Coils are built into the inner tank that can be heated electrically to melt the solid asphalt.
- Steam from an exterior source can be forced into tubing to liquefy the solid asphalt.

An asphalt tanker has one cavity internally and cross-sectional baffles designed to stabilize the asphalt while the vehicle is moving.

• Look at the discharge hoses and supporting equipment. Rust and/or corrosion on the valves indicate lack of use. Ensure that supporting equipment, such as discharge hoses, is present and appears to be in good working order. If lack of use is suspected, ask the driver for an explanation.

Caution: The surface metal is very hot to the touch after loading. The surface temperature drops to a safe level for hands-on inspection about two hours after loading.
• **Check the temperature of the hot asphalt** by looking at the temperature gauge mounted on the outside of the tank. The temperature of hot asphalt should be between 300° and 500° Fahrenheit (150° and 260° Centigrade). If the temperature is not within this range, find out why from the driver.

• **Look at the tank surface for evidence of sheet metal repair.** These vehicles are manufactured with insulation between an inner and exterior tank. A pathway to the insulation area, a possible hiding area, would likely be through the exterior sheet metal. If something looks suspicious, ask the driver about recent repairs.

• **Look at outside storage tubes.** These tubes are generally open so as to support accessory storage. Tubes not used have end caps that are continuously welded closed. Recent welds and/or partial welds could be an indicator of something suspicious.

• **Look for proper HAZMAT signage** and a copy of the HAZMAT guide (mandatory in U.S.).

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**Closed Hopper Vessel**

Closed hopper vessels are used for transporting and discharging dry bulk powders or granules such as cement, gypsum, or roofing granules and liquid materials such as water and milk.

Hopper pressure vessel trailers are manufactured in the following variations (i.e., number of hoppers):

- Single
- Double
- Triple
- Quadruple
• Look at the discharge hoses and supporting equipment. Rust and/or corrosion on the valves indicate lack of use. Ensure that supporting equipment, such as discharge hoses, is present and appears to be in good working order. **If lack of use is suspected, ask the driver for an explanation.**

• If applicable, **look at the company insignia and other items applied to or painted on the surface of the vehicle.** All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.

• **Look for new welds and shiny or new looking bolts and screws.** Any of these may indicate recent modifications to the vehicle. Ask the driver about any repairs.

• **Look for new metal work on the vehicle.** New metal work may indicate recent modifications to the vehicle. Ask the driver about any repairs.

• **Tap along the surface of the tank with a wooden hammer.** The sounds should be consistent along the length of the tank. Any difference in sounds may indicate a false cavity in the tank.
Gasoline Trailer

Gasoline is highly dangerous and warrants extra caution during any inspection.

Four factory-built internal compartments are normally found within the gasoline tanker with varying capacities in each compartment. Internal baffles with manhole passageways are built into the bulkhead walls of the compartments.

The highly volatile nature of gasoline and other petroleum products tends to inhibit close inspection of these tankers. It should be noted that empty tankers are often more dangerous than those that are full due to the explosive potential of fumes in a confined area.

- **Look at the discharge hoses and supporting equipment.** Rust and/or corrosion on the valves indicate lack of use. Ensure that supporting equipment, such as discharge hoses, is present and appears to be in good working order. If lack of use is suspected, ask the driver for an explanation.

- **If applicable, look at the company insignia and other items applied to or painted on the surface of the vehicle.** All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.

- **Look for new welds and shiny or new looking bolts and screws.** Any of these may indicate recent modifications to the vehicle. Ask the driver about any repairs.

- **Look for new metal work on the vehicle.** New metal work may indicate recent modifications to the vehicle. Ask the driver about any repairs.

- **Feel the sides of the tanker with your hand.** The tanker surface temperature should feel consistent along the length of the tank. The lower part of the tank, depending on how full the tank is, should be cool, while the tank surface above the liquid level should feel warmer. Any temperature differences along the length of the tank indicate a possible false cavity inside the tank.
• Tap along the surface of the tank with a wooden or rubber hammer. The sounds should be consistent along the length of the tank. Any difference in sounds may indicate a false cavity in the tank.

• Look at outside storage tubes. These tubes are generally open so as to support accessory storage. Tubes not used have end caps that are continuously welded closed. Recent welds and/or partial welds could be an indicator of something suspicious.

• Look for proper HAZMAT signage and a copy of the HAZMAT guide (mandatory in U.S.).

Liquid Tanker

Liquid tankers typically haul chemicals, solvents, etc. Although not normally explosive, these materials can be extremely dangerous and should be treated with the utmost of care. Liquid tankers should have warning placards on their sides in accordance with local laws. Note: This is true for any hazardous cargo. Applies to gasoline, liquid and propane tankers.

Modern chemical transporter tankers are equipped with safety features such as pressure gages, shut off valves, and safety relief valves built right into the topside manhole cover.

It is recommended that the inspector wear overalls, gloves, protective goggles, and a breathing protector when conducting an inspection.
• **Look at the discharge hoses and supporting equipment.** Rust and/or corrosion on the valves indicate lack of use. Ensure that supporting equipment, such as discharge hoses, is present and appears to be in good working order. If lack of use is suspected, ask the driver for an explanation.

• If applicable, **look at the company insignia and other items applied to or painted on the surface of the vehicle.** All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.

• **Look for new welds and shiny or new looking bolts and screws.** Any of these may indicate recent modifications to the vehicle. Ask the driver about any repairs.

• **Look for new metal work on the vehicle.** New metal work may indicate recent modifications to the vehicle. Ask the driver about any repairs.

• **Tap along the surface of the tank with a wooden hammer.** The sounds should be consistent along the length of the tank. Any difference in sounds may indicate a possible false cavity in the tank.

• **Feel the sides of the tanker with your hand.** The tanker surface temperature should feel consistent along the length of the tank. The lower part of the tank, depending on how full the tank is, should be cool, while the tank surface above the liquid level should feel warmer. Any temperature differences along the length of the tank may indicate a false cavity inside the tank. **Note:** This inspection technique is not possible on insulated tankers.

• **Look for proper HAZMAT signage** and a copy of the HAZMAT guide (mandatory in U.S.).
Refrigeration Trailer

- Look at the company insignia and other items applied to or painted on the surface of the vehicle. All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.

- The walls of the trailer are typically constructed using plywood panels held together by rivets and/or screws. Look at the walls for evidence of modifications. Look for possible false walls in the trailer. Items to look for include inconsistent spacing of wall panels; missing rivets or screws; and areas with shiny, damaged, or new looking screw or rivets. In addition, look for misaligned or overlapped seams at the exterior roof/wall intersection and new plywood or other materials in the walls.

- A common hiding technique is to create a false wall in the front of the cargo area. A false wall can be determined by comparing the exterior length of the trailer to the length of the cargo area. Note: Outside the continental U.S., refrigeration trailers have walls and ceilings that may be as much as three to four inches thick.

