

# Guidelines for Use of **STOP STICK**

## Instructor Lesson Plan

To be completed after reviewing the STOP STICK User Training Video

Issue No. 7  
March 2012



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# Guidelines For Use of STOP STICK

## Instructor Lesson Plan

*Student Lesson:*

*Instructor's Notes:*

Before reading these guidelines, WATCH the STOP STICK User Training Video and READ your agency's Pursuit Policy.

### **⚠ WARNING**

Deployment of STOP STICKS in the Deployment Sleeve with the retractable Cord Reel attached is the sole recommended method for deployment of STOP STICKS. Any officer authorized to deploy STOP STICKS must be properly trained in this deployment method.

You or others can be killed or seriously injured if you don't follow safety messages.

Your safety and the safety of others is very important. We have provided many safety messages in this lesson plan. A safety message alerts you to potential hazards and instructs you on how to avoid or reduce the hazard. Each safety message is preceded by a safety alert symbol **⚠**. Please carefully read and follow these important messages.

## **I. INTRODUCTION**

STOP STICK is one of a series of law enforcement tools offered by StopTech, Ltd., to assist law enforcement agencies in stopping and preventing vehicle pursuits. In the course of this lesson, you will be instructed on methods of deployment for STOP STICK.

## **II. LEARNING OBJECTIVES**

At the conclusion of this training, each participant should be able to:

1. Describe the basic construction of STOP STICK.
2. State, orally or in writing, the recommended surface for successful deployment of STOP STICK.
3. State, orally or in writing, the primary recommended method of deployment.

## **INSTRUCTIONS**

Depending upon student participation, this lesson should take from **30 to 45 minutes** to complete.

The STOP STICK User Training Video should be utilized in coordination with the Lesson Plan.

Be sure to properly address the information contained in each point of the STUDENT LESSON PLAN. The information that is printed on this portion of the INSTRUCTOR'S LESSON PLAN is meant to assist you in instructing your students.

On the STUDENT LESSON PLAN this portion is blank, and is intended for students to list their personal notes.

## **TRAINING AIDS**

For every 3 students participating in your class, you should have **at least one (1) complete Rack of STOP STICKS** – a complete Rack consists of one (1) tray, three (3) STOP STICKS, one (1) cord reel, and one (1) sleeve.

### **You will also need:**

1. A STUDENT LESSON PLAN for each participant of the class.
2. STOP STICK User Training Video.
3. Copies of your department's or agency's pursuit policy – provide one copy for each student.

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### *Student Lesson:*

4. State, orally or in writing, the safety and tactical considerations when deciding to deploy STOP STICK.
5. State, orally or in writing, the type of vehicles STOP STICKS should NOT be deployed against.

### III. OVERVIEW and NOMENCLATURE

STOP STICK is 3 feet (91cm) in length and weighs 1.1 pounds (.516kg). STOP STICK is comprised of the following components and sub-assemblies:

1. 36 Teflon® coated hardened steel QUILLS; 1 7/8 inches (4.76cm) in length, assembled in three rows of 12.
2. 72 Teflon® coated steel SPIKE TIPS, 3/8 inches (.95cm) in length, inserted into each end of all QUILLS.
  - a. The TIP and QUILL assemblies are 2 5/8 inches (6.67cm) from tip to tip.
3. A collapsible polymer CORE, to orient the QUILL/SPIKE TIP assemblies.
4. The polymer CORE, is encased in a TARTAN tape glass filament FRAME, to contain the QUILL/SPIKE TIP assemblies during impact.
5. A polypropylene HOUSING, to contain the inner subassemblies and to protect the officer from injury while handling the STOP STICK.
6. Molded polymer male and female END CAPS, which allow multiples of STOP STICK to be linked together.
7. Accessories:
  - a. Reusable nylon SLEEVE.
  - b. CORD REEL with 80 feet (24m) of 150 pound (68kg) test braided polyester cord.
  - c. MOUNTING TRAY, designed for trunk mounting with reflective STOP STICK sticker.
8. Two WARNING LABELS appear on each STOP STICK. Be sure to READ AND FOLLOW all safety messages on-product and in this lesson! If you haven't seen these warnings before, turn to the last page of this lesson plan to read these important messages.

