

Vehicular Pursuits

A Guide for Law Enforcement Executives
on Managing the Associated Risks



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Letter from the Director of the COPS Office

Colleagues:

Despite what we see in popular culture, the high-speed chase is not—nor should it be—a routine part of law enforcement work. The safety of fleeing suspects, their passengers, pursuing officers, and uninvolved bystanders are too important to risk on a regular basis. But there are times when the importance of apprehending the suspect in a timely manner means that pursuit is necessary despite these dangers.

The COPS Office and the National Highway Traffic Safety Administration partnered with the Police Executive Research Forum (PERF) and the Pursuits Working Group to develop guidance for all types of law enforcement agencies to consult when developing or revising their vehicle pursuit policies. This publication includes thorough discussion of that guidance, the circumstances in which pursuits may be called for, when they should and should not be instituted, and when a pursuit in progress should be called off, as well as alternative strategies and interventions when conducting a pursuit is too dangerous. It also covers training, reporting, data collection, community education, and transparency.

The 65 recommendations from the Pursuits Working Group in this publication will help law enforcement agencies around the country strengthen their vehicle pursuit policies and practices and contribute to the long-term goal of every agency to keep their communities safe.

Sincerely,

A handwritten signature in black ink that reads "Hugh T. Clements, Jr." with a stylized flourish at the end.

Hugh T. Clements, Jr.
Director
Office of Community Oriented Policing Services

Letter from the Executive Director of PERF

Colleagues:

Police pursuits are a complex issue that has vexed police leaders almost since the advent of the automobile.

On the one hand, pursuits are high-risk events that put the lives of officers, suspects, and the public at risk. Furthermore, the costs of property damage and litigation can be substantial. And when pursuits go wrong and innocent, uninvolved people are injured or killed, public trust in the police is undermined.

On the other hand, some view police pursuits as a necessary tool for stopping and apprehending dangerous criminals who threaten our communities. And with crime rising in many areas and the public calling on law enforcement to do something about it, some agencies are leaving in place their less restrictive vehicle pursuit policies or rolling back restrictions they had previously implemented, all in the name of fighting crime. In New Jersey, for example, a spike in auto thefts led the state to reverse policy and once again allow officers to pursue suspected car thieves.

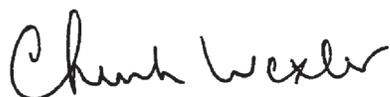
This guide is designed to help police chiefs, sheriffs, and other law enforcement leaders sort through the difficult issues and competing demands associated with police pursuits and develop and implement sound policies that will keep officers, suspects, and the community safe. It was developed with input from dozens of pursuit policies and guidance from experts in the field, including police leaders in local, sheriffs', state, and tribal agencies. It emphasizes that the guiding principle driving an agency's vehicle pursuit policy should always remain the sanctity of human life. That must be the North Star to which all details of an agency's policy and its implementation and enforcement should point.

We recommend that pursuits should take place only when two very specific standards are met: (1) A violent crime has been committed and (2) the suspect poses an imminent threat to commit another violent crime. If those two conditions are not met, agencies need to look for alternatives to accomplish the same objective. You can get a suspect another day, but you can't get a life back. We believe policy, training, and supervision should all support the core value of policing: the sanctity of human life.

This guide provides detailed, practical guidance for agencies in reviewing and updating their vehicle pursuit policy, including the tactics permitted, methods of review and accountability, and training necessary for successful implementation. I encourage police leaders to study this document carefully and implement its recommendations. Your officers and your communities will be safer as a result.

I cannot end this letter without acknowledging the work, and untimely death, of Charleston (South Carolina) Chief Luther Reynolds, who passed away as this guide was in final production. A member of the Pursuits Working Group, Luther's dedication to excellence in policing will live on in the projects he influenced, including this publication.

Sincerely,

A handwritten signature in black ink that reads "Chuck Wexler". The signature is written in a cursive, flowing style.

Chuck Wexler
Executive Director
Police Executive Research Forum

Acknowledgments

The Police Executive Research Forum (PERF) expresses its appreciation to the Office of Community Oriented Policing Services (COPS Office) and the National Highway Traffic Safety Administration (NHTSA) for leading this important effort on managing the risks of police vehicle pursuits. We are especially grateful to Senior Program Specialist Nazmia E.A. Comrie (COPS Office); Social Science Analyst Bradley Nelson (COPS Office); Supervisory Program Specialist Dr. Shelley Hyland (COPS Office); Division Chief, Enforcement & Justice Services Keith Williams (NHTSA); Senior Highway Safety Specialist Jacqueline Milani (NHTSA); and Program Analyst/Highway Safety Specialist Reo Nelson (NHTSA) for their support throughout this project.

PERF offers special recognition to the members of the Pursuits Working Group: Dr. Geoffrey Alpert, Chair, University of South Carolina; Lieutenant Shelly Katkowski, Burlington (North Carolina) Police Department; Colonel Matthew Langer, Minnesota State Patrol; Chief Deputy Mike Lee, Harris County (Texas) Sheriff's Office; John Marshall, Director, Office of Safety Programs (NHTSA); Lieutenant Patrick McLaughlin, Charleston (South Carolina) Police Department; Chief Celeste Murphy, Chattanooga (Tennessee) Police Department; Chief Paul Neudigate, Virginia Beach (Virginia) Police Department; Assistant Chief James Nolette, Fayetteville (North Carolina) Police Department; Innovation Manager Captain Michael A. Pfeiffer, New Orleans (Louisiana) Police Department (ret.); Chief Jason Potts, Las Vegas (Nevada) Department of Public Safety; and Chief Luther Reynolds, Charleston (South Carolina) Police Department. This project would not have been possible without the commitment these leaders demonstrated to managing the risks of vehicle pursuits. At every step of this process, these leaders and their personnel were generous with their time, candid, enthusiastic about discussing new ideas, and committed to finding realistic solutions.

Finally, PERF acknowledges the members of the PERF project team: Tom Wilson, Director of Management and Technical Assistance; Jennifer Sommers, Deputy Director of Management and Technical Assistance; Jessica Toliver, Director of Technical Assistance; Lisa Mantel, Deputy Director of Technical Assistance; Alexa Daniels-Shpall, Senior Principal; Nancy Demme, Senior Principal; Bailey Maryfield, Senior Associate; Hyla Jacobson, Research Assistant; Kevin Morison, Chief Program Officer; Clifford Grammich, Editor; and the Pursuits Working Group for drafting and editing this publication. This guide summarizes findings and recommendations from PERF, NHTSA, and the COPS Office's meetings with the Pursuits Working Group as well as research and policies on best practices in managing vehicular pursuits.

Executive Summary

Overview

Police vehicular pursuits present physical, emotional, and economic risks to the officer,¹ bystanders, any passengers, and the fleeing suspect. Given these risks, law enforcement agencies need a resource that identifies solutions for managing high-risk vehicular pursuits.

In 2020, Congress directed the National Highway Traffic Safety Administration (NHTSA), in partnership with police jurisdictions, to conduct a study that would lead to the development of accurate reporting and analyses of crashes that involve police pursuits.² While NHTSA currently collects data on first responder vehicles that are involved in fatalities during police pursuits, those data are subject to significant underreporting. NHTSA and the Office of Community Oriented Policing Services (COPS Office) tasked the Police Executive Research Forum (PERF) with developing a guide, using the findings from that research, to provide pursuit safety information, research data, and model policies to foster the promotion of safer vehicular pursuits. PERF, NHTSA, and the COPS Office developed this resource in consultation with the Pursuits Working Group³ to help police agencies manage the risks of vehicular pursuits. This document explains the context for decision-making on pursuit policy, including the choices and risks associated with pursuits, and gives guidance to executives on making the best choices for their agency and community.

This guide is applicable to law enforcement agencies of all types. The fundamental consideration that any agency—state or local, urban or rural, etc.—must consider when establishing its vehicle pursuits policy is the same: balancing risk and reward.

Recommendations

This publication reflects the findings from PERF's meetings with the Pursuits Working Group as well as research and policies on best practices in managing vehicular pursuits. Recommendations, which are numbered for reference purposes, are summarized by chapter.

1. In this report, the term *officer* encompasses sheriffs' deputies and state troopers as well as local police.

2. H.R. Rep. No. 116-106 and S. Rep. No. 116-009.

3. Members of this group are listed in appendix A.

Chapter 1. Agency Philosophy and Policy Standards

Chapter 1 explains that agencies, in developing pursuit policy, must balance the risks associated with vehicle pursuits against those from failure to apprehend a suspect immediately. Recommendations include the following:

Recommendation 1.1. Agency policy should clearly define what constitutes a vehicle pursuit.

- This definition should include (1) an active attempt by the officer to apprehend the occupant of the vehicle and (2) the driver refusing to submit to the detention and taking actions to avoid apprehension.

- The policy should also state that following a driver who fails to yield to the officer's signal to stop but continues obeying all other traffic laws does not in itself constitute a pursuit. Continuing to follow a vehicle being driven in this manner may be permitted for a short time so the officer can obtain needed information about the vehicle (e.g., license plate, make, model, and color) and its occupants (e.g., physical descriptions) to take enforcement action later (e.g., file a citation). Once the officer has such information and the vehicle has failed to yield and passed safe locations to do so, the officer shall discontinue the attempt to stop the vehicle and pursue alternative enforcement measures. An exception is warranted if the officer, after running the driver's information, develops a reasonable suspicion that the driver was involved in a violent crime and presents an imminent threat to the community.

Recommendation 1.2. Agencies should adopt restrictive vehicle pursuit philosophies that permit pursuits only for a limited and serious set of circumstances, which should be clearly and specifically articulated. This guide recommends adopting a standard that permits pursuits only for violent crimes and

where failure to immediately apprehend the suspect presents an imminent threat to the public based on the suspect's criminal actions (not the danger created from the suspect's driving as they flee from police, even if the officer believes an individual in the suspect's vehicle is armed and dangerous). This philosophy must be reinforced throughout the agency's policy, training, and organizational culture.

Recommendation 1.3. Agency policy should acknowledge that there may be exceptional situations for reckless drivers where police intervention is warranted to protect the public from a driver who poses an imminent, egregious hazard to the community. The policy should stress that these situations are rare and that the key question to ask is whether a pursuit makes the situation better or worse. For example, if a suspect begins driving more recklessly after police intervention, it is important to discontinue the pursuit.

Recommendation 1.4. Agency policy should articulate the point at which a vehicle involved in a violent crime, such as a carjacking, is no longer considered "fresh" because of the amount of time that has elapsed since the crime and should be treated as a stolen vehicle for purposes of the vehicle pursuit policy.

Recommendation 1.5. Agency policy should list key factors in assessing the risk of a pursuit and make clear that officers must assess these factors both before initiating a pursuit and continuously as the situation changes. This continuous assessment must be documented in the written report after the pursuit so reviewers can evaluate the officer's decision-making. Finally, officers should receive both classroom and scenario-based training on the policy to ensure they are well versed on relevant factors and rely on their training, rather than split-second responses, to make decisions.

Recommendation 1.6. Agency policy should direct officers not to engage in a vehicle pursuit if the suspect's identity is known, the suspect can be apprehended later, and delayed apprehension does not significantly increase the risk to the community.

When this information becomes known during the vehicle pursuit, the policy should direct officers to discontinue immediately.

Recommendation 1.7. Agency policy should direct officers to discontinue a vehicle pursuit once the suspect's location is no longer known or when the distance between the suspect and the officer is so great that continued pursuit would be futile.

Recommendation 1.8. Agency policy should state that only officers who have received the required training are authorized to engage in a pursuit.

Recommendation 1.9. Agency policy should direct officers not to participate in a vehicle pursuit if anyone other than a sworn officer is in the police vehicle. This restriction demonstrates the agency's awareness that pursuits are not worth risking others in the officer's vehicle.

Recommendation 1.10. Agency policy should prioritize using resources that can track a suspect remotely and direct officers to disengage from a pursuit once remote tracking (e.g., by aviation, including drones or GPS [global positioning system]) is active.

Recommendation 1.11. Agency policy should discourage or prohibit officers from becoming involved in a vehicle pursuit if the suspect is riding a motorcycle. The superior ability of a motorcycle to maneuver around traffic and travel on pathways (such as sidewalks) where patrol vehicles cannot follow often makes pursuit futile and can increase the risk to both the suspect and the public in the path of the pursuit. Pursuing a motorcycle should be permitted only if there is an elevated risk to the community if the suspect remains at large and officers can conduct the pursuit in a reasonably safe manner (e.g., not at high speeds or traveling on the wrong side of the road).

Recommendation 1.12. Agency policy should discourage officers who are riding motorcycles or driving unmarked vehicles from participating in vehicle

pursuits. Unmarked vehicles should be permitted to engage in a pursuit only if they are equipped with the proper emergency equipment (e.g., lights and siren).

Recommendation 1.13. Agency policy should direct officers to disengage from a pursuit if the police vehicle sustains damage that adversely affects vehicle operation or experiences an equipment failure that limits communication or makes continued driving dangerous.

Recommendation 1.14. Agency policy should address interjurisdictional pursuits—both those entering their jurisdiction and those traveling beyond it. Officers should not engage in another agency's pursuit unless it meets their own agency's criteria. Officers must make the same risk assessment of the environment and obtain supervisor approval as they would when initiating (and continuing) their own pursuit. Also, as with any pursuit, a supervisor who authorizes participation in an interjurisdictional pursuit should be held accountable for that decision upon review of the pursuit. Finally, the policy should address any considerations, notifications, etc., needed when officers pursue a suspect beyond the agency's jurisdiction.

Chapter 2. Initiating and Discontinuing the Pursuit—The Role of a Supervisor

Chapter 2 explains how a supervisor should manage a vehicle pursuit, including direction to officers on permitted and prohibited intervention tactics. Recommendations include the following:

Recommendation 2.1. Agency policy should detail precisely what information must be communicated by the primary unit once the decision has been made to initiate a pursuit. Training should reinforce the need for this information, which should include

- the identity of the primary pursuit unit;
- the initial reason for the (attempted) stop;
- the location, direction, and speed of the pursuit;

- the weather and road conditions;
- the traffic conditions (light, moderate, heavy) on the roadway;
- a description of the pursued vehicle, including license plate number if known;
- a description of the suspect's driving behavior (e.g., speeding, swerving between vehicles, or making rapid lane changes);
- the number, description, and identity (if known) of the vehicle's occupants;
- any information concerning the known presence or use of firearms, overt threat of force, or other unusual hazard.

Recommendation 2.2. Agency policy should require supervisor approval for continuing a vehicle pursuit and place responsibility on both the primary officer and the supervisor for ensuring the critical initial information is communicated. Not all agencies will have an on-duty supervisor available at all times to manage a pursuit. Such agencies should still attempt to find ways to ensure supervisory oversight of pursuits. For example, this oversight could include placing the responsibility with someone other than a field supervisor. The policy should also provide the following direction:

- If the primary officer does not provide the supervisor with the necessary information, the supervisor should direct the officer to immediately discontinue the vehicle pursuit.
- If a supervisor is not available to monitor and direct the pursuit, the pursuit should be terminated.

Recommendation 2.3. Agencies must train supervisors how to assess the initial pursuit information using a critical decision-making model to determine whether continuing the pursuit is justified. This training should occur upon promotion to a

supervisory position, and it should be delivered on a recurring basis to ensure supervisors maintain these skills. The policy should direct supervisors to discontinue the pursuit unless they determine that the reason for the pursuit meets the policy requirements (i.e., violent crime and imminent threat) and that the need to apprehend the suspect immediately outweighs the risks of the pursuit. The policy should also emphasize that getting enough information to make an informed decision is the supervisor's responsibility.

Recommendation 2.4. Agency policy should make clear that anyone, regardless of rank, involved in the pursuit can decide that it should be discontinued if, in their assessment, the risks of the pursuit are no longer justified. In addition, the policy should communicate what officers are expected to do once this decision is made. At a minimum, these actions should include

- turning off emergency lights and siren;
- communicating their location to the dispatcher;
- reducing speed and complying with all traffic laws;
- verbally acknowledging the instruction to terminate the pursuit.

Recommendation 2.5. Agencies should include in policy and develop a practice of having officers meet a supervisor at an agreed-upon location to debrief the incident as soon as practical.

Recommendation 2.6. Agencies should train officers on why discontinuing a vehicle pursuit may be the most prudent course of action. This includes providing information about how their decisions can affect a suspect's actions (e.g., cause them to slow down) and the risk to the public.

Recommendation 2.7. Agency policy should direct supervisors to consider the officer's experience in pursuit driving when deciding whether to authorize

continuing the pursuit. Supervisors should also be responsible for assessing the officer's emotional state throughout the pursuit and should direct the officer to discontinue the pursuit if the officer appears unable to control their emotions.

Recommendation 2.8. Agency policy should clearly indicate that the supervisor is responsible for managing the pursuit and have a process for getting a supervisor involved as early as possible. This responsibility includes not only authorizing the continuation or discontinuation of the pursuit but also authorizing and managing additional resources and intervention tactics. Not all agencies will have an on-duty supervisor available at all times to manage a pursuit. Such agencies should still attempt to find ways to ensure supervisory oversight of pursuits. For example, this could include placing the responsibility with someone other than a field supervisor.

Recommendation 2.9. If a supervisor is actively engaged in the pursuit, someone other than the supervisor must provide oversight and direction. Depending on the situation, this may not be a field supervisor but rather the watch commander or a higher-level supervisor who has some authority over the person in the pursuit.

Chapter 3. Pursuit Interventions, Pursuit Alternatives, and Technology for Managing Pursuit Risks

Chapter 3 addresses pursuit interventions, pursuit alternatives, and technology for managing the risks associated with vehicular pursuits. Recommendations include the following:

Recommendation 3.1. Agency policy should emphasize preventing pursuits when possible and describe how tire deflation devices (TDD) can be used as a pursuit alternative. Agencies should train officers how to use this tactic effectively, including how to operate safely around occupied vehicles and the public and how to remove the device once the suspect is in

custody or the driver is free to go. The policy should also state that only officers who have been trained to do so may use these devices.

Recommendation 3.2. Agency policy should require supervisor approval prior to deployment of a TDD for a fleeing vehicle, and a supervisor should also be involved in deciding where and when it is deployed. To the extent possible, a supervisor should be responsible for tracking the location of the involved officers. Supervisors should ensure that communications (dispatch) are notified when a TDD is deployed and given the location, whether the deployment was successful, and updated speeds if the vehicle is mobile. Supervisors should receive training on the decision-making process of TDD approval.

Recommendation 3.3. Agency policy should outline the key factors for officers to consider in deciding whether to use a TDD, as well as how to do so most safely and effectively. These factors include suspect speed, road surface, weather, suspect vehicle type, and whether the target area is populated. Agencies should consider their own TDD deployment data to help them determine maximum safe speeds for deployment.

Recommendation 3.4. Agency policy should restrict the use of TDDs only to those officers who have completed specialized training in their deployment. This training should include hands-on practice in addition to any online or classroom instruction and should prepare officers for identifying and evaluating important situational factors in deciding whether to deploy TDDs. In addition, refresher training should be provided at least annually.

Recommendation 3.5. In agencies that have aviation resources, policy should direct personnel to request that resource at the earliest time possible. This responsibility should be placed on all personnel involved in the pursuit, including dispatchers, the pursuing officers, and the managing supervisor. Agency training should instruct officers on how and when to make

such a request, and it should clearly state that once the aviation resource begins tracking the suspect vehicle, the officers should discontinue their pursuit. At that point, aviation resources may guide ground vehicles to remain in the area and wait for the vehicle to stop.

Recommendation 3.6. Agency policy and training should also address situations where a vehicle pursuit is not permitted but an aviation resource can be engaged to track the suspect until the vehicle has stopped, the suspect has exited the vehicle, and officers can take the suspect into custody.

Recommendation 3.7. Agencies should explore the use of tagging and tracking technology to assist in vehicle pursuits. Such technology can help minimize the duration of a pursuit or avoid one entirely.

Recommendation 3.8. For agencies that adopt tagging and tracking technology, the policy should direct personnel to request and deploy the device at the earliest time possible. Only officers who have received the proper training should be permitted to deploy the device. Agency policy and training should instruct officers on how to request a deployment, assess the considerations for deployment, and develop a plan to track the suspect and apprehend them once they stop and exit the vehicle.

Recommendation 3.9. Agency training should inform officers what types of vehicles may be equipped with pre-installed tracking technologies and how they can contact the provider to gather location information.

Recommendation 3.10. Agencies should take stock of what technologies are currently available to assist officers in conducting vehicle-related investigations and ensure that vehicle pursuit training addresses how these technologies can help locate and apprehend offenders.

The **precision immobilization technique (PIT)** (sometimes also called the pursuit intervention technique) maneuver is a high-risk, controversial vehicle pursuits

tactic. It has been used successfully in some situations, but in others it has resulted in deaths to innocent community members and fleeing suspects. The working group did not reach consensus on the issue of whether PIT maneuvers should be prohibited outright or permitted in certain narrowly defined circumstances. No comprehensive research studies have been undertaken to resolve significant issues about PIT maneuvers, such as the following questions:

- At what speed does the PIT maneuver create the likelihood of serious injury or death?
- How do patrol and target vehicle characteristics impact PIT maneuver outcomes?
- How do road conditions and environment influence safety?

Until there is research-backed evidence defining the parameters within which PIT maneuvers can be employed safely and effectively, this guide cannot without serious reservation endorse their use. However, despite the working group's lack of consensus on PIT maneuvers, we recognize that some agencies will elect to use them, particularly those agencies that have adopted strong policies and supervision and require robust and recurring training. If your agency chooses to allow the PIT maneuver, this guide recommends the following to mitigate the associated risks:

Recommendation 3.11. PIT maneuvers are never without risk and should be considered only when certain conditions are met, beyond those previously referenced in this guide (see recommendation 1.2., Agencies should adopt restrictive vehicle pursuit philosophies). Agency policy should require supervisor approval prior to PIT maneuver use. Officers should communicate the current situation, including speeds, vehicles, and environment; articulate the need for using the PIT maneuver; and advise the supervisor where and how they plan to execute it. The seriousness of the crime for which the suspect is wanted is highly relevant in this determination and must be

included in communication to the supervisor. This information affords the supervisor an opportunity to assess all the relevant factors and exercise control over the pursuit.

Recommendation 3.12. There is no empirical evidence to support a maximum speed at which PIT maneuvers should be attempted. Therefore, agencies should consider the high-risk nature of the PIT maneuver when determining the best course of action for their agency. While no empirical data exist, it is clear that the higher the speed, the more dangerous the PIT and the greater the likelihood of injury or death. PIT maneuvers should not be authorized for speeds above those on which the officers have been trained.

Recommendation 3.13. If an agency chooses to permit the PIT, policy should outline the key factors officers should consider in deciding whether to use the maneuver and how to do so in the safest and most effective manner possible. Examples include suspect speed, road surface, the presence of a reinforced bumper on the officer's vehicle, suspect vehicle type, passengers, and whether the target area is populated.

Recommendation 3.14. If an agency chooses to move forward and allow the PIT, policy should restrict its use to only those officers who have completed specialized training. This training should include behind-the-wheel practice (how to drive) in addition to any online or classroom instruction (when to drive) and should prepare officers for identifying and evaluating important situational factors in deciding whether using the maneuver is appropriate. Officers should be required to perform the PIT maneuver in training. Finally, this training should be recurring to maintain officer proficiency.

Recommendation 3.15. Executives must consider their community's expectations in deciding whether to authorize the use of the PIT maneuver. Agencies that authorize PIT maneuver use must commit to implementing the right policy, properly training their

officers, and holding those officers accountable when their decisions and conduct are inconsistent with agency policy and officer training.

Recommendation 3.16. Agency policy should prohibit roadblocks, boxing-in, channelization, ramming, and any other tactic that involves using a law enforcement vehicle to forcibly stop a fleeing suspect vehicle. Agencies may consider allowing officers to box in a suspect vehicle that is stopped (or nearly stopped) to prevent the suspect from fleeing.

Recommendation 3.17. Agency policy should prohibit shooting at or from a moving vehicle unless someone in the vehicle is using or threatening deadly force by means other than the vehicle or the driver is attempting to use the vehicle as a weapon of mass destruction in an apparent terrorist attack.

Chapter 4. Post-Pursuit Reporting—Data Collection, Review, and Accountability

Chapter 4 explains how to manage pursuit risks by prioritizing individual- and agency-level accountability. Recommendations include the following:

Recommendation 4.1. Agencies must ensure that their pursuit reports include all the key information needed to evaluate the incident—what happened, why it happened, and the decision points along the way. Reports should articulate the actions of both the officers and the fleeing suspect and should describe the environment and changes as the pursuit progressed. An officer's or reporting supervisor's pursuit report should be completed within 48 hours of the pursuit.

Recommendation 4.2. Agencies should develop a system of tracking when vehicles flee but are not pursued by officers, such as by marking these events with a code in the computer-aided dispatch (CAD) system. This provides an additional method of evaluating pursuit policy and training by providing a baseline for the number of incidents that could have resulted in a pursuit.

Recommendation 4.3. Supervisors play a crucial role in reviewing vehicle pursuits, so agency leaders should outline expectations for supervisors, including debriefs. Each pursuit, regardless of outcome, should be reviewed promptly for adherence to training and policy. A formal review process should follow those debriefs. Supervisors must review the totality of the circumstances along with radio communications to determine whether officer actions followed training and policy.

Recommendation 4.4. All supervisors should be trained in how to conduct a pursuit review and understand agency expectations and the importance of the review.

Recommendation 4.5. Agencies should create a pursuit review board to strengthen the quality and thoroughness of administrative reviews. Through this board, agencies should conduct sentinel event reviews of a small portion of their pursuits to identify systemic issues in policy or practice and implement solutions. Agencies should also consider closely reviewing pursuit crashes and developing Early Identification Systems to facilitate early intervention on issues of policy or practice. Agencies should also review video footage of pursuits in other jurisdictions and discuss how their agency should handle similar situations. Policy reminders, remedial training, and training examples can all be derived from comprehensive reviews of pursuits. Pursuit reviews should also be used to gather data to justify the current pursuit policy and recognize officers for good driving and decision-making when warranted.

Recommendation 4.6. Agencies should conduct reviews of pursuit data at the agency level on at least a quarterly basis. A lessons-learned approach is important here so that agencies can eliminate unnecessary risks and reduce their liabilities as officers follow policies. A risk manager or internal affairs should maintain a list of cases filed against officers and the agency to document the nature and extent of claims

and their outcomes. Research partnerships can help agencies build the capacity to collect and analyze data on vehicle pursuits.

Recommendation 4.7. Agencies should develop methods of identifying de facto or ghosted pursuits. These methods will allow the agency to take corrective action or provide remedial training for officers who fail to meet expectations and will discourage others from attempting such pursuits.

Chapter 5. Vehicle Pursuit Training

Chapter 5 discusses training on pursuit policy and pursuit tactics and decision-making. Recommendations include the following:

Recommendation 5.1. Agencies should ensure officers receive regular vehicle pursuit training that covers the agency's policy, data on pursuits, driving tactics, legal considerations, and decision-making skills. Officers who are not current on their pursuit training should not be permitted to engage in a pursuit. Agencies should also develop specialized training for other personnel (e.g., supervisors, communications personnel, air support officers, watch commanders) who may play a role in a pursuit or pursuit review.

Recommendation 5.2. Supervisors should seek informal training opportunities for all staff, such as debriefing a public incident in another patrol area or even an outside agency.

Recommendation 5.3. Agencies should select a critical decision-making model. The PERF Critical Decision-Making Model (CDM), for example, could be adapted for a specific agency. The CDM can guide all aspects of an officer's decision-making process and has been found particularly useful in dynamic, high-stress situations like vehicle pursuits. The use of a decision-making model can assist officers and supervisors in deciding whether to initiate a pursuit, gathering and evaluating information during the

pursuit, and deciding whether to discontinue the pursuit. Training should address each of these decisions individually. A decision-making model is also useful for remedial training when officers do not meet expectations during a pursuit.

Recommendation 5.4. In-service training on an agency's vehicle pursuit policy should occur at least annually and should include both classroom and online components. Any time an agency changes the policy, the training unit (or whoever is responsible for training development and delivery in the agency) should develop a course on those changes and deliver it agency-wide as soon as possible. Training on the pursuit policy should also be part of the emergency driving course for academy recruits.

Recommendation 5.5. Training should help officers understand the importance of the policy and the agency's commitment to it and emphasize that the policy reflects the agency's ultimate goal of ensuring the safety of officers, suspects, and the community (i.e., the sanctity of human life).

Recommendation 5.6. Agencies should use shorter, targeted training sessions to deliver key information about the pursuit policy. Such microlessons can introduce newly added elements of an existing policy or address an issue that has been identified across the agency.

Recommendation 5.7. Agencies should ensure academy and in-service driver training incorporates scenario-based instruction. Scenarios should focus on realistic situations that officers experience in the field, and all officers should receive pursuit training at least every two years.

Recommendation 5.8. Agencies with limited ability to provide practical refresher training should consider purchasing, sharing, or leasing a driving simulator that can incorporate scenario-based and decision-making training.

Recommendation 5.9. Agencies should develop training to instruct all officers on why and how to minimize or avoid the risks of a pursuit by using surveillance and alternative tactics to apprehend suspects.

Recommendation 5.10. Agencies must develop training for every tactic and tool authorized for use by policy in a vehicle pursuit. Beyond the basic mechanics of how to use such tools, this training should cover the risks their deployment poses to the suspect, the deploying officer, and the public.

Recommendation 5.11. Officers should not be permitted to use any tactic or tool until they have received training. At least annually, officers should be retrained and tested on their knowledge and skill in executing the tactic or tool to maintain their proficiency.

Chapter 6. Community Engagement: Education, Input, and Transparency

Chapter 6 explains the importance of educating the community on the agency's pursuit policy, allowing community input, and providing transparency and accountability around vehicle pursuits. Recommendations include the following:

Recommendation 6.1. Agencies should educate their communities on the vehicle pursuit policy. This education should include helping the community understand the tradeoffs involved in initiating a pursuit and how the agency has decided to balance the risks (i.e., the agency's pursuit philosophy).

Recommendation 6.2. Agencies that have adopted a restrictive pursuit policy should communicate to the public that the policy does not neglect the safety and interests of the community. They also should highlight the technologies and investigative techniques at their disposal to track down offenders and hold them accountable.

Recommendation 6.3. Agencies should make their vehicle pursuit policies available to the public by posting them online, providing as much information as possible.

Recommendation 6.4. Agencies should engage with the community on the pursuit policy in multiple ways, including hosting community presentations or attending town hall meetings, offering civilian police academies, engaging with police advisory boards, having discussions with neighborhood watch captains, or reaching out to community stakeholders and city leaders.

Recommendation 6.5. When a vehicle pursuit results in death or significant injuries or otherwise attracts public attention, agencies should conduct a critical incident briefing with the community. Agencies should provide as much accurate information as possible to explain what happened and what they will do to prevent similar outcomes in the future.