- Many trailers are constructed with ribs in the walls. Count the number of ribs on the exterior wall of the trailer and compare that to the number of ribs on the wall in the cargo area. An inconsistent count indicates a false wall in the front of the cargo section.

- Another hiding technique is to load the top of the trailer with explosives. Sometimes access to this area is by hinging the roof of the trailer to the wall. Look for signs of hinges at the roof/wall intersection.
• **Look at the floor surface for signs of modifications.** Be suspicious of new or modified floor planks that may cover a hiding area below. Be aware of the normal height of the floor and look for anything unusual. Note: In the U.S., refrigeration trailers have floors of grooved steel. • **Tap on the walls and roof to discover false cavities.** Listen for hollow sounds; the roof and walls are typically made of two walls surrounding insulation and should not sound hollow.

• **If the trailer is hauling a load, check the temperature of the inside of the trailer.** The trailer should have a temperature gauge. The gauge should read between 32° and 55° Fahrenheit (0° and 13° Centigrade).

• **Look for the inspection ports in the floor of the trailer in the front and rear corners (total of four).** The ports are used for draining water or other liquid from the cargo area. If these ports are not visible, they may be covered by a false wall. If they are plugged, look for a modified or false floor.

• **Look on top of tarp.** Part of the refrigeration system is a tarp or cloth sheet hanging from the ceiling to allow cool air to be distributed throughout the cargo area. Look on top of this tarp for any foreign objects.

• **Look at the fuel tank for the refrigeration unit.** Look for any new welds or signs of tampering.
Cargo in a Refrigeration Trailer

- **The cargo should be appropriate for the trailer**, i.e., it should be perishable.
- **Shine a light under the cargo pallets.** You should be able to see all the way to the front wall of the cargo area. If you cannot, then an unusual item or items may be present.
- **Cargo typically consists of a single commodity boxed uniformly.** Therefore, when looking over the top of the cargo, the top surface of the load should be even. If there are dips or packages above the normal cargo level, determine the reason for the non-uniformity. Something could be hidden in this area.
- **Notice where the cargo boxes were purchased.** Companies usually purchase large quantities of boxes with their logos on the side. Be suspicious if the cargo is boxed in “U-Haul” or similarly named boxes, since these boxes are expensive and shipping companies tend to avoid buying them.
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Hot Spots

Inside Tank

Tractor
(refer to Non-Sleeper Day Tractor)

(Note Gauges)

Bumper

Tires

Undercarriage

Storage Areas
Indicators from Inspection of Propane Truck

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

Indicators include:

- Presence of cargo odor
- Absence of discharge hoses
- Inconsistent or hollow sounds when tapping the tanker exterior surfaces
- Exterior surfaces of loaded tanker should exhibit condensation during warm or summerlike temperatures.
- Temperature and pressure gauges read incorrectly [a bona fide empty tanker will register between 70 and 150 psi at an average temperature of 80° F (27° C)]
- Intake and discharge valves show rust, are open, or show signs of fresh paint indicating no recent use

- Inability of the driver to identify point of contact
- Cargo described by the driver does not match manifest
- Lack of proper HAZMAT signage and copy of HAZMAT guide (mandatory in U.S.)
- Inability of driver to operate or describe function of all valves, levers, etc.

**Note: The tank, in most cases, cannot be physically inspected.**

Caution: Do not open either the tank or any discharge valves. Material inside of tank can be extremely dangerous and should be handled with the utmost of care.
Hot Spots

Tractor
(refer to Non-Sleeper Day Tractor)

Storage Areas

Undercarriage

Inside Tank

Tires
Indicators from Inspection of Septic Service Truck

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

Indicators include:

- Cargo odor is not consistent from driver to truck interior to cargo
- Condition of truck interior should reflect condition of cargo area (appearance, odor)
- Appearance of driver should match the vehicle and driver should be appropriately dressed for this type of work
- Indicators of cargo residue on end of transfer hose that runs to tank
- No discharge hoses or apparatus
- Driver not knowledgeable about nomenclature and/or operating the septic tank unit

Caution: Do not open either the tank or any discharge valves.
Hot Spots

- False Ceiling
- Walls
- Cargo
- Doors
- Bumper
- Floors
- Fifth Wheel Area
- Fuel Tanks
- Undercarriage

Tractor
(see Non-Sleeper Day Tractor)
Indicators from Inspection of Semi-Van Trailer/Box Truck/Step Van

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

**Trailer**

- Company insignia is not professionally applied to surface
- Inconsistent spacing of wall panel screws or rivets
- Missing screws or rivets in walls
- Areas with shiny or new-looking screws or rivets
- Misaligned or overlapped seams at the exterior roof/wall intersection
- New plywood or other material in walls
- Outside and inside dimensions (length, height, width) do not match, indicating false walls
- Discrepancies in number of wall ribs of interior and exterior walls
- Hinges or signs of tampering at exterior roof/wall intersection
- New or modified floor planks
- False compartments in roof or walls are found by tapping
- Roof appears too thick

**Cargo**

- Inability to see front of trailer area when light is shined below cargo pallets
- Level of boxed, uniform cargo is not consistent from front to rear
- Generic boxes used for cargo items
- Cargo stacked sloppily
- Damage to top of cargo boxes indicating someone has walked or crawled on top of cargo
- Shipping company labels do not appear on all packages/boxes

Box Trucks
Hot Spots

- Ribs
- Walls
- Cargo Area
- Tractor (see Non-Sleeper Day Tractor)
- Tires
- Undercarriage
Indicators from Inspection of Garbage Truck—Permanent Bed

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

• Odor should be consistent from driver to truck interior to refuse compartment
• False walls
• Driver not knowledgeable about operating the vehicle
• Loaded truck entering the facility (Verify that the truck is empty or find out why truck is partially loaded)
• Search partially loaded truck
• Truck configuration consistent with crew: one man, multiple crew
• Single crew truck has specialized equipment
Hot Spots

- Walls/Ribs
- Tractor (see Non-Sleeper Day Tractor)
- Tires
- Undercarriage
- Storage Areas
Indicators from Inspection of Garbage Truck — Dumpster

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

• When tapping on ribs, sounds inconsistent with apparent cargo level
• Loaded dumpster entering the facility (verify that the dumpster is empty or find out why it is partially loaded)
• Search contents of partially loaded dumpsters
• Tarp extended and the driver indicates that the dumpster is empty
Hot Spots

Tractor
(see Non-Sleeper Day Tractor)

Walls
Cargo Area

Ribs

Undercarriage

Tires

Storage Areas
Indicators from Inspection of Dump Truck

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

- Probing of cargo indicates the presence of a foreign object
- Company logo on bed or doors is not professionally applied
- Inability of the driver to identify point of contact
- Cargo described by the driver does not match manifest
- Tarp extended and the driver indicates that the dumpster is empty
Hot Spots

Tractor
(see Non-Sleeper Day Tractor)

Air and Water Tanks

Drum

Undercarriage

Tires
Indicators from Inspection of Concrete Truck/Mixer

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

- The payload is not concrete (visual inspection)
- Foreign object/item is in concrete or in mixer
- Mixer drum not turning
- Driver does not know how to turn drum or indicates that the drum does not work
- Inability of driver to identify point of contact
- Vehicle accessories, water hose, chutes, etc., are not consistent in condition and appearance with truck body
Detailed Inspection of Large Utility Trucks

**Propane Truck**

• Look for the presence of discharge hoses. If none are present, find out how the propane is to be delivered. A lack of discharge hoses may indicate the lack of propane in the tank and that the truck has an alternative mission.