### *Instructor's Notes:*

#### TRAINING AIDS (cont'd)

##### Optional items:

1. Dry erase or chalk board to draw examples of potential deployment circumstances.
2. An automobile for deployment demonstration purposes.
3. TV and VCR or DVD player.



Complete STOP STICK Rack Kit



Complete STOP STICK SUV Kit

As you address points 1 through 8, hold up a STOP STICK for all to see. Depending on the class size, pass around one or more STOP STICKS for the students to handle for themselves.

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### *Student Lesson:*

### *Instructor's Notes:*

#### IV. DEPLOYMENT OF STOP STICK

**▲** ALWAYS follow the policies and procedures of your Agency when deploying STOP STICK.

STOP STICK training materials are intended to supplement the formal Pursuit Policy of your agency. StopTech, Ltd. recommends that these “Guidelines For Use” be incorporated into your agency’s written Standard Operating Procedures (SOP). However, the training, policies, and procedures of your agency – including when and how to deploy STOP STICK – supersede any written or verbal instructions from StopTech, Ltd.

##### A. Before Deploying STOP STICK

Before deciding to deploy STOP STICK, many factors must be considered. The following are some important safety and tactical issues to think about.

##### **Safety Considerations:**

The circumstances of each pursuit are very different, but safety is always the most important factor. Suspects can abruptly swerve, stop, or otherwise maneuver their vehicle in an unexpected manner while attempting to avoid STOP STICK.

ALWAYS plan ahead for pursuits in your area, Determine the most suitable, and safest, locations for deployment. Then, when a pursuit is necessary, you can proceed to one of these pre-planned locations or direct other officers to where they can best deploy STOP STICK.

Officers should also be prepared to find substantial cover in the location, such as a large tree, guard rail, or other object or sufficient structure capable of stopping an approaching vehicle.

**Patrol vehicles are not adequate cover.**

ALWAYS avoid deploying STOP STICK in locations or situations that limit the ability of the fleeing suspect to safely maneuver their vehicle. These situations can endanger you, other officers, the public, and the suspect.

STOP STICK is designed for a controlled release of air from the target vehicle’s tires, usually within 20-30 seconds. **However, under some circumstances tire deflation can increase the possibility that a driver may lose control of the vehicle and crash, resulting in SERIOUS or FATAL INJURIES.**

NEVER deploy STOP STICK if you believe the location or circumstances of your pursuit make it unsafe to do so!

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F-19-ILPSS, Issue No. 7, Date 03/01/2012

As you review the safety and tactical considerations for deploying STOP STICK, refer to your agency’s pursuit policy. Note any differences and instruct students to ALWAYS follow the policies and procedure of your agency.

StopTech Ltd., strongly encourages you to provide each student with a printed copy of your existing pursuit policy, while attending this training session.

##### **Safety Considerations:**

This is good time during the training to talk about important safety considerations in using STOP STICK.

Handle STOP STICK with caution.

Always plan ahead.

Avoid deploying STOP STICK:

- in areas with heavy traffic.
- in populated areas or locations with pedestrians nearby.
- near road construction.
- near steep embankments, curves, or obstacles that limit the deploying officer’s view of traffic and the approaching pursuit.






Following these precautions (i.e., limiting TRAFFIC and PEDESTRIANS) can reduce the likelihood of injuries – if a driver were to lose control of the vehicle and crash.

Discuss the types of vehicles that STOP STICK **CANNOT** be used against; specifically, any vehicle with less than four (4) wheels.