Recommendation 6.6. Agencies should prepare a response strategy to ensure victims receive the services they need when a vehicle pursuit results in the injury or death of a bystander. This is a high priority—agencies should be prepared to reach out to victims and meet with them.

Recommendation 6.7. Agencies should include data on vehicle pursuits in an annual report. Such information should include, at a minimum,

- overall counts;
- the reasons for initiating the pursuit;
- how many pursuits were terminated by officers or supervisors;
- how many pursuits resulted in collisions, injuries, deaths, or property damage;
- the number of suspects identified;
- the number of drivers who fled but were not pursued;

- the ultimate outcome of the case (e.g., whether an arrest was made);

- the results of the administrative review (e.g., how many pursuits were within policy).

Call to action

By implementing these recommendations, law enforcement agencies can effectively manage the risks associated with vehicle pursuits. The prioritized action plan that follows can guide leaders in reviewing their agency's vehicle pursuits.

Prioritized action plan

This guide offers comprehensive advice on managing the risks of vehicle pursuits and provides information about best practices regarding them. Police executives may have limited time and resources to review their agency's pursuit policy, procedures, and training, so the following checklist prioritizes what steps to take:

1. Gather information
2. Outline key issues
3. Solicit subject matter expert input
4. Draft or update policy
5. Solicit feedback on draft policy
6. Finalize policy
7. Conduct training
8. Implement policy
9. Assess and address issues

1. Gather information. Agencies should gather information from within the agency and from the community regarding perceived challenges with vehicle pursuits and community expectations. They should also review data on the number of pursuits in a given recent time frame—particularly any pursuits that resulted in community concern. An outside assessment team can help execute this task, but agencies without such resources can use internal stakeholders. The key is to include diverse groups of stakeholders (e.g., patrol officers, command staff, crime analysts, and dispatch personnel within the agency) and to allow open debate. Agencies may also want to review policies in neighboring jurisdictions to understand where challenges may arise when operating across jurisdictions.

2. Outline key issues. Using the information they have gathered, agencies should identify the key issues requiring further discussion, including when a pursuit should be authorized, what pursuit technologies can be used, and when a pursuit should be discontinued.

3. Solicit subject matter expert input. Agencies should next gather smaller groups of subject matter experts to dive deeper into the key issues. These meetings will allow the agency to shape policy to reflect stakeholder expectations. These meetings can also establish the desired outcome of the policy and expected timeline for implementation.

4. Draft or update policy. The new policy should be drafted based on the information and expectations gathered in the previous steps. This guide provides many example policies and considerable background material to guide agencies in drafting their own policy. An outside assessment team can also recommend national best practices for the agency to include in its vehicle pursuits policy.

5. Solicit feedback on draft policy. Agencies answer to their communities and elected officials and therefore should consider their feedback on

policies. Agencies should also seek feedback from within the organization, including agency legal counsel, and from police unions in their jurisdictions.

6. Finalize policy. Agencies should carefully consider feedback before finalizing the policy, ensuring that it can equitably apply to all. After finalizing the policy, agency leaders should voice support for it and clearly outline their vision and expectations regarding pursuits.

7. Conduct training. Training should be intentional and may be most effective if it takes a different form than past training on vehicle pursuits (e.g., scenarios rather than policy reviews). Training should link to the policy and decision-making process. Having officers of higher rank conduct training can help demonstrate the organization's commitment to a new or revised policy, and informal leaders can lend credibility when they are also included as trainers. Different messaging may be needed for supervisors and patrol officers, but training should always emphasize the preservation of life.

8. Implement policy. Policy implementation should occur after comprehensive training. Implementation should include re-engaging the community (e.g., through a town hall meeting) to share the final policy. Agencies that adopt a policy that is more restrictive than their previous policy should educate community stakeholders on how they will use alternative approaches to hold offenders accountable and protect public safety.

9. Assess and address issues. Discussion and review of all pursuits, not just those with policy violations or negative outcomes, should become common practice. Constant monitoring through data collection will help determine if any changes to the enacted policy and practice are needed. Agencies should adopt a cyclical approach to policy review.

Introduction

High-speed vehicular pursuits are one of the most controversial and dangerous police activities.⁴ While officers' decisions to initiate or continue a pursuit are driven by an understandable desire to catch a fleeing suspect, this desire sometimes results in excessive risk-taking and negative consequences for officers, innocent bystanders, the motorist being pursued, and any passengers in either vehicle. A key consideration in pursuit policies must be the seriousness of the underlying crime and whether the risks of a pursuit outweigh the public safety benefits of apprehending the suspect.

A considerable amount of research, much of which will be discussed in this publication, has examined the circumstances of pursuits and associated outcomes, such as deaths and injuries of officers, suspects, and bystanders. Yet the field still lacks definitive guidance on policies and mitigation strategies. To limit potential negative impacts, some police agencies have adopted policies and systems for limiting police pursuits, but none has measured the impact of disparate policies to determine what works best.

In light of this dearth of information, some cities have banned pursuits completely as they conduct their own research on the risks of pursuits.⁵ Given the importance of this issue and the risks to law enforcement, a resource is needed for law enforcement that identifies solutions for managing high-risk vehicular pursuits. As part of a broader initiative to protect law enforcement, first responders, roadside crews, and others while on the job, Congress in 2020 directed the National Highway Traffic Safety Administration (NHTSA), in partnership with police jurisdictions, to conduct a study that would lead to the development of accurate reporting and analyses of crashes that involve vehicular pursuits. NHTSA and the Office of Community Oriented Policing Services (COPS Office) tasked the Police Executive Research Forum (PERF) with developing a guide, using the findings from that

“The second weapon issued to officers is the weapon they drive. The work that this working group does will save lives. It wasn't in time to save the lives of my wife and daughter, but it may be in time to save yours.”

— John Whetsel, Oklahoma County (Oklahoma) Sheriff (ret.)*

* John Whetsel's wife and daughter were innocent bystanders who were killed in a police vehicle pursuit crash in 1980. Dean, “For County Sheriff, Police-Chase Issue Became Personal.”

4. Alpert and Lum, *Police Pursuit Driving*; Alpert and Anderson, “The Most Deadly Force: Police Pursuits.”

5. For example, in January 2020, Atlanta Police Chief Erika Shields announced that she was suspending police pursuits pending a review of the department's policies. Stevens, “Atlanta Police Chief Halts All Vehicle Chases.”

research, to provide pursuit safety information, research data, and model policies to foster the promotion of safer vehicular pursuits.⁶

PERF convened a working group of subject matter experts as representatives of police jurisdictions from across the United States. This group reviewed previous research and collected and identified best practices in managing vehicular pursuits. Because model vehicular pursuit policies (e.g., state Police Officer Standards and Training Councils) are already readily available, this guide explains the context for decision-making on pursuit policy to help executives understand the choices and risks associated with pursuits and to guide them in making the best choices for their agency and community. This guide and accompanying online training will help agencies modify their existing policies, procedures, and training and manage vehicular pursuits.

This guide begins with background on vehicular pursuits, including research and data on them, as well as our project approach and methods. The subsequent chapters cover the following:

1. Department Philosophy and Policy Standards
2. Initiating and Discontinuing the Pursuit:
The Role of a Supervisor
3. Pursuit Interventions, Pursuit Alternatives,
and Technology
4. Post-Pursuit Reporting: Data Collection, Review,
and Accountability
5. Vehicle Pursuit Training
6. Community Engagement: Education, Input,
and Transparency

6. H.R. Rep. No. 116-106 and S. Rep. No. 116-009.

Background

Setting the stage—Pursuits and public safety

Pursuits occur in the broader context of public safety issues such as violent crime, risky driving behaviors, and suspects fleeing police.

After nearly a quarter-century of decrease, rates of violent crime have increased in the 2020s.⁷ Most recently, rates of homicide, aggravated assault (including gun assault), robbery, and domestic violence all increased significantly in the first half of 2020, following the onset of the COVID-19 pandemic.⁸ In particular, the U.S. murder rate increased 30 percent between 2019 and 2020.⁹ Police response to violent crime is at the forefront of priorities for communities today, with about six in ten Americans viewing violent crime as a very big problem.¹⁰

Risky driving behaviors are also a great concern. While total miles driven on U.S. roads remain below pre-pandemic levels, the number and rate of traffic fatalities have increased. For instance, the National Highway Traffic Safety Administration (NHTSA) estimates that 9,560 people died in motor traffic crashes in the first quarter of 2022, up 7 percent from the same quarter in 2021.¹¹ Few drivers increased their driving because of the pandemic. Importantly, however, “drivers who reported increasing their driving due to the pandemic were more likely to report engaging in a wide array of risky driving behaviors including distracted driving, speeding, aggressive driving, substance-impaired driving, and driving without wearing a seatbelt, among others.”¹²

Similarly, while no comprehensive national data are available, some police agencies have reported that the number of individuals fleeing from law enforcement during attempted traffic stops increased substantially during the pandemic. For example, as noted by Colonel Matthew Langer of the Minnesota State Patrol at the April 12, 2022, working group meeting, that agency—which practices robust data collection on vehicle pursuits—has seen a 150 percent increase in suspects fleeing traffic stops in the past five years. New Orleans Police Department Innovation Manager Captain Michael Pfeiffer (ret.) reported in an email on April 28, 2022, that his agency’s computer-aided dispatch (CAD) data showed a 40 percent increase in suspects fleeing traffic stops between 2020 and 2021.

7. Statista, “Reported Violent Crime Rate.”

8. Rosenfeld and Lopez, *Pandemic, Social Unrest, and Crime in U.S. Cities*.

9. Gramlich, “What We Know about the Increase in U.S. Murders in 2020.”

10. Parker and Hurst, “Growing Share of Americans Say.”

11. NHTSA, “NHTSA Early Estimates Show Record Increase.”

12. Tefft et al., *Self-Reported Risky Driving*, 6.

Given these increases in violent crime, risky driving behaviors, and suspects fleeing, police agencies should review their vehicle pursuit policies to ensure officers have a clear decision-making process to follow in complex, rapidly unfolding situations that could jeopardize public safety. This guide provides such a framework.

Pursuit myths

Agencies may hesitate to review and revise their vehicle pursuits policy because of the belief that pursuits always further public safety. Existing research and data, however, dispel many common myths regarding police vehicle pursuits.

Myth: People flee police only when they have committed a serious crime.

Reality: Research shows more than 90 percent of pursuits are initiated because of traffic violations.¹³ The California Highway Patrol's report on 2020 police pursuits found the top charges upon apprehension were for stolen vehicle, driving under the influence (DUI), resisting arrest, and suspended or unlicensed driver; combined, these accounted for 37 percent of all apprehensions and 22 percent of all pursuits.¹⁴ The most serious charge upon apprehension, attempted murder, accounted for less than 1 percent of apprehensions and less than 0.5 percent of pursuits. Similarly, data from the Harris County (Texas) Sheriff's Office 2020 Vehicle Pursuits Report show, for 410 pursuits in 2020, only three pursuits resulted in murder charges; more common were charges for driving while intoxicated (34 charges), unauthorized use of a motor vehicle (25 charges), and possession of a controlled substance

(21 charges).¹⁵ In sum, agency data show that if an officer is chasing someone, the suspect is much more likely to be fleeing because of a minor offense than because of a serious crime.

Myth: If police disengage from the pursuit, the suspect will keep driving dangerously or commit additional violent crimes (or both).

Reality: Approximately 75 percent of offenders have said they would slow down when they felt safe.¹⁶ To feel safe, offenders reported they would need to be "free from the police show of authority by emergency lights or siren for approximately two blocks in town, between two and 2.5 miles on the highway, and 2.5 miles on a freeway."¹⁷

A 2021 study explored the idea that reducing pursuits will increase criminal activity. Using the Roanoke County and Roanoke City (Virginia) Police Departments, researchers examined the effects of restrictive pursuit policies and found no evidence suggesting that reducing the likelihood of pursuits generates an increase in criminal activity. In fact, under more restrictive pursuit policies, arrest rates *declined* by approximately two percent. According to the researchers, "This suggests the police were freed to attend to more serious matters."¹⁸

Myth: If the police don't chase, everyone will flee.

Reality: Research suggests that if the police did not chase offenders, there would be no significant increase in the number of suspects who flee.¹⁹ Additional research suggests that agencies with more restrictive pursuit policies do not have higher crime rates. For example, in 2004, the Orlando (Florida) Police Department adopted a more

13. Fennessy and Joscelyn, "A National Study of Hot Pursuit;" Alpert and Lum, *Police Pursuit Driving*.

14. California Highway Patrol, *California Highway Patrol Report to the Legislature*.

15. Harris County (Texas) Sheriff's Office, *Vehicle Pursuits 2020*.

16. Dunham et al., "High-Speed Pursuit;" Alpert and Lum, *Police Pursuit Driving*.

17. Dunham et al., "High-Speed Pursuit."

18. Gillooly, Owens, and Mueller-Smith, *Measuring the Costs and Benefits*, 3.

19. Alpert, Dunham, and Stroshine, *Policing: Continuity and Change*.

restrictive pursuits policy, but Orlando's number of felonies decreased 1.1 percent that year even as the population continued to grow.²⁰

At the same time, there are risks to police pursuits. Policy and process can mitigate such risks.

Existing research on pursuits

Existing research identifies both the risks of police pursuits and how agencies may manage such risks.

Pursuit risk

Pursuits present risks to officers, innocent bystanders, suspects, and the broader community. The most recent national data on police vehicle pursuits, derived from Law Enforcement Management and Administrative Statistics (LEMAS) data for 2009 to 2013, found there were two serious injuries and 10 minor injuries for every 100 pursuits; 76 percent of serious injuries occurred to suspects, 21 percent to persons not involved in the pursuit, and 3 percent to law enforcement officers.²¹ The most recent Fatality Analysis Reporting System (FARS) data show an average of 370.5 fatal crashes per year due to police pursuits from 2015 through 2020 (see figure 1).²²

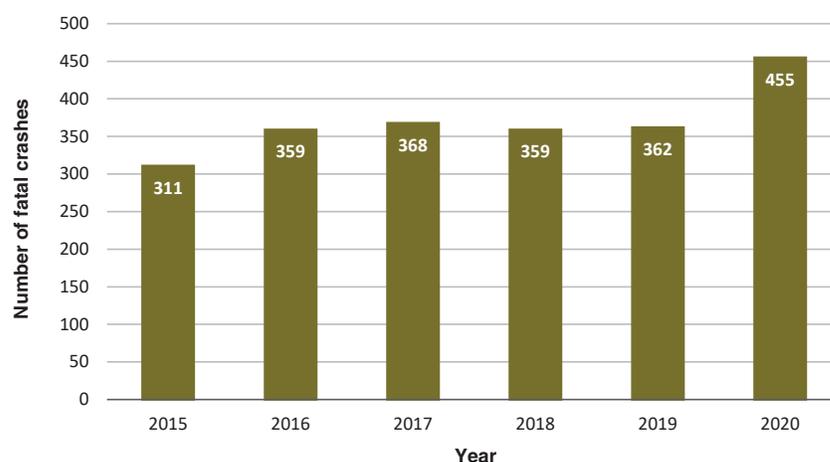
Earlier data on 7,737 pursuits recorded by 56 pilot test agencies between February 2001 and May 2007 in the International Association of Chiefs of Police (IACP) Police Pursuits Database indicate 23.5 percent of pursuits had a negative outcome, including accidents involving an injury or property damage. Nine percent of pursuits caused injury to the police, bystanders, or the suspect.²³

These data suggest that engaging in a pursuit may not always be worth the risks, particularly when a pursuit is not necessary to apprehend a suspect. Rather than assuming the risks of a pursuit, for example, an officer might collect vehicle license plate information to apprehend the suspect later. Every agency must analyze the costs and benefits of vehicle pursuits and determine the level of risk they are willing to accept.

Reducing risk

Agencies can manage the risks of pursuits by adopting restrictive policies, training officers to make good decisions, and leveraging technology to prevent pursuits or stop them more quickly and safely. Officers are responsible for some pursuit decisions, such as whether the pursuit of a particular suspect is justified under the circumstances. Chief executives are responsible for others, such as investing in technologies and determining the types of crimes that do not justify a pursuit under any circumstance. Establishing organizational

Figure 1. Fatal motor vehicle crashes involving a police pursuit, 2015–2020 (n=2,223)



Source: NHTSA, *Fatality Analysis Reporting System (FARS): 2015–2020 Final File*.

20. Alpert, Dunham, and Strohshine, *Policing: Continuity and Change*.

21. Reaves, *Police Vehicle Pursuits, 2012–2013*.

22. NHTSA, *Fatality Analysis Reporting System (FARS): 2015–2020 Final File*.

23. Lum and Fachner, *Police Pursuits in an Age of Innovation*.

accountability for pursuits and engaging the community to understand its priorities are also important elements of pursuit policies. Each of these topics is discussed in the sections that follow.

Reducing the number of pursuits

Agencies may choose to reduce the risk of pursuits by reducing the number of pursuits. One way to do so is through a restrictive pursuits policy under which officers may engage in pursuits only in specific situations, such as when the suspect has committed a violent felony. Bureau of Justice Statistics data show agencies that leave pursuits to officer discretion have double the rate of pursuits (17 per 100 officers annually) of those with restrictive policies (8 per 100 officers).²⁴

Beyond policy, agencies can also reduce the risk of pursuits by instilling a strong organizational culture of good decision-making where each member takes responsibility for managing risk.

Reducing the risk to officers

When pursuits do happen, agencies and officers should mitigate their risks. Reducing officer risk starts with strong training on topics such as understanding the agency's pursuits policy, driving safely, using decision-making skills at each step of the pursuit, and executing tactics. Officers who engage in more risky pursuit intervention tactics, such as the precision immobilization (or pursuit intervention) technique (PIT) maneuver (see page 73), should receive specialized training on those techniques.²⁵

Good supervision is vital to reducing risk to officers and includes “direction, training, investigation, and discipline.”²⁶ Supervisors can help their officers stay calm and follow policy during high-stress pursuits. Supervisors should provide their officers with feedback and instruction after a pursuit and provide proper discipline and direction if an officer violates agency policy.²⁷

Officers may use special interventions, such as spike strips and other tire deflation devices (TDD), to end pursuits. But because such interventions pose their own risks, officers must receive training in these tactics and use decision-making skills to determine risk. Agency policy should specify “under what circumstances and conditions each approved tactic is authorized to be used.”²⁸

Agencies should also emphasize the alternatives to pursuits for apprehending a suspect. If an officer can apprehend a traffic law violator or a criminal offender through safer methods, then they should do so. Officers who know the identity of an offender may be able to apprehend them later in a less dangerous place, such as their home.²⁹ To apprehend a suspect in alternative ways, officers need means to identify suspects without continuing the pursuit, such as getting the license plate information for the fleeing vehicle.³⁰ Agencies may also consider allowing officers to follow the suspect at a safe speed. Nassau County, New York, cites “three examples of situations in which following at a safe speed is preferable to a high-speed chase: (1) when hostages are involved, (2) when an occupant is already known to be the subject of an alarm,³¹ and (3) when pursuit is in heavy traffic. In these instances, the officer is to call for assistance.”³²

24. Reaves, *Police Vehicle Pursuits, 2012–2013*.

25. Zhou, Lu, and Peng, “Vehicle Dynamics.”

26. Alpert, Kenney, and Dunham, “Police Pursuits and the Use of Force.”

27. Alpert, Kenney, and Dunham, “Police Pursuits and the Use of Force.”

28. California POST Commission, *California Law Enforcement Vehicle Pursuit Guidelines 2022*, 20.

29. Nugent et al., *Restrictive Policies*.

30. Nugent et al., *Restrictive Policies*.

31. Such subjects are potentially dangerous and are likely to avoid apprehension if they suspect they have been identified.

32. Nugent et al., *Restrictive Policies*.

Reducing the risk to suspects

Pursuits also pose risk to the suspects. It is important that law enforcement consider the potential harm to the suspect when deciding whether to engage in a pursuit.

Using technology can help reduce pursuit risk to the suspect. One example is StarChase, which “developed a tagging and tracking technology that allows law enforcement to deploy a global positioning system (GPS) tag onto a fleeing vehicle. This allows the pursuing vehicle to fall back and drive a slower, safer tactical interdiction.”³³ Field testing funded by the National Institute of Justice (NIJ) found that on average, a tagged fleeing suspect slowed to within 10 miles of the posted speed limit in less than two minutes, reducing the risk for a crash.³⁴ This technology helps avert a lengthy and dangerous pursuit that could harm the suspect as well as the officers and public.

These findings reinforce older attitudinal data collected via interviews with jail inmates recently involved in pursuits. This research explains that “understanding the interaction patterns between officers and suspects becomes central to controlling the negative outcomes of pursuits.”³⁵ Officers should be shown evidence that terminating a pursuit is often the best course of action. Research shows that approximately 75 percent of offenders report that they would slow down when they felt safe.³⁶ As noted, offenders stated that to feel safe, they would need to be “free from the police show of authority by emergency lights or siren for approximately two blocks in town, between two and 2.5 miles

on the highway, and 2.5 miles on a freeway.”³⁷ Therefore, terminating the pursuits may be the safest thing to do in some circumstances.

Officers’ perceptions of fleeing suspects’ behavior align with these findings. Specifically, a survey of more than 1,000 officers found that after a chase is terminated, a fleeing suspect quits running after 1.7 blocks for in-town pursuits and seven miles for out-of-town pursuits, on average.³⁸ Further attitudinal studies are underway to explore how suspect views and behaviors may have changed in recent years. A series of interviews was conducted in Minnesota with officers, public defenders, and individuals who have fled from police to further understand motivations and decision-making in all involved parties throughout a pursuit.³⁹

Establishing organizational accountability for pursuits

Agencies need to hold officers and supervisors accountable for their actions and decisions to ensure they are following pursuit policies and procedures. Agencies should always be investigating where to adjust policy or practice and where discipline and re-training may be needed.

To provide accountability and oversight, agencies must have stringent reporting requirements and all pursuits must be documented. Agency reporting requirements should include “who is required to complete a report; which are the appropriate forms to be used; and what are the designated timeframes for completion.”⁴⁰ Supervisors and command staff should review all pursuit reports to determine whether the pursuit was in line with agency

33. Fischbach, Hadsdy, and McCall, *Pursuit Management*.

34. Fischbach, Hadsdy, and McCall, *Pursuit Management*.

35. Dunham et al., “High-Speed Pursuit.”

36. Dunham et al., “High-Speed Pursuit.”

37. Dunham et al., “High-Speed Pursuit.”

38. Schultz, Hudack, and Alpert, “Evidence-Based Decisions.”

39. Morris and Craig, *Understanding the Nature of Vehicle Pursuits*.

40. IACP, *Vehicular Pursuits*.

policy.⁴¹ Agency reviews should be more thorough of any pursuit that ended in “fatality, injury, or serious property damage. These investigations should be conducted by individuals who were not directly engaged in the pursuit.”⁴² Agencies must have strong internal review processes for individual pursuit reports to ensure that reporting is accurate and agency policy is followed, as well as to provide any necessary remedial training to officers.⁴³

In addition to reviewing individual pursuits, agencies should have an agency-wide review process to identify any systemic issues and changes needed. Having a command-level employee conduct an annual review of all agency pursuits will provide data for assessing whether policy or training changes are needed.⁴⁴ For example, agencies may need to search for “ghosted pursuits,” that is, the “practice of pursuing fleeing vehicles without reporting the pursuit.”⁴⁵

Engaging the community

Ultimately, it is up to individual agencies to decide how much risk they are willing to accept while balancing their community’s needs and expectations for public safety. Community expectations will vary by jurisdiction, and agencies must consider these expectations when developing policy and practices on vehicle pursuits.⁴⁶ Community engagement can include hosting community presentations or attending town hall meetings, offering civilian police academies, engaging with police advisory boards, having discussions with neighborhood watch captains, or reaching out to community stakeholders and city leaders. Chapter 6 will discuss community engagement in depth.

41. IACP, *Vehicular Pursuits*.

42. IACP, *Vehicular Pursuits*.

43. Alpert, Kenney, and Dunham, “Police Pursuits and the Use of Force.”

44. Whalen, *Police Pursuits: Managing Risk*.

45. Pfeiffer and Alpert, “Developing Methodology.”

46. For an example of engaging the community on pursuit policy, see the Ohio Attorney General’s Advisory Group on Law Enforcement Vehicular Pursuits, *Special Report*.

47. IACP, *Vehicular Pursuits*.

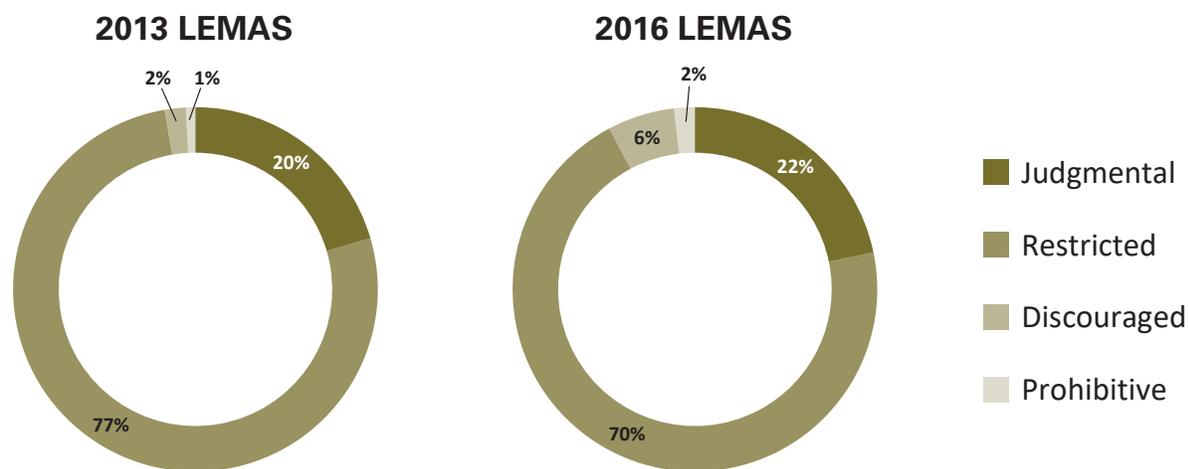
Types of pursuit policies

Agencies adopt pursuit policies based on the needs of their individual officers, organization, and community.

The main types of pursuit policies are as follows:

- **Discretionary.** The officer has discretion to determine whether to engage in or continue the pursuit.
- **Permitted or supervisory review.** Pursuits are subject to supervisory approval or review.
- **Restricted.** Officers may engage in pursuits only in very specific situations, such as when the suspect has committed a violent felony.
- **Prohibitive.** Pursuits are not allowed under any circumstance.⁴⁷

An agency’s pursuit policy is directly related to its risk-management approach. Some agencies may not be willing to take on any risk that comes with vehicular pursuits and choose a **prohibitive policy**, banning all pursuits. If agencies are willing to allow pursuits, they must determine who will have responsibility for managing risk. A **discretionary policy** allows the individual officer to determine the pursuit risk. Agencies often choose to allow officers to make the pursuit decisions because officers are at the scene and therefore have the most information to make an educated decision. Other agencies may adopt a **permitted or supervisory review policy**, which requires a supervisor to determine the acceptable level of risk. In this case, the officer will make the initial decision about whether to pursue, with the supervisor later assuming control of the pursuit as the officer provides

Figure 2. Comparison of written policies for pursuit driving, 2013 and 2016

Source: NHTSA, *Fatality Analysis Reporting System (FARS): 2015–2020 Final File*.

updated information about the pursuit. This approach “provides a level of objectivity to the pursuit decisions and theoretically allows for a rational evaluation of risks versus potential advantages.”⁴⁸ Finally, in a **restrictive policy**, the agency determines the acceptable level of risk by designating specific offenses, such as violent felonies, as serious enough to warrant pursuit. Restrictive policies generally prohibit pursuits resulting from minor traffic violations.⁴⁹ Agencies must determine their pursuit

philosophy and decide who should manage risk to select the pursuit policy that best fits their culture, goals, and risk tolerance.

Pursuit policies became more restrictive between 2013 and 2016, LEMAS data⁵⁰ show, as more agencies adopted written policies that prohibit or discourage pursuits (see figure 2). But many others left pursuit decisions to officers to make based on criteria such as type of offense or speed.

48. IACP, *Vehicular Pursuits*.

49. IACP, *Vehicular Pursuits*.

50. Unweighted percentages shown. This question had different answer options between the 2013 and 2016 LEMAS. For 2013, the figure combines “Permitted-officer discretion” and “Permitted-subject to review” into the *Judgmental* category shown. BJS, *LEMAS 2013*; BJS, *LEMAS 2016*.

Project Methodology

To identify best practices in vehicular pursuits policies, the project team (1) reviewed existing research; (2) reviewed agency policies on vehicle pursuits; and (3) held discussions with the Pursuits Working Group, which comprised experts from police agencies across the country.

Literature review

The review of previous research helped identify gaps in the existing literature and support recommendations included in this guidebook. The team reviewed existing research and case studies at the national, state, local, regional, and international levels. Among the topics the team examined were arrests, crashes, damage, data collection, discipline, fatalities, injuries, new technologies, officer characteristics, outcomes, precision immobilization (or pursuit intervention) technique (PIT) maneuver, pursuit policy, pursuit reasons, pursuit termination, reporting, suspect characteristics, training, and use of force.

Agency policy review

The team reviewed 48 pursuit policies from state, local, and sheriffs' agencies in 27 states. All policies were either publicly available or provided directly to the Police Executive Research Forum (PERF) with agency permission. The team reviewed policies from the working group members' agencies along with a convenience sample of additional policies, ensuring a diverse group by geography, size, and population. All policies recommended for review by the working group and other subject matter experts on the project were included in the review process. The reviewed policies ranged from discretionary to restrictive. The team compared policies to one another as well as to pursuit policy considerations outlined by the International Association of Chiefs of Police (IACP).⁵¹ See appendix B for the list of pursuit policies the PERF project team reviewed.

51. IACP, *Vehicular Pursuits*.

Pursuits working group

Selection of working group members

PERF identified subject matter experts to serve as working group members for this project. They included nationally renowned experts on law enforcement vehicle pursuit issues, such as innovative pursuit technologies, speed and pursuit management strategies, data collection practices, and strategies for evaluating the effectiveness of pursuit management strategies. They also represented a variety of agency types, sizes, and geographic locations.

See appendix A for a list of working group members along with project staff from PERF, the Office of Community Oriented Policing Services (COPS Office), and the National Highway Traffic Safety Administration (NHTSA).