• Tap along the surface of the tank with a wooden hammer. The sounds should be consistent along the length of the tank. Any difference in sounds may indicate a false cavity in the tank.

• Feel the exterior surfaces of the tank with your hand. If loaded, the tank should feel cool. The tank surface should have condensation on the outside walls during summer weather. Condensation indicates the tank surface temperature is 60° to 68° Fahrenheit (15.5° to 20° Centigrade) at 100 to 102 pounds per square inch of pressure.

• Check the discharge valves for signs of rust, corrosion, or fresh paint. This could indicate the lack of recent use. Also check that the valves are closed.

• Look at the company insignia and other items applied to or painted on the surface of the tank. All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.

• Look for proper HAZMAT signage and a copy of the HAZMAT guide (mandatory in U.S.).
Septic Service Truck

- Ensure that the vehicle has discharge hoses and other supporting apparatus. If there are none, find out why.
- Transfer hose should have residue on ends.
- Have the driver or operator explain how the truck operates and how valves and controls function. Lack of knowledge necessitates further investigation.
- Look at the company insignia and other items applied to or painted on the surface of the tank. All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.
- Look for proper HAZMAT signage and a copy of the HAZMAT guide (mandatory in U.S.).
Semi-Van Trailer/Straight Box Truck/Step Van

Trailer

• Look at the company insignia and other items applied to or painted on the surface of the vehicle. All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.

• Look at the walls for evidence of modifications. The walls of the trailer are typically constructed using plywood panels held together by rivets and/or screws. Look for possible false walls in the trailer. Items to look for include inconsistent spacing of wall panels; missing rivets or screws; and areas with shiny, damaged, or new looking screw or rivets. In addition, look for misaligned or overlapped seams at the exterior roof/wall intersection and new plywood or other materials in the walls. A false wall can be determined by comparing the exterior length of the trailer to the length of the cargo area.

• Many trailers are constructed with ribs in the walls. Count the number of ribs on the exterior wall of the trailer and compare that number to the number of ribs on the wall in the cargo area. An inconsistent count indicates a false wall in the front of the cargo section.

• Another hiding technique is to load the top of the trailer with explosives. Sometimes access to this area is by hinging the roof of the trailer to the wall.

• Look for hinges or signs of tampering where the roof and side walls meet.

• Look at the floor surface for signs of modifications. Be suspicious of new or modified floor planks that may cover a hiding area below. Be aware of the normal height of the floor and look for anything unusual.
• Tap on the walls and roof to discover false cavities. Listen for hollow sounds since the roof and walls are typically made of single layered materials and should not sound hollow.

Cargo in a Trailer

• Shine a light under the cargo pallets. You should be able to see all the way to the front wall of the cargo area. If you cannot, then an unusual item or items may be present, or the floor may have been modified. Determine the cause.

• Cargo typically consists of a single commodity boxed uniformly. Therefore, when looking over the top of the cargo, the top surface of the load should be even. If there are dips or packages above the normal cargo level, determine the reason for the non-uniformity. Something could be hidden in this area.

• Notice where the cargo boxes were purchased. Companies usually purchase large quantities of boxes with their logos on the side for economic reasons. Be suspicious if the cargo is boxed in “U-Haul” or similarly named boxes, because these boxes are expensive, and shipping companies are unlikely to use them.

• Observe the way the cargo is stacked. It should be neatly stacked on pallets so it can be handled easily. A sloppily stacked cargo or a cargo of many different items could mean lack of interest in the safety of the cargo, possibly indicating that it is there strictly for appearance or diversionary reasons.
• **Look over the top surface of the cargo.** Look for any signs that someone has walked on top of the cargo. No one should be walking on the cargo after it is loaded.

• **Notice the shipping labels on packages hauled by the popular shippers.** Most, if not all, of the packages and boxes in the cargo area should have the shipper’s name clearly on them.

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**Permanent Bed Garbage Truck**

• **Have the driver or operator explain how the truck operates** and how valves and controls function. Lack of knowledge necessitates further investigation.

• **Look at the walls of the bed for indications of false walls.** Look for new welds and new or modified sheet metal.
Dumpster Garbage Truck

• The driver and number of occupants (i.e., crew size) should match the configuration of the dumpster. Some dumpsters are configured to support a one-man crew.
• Tap on the ribs of the dumpster with a wooden mallet. Listen for non-hollow or solid sounds indicating that something may be inside the ribs.
• Look for new welds, new sheet metal, or other signs of modifications.
• Visually inspect under tarp. Anytime the tarp is extended it may be intended to hide something.

When entering the facility, the dumpster should be empty. Verify that it is. If it is not, ask the driver to explain why. A full or partially loaded dumpster can easily hide large quantities of explosives.
Dump Trucks

- **Look closely at the tailgate and bed.** Look for poor quality welds and signs of tampering or modifications to the sides of the bed and the tailgate.

- **With a wooden rod, probe into the cargo material.** Feel for any foreign objects hidden inside. Typically, foreign objects will be on the bed surface or between layers of cargo material.

- **Look at the company insignia and other items applied to or painted on the surface of the vehicle.** All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.

- **Visually inspect under tarp.** Anytime the tarp is extended it may be intended to hide something.
Concrete Trucks/Mixers

- When the truck enters the facility, it should be loaded; therefore, the drum should be turning. If it is not loaded, or if the drum is not turning, find out why.
- Look into the drum and ensure that the load is concrete.
- Look for any foreign objects in the concrete or attached to the inside of the drum.
- Have the driver/operator demonstrate how to control the drum or some other simple function on the truck. Lack of knowledge necessitates further investigation.
- Look for chutes, hoses, and other accessories, such as water in the wash/rinse tank.
- Look at the company insignia and other items applied to or painted on the surface of the drum. All items should be professionally applied. Be suspicious if the company logo and other supporting information is painted or applied poorly.

These trucks are common if construction is occurring at a facility. When concrete trucks enter the facility, they should be loaded and the drum should be turning.