# Guidelines For Use of STOP STICK

## Instructor Lesson Plan

### *Student Lesson:*

-  LIMIT TRAFFIC on the roadway. Heavy or congested traffic increases the chance of an accident, resulting in injury or property damage. Whenever possible, limit or isolate traffic from the pursuit or location where STOP STICK is being deployed.
-  RESTRICT PEDESTRIANS. Bystanders, observers and other pedestrians in the surrounding area are especially vulnerable to injury if they are struck by a vehicle. NEVER deploy STOP STICK with pedestrians in the immediate vicinity.
-  NEVER use STOP STICK on vehicles with fewer than four wheels. Vehicles such as motorcycles and 3-wheeled ATVs are less stable and persons driving these vehicles are more likely to lose control when their tires deflate.
-  To reduce the risk of serious or fatal injuries resulting from a vehicle crash  
Use EXTREME CAUTION when:
  - Pursuits reach **EXCESSIVE SPEEDS**; suspects have an increased risk of losing control of the vehicle if tires are deflated while driving at above normal highway speeds.
  - Fleeting suspects appear to be under the influence of **DRUGS** or **ALCOHOL** or similar impairments which may increase the risk of losing control of the vehicle.
-  ONLY deploy STOP STICK when you have a safe location to observe the target vehicle. You could be struck if suspects unexpectedly swerve, stop, or lose control of their vehicle. You must be able to safely observe the target vehicle and other traffic.

Once you are in a safe location, always advise pursuing units when and where STOP STICK is being deployed. Then look for an escape route in case you need to move away from your present position to a safer location.

### **Tactical Considerations:**

1. Remember that planning ahead for the use of STOP STICK includes determining the best locations for deployment and knowing where protection for the deploying officer exists.
2. For best performance, deploy on dry, hard surfaces such as concrete or blacktop. STOP STICK may fail to puncture the tires of a target vehicle on soft, loose materials such as dirt or gravel roads.

### *Instructor's Notes:*

#### **Safety Considerations (cont'd)**

Consider that the driver may attempt to continue operating the target vehicle after deployment of STOP STICK and the dangers this poses.

As a class, talk about different scenarios and the circumstances of pursuits that make it dangerous or inappropriate to deploy STOP STICK.

- **Speed** – going too fast can increase the chance a driver will lose control of the vehicle when tires deflate.
- **Reckless and erratic behavior** by the fleeing suspect.
- **Wet surfaces, loose pavement and gravel** may increase the risk a driver will lose control of the vehicle.
- **Weather** – rain, fog, snow, ice, etc. can increase the chance of a driver losing control of their vehicle -- and reduce visibility below safe levels.

**ASK:** Who could be hurt? Why? What are the potential consequences of a suspect losing control of his vehicle?

Be sure to stress choosing a location that allows for **OFFICER SAFETY** and **MANEUVERABILITY** after deploying STOP STICK, as well as the safety of bystanders, pedestrians and other motorists.



Only deploy STOP STICK when you have a safe location to observe the target vehicle.

Advise pursuing units when STOP STICK is being deployed.

# Guidelines For Use of STOP STICK

## Instructor Lesson Plan

### *Student Lesson:*

-  AVOID deploying STOP STICK on wet surfaces, gravel or loose pavement. These surfaces may increase the risk a person will lose control of the target vehicle when tires deflate.
3. Regardless of the method of deployment, consider deploying STOP STICK so that a suspect has limited ability to avoid striking the device.
- Try to deploy STOP STICK at the last possible moment, so that a suspect has limited ability to avoid striking the device by driving the vehicle to either side of the sleeved STOP STICKS.
  - Is it possible to deploy in the middle of a bridge?
  - What types of natural barriers or man-made obstacles would prevent suspects from avoiding STOP STICK?
4. If deploying near an intersection, deploy STOP STICK just before entering the intersection on the road the target vehicle is traveling. Deploy before reaching any driveways or parking lots near the intersection. Deploying just after an intersection, driveway or parking lot allows the target vehicle to turn and avoid STOP STICK.
5. ONLY deploy STOP STICK after you have identified a SAFE LOCATION to observe the pursuit.
- What makes a good escape route or safe location?
  - What are some safe locations to deploy STOP STICK on your current patrol?
-  ALWAYS move to a SAFE LOCATION after deploying STOP STICK. The cord reel has 80 ft. (24m) of cord to allow you to move as far as possible from the road so that you can avoid fleeing or pursuing vehicles.