Working group meetings

The working group held 11 meetings between December 2020 and April 2022. Each meeting focused on a specific topic related to pursuits and featured a guest speaker. Topics covered include guiding philosophy for pursuit policies; department philosophy and policy standards; jurisdictional and agency type considerations; situational factors to consider in initiating, continuing, and terminating a pursuit; data collection and analysis; community engagement; reckless drivers; decision-making and role responsibilities; pursuit tactics; technology; inter-jurisdictional pursuits; street racing, DUI checkpoints, and other special situations; PERF's Critical Decision-Making Model (CDM) and Integrating Communications, Assessment, and Tactics (ICAT) training; agency culture; post-pursuit reporting; review and accountability; state agencies; culture change; agency types; prioritized action plan; online training; and tribal agencies. Appendix A

includes a list of guest speakers from these meetings. The working group provided valuable input and feedback in development of this guidebook.

Guide overview

This guide presents recommendations derived from a review of research and case studies combined with the expertise of working group members. These recommendations address operational practices, procedures, and policies, as well as community concerns and legal issues. The guide also outlines guidance for agency training, which should be consistent with each agency's policies and protocols.

This guide includes recommendations for instituting accountability mechanisms and review processes to ensure that agencies adequately capture detailed information about all aspects of pursuits. This accountability includes developing appropriate reporting forms and procedures, implementing a supervisory review process, and requiring documentation. Inspections can help to determine whether an agency's procedures and policies are being properly implemented, whether resources are used wisely, and whether there are any deficiencies in areas such as training or supervision. Recommendations also cover best practices regarding decisions about pursuits, including guidance for determining whether pursuits have occurred but were not reported to supervisors, information on tools that can help identify officers who initiate a disproportionate number of pursuits, and recommendations on appropriate action (e.g., counseling, training, formal discipline) to ensure that policy violations are addressed.

1. Agency Philosophy and Policy Standards

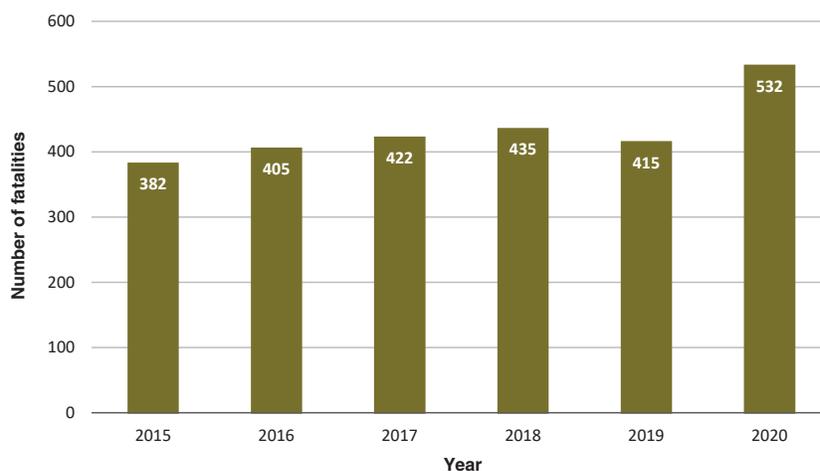
Engaging in a vehicle pursuit to apprehend a fleeing suspect can involve competing public safety interests. Apprehending individuals who have committed crimes and harmed the community certainly advances the interest of public safety. Nevertheless, attempted apprehensions of such persons that involve dangerous vehicle pursuits can place the public, officers, and suspects at risk. Engaging in a vehicle pursuit therefore involves balancing the risks of such a pursuit with the risks of not apprehending the suspect immediately. Vehicle pursuits should only occur when their risks are clearly outweighed by the risk of not apprehending the suspect. To operationalize this rule, it is important to understand how risk is defined.

Understanding the risks

Engaging in a vehicle pursuit involves risk to innocent bystanders, the officers in the pursuing vehicle, and the suspect and any other occupants of the car being pursued. The degree of risk will depend on circumstances that may change during a pursuit. Suspects driving aggressively, erratically, or recklessly to evade capture or officers' pursuit of such suspects can cause a collision that results in property damage, injury, or even death.

On average, crashes occur in at least 30 percent of vehicle pursuits, and injuries or fatalities occur in 5 to 17 percent of pursuits.⁵² Fatalities, which remained steady from 2015 through 2019, rose noticeably in 2020, up 39 percent from 2015 (figure 3).⁵³

Figure 3. Pursuit-related fatalities, 2015–2020 (n=2,604)



Source: NHTSA, *Fatality Analysis Reporting System (FARS): 2015–2020 Final File*.

52. Alpert and Lum, *Police Pursuit Driving*.

53. Reaves, *Police Vehicle Pursuits, 2012–2013*, appendix table 9, 13.

Law enforcement must weigh these risks against the risks of not pursuing the suspect. For example, a suspect who has committed a series of violent crimes presents an ongoing threat to the public as well as officers.

Balancing the risks

The key question for initiating or continuing a pursuit is, Does the need to immediately apprehend the suspect clearly outweigh the risks of the vehicle pursuit? This is sometimes referred to as the “balancing test” or a “risk vs. reward” assessment (see figure 4).

An agency’s vehicle pursuit philosophy establishes the general circumstances where the risks of engaging in a vehicle pursuit may be justified. This philosophy helps agency personnel understand the weight to assign to the specific risks associated with each course of action (deciding to pursue, continue to pursue, or not to pursue) and guides considerations of how to balance the competing benefits and risks.

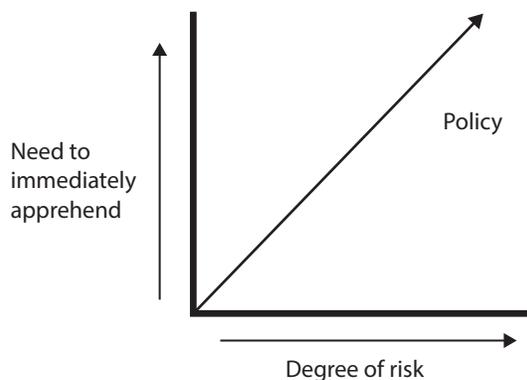
The agency’s vehicle pursuit philosophy will help guide the development of the agency’s vehicle pursuit policy, which details how officers should evaluate and balance these risks under specific circumstances. Importantly, agencies must consider applicable state laws when adopting or modifying agency policies.

Defining “vehicle pursuit”

Every policy must clearly define what constitutes a vehicle pursuit in a way that can be applied by the officer in the moment, the supervisor monitoring the radio broadcast, and those responsible for reviewing the incident after the fact.

When a vehicle pursuit is said to begin should depend on overt actions taken by the parties. These overt actions can include the officer activating emergency lights and siren in an attempt to stop the vehicle, and

Figure 4. Analysis of pursuit driving



Source: Alpert, “The Management of Police Pursuit Driving,” 518.

the suspect driver refusing to comply past the reasonable point at which a person should know they are being stopped.

A policy should highlight the suspect’s actions after the officer signals them to stop so officers can distinguish between a suspect trying to evade them and a driver who is seeking a safer area to pull over, such as a well-lit gas station. Evasive actions by the suspect and continued attempts by the officer to keep contact with the suspect are clear indications of a vehicle pursuit.

The key components of a vehicle pursuit, which a policy should capture, are as follows:

1. **Active attempt by the officer to stop the vehicle**—e.g., activating emergency equipment (lights, siren, winking headlights)
2. **Driver’s refusal to submit to the officer’s authority to stop and actions to avoid apprehension**—e.g., speeding up, making quick turns, disobeying traffic signals, turning off headlights

A definition including these factors should make clear that driving in a legal manner and obeying all traffic laws but failing to yield to an officer’s audible and visual

Recommendation 1.1. Agency policy should clearly define what constitutes a vehicle pursuit.

- This definition should include (1) an active attempt by the officer to apprehend the occupant of the vehicle and (2) the driver refusing to submit to the detention and taking actions to avoid apprehension.
- The policy should also state that following a driver who fails to yield to the officer’s signal to stop but continues obeying all other traffic laws does not in itself constitute a pursuit. Continuing to follow a vehicle being driven in this manner may be permitted for a short time

so the officer can obtain needed information about the vehicle (e.g., license plate, make, model, and color) and its occupants (e.g., physical descriptions) to take enforcement action later (e.g., file a citation). Once the officer has such information and the vehicle has failed to yield and passed safe locations to do so, the officer shall discontinue the attempt to stop the vehicle and pursue alternative enforcement measures. An exception is warranted if the officer, after running the driver’s information, develops a reasonable suspicion that the driver was involved in a violent crime and presents an imminent threat to the community.

signal to stop may not, by itself, constitute a vehicle pursuit. What follows is policy language from two agencies illustrating these key elements:

Minnesota State Patrol

A. Motor Vehicle Pursuit

1. An active attempt by a sworn member operating a patrol unit to apprehend a driver of a motor vehicle who, having been given a visual and audible signal by a peace officer directing said driver to bring their vehicle to a stop, increases speed, extinguishes motor vehicle headlights or taillights, refuses to stop the vehicle, or uses other means with intent to attempt to elude a peace officer.⁵⁴

Alexandria (Virginia) Police Department

Pursuit – An active attempt by an officer in an authorized emergency vehicle to apprehend a suspect who is fleeing or evading apprehension, provided the officer reasonably believes that

the suspect is refusing to stop and is willfully fleeing capture by high-speed driving or other evasive maneuvers. Pursuits shall be conducted only with activated emergency equipment [. . .] and under circumstances outlined in this directive. An attempt to stop a vehicle that is not fleeing, or attempts to stop a vehicle that is refusing to stop while still obeying traffic control devices and not exceeding the speed limit by more than ten miles per hour is not a pursuit.⁵⁵

Agencies must train officers to understand how to apply this definition. That is, officers must be able to identify the moment when a stop becomes a vehicle pursuit.

Supervisors and those responsible for reviewing vehicle pursuits also should receive training on how to apply this definition to dynamic situations. This may involve understanding the time it takes officers to process information they receive under stress. Proper decision-making and accountability rely on a common understanding and application of this key transition.

54. Minnesota State Patrol, *General Order 19-20-012 Motor Vehicle Pursuit*.

55. Alexandria (Virginia) Police Department, *Directive 10.11B Emergency Vehicle Pursuit*.

Milwaukee (Wisconsin) Police Department—Pursuit Policy Revisions between 2010 and 2017

In 2009, three separate police vehicle pursuits in Milwaukee, Wisconsin, resulted in the deaths of four innocent bystanders.* These tragic incidents caused the Milwaukee Police Department (MPD) to reassess how it approached vehicle pursuits and resulted in the adoption of a new, more restrictive policy in March 2010.†

Following implementation of the new policy, the number of pursuits fell by 59 percent, from 167 in 2009 to 68 in 2010, the largest decline since 2002.‡ As would be expected, the number of pursuits resulting in injury or death also declined.

After several years of this restrictive policy, however, MPD began to allow pursuits in additional situations. Many of these changes were based on increases in certain crime categories and community concerns.

As each new category was added, the total number of pursuits rose. In June 2015, for example, the policy was amended to authorize pursuits for carjackings;§ total pursuits increased by 166 percent that year (from 99 to 263). In September 2017, the policy was revised again to permit pursuits for reckless driving and vehicle-based drug dealing; total pursuits increased more than 150 percent the following year (from 369 to 940). This increase mostly reflected the large number of pursuits for reckless driving, which made up 67 percent of the 2018 total.

Not surprisingly, as the number of pursuits increased, the numbers of injuries and deaths did as well. The fatalities included a Milwaukee police officer who was killed in a crash while pursuing a reckless driver.** Officer Charles Irvine, Jr., was the first Milwaukee officer killed in the line of duty since 1996.

* Wexler, “Don’t Revert to Police Pursuits that Endanger the Public.”

† Under the new policy, a pursuit was authorized only if the officer had probable cause to believe a violent felony had occurred or was about to occur. The original policy required reasonable suspicion that the suspect had attempted or was attempting to commit a serious offense.

‡ City of Milwaukee Fire and Police Commission, *2018 City of Milwaukee Fire and Police Commission Vehicle Pursuit Report*.

§ This revision had the effect of allowing officers to pursue the vehicle involved in those crimes as opposed to pursuing a particular person under the prior standard.

** Moreno, “Milwaukee Police Officer Killed in Crash.”

Vehicle pursuit philosophy—When may a pursuit be justified?

Balancing the risks involved in a vehicle pursuit begins even before the officer attempts a vehicle stop. While the individual circumstances of an incident cannot be known ahead of time, police executives can assess which types of situations might justify a vehicle pursuit, and which would not.

A vehicle pursuit philosophy communicates how the risks related to vehicle pursuits must be viewed and sets a threshold that must be met before officers can engage in or continue a vehicle pursuit.

A restrictive pursuit philosophy asserts that the potential harm presented by the suspect’s escape must be significant to justify a vehicle pursuit. For an agency that adopts this philosophy, a vehicle pursuit is justified only where there is a known, ongoing, and imminent threat to the community if the suspect is not apprehended immediately. A restrictive philosophy adopted by agency leadership thus takes some of the burden of pursuit decision-making off officers.

Obvious examples of ongoing and imminent threats to the community include a suspect involved in a drive-by shooting or a crime spree where a suspect has committed multiple armed robberies in a short period of time. In contrast, a suspect who had committed only property crimes or a simple assault and could be arrested at a different time and location would not justify a vehicle pursuit.

Many agencies represented in the working group have adopted restrictive vehicle pursuit philosophies, believing that such philosophies save lives by limiting the overall number of pursuits. The case study discussed in the sidebar provides an example of how such philosophies can indeed increase safety.

Following are two examples of policy language reflecting a restrictive vehicle pursuit philosophy:

Charleston (South Carolina) Police Department

The decision to initiate or continue a vehicular pursuit will be based on the pursuing officer's conclusion that the immediate danger to the public created by the pursuit is less than the immediate or potential danger to the public if the suspect remains at large. Officers will view the initiation or continuation of a pursuit in the same light as a potential use of "DEADLY FORCE." As in the use of a firearm, it is necessary for officers and supervisors to evaluate the risks to the public and themselves compared to the nature of the offense for which the subject is being pursued, the danger to the public if the subject is not apprehended, and the possible alternative methods of apprehension.⁵⁶

Burlington (North Carolina) Police Department

It is the policy of this department to weigh the importance of apprehending suspects who unlawfully flee from law enforcement against the risks associated with vehicle pursuits.

The goals of this policy and the Burlington Police Department are threefold:

- (a) to prevent pursuits whenever possible;
- (b) to safely and effectively end pursuits as quickly as possible;
- (c) to protect the lives and safety of everyone including innocent motorists, officers, and suspects.

The sanctity of life is a core value of the Burlington Police Department.⁵⁷

Recommendation 1.2. Agencies should adopt restrictive vehicle pursuit philosophies that permit pursuits only for a limited and serious set of circumstances, which should be clearly and specifically articulated. This guide recommends adopting a standard that permits pursuits only for violent crimes and where failure to immediately apprehend the suspect presents an imminent threat to the public based on the suspect's criminal actions (not the danger created from the suspect's driving as they flee from police, even if the officer believes an individual in the suspect's vehicle is armed and dangerous). This philosophy must be reinforced throughout the agency's policy, training, and organizational culture.

Vehicle pursuit policy—When is a pursuit authorized?

A vehicle pursuit policy operationalizes the agency's philosophy by communicating agency expectations and providing explicit guidance to officers about how to determine when the risks posed by a vehicle pursuit are justified. An agency's policy must go beyond general concepts and identify specific situations that justify the risks of a vehicle pursuit.

Vehicle pursuit policies vary greatly in the degree of discretion given to the officer in making decisions. Given the significant potential consequences of a vehicle pursuit, an agency's policy should set a clear minimum standard for the situations that justify taking the risks of a pursuit.

56. City of Charleston (South Carolina) Police Department, *General Order 27 Vehicle Pursuit*.

57. Burlington (North Carolina) Police Department, *Policy 307 Vehicle Pursuits*. This pursuit philosophy is accompanied by a restrictive policy that authorizes pursuits only when "there is reason to suspect that a driver or occupant has committed or is attempting to commit a violent forcible felony and the suspect has been given an appropriate signal to stop by a law enforcement officer, is attempting to evade arrest or detention by fleeing in a vehicle (N.C.G.S. § 20-141.5) when officers can articulate the exigent need to apprehend the suspect(s) due to the ongoing threat presented to the public."

In addition to the initial “authorization” standard, a policy should contain a framework that helps officers properly assess the risks and make good decisions in continuing pursuits. The standards established in policy also provide the foundation for two other important risk management elements—training and accountability, which are discussed in chapters 4 and 5.

Restrictive pursuits policy

An agency’s policy should articulate the minimum standard for authorizing a vehicle pursuit. This should be a clear bright line, based on the suspected crime and risk to the community, that lets officers determine whether they may be authorized to pursue a suspect. The agency must provide specific guidance to officers through policy and training. When officers are given only vague direction, they must make a series of decisions as they are driving, communicating on the radio, and involved in other tasks. But when there are clear rules, such as those on offenses that do not justify a pursuit, officers understand that the agency believes that the risks associated with a vehicle pursuit outweigh the need to apprehend the suspect.

Many of the agencies represented in the working group have adopted restrictive pursuit policies as more research has been made available to them.

A 1997 study found that among agencies that had modified their pursuit policies in the previous two years, most made their policy more restrictive.⁵⁸ A more recent study found that most written vehicle pursuit policies for state law enforcement agencies (53 percent), sheriffs’ offices (63 percent), and local police departments (71 percent) were based on restrictive criteria, and these policies used specific criteria (e.g., type of offense, speed, surrounding conditions) to define when a pursuit was permissible.⁵⁹

58. Alpert, “Police Pursuit: Policies and Training.”

59. Reaves, *Police Vehicle Pursuits, 2012–2013*

60. See appendix B for a list of all the policies reviewed for this guide.

61. The working group chose the term “violent crime,” rather than “violent felony” or some other term, because different jurisdictions classify crimes differently. Agencies must make their own determinations about which crimes under their criminal statutes qualify as a “violent crime.”

Among policies reviewed for this guide,⁶⁰ there was some variety in justifications for a vehicle pursuit. But two common justifications in the more restrictive policies were (1) the suspect is wanted for a violent crime and (2) failure to apprehend them immediately presents an imminent risk to the community. These elements are discussed in detail in the next section.

Violent crime standard

Given the risks to human life presented by vehicle pursuits, this guide recommends that pursuits be authorized only for a suspect wanted for a violent crime.⁶¹ What constitutes a violent crime should also be clearly defined in policy. In some cases, an agency will enumerate exactly which crimes (or statutes) provide the basis for a vehicle pursuit (see Charleston policy that follows), while other agencies will use a more general definition of a violent crime (see Virginia Beach policy that follows).

Charleston (South Carolina) Police Department—Enumerated violent crimes, “armed and dangerous” category

Pursuits are permitted only under the following circumstances:

1. When an officer has reasonable grounds to believe the suspect has committed, or is attempting to commit, one of the following felonies or misdemeanors of a violent nature towards a person:
 - a. Murder; manslaughter, rape or other felonious sex offense; kidnapping, robbery; aggravated assault;

2. When an officer has reasonable grounds to believe the suspect has committed, or is attempting to commit, a crime which involves the use of a firearm or explosive device, even if such crime is classified as a misdemeanor; the occupants are **armed and dangerous**.⁶²

Virginia Beach (Virginia) Police Department General violent crime, “armed and dangerous” category

A pursuit may be initiated based upon a reasonable belief:

1. At the time the pursuit is initiated that the occupant(s) of the vehicle are 1) **armed and dangerous** or 2) have committed or attempted to commit a **violent felony**; [. . .]

Violent Felony – Any felony involving physical force or violence, threatened or actual, against another person including, but not limited to: murder, manslaughter, mob-related offenses, rape, kidnapping or abduction, robbery, malicious assault, escape by force, placing or detonating a destructive/explosive device or bomb, or any other felony which involves the use or threatened use of physical force or violence against another person.⁶³

Agencies can choose to be even more restrictive by limiting the types of violent crimes that qualify (e.g., felonies only). The most important element of this policy standard is clear language that allows officers to easily determine which violent crimes authorize officers to pursue

a suspect. To clarify this distinction further, the policy can also explicitly state that vehicle pursuits are prohibited for all other types of crimes, including property crimes, nonviolent misdemeanors, and traffic offenses (see Atlanta policy that follows).

The policy should establish the degree of certainty the officer must have that the person in the vehicle is connected to the crime. At a minimum, the officer should be able to articulate a reasonable suspicion that the person being pursued was involved in the violent crime. This is the standard used by most agencies (some use “reasonable belief”), which is a standard that officers are familiar with in relation to detentions. A few agencies use a higher standard, such as probable cause or the officer’s direct knowledge (see Atlanta policy that follows).

Atlanta (Georgia) Police Department Prohibited crime categories, imminent threat

An officer’s decision to pursue a vehicle that refuses to stop may only engage in a pursuit when:

1. They have direct knowledge⁶⁴ that a fleeing suspect has committed a forcible felony;⁶⁵
2. The fleeing suspect has attempted to commit a violent forcible felony which the officer has direct knowledge of; and
3. **The escape of the subject would pose an imminent danger of death or serious bodily injury to the officer or to another person.**

62. City of Charleston (South Carolina) Police Department, *General Order 27 Vehicle Pursuit*. Emphasis added.

63. Virginia Beach (Virginia) Police Department, *Operational General Order 10.04 Biased Policing*. Emphasis added.

64. “Direct Knowledge” is defined later in the policy as “An offense in the presence of the officer or in the presence of another officer who has in turn provided detailed information establishing the elements of the offense and a clear description of the vehicle.”

65. This policy specifies that pursuits are authorized only for the following crimes: murder, voluntary manslaughter, involuntary manslaughter, homicide by vehicle in the first degree, armed robbery, hijacking a motor vehicle, aggravated assault, kidnapping, and escape from lawful custody or confinement.

Pursuits are prohibited for the following types of offenses:

1. Property offenses,
2. Misdemeanor offenses,
3. Traffic offenses, or
4. Civil infractions.

Officers are not authorized to engage in a vehicle pursuit in order to subdue an escaping suspect who presents no imminent threat of death or serious injury. Vehicle pursuits may never be used for the protection of property.⁶⁶

Imminent threat standard

Before engaging in a vehicle pursuit, officers must determine that allowing the suspect to remain at large presents an ongoing and imminent threat to the general public, officers, or a victim (see Atlanta policy just discussed and Fayetteville policy that follows). An example would be a suspect involved in a string of armed robberies who, if not apprehended, would likely continue victimizing members of the community. The key elements of this standard are that officers must be able to identify and articulate this threat and the “imminent threat” must be based on the suspect’s criminal actions—not simply the danger created from their driving as they flee from police.

Fayetteville (North Carolina) Police Department General violent crime, imminent threat

Officers are authorized to pursue when:

1. The officer has reasonable suspicion that the driver or occupant of the vehicle has committed or is attempting to commit a **crime which is considered to be dangerous to human life.**

2. The officer can articulate the exigent need to apprehend the suspect(s) because of potential harm to the public if they are not apprehended without delay.
3. The Watch Commander or a supervisor may authorize a vehicular pursuit that does not meet the above criteria only in exceptional circumstances.⁶⁷

Other standards

Several policies reviewed during this project listed additional situations for which a vehicle pursuit was authorized. For example, some policies permitted officers to pursue a suspect who was “armed and dangerous” (see Charleston and Virginia Beach policies previously discussed). Such a standard would fit with restrictive policies because an armed suspect would likely present an imminent danger to the community; however, this term must be clearly defined in the policy so that it is not open to interpretation by each officer.

Virginia Beach (Virginia) Police Department

Armed and Dangerous – A person who has committed or attempted to commit any offense involving the unlawful discharge, display, possession, or use of a firearm or explosive device in such a manner as to provide an officer reason to believe that the person presents an immediate threat to the public.⁶⁸

Agency policies must be consistent with the jurisdiction’s laws on legal possession of a firearm in public, as many states have both “open” and “concealed” carry with and without permits. For this pursuit category, the weapon cannot simply be “possessed;” it has to be an element of an offense.

66. Atlanta (Georgia) Police Department, *APD, SOP .3050 Pursuit Policy*. Emphasis added.

67. Fayetteville (North Carolina) Police Department, *Written Directive 4.2 Vehicle Operations and Pursuits*. Emphasis added.

68. Virginia Beach (Virginia) Police Department, *Operational General Order 10.04*.

A more controversial standard in some agency policies allows officers to pursue someone for reckless driving or who appears to be under the influence of drugs or alcohol. All fleeing vehicles can present a threat to the public, but it is important to consider whether pursuing such vehicles increases that threat. A driver who is already operating recklessly may take even more risks to escape police, so deciding not to pursue the suspect may reduce the risk to the community.

Agencies should not have a blanket provision that allows reckless driving to justify initiating a vehicle pursuit. In most cases of reckless driving, continuing a pursuit will not be justified because the need to apprehend the suspect will not outweigh the risks of the pursuit.

How to Think about Pursuing Reckless Drivers

Chasing reckless drivers or DUI suspects does not make intuitive sense. There are a few issues to consider. First, if the driver is not reckless when the police initiate the traffic stop but takes off in a reckless fashion, it is clear that the police intervention “caused, created, is a proximate cause, etc.” of the recklessness. In that sense, the police own the behavior and, as long as they continue to chase, they will be partially responsible for the outcome. Second, if the driver is not driving well at slower speeds, then what is the expectation of driving competence at higher speeds when we know the fleeing driver is “glued” to the rearview mirror?

The key question is, “What is the likelihood of getting the outcome you want?” Even when a traffic stop is justified, what is the likely outcome of a continued pursuit of a reckless driver? And how will you explain that decision to family members of an innocent bystander who is injured or killed in a crash?

I often use the example a woman at a Mothers Against Drunk Driving (MADD) conference once told me: There is only one thing worse than a drunk driver—a drunk driver being chased by the police.

Dr. Geoffrey Alpert, University of South Carolina

There may be instances where a person driving erratically presents an imminent public safety hazard. Examples might include a person experiencing a medical emergency or a confused elderly driver. Such drivers may respond differently to the presence of police than would a criminal suspect. For such drivers, police intervention may make the situation better by reducing the risk that the driver will cause harm and more quickly getting the driver to necessary medical care.

This is a complicated issue without one clear answer. A blanket policy allowing pursuits for reckless drivers is not recommended, but neither is a blanket policy forbidding such pursuits. Instead, an agency’s policy should acknowledge that there may be exceptional situations where police intervention is warranted to protect the public. It is important to stress that these situations are rare and that the key question to ask is whether a pursuit makes the situation better or worse.

If police intervention is likely to make the situation better (i.e., police are able to use tactics to safely stop the vehicle and put an end to the reckless driving), then that may justify taking such action. But, as with all vehicle pursuits, continuous assessment of the situation is critical, and a driver’s behavior in these exceptional situations can change quickly. If the officer decides to initiate a vehicle pursuit, believing it will make the situation better, but the driver responds to the police presence by driving more dangerously, the officer must be prepared to disengage. Specialized training must reinforce this policy so that officers understand which tactics can be effective in stopping the vehicle in the safest way possible.

One final note about community expectations: Understanding the community context is important when deciding the risks and liability an agency will accept. A community that has seen increased traffic fatalities among innocent people due to reckless drivers may expect the police to pursue such drivers despite the associated risks. Other communities may not tolerate high-speed police pursuits except for the most egregious violent crimes.

Recommendation 1.3. Agency policy should acknowledge that there may be exceptional situations for reckless drivers where police intervention is warranted to protect the public from a driver who poses an imminent, egregious hazard to the community. The policy should stress that these situations are rare and that the key question to ask is whether a pursuit makes the situation better or worse. For example, if a suspect begins driving more recklessly after police intervention, it is important to discontinue the pursuit.

Other policies reviewed for this project listed additional crime categories that justify pursuit, such as drug dealing, burglary, or auto theft, but these categories do not present the same level of risk to the community as do violent crimes. Agencies must be cautious when adding crime categories to avoid undermining the intent of a restrictive policy.

Does it matter when the initial crime occurred?

One way to locate a violent crime suspect is by identifying the vehicle used in the commission of that crime. However, as more time passes between when the crime occurred and when police locate the vehicle, the likelihood that the current driver of the vehicle is the same suspect decreases. Furthermore, as more time passes, the need for immediate apprehension may diminish to the point that it is outweighed by the risks of a vehicle pursuit.

A good example of this situation is an armed carjacking. When the carjacking occurs, it is clearly a violent crime that presents a public safety threat. And if police locate the vehicle shortly after the crime occurred (e.g., within two hours), the person who is driving the vehicle is likely the person who committed the carjacking (and is likely still armed). But if more time has elapsed since the carjacking, the driver may be another individual. In this case, it may be more appropriate to treat the situation as a reported stolen vehicle rather than a carjacking.

Agencies with systems that provide automatic notifications to officers of stolen vehicles, such as through an automated license plate reader (ALPR), should particularly note this issue. The ALPR may get a “hit” and notify the officer that the vehicle was reported stolen in a carjacking, but the officer may not receive any information on when the crime occurred. Agencies should ensure their ALPR notifications include the date the crime occurred and should instruct officers to obtain this information if it is not provided prior to initiating the vehicle stop.

The Illinois State Police provide an example of relevant policy language:

Illinois State Police

Forcible Felony – Illinois forcible felonies are defined in 720 ILCS 5/2-8, and include any felony involving use of physical force, or threatening the use of physical force or violence against someone. Current ILCS defined forcible felonies are listed in Section VII of this directive. **EXCEPTION: the offense of Aggravated Vehicular Hijacking is an authorized forcible felony only when the offense was reported as the vehicle being taken by an individual who carried on or about their person a dangerous weapon or firearm within 12 hours or less from the time when the officer encounters the vehicle.**⁶⁹

Recommendation 1.4. Agency policy should articulate the point at which a vehicle involved in a violent crime, such as a carjacking, is no longer considered “fresh” because of the amount of time that has elapsed since the crime and should be treated as a stolen vehicle for purposes of the vehicle pursuit policy.

69. Illinois State Police, *Directive OPS-003, Vehicle Pursuits and Forcible Vehicle Stops*. Emphasis added.

While agencies may differ in what time lapse they deem acceptable, all should address this issue in a policy.

Vehicle pursuit policy—Factors to consider for initiating, continuing, and discontinuing a vehicle pursuit

After determining that a vehicle pursuit is authorized, officers must still decide whether they should initiate a pursuit.

This decision involves balancing various risks. An officer must take in as much information as possible about the situation to assess these risks and contributors to them, such as the suspect's characteristics, the officer's capabilities, and the physical environment (e.g., weather, road conditions).

If they launch a pursuit, officers and their supervisors must continuously evaluate the risks to determine whether to continue it.

Circumstances can change quickly during a pursuit, and an officer must be ready to discontinue immediately when the risks of continuing exceed the risks posed by

the suspect's escape. For example, this balance may shift when officers and their supervisors determine that they can apprehend a suspect later, or when it begins to rain, or when the suspect exits an empty highway and enters a business district filled with vehicular and pedestrian traffic. As the pursuit proceeds, the suspect may become increasingly reckless, requiring the officer to discontinue the pursuit to reduce the risk to the public.