The concrete truck is basically a tractor with a large steel drum. Most of the inspections are similar to those of a semi-truck tractor.
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Hot Spots

- False Ceiling
- Seats
- Engine Compartment
- Bumpers
- Tires
- Undercarriage
- Floor
- Walls
- Rear Door
Indicators from Inspection of School Buses

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

• Lumps or bulges in seats
• Missing screws or rivets on exterior surfaces
• Inconsistent sounds result when tapping on walls
• Unusually thick ceiling/roof
• Nonhydraulic or emergency door feels heavy during opening and closing
• Floor surface material appears to have been modified or repaired
• Floor appears unusually thick or to be higher than normal
• Damaged upholstery
• Anything unusual in baggage/storage areas

For general inspection, see Inspection of Tractor/Trailer Undercarriage (pp. 54-55).
Hot Spots

**EXTERIOR**
- False Ceiling
- Seats
- Rear Door
- Walls
- Floor
- Undercarriage
- Tires
- Bumpers

**INTERIOR**
- Baggage/Storage Areas
- Engine Compartment
- Damaged Upholstery
- Modified Floor Surface
- Bulge in Seat
Indicators from Inspection of Commercial Buses

Focus heavily on the interview and carefully review documents such as insurance card, bill of lading, medical card, logbook, and driver’s license when inspecting this vehicle.

- Lumps or bulges in seats
- Missing screws or rivets on exterior surfaces
- Inconsistent sounds result when tapping on walls
- Unusually thick ceiling/roof
- Nonhydraulic or emergency door feels heavy during opening and closing
- Floor surface material appears to have been modified or repaired
- Floor appears unusually thick or to be higher than normal
- Damaged upholstery
- Anything unusual in baggage/storage areas
- False center divider (wall) within undercarriage storage areas
Detailed Inspection of Buses

School Buses

• **Look for unusual lumps or bulges in the seats.** The lumps or bulges could contain explosives.

• **Look for damaged upholstery** where something could have been inserted.

• **Tap along the interior and/or exterior bus walls with your hand or a wooden or rubber hammer.** The sounds should be consistent along the length of the bus. The taps should mostly yield a hollow sound. Any difference in sounds along the walls may indicate a possible hidden device.

• **Look on the exterior sheet metal for missing rivets or screws.** Missing rivets or screws may indicate that the sheet metal has been removed, possibly to insert a device.

• **Check the ceiling for anything unusual.** Be especially aware of the possibility of an overly thick roof. Tap on the ceiling for hollow sounds indicating a false roof.

• **Have the driver open the rear door.** Swing the door. If the door feels heavy, look for signs of tampering. A heavy door indicates that something may be concealed inside.

• **Look at the floor.** Know what the normal floor looks like and check for an overly thick floor or for repairs and modifications. The driver should be able to explain repairs.
Commercial Buses

- **Look for unusual lumps or bulges in the seats.** The lumps or bulges could contain explosives.
- **Look for damaged upholstery** where something could have been inserted.
- **Tap along the interior and/or exterior bus walls with your hand or a wooden or rubber hammer.** The sounds should be consistent along the length of the bus. The taps should mostly yield a hollow sound. Any difference in sounds along the walls may indicate a hidden device.
- **Look on the exterior sheet metal for missing rivets or screws.** Missing rivets or screws may indicate that the sheet metal has been removed, possibly to insert a device.
- **Check the ceiling for anything unusual.** Be especially aware of the possibility of an overly thick roof. Tap on the ceiling for hollow sounds indicating a false roof.

- **Have the driver open the rear door.** Swing the door. If the door feels heavy, look for signs of tampering. A heavy door indicates that something may be concealed inside.
- **Look at the floor.** Know what the normal floor looks like and check for an overly thick floor or for repairs and modifications. The driver should be able to explain repairs.
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Hot Spots

- Heating/AC Vents
- False Ceiling
- Cabinets
- Appliances
- Closets
- Seats and Mattresses
- Dashboard
- Doors
- Storage Areas
- Undercarriage
- Floors
- Walls
- Water/Sewage Tanks
- Sleep Areas

[Diagram of a camper/motor home with numbered points indicating various areas and hot spots.]
Indicators from Inspection of Camper/Motor Home

Focus heavily on the interview and carefully review documents such as insurance card and driver’s license when inspecting this vehicle.

**Interior**
- Lumps or bulges in bench covers
- Inconsistent sounds in walls when tapped
- Inconsistent thickness of flooring, walls, and roof
- Inconsistencies of age of interior components
- False areas in storage compartments
- False walls in cabinets
- Dashboard
  - New, damaged, or scratched screws
  - Plugged air vents
  - False compartment in glove box
- Lumps or bulges in seats and mattresses
- Rips, bulges, or repairs in roof liner
- Doors feel heavy when opened and closed
- Packages and devices that look out of place
- Stress cracks in windshield indicating previous removal
- Plugged or nonworking heater/air conditioning vents
- Modified speaker cavities
- Interior strangely clean or dirty
- Caulk, glue, or another strange odor
- Unusual items in under-mattress compartments

**Exterior**
- Original equipment, such as propane tanks for cooking, is missing
- Evidence of tampering
Hot Spots

- Storage Areas
- Between Inner and Outer Hulls
- Trailer Frame
- Fuel Tanks
- Tires
- Live Wells
Indicators from Inspection of Boats and Boat Trailers

Focus heavily on the interview and carefully review documents such as insurance card and driver’s license when inspecting this vehicle.

- Anything unusual in the storage compartments
- Anything unusual in the living quarters
- Unusual welds or repairs to trailer
- Fresh bodywork (fresh fiber-glassing, fresh paint, etc.)
- Anything in factory-built compartments
- New or shiny bolts and/or screws
- Signs of tampering, such as broken parts or damaged fiberglass
- Areas and components cleaner or dirtier than surrounding areas
- New caulking found by smell or touch
- Unusual scratches, possibly made by screw-drivers, wrenches, or similar tools
- Unusual items attached to trailer frame

- Signs of modifications or repairs (ask driver about details of repairs)
- Unusual bumps or bulges in the seat cushions and backs
- Unusual shapes or weights of life vests and buoyancy rings
- Anything unusual around engine or in engine compartment
- Unusually clean or new-looking wiring
- Anything unusual about the tires, wheels, or lug nuts
Detailed Inspection of Recreational Vehicles

- **Look in the stove and refrigerator cavities** for unusual items. Be aware of unusual wires that could be connected to a detonator.
- **Check the bench covers and pillows** for lumps or bulges.
- **Tap on the walls with your hand or a wooden hammer.** The walls should sound hollow because of the construction of the vehicle. Be suspicious of any solid or inconsistent sounds.
- **Look for any inconsistencies in the thickness of the walls, ceiling, and floor.** These areas can be modified easily to create false compartments and other holding areas. Be especially aware of inconsistencies in storage areas, closets, and cabinets.
- **Notice the age of the interior components.** All components should be approximately the same age. Be suspicious of new hardware. It could be loaded with explosives.

- **Look closely at the dash for new, damaged, or scratched screws.** Behind the dash is a factory-built cavity. To get access, the dash has to be removed. Removing and reinserting the screws can cause damage. A smuggler may decide to use new screws instead of reinstalling the old/damaged ones.
- **Looked for plugged vents on the dash.** The vents are a primary location for hiding.
- **Look at the glove box.** Be suspicious of any glove box that looks small or shallow. A false compartment could be present.
• **Look for bits of electrical tape, wire, stripped insulation, string, fine wire, fishing line, or time fuse on the floor, dash, or seats.** All of these materials are commonly found in explosive devices.