### **B. Deploying STOP STICK**

-  ALWAYS advise pursuing units when and where STOP STICK is being deployed.

Provide fellow officers with ample warning to avoid striking the device. STOP STICK is an equal opportunity tire deflator, it cannot distinguish police tires from suspect tires.

### *Instructor's Notes:*

#### **Tactical Considerations**

#### **STRESS THESE KEY POINTS:**

- **plan ahead** for best deployment locations
- adequate **line of sight** – for traffic and the approaching pursuit
- “best practices” for deployment near **intersections**
- a **safe location** for the officer – concealment, protection, or escape route if suspect vehicle swerves
- **communication** with other officers – always advise pursuing vehicles when/where STOP STICK is deployed
- deploy STOP STICK at last possible moment so suspect has **limited ability** to avoid the device.


# Guidelines For Use of STOP STICK


## Instructor Lesson Plan

### *Student Lesson:*

**Pre-Load** is the sole recommended method of deployment. Pre-load three/four unconnected STOP STICKS in the supplied nylon sleeve; with the cord reel attached to the end of the sleeve. Then place the loaded sleeve in the mounting tray until needed.

1. At the time of need, use the red handles to remove the sleeved STOP STICKS from the mounting tray.
2. Unlock the cord reel. When all lanes of traffic are clear, use the red handles to throw the sleeved STOP STICKS to the opposite side of the road.
3. **Communicate to the pursuing officers that the STOP STICKS are in position.**
4. Once the sleeved STOP STICKS are on the opposite side of the road, position yourself in a safe location for the impending deployment, while using your peripheral vision to monitor approaching traffic.
  - a. While waiting for the target vehicle to arrive, reel in any slack with the cord reel.
  - b. Keep the cord line flat on the road surface; allowing non-target vehicles to drive over the dispensed cord, without interfering with the impending deployment of the sleeved STOP STICKS.
5. Lock the cord reel and hold it by the handle with both hands while awaiting the target vehicle. Never wrap the cord around your hand or any portion of your body.

 NEVER wrap the cord around your hand or any portion of your body.
6. As the target vehicle approaches, carefully step backward with the cord reel in hand, to pull the sleeved STOP STICKS into the path of the target vehicle.
  - a. Before pulling the sleeved STOP STICKS into position, ensure there are no other vehicles between the target vehicle and the point of deployment.

 NEVER rush a deployment. Allow enough time to correctly deploy sleeved STOP STICKS. As you pull them into the road, turn to watch where you are going and retreat to a safe location.
7. After the sleeved STOP STICKS have been struck, remove them from the roadway by pulling the cord reel with both hands.

### *Instructor's Notes:*

**Pre-Load** is the sole recommended method of deployment because it affords the maximum in **OFFICER SAFETY**, while also containing STOP STICKS after they have been struck. This also allows for **safe, easy and efficient removal** of STOP STICKS from the road by simply pulling them from the road with the attached cord reel.

Remember that on **multi-lane roads**, it may be advisable to have officers deploying from both sides of the roadway.

Allow **all participants** of the class an opportunity to practice “loading” the STOP STICKS into the sleeve; attaching the cord reel to the sleeve; and placing the sleeved STOP STICKS in the tray.

# Guidelines For Use of STOP STICK

## Instructor Lesson Plan

### *Student Lesson:*

- ⚠** ALWAYS use caution when removing STOP STICK from the road. DO NOT enter the roadway if pursuing vehicles have not passed. Handle carefully, STOP STICK may break open exposing sharp spikes after being struck by a vehicle.

8. Always follow the policies and procedures of your agency when deploying STOP STICK. Those policies supersede any written or verbal instructions from StopTech, Ltd.

### **C. After Deploying STOP STICK**

If STOP STICK was **struck** by any vehicle:

- the device is no longer fully functional and should be replaced as soon as possible.
- fill out the provided “Pursuit Reporting Form” and fax it to 513 202 0240. Or, this form can be filled out online at [www.stopstick.com](http://www.stopstick.com) under “Contact Us”.
- if you have any questions about replacement(s), contact StopTech, Ltd. at 513 202 5500.