The following section discusses factors that an agency's policy should address.⁷⁰

Suspect characteristics

Officers must assess what information is currently known about the suspect, including the following:

- **Nature and seriousness of the suspected criminal offense.** Upon determining that an offense meets the policy standard, officers should evaluate the crime by the risk to the community if the offender is not apprehended immediately.

As discussed earlier, the time that has elapsed between the commission of the crime and the discovery of the vehicle may affect this assessment. Alternatively, knowledge that a suspect is engaged in ongoing criminal activity and will not stop unless apprehended is also critical information.

- **Access to weapons.** Assessing the seriousness of the crime should include any known information about whether the suspect has access to a weapon. For example, if the crime broadcast notified officers that the suspect is wanted for robbing a convenience store using a handgun, the officers should assume that the suspect likely still has that firearm. This fact relates directly to the known degree of risk the suspect poses if not apprehended immediately.

Recommendation 1.5. Agency policy should list key factors in assessing the risk of a pursuit and make clear that officers must assess these factors both before initiating a pursuit and continuously as the situation changes. This continuous assessment must be documented in the written report after the pursuit so reviewers can evaluate the officer's decision-making. Finally, officers should receive both classroom and scenario-based training on the policy to ensure they are well versed on relevant factors and rely on their training, rather than split-second responses, to make decisions.

70. An important note: This is a comprehensive list to cover many different types of situations. Officers are not expected to remember every single item on this list in a high-stress situation. Training is essential to teaching officers how to identify the relevant factors in a given situation.

- **Identity or other information known about the suspect.** In some cases, officers may know information about the suspect that is relevant to evaluating the risks of a pursuit. Such information could include the suspect’s identity, whether the suspect is a juvenile with limited driving experience, or whether they have a history of violence or mental health issues.

- ◆ **Suspect’s identity is known:** If the suspect can be identified with enough certainty that they can be apprehended later, a vehicle pursuit may no longer be justified. The key factor will be whether delayed apprehension increases the risk to the community. This decision-making process is similar to the assessment of risks for serving an arrest warrant for a violent crime. Officers must decide if serving the warrant immediately or delaying action until safer, more advantageous circumstances are available provides them with a tactical advantage.

Where the suspect’s identity is known, it may be more prudent for officers to make a plan for apprehending the suspect later rather than engaging in a vehicle pursuit. Such a plan might include using tactics and creating an operations plan that limits the suspect’s access to weapons or a vehicle (which can also be used as a deadly

Recommendation 1.6. Agency policy should direct officers not to engage in a vehicle pursuit if the suspect’s identity is known, the suspect can be apprehended later, and delayed apprehension does not significantly increase the risk to the community. When this information becomes known during the vehicle pursuit, the policy should direct officers to discontinue immediately.

weapon). This plan will allow the officers to choose the time and place of the arrest, which can reduce the risk to the community, officers, and the suspect.

The following is an example of language, drafted by the Pursuits Working Group, that should be included in an agency’s pursuit policy:

When the identity of the offender is known and it does not reasonably appear the need for immediate capture outweighs the risks associated with continuing the pursuit, officers should discontinue the pursuit and formulate a plan to apprehend the offender at a later time in a safer, controlled environment.

- ◆ **Juvenile drivers.** Juvenile suspects present additional risks in a pursuit, such as lack of driving experience and immaturity regarding dangers. As the NHTSA notes, “Teen drivers have a higher rate of fatal crashes, mainly because of their immaturity, lack of skills, and lack of experience. They speed, they make mistakes, and they get distracted easily—especially if their friends are in the car.”⁷¹

The following is an excerpt from a pursuit policy related to juvenile drivers:

**Fayetteville (North Carolina)
Police Department**

Officers will discontinue a pursuit if the vehicle pursued is being operated by a known juvenile who is operating in such an unsafe manner that it is obvious the juvenile does not have the maturity to deal with the danger involved . . .⁷²

- ◆ **Link between juveniles and carjackings.** In early 2021, both the number of U.S. carjackings and the number of juvenile suspects for

71. NHTSA, “Teen Driving.”

72. Fayetteville (North Carolina) Police Department, *Written Directive 4.2 Vehicle Operations and Pursuits*.

carjackings increased.⁷³ These juvenile suspects commit violent crimes and then flee in vehicles though they may have limited driving experience. These already volatile situations can become even more hazardous when officers activate their emergency equipment and initiate a pursuit—increasing the risk to the public, officers, and suspects.

Because of the increased risks associated with pursuing juvenile offenders, agencies should discontinue a vehicle pursuit, or at least require that a supervisor approve the continuation of the pursuit, if they determine that the driver is a juvenile.

Even in the case of a carjacking, while the need to apprehend the suspect is great, the risk caused by the lack of maturity and experience of a juvenile suspect may outweigh the risk of delaying apprehension. This is not to say there will never be a situation where pursuit of a juvenile suspect is justified, but officers need to understand how the suspect's maturity level can add to the risks of a vehicle pursuit.

- **Presence of uninvolved individuals in the suspect's vehicle.** Pursuit risks increase substantially when there are *uninvolved* individuals in the suspect's vehicle. These may include innocent bystanders, victims, or children. At the same time, there may be instances where the *need to rescue a known victim* from the suspect, as in a kidnapping or hostage situation, outweighs the risk of a pursuit to other individuals in the suspect's vehicle.
- **Speed and evasive driving tactics employed by the suspect.** How the suspect is driving is an important consideration in assessing both the imminent risk to the public and the possible futility of a continued pursuit. The officer must judge whether continuing the pursuit will increase the

Recommendation 1.7. Agency policy should direct officers to discontinue a vehicle pursuit once the suspect's location is no longer known or when the distance between the suspect and the officer is so great that continued pursuit would be futile.

dangerousness of the suspect's driving; if so, it may be prudent to discontinue the pursuit (see earlier discussion on reckless drivers). For example, if a suspect drives the wrong way down a one-way street or a divided highway, it may be too dangerous for officers to continue the pursuit. As the pursuit continues, the officer must also assess the relative likelihood that the suspect will voluntarily stop, end up in a crash, or escape.

- ◆ **Visual contact of the suspect vehicle is lost.** When the officer loses sight of the suspect, the likelihood that the pursuit will result in an apprehension decreases significantly, and the risks of continuing the pursuit may no longer be reasonable. This is also the case when the distance between the suspect and the officer is so great that continued pursuit would be futile or would need to persist for an unreasonable time or distance. These situations might be difficult for officers to recognize in the moment, so agencies must be clear about the expectation and train officers to develop this skill (see Training, chapter 5).

The following is an excerpt from a pursuit policy:

**Charlotte Mecklenburg (North Carolina)
Police Department**

A pursuit will be terminated: . . . If the pursued vehicle's location is no longer known; or it becomes futile to continue the pursuit because the suspect vehicle is traveling a substantial or increasing distance ahead of the pursuing police vehicle.⁷⁴

73. Corley, "Juveniles Part of a Huge Increase."

74. Charlotte-Mecklenburg (North Carolina) Police Department, *Directive 600-022 Emergency Response and Pursuit Vehicle Operations*.

Officer characteristics

Officers must also take stock of their own capabilities, including the following:

- **Officer training and experience.** An officer’s training and experience in pursuit driving have a direct impact on how safely they can conduct a pursuit, especially under difficult conditions. This training and experience extend beyond driving to include communications and critical decision-making skills.

Recommendation 1.8. Agency policy should state that only officers who have received the required training are authorized to engage in a pursuit.

- **Familiarity with the area of the pursuit.** An officer’s familiarity with the area will increase their overall situational awareness and allow for better planning of a pursuit.
- **Presence of other individuals in the officer’s vehicle.** Officers frequently transport individuals other than sworn officers—such as victims, witnesses, prisoners, complainants, and civilian employees—in police vehicles. The presence of any of these individuals in the police vehicle introduces a significant risk for engaging in a pursuit.

While mental health co-responders or other agency employees may work alongside sworn officers in the field, they do not receive the same training as a sworn officer in pursuit tactics, nor are they trained and equipped in the same way as sworn officers are to deal with a violent confrontation that may unfold at the termination of a pursuit.

Recommendation 1.9. Agency policy should direct officers not to participate in a vehicle pursuit if anyone other than a sworn officer is in the police vehicle. This restriction demonstrates the agency’s awareness that pursuits are not worth risking others in the officer’s vehicle.

The following is an excerpt from a pursuit policy:

Harris County (Texas) Sheriff’s Office

Vehicles transporting prisoners, witnesses, suspects, complainants, or other non-law-enforcement personnel **will not** become engaged in pursuit situations.⁷⁵

- **Availability of support resources.** Support resources may include backup units on the ground or air support as well as technologies capable of tagging, tracking, or disabling a vehicle remotely. A large municipal agency may have backup units and air support readily available, while a rural agency spread across a large area may not. Agencies must educate their officers about available resources and how to request them. Chapter 3 discusses strategies for coordinating these resources, including how pursuing officers can “hand off” a pursuit to a helicopter.

Recommendation 1.10. Agency policy should prioritize using resources that can track a suspect remotely and direct officers to disengage from a pursuit once remote tracking (e.g., by aviation, including drones or GPS [global positioning system]) is active.

75. Harris County (Texas) Sheriff’s Office, “Policy 803—Vehicle Pursuits.” Emphasis in original.

Vehicle type and relative performance capabilities

Officers must compare the relative performance of their vehicle and the suspect's vehicle. They must also assess any specific risks posed by either vehicle.

- **Suspect vehicle type and capabilities.** The suspect's vehicle type and performance capabilities may present challenges and risks during a pursuit. For example, a suspect on a motorcycle may be able to weave through heavy traffic such that a patrol vehicle will not be able to keep up. In addition, the use of certain tactics, such as the PIT, would not be reasonable against a fleeing SUV because of the risk that the tactic will cause the vehicle to roll over.

Suspects on motorcycles present not only a unique challenge for police pursuits but also increased risks of injury and death due to crashes. In 2019, for example, motorcyclists were 29 times likelier to die and almost 4 times likelier to be injured than passenger car occupants (based on total vehicle miles traveled). In addition, 33 percent of all motorcycle riders involved in fatal crashes in 2019 were speeding, compared to 19 percent of passenger car drivers.⁷⁶

While these figures include all motorcyclists involved in crashes, not just those being pursued by police, they demonstrate the risks posed by a suspect on a motorcycle.

Recommendation 1.11. Agency policy should discourage or prohibit officers from becoming involved in a vehicle pursuit if the suspect is riding a motorcycle. The superior ability of a motorcycle to maneuver around traffic and travel on pathways (such as sidewalks) where patrol vehicles cannot follow often makes pursuit futile and can increase the risk to both the suspect and the public in the path of the pursuit. Pursuing a motorcycle should be permitted only if there is an elevated risk to the community if the suspect remains at large and officers can conduct the pursuit in a reasonably safe manner (e.g., not at high speeds or traveling on the wrong side of the road).

The following is an excerpt from a pursuit policy:

Maryland State Police

Due to the capabilities of motorcycles, which exceed those of pursuit-rated vehicles, pursuits involving suspects on motorcycles are generally prohibited. However, under exigent circumstances involving violent felonies against persons, the duty officer may authorize a trooper to pursue a motorcycle.⁷⁷

- **Officer vehicle type and capabilities.** Officers must also compare the suspect's vehicle type and performance capabilities with that of their own vehicle. Officers should consider whether their vehicle has the proper equipment to conduct a pursuit in the safest manner possible. For example, a marked patrol vehicle equipped with emergency lights and siren is better suited to a pursuit than an unmarked car or a motorcycle.

76. National Center for Statistics and Analysis, *Motorcycles: 2019 Data*.

77. Maryland State Police, *Operations Directive 09.02 Vehicle Pursuits*.

- **Motorcycles and unmarked vehicles.** Officers riding motorcycles or driving unmarked vehicles may encounter situations where a vehicle pursuit is justified. These types of vehicles, however, present certain risks that are not present with marked patrol vehicles. Officers riding motorcycles have greater exposure than officers in cars and are at much greater physical risk if they get into a collision. Unmarked vehicles are not as clearly identifiable as police vehicles and may not be equipped with the same emergency equipment as patrol vehicles, including lights and sirens. As a result, the suspect, other officers, or other motorists may be unaware that a police motorcycle or unmarked vehicle is engaged in a pursuit.

Recommendation 1.12. Agency policy should discourage officers who are riding motorcycles or driving unmarked vehicles from participating in vehicle pursuits. Unmarked vehicles should be permitted to engage in a pursuit only if they are equipped with the proper emergency equipment (e.g., lights and siren).

The following are excerpts from two agencies' policies regarding the use of motorcycles or unmarked vehicles in pursuits:

**New Orleans (Louisiana)
Police Department**

The use of motorcycles in pursuits is discouraged and allowed only in the most serious cases. Supervisors must consider terminating any pursuit in which a motorcycle is involved for the safety of the officer. If a pursuit involving a motorcycle is approved, then a distinctively marked authorized emergency vehicle (e.g.,

patrol vehicle, sedan or SUV) equipped with emergency lights and siren should replace a police motorcycle as the primary and/or secondary pursuit unit as soon as practicable.⁷⁸

Tempe (Arizona) Police Department

With the permission of a monitoring supervisor, unmarked police vehicles, motorcycles, and other specialized police vehicles designated for highway use and equipped with emergency lights and siren may participate in the pursuit as the primary unit until a marked police vehicle equipped with emergency lights and siren can take over as the primary unit.

Officers who are in an unmarked vehicle and involved in a pursuit must advise over the radio that they are in an unmarked vehicle.

Marked patrol cars will take over primary unit responsibility from a motorcycle unit or other specialty vehicle and continue to control communications with Dispatch.⁷⁹

- **Equipment failure in the police vehicle that creates a safety risk.** During a pursuit, the officer's vehicle may sustain damage or experience an equipment failure. Examples include nonoperating lights, radio failure, a severely damaged windshield, brake failure, or flat tire.

Recommendation 1.13. Agency policy should direct officers to disengage from a pursuit if the police vehicle sustains damage that adversely affects vehicle operation or experiences an equipment failure that limits communication or makes continued driving dangerous.

78. New Orleans (Louisiana) Police Department, *Chapter 41.5 Vehicle Pursuits*.

79. Tempe (Arizona) Police Department, *Order 07.103 Pursuits & Emergency Code 3 Response*.

Environmental factors

Environmental conditions affect physical driving conditions and the safety of driving at high speeds or with evasive maneuvers. The geography, size, layout, and population density of the agency’s jurisdiction can all affect the risk of vehicle pursuits. For example, agencies in densely populated urban areas have considerations not relevant to those covering rural areas with very low population density. Furthermore, roadways are dynamic, and conditions can change rapidly. Even at low speeds, extreme evasive maneuvers can cause a loss of control of the vehicle. Environmental factors include the following:

- **Roadway configuration, surface conditions, and potential hazards.** Different roads are built for driving at different speeds and may present different types of driving challenges (e.g., parked vehicles, city buses). Officers must also be aware of potential road closures or detours due to road construction or planned events.
- **Location, time of day, and existence of vehicular and pedestrian traffic.** These factors are important individually but can also be interrelated. For example, a school zone may have little pedestrian or vehicular traffic on a weekend evening but could be extremely busy on a weekday afternoon when school is in session. Officers must not only observe the current conditions but also anticipate what conditions might be as they move through different areas.
- **Lighting, visibility, weather, etc.** These factors can affect the performance of the vehicle as well as the officer’s ability to maintain sight of the suspect and potential hazards in the road.

The following policy example requires that officers consider how environmental factors affect the safety of the pursuit:

Harris County (Texas) Sheriff’s Office

The decision to engage in a motor vehicle pursuit should be made only after weighing all consequences that could be expected or anticipated to result from such actions. Weather conditions, traffic flow, **time of day or night**, and **geographical area** should be analyzed. The importance and significance of the violator’s apprehension, compared with the hazards presented by the pursuit, shall be thoroughly considered.⁸⁰

Different agency types

This guide is applicable to law enforcement agencies of all types. The considerations that every agency—state, local, or county; urban or rural; covering a large or small jurisdiction—must address are essentially the same, namely, the balance of risk and reward. The pursuit policy should reflect both this balance and considerations relevant to type of jurisdiction, community expectations, and inter-jurisdictional engagement.

There are approximately 18,000 law enforcement agencies in the United States, covering diverse geographic areas and with various enforcement responsibilities. Agencies should consider their particular area and enforcement responsibilities when developing a pursuit policy.

State agencies

State police agencies have statewide jurisdiction, and their duties may range from highway patrol—with traffic enforcement as their primary function—to broader investigative functions. Though they operate primarily on highways, where population density is less of a concern, their pursuit policies are not always less restrictive than local municipal departments and in some cases are more restrictive.

80. Harris County (Texas) Sheriff’s Office, “Policy 803—Vehicle Pursuits.” Emphasis added.

State agencies should work with their local agency partners to establish expectations regarding pursuits. For example, local departments should not rely on state agencies with less restrictive pursuit policies to carry out pursuits on their behalf. The relationships between and among these agencies are important to maintain, so any potential areas of tension should be openly discussed and resolved.

A focus on highway patrol efforts may lead state agencies to prioritize training and other resources related to driving tactics. With these resources, state agencies may be more likely than local municipal agencies to have officers trained in how to safely carry out and end vehicle pursuits. The level of training and resources available can directly affect some aspects of vehicle pursuits policy. Given the diversity in environments they cover, state agency training should include scenarios that encompass the various situations officers patrolling large or diverse areas may encounter. This training is even more important when fewer supervisors are available in the field due to the large coverage areas.

Tribal agencies

Tribal agencies face unique issues in setting pursuit policy, including jurisdictional challenges and limited staffing. While some reservations are single, contiguous areas, others form a checkerboard pattern throughout the state, which complicates jurisdictional issues. Because of this, tribal police officers are often cross-deputized⁸¹ (e.g., with a county sheriff's department) to allow representatives of each entity to cross jurisdictions in criminal cases. Cross-deputized officers must adhere to the vehicle pursuits policy in the jurisdiction where the pursuit is occurring. This requirement can create challenges when a tribal police agency and county-level agency have different pursuit policies. Without cross-deputization, engaging in pursuits across

jurisdictional lines is still more complicated for tribal police to navigate. For example, the ability to engage in fresh pursuits, or the pursuit of a felon across jurisdictional lines, remains unclear.⁸²

Limited staffing for tribal agencies also necessitates working closely with regional partners. Communication and coordination with neighboring agencies during vehicle pursuits are especially critical for tribal police, given that a pursuit can move from a reservation into another jurisdiction very quickly. Tribal police should leverage their partners' resources (e.g., regional communications systems) and set clear expectations regarding pursuit policy and practice.



“Communications are key to ensure interoperability . . . you initiate lights and sirens and the next thing you know you are on a county road or state highway. It also comes back to liability issues when officers are wearing multiple hats. It makes it more complex when you are sitting down and writing your policies.”

— Chief Bill Denke, Sycuan Tribal (California) Police Department (California)

Finally, tribal agencies must be sensitive to the perspective of their tribal council and the needs and expectations of the community when drafting and implementing vehicle pursuit policy.

81. Of note, the Cherokee Nation Marshal Service is cross-deputized with 50 municipal, county, state, and federal agencies. Reaves, *Tribal Law Enforcement*, 2008.

82. Harvard Law Review, “Fresh Pursuit from Indian Country.”

Differences in community expectations

The threshold of risk that city, county, or statewide agencies are willing to undertake may depend on each agency's primary mission. The application of this guidance might vary by agencies' responsibilities to their constituencies. An agency such as a state highway patrol, whose primary mission is traffic safety, may inherently put the public at less risk than a municipal police department during vehicle pursuits because the state highway patrol's pursuits would primarily occur on highways away from residential areas. Still, while mission differences may mean different risk thresholds, no agency can completely abandon addressing risks. Each agency's leaders must assess community expectations to set the level of risk it may accept. Its primary responsibility is always to protect the community.

Community expectations of vehicle pursuits carry additional significance when the law enforcement executive is an elected official. Sheriffs, for example, are responsible to the people who elected them rather than to city managers and hence may have different considerations in pursuit policy. Of course, political dynamics may change. For example, a sheriff may restrict pursuits after the death of a bystander and resulting community outcry.

This guide cautions against changing pursuit policies solely on the basis of individual events. It should not take a negative outcome to revise a policy, and agencies should be cautious not to revert to more risky policies. Chapter 6 discusses community expectations and educating the community on the decision-making behind a policy.

Agencies should challenge themselves to think about unique issues they face that may affect how restrictive their pursuits policy should be. In any case, the decision-making should always circle back to how much the agency is willing to risk when engaging in pursuits.

Eventually, courts may end up holding all agencies to the same standard, as they have in the use of force standard set by *Graham v. Connor et al.*⁸³ As with *Graham*, a

court-established pursuit standard would likely set a floor for what is acceptable; individual agencies would retain the ability to make their policies more restrictive to reflect community expectations.

Another challenge agencies may face when developing a local policy is the implementation of statewide standards. An example is the following excerpt from legislation recently adopted in Washington state:

(1) A peace officer may not engage in a vehicular pursuit, unless:

(a)(i) There is probable cause to believe that a person in the vehicle has committed or is committing a violent offense or sex offense as defined in RCW [9.94A.030](#), or an escape under chapter [9A.76](#) RCW; or

(ii) There is reasonable suspicion a person in the vehicle has committed or is committing a **driving under the influence** offense under RCW [46.61.502](#);

(b) The pursuit is necessary for the purpose of identifying or apprehending the person;

(c) The person poses an **imminent threat to the safety** of others and the safety risks of failing to apprehend or identify the person are considered to be greater than the safety risks of the vehicular pursuit under the circumstances; and

(d)(i) Except as provided in (d)(ii) of this subsection, the officer has received **authorization to engage in the pursuit from a supervising officer** and there is supervisory control of the pursuit. The officer in consultation with the supervising officer must **consider alternatives** to the vehicular pursuit. The supervisor must consider the justification for the vehicular pursuit and other safety considerations, including but not limited to speed, weather, traffic, road

83. *Graham v. Connor et al.*

conditions, and the known presence of minors in the vehicle, and the vehicular pursuit must be terminated if any of the requirements of this subsection are not met;

[. . .]

(3) A peace officer **may not fire a weapon upon a moving vehicle unless necessary to protect against an imminent threat of serious physical harm** resulting from the operator’s or a passenger’s use of a deadly weapon. For the purposes of this subsection, a vehicle is not considered a deadly weapon unless the operator is using the vehicle as a deadly weapon and no other reasonable means to avoid potential serious harm are immediately available to the officer.⁸⁴

Until a court or state legislature imposes such a standard on agencies, law enforcement leaders should take the initiative to devise pursuit policies that advance public safety.

Interjurisdictional pursuit considerations

An agency’s pursuit policy should include specific guidelines for interjurisdictional pursuits, i.e., pursuits that originate with the primary agency and enter another jurisdiction and pursuits that are led by another agency and enter the primary agency’s jurisdiction. There may be legal considerations (e.g., liability and the agency’s legal position on pursuits) in participating in interjurisdictional pursuits that the agency should carefully address. Agencies should not participate in interjurisdictional pursuits if the pursuit violates their agency’s policy. If an agency is not sure whether a pursuit is within its policy, then it should not become involved. Policies should also address whether other activities that can enhance public safety during a pursuit, such as blocking intersections or other traffic control measures, are permissible and under what conditions.

Officers should have enough information beforehand on the reasons for and conditions of the pursuit to determine whether to join an interjurisdictional pursuit. Officers must understand expectations regarding these scenarios, and agencies should support officers who choose not to engage in interjurisdictional pursuits. Furthermore, officers should know that they will not be held liable for outcomes of the pursuit or suspect behavior for pursuits they did not join because they determined it was outside their agency’s policy. If a supervisor authorizes participation in an interjurisdictional pursuit, they should be held accountable for that decision (as with any pursuit) upon review of the pursuit.

In some regions, neighboring jurisdictions have worked together to develop joint pursuit policies. For example, municipal agencies that are in the same county may develop a county-wide policy that the sheriff’s office applies to all of them. Agencies in the Atlanta, Georgia, metropolitan area have done just this. Following is an excerpt from the Atlanta Police Department’s pursuit policy referencing the Metropolitan Atlanta Inter-Jurisdictional Pursuit Policy:

Atlanta (Georgia) Police Department

APD has joined other law enforcement agencies in the Atlanta metropolitan area in adopting the Metropolitan Atlanta Inter-Jurisdictional Pursuit Policy. The policy provides guidelines for police officers in vehicle pursuits when entering other jurisdictions. APD police officers will adhere to this policy when pursuing a vehicle outside the City of Atlanta.

[. . .]

If there are three or more pursuit units from other law enforcement agencies entering the city limits of Atlanta, no Atlanta police officer will become directly involved in the vehicle pursuit. Atlanta police officers will monitor the location

84. RCW 10.116.060. Emphasis added.

and direction of travel of the fleeing vehicle. Field units may position themselves at strategic sites along the probable pursuit route or on parallel roadways, for response to any emergency that may develop. These field units will not engage in the vehicle pursuit, unless otherwise directed by a supervisor.

[. . .]

The Atlanta Police Department’s participation in an inter-jurisdictional vehicle pursuit will be terminated if pursuing units from APD or another law enforcement agency violate the guidelines set forth in the Metropolitan Atlanta Inter-Jurisdictional Pursuit Policy.⁸⁵

Regional policies may not always be practical. It likely would not be possible for a statewide agency to adopt the same policy as every municipal agency across the state. Memoranda of Understanding are another useful tool to have in place between jurisdictions. At a minimum, neighboring agencies should have open communication regarding their pursuit policies and have an agreement regarding when their agency can assist another agency.

Agencies should use caution when turning over a pursuit to an agency with a less restrictive policy. This may relieve an agency of any legal liability for a negative pursuit outcome, but the responsibility to protect public safety remains.

Following are examples of policy on interjurisdictional pursuits:

Vallejo (California) Police Department

When a pursuit enters another agency’s jurisdiction, the primary officer or supervisor, taking into consideration distance traveled, unfamiliarity with the area and other pertinent facts, **should determine whether to request the other agency to assume the pursuit.**

[. . .]

Officers will relinquish control of the pursuit when another agency has assumed the pursuit, unless the continued assistance of the Vallejo Police Department is requested by the agency assuming the pursuit.

[. . .]

When a request is made for this department to assist or take over a pursuit that has entered the jurisdiction of Vallejo Police Department, the supervisor should consider:

- a) The public’s safety within this jurisdiction.
- b) The safety of the pursuing officers.
- c) Whether the circumstances are serious enough to continue the pursuit.
- d) Whether there is adequate staffing to continue the pursuit.
- e) The ability to maintain the pursuit.

[. . .]

85. Atlanta (Georgia) Police Department, *APD, SOP .3050 Pursuit Policy*. Emphasis added.

Assistance to a pursuing allied agency by officers of this department **will terminate at the City limits** provided that the pursuing officers have sufficient assistance from other sources. Ongoing participation from this department may continue only until sufficient assistance is present.⁸⁶

New Orleans (Louisiana) Police Department

When a request is made for this Department to assist or take over a pursuit that has entered this jurisdiction, the NOPD supervisor of the District which the pursuit is entering shall determine that the pursuit meets the “**crime of violence**” threshold required for an NOPD pursuit and consider whether to assist or assume the pursuit based on these additional factors:

- a) The crime of violence as defined by this Chapter for which the pursuit is being conducted;
- b) The requesting department’s ability to maintain the pursuit;
- c) Whether the communicated circumstances warrant continuing the pursuit;
- d) Whether adequate staffing is available to continue the pursuit;
- e) The public’s safety within this jurisdiction; and
- f) The safety of the pursuing officers.⁸⁷

Recommendation 1.14. Agency policy should address interjurisdictional pursuits—both those entering their jurisdiction and those traveling beyond it. Officers should not engage in another agency’s pursuit unless it meets their own agency’s criteria. Officers must make the same risk assessment of the environment and obtain supervisor approval as they would when initiating (and continuing) their own pursuit. Also, as with any pursuit, a supervisor who authorizes participation in an interjurisdictional pursuit should be held accountable for that decision upon review of the pursuit. Finally, the policy should address any considerations, notifications, etc., needed when officers pursue a suspect beyond the agency’s jurisdiction.

Final note—Training is key

While an agency’s policy should include a list of factors, this should not be treated like a “checklist.” There are far too many items on such a list for an officer to remember individually in a fluid situation. Rather, this list illustrates considerations that may be relevant in any given situation. It is through training that law enforcement personnel will learn to identify and quickly evaluate the factors present at any given moment. (See chapter 5 for training guidelines.)

86. Vallejo (California) Police Department, *Policy 308 Vehicle Pursuits*. Emphasis added.

87. New Orleans (Louisiana) Police Department, *Chapter 41.5 Vehicle Pursuits*. Emphasis added.

2. Initiating and Discontinuing the Pursuit— The Role of a Supervisor

Providing clear guidance to officers and supervisors about how to conduct vehicle pursuits safely is another important way agencies can reduce risk and promote public safety. This chapter addresses topics such as setting clear expectations for how supervisors should manage vehicle pursuits and how they can give officers clear direction on which intervention tactics are permitted and which are prohibited. Decisions and actions during a vehicle pursuit can directly affect the outcome, so guidance in policy as well as strong training and supervision in these areas is critical.

Most agency policies reviewed for this guide include detailed information about what actions officers should take when engaging in a vehicle pursuit. Many of these actions are uncontroversial, such as activating emergency equipment, communicating the progress of the pursuit, and driving with due regard for public safety. This chapter therefore focuses on actions where guidance and highlighting of best practices can be most useful.

What to do when initiating and discontinuing a pursuit

Officers must make several considerations when deciding to initiate, continue, or end a vehicle pursuit. In addition to training officers to make good decisions (i.e., by using a critical decision-making model),⁸⁸ agencies should give guidance on what actions officers should take once a decision is made. They should also specify the role of the supervisor in approving, managing, and, if necessary, directing an officer to discontinue a pursuit.

Communicating initial information

Once an officer has decided to initiate a vehicle pursuit, most agency policies require the officer to immediately communicate critical information, including

- the identity of the primary pursuit unit;
- the initial reason for the attempted stop;
- the location, direction, and speed of the pursuit;
- the weather and road conditions;
- the traffic conditions (light, moderate, heavy) on the roadway;

88. Pursuit decision-making is discussed in greater detail in chapter 5.

- a description of the pursued vehicle, including license plate number if known;
- a description of the suspect’s driving behavior (e.g., speeding, swerving between vehicles, making rapid lane changes);
- the number, description, and identity (if known) of the vehicle’s occupants;
- any information concerning the presence or use of firearms, overt threat of force, or other unusual hazard.

When describing a suspect’s driving behavior, officers should avoid boilerplate language like “reckless” or “hazardous” and instead use language that clearly describes actual behavior, like “making rapid lane changes” or “swerving between vehicles.” This helps reviewers assess the officer’s analysis and decision-making. It will also enable them to identify areas for improvement and training.

Communications personnel should also ensure this information is relayed to a supervisor and other officers in the area for situational awareness.