• **Look for unusual lumps or bulges in the seats.** The lumps or bulges could contain explosives.

• **Check the roof liner for bulges, rips, or repairs.** These could indicate possible concealment of an explosive device or explosive materials.

• **Have the driver open the rear door.** Swing the door. If the door feels heavy, look for signs of tampering. A heavy door indicates that something is concealed inside.

• **Look for packages, containers, bags, and devices that look out of place.** An explosive device will not necessarily be hidden in the vehicle. A cardboard box on the seat, in the sleeper, or under the seat may hold the device you are looking for.

• **Use your sense of smell inside the vehicle.** Be aware of the smell of caulking, glue, or any other unusual materials. Caulking, glue, and some other materials indicate that something has recently been modified or repaired. The driver should be able to identify any recent repairs.

• **Check the windshield for stress cracks.** A stress crack can be identified by the absence of an impact crater. A stress crack may indicate that the windshield was removed. When the windshield is removed, access can be gained to the area below the top of the dash, which can be used as a hiding area. Look closely at the dash area for indications of something hidden.

• **Look at the heater/air conditioning vents throughout the living areas.** The vents should not be blocked. If they are blocked, find out why.

• **Notice whether the interior is unusually clean or dirty.** A clean interior may indicate recent activities are attempting to hide something. A dirty interior may indicate that the vehicle has not been used recently.
Take a moment to observe everything within view. Pay close attention to packages/devices (e.g., alarm clocks, iron or PVC pipe) that look out of place.

- **Tap on the exterior surfaces of the boat.** Boats are typically constructed with an inner and outer hull. The spaces between these hulls are primary areas to hide items. When tapping, you should hear a hollow sound. If you hear a thud, then something may be hidden in that area.
- **Look for anything in factory-built compartments.** All boats are built with compartments that can be excellent areas for hiding items.

- **Determine whether the proper safety equipment is present.** Safety equipment should always include life preservers. The lack of safety equipment could mean that the boat is not intended for use on water.
- **Licensing.** In most areas of the United States, recreational boats must be licensed and must display the license number and licensing state on the outside of the boat.
- **Look for new or shiny bolts and/or screws.** New or shiny bolts and/or screws indicate that something in that area has been altered, modified, or moved. The shiny bolts or screws indicate that the bolts or screws are new, whereas a scratched bolt or screw indicates removal and reinsertion.
- **Look for unusual scratches or other signs of tampering.** Unusual scratches or other signs of tampering indicate that the area may have been modified, and the repair or replacement was sloppy. Look at the fiberglass for scratches and small dents.
• **Be aware of clean or new wiring**, which can be connected directly to a detonator device. The owner should be able to explain why new or clean components are in the boat.

• **Inspect spools or remnants of electrical wire, tape, or similar items.** These materials are widely used in making vehicle bombs and may indicate that some type of device was constructed in the vehicle.

• **New or broken welds on the trailer or on metal boats.** A common technique in hiding items in “deep concealment” is to cover them with metal welded to the vehicle. Sometimes, existing welds are broken and rewelded to hide devices.

• **Be aware of unusual dirty or greasy fingerprints.** Residue from a dirty hand or a smudge left on an excessively dirty area can indicate tampering.

• **Trailer light wiring.** Wiring for the lights can be used to connect an electrical source to a detonator.

• **Pay particular attention to fresh bodywork and fresh paint.** A close inspection of the body will reveal new bodywork. Devices can be hidden by creating false compartments in a section of the body, which are then covered with fiberglass, paint, etc.

• **Seat cushions** and backs of seats for unusual bumps or bulges. If bumps or bulges are present, find out why.

• **Look at the floor for anything that appears to be modified.** Remove floor mats if necessary. Typically, if anything is hidden in the floor, the floor will appear overly thick. Look for fresh welds or seams.

• **Look for packages, containers, travel bags, and devices that seem out of place.** An explosive device may be hidden in a cardboard box on or under the seat.

• **Use your sense of smell.** Be aware of the smell of caulking, glue, or any other unusual materials, which may indicate that something recently has been modified or repaired. The driver should be able to identify recent repairs.

• **Tap on the tires.** The tires should have a hollow or ringing sound. Any tire that sounds solid or does not sound hollow should be considered suspicious.
• **Unusually clean or dirty lug nuts.** Clean lug nuts indicate that the tires have been off the vehicle recently. Unusually dirty lug nuts indicate that someone may be attempting to hide a recent removal of the tire.

• **Look for possible indicators that the driver has been doing surveillance work.** Items like cameras, video recorders, maps, or diagrams of buildings, and terrorist-related propaganda or “how to” manuals.
Reference Information

This reference section provides detailed information about the following:

- **Examples of concealments** found in a variety of vehicles. Although these concealments did not necessarily involve explosives or explosive devices, the smuggling techniques you encounter will probably be similar.
- **Information on explosives**, including improvised explosive devices and background information on their use.

The bomb threat stand-off card is provided in the Supplemental Information section.
Reference

Example Concealments

Hidden Compartment in Side Panel of Vehicle

False Bottom in Fuel Tank

Concealment in Left Wall of Panel Van
False Wall in Closet of Mobile Home/Camper

Concealment under Bed of Pickup Truck

Concealment in Tires

Example Concealments
Example Concealments

View of a Tank within the Fuel Tank on a Tractor Truck

Concealment in Back Rest of Rear Passenger Seat
Example Concealments

False Compartments in Trailer Roof

False Compartment in Dashboard of Van
Explosive Materials/Devices

Explosives

An explosive is a material that, when initiated, combusts nearly instantaneously, thereby producing a violent, shattering effect. Explosives are typically classified as commercial/military or homemade.

Military explosives are generally more powerful than commercial explosives. The explosive components are usually TNT, RDX, and PETN based and can be combined with each other or with other materials to produce explosive mixtures, such as composition C-4, to yield the desired results.

Improvised Explosive Device

An improvised explosive device (IED) is a device fabricated in an improvised manner incorporating explosives and designed to destroy or incapacitate personnel, vehicles, or other assets. IEDs may incorporate military or commercially sourced explosives, and often combine both types, or they may otherwise be made with home-made explosives (HME).

An IED is typically made of four basic parts usually housed in some type of container. An easy technique to recall the four basic parts is to use the word “PIES.”

- **Power Supply**
- **Initiator (Detonator)**
- **Explosive (Main Charge, potentially assisted by a booster charge)**
- **Switch (Sensor/Timer)**

IEDs are extremely diverse in design, and may contain many types of initiators, detonators, and explosive loads. In some cases, IEDs also contain metal objects such as nails, screws, or other rigid materials that produce fragmentation to increase the lethality of the device. IEDs are triggered by various methods, including remote control, infra-red or magnetic triggers, pressure-sensitive bars, and trip wires.