If STOP STICK was **not struck** by any vehicle:

- inspect the sleeved STOP STICKS for damage.
- if undamaged, return sleeved STOP STICKS to the tray for the next deployment situation.

### **V. CARE AND MAINTENANCE**

With reasonable care, your STOP STICK will be ready to aid you in preventing or terminating a pursuit that creates a hazard to you and the public.

Follow these simple guidelines to ensure your STOP STICK is ready for use:

- Periodically inspect STOP STICK to ensure it is undamaged and ready for deployment. This should be part of your pre-shift routine, like inspecting your fire extinguisher.
- When STOP STICK is stored in the tray, be sure other items in the trunk are not loaded too high. Either STOP STICK could be damaged or the STOP STICK could potentially damage an item it impacts.

### *Instructor's Notes:*

**DO NOT** wrap the cord around **ANY PORTION** of your body.

**ASK:** What could happen if the cord is wrapped around your hand and it becomes entangled with a vehicle?

**ASK:** What could happen if you are rushed to deploy STOP STICKS?

- **damage to vehicles.**
- **potential injuries** – ways that deploying officers could be hurt.
- **failure to deflate tires.**

Before **STEPPING BACKWARD**, ensure it is safe – officers won't trip or fall into path of pursuit.

### **STRESS THESE KEY POINTS:**

- When pulling STOP STICKS into the path of the target vehicle, keep in mind that the **suspect may take evasive action** to avoid striking STOP STICKS. With that in mind remember, that STOP STICKS cannot be “pushed” back over ground that they have already been “pulled” over.
- Whenever a cord reel is rewound for reuse, rewind the cord by pulling out approximately five feet of cord and place the cord between two fingers with a small amount of tension when rewinding. This process reduces the opportunity for the line to become bound inside the cord reel as it is rewound.

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*Student Lesson:*

*Instructor's Notes:*

### VI. CONCLUSION

Installation of STOP STICK in each agency patrol vehicle provides a viable alternative to extended vehicle pursuits that endanger you, the public, and the fleeing suspect.

#### **▲ IMPORTANT SAFETY REMINDERS**

The following warnings appear on every STOP STICK:

**▲ WARNING**

Deflating tires increase the risk a driver may lose control of the vehicle resulting in **SERIOUS** or **FATAL INJURIES**

- **DO NOT** use STOP STICK without proper **TRAINING**
- **NEVER** use STOP STICK on **MOTORCYCLES**

Visit [www.stopstick.com](http://www.stopstick.com) or call 513-202-5500 for more information

**▲ CAUTION**

STOP STICKS contain **SHARP SPIKES**

**NEVER** bend STOP STICK or push spikes through housing

**DO NOT** attempt to repair, dismantle or open STOP STICK

Visit [www.stopstick.com](http://www.stopstick.com) or call 513-202-5500 for more information  
Stop Stick, Ltd. Made in USA  
Patent # 5,330,285 5,452,962

**Risk Management experts say that the greater risk to our safety and those around us occurs while we are also things we do the least often. But with the use of on-going training, pre-planning and frequent practice, you may be able to decrease the heightened dangers of high risk/low frequency activities.**

**Practice using STOP STICK so you are ready to deploy it properly when you need to end a pursuit.**

**ASK:** Are there any questions?

Take a moment to answer any questions from the class.

After completing the lesson plan, have all participants go to a controlled area (i.e., parking lot, large room, etc.) to demonstrate their proficiency in safely deploying STOP STICK.

StopTech, Ltd., strongly encourages you to take this lesson plan along and ask students about the safety and tactical considerations as they practice!

**HANDS-ON-ACTIVITY:** Give EVERY participant an opportunity practice throwing sleeved STOP STICKS across the road. The student should be able to consistently throw a set of sleeved STOP STICKS a minimum distance of 36 feet (11m), which is equivalent to the width of three standard traffic lanes.

It is important to note that because sleeved STOP STICKS can be thrown 30-40 feet (9-12m), deploying officers can and should stay a safe distance from the roadway.