Minnesota State Patrol’s TRIPS Acronym

The Minnesota State Patrol’s policy details both the required initial information and evolving information that troopers are expected to communicate:

Required initial information

The minimum amount of information that must be communicated to dispatch as soon as possible upon initiation of a pursuit:

- ▶ Travel direction/location
- ▶ Reason for initial contact (specific violations)
- ▶ Identity of fleeing driver, if known
- ▶ Plate number if available, and/or vehicle description
- ▶ Speed of the fleeing vehicle

Evolving information

Additional information to be conveyed as soon as possible and continuously updated throughout the pursuit:

- ▶ Traffic conditions including cross traffic, controlled intersection violations, and presence of pedestrians
- ▶ Speed and location of fleeing vehicle, including wrong way travel and maneuvers placing anyone at risk
- ▶ Number of occupants, description of occupants*

The agency developed an acronym, **TRIPS**—for **travel, reason, identity, plate, and speed**—to help officers include the right information in their initial broadcast. Agency policy and training define this acronym as well.

Leaders from the Minnesota State Patrol observed that this method enables troopers to provide more consistent information during pursuits. It also helps troopers consider initial information in their decision-making and ensures supervisors have the information they need to begin managing the pursuit.

* Minnesota State Patrol, *General Order 19-20-012 Motor Vehicle Pursuit*.

Recommendation 2.1. Agency policy should detail precisely what information must be communicated by the primary unit once the decision has been made to initiate a pursuit. Training should reinforce the need for this information, which should include

- the identity of the primary pursuit unit;
- the initial reason for the (attempted) stop;
- the location, direction, and speed of the pursuit;
- the weather and road conditions;
- the traffic conditions (light, moderate, heavy) on the roadway;
- a description of the pursued vehicle, including license plate number if known;
- a description of the suspect’s driving behavior (e.g., speeding, swerving between vehicles, or making rapid lane changes);
- the number, description, and identity (if known) of the vehicle’s occupants;
- any information concerning the known presence or use of firearms, overt threat of force, or other unusual hazard.

Supervisor approval

The purpose of having officers communicate this initial information is to provide the supervisor both awareness of the unfolding situation and enough information to determine whether the vehicle pursuit is justified. Many agencies require a supervisor to approve the initiation or continuation of a vehicle pursuit; this step is an important one. While the primary officer is often in the best position to assess the present risks, such as the current road conditions and suspect’s driving behavior, a supervisor who is more removed from the stress of the pursuit may be better able to assess calmly the information and make an independent determination.

Not all agencies will have an on-duty supervisor available at all times to manage a pursuit. Such agencies should still attempt to find ways to ensure supervisory oversight of pursuits. For example, this could include placing the responsibility with someone other than a field supervisor.

Agency policies often make clear the officer’s duty to communicate the key information, but agencies must also make clear that the supervisor also has a responsibility to request that information and manage the pursuit. Because supervisors likely will not have first-hand knowledge of the pursuit, they must gather the necessary information to make relevant decisions. The supervisor should also verbally acknowledge the pursuit over the radio so that it is clear a supervisor is present and in charge.

Gathering the key information needed to make pursuit decisions should be agency policy and general practice for supervisors. For example, one policy contains the following language:

Burlington (North Carolina) Police Department

The field supervisor of the officer initiating the pursuit, or if unavailable, the nearest field supervisor, will be responsible for:

a) Immediately notifying involved officers and the telecommunicator of supervisory presence and ascertaining all reasonably available information to continuously assess the situation and risk factors associated with the pursuit. This is to ensure that the pursuit is conducted within established department guidelines.

[. . .]

e) Directing that the pursuit be terminated if, in his/her judgment, it is not justified to continue the pursuit under the guidelines of this policy.⁸⁹

89. Burlington (North Carolina) Police Department, *Policy 307 Vehicle Pursuits*.

Burlington supervisors also regularly engage officers over the radio when they hear that a driver is not stopping. Following is a hypothetical exchange to illustrate this practice:

A172 [Patrol Officer] to Communications:

Traffic stop.

Communications to A172:

Go ahead.

A172 to Communications:

NC tag ABC1234 – on South Church waiting on cross street for final stop.

A172 to Communications:

The vehicle has not stopped yet [this should spark a supervisor’s attention].

A10 [Sergeant] to A172:

What is your reason for the stop?

A172 to A10:

Expired registration, driver just accelerated, ran a stop sign, and still not stopping.

A10 to A172:

Discontinue, advise direction of travel and description of the vehicle.

A172 to A10:

Copy.

At this point, Burlington officers began an investigation for the “speed to elude” offense. While the pursuit was discontinued, the officers were still able to hold the violator accountable for their actions. If the vehicle was being driven by the owner, officers could track down the vehicle registration, check the owner’s address, and follow up with the owner at home. If the vehicle was determined to be stolen, officers could disseminate a photo of the vehicle to patrol and complete an entry in the license plate reader (LPR) system. Other officers may later have been able to pull the vehicle over or document additional violations

to add once the suspect was apprehended. Investigators may also have been able to use this information to connect investigations of other crimes.

If the primary officer does not provide the supervisor with the necessary information, the supervisor should direct the officer to immediately discontinue the vehicle pursuit. An agency’s policy should also tell officers what to do if they receive no response after requesting approval from a supervisor. If no supervisor responds initially and dispatch is not able to quickly get in touch with one, then the pursuit should be discontinued. An example of how this might appear in a policy is provided here:

Maryland State Police

The pursuit will be terminated immediately if there is no response from the duty officer or if the duty officer is not available to monitor and direct the pursuit.⁹⁰

In addition to ensuring that a pursuit will not continue without management by a supervisor, this policy helps prevent an officer from accidentally broadcasting on the wrong channel. If they were to continue a pursuit using an unmonitored channel, this situation would present an even higher risk.

Routinely discontinuing pursuits because no supervisor is available to manage them could be a red flag. The cause could be one of several things:

- Staffing decisions result in too few supervisors in the field.
- Supervisors are not adequately monitoring the communications channel.
- Supervisors are reluctant to take responsibility for pursuits when they are happening.

All these potential causes have risk management implications that extend beyond vehicle pursuits. Agencies should examine why they may have too few supervisors available and immediately implement a plan to address the situation.

90. Maryland State Police, *Operations Directive 09.02 Vehicle Pursuits*.

One working group member observed that supervisors may not speak up because they do not want the liability or do not want to look “weak” if they need to discontinue a pursuit. This may be even more common in jurisdictions where there are multiple supervisors on duty in a geographic area; the available supervisors might simply wait to see if a fellow supervisor speaks up first. Agencies can help guard against this situation by having a dispatcher automatically call a supervisor who does not speak up to make sure they take responsibility and by finding another supervisor who is available if the initial supervisor does not respond. The agency may also want to treat this as a broader cultural issue to be addressed through training and accountability.

In addition to spelling out these responsibilities in policy, agencies must train supervisors how to assess the information they receive and make the appropriate decision about authorizing the continuation of the vehicle pursuit. This training should involve the use of a critical decision-making model (see chapter 5 for more on critical decision-making models).

The process for supervisor decisions is similar to that for officer decisions on whether to initiate a vehicle pursuit. First, the supervisor must assess whether the circumstances meet the requirements of the policy for authorizing a pursuit (e.g., the suspect is wanted for a violent crime and presents an ongoing threat to the community if not apprehended immediately). The information needed for this determination should be included in the initial information broadcast:

- The initial reason for the (attempted) stop
- Any information concerning the presence or use of firearms, overt threat of force, or other unusual hazard

If the criteria are not met, the supervisor should direct the officer to discontinue the vehicle pursuit immediately. If the criteria are met, the next step is balancing the risks. As the officer would have done prior to becoming

Recommendation 2.2. Agency policy should require supervisor approval for continuing a vehicle pursuit and place responsibility on both the primary officer and the supervisor for ensuring the critical initial information is communicated. Not all agencies will have an on-duty supervisor available at all times to manage a pursuit. Such agencies should still attempt to find ways to ensure supervisory oversight of pursuits. For example, this oversight could include placing the responsibility with someone other than a field supervisor. The policy should also provide the following direction:

- If the primary officer does not provide the supervisor with the necessary information, the supervisor should direct the officer to immediately discontinue the vehicle pursuit.
- If a supervisor is not available to monitor and direct the pursuit, the pursuit should be terminated.

involved in the pursuit, the supervisor should now examine the relevant factors to determine whether the need to apprehend the suspect without delay justifies the risks of the pursuit. The information needed for this assessment should be in the initial information broadcast (or subsequent broadcast) and include the following:

- The location, direction, and speed of the pursuit
- The weather and road conditions
- The traffic conditions (light, moderate, heavy) on the roadway
- A description of the pursued vehicle, including license plate number if known

- A description of the suspect’s driving behavior (e.g., reckless, slow)
- The number, description, and identity (if known) of the vehicle’s occupants

This information will help the supervisor assess the risk to all involved (including the officers, the person fleeing, and the public) from the pursuit by answering questions such as the following:

- How fast are the involved vehicles going?
- Is the vehicle pursuit in, or heading toward, a populated area or near a school?
- Has the suspect’s driving behavior shown a disregard for pedestrians and other vehicles on the road?

Information known about the suspect or the vehicle may suffice for police to apprehend the suspect later.

Recommendation 2.2. Agencies must train supervisors how to assess the initial pursuit information using a critical decision-making model to determine whether continuing the pursuit is justified. This training should occur upon promotion to a supervisory position, and it should be delivered on a recurring basis to ensure supervisors maintain these skills.* The policy should direct supervisors to discontinue the pursuit unless they determine that the reason for the pursuit meets the policy requirements (i.e., violent crime and imminent threat) and that the need to apprehend the suspect immediately outweighs the risks of the pursuit. The policy should also emphasize that getting enough information to make an informed decision is the supervisor’s responsibility.

* See chapter 5 for more details on pursuit training for supervisors as well as officers

Discontinuing the pursuit

Most agency policies direct both officers and supervisors to continuously assess the risks of deciding to continue a vehicle pursuit and to discontinue the pursuit when the risks of the pursuit begin to outweigh the need to apprehend the suspect immediately. But who can call it off? And once that decision is made, what must the officers do?

The answer to the first question should be that anyone involved in the pursuit who determines that the risks of the pursuit are no longer justified can call for the pursuit to be discontinued. This can be any officer involved in pursuing the fleeing suspect (e.g., primary or secondary unit, air unit) or any supervisor managing or monitoring the incident. Like the decision to initiate or continue a vehicle pursuit, the decision to discontinue it should reflect key factors and the balancing of the risks as spelled out in the policy and reinforced through training.

Multiple parties should have authority to discontinue a pursuit to ensure there are checks and balances on this decision. For example, the driver of the primary unit may be so focused on catching the suspect that they lose sight of the surrounding environmental risks. In such a case, the driver of the secondary unit may recognize these issues and call off the pursuit.

The question of what the officers must do when they discontinue is important because of the potential risks if an agency does not provide clear expectations. Officers understandably want to continue their attempt to apprehend the suspect; when told to discontinue their pursuit, they may be inclined to simply turn off their emergency equipment and continue following the suspect. This situation presents an even greater risk to the community than continuing the pursuit. Accordingly, agencies must be clear with officers about what they expect them to do. Examples of actions officers should take to discontinue a pursuit include

- turning off emergency lights and siren;
- communicating their location to the dispatcher;

- immediately reducing their speed and driving in a manner that complies with all traffic laws;
- verbally acknowledging the order to terminate the pursuit on air.

These actions are important. Slowing down and no longer trying to keep up with the fleeing suspect reduce the risk to the community. These actions also objectively verify that the officer has ceased the pursuit and can return to ordinary patrol duties. They facilitate the post-pursuit review as well, because they may be captured by in-car or body-worn camera footage and by global positioning system (GPS) reports from the police vehicle.

While most agencies will have their officers turn off their emergency equipment, slow down, and acknowledge that they have discontinued the vehicle pursuit, some agencies go a step further. Both the Burlington and Fayetteville (North Carolina) Police Departments have a practice where the supervisor may (at their discretion) require the involved officers to debrief the incident immediately. This meeting has the benefit of providing immediate feedback to officers about their performance. It also gives officers an opportunity to reset their emotions before heading back out on patrol. Some agencies will have a dispatch supervisor conduct a debrief with the dispatcher who facilitated the communications for the pursuit, which provides similar benefits. Following is an example of how this practice could be incorporated into an agency's policy:

Burlington (North Carolina) Police Department

The supervisor may also require all officers to meet at a particular location for debriefing, as well as assign duties regarding the continuing investigation and reporting.⁹¹

A quick note on accountability: Agencies that have adopted in-car or body-worn cameras can use these tools to verify officers' actions when a pursuit has been

discontinued. This practice is most effective for agencies that require officers to turn their vehicle around or begin driving in a different direction, because that action is often clearly depicted in the video. Officers who continue to go after the fleeing suspect without emergency equipment activated are involved in a de-facto pursuit. (For more on how agencies can use these cameras for officer accountability, see chapter 4.)

Recommendation 2.4. Agency policy should make clear that anyone, regardless of rank, involved in the pursuit can decide that it should be discontinued if, in their assessment, the risks of the pursuit are no longer justified. In addition, the policy should communicate what officers are expected to do once this decision is made. At a minimum, these actions should include

- turning off emergency lights and siren;
- communicating their location to the dispatcher;
- reducing speed and complying with all traffic laws;
- verbally acknowledging the instruction to terminate the pursuit.

Recommendation 2.5. Agencies should include in policy and develop a practice of having officers meet a supervisor at an agreed-upon location to debrief the incident as soon as practical.*

* Chapter 4 provides more information about post-pursuit reporting and training and lessons learned from individual incidents.

91. Burlington (North Carolina) Police Department, *Policy 307 Vehicle Pursuits*.

Perhaps the most important reason for discontinuing a pursuit is that it may lead the suspect to slow down too. Approximately 75 percent of respondents in one study said they would have slowed down if they felt “free from the police show of authority by emergency lights or siren for approximately 2 blocks (2.2) in town, between 2 and 2.5 miles on the highway (2.3 miles), and 2.5 miles on a freeway.”⁹² Another study found that after ground units terminated a pursuit, suspects continued driving dangerously for 90 seconds but then slowed down.⁹³ Finally, a study of agencies that use GPS tracking technology found that in under two minutes on average, suspect drivers returned to within 10 miles per hour of a posted speed limit once the tracker was deployed and officers disengaged.⁹⁴

Officers must understand the relationship between their actions and the reaction of the suspect—and more specifically how discontinuing a vehicle pursuit can directly reduce the risk to the public.

Recommendation 2.6. Agencies should train officers on why discontinuing a vehicle pursuit may be the most prudent course of action. This includes providing information about how their decisions can affect a suspect’s actions (e.g., cause them to slow down) and the risk to the public.

Role of a supervisor

The working group acknowledged that because police agencies differ widely, a one-size-fits-all solution is not always realistic, but certain general principles apply in all cases. One is that supervisors should be actively involved in managing vehicle pursuits. Supervisor involvement is always important for managing the risks of a vehicle pursuit, regardless of whether the supervisor is nearby in the field or in the watch commander’s seat many miles away.

92. Dunham et al., “High-Speed Pursuit,” 38.

93. Martin, “Pursuit Termination.”

94. This study used 10 miles per hour as an estimate for the time it takes a vehicle to blend into traffic and return to “normal driving behavior” that is no longer aggressive, evasive, or impulsive. Alpert, “Appendix 1. StarChase Report.”

Supervising the officers in the vehicle pursuit

A supervisor serves as an important check and balance on the officer’s decision to initiate, continue, or discontinue a pursuit. Supervisors can be critical in identifying the point at which the risks of the pursuit begin to outweigh the need to apprehend the suspect. Often the supervisor is also in the best position to evaluate the officer’s ability to safely conduct the pursuit.

An officer’s experience in pursuit driving directly affects how safely they can conduct a pursuit, especially under difficult conditions. This experience extends beyond driving to include communications and critical decision-making skills. The supervisor must consider all these skills when authorizing the continuation or ordering the discontinuation of the pursuit.

An officer’s emotional state during the pursuit will also affect their ability to conduct the pursuit safely. Even if the officer provides all the information a supervisor needs and continuation of the pursuit is within agency policy, the supervisor must assess the officer’s communications and determine whether the officer seems to be overly excited. If a supervisor hears indications that the officer is not maintaining emotional control under stress, the supervisor should order the officer to discontinue the pursuit. This responsibility can be incorporated into policy with language like this:

Atlanta (Georgia) Police Department

The primary pursuit unit’s supervisor should take into consideration the following in addition to the totality of the circumstances while making a decision on whether the pursuit should be initiated or denied:

1. Officer’s overall experience;
2. Officer’s pursuit driving experience;

Recommendation 2.7. Agency policy should direct supervisors to consider the officer’s experience in pursuit driving when deciding whether to authorize continuing the pursuit. Supervisors should also be responsible for assessing the officer’s emotional state throughout the pursuit and should direct the officer to discontinue the pursuit if the officer appears unable to control their emotions.

3. The level of the Officer’s pursuit driving abilities;
4. The Officer’s emotional stress as displayed through his voice in radio communications; and
5. Any other circumstances that would pose a safety risk to the officer, suspect, or third party.⁹⁵

Burlington (North Carolina) Police Department

Officer’s emotional state. To be allowed to begin or continue a pursuit, an officer must be calm and in control of their emotions. Should a pursuing officer appear to be overly excited and not in control emotionally, the pursuit by that officer will be terminated by a supervisor.⁹⁶

Managing the vehicle pursuit

The supervisor is ultimately responsible for the vehicle pursuit. Therefore, the supervisor cannot simply “monitor” what is happening but must take an active role in managing the pursuit. Unlike the pursuit officers, who are focused on following the suspect, the supervisor must look at the bigger picture. This means calling in and coordinating additional resources to help, including limiting the number of police vehicles involved or requesting helicopter support if available.

The supervisor must think strategically about what intervention techniques may be appropriate in bringing the pursuit to an end swiftly and safely (specific interventions

are discussed in more detail in chapter 3). Deploying an intervention should require approval and coordination by the supervisor. For example, if the officers want to use a spike strip to try to stop the fleeing suspect vehicle, the supervisor must be aware of where all the officers are positioned and ensure everyone knows the plan.

In agencies where the patrol officers are less experienced it is especially important to have engaged supervisors who can ask important questions over the radio and give officers good direction. Knowing that an experienced and calm supervisor is overseeing their decision-making in a fast-paced and evolving situation can reassure officers.

Finally, in agencies where there are multiple supervisors in the field or where supervisors are reluctant to take responsibility for a pursuit, the agency must have a procedure for ensuring supervisory involvement as early as possible. The following language illustrates this policy element:

Harris County (Texas) Sheriff’s Office

Dispatch personnel will notify the immediate Supervisors of the primary and secondary units involved in the pursuit. Upon notification, the ranking Field Supervisor closest in proximity of the pursuit will assume overall command and will be accountable for procedure compliance and all requisite reporting matters.⁹⁷

Burlington (North Carolina) Police Department

Upon notification or becoming aware that a pursuit has been initiated, the telecommunicator is responsible for:

[. . .]

(d) Ensuring that a field supervisor is notified of the pursuit. If a patrol supervisor has not taken command of the pursuit immediately

95. Atlanta (Georgia) Police Department, *APD, SOP .3050 Pursuit Policy*.

96. Burlington (North Carolina) Police Department, *Policy 307 Vehicle Pursuits*.

97. Harris County (Texas) Sheriff’s Office, “Policy 803—Vehicle Pursuits.”

Communications personnel will assign an available supervisor to be responsible for managing the pursuit until termination or conclusion. If a supervisor cannot be located to take command of the pursuit, the Communications personnel will terminate the pursuit.⁹⁸

Depending on the leadership structure, agencies may want to add a layer of supervision and assign ultimate responsibility for coordination, control, and termination to someone who is not the primary supervisor managing the pursuit. Following is an example of policy language that codifies this responsibility:

Vallejo (California) Police Department

Upon becoming aware that a pursuit has been initiated, the Watch Commander should monitor and continually assess the situation and ensure the pursuit is conducted within the guidelines and requirements of this policy. Once notified, the Watch Commander has the final responsibility for the coordination, control, and termination of a vehicle pursuit and shall be in overall command.⁹⁹

Supervisors in pursuit

The guidance in this section involves situations where an officer initiates the pursuit and a supervisor steps up to manage it. But there may be instances and agencies where, at certain times, the only officer working is the supervisor. How do the standards operate in situations where the pursuing officer is a supervisor? Who is assessing them, or who can cancel the pursuit if they get too wrapped up in the moment?

Recommendation 2.8. Agency policy should clearly indicate that the supervisor is responsible for managing the pursuit and have a process for getting a supervisor involved as early as possible. This responsibility includes not only authorizing the continuation or discontinuation of the pursuit but also authorizing and managing additional resources and intervention tactics. Not all agencies will have an on-duty supervisor available at all times to manage a pursuit. Such agencies should still attempt to find ways to ensure supervisory oversight of pursuits. For example, this could include placing the responsibility with someone other than a field supervisor.

The key concept here is that someone other than the person engaged in the pursuit must be involved to provide oversight and direction. Depending on the situation, this may not be a field supervisor but rather the watch commander or a higher-level supervisor with some authority over the person in the pursuit. How this works in practice will depend on each agency's structure and capability, but it is a situation that an agency's policy must address.

Recommendation 2.9. If a supervisor is actively engaged in the pursuit, someone other than the supervisor must provide oversight and direction. Depending on the situation, this may not be a field supervisor but rather the watch commander or a higher-level supervisor who has some authority over the person in the pursuit.

98. Burlington (North Carolina) Police Department, *Policy 307 Vehicle Pursuits*.

99. Vallejo (California) Police Department, *Policy 308 Vehicle Pursuits*.

3. Pursuit Interventions, Pursuit Alternatives, and Technology for Managing Pursuit Risks

Pursuit interventions should be addressed in any discussion of managing the risks of vehicle pursuits.¹⁰⁰ When used appropriately, a well-planned and -timed intervention tactic can bring a pursuit to a quick and safe end. However, many things can go wrong when an intervention is used under the wrong conditions. This chapter discusses several commonly used pursuit interventions noted by the working group as valuable to officers during pursuits.¹⁰¹

This chapter also discusses pursuit alternatives—tactics and technologies that allow the suspect to be apprehended without a prolonged pursuit. Where available, they may shorten or even eliminate the need for pursuit, thereby enhancing officer and public safety. An agency’s policy should encourage the use of pursuit alternatives when available. Agency training should include not only what resources are available but also how to request them and how to use them most effectively.

Practical considerations for pursuit interventions and technology

One important note that relates to all these tools and tactics: Their utility will be limited by how many officers are trained to use them, how many devices are put into the field, and how ongoing efforts will be supported (e.g., resources for training, maintenance of equipment, replacing equipment). Such barriers may be particularly limiting for smaller agencies. For example, one agency that participated in the working group said it stopped using tire deflation devices because only supervisors had been trained to use them and the devices had not been deployed in a five-year period. The agency therefore removed the devices from the supervisors’ vehicles and freed up space for other equipment that was used more regularly.

100. The National Institute of Justice has conducted numerous research projects on technologies to manage pursuits. NIJ, “Technology for Pursuit Management.”

101. This guide does not discuss tire entrapment devices because of their novelty and the limited amount of research on their safety and effectiveness; however, agencies should monitor the development of this technology and its potential for future use.

Agencies will regularly be approached to implement new technology in their work, including vehicle pursuits. Agencies must think critically about emerging technologies and the evidence on their effectiveness.¹⁰² There is often limited evidence of new technology’s ability to reduce the risks inherent in pursuits.¹⁰³ Implementing any new tools or tactics requires careful consideration. The key is making sure the right tools are in the right places with the right people.

Analyzing pursuit interventions as a use of force

Several of the interventions described in this section—tire deflation devices, the PIT (precision immobilization or pursuit intervention technique) maneuver, and ramming—involve intentional contact between the officer and suspect vehicles. Given this dynamic, as well as the possibility of physical injury to all occupants of the suspect vehicle (not just the driver), the decision to use these tactics must be treated as if the officer were determining the need for any use of force tool (e.g., baton or electronic control weapon) or deadly force. The agency’s use of force policy, the reasonableness of the officer’s decision-making, and the characteristics of the pursuit should all apply to the decision to deploy a specific intervention.

These tactics present varying levels of risk, including injury to the individuals in the suspect vehicle, members of the public or those in the surrounding vicinity, and

the officers who deploy them. Agencies should connect the discussion of these pursuit interventions to the use of force policy. Two examples follow:

Minnesota State Patrol

A. Stop-Sticks

Members shall always consider personal safety during deployment. **The use of Stop-Sticks on a vehicle with fewer than four wheels shall be considered the use of deadly force (GO 10-027 (Use of Force)).**

B. Pursuit Intervention Technique (PIT)

1. Members shall consider using the PIT maneuver at the earliest opportunity in a pursuit, knowing the opportunity might be short-lived.
2. The PIT maneuver may be executed at speeds of 40 mph or less on straight roadways or 25 mph or less in cornering situations. Speeds greater than this may be considered deadly force.¹⁰⁴
3. The PIT maneuver is not allowed in the following circumstances **unless deadly force is authorized:**
 - a. On vehicles with fewer than four wheels;
 - b. On a vehicle pulling a trailer;
 - c. On unconventional vehicle types to include, but not limited to, straight trucks, recreational vehicles, off highway vehicles, ATVs, etc.¹⁰⁵

102. For example, acoustic gunshot detector systems have received a lot of attention in the last several years; however, studies on their usefulness indicate these systems may increase the workload of law enforcement agencies without an associated benefit of confirming shooting incidents for investigation. Ratcliffe et al., “A Partially Randomized Field Experiment.”

103. For example, license plate readers were rapidly adopted by agencies before any outcome evaluations existed and without much consideration for community privacy concerns. Lum et al., “The Rapid Diffusion of License Plate Readers.”

104. See page 73 for more on suspect speed and the PIT maneuver. There is no empirical evidence to support a maximum speed to safely execute the PIT maneuver.

105. Minnesota State Patrol, *General Order 19-20-012 Motor Vehicle Pursuit*. Emphasis added.

Orlando (Florida) Police Department

Units may not ram a fleeing vehicle unless deadly force is authorized. An employee is justified in the use of deadly force only when they reasonably believes [sic] such force is necessary to prevent immediate danger of death or serious bodily injury to the employee or any individual; or when the employee has probable cause to believe a subject is committing or has committed a forcible felony (as outlined in policy 1128, Response to Resistance and Apprehension Techniques) and the subject's actions, to include escape, pose an immediate danger to any individual if apprehension is delayed. Any non-deadly force alternative that can safely resolve the situation should be utilized before deadly force is authorized. Deadly force shall not be used when there is a likelihood of serious injury being inflicted upon persons other than the individual against whom the member is authorized to use deadly force. The safeguarding of other human lives shall outweigh all other considerations.¹⁰⁶

Most importantly, have a plan

With any pursuit intervention or alternative, officers need a plan. It should include the best time and manner of using the tactic and what officers should do after implementing it to apprehend the suspect. The Critical Decision-Making Model (CDM), discussed in chapter 5, can help officers think through decision-making and planning. Take the example of officers who successfully deploy a GPS-enabled tracking device to a fleeing suspect vehicle: Their plan should include terminating their pursuit once they have determined the device is transmitting and monitoring the vehicle's movements and should include tactics for their approach once the vehicle has stopped.

Tire deflation devices—Recommended as pursuit alternative and intervention

Tire deflation devices (TDD), or spike strips, can be used strategically with either stationary or fleeing vehicles. When the vehicle drives over the device, the device's metal barbs puncture the tire, causing it to deflate. These devices come in a variety of sizes and can be used in different scenarios including the following:

- **Fleeing suspect vehicle.** A spike strip can be thrown into the street by an officer just ahead of the suspect vehicle's path. Once the suspect drives over the strip, the deploying officer pulls the strip out of the way of the pursuing police vehicles. This deployment method presents the greatest level of danger, particularly to the officer responsible for the placing and removing the device.
- **Traffic stop.** An officer can place a TDD in front of the rear tire on the driver's side of a vehicle as they approach the vehicle. If the driver decides to take off, the TDD punctures the tire and gives the officer time to respond. (The tool can also be deployed behind a tire in the case of a vehicle fleeing in reverse.)
- **Flight-risk suspect.** If officers suspect a targeted perpetrator may be a flight risk using a particular vehicle (e.g., when serving a warrant), they may place TDDs near the vehicle's tires to prevent the suspect from fleeing once the officers' presence becomes known.

The use of TDDs on stationary vehicles is one effective way to prevent a vehicle pursuit. As just discussed, these devices can be placed in front of or behind the tires of a stopped vehicle. For example, if an auto theft unit receives a license plate reader (LPR) hit on a stolen vehicle, the officers can surveil the vehicle from a distance,

106. Orlando (Florida) Police Department, *Policy and Procedure 1120.14 Vehicle Pursuits and Apprehension*. Emphasis in original.

call in unmarked units to block the vehicle at an intersection, and then deploy the TDD to reduce the suspect's ability to flee.

The manufacturers of TDDs specifically design them for use in stationary situations. Agencies permitting the use of TDDs must include this deployment method in their policies and train officers in how to do it effectively. This is also another opportunity to use the CDM. Training should address officer safety in deploying TDDs on an occupied vehicle. For example, when an officer conducting a traffic stop of an impaired driver approaches to deploy a TDD, the driver may suddenly try to flee in whatever direction is available, including reverse. Officer training is critical to build awareness of the varying scenarios that could pose risks.

Following is an example of a policy that describes the use of TDDs as a pursuit alternative:

Charlotte Mecklenburg (North Carolina) Police Department

As part of the CMPD's efforts to promote public safety in all aspects of law enforcement, officers should prevent a pursuit if possible. **Officers anticipating a suspect will flee upon activation of blue lights and siren are encouraged to utilize techniques and strategies to prevent a pursuit.**

Officers may use the following techniques and strategies to prevent a pursuit from occurring:

- a. **Tire Deflation Device (TDD): If an officer has an articulable reason to believe that a stationary suspect vehicle will flee** and has prior authorization from a lieutenant or higher, then that officer may utilize the TDD in accordance with training on a suspect

vehicle that the officer reasonably believes was involved in a pursuable offense. The TDD will be deployed as follows:

1. In between the front and rear tires of the stationary target vehicle allowing two (2) feet of travel distance in either direction; or
2. Approximately two (2) feet ahead of the front tire; or
3. Approximately two (2) feet behind the rear tire.
4. Officers may deploy multiple stationary TDD's when officers have reason to believe the target vehicle may flee by going forward or in reverse.

[. . .]

5. If the suspect flees after deployment of the TDD, then officers will attempt to stop the vehicle using lights and siren. If the vehicle refuses to stop, Officers may enter into a pursuit pursuant to the guidelines set forth in this directive.¹⁰⁷

While this sample policy requires prior authorization from a lieutenant or higher for deploying TDDs on a stationary vehicle, agencies may choose to require direct supervisory approval for the use of TDDs only on a moving vehicle because of the elevated risks to officers, the public, and the suspect. Risks are lower when deploying TDDs on a stationary vehicle, so the need for supervisory involvement may not be as great.