All explosive devices will have a triggering sequence, also called an explosive train, which is a sequence of energetic devices or materials that culminates in the initiation or detonation of the main explosive charge.
The basic high-explosive train consists of the primary explosives in the initiator or detonator, the booster (sometimes not used depending on the main charge material), and the main (burster) charge. However, explosive trains are often compounded by the addition of intermediate charges for time delays depending on the materials used and the purpose of the device.

**Power Supply**

An electric firing device requires a current to pass between two contacts. The ways in which this can be achieved are unlimited. In most cases, the power source will be a battery. For a vehicle-borne IED (VBIED), a source of electrical power would be the vehicle battery; the presence of unusual wires on the battery would be an indicator for a potential IED. The life of a battery-powered IED is typically limited to the life of the battery.

**Initiators (Detonators)**

Initiators (detonators) are used to initiate high explosives. They typically contain small quantities of multiple extremely sensitive initiating explosives. Initiators are also classified according to the method of initiation, usually electric or non-electric.

Detonators are typically thin tubes of aluminum or copper, although they also can be made of cardboard or paper. Detonators may be initiated either non-electrically by shock tube or fuse, or electrically, such as by a battery. Non-electrical detonators are open on one end to insert a fuse or piece of detonating cord, while electrical detonators are also sensitive to static electricity and RF inductance.

Non-electrical detonators are instantaneous; electrical detonators may incorporate a delay element based on a time period, seismic activity, or an electronic signal.
A wide variety of detonators is commercially available, and they come in many sizes.

The detonator tube is usually marked with a high explosive statement, and some manufacturers will place their company logo on it as well.

Detonators are used to set off other, less sensitive explosives. They may be initiated electrically (top and bottom) or non-electrically (such as shock tube, center). The color of the wire legs on electrically initiated detonators varies widely.

**Electric Match**

An electric match (or “squib”) is a metal wire coated with a pyrotechnic mixture designed to produce a small burst of flame, which initiates a low or primary explosive. The pyrotechnic mixture can be black powder and 25 percent nitrocellulose lacquer, a nonpyrotechnic substance, or a variety of other formulations.

**Detonating Cord**

Detonating cord, also called detonation cord, detacord, det. cord, detcord, primer cord, primacord or cordtex, is a thin, flexible tube with an explosive core. It is a high-speed fuse which explodes, rather than burns, and is suitable for detonating high explosives. The velocity of detonation is sufficient to use it for synchronizing multiple charges to detonate almost simultaneously.

Typical uses include mining, drilling, and demolition.
While it looks like nylon cord, the core is a compressed powdered explosive, usually PETN (Pentrite), and it is initiated by the use of a blasting cap. Detonation cord will initiate most commercial high explosives (dynamite, gelignite, sensitized gels, etc.) but will not initiate less sensitive blasting agents like ANFO on its own. For example, 25 to 50 grain/foot (5.3 to 10.6 g/m) det. cord has approximately the same initiation power as a blasting cap, but along its entire length. A small charge of PETN, TNT, or other explosive booster is required to bridge between the cord and a charge of insensitive blasting agent like ANFO or most water gels.

Black Powder

Black powder is one of the oldest explosives known. It is a mixture of finely pulverized potassium nitrate or sodium nitrate along with charcoal and sulfur. The black powder mixture ranges in color from coal black to gray black to cocoa brown. It comes in various forms, ranging from a very fine powder to granules over 1/2-inch in diameter. Black powder is glazed with graphite, which reduces the sliding friction of each grain and imparts a shiny black grain appearance. Sensitivity to friction, heat, impact, and sparks make black powder one of the most dangerous explosives to handle. Even its own grains rubbing against each other have been known to cause accidental ignition. It is particularly sensitive to both electric and non-electric generated sparks and should, therefore, be handled with wooden or plastic tools.

Black powder can absorb water and is subject to rapid deterioration when exposed to moisture. If kept dry, it retains its explosive properties indefinitely.
Composition 4 (C-4)

C-4 is a military explosive made up of an explosive (RDX) and additives, which make it putty-like for easy molding. C-4 is white to dull gray, and has a very faint, sweet smell. C-4 is used in the U.S. military M112 demolition charge. In these charges, the C-4 is typically white and packed in an olive drab Mylar film bag: although, in earlier version of the M112 includes a pressure-sensitive adhesive tape on one surface, protected by a peelable paper cover. The flexibility of C-4 allows it to be formed by hand and easily applied to irregular surfaces. It also has a high detonation velocity and is well-suited for cutting steel and breaching concrete.
Dynamite

Dynamite is a commercial explosive made from nitroglycerin absorbed into a porous material and wrapped in wax-covered paper, cardboard, or plastic film. Dynamite is shaped like a tube and comes in a wide variety of diameters. The outer wrapper color also varies from manufacturer to manufacturer. The nitroglycerin content in dynamite, which can vary from 5 to 90 percent, causes it to have a strong, sweet smell and will cause an immediate headache or dizziness if inhaled. All dynamite can detonate with blasting caps (electric and non-electric) or detonating cord.

Straight dynamite has a loose, slightly moist, oily consistency similar to a mixture of sawdust, clay, and oil. It is light tan to reddish-brown in color. Ammonia dynamite has a pulpy, granular, slightly moist, oily texture and is light tan to light brown. Gelatin dynamite is a water-resistant gel made by dissolving nitrocotton with nitroglycerin and varies from a thick viscous liquid to a tough rubbery substance. Ammonia gelatin dynamite is a version that derives a portion of its strength from ammonium nitrate.

Commercial dynamite is commonly used in construction, mining, and quarrying operations. Its diameter varies widely according to the user’s needs, and the outer wrapper may be any color.
Nitrocellulose

Nitrocellulose is a highly flammable compound formed by exposing cellulose to nitric acid. Nitrocellulose is usually called nitrocotton or guncotton. It is more stable than black powder, and it produces a much greater volume of hot gas. It also burns much faster than black powder when it is in a confined space.

Nitrocellulose is extremely flammable. It explodes when initiated and is used to manufacture blasting explosives, smokeless powders, and propellants. It is a white, slightly absorbent fiber extruded and cut into particles. It mixes with nitroguanidine to form flashless powder. Dry nitrocellulose is very sensitive to impact, friction, heat, and spark.

Nitrocellulose or gun cotton is very sensitive to impact, friction, heat, and spark.

Nitroglycerin

Nitroglycerin is an extremely powerful and shock-sensitive high explosive. Pure nitroglycerin is a heavy liquid that is clear and has the consistency of motor oil. The commercial product is usually a yellowish to brownish liquid. On combustion, nitroglycerin forms toxic fumes. Nitroglycerin can be absorbed into the body through inhalation or contact with the skin, causing dizziness or headaches. It is one of the most important and most frequently used components of explosive materials. Nitromethane and methyl nitrate are liquid compounds very similar to nitroglycerin in that they are both explosive clear liquids. Methyl nitrate is highly volatile, and its vapors are both flammable and explosive, and produce headaches.