With proper training, officers should be able to plan quick, safe, and strategic deployment of TDDs on a stationary vehicle.

107. Charlotte-Mecklenburg (North Carolina) Police Department, *Directive 600-022 Emergency Response and Pursuit Vehicle Operations*. Emphasis added.

Recommendation 3.1. Agency policy should emphasize preventing pursuits when possible and describe how tire deflation devices (TDD) can be used as a pursuit alternative. Agencies should train officers how to use this tactic effectively, including how to operate safely around occupied vehicles and the public and how to remove the device once the suspect is in custody or the driver is free to go. The policy should also state that only officers who have been trained to do so may use these devices.

Ending a pursuit—TDD deployment on moving vehicles

While there is relatively low risk involved in deploying a TDD on a stationary vehicle, this may not be true with a fleeing vehicle. Despite these risks, the use of TDDs can still be an effective way to end a pursuit safely if officers are well trained in their use and deploy them in a manner consistent with their training. Accordingly, this section will focus on mitigating the risks when deploying a TDD on a fleeing vehicle.

Deployment of a spike strip often requires an officer to roll out the device into the road moments before a suspect vehicle approaches to pass. A suspect who sees deployment of the TDD may try to avoid the device, leading to other unintended consequences such as collisions with other vehicles, innocent bystanders, or even the officer who deployed the TDD.

An officer must be able to remove the spike strip quickly before pursuit vehicles or other members of the public drive over it. Failure to do so could result in injury or death to subsequent drivers.

The proper deployment of TDDs requires not only quickly forming a plan but also having skill and coordination among responding officers as well as minimal

Recommendation 3.2. Agency policy should require supervisor approval prior to deployment of a TDD for a fleeing vehicle, and a supervisor should also be involved in deciding where and when it is deployed. To the extent possible, a supervisor should be responsible for tracking the location of the involved officers. Supervisors should ensure that communications (dispatch) are notified when a TDD is deployed and given the location, whether the deployment was successful, and updated speeds if the vehicle is mobile. Supervisors should receive training on the decision-making process of TDD approval.

environmental risks. Agencies that allow the use of TDDs must have a robust policy that outlines the proper requirements and conditions for mitigating their risks and protecting officers and the public.

Supervisor approval and oversight

An agency's policy should require supervisory approval prior to TDD deployment. A supervisor should also be involved in deciding where and when to deploy the device. The deployment of a TDD requires a high level of coordination among the involved officers, for which a supervisor should also be responsible to the extent possible. Supervisors should ensure communications (dispatch) is notified when a TDD is deployed and given the location of deployment.

Situational factors

An agency's policy also should outline the factors officers should assess in deciding not only whether to use a TDD but also how to do so safely and effectively. Most importantly, the policy should provide guidance about those circumstances where officers should avoid using a TDD. The key consideration is whether use of the TDD

will increase the risk of the suspect losing control of the vehicle and colliding with a fixed object, a pedestrian, another motorist, or an officer.

- **Speed and road surface.** As driving speed increases, so does the risk of the suspect losing control after driving over a TDD or swerving to avoid it. This risk is also elevated on loose pavement, gravel, or icy or wet roads. A TDD may fail to puncture the tires of a target vehicle on soft, loose materials such as dirt or gravel roads, so the road surface itself should be a consideration.¹⁰⁸
- **Suspect vehicle type.** TDDs should not be used with a suspect on a motorcycle or any vehicle with fewer than four tires because such vehicles are less stable and the driver is more likely to lose control as their tires deflate.
- **Populated areas.** TDDs should be avoided in areas with heavy traffic (because of the increased risk of collision with another vehicle) and in populated areas or locations with pedestrians nearby (because of the increased risk of injuring a bystander).

This is not an exhaustive list. These examples only illustrate what can affect the safety of deploying a TDD and what agencies and officers should consider when deciding whether to use this tool. An agency's policy should

Recommendation 3.3. Agency policy should outline the key factors for officers to consider in deciding whether to use a TDD, as well as how to do so most safely and effectively. These factors include suspect speed, road surface, weather, suspect vehicle type, and whether the target area is populated. Agencies should consider their own TDD deployment data to help them determine maximum safe speeds for deployment.

108. Stop Stick Ltd., *Guidelines for Use of Stop Stick*, 6.

Maximum Speed Limitation?

Whether the suspect drives over the TDD or swerves to avoid it, doing so at a high speed substantially increases the risk that the vehicle will crash or strike the officer who deployed the TDD. Given this risk, several members of the working group suggested setting a maximum speed limitation on deployment of TDDs.

While there is some research on speed and the PIT,* there is little guidance on the effect of speed on TDDs other than the fact that higher speeds carry greater risk to the public, the officer, and the suspect. There are likely many variables (e.g., type of tires, angle of impact) in addition to the suspect's speed that determine whether a suspect loses control of the vehicle. Agencies and officers need more information to assess this risk. Agencies should also consider their own TDD deployment data to help them determine maximum safe speeds for deployment.

* Effects of the PIT maneuver were examined at 40, 50, 60, and 70 mph. The study concluded that "at higher speeds, the combined effects of spinning and skidding after the maneuver is more pronounced. Although it destabilizes the pursued vehicle to a larger extent, it is more likely to induce unintended injuries since the pursued vehicle skids more at higher speeds." Zhou, Lu, and Peng, "Vehicle Dynamics," 582.

direct officers to consider these factors, and training should help prepare officers for identifying and evaluating them in a real-world situation.

Officer training

Finally, agencies should provide specialized training for officers in how to deploy TDDs and restrict their use only to those officers who have completed the training. This training should include

- determining the most suitable and safest locations for deployment (both for stationary and moving vehicles);

- finding protective cover, such as a large tree, guard rail, or other object or structure capable of stopping an approaching vehicle;
- minimizing risks to bystanders by limiting traffic and pedestrians;
- identifying situations where a TDD should NOT be deployed.

This training should also include hands-on practice, in addition to any instruction provided online or in a classroom, with refresher training provided annually.

Recommendation 3.4. Agency policy should restrict the use of TDDs only to those officers who have completed specialized training in their deployment. This training should include hands-on practice in addition to any online or classroom instruction and should prepare officers for identifying and evaluating important situational factors in deciding whether to deploy TDDs. In addition, refresher training should be provided at least annually.

Policy example

The following is an example of a policy on TDDs that covers each of these areas:

Charlotte Mecklenburg (North Carolina) Police Department

Officers may utilize department-issued Tire Deflation Devices (TDD) to prevent a pursuit or intercept a pursuit by slowing or stopping the pursuit.

1. **With the permission of the Supervisor in charge of the pursuit,** or higher-ranking Command Staff personnel, officers are authorized to intercept the pursuit by positioning an officer with a TDD in a location to safely deploy the TDD before the pursuit arrives at the officer's position. Officers will not

attempt to outrun a pursuit or pass a vehicle being pursued. Officers are authorized to use all emergency equipment to respond to that location while adhering to all Emergency Response policies.

2. **Supervisors will monitor and assist responding units in coordinating the deployment of the TDD.**
3. **A TDD must be deployed from locations that permit officers to clearly observe the vehicles involved in the pursuit and other traffic as it approaches. In addition, it must be deployed from a location that allows officers to maintain protective cover from moving vehicles. Officers must use extreme caution to avoid crossing the path of an ongoing pursuit.**
4. **Only officers who have received the required training may deploy a TDD. Training will be provided by a designated trainer and will include review of the TDD training video and practice in the proper deployment of TDD's.**
5. **Before deploying a TDD, officers will consider the following factors:**
 - a. The proximity and vulnerability of the public;
 - b. The position and location of property;
 - c. The proximity and vulnerability of officers and police vehicles.
6. **TDD's shall not be deployed:**
 - a. Within approximately 300 feet prior to a major intersection;
 - b. On motorcycles or vehicles with two or three wheels, including all-terrain vehicles;

- c. On streets with heavy traffic, congestion, or construction;
 - d. On or unreasonably close to a curve, or slope in the roadway;
 - e. On wet or slick surfaces, gravel or loose pavement;
 - f. On bridges or overpasses.
7. When an officer deploys the TDD, the officer must notify Communications and his/her supervisor that the TDD has been deployed and the location. Communications will immediately advise units involved in the pursuit where the TDD is located.
 8. If the suspect continues to flee after deployment of the TDD, officers may proceed with the pursuit pursuant to the guidelines set forth in this directive.
 9. Officers are NOT authorized to deploy TDD's at License or DWI Checkpoints unless the violation is a pursuable offense.¹⁰⁹

While this sample policy says TDDs “shall not be deployed” in certain locations, some agencies may wish to use more permissive language or at least to include an exception for exigent circumstances. Situations could arise in which using TDDs in these locations is the best option.

Pursuit alternatives

Aviation resources

An aviation resource, such as a helicopter or fixed-wing aircraft, overhead during a vehicle pursuit can greatly help officers on the ground and, if available, should be one of the first resources requested (either by the pursuing officer or managing supervisor). If an aviation

resource can respond to the area of the pursuit and begin tracking the suspect vehicle, the officers should discontinue their pursuit. The aviation resource will typically keep the suspect in view until they stop and exit the vehicle, at which point officers on the ground can approach and take them into custody. If the suspect stops the vehicle and flees on foot, the aviation resource can help track and coordinate the search.

The aviation resource's vantage point allows the flight officers to communicate key information, including

- the vehicle's location;
- the suspect's driving behavior;
- whether the suspect may be armed;
- whether any passengers are in the vehicle;
- the direction of travel;
- environmental conditions ahead (e.g., traffic conditions, presence of pedestrians, freeway on-ramps).

With this information, officers on the ground can remain in the area but out of the suspect's view and respond if the suspect stops and gets out of the vehicle. They can also assist with traffic control or take other measures to enhance public safety.

There is one other method for using an aviation resource as a pursuit alternative. In situations where the agency's policy does not permit a pursuit (e.g., the suspect is wanted for a nonviolent crime or the road conditions are too hazardous), an aviation resource may still track the vehicle. Officers on the ground can develop a plan to respond once the vehicle has stopped and to take the suspect into custody. Providing a way for officers to take enforcement action when they cannot engage in a vehicle pursuit reinforces the principle that a restrictive pursuit policy does not remove their ability to protect public safety.

109. Charlotte-Mecklenburg (North Carolina) Police Department, *Directive 600-002 Emergency Response and Pursuit Vehicle Operations*. Emphasis added.

Recommendation 3.5. In agencies that have aviation resources, policy should direct personnel to request that resource at the earliest time possible. This responsibility should be placed on all personnel involved in the pursuit, including dispatchers, the pursuing officers, and the managing supervisor. Agency training should instruct officers on how and when to make such a request, and it should clearly state that once the aviation resource begins tracking the suspect vehicle, the officers should discontinue their pursuit. At that point, aviation resources may guide ground vehicles to remain in the area and wait for the vehicle to stop.

Recommendation 3.6. Agency policy and training should also address situations where a vehicle pursuit is not permitted but an aviation resource can be engaged to track the suspect until the vehicle has stopped, the suspect has exited the vehicle, and officers can take the suspect into custody.

Limitations

Many agencies have had success in apprehending pursuit suspects with the involvement of a helicopter. One study found that the Baltimore City (Maryland) Police Department had an 83 percent success rate and the Miami-Dade (Florida) Police Department had a 91 percent success rate in pursuits involving helicopters.¹¹⁰

However, it can be difficult to get a helicopter to a pursuit in time to assist. Influences on the effectiveness of a helicopter in a pursuit include

- ability to get overhead quickly;
- ability to navigate the area (building height and density);
- weather conditions.

The geographic area for which an agency is responsible can also affect its use of helicopters in pursuits. In 2020, the Harris County (Texas) Sheriff's Office was able to use a helicopter in only 22 percent of its vehicle pursuits, in part because of the challenge of covering 1,778 square miles of territory.

Some large metropolitan agencies may have one or more helicopters patrolling on a regular basis and ready to respond when a request is made, but others may not have this capability because of the expense. For such agencies, officers will need to request a helicopter before the resource will be available to them (this should be done as early as possible). Most pursuits last only a matter of minutes.¹¹¹ In most cases, by the time a helicopter can take off and get to the location, the pursuit will have ended. This ability for the helicopter to get overhead quickly will determine whether this is a viable option.

One way to increase the usefulness of a helicopter resource is to request it early and wait until it is overhead before attempting the traffic stop on a vehicle that is likely to flee (e.g., vehicle is linked to recent criminal activity). If the suspect stops when the officer turns on their emergency equipment, the helicopter will not be needed. But if the suspect flees, the helicopter can begin tracking immediately, avoiding the need for a vehicle pursuit.

110. Langton, "Engaging in a More Complete Assessment;" Alpert, "Helicopters in Pursuit Operations."

111. Reaves, *Police Vehicle Pursuits, 2012–2013*.

The helicopter’s ability to maintain visual contact with the suspect vehicle may depend on characteristics such as terrain (e.g., whether the vehicle is in an urban area with high-rise buildings or an open rural area), time of day, weather conditions (e.g., cloud cover, wind), and location.

Finally, many agencies do not have their own helicopters but can request air support from a neighboring or state-wide agency. Agencies without their own air resources may wish to enter mutual aid agreements with agencies that do have air resources so as to access them when needed. Each agency must assess its own capabilities and develop policies that fit its environment.

Helicopter deployment strategy

Officers may not want the suspect to know there is a helicopter overhead. When in tracking mode, the helicopter will travel at a higher elevation, behind the suspect. Remaining out of the suspect’s view allows for continued tracking while also encouraging the suspect to slow down because they believe they are no longer being followed. To reinforce use of such a tactic, a policy like the following could be helpful:

Harris County (Texas) Sheriff’s Office

The practice of illuminating the suspect vehicle from the air should not generally be used unless there is a specific reason to do so in the immediate case. Normally, the presence of the aircraft should be unknown to the suspects. **The goal of an aircraft-assisted situation is when the pursuit vehicles shut down their emergency equipment and back off from the pursuit, it will lead the suspect to believe the pursuit has been terminated.**¹¹²

At other times, it may be desirable to make the suspect aware of the presence of a helicopter in order to encourage the suspect to cease fleeing, believing they will not be able to

Helicopters vs. Fixed-Wing Planes

Fixed-wing planes can provide extended patrol flights at significantly less cost than a helicopter. They fly higher and are less conspicuous than helicopters. They can also cover more ground and stay in the air longer. New technology has enhanced fixed-wing aircraft’s ability to assist in operations previously limited to helicopters, including the use of advanced cameras and digital downlink equipment. Purchasing fixed-wing aircraft would be a major endeavor for agencies without them. Such agencies would need to evaluate their ability to use fixed-wing aircraft for purposes beyond vehicle pursuits to justify the cost.

outrun a helicopter. These are strategic decisions that agency personnel must make based on the information known about the suspect and the environment of the pursuit.

Policy examples

Maryland State Police

Troopers will discontinue direct involvement in the pursuit when the fleeing vehicle is under air surveillance or other monitoring technology has been deployed. Troopers should remain at an appropriate distance with emergency equipment activated until otherwise directed.¹¹³

Maricopa County (Arizona) Sheriff’s Office

Air support should be requested by the primary unit, or the supervisor, in all pursuits not quickly terminated.

1. When the aircrew makes visual contact with the fleeing vehicle, the aircraft shall become the primary unit, and shall take over radio transmissions.

112. Harris County (Texas) Sheriff’s Office, “Policy 803—Vehicle Pursuits.” Emphasis added.

113. Maryland State Police, *Operations Directive 09.02 Vehicle Pursuits*. Emphasis added.

2. The air unit shall advise pursuing ground units that they have the fleeing vehicle in sight. When advised, pursuing ground units shall drop back and deploy for apprehension while proceeding at a lower speed.
3. Whenever possible, and if a potential issue has been observed, the aircrew should **advise ground units of hazards, congested areas, or other factors that may endanger the safety of the deputies or the public**, and coordinate ground unit movement to an eventual apprehension of the fleeing vehicle, as directed by the supervisor.¹¹⁴

Orlando (Florida) Police Department

Air support units shall be utilized whenever possible. **The presence of an air unit may negate the need for the continuance of a pursuit and allow officers to proceed at a reduced rate of speed to assist in the apprehension.** If so, the officers will deactivate their emergency equipment, follow directions from the air unit, and obey all traffic laws.¹¹⁵ [See sidebar on page 68.]

GPS tagging and tracking technology

A tagging and tracking device (TTD) is typically deployed from a mechanism mounted on the front of the patrol vehicle or from a handheld device. Such a system uses compressed air to launch a GPS-enabled tracker that adheres to the rear of the suspect vehicle (either moving or stationary). Once the tracker adheres to the suspect vehicle, the officer or dispatch can use it to monitor the vehicle's location. Law enforcement can deploy a TTD in a variety of scenarios, including the following:

- **Fleeing suspect vehicle.** While in pursuit, an officer equipped with a TTD can deploy a tracker on the fleeing suspect's vehicle. Once the tracker is

attached and the GPS is functioning, the officer can discontinue the pursuit but continue to monitor the vehicle's location.

- **Traffic stop.** An officer can place a reusable TTD on the rear bumper of a vehicle as they approach the driver. If the driver takes off unexpectedly, the officer can simply begin tracking the vehicle rather than go in pursuit.

One benefit of a TTD is that the suspect will likely be unaware that the police are continuing to track the vehicle. While a suspect might detect the presence of a helicopter overhead, suspects are often unaware of the TTD or that police are using it to monitor their location.

Another benefit to using a TTD is its calming effect. An early adopter of this technology described a phenomenon in which officers began to view the technology as something of a "silent partner" as they became familiar with it. The officers using the technology knew they did not have to pursue the suspect to apprehend them, and other officers nearby knew they would not be called to rush to provide assistance in a pursuit.

As noted elsewhere, disengaging from a vehicle pursuit can cause many suspects to slow down, thinking they are safe—yet the technology still enables officers to apprehend the suspect later, when the risks may be lower and the officers have the tactical advantage. Tracking devices can also work for suspects who know the pursuit policies and that the officers cannot pursue them. A restrictive pursuit policy does not prevent the officer from tracking the vehicle and apprehending the suspect at a later time.

114. Maricopa County (Arizona) Sheriff's Office, *Policy CP-4*. Emphasis added.

115. Orlando (Florida) Police Department, *Policy and Procedure 1120.14 Vehicle Pursuits and Apprehension*. Emphasis added.

A Note on Using Unmanned Aircraft Systems (UAS) for Vehicle Pursuits

Some law enforcement agencies use unmanned aircraft systems (UAS), or drones, for certain law enforcement activities. For example, agencies have used drones to observe and monitor large-scale events such as sporting events or to search large areas for missing persons. This technology may also help officers with vehicle pursuits.*

limits the use of drones to short-term vehicle pursuits where officers can observe them constantly—a difficult task in an urban environment, particularly during a high-speed chase.

However, new technologies may allow for air traffic avoidance systems that will make “beyond visual line of sight” flight safe and efficient. This technology would create opportunities for more advanced law enforcement operations. UAS and drone regulations will likely change as new technology proves to be safe within the national airspace system.

Harris County (Texas) Sheriff’s Office—Unmanned Aircraft System Program

The Harris County (Texas) Sheriff’s Office has had success using drones at the conclusion of pursuits to track and locate suspects who have fled on foot. Officers have used drones to locate suspects on rooftops (see image), hiding behind buildings, and in back yards.†

Photo courtesy of: Harris County (TX) Sheriff’s Office



There are some limits to using drones in pursuits. First, there is the practical challenge of how quickly the drone can be launched in the right area, especially if the pursuit is proceeding at a high speed. As noted, most pursuits end within a few minutes, before a drone may be able to launch. This was a common reason given by members of the working group who have drones but do not typically use them in vehicle pursuits.

Another limitation is Federal Aviation Administration (FAA) drone regulations requiring that these devices be flown within visual range of the pilot-in-command or visual observers, unless an FAA waiver is granted. This likely



Photo courtesy of: Harris County (TX) Sheriff’s Office

* Uleski, “How Unmanned Aerial Systems Can Assist.”

† Seward, “Meet ‘Maverick’ and ‘Goose’,” Harris County (Texas) Sheriff’s Office, “416—Unmanned Aircraft Systems (UAS).”

Limitations

Beware of the elevated risk when officers must increase their speed to get within deployment range (within 20 feet of the target vehicle).¹¹⁶ As with any tool, officers must be trained in deploying a TTD. Training becomes critical when the suspect's vehicle is in motion. The officer will have to get within range of the vehicle to launch the tracker, and the speed of travel will significantly affect the degree of risk involved. Agencies that choose to use this technology may want to consider an upper speed limit (in relation to the effective deployment range) at which an officer can deploy these devices.

Officers also may need to make tactical considerations in deploying this device. For example, the tag may not adhere to a vehicle in heavy rain or extreme temperatures. Agency training should include this information so that officers can properly assess how effective TTD deployment will be.

Maintenance of TTDs should be considered as well. Once a tracker is launched, it must be sent back to the manufacturer for either refurbishment or replacement. The compressed air used to launch the devices requires replacement of canisters or maintenance of an air compressor installed in the vehicle. There is also a shelf life for the adhesive used on the TTDs.¹¹⁷

Policy examples

Following is an excerpt from agency policy related to the use of tagging and tracking technology (StarChase is currently the only provider of this technology):¹¹⁸

Orlando (Florida) Police Department

The use of StarChase should be considered during vehicle pursuits to reduce the inherent danger caused by the reckless actions of the fleeing/evading/eluding suspect(s). **When practical,**

Recommendation 3.7. Agencies should explore the use of tagging and tracking technology to assist in vehicle pursuits. Such technology can help minimize the duration of a pursuit or avoid one entirely.

Recommendation 3.8. For agencies that adopt tagging and tracking technology, the policy should direct personnel to request and deploy the device at the earliest time possible. Only officers who have received the proper training should be permitted to deploy the device. Agency policy and training should instruct officers on how to request a deployment, assess the considerations for deployment, and develop a plan to track the suspect and apprehend them once they stop and exit the vehicle.

StarChase deployment should occur before a vehicle flees/evades/eludes to protect the safety of the officers and/or the public. StarChase operators should use extreme caution when approaching a vehicle for the deployment of a StarChase GPS tag. StarChase deployment is limited to use on four-wheeled motor vehicles. **For safety reasons, if a deployment is successful, the operator coordinating the vehicle tracking shall stop their vehicle in a safe location and organize the response of other resources.**

[. . .]

Officers shall receive training and instruction prior to being assigned a StarChase device.¹¹⁹
[See sidebar on page 70.]

116. Fischbach, Hadsdy, and McCall, *Pursuit Management*.

117. Gaither et al., *Pursuit Technology Assessment, Version 1.1*.

118. Shute et al., *Vehicle Stoppage and Pursuit Management*.

119. Orlando (Florida) Police Department, *Policy and Procedure 1120.14 Vehicle Pursuits and Apprehension*. Emphasis added.

Research Highlight: StarChase Evaluations

While piloting new technology can be costly for an agency, it is an important step in determining whether a tool will work for the agency. For some technologies available on the market, there is existing research on their effectiveness in pilot testing, which can be a good place to start. One example is StarChase, a GPS tagging and tracking system.

NIJ-StarChase Field Trials

With funding from the National Institute of Justice (NIJ), StarChase conducted field trials of its product to test different components of the system in real-world environments.* The study examined the effectiveness of certain improvements to the features of the system, including the on-board air compressor, the adhesive that attaches the tracker to the suspect vehicle, and an indicator to let officers know when they are within the target deployment range. The study included an evaluation of user friendliness and collected data on real-world tagging case studies.

Study findings included the following:

- ▶ On average, tagged suspects slow to within 10 miles of the posted speed limit in less than two minutes.
- ▶ There were no injuries, fatalities, or property damage resulting from tagging vehicles.
- ▶ Apprehension rates for tagged vehicles exceeded 80 percent.

National Criminal Justice Technology Research, Test, and Evaluation Center Study

The National Criminal Justice Technology Research, Test, and Evaluation Center (funded by the NIJ and hosted by the Johns Hopkins University Applied Physics Laboratory) performed an independent assessment of StarChase in 2014.† Researchers selected three agencies that actively used the technology and varied by geographic locations and pursuit policies. Findings included the following:

- ▶ StarChase’s GPS-enabled pursuit technology extended police flexibility by providing remote tracking capability when line-of-sight vehicle tracking became unfeasible.
- ▶ A technology or system “champion” who advocated for its use could boost successful adoption and integration of a new pursuit technology.
- ▶ Law enforcement agencies that did not have a process in place for deploying and evaluating new technologies may have lacked the data required to comprehensively assess the effectiveness of a technology.
- ▶ In two of the three case studies, StarChase, when properly‡ deployed, had a positive effect on apprehensions. In the third case study, apprehensions remained high whether the system was properly or improperly§ deployed.
- ▶ End users found that StarChase was a helpful pursuit management tool, but it was not a comprehensive solution for all pursuit scenarios.

* Fischbach, Hadsdy, and McCall, *Pursuit Management*.

† Gaither et al., *Pursuit Technology Assessment, Version 1.1*.

‡ Tags adhered to the suspect vehicle and GPS tracking data was received.

§ Tags did not adhere to the suspect vehicle.

Subscription-based remote tracking technology

Some suspect vehicles may already have GPS technology that can be tracked through a private company, such as LoJack¹²⁰ or OnStar.¹²¹ Once vehicle owners give permission, police can access real-time location information on vehicles reported as stolen.

The program offered by OnStar has two additional functions: (1) the ability to remotely slow the vehicle until it stops and (2) the ability to block the ignition from restarting once the vehicle has been turned off. Officers can use these capabilities to end a pursuit safely or prevent the suspect from fleeing in the vehicle.

Recommendation 3.9. Agency training should inform officers what types of vehicles may be equipped with pre-installed tracking technologies and how they can contact the provider to gather location information.

Leveraging technology for investigations instead of pursuits

Technology can also help agencies as they shift from vehicle pursuits to investigations as a method of apprehending offenders. Agencies should examine what technologies they have available for officers to track down outstanding suspects and vehicles. Here are three examples:

1. **License plate readers (LPR).** Many agencies have already implemented LPR programs. This is a great tool for identifying vehicles that have been stolen or are wanted in connection with a crime. If an LPR hits on a stolen vehicle and the driver flees when officers attempt a traffic stop, the vehicle's

A Note on Using Unmarked Vehicles to Track a Suspect Vehicle

Several technologies described in this section can be used by unmarked vehicles to track a suspect vehicle's location until it stops. Surreptitiously following the suspect gives officers time to formulate a plan to take the person into custody when the situation is more advantageous to them (e.g., by removing the opportunity for the suspect to flee in the vehicle). This is an effective tactic and should be included in pursuit training as a viable alternative if such units are available. As noted, however, unmarked units should not be involved in vehicle pursuits.

location can be entered into the system and officers can make a plan to apprehend the driver at a later time.

Agencies with LPR systems must understand that such systems will likely increase the number of stolen vehicles identified by officers. To prevent an increase in vehicle pursuits as well, agencies must (1) emphasize that policy does not allow pursuits of stolen vehicles and (2) provide alternative approaches to apprehending the suspects in those instances. For example, officers can communicate a wanted vehicle's location and a helicopter or unmarked vehicles can then track it until the suspect stops, when officers can take the person into custody.

2. **Surveillance camera networks.** In some jurisdictions, police agencies have installed networks of cameras that can help locate and identify wanted

120. "When a vehicle equipped with LoJack is stolen, the first step is to have the vehicle's owner alert local law enforcement. Once officers record the theft and provide the owner with a police report, the owner can contact the LoJack recovery team who will work directly with local law enforcement to locate the stolen vehicle." LoJack by Spireon, "Working Together."

121. "Once law enforcement confirms your vehicle has been stolen, our Advisors use GPS technology to help authorities find your vehicle. . . . When it's safe, we'll work with authorities to remotely slow it down. And with Remote Ignition Block™, we can also remotely prevent a thief from restarting your vehicle. If your vehicle is stolen, the OnStar theft protection team . . . work with law enforcement to help you get your vehicle back quicker and safer." OnStar, "Not So Fast."

vehicles. For example, the Vallejo (California) Police Department has access to a system with analytics that can scan historical images of vehicles for certain characteristics (e.g., color, model) and license plates of wanted vehicles. Such a system can help police determine where a vehicle was at a certain time, as well as locations it visits repeatedly.

Agencies must be aware of community sensitivities regarding cameras and privacy. Agencies must explain to the community why they are adopting these technologies and demonstrate that proper safeguards are in place to prevent abuse.¹²² It is important to get community buy-in before making significant financial investments in these technologies.

3. **Body-worn and in-car cameras.** Many agencies have adopted camera technologies to capture officers' activities in the field. Whether the camera is attached to the officer's uniform or mounted in the police vehicle, it can capture useful information about a suspect and their vehicle that can be used to track them down even if they flee from a traffic stop.

For example, if the suspect initially stops but takes off as the officer approaches them, the officer's in-car camera may have captured the suspect's license plate, along with other descriptive features of the vehicle (e.g., bumper stickers, custom spoiler). If the officer makes contact with a suspect who then flees, the officer's body-worn camera may have captured an image of the suspect and anyone else inside the vehicle. All of this is useful information to include in a "be on the lookout" notification.

Recommendation 3.10. Agencies should take stock of what technologies are currently available to assist officers in conducting vehicle-related investigations and ensure that vehicle pursuit training addresses how these technologies can help locate and apprehend offenders.

A Note on Future Technologies

Technology will continue to advance, and this guide does not attempt to anticipate all the future technologies for vehicle pursuits. Agencies must continue to monitor these advances in technology—both in their own tools and in the vehicles driven by suspects—and adapt as these technologies change. Some emerging technologies to keep an eye on include the following:

- ▶ **Autonomous vehicles.** This technology may enable police to communicate with a vehicle and give commands to override the driver's actions.*
- ▶ **Electronic discharge, electromagnetic radiation, or directed energy devices.** These tools may disrupt or destroy a vehicle's electronics, causing it to stall.†

* Goodison et al., *Autonomous Road Vehicles*.

† NIJ, "Technology for Pursuit Management."

122. La Vigne et al., *Using Public Surveillance Systems*, 12; see chapter 6 for more on community engagement.

The precision immobilization technique—A controversial tactic

The PIT maneuver is another tactic used by some agencies to attempt to end a pursuit. The maneuver “consists of applying lateral pressure to the rear quarter panel of the fleeing target vehicle resulting in a predictable spin-out action of the target vehicle.”¹²³ The action of reducing the friction between the tires and the roadway causes the vehicle to spin out. For this maneuver to be effective, multiple law enforcement vehicles are needed to surround the vehicle to prevent further movement. Importantly, despite its name, the PIT maneuver is neither precise nor predictable and is never without risk.

Because the goal of this tactic is to spin out the suspect’s vehicle, it introduces risks to the suspect and any passengers, the involved officers, and any bystanders. These risks increase under certain conditions, such as when the maneuver is conducted at high speeds or in crowded locations; the maneuver can have deadly consequences. An August 2020 review of PIT-related fatalities found the following:

So far this year, nine people have been killed nationwide in PIT maneuvers, including a 16-year-old who was driving a stolen car in Longmont, Colo., and a driver and passenger who were being chased by police for speeding in Creek County, Okla. Just this month, a 29-year-old suspected drunk driver who fled a traffic stop in Coweta County, Ga., died after a PIT maneuver.

Since 2016 at least 30 people have died, and hundreds have been injured—including some officers—when police used the maneuver to end pursuits, according to an investigation by *The Washington Post*.

Out of those deaths, 18 came after officers attempted to stop vehicles for minor traffic violations such as speeding. In eight cases, police were pursuing a stolen car, and in two, drivers were suspected of serious felonies. Two other drivers had been reported as suicidal.

Ten of the 30 killed were passengers in the fleeing vehicles; four were bystanders or the victim of a crime.

Half of those who died in the crashes were people of color: nine Black, four Hispanic and one Native American. Fourteen of those killed were White, and the race of two could not be determined.¹²⁴

The outcome of the PIT maneuver can never be entirely predictable. Many agencies allow the technique but limit the speeds at which officers can use it and restrict its use based on types of vehicles and stated conditions. While these are important constraints, they are based on subjective experience and anecdotal information. Adequate research on the PIT maneuver has not been conducted to determine if it is safe at certain speeds or on certain types of vehicles.¹²⁵

Given the substantial risks associated, the extensive training necessary to use this tactic, and the lack of empirical evidence to show under what conditions it can be performed safely, the PIT maneuver should be prohibited under all but very narrowly defined circumstances. [See sidebar on page 74.]

123. Tortorell and Giovengo, “Electronic Stability Control and the Precision Immobilization Technique.”

124. Raviv and Sullivan, “Deadly Force Behind the Wheel.”

125. Ad Hoc Committee on Law Enforcement Pursuits, *Law Enforcement Pursuits in Georgia*. This study used a simulated vehicle most similar to a Ferrari on a smooth, flat road for testing, both of which make generalizability of the findings very difficult.

Working Group Member Views on the PIT Maneuver

Given the controversial nature of the PIT maneuver and its use, there was no consensus in the working group on the issue of whether it should be permitted. Several working group members expressed support for the PIT maneuver as a legitimate tactic to safely end a vehicle pursuit. They argued that their agencies have successfully used the PIT and mitigated the risks by having comprehensive policies (e.g., limits on speed and vehicle type), trainings (e.g., regular behind-the-wheel training), and review processes in place. They believe the PIT can be used confidently under the right conditions. However, given the limited evidence to show safe speeds, safe target vehicles, and optimal conditions in which to conduct a PIT, this guide cannot without serious reservation endorse its use.

Deciding whether to allow the PIT maneuver

For many agencies, the risks associated with the PIT maneuver are too great no matter the situation, and they do not train or allow their officers to use this tactic. This approach is supported, in part, by a study conducted by the National Institute of Justice’s (NIJ) Weapons and Protective Systems Technology Center of Excellence (WPSTC).¹²⁶ The WPSTC partnered with the Michigan State Police’s Precision Driving Unit (part of the state police academy) to characterize vehicle dynamics during the use of the PIT maneuver. The primary issue was use of the PIT maneuver against vehicles equipped with electronic stability control technology. The key finding of the research was that suspect vehicles equipped with stability control technology behaved much less predictably when subject to a PIT maneuver than vehicles without this technology. This was especially true at the low speeds used by most agencies for safe PIT maneuvers.

For many reasons—including how infrequently the PIT maneuver is used and the increased prevalence of vehicles with electronic stability control—some agencies have discontinued use of the PIT maneuver. In those agencies, the PIT maneuver is treated similarly to other methods that involve deliberate contact between the police and suspect vehicles (see section on roadblocks, boxing-in, or ramming).

An agency that chooses to authorize the use of this tactic should first implement a robust policy and training to mitigate these potential risks. Use of this tactic could end in an unintended collision, serious injury, or death, and these potential outcomes should factor into the decision-making process for officers and their supervisors. Also, in reviewing these cases after the fact, officers should use a CDM model (see chapter 5 for more on CDM models).

The recommendations regarding TDDs are equally applicable to the PIT maneuver. As with TDDs, successfully using the PIT maneuver to stop a fleeing suspect requires skill, coordination, and practice. Accordingly, this technique should be permitted only with supervisor approval and oversight, and its use should be restricted only to those officers who have received up-to-date training, including issues with the newest vehicle technology. Finally, agency policies and officer training must cover as many relevant factors as possible that can affect the safe use of PIT maneuvers.

Supervisor approval and oversight

A technique that involves intentionally contacting a suspect’s vehicle while it is in motion undoubtedly entails risk. By requiring approval prior to use of the PIT maneuver, the supervisor can determine whether the officer’s preliminary decision to use the PIT considered all available relevant risk factors, including the nature of the offense (according to this guide, agencies should adopt restrictive policies for all pursuits), the officer’s plan for executing it, and whether it could be done in a

126. Lewis, “Studying How to Maneuver Suspects to a Stop.”

safer location.¹²⁷ (See the policy examples that follow for specific language on this topic.) The officer's experience in driving, pursuits, and use of the PIT maneuver is also an important consideration for a supervisor when deciding to authorize its use in a particular situation.

Recommendation 3.11. PIT maneuvers are never without risk and should be considered only when certain conditions are met, beyond those previously referenced in this guide (see recommendation 1.2., Agencies should adopt restrictive vehicle pursuit philosophies). Agency policy should require supervisor approval prior to PIT maneuver use. Officers should communicate the current situation, including speeds, vehicles, and environment; articulate the need for using the PIT maneuver; and advise the supervisor where and how they plan to execute it. The seriousness of the crime for which the suspect is wanted is highly relevant in this determination and must be included in communication to the supervisor. This information affords the supervisor an opportunity to assess all the relevant factors and exercise control over the pursuit.

Situational factors

Situational factors, such as the suspect's speed and vehicle type, passengers, road surface, and traffic conditions will also influence the safety and effectiveness of this tactic. The agency's policy and training must prepare officers to identify the relevant factors and evaluate how they affect

the risks of using the PIT maneuver. Again, the key consideration is whether the factors present at the time may increase the risk of the suspect (or officer) colliding with a pedestrian, another motorist, or officer. (See the policy examples that follow for specific language on these topics.)

- **Suspect speed.** Perhaps the most important limitation that agencies place on the use of the PIT maneuver is a maximum speed. As with other tactics deployed against a moving vehicle, the greater the speed of the fleeing vehicle, the greater the risk that the driver will lose control or strike another object when the PIT is applied.

The existing research on the PIT maneuver confirms the real-world experience and observations of officers in the field. Any predictability of this maneuver is lost at higher speeds, and the risk of the suspect vehicle rolling over or colliding into nearby objects and causing serious injury greatly increases. Even experienced drivers have difficulty recovering when the PIT is used at high speeds in a testing environment.¹²⁸ **Importantly, however, existing research has been unable to determine at what speed a PIT maneuver can be deemed reliably safe.**

Another relevant consideration is what speeds are used when training officers. Officer training that involves practicing the PIT at 40 miles per hour may not be adequate for applying the maneuver at higher speeds. PIT training at the Federal Law Enforcement Training Center (FLETC) is usually done at 25–35 miles per hour. While some demonstrations are done closer to 55 miles per hour, those are limited to instructors; students do not practice the maneuver at that speed.¹²⁹

127. See "What to do when initiating and discontinuing a pursuit." Not all agencies will have an on-duty supervisor available at all times to manage a pursuit. Such agencies should still devise a way to ensure supervisory oversight of pursuits. This may mean placing this responsibility with someone other than a field supervisor.

128. Zhou, Lu, and Peng, "Vehicle Dynamics."

129. Tortorell and Giovengo, "Electronic Stability Control and the Precision Immobilization Technique."

Several agencies have imposed a speed restriction on the use of the PIT maneuver. Following are a few policy examples:

Harris County (Texas) Sheriff's Office

Once the deputy decides that an apparent risk of harm to deputies or the general public clearly outweighs the potential risk of implementing the PIT, the driver of the primary unit should PIT the suspect vehicle whenever that deputy decides PIT would be both effective and safe. The decision to employ PIT remains with the primary unit, **unless the speed of the violator's vehicle is above 45 miles per hour** or any supervisor terminates the pursuit.¹³⁰

The Minnesota State Patrol's pursuit policy even prescribes different speed limitations based on the roadway where the vehicle is driving:

Minnesota State Patrol

The PIT maneuver may be executed at speeds of **40 mph or less on straight roadways or 25 mph or less in cornering situations**. Speeds greater than this may be considered deadly force.¹³¹

Recommendation 3.12. There is no empirical evidence to support a maximum speed at which PIT maneuvers should be attempted. Therefore, agencies should consider the high-risk nature of the PIT maneuver when determining the best course of action for their agency. While no empirical data exist, it is clear that the higher the speed, the more dangerous the PIT and the greater the likelihood of injury or death. PIT maneuvers should not be authorized for speeds above those on which the officers have been trained.

- **Road conditions, surrounding area, and officer and suspect vehicle characteristics.** The risk of the suspect losing control following application of a PIT maneuver could increase on certain road surfaces, such as loose pavement or gravel, or when the road is icy or wet. A PIT maneuver reduces the friction between tires and the roadway, which is also affected by the type of pavement, condition of the tires, and roadway circumstances.

Agencies should also avoid the PIT maneuver in areas with heavy traffic (because of the increased risk of collision with another vehicle), populated areas (because of the increased risk of injuring a bystander), and areas with buildings, signage, or other features increasing the likelihood of an off-road collision. The officer's vehicle should be equipped with a reinforced bumper to ensure minimal damage.

Finally, agencies and officers must consider the characteristics of the suspect's vehicle before applying a PIT maneuver. Deploying the PIT maneuver on certain types of vehicles can increase the risk to the occupants. For example, vehicles with a high center of gravity may be at a greater risk of rolling over, and other characteristics such as a short wheel base or tires with a reduced ability to create friction between the tires and road may make the maneuver more dangerous. Officers also should not use the PIT against a suspect on a motorcycle, ATV, or any other vehicle with fewer than four tires, because those vehicles are less stable and their drivers are more likely to lose control after contact with the police vehicle. However, some agencies allow such contact where deadly force would be authorized.

130. Harris County (Texas) Sheriff's Office, "Policy 803—Vehicle Pursuits." Emphasis added.

131. Minnesota State Patrol, *General Order 19-20-012 Motor Vehicle Pursuit*. Emphasis added.

Minnesota State Patrol

The PIT maneuver is not allowed in the following circumstances unless deadly force is authorized:

- a. On vehicles with fewer than four wheels;
- b. On a vehicle pulling a trailer;
- c. On unconventional vehicle types to include, but not limited to, straight trucks, recreational vehicles, off highway vehicles, ATVs, etc.¹³²

Again, this is not an exhaustive list. From these examples, agencies can understand what issues to consider regarding the safety and effectiveness of the PIT maneuver. As with all pursuit interventions, an agency's policy should provide guidance to officers about assessing these factors, and training should prepare officers to identify and evaluate them in real-world situations.

Recommendation 3.13. If an agency chooses to permit the PIT, policy should outline the key factors officers should consider in deciding whether to use the maneuver and how to do so in the safest and most effective manner possible. Examples include suspect speed, road surface, the presence of a reinforced bumper on the officer's vehicle, suspect vehicle type, passengers, and whether the target area is populated.

Officer training

Finally, agencies should provide specialized training for officers in the PIT maneuver and restrict its use to only those officers who have completed the training. This training should be rigorous and should include

- determining the most suitable and safest locations for deployment;
- identifying what road conditions and speeds make the tactic too hazardous to attempt;
- minimizing risks to innocent bystanders.

Training for the PIT maneuver must also include practical, behind-the-wheel training, with recurring refresher trainings. For example, deputies in the Harris County (Texas) Sheriff's Office must complete a two-day training course to use the PIT. This training includes eight hours of classroom instruction followed by eight hours of practical instruction on a driving pad. These deputies are also required to complete annual refresher training (approximately one hour in length).

Recommendation 3.14. If an agency chooses to move forward and allow the PIT, policy should restrict its use to only those officers who have completed specialized training. This training should include behind-the-wheel practice (how to drive) in addition to any online or classroom instruction (when to drive) and should prepare officers for identifying and evaluating important situational factors in deciding whether using the maneuver is appropriate. Officers should be required to perform the PIT maneuver in training. Finally, this training should be recurring to maintain officer proficiency.

132. Minnesota State Patrol, *General Order 19-20-012 Motor Vehicle Pursuit*.

Policy examples

The following are two excerpts from PIT policies that cover many of the areas discussed in this section:

Harris County (Texas) Sheriff's Office

IV. TRAINING AND IMPLEMENTATION OF THE PURSUIT INTERVENTION TECHNIQUE (PIT)

A. **Only Deputies certified by the HCSO Patrol Training Division may use the Pursuit Intervention Technique (PIT)** when all of the following conditions have been met:

1. The apparent risk of harm to deputies or the general public clearly outweighs the potential risk of implementing the PIT.
2. Other reasonable means of apprehension (tire deflation devices, etc.) are not practical or have proven ineffective.
3. Another unit has joined the pursuit and is in position to support the primary units.
4. The vehicle initiating the PIT maneuver is equipped with the Tahoe/Suburban Pit Bar Elite XD wing wrap.
5. **The operator of the vehicle performing the PIT maneuver has attended a PIT maneuver course through the Harris County Sheriff's Office Patrol Training Division, is certified to conduct the maneuver, and is up to date with their certification.**
6. **An on-duty patrol supervisor authorizes implementing the PIT maneuver.**

B. Once the deputy decides that an apparent risk of harm to deputies or the general public clearly outweighs the potential risk of implementing the PIT, the driver of the primary unit should PIT the suspect vehicle whenever that deputy

decides PIT would be both effective and safe.

The decision to employ PIT remains with the primary unit, unless the speed of the violator's vehicle is above 45 miles per hour or any supervisor terminates the pursuit.

V. RESTRICTIONS

a) The primary concern for the officer conducting the PIT maneuver is location. Site selection for PIT is critical in safely and effectively employing the technique. In an effort to decrease the possibility of injury or property damage, the following factors should be considered when selecting a PIT location. Safe locations to consider for PIT maneuver:

1. **Areas clear of pedestrians, roadways with wide medians, next to level fields or open areas.**
2. Roadways containing very shallow drainage ditches to the sides (this will contain the target vehicle without rollover IF the ditch is very shallow).
3. Divided highways with wide median dividers and shoulders or on curves where visibility ahead is not restricted.
4. **On straight roadways with enough room to allow the target vehicle to spin out without striking obstacles along the roadside.**

b) The PIT shall NOT be attempted when any of the conditions are present:

1. **Road hazards, blind curves, narrow roadways, bridges, abutments, guardrails, parked vehicles, traffic islands, nearby structures or buildings are present.**
2. The pursued vehicle is known to be transporting children.
3. **In school zones.**

4. **The pursued vehicle is in close proximity to other vehicles.**
5. In an intersection.
6. In a construction zone.
7. Approaching railway tracks.
8. Vehicles carrying/transporting hazardous materials.
9. The vehicle contains a load that may become unsafe or create a hazard.
10. Vehicles with a high center of gravity.
11. The size of the pursued vehicle is significantly heavier than the primary unit's vehicle.
12. A suspect who is known to be armed, since employing the PIT will cause deputy(s) to be in close proximity to the suspect.
13. **Any motorcycles, motor scooters or three-wheeled cycles, golf cart, ATV vehicles with a convertible top, pickup truck with passengers riding in the bed and vehicles towing trailers.**¹³³

Utah Department of Public Safety

(b) The Pursuit Intervention Technique (PIT) is a forced rotational non-compliant vehicle stop. **Officers should be aware that before attempting the PIT maneuver, they are required to weigh the added risk associated with the speed of the suspect vehicle and other environmental factors versus the need to immediately apprehend the driver.**

[...]

(d) **This technique should only be used when all other reasonable means of apprehension have been considered and rejected as impractical,** e.g., air support, allied agency assistance, tire deflating devices, or boxing-in when the apparent risk of harm, to other than the occupants of the pursued vehicle, is so great as to outweigh the risk of harm in making the forcible stop when the pursuing officer believes that the continued movement of the pursued vehicle would place others in danger of great bodily harm or death.¹³⁴

Practical considerations—Public perception and community expectations

An important consideration for law enforcement executives is the public perception of the PIT maneuver. This technique has drawn significant public attention and criticism because of widely publicized incidents in which its use resulted in tragic fatalities. Some of these incidents involved juvenile drivers or individuals wanted for relatively minor crimes; passengers and uninvolved bystanders have lost their lives. These fatalities, along with the graphic videos captured by in-car cameras, have shaped public perception of this technique in many communities. Some communities will not accept the PIT, but others may see it as a useful tool for police. Executives should consider the expectations of their community in deciding whether to authorize use of the PIT maneuver.

Recommendation 3.15. Executives must consider their community's expectations in deciding whether to authorize the use of the PIT maneuver. Agencies that authorize PIT maneuver use must commit to implementing the right policy, properly training their officers, and holding those officers accountable when their decisions and conduct are inconsistent with agency policy and officer training.

133. Harris County (Texas) Sheriff's office, "Policy 803—Vehicle Pursuits." Emphasis added.

134. Utah Department of Public Safety, *Policy 614 Vehicle Pursuits*. Emphasis added.

Prohibited tactics

Roadblocks, boxing-in, channelization, or ramming

Intervention tactics that use law enforcement vehicles to forcibly stop a fleeing vehicle pose a high level of risk to both officers and suspects. The potential for serious injury is so high that few, if any, situations would justify this risk. Accordingly, many agencies prohibit or severely restrict these tactics. Channelization must be limited to fixed objects and never use a moving vehicle to direct another moving vehicle.

One exception that agencies may consider relates to boxing in vehicles that are stopped (or nearly stopped). This tactic is similar to the deployment of TDDs on a stationary vehicle and should be viewed as a pursuit alternative rather than an intervention. The use of police vehicles to pin a suspect vehicle in place, rather than to forcibly stop a fleeing vehicle, presents a lower risk of injury and may be justified to prevent the suspect from fleeing. Following is an example of policy language describing this exception:

Fayetteville (North Carolina) Police Department

Officers will not use police cars to make deliberate contact with the suspect vehicle (**ram**) or force the pursued vehicle into parked vehicles or fixed objects.

Officers will not box-in, head off or drive beside the suspect vehicle unless the suspect vehicle is in a “stopped” or “nearly stopped” position. **Boxing may be permitted to keep a stopped or nearly stopped vehicle from evading if it is otherwise safe to do so.**

Moving and stationary roadblocks for the purpose of stopping a pursued vehicle are prohibited.¹³⁵

Recommendation 3.16. Agency policy should prohibit roadblocks, boxing-in, channelization, ramming, and any other tactic that involves using a law enforcement vehicle to forcibly stop a fleeing suspect vehicle. Agencies may consider allowing officers to box in a suspect vehicle that is stopped (or nearly stopped) to prevent the suspect from fleeing.

Shooting at moving vehicles

Shooting at a moving vehicle is not an effective way to get it to stop. There is the challenge of hitting a moving target, and the risk of an errant bullet hitting an unintended target, such as a bystander. There is also a risk that if the driver is struck, they will lose control of the vehicle.

The Police Executive Research Forum (PERF) has long recommended to individual agencies that they prohibit shooting at a moving vehicle. When PERF issued its *Guiding Principles on Use of Force* in 2016, this recommendation became principle #8.¹³⁶ In June 2020, PERF updated its policy in response to terrorist incidents, including those in Nice, France, and in New York City, in which attackers used trucks to run down victims. The revised language is as follows:

Agencies should adopt a prohibition against shooting at or from a moving vehicle unless someone in the vehicle is using or threatening deadly force by means other than the vehicle itself, or the driver is attempting to use the vehicle as a weapon of mass destruction in an apparent terrorist attack.¹³⁷

This standard has been adopted by agencies across the country and continues to be a best practice. Even if agencies already have this as part of their

135. Fayetteville (North Carolina) Police Department, *Written Directive 4.2 Vehicle Operations and Pursuits*. Emphasis added.

136. PERF, *Guiding Principles on Use of Force*.

137. PERF, “PERF Daily Critical Issues Report.”

use of force policy, they should include it in their pursuit policy for reinforcement. Following is an example policy:

Las Vegas (Nevada) Metropolitan Police Department

7. Restrictions against Discharging a Firearm at or from a Moving Vehicle:

Shooting at a moving vehicle is often ineffective and unpredictable. In addition, incapacitating the driver may result in the uncontrolled operation of the vehicle and thereby increase the potential of injury to bystanders. There is also a greater risk of a bullet missing the intended target or ricocheting. As a fleeing vehicle creates distance from an officer, it becomes more difficult to isolate the target and identify backdrop hazards.

Officers will use sound tactics and will not place themselves into the path of a moving vehicle or remain standing in the path of a vehicle that is under control of a driver. An officer threatened by an oncoming vehicle will make every effort to move out of the way.

Officers will not discharge their firearm at a moving vehicle unless:

- a. A person in the vehicle is an imminent deadly threat to officers or others by means other than the vehicle (such as an occupant firing a handgun at an officer).

- b. The driver is using the vehicle as a weapon to inflict mass casualties (such as a truck driving through a crowd).

Officers will not discharge a firearm from their moving (Department) vehicle unless a person is an imminent deadly threat to officers or others (such a discharge must be limited to the most extreme circumstances).¹³⁸

High-risk vehicle events—Illegal street racing and sidseshows

The problem

Illegal street racing, sidseshows or takeovers, and reckless driving exhibitions can create a significant risk to public safety. Illegal street racing involves participants competing in a race on public roads at speeds that far exceed the established roadway limit. Sidseshows can include a convergence of cars, motorcycles, or off-road vehicles such as four-wheelers and dirt bikes in a parking lot or at an intersection, where vehicles often careen in circles. Such events are noisy because of screeching tires and dangerous activities such as burnouts or spinouts, which fill the air with smoke and the smell of burning rubber; they also damage the road and parking lot surfaces. These types of events can attract large crowds to watch and cheer on the drivers. The events are inherently dangerous because of speeding, unsafe maneuvers, and spectators standing close to the vehicles. Other high-risk behaviors observed at many of these events include the use of alcohol and drugs, fireworks, and sometimes gunfire.

Between 2000 and 2017, nearly 180 people were killed in suspected street racing incidents in Los Angeles County, California, alone, based on a review of coroner's records, police reports, and media accounts. Most (53 percent) of those killed were people other than the racers themselves—passengers in the speeding vehicles, spectators,

Recommendation 3.17. Agency policy should prohibit shooting at or from a moving vehicle unless someone in the vehicle is using or threatening deadly force by means other than the vehicle or the driver is attempting to use the vehicle as a weapon of mass destruction in an apparent terrorist attack.

138. Las Vegas (Nevada) Metropolitan Police Department, *Policy 3.110 Use of Force Policy*.

or innocent bystanders.¹³⁹ The popularity of these events increased in 2020, potentially in part because of reduced traffic during the COVID-19 pandemic.¹⁴⁰ From July to April 2020, for example, the number of high-risk vehicle events in Los Angeles jumped 27 percent, with at least three deaths attributed to these events.¹⁴¹

Residents of communities within a one-mile radius of an event may complain about loud noises late into the night, the smell of burning rubber, reckless driving, damage to roadways, and trash left behind. In short, these events are both dangerous and a public nuisance.

Traditional enforcement challenges

Efforts by law enforcement to break up illegal street races and related events and make arrests may create more problems than they solve. Once law enforcement arrives, multiple vehicles race from the scene, while hundreds of spectators scatter in every direction, creating chaos and often resulting in injuries to spectators and even officers.

Given the number of participants and spectators, law enforcement must mobilize a considerable number of officers to effectively control these situations. Spectators have been known to block emergency vehicle access, while organizers monitor police communications and provide warnings, making it even harder for law enforcement to respond effectively. Even if police can break up the event, organizers can quickly shift to an alternate location, communicating through social media. The inherent mobility of these events and the fact that they can take place across multiple jurisdictions present major hurdles for enforcement.

Alternative approaches

Given these challenges, agencies must be creative in how they tackle this growing problem. This section describes some promising practices used by law enforcement agencies to deter or disrupt these types of events and how they

have leveraged investigative strategies to hold organizers and participants accountable. Agencies can team up and join forces with the community, surrounding jurisdictions, other government departments (e.g., traffic engineers), and local prosecutors to amplify the message that these events will not be tolerated. Based on the events' level of popularity in their community, agencies may want to develop a full-time unit focused solely on illegal street racing and sideshows.

Harris County (Texas) Sheriff's Office Traffic Crimes Unit

In response to an increase in illegal street racing and intersection takeovers during the COVID-19 pandemic, the Harris County (Texas) Sheriff's Office created a new Traffic Crimes Unit. This unit coordinates any major operations, conducts intelligence gathering through daily social media tracking, works undercover as needed to infiltrate social media groups and actual events, and has established a relationship with a prosecutor in the District Attorney's Office who assists with prosecution and seizing of vehicles. Here is a social media post following a successful operation by the Traffic Crimes Unit:



Image courtesy of: Harris County Sheriff's Office

139. Queally and Santa Cruz, "Out of Control."
 140. Queally and Winton, "Street Racers are Taking Over."
 141. Winton and Wick, "Street Racing Surged During the Pandemic."

Public education campaign

Law enforcement agencies should start by launching a public education campaign to alert the public to the dangers of these events. It should increase awareness of current (and new) laws, such as spectator ordinances and vehicle seizure laws, with the hope of discouraging attendance at the events. It is important to use multiple delivery methods and both traditional and alternative platforms to ensure this messaging reaches a broad audience.

Agencies should also leverage other platforms to reach a key target population: young people. Teens and young adults may not consume traditional news media, so agencies should get their message out on platforms that young people do use. This can include messages on YouTube, TikTok, Twitter, Twitch, and via QR codes that link to short videos. Outreach to schools, auto shops, and vendors that perform vehicle enhancements and departments of motor vehicles are also important avenues for reaching this target population.

Deterrence and disruption

Agencies that experience many of these events in their jurisdictions have several options to deter participation or even disrupt an event before it happens or in its early stages. A variety of strategies should be used to reach the different audiences—event organizers, promoters, participants, and spectators.

- **Monitor social media to find out about events ahead of time.** Organizers use social media to promote these events, rally supporters, and sell event paraphernalia (e.g., t-shirts, bumper stickers). Law enforcement should continually monitor social media sites to gather intelligence on the location of the next big event and work to identify the promoters and the drivers.

If law enforcement can identify the organizers, it may be prudent to attempt to meet with them in advance to caution them about potential criminal prosecution should the event take place. Alternatively, a significant police presence at the site prior to the scheduled start time may serve as a deterrent.

Caution: Promoters could become aware of law enforcement monitoring of social media. To elude the police, advertising may move to another platform. But because access to social media is simple and inexpensive, organizers will rely on it to promote an event.

- **Ensure that laws are on the books that hold event organizers and promoters accountable.**

Organizers and promoters are the ringleaders of these events. Many jurisdictions have created ordinances that penalize the main organizer or promoter of an event. Some ordinances penalize even those who encourage others to attend. Here are two examples:

1. **San Jose, California.** In June 2021, the city council approved an ordinance that makes it a misdemeanor to promote, instigate, or encourage spectators to attend an illegal driving event or exhibition. Conviction could bring a penalty of up to six months in jail, a \$1,000 fine, or both.¹⁴²
2. **Georgia.** A law enacted in May 2021 enhanced the penalties for street racing and stunt driving. In addition to mandating jail time, raising fines, and allowing police to seize the vehicle under certain circumstances, the law created a new crime of “reckless stunt driving.”¹⁴³

Jurisdictions should consider passing laws that hold prosecuted organizers and promoters accountable for the costs associated with the police response to illegal street racing and sideshows.

142. Alaban, “UPDATE: San Jose Approves Penalties.”

143. Associated Press, “New Georgia Street Racing Law.”

- **Use vehicle seizures and forfeitures to discourage participation.** Cars and other vehicles are the focus of these events. They are the source of entertainment and are highly cherished by their owners. No vehicle owner wants to forfeit their car to law enforcement. Seizing the vehicles involved in these events can create a powerful disincentive to participating in them. One study even found ordinances permitting seizure of vehicles used in these events to reduce the number of street racing casualties.¹⁴⁴

Examples of forfeiture laws used to disincentivize street racing or race related activities include the following:

- ◆ **San Diego, California.** A 2003 city ordinance permits the forfeiture of vehicles used in illegal street races and other exhibitions of speed.¹⁴⁵

The basis for the ordinance was a determination that such events constitute a public nuisance: “Such street racing threatens the health and safety of the public, interferes with pedestrian and vehicular traffic, creates a public nuisance, and interferes with the right of private business owners to enjoy the use of their property within the City of San Diego.”

- ◆ **Texas.** In September 2021, the state legislature passed a law allowing law enforcement to seize any vehicles involved in street racing. This law also created penalty enhancements for participants who had previous convictions or were driving under the influence at the time.¹⁴⁶

Harris County (Texas) Sheriff’s Office – Vehicle Seizures

Here are two social media posts featuring vehicles seized during street racing events by the Harris County Sheriff’s Office:



Image courtesy of: Harris County Sheriff’s Office

Image courtesy of: Harris County Sheriff’s Office

144. Worrall and Tibbetts, “Explaining San Diego’s Decline.”

145. San Diego Municipal Code, Chapter 5, Article 2, Division 53.

146. Burbank, “New Law Allows Police to Seize Vehicles.”

- **Enact spectator ordinances to deter people from gathering.** Without spectators, these events likely would not occur. Several jurisdictions in California have created “Spectator Ordinances” that make it unlawful to be present as a spectator at an illegal vehicle speed contest or reckless driving exhibition. This example has served as a model for other cities.¹⁴⁷

- ◆ **San Diego, California.** A 2002 city ordinance makes it a misdemeanor to be “knowingly present as a spectator” at an illegal motor vehicle speed contest or exhibition of speed. This ordinance also applies to people present as spectators during the preparation for such an event or within 200 feet of the location where preparations are being made.¹⁴⁸

The ordinance explains the justification for targeting spectators: “The division targets a very clear, limited population and gives proper notice to citizens as to what activities are lawful and what activities are unlawful. In discouraging spectators, the act of organizing and participating in illegal street races will be discouraged.”