Nitromethane is a solvent rather than an explosive. It is shock and heat sensitive, is thermally unstable, and reacts violently with a broad range of materials. Its vapors are both flammable and explosive and produce headaches. Nitromethane is used as a fuel additive for race cars and is of interest as a liquid fuel for rockets.
Potassium Chlorate and Petroleum Jelly

Plastic explosive filler can be made from potassium chlorate and petroleum jelly. The potassium chlorate crystals are ground into a very fine powder and then mixed with the petroleum jelly. The compound is white. It may be reddish purple if the potassium chlorate is from match stick heads that contain dyes.

Nitroglycerin is one of the most important and frequently used components of explosive materials. The commercial product is usually a yellowish to brownish liquid.

Nitroglycerin is one of the most important and frequently used components of explosive materials. The commercial product is usually a yellowish to brownish liquid.

Sample of potassium chlorate and petroleum jelly prepared as an explosive filler. If match stick heads containing dyes are used as the source of potassium chlorate, the compound may be reddish purple.
Semtex

Semtex is the trade name of a plastic explosive made in the Czech Republic. It is made of two explosives, RDX and PETN, and an additive to make it flexible. Semtex varies in color from translucent yellow to orange-brown to black; and it is practically odorless, although the waxed paper wrappers may have a waxy smell. The appearance of Semtex may vary from a glossy soft wax to grainy putty with a slight sheen. By itself, Semtex is relatively harmless and can be handled easily. A blasting cap or detonating cord is required to initiate it. Semtex has a shelf life of approximately 10 years, after which it starts to lose flexibility and may become crumbly or hard.

Sheet Explosive (Primasheet™)

Primasheet, sometimes called Detasheet, is a flexible, waterproof explosive made of PETN and a rubber-like material to make it flexible. It is generally formed into sheets of various thicknesses, which can then be cut into any size and shape. The flexibility of sheet explosives allows them to be easily applied to irregular surfaces, and they are designed to be used as cutting, breaching, or cratering charges (especially against steel targets). sheets of various thicknesses, which can then be cut into any size and shape. The flexibility of sheet explosives allows them to be easily applied to irregular surfaces, and they are designed to be used as cutting, breaching, or cratering charges (especially against steel targets).

Compared to C-4, “fresher” Semtex will feel more oily and sticky. Samples shown above are 1-kilogram blocks of Semtex-H.

Sheet explosive varies in thickness depending on the number of grains of explosive per square centimeter. The thin C-1 sheet (left) has less explosive per square centimeter than the thicker C-6 sheet (right). Both are extremely flexible and can be easily shaped to fit most surfaces.
**Smokeless Powder**

Smokeless powders are made in three forms: thin circular flakes or wafers; small cylinders; and small spheres. The color may range from light brown to gray green to black. All smokeless powders are extremely flammable. By design they are intended to burn rapidly and vigorously when ignited, and they do not require oxygen from the air to burn. Unconfined smokeless powder burns with little or no ash or smoke; and, when confined, its rate of burning increases with temperature and pressure. For this reason it is frequently used in the construction of pipe bombs.

Smokeless powder manufactured for use in small arms ammunition is usually glazed with graphite to prevent the accumulation of static electricity. Many of these powders are sensitive to friction, so caution should be observed when handling them.

Smokeless powder is extremely flammable and designed to burn rapidly and vigorously when ignited. It does not require oxygen from the air to burn, and its rate of burning increases with temperature and pressure when confined. For these reasons, smokeless powder is frequently used in the construction of pipe bombs.
TNT (Trinitrotoluene)

TNT is the most common explosive for blasting charges and for military weapons. It is pale yellow to light brown, although recent manufacturing processes may include graphite, resulting in a gray color. Exposure to oxygen and sunlight or ultraviolet light may cause discoloration of TNT, as well as a decrease in stability against impact.

In its basic form, TNT may look like flakes or crystals. Because it is very stable, it can also be melted and formed into any shape. TNT has no obvious smell and is used as a component in many other explosives.
Homemade Explosives

Homemade explosives can be liquid, powder, or granules and can be made using commonly available chemicals and equipment.

- **Ammonium Nitrate Mixtures**
- **Black Powder**
- **Chlorate/Perchlorate Mixtures**
- **Pyrotechnics**

- **EGDN or NG**
- **Pure HMTD**
- **HP and Nitromethane or Ethanol**
- **MEKP**
- **TATP**
- **Urea Nitrate**
This page may help direct you to information that might be useful in the following situations.

If you notice………
• Predominantly dry chemical components
• More granular than powdery product
• Grinding equipment (but not necessary)
• Simplistic safety equipment (gloves, dust masks, etc.)

Then you might review the information on…
• Ammonium Nitrate Mixtures
• Black Powder
• Chlorate/Perchlorate Mixtures

If you notice ………
• Liquid and some dry chemical components
• Finer, more powdery than granular product
• Pyrex, mason jars, or scientific glassware
• Filters (paper, cloth, etc.)
• Ice water baths

Explosive Materials/Devices

• Safety eye and respiratory protection
• Acid-resistant skin protection

Then you might review the information on…
• Hydrogen Peroxide Mixtures
• TATP
• HMTD
• Urea Nitrate

If you notice ………
• Predominantly liquid chemical components
• Liquid product
• Pyrex, mason jars, or scientific glassware
• Safety eye and respiratory protection
• Acid-resistant skin protection

Then you might review the information on…
• MEKP
• EGDN/NG Mixtures
• Hydrogen Peroxide Mixtures (some)
ANFO

ANFO is widely used for mining and is made by mixing ammonium nitrate and a fuel oil, such as diesel fuel. Ammonium nitrate by itself is white or off-white, although some manufacturers add dyes to produce yellow, pink, or blue colors. It is similar in shape to lawn fertilizer, and it is often packaged in some form of waterproof container since ammonium nitrate loses power and sensitivity with increased moisture content.

Ammonium nitrate has no smell, but it will smell like diesel fuel when mixed with the fuel oil used to create ANFO. A few variations of ANFO include combining ammonium nitrate with sugar (AND), nitromethane, or sulfur. ANS explosive looks like crushed ANFO, but will have no smell. Ammonium nitrate with nitromethane looks similar to ANFO, but has a noticeable smell of sweet plums and diesel fuel.

Ammonium nitrate may vary in color from white to off-white, depending on where it was manufactured. The samples in the top photo are from (left to right) Russia, Egypt, and Lithuania.

Ammonium nitrate is shaped like balls (prills) similar to fertilizer, as shown in the bottom photo. It has no odor, but will smell like diesel fuel when mixed with fuel oil.
Black Powder

Key Identifiers
- Powder or granules
- Gray, black
- Faint, indistinct odor
- Sulfur odor (rotten eggs) when burned
- Other names: Gunpowder

Hazards
- Sensitive to impact, friction, static spark, and heat
Chlorate/Perchlorate Mixtures

Key Identifiers

- All mixtures are odorless
- Flash Powders:
  - Powder or granules
  - Silvery, gray
  - Other names: Pyrotechnic Powders
- Poor Man’s C4:
  - Putty-like, solid or clumps
  - White
- Armstrong’s Mix:
  - Powder
  - Red

Hazards

- Extremely sensitive to impact, friction, static spark, and heat

Flash Powder

Poor Man’s C4

Armstrong’s Mix
Ethylene Glycol Dinitrate/Nitroglycerin (EGDN/NG Mixtures)

Key Identifiers

- Oily, viscous liquid
- Colorless to dark yellow
- Odorless
- Other names for EGDN: Nitroglycol, Dinitroglycol, Glycol Dinitrate, Ethylene Dinitrate
- Other names for NG: Trinitroglycerine, Glyceral Trinitrate

Hazards

- Extremely sensitive to impact, friction, static spark, and heat
- Inhalation may cause headaches, dizziness, chest pain, and low blood pressure
Hexamethylene Triperoxide Diamine (HMTD)

Key Identifiers

- Crystals or powder
- Colorless to white
- Dullness like flour
- Solids settled at bottom and floating on top of a liquid-filled container
- Consistency of confectioner’s sugar in dry state or pure form
- Can smell like dead fish
- Fresh product may have little or no odor
- Additives can alter the physical appearance
- Precursor colors will affect HMTD color
- May be stored in refrigerator or freezer

Hazards

- Contact with metals may produce dangerous chemical reactions
- Extremely sensitive to impact, friction, static spark, and heat
Hydrogen Peroxide (HP) Mixtures

Key Identifiers
- Liquid or semiliquid gel
- Color varies with additives
- Slightly pungent, caustic odor (generally)
- Odor similar to chemical component

Hazards
- Large quantities can self-heat and ignite if in sunlight or elevated room temperatures
- Extremely sensitive to impact, friction, static spark, and heat

Explosive Materials/Devices
Methyl Ethyl Ketone Peroxide (MEKP)

Key Identifiers

- Liquid
- Clear, colorless
- Agreeable odor
- Other names: Luberisol DDM

Hazards

- Extremely sensitive to impact, friction, static spark, and heat
- Contact with sulfuric acid may produce dangerous chemical reactions
Triacetone Triperoxide (TATP)

Key Identifiers
- Crystals or powder
- Sugar-like appearance
- Colorless or white
- Solid TATP settles to the bottom of a liquid-filled container
- Additives can alter the physical appearance and color
- Fruity smell, like acetone but gentler
- Old TATP smells very acrid, like vinegar
- Evaporates in an open container
- If stored in a closed jar, glass may look frosted
- May be stored in a refrigerator or freezer
- Other names: Acetone Peroxide, Mother of Satan

Hazards
- Extremely sensitive to impact, friction, static spark, and heat
**Urea Nitrate**

Key Identifiers
- Crystals
- Colorless to off-white
- Solids settled to the bottom of a liquid-filled container
- Additives can alter the physical appearance
- Odorless
- Other names: Acidogen Nitrate

Hazards
- Sensitive to impact, friction, static spark, and heat
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The materials provided in this section of the Vehicle Inspection Guide include

- Bomb Threat Stand-off Card
- Department of Transportation Hazardous Materials
- National Fire Protection Association (NFPA) Labels

Note: For more information on hazardous materials and initial emergency response related to those materials, see the latest DOT Emergency Response Guidebook.
**Bomb Threat Stand-off Card**

<table>
<thead>
<tr>
<th>Threat Description</th>
<th>Explosives Capacity</th>
<th>Mandatory Evacuation Distance</th>
<th>Shelter-in-Place Zone</th>
<th>Preferred Evacuation Distance</th>
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</thead>
<tbody>
<tr>
<td>Pipe Bomb</td>
<td>5 lbs</td>
<td>70 ft</td>
<td>71-1199 ft</td>
<td>+1200 ft</td>
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<tr>
<td>Suicide Bomber</td>
<td>20 lbs</td>
<td>110 ft</td>
<td>111-1699 ft</td>
<td>+1700 ft</td>
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<tr>
<td>Briefcase/Suitcase</td>
<td>50 lbs</td>
<td>150 ft</td>
<td>151-1849 ft</td>
<td>+1850 ft</td>
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<tr>
<td>Car</td>
<td>500 lbs</td>
<td>320 ft</td>
<td>321-1899 ft</td>
<td>+1900 ft</td>
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<tr>
<td>SUV/Van</td>
<td>1,000 lbs</td>
<td>400 ft</td>
<td>401-2399 ft</td>
<td>+2400 ft</td>
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<tr>
<td>Small Delivery Truck</td>
<td>4,000 lbs</td>
<td>640 ft</td>
<td>641-3799 ft</td>
<td>+3800 ft</td>
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<tr>
<td>Container/Water Truck</td>
<td>10,000 lbs</td>
<td>860 ft</td>
<td>861-5099 ft</td>
<td>+5100 ft</td>
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<td>Semi-Trailer</td>
<td>60,000 lbs</td>
<td>1570 ft</td>
<td>1571-9299 ft</td>
<td>+9300 ft</td>
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</table>
CAUTION!

- Do not touch suspicious item
- Notify proper Authorities - Call 911
- Ensure all witnesses are available to brief 1st responders
- Recommended stand-off data should be used in conjunction with your emergency evacuation plan

Sources: Department of Homeland Security, Office for Bombing Prevention, Arlington, VA FBI, Bomb Data Center, Quantico, VA Technical Support Working Group, Arlington, VA
Transportation Labels

Class 1: Explosives

Class 2: Gases

Class 3: Flammable Liquids

Class 4: Flammable solids, spontaneously combustible materials, and materials that are dangerous when wet
Class 5: Oxidizers

Class 6: Poisons

Class 7: Radioactive Materials

Class 8: Corrosives

Class 9: Miscellaneous

Class 10: Other regulated materials

Supplemental Information
National Fire Protection Association (NFPA) Labels

Health (blue)
- 0 = Normal Material
- 1 = Slightly Hazardous
- 2 = Moderately Hazardous
- 3 = Extremely Hazardous
- 4 = Deadly

Flammability (flash points) (red)
- 0 = Will not burn
- 1 = Above 200 degrees Fahrenheit
- 2 = Between 100-200 degrees Fahrenheit
- 3 = Below 100 degrees Fahrenheit
- 4 = Flash point below 73 degrees Fahrenheit

Reactivity (yellow)
- 0 = Stable
- 1 = Unstable if heated
- 2 = Violent chemical change
- 3 = Shock or heat may detonate
- 4 = Rapidly capable of detonation or explosion

Specific Hazard (white)
- ACID = acid
- ALK = alkali
- COR = corrosive
- OX = oxidizer
- P = polymerization
- W with a line through it = Use no water
Security officials should also review the Vehicle Inspection Video, developed by the Department of Homeland Security as part of a complete vehicle inspection training package. The video demonstrates this guide in action.