- **Use creative street and traffic design to make locations less desirable.** Another creative deterrence strategy involves an interagency partnership. Traffic engineers employed by the jurisdiction can suggest ways to redesign or reengineer roadways and intersections to make them less conducive to illegal street racing and sideshows. Examples include
 - ◆ building traffic circles and roundabouts at intersections or mid-roadway to eliminate the straightaway or the center of an intersection;
 - ◆ building paving markers or barriers to narrow the street where street racing takes place;

147. Stockton Municipal Code Title 10, Chapter 10.56, §10.56.030.

148. San Diego Municipal Code, Chapter 5, Article 2, Division 52.

Implementing Successful Strategies in Vallejo, California

“What we did in Vallejo,” says former Captain Jason Potts (now Chief of the Las Vegas Department of Public Safety), “was take a problem-solving approach to sideshows. We had, at times, hundreds of cars taking over an intersection and stopping all traffic, and the number of cars involved overwhelmed our response capability. We didn’t see inviting these drivers to perform in empty parking lots or racetracks as an effective strategy because part of the thrill of these events is the disruption and riskiness of doing it on public streets.

“So we examined the community’s concerns, looked at intelligence, and spoke to nearby agencies about what they were doing to deal with this problem. We discovered that one of the ways the City of San Diego was proactively addressing these incredibly resource draining events was by using a ‘spectator ordinance.’ This approach made a lot of sense because when you start fining the spectators they stop coming, and you are effectively taking away the audience, which is an essential element for these shows.

“We worked with various stakeholders within the city and successfully got the ordinance passed through our city council in October 2021.* As we move forward, we will assess the impact of this ordinance, as well as our other related efforts, on reducing sideshows and making our streets and communities safer.”

* KTVU Fox 2 San Francisco, “Vallejo Police Chief Calls Sideshows ‘Street Terrorism.’”

- ◆ hardening centerlines (e.g., with mini rubber barriers);
- ◆ installing Bott's Dots (raised circular ceramic tiles) or engraving in asphalt to create uneven surfaces on roadways;
- ◆ installing planter boxes at medians or to separate lanes.

Investigations

In some communities, street racing or sideshows are so prevalent that the police have little hope of stopping each event individually. Networks of individuals organize these events, so it may be more effective for police to set up an undercover operation to gather intelligence and build cases on all individuals involved in the network.

Once police can determine the location of an event, undercover officers can infiltrate the group or attend the event to gather intelligence on those involved,

identifying organizers, drivers, and vehicles and taking photographs for future charges or vehicle seizures. The officers who attend the sideshow will likely find out where the next event will take place. This approach can reap significant rewards. A year-long investigation into street racing in New Zealand resulted in more than 100 vehicles being impounded and 130 people being arrested or charged.¹⁴⁹ Compiling information on individuals who regularly participate in these activities can also provide the basis for enhanced sentences for repeat offenders.

Closing thought

Enforcement efforts to address street racing and sideshows are done out of public view, and communities are often unaware of them. It is important for agencies to publicize their successes so communities can have confidence that their concerns about these dangerous events are being addressed.

149. New Zealand Police, "Investigation into Dirt Bikes."

4. Post-Pursuit Reporting— Data Collection, Review, and Accountability

Any plan to manage law enforcement activities and behavior, including pursuits, incorporates several integral components: policies, training, supervision, and accountability. Agencies can hold officers accountable for unreasonable actions and reduce the risks of future pursuits by prioritizing accountability at both the individual and agency levels, addressed separately in this chapter.

There is an evidence-based policing principle, “you can’t manage what you don’t know.” In other words, without collecting data and undertaking a systematic review process, issues will remain undetected and thus go unresolved. Accountability, therefore, starts with collecting and analyzing data on the issue. This empirical approach is well established in efforts to reduce the use of excessive force. Law enforcement departments have been collecting data and reporting on uses of force for decades, and analysts both inside and outside these agencies have been reviewing, measuring, and evaluating that data.¹⁵⁰

Law enforcement agencies should follow the same steps when managing vehicle pursuits as they do with use of force.

To accomplish this task, agencies must institute comprehensive reporting and a strong review process for individual pursuits to ensure each pursuit was necessary, within policy, and supervised appropriately. This guide recommends an accountability system that agencies can adapt to their needs and use to manage their pursuits. Agencies should also use this process to identify and address any issues with policy or training regarding pursuits. They should conduct agency-wide reviews to identify systemic issues and needed changes.¹⁵¹ Agency-level accountability depends on rigorous data collection on individual incidents and ongoing, thorough analyses of those data. [See sidebar on page 88.]

150. Stoughton, Noble, and Alpert, *Evaluating Police Uses of Force*.

151. Alpert et al., *Police Pursuits: What We Know*.

Availability of National Vehicle Pursuit Data

Currently, there are no comprehensive statistics on vehicle pursuits nationally. The International Association of Chiefs of Police (IACP) and other groups have attempted to compile national data on pursuits, but lack of resources seems to hinder agency participation.

The National Highway Traffic Safety Administration (NHTSA) collects national crash fatality data through the Fatality Analysis Reporting System (FARS).^{*} These data are limited to fatal crashes and thus include only those vehicle pursuits that resulted in a fatal crash, which means they underreport what is actually occurring on the roadway. Furthermore, contribution to this data collection is voluntary for agencies, leading to an unknown amount of underreporting for even fatal pursuits.

Several states require agencies to report pursuit data to a clearinghouse. Police agencies in California must submit an Allied Agency Pursuit Report[†] to the

California Highway Patrol for all vehicle pursuits. State law also requires such data to be reported annually to the state legislature.[‡]

These efforts are an important first step, but they remain uncoordinated and, for the most part, produce underreporting and under-analyzed data. As attempts to collect national use of force data show, until there is a requirement or a meaningful incentive to report comparable pursuit data, only speculation rather than solid analysis is possible on how many pursuits occur in the United States and how many result in negative outcomes. According to researchers who have reviewed and analyzed the empirical studies on pursuit driving, “Only improvements in data collection, analysis, evaluation and management, combined with motivated leadership, can improve this current situation.”[§]

^{*} NHTSA, *Fatality Analysis Reporting System (FARS): 2015–2020 Final File*.

[†] California Highway Patrol, *Allied Agency Pursuit Report CHP 187A (Rev. 5-16) OPI 033*.

[‡] California Vehicle Code §14602.1; California Highway Patrol, *California Highway Patrol Report to the Legislature*.

[§] Alpert and Lum, *Police Pursuit Driving*, 55.

Reporting and reviewing pursuits

Agencies should carefully document each vehicle pursuit and have multiple levels of review (e.g., supervisors, pursuit review boards) and formal reporting on pursuits.

Pursuit reporting

While many agencies keep basic statistics on their pursuits, the data are often limited to some accreditation or management requirement (e.g., Blue Team). The data collected should also include information that can help agencies understand their pursuits and make evidence-based decisions to improve their outcomes. For this purpose, the critical parts of a report will be what the suspect did to begin the process (need to apprehend) and what the relevant risks were (congestion, speeds, driving behavior, likelihood of a collision, location, environment, and futility).

The pursuit report

Much of the key data for both reporting and accountability purposes will come from the pursuit report. Whether the involved officer or supervisor completes the report, the report should capture key information about the event. First and foremost, officers must provide a report that relates a cohesive and comprehensive story, avoiding generic and boilerplate language. A good place to start is a chronology of what happened, why it happened, and the decision points along the way. This narrative should also explain

- why there was an attempt to stop the vehicle;
- why the actions were justified by policy and training;
- why taking the risks associated with a pursuit was warranted.

Officers must understand the decision to pursue is not a one-off decision—pursuits are fluid and ever-changing. Officers must explain why continuing the pursuit (or discontinuing it) was in the best interest of public safety. This will require the officer to explain both their actions and those of the fleeing suspect.

The pursuit report must include a description of the environment, including changes as the pursuit continued. Typical information includes length of the pursuit, distance between pursuing officers and the suspect, intervention techniques, weather conditions, a description of the area (e.g., school zones, construction zones, and entertainment zones), and times and places where heavy traffic is expected (e.g., school dismissal times and factory shift changes). Existing forms may collect the specific information in check boxes, but these are just the beginning and require narrative support and explanation.¹⁵² (See chapter 6 for information on elements of the pursuit report to include in public dissemination.)

Other sources of information

In addition to the pursuit report, radio broadcasts of the pursuing officer(s), communications with supervisors, and in-car or body-worn camera audio and video can provide critical information on the pursuit. For example,

Recommendation 4.1. Agencies must ensure that their pursuit reports include all the key information needed to evaluate the incident—what happened, why it happened, and the decision points along the way. Reports should articulate the actions of both the officers and the fleeing suspect and should describe the environment and changes as the pursuit progressed. An officer’s or reporting supervisor’s pursuit report should be completed within 48 hours of the pursuit.

review of in-car video could capture deployment of a tire deflation device. Some agencies have installed technology in police vehicles that can provide valuable information on officer speed, braking, and whether the officer was wearing a seatbelt. All of these are good sources of information to use when adding to or corroborating the information in the pursuit report.

Reviewing pursuits

Systematically reviewing vehicle pursuits demonstrates the importance of pursuit behavior and decisions made by officers and supervisors in pursuits. Reviews should be timely and separated from disciplinary decisions.

Documenting when officers decide not to pursue

A relatively new aspect of pursuit reporting includes the documentation of those who flee but are not pursued. These reports can inform agencies about how many people flee and the reasons for not pursuing them. Collection of the data allows for more comprehensive evaluation of policy and training, assessment of officers’ compliance with policy and procedure, and more robust information sharing with the public about officers’ actions. A simple way to collect these data is to have a specific computer-aided dispatch (CAD) code for dispatchers to track the events and a brief form for officers to use.

Recommendation 4.2. Agencies should develop a system of tracking when vehicles flee but are not pursued by officers, such as by marking these events with a code in the computer-aided dispatch (CAD) system. This provides an additional method of evaluating pursuit policy and training by providing a baseline for the number of incidents that could have resulted in a pursuit.

152. Many forms currently in use by agencies can be used as a first step.

Law enforcement leadership expectations for supervisors

Agency supervisors play an essential role in ensuring the success of implementing and monitoring a vehicle pursuit policy. Setting expectations for supervisors in reviewing pursuits begins during formal training (see chapter 5) and can be reinforced through leadership messaging (e.g., written or video memos) and monitoring (e.g., audits and recognition for excellent performance). Where feasible and appropriate—for example, in smaller agencies—agency leaders should meet with supervisors to discuss their roles in

- pursuit accountability and oversight (such as terminating a pursuit if it does not comply with the new policy and carefully reviewing body-worn camera footage after a pursuit);
- thorough and accurate reviews of officer pursuit reports;
- other reporting and review responsibilities.

Supervisors

After a pursuit, a supervisor who did not manage the pursuit should conduct the first review. Each pursuit, regardless of outcome, should be reviewed quickly for adherence to training and policy. Supervisors should conduct a debrief immediately after a pursuit to address problems quickly without waiting for the final determination in the formal review process. Debriefs using a Critical Decision-Making (CDM) model (see chapter 5) are excellent methods of gathering initial information and conducting real-time training with officers. Active supervision is the key to preventing pursuits with negative outcomes.

A formal review process by a supervisor in the pursuing officer’s chain of command should follow the debrief for every pursuit. During the formal review process, the supervisor must determine whether the officer’s actions followed training and policy. Supervisors should review communication with dispatch from all officers involved, in-car and body-worn audio and video, and written

reports. In some cases, those conducting the review process should locate and review closed-circuit television (CCTV) and other video and interview officers and civilians who witnessed the pursuit.

Officers not directly involved in the pursuit often drive recklessly to get to the pursuit. Hence, supervisors must review the totality of the event, including actions of those who may only have been involved in a response mode. The supervisor must also critique the radio communications, decision-making by the officer(s) and supervisor, and accuracy and thoroughness of the reports. All supervisors should receive training on how to conduct a review and understand agency expectations and the importance of the review.

Recommendation 4.3. Supervisors play a crucial role in reviewing vehicle pursuits, so agency leaders should outline expectations for supervisors, including debriefs. Each pursuit, regardless of outcome, should be reviewed promptly for adherence to training and policy. A formal review process should follow those debriefs. Supervisors must review the totality of the circumstances along with radio communications to determine whether officer actions followed training and policy.

Recommendation 4.4. All supervisors should be trained in how to conduct a pursuit review and understand agency expectations and the importance of the review.

Pursuit review board

A pursuit, much like a use of force, is a high-liability occurrence that agencies must review and investigate thoroughly. The significant potential consequences of pursuits warrant an additional level of administrative

review. To accomplish this, agencies should establish a pursuit review board or add pursuits to any existing review board or process. Such a board should review pursuits across the agency and help ensure consistent and objective review by supervisors. As described in this section, and important to feasibility of implementation, reviewing pursuits need only be an element of this review board and not its sole focus. Agencies with limited personnel should consider partnerships with other agencies.

Agencies can greatly strengthen the quality and thoroughness of administrative reviews by creating a special body that is responsible for the administrative review of pursuits. For example, this body could be named the Critical Incident Review Board (CIRB). With respect to pursuits, the role of the CIRB would be to assess the officer's compliance with the pursuit policy. This would include examining the reasons for initiating and continuing the pursuit, evaluating whether alternatives were available, and considering the overall proportionality of the officer's actions.

A CIRB could also review investigations of

- all serious uses of force (including canine bites);
- any use of lethal force;
- any use of less-lethal force with a tool;
- any incident resulting in injury or complaint of injury;
- all in-custody deaths;
- any other critical police incident as directed by agency leadership.

At the Baltimore Police Department (BPD), the Performance Review Board (PRB) reviews high-risk incidents and makes recommendations to the police commissioner

regarding the completeness of investigations, findings, and action items. The action items upon which the commissioner may act include reviewing policies, training, supervision, tactics, and equipment. Incidents subject to PRB review include serious uses of force and “any fatal motor vehicle crash in which the actions of a BPD member were a contributing cause.”¹⁵³

A pursuit review board, with trained members, is an excellent way to determine if there are any concerns with officer or supervisor training, policy violations or shortcomings, potential problems with equipment, or a need for additional assets or support. Such a board provides an important opportunity to identify individual and organizational errors and near misses, with a view toward organizational improvement rather than disciplinary action.¹⁵⁴

Pursuit review boards may have varying names (e.g., Performance Review Board, Critical Incident Review Board). These boards may opt to review all pursuits or only those resulting in serious negative outcomes (e.g., Baltimore's PRB). Reviews of more serious events are often called sentinel event reviews. Sentinel event reviews, originally applied to industrial accidents and later in aviation and medical environments, have great applicability across the criminal justice system, including vehicle pursuits. A small portion of an agency's pursuits should undergo a sentinel event review.

Sentinel events are negative outcomes that stakeholders can agree should not happen again. They signal underlying weaknesses in a system or process and likely result from compound errors; if properly understood, they may provide important keys to strengthening the system and preventing similar adverse outcomes.¹⁵⁵ Unlike other reviews of critical incidents such as internal affairs investigations, sentinel event reviews are not about

153. Baltimore (Maryland) Police Department, *Policy 724 Performance Review Board*; See also *Policy 710 Use of Force Investigations / Special Investigation Response Team (SIRT)*.

154. Hollway and Grunwald, “Applying Sentinel Event Reviews to Policing.”

155. NIJ, *Mending Justice*; NIJ, *Paving the Way*.

assigning blame. Instead, they recognize that negative outcomes are rarely the result of one individual’s mistake. Sentinel event reviews seek “to mobilize a routine, culture-changing practice that can lead to increased system reliability and, hence, greater public confidence in a system’s legitimacy.”¹⁵⁶

Agencies should conduct sentinel event reviews of vehicle pursuits to identify systemic issues in policy or practice so that agencies can prevent additional negative outcomes.

Other review methods

Agencies may also want to put special emphasis on tracking crashes—potentially by type of vehicle (e.g., take-home or assigned)—and the costs associated with repairing and replacing vehicles. The New Orleans (Louisiana) Police Department has created a Crash Review Board (Policy 13.22)¹⁵⁷ to review crashes involving police vehicles or on-duty officers.

Another way agencies can manage pursuits is to include them in Early Identification Systems (also called Early Warning Systems). This real-time tracking can facilitate early intervention on issues with policy or practice, including whether any officers or supervisors are involved in or authorize pursuits at a rate far greater than their peers.

Finally, agencies should review video footage of pursuits in other jurisdictions and discuss how they would handle similar situations. This method of “Monday-morning quarterbacking” allows agencies to learn from cases in other cities.¹⁵⁸

Learning from pursuit reviews

Regardless of the pursuit review process an agency chooses, it should be a learning process. Pursuit reviews should identify and correct problematic behavior in officers and supervisors—and, in the case of sentinel reviews, systemic issues. The review process should have the primary goal of identifying policy violations and potential training opportunities. Agencies should distribute policy reminders to officers following incidents.

Agencies should identify whether any officers or supervisors are involved in inappropriate patterns or practices. If a pursuit review uncovers such issues, then remedial training may help an officer or supervisor improve their

Recommendation 4.5. Agencies should create a pursuit review board to strengthen the quality and thoroughness of administrative reviews. Through this board, agencies should conduct sentinel event reviews of a small portion of their pursuits to identify systemic issues in policy or practice and implement solutions. Agencies should also consider closely reviewing pursuit crashes and developing Early Identification Systems to facilitate early intervention on issues of policy or practice. Agencies should also review video footage of pursuits in other jurisdictions and discuss how their agency should handle similar situations. Policy reminders, remedial training, and training examples can all be derived from comprehensive reviews of pursuits. Pursuit reviews should also be used to gather data to justify the current pursuit policy and recognize officers for good driving and decision-making when warranted.

156. NIJ, *Paving the Way*, 1.

157. New Orleans (Louisiana) Police Department, *Policy 13.22 Crash Review Board*.

158. Wexler, “PERF Members Tell Me They Agree.”

behavior and decision-making. Training examples can be derived from incidents to provide real-world examples to officers of what to do in a pursuit.

Pursuit reviews should look at all events surrounding the pursuit. For example, when reviewing a use of force incident for criminal charges, only the information known to the officer at the time is relevant. Here, it is important to look beyond what the officer knew and to identify any shortcomings in communication, information gathering, or other tactics or strategies that could have resolved the event without a vehicle pursuit. As noted, “Monday-morning quarterbacking” is an important part of officer and organization learning.¹⁵⁹

Pursuit reviews can also gather data for justifying the current pursuit policy (e.g., data showing fewer crashes; more suspects being identified or detained through other methods; or fewer deaths and injuries to officers, suspects, and bystanders under the policy). Results from pursuit reporting and review should recognize officers for good driving and decision-making when warranted.

Agency accountability—Data collection and analysis

Agencies need to periodically review their data on pursuits to identify ways to improve both officer and organizational performance. This agency-level review should occur at least quarterly. A full Compstat¹⁶⁰ analysis may be warranted. Supervisory and command personnel should, at a minimum, conduct officer and supervisor reviews. These reviews must go beyond a simple count or outcome analysis and include a deeper dive into reasons for the pursuits as well as risks taken during the pursuit. A “lessons-learned” approach is important here so that agencies can eliminate unnecessary risks and reduce liabilities.

Researcher Partnerships

Agencies, particularly those with limited in-house data analysis capabilities, can work with research partners to study vehicle pursuit data.

More than ever, communities are demanding accountability and transparency. A partnership between agencies and an independent and objective research partner can help achieve those goals. A research partner with knowledge of evaluation and data collection and access to data analysis resources could help the agency collect data in a systematic way and develop methods of analysis to uncover issues that point to the need to review policy, training, supervision, or the disciplinary process.

Benefits of these partnerships include

- ▶ the insights and skills of the researcher, which offer a different perspective to the agency;
- ▶ added credibility from involving a third party, which can improve confidence (both internally and among the public) in the results;
- ▶ increased capacity, since the researcher has time and analytical capability not available to the agency;
- ▶ improved ability to address crime, disorder, and other public safety issues along with improved community relationships.*

Agencies should carefully outline the expectations of these partnerships through agency policy,[†] memoranda of understanding, and data-sharing agreements with the research partners.

* Alpert, Rojek, and Hansen, *Building Bridges*.

† IACP, *Model Policy: Law Enforcement-Researcher Collaborative Partnerships*.

159. Syed, *Black Box Thinking*; Wexler, “How Do We Get Out of This Mess?”

160. BJA, *Compstat*.

Litigation regarding pursuits can also provide insights. While litigation has a time lag, litigation records, including complaints and deposition testimony, create an important base of knowledge for agencies to improve behavior and decision-making. A risk manager or internal affairs should maintain a list of cases filed against officers and the agency to understand the nature and extent of claims and their outcomes. The costs of negative outcomes, both emotionally and financially, can be devastating to the agency and the public they serve.

An agency will likely have additional reasons to collect data on vehicle pursuits systematically. Accreditation agencies such as the Commission on Accreditation for Law Enforcement Agencies (CALEA) may require these data to be collected. Consent decree compliance may also require comprehensive data collection on pursuits. The National Highway Traffic Safety Administration (NHTSA) collects data from law enforcement agencies regarding crashes and encourages agencies to distinguish crashes resulting from vehicle pursuits so that it can more accurately track pursuit outcomes. Finally, agencies may want to establish partnerships with researchers to enhance data collection or assist with analysis. [See sidebar on page 93.]

Recommendation 4.6. Agencies should conduct reviews of pursuit data at the agency level on at least a quarterly basis. A lessons-learned approach is important here so that agencies can eliminate unnecessary risks and reduce their liabilities as officers follow policies. A risk manager or internal affairs should maintain a list of cases filed against officers and the agency to document the nature and extent of claims and their outcomes. Research partnerships can help agencies build the capacity to collect and analyze data on vehicle pursuits.

Ghosted pursuits

Most agency review processes for vehicle pursuits focus on those that are reported. But what happens if officers engage in what is technically a pursuit but do not report it? It can be hard to know how to detect these incidents because most agencies have no formal way to document them. This section describes an approach that agencies can use to identify “ghosted pursuits” and hold officers who engage in them accountable. Monitoring and remaining vigilant against such pursuits can also deter such behavior.

What are ghosted pursuits?

As more agencies adopt restrictive vehicle pursuit policies, efforts to detect policy violations may need to increase. Policy violations are most challenging to identify when a pursuit takes place without any documentation, as is the case for “ghosted” and “de facto” pursuits. In these cases, officers engage in a vehicle pursuit without reporting the incident as a pursuit (“ghosted pursuit”) and in some cases without activating their emergency lights and sirens (“de facto pursuit”).

Some officers do not call in all pursuits and do not activate emergency equipment in all cases. Chasing a suspect without lights and sirens is still a pursuit. Chasing a suspect who is fleeing, speeding, or otherwise evading the officer—without signaling the offender to stop or warning the public of an impending danger—is more dangerous in many ways than a traditional pursuit. Similarly, when an officer terminates a pursuit but continues to follow the fleeing vehicle (“trailing”) at speeds above the speed limit and without emergency equipment, they are engaged in a de facto pursuit. These de facto pursuits should be defined and clearly prohibited in policy. [See sidebar on page 95.]

A note on using data and technology

With the influx of new technologies and data collection practices, law enforcement agencies are now better able to identify ghosted pursuits. Technologies that may be

Detecting Ghosted Pursuits—Case Study from the New Orleans Police Department

In a ghosted pursuit, the officer may only report the original activity (e.g., traffic stop for an equipment violation) but not the pursuit, allowing them to avoid supervisory review and accountability.

Initial data review

The New Orleans (Louisiana) Police Department (NOPD) established a process to identify and address ghosted pursuits. It began by researching the likelihood of ghosted pursuits to understand the best way to identify them. Its data showed that officers who engaged in ghosted pursuits were more likely to be in a proactive unit or to be principally engaged in a proactive activity.

For example, a proactive unit would attempt to stop a suspicious vehicle based on an observed traffic infraction; when the suspect fled, the officers would pursue. While the officers may have communicated their intent to conduct the initial traffic stop, they would not report the pursuit because they knew it did not meet the NOPD's restrictive policy standard (i.e., no crime of violence). This non-reporting is what makes the incident a ghosted pursuit.

Systematic detection

Because these incidents are not always captured by in-car or body-worn cameras (because of officers not activating or even deactivating the cameras), the NOPD had to look at other approaches to identify them. In April 2018, after completing the background research, the NOPD began using computer-aided dispatch (CAD) data to detect ghosted pursuits by looking for situations where a pursuit may have taken place but was not reported. It looked at CAD data that included self-initiated vehicle stops or traffic stops that were closed by the officer but in which no action was taken (e.g., no arrest or ticket issued). The NOPD initially found 245 CAD event records that satisfied those criteria.

To further reduce the number of potential events, the NOPD looked at incidents where the time from creation of the call (i.e., when the officer called in) to the disposition of the call exceeded one minute. This left 98 incidents, which two independent observers then reviewed for

1. the length of time the call was open;
2. the nature of the unit making the stop (proactive units vs. regular district patrol);

3. the number of units listed as participating in the event;
4. the event narrative, based on communications between the dispatcher and the officer, which provided clues as to what occurred.

In-depth review of identified events

The independent observers selected 24 events for further review of all available video (in-car or body-worn), radio transmissions, and documentation. They examined each event to determine the day and shift of the event, the vehicle and officer involved, and any noted in-car or body-worn camera entries.

After analyzing all 24 events, the observers flagged 15 as possible ghosted pursuits and sent all 24 events to the Public Integrity Bureau for review. The Public Integrity Bureau determined that 16 of the 24 events required formal “administrative investigation of possible violations of departmental rules relating to vehicle pursuits.”

Establishing an accountability process

The NOPD institutionalized this accountability process and now reviews every possible ghosted pursuit each month. The NOPD added another accountability measure by creating a new CAD code for officers to use when they decide not to pursue a fleeing vehicle. This code allows officers to demonstrate that they are following agency policy when a vehicle flees and that they know they would not be able to engage in an authorized pursuit.

Since institutionalizing these new accountability measures and processes, the NOPD has had tremendous success limiting ghosted pursuits. Since March 2019, the NOPD has not had a single documented instance of a ghosted vehicle pursuit that required disciplinary investigation or action.

Source: Pfeiffer and Alpert, “Developing Methodology.”

useful for these purposes include automatic vehicle locators (AVL), which can track speed, acceleration, braking, and other information about vehicle use; in-car camera systems that are automatically activated by the use of the vehicle’s emergency equipment; and body-worn cameras that may be linked to in-car systems or that must be activated when the officer is engaged in an enforcement activity, such as a pursuit.

These technologies also have their limitations in tracking pursuits because an officer in a ghosted pursuit may decide to turn off their lights and sirens to deactivate the recording. An officer engaged in a vehicle pursuit without their emergency lights and siren activated creates an exceptionally dangerous situation.¹⁶¹ Given the nature of ghosted pursuits and the fact that some officers will turn off their overhead lights and sirens to avoid being recorded, agencies should not rely solely on in-car or body-worn cameras to identify these incidents.

Recommendation 4.7. Agencies should develop methods of identifying de facto or ghosted pursuits. These methods will allow the agency to take corrective action or provide remedial training for officers who fail to meet expectations and will discourage others from attempting such pursuits.

Closing thought

Ghosted pursuits make it difficult for agencies to hold officers accountable for their actions. They also increase the danger to the public when officers try to evade detection by turning off their cameras. The best way to prevent these incidents is to implement a detection system that allows the agency to take corrective action or provide remedial training for officers who fail to meet expectations but also deter others from attempting to engage in such pursuits themselves.

161. Hoffman, “Police: Officer Hits 12-Year-Old Girl During Chase.”

5. Vehicle Pursuit Training

Agencies must reinforce their pursuit policy through regular and ongoing training. This training should cover not only the policy but also pursuit tactics and decision-making skills. Its cornerstone should be a decision-making model for officers and supervisors to use in deciding whether to begin pursuing a suspect and whether to discontinue the pursuit.

To be effective, pursuit training should be recurring and realistic. Agencies should incorporate scenarios that reflect real-world experiences. Scenario-based training also provides an opportunity for officers to practice using the decision-making model. Officers should receive information on legal considerations and local annual data trends. Finally, pursuit training should include training in alternatives and methods of termination that minimize the risks of negative outcomes.

While this chapter focuses on pursuit training provided to officers and supervisors, other agency staff (e.g., communications personnel, air support officers, watch commanders) should receive specialized training regarding their roles in pursuits or pursuit review.

Recommendation 5.1. Agencies should ensure officers receive regular vehicle pursuit training that covers the agency’s policy, data on pursuits, driving tactics, legal considerations, and decision-making skills. Officers who are not current on their pursuit training should not be permitted to engage in a pursuit. Agencies should also develop specialized training for other personnel (e.g., supervisors, communications personnel, air support officers, watch commanders) who may play a role in a pursuit or pursuit review.

Recommendation 5.2. Supervisors should seek informal training opportunities for all staff, such as debriefing a public incident in another patrol area or even an outside agency.

Use a decision-making model

One of the most important elements of pursuit training is decision-making. Agencies should adopt a decision-making model to assist officers and supervisors in their decisions regarding pursuits as well as those related to use of force and problem solving. A decision-making model can also be used in post-incident debriefs, formal pursuit reviews, and even remedial training. One example of a decision-making model is the Police Executive Research Forum’s (PERF) Critical Decision-Making Model (CDM).

PERF’s CDM¹⁶² is based largely on the National Decision Model that has been used effectively for years in the United Kingdom.¹⁶³ The CDM teaches officers how to think critically about complex situations, including incidents that could escalate and end with a use of force. When engaged in a critical incident, officers trained in using the CDM continuously ask themselves about the nature of the incident, any threats and risks, their powers and authority to take various actions, and ultimately their options. After taking an action, officers assess whether the action had the desired effect and, if necessary, begin the decision-making process again. The CDM is particularly suited for making decisions in dynamic and evolving situations such as vehicle pursuits. The model guides officers in making the right choices at critical decision points, such as determining whether a pursuit is appropriate, evaluating the reasonableness of continuing the pursuit, and deciding whether to discontinue a pursuit.

While using a decision-making model for each decision may sound complicated, officers trained in the CDM say it becomes second nature when used every day. Its

Recommendation 5.3. Agencies should select a critical decision-making model. The PERF Critical Decision-Making Model (CDM),* for example, could be adapted for a specific agency. The CDM can guide all aspects of an officer’s decision-making process and has been found particularly useful in dynamic, high-stress situations like vehicle pursuits. The use of a decision-making model can assist officers and supervisors in deciding whether to initiate a pursuit, gathering and evaluating information during the pursuit, and deciding whether to discontinue the pursuit. Training should address each of these decisions individually. A decision-making model is also useful for remedial training when officers do not meet expectations during a pursuit.

* PERF, *ICAT Module 2*.

use is like driving a car. For a first-time driver, every action, such as putting on the seatbelt, checking mirrors before pulling away, or activating a turn signal, requires thought. But after a short time, drivers perform many tasks without conscious thought. Similarly, officers who use the CDM become accustomed to constantly evaluating situations, asking themselves key questions, and considering a wide array of potential responses.

162. PERF, *ICAT Module 2*.

163. College of Policing, “National Decision Model.”

The CDM is a five-step critical thinking process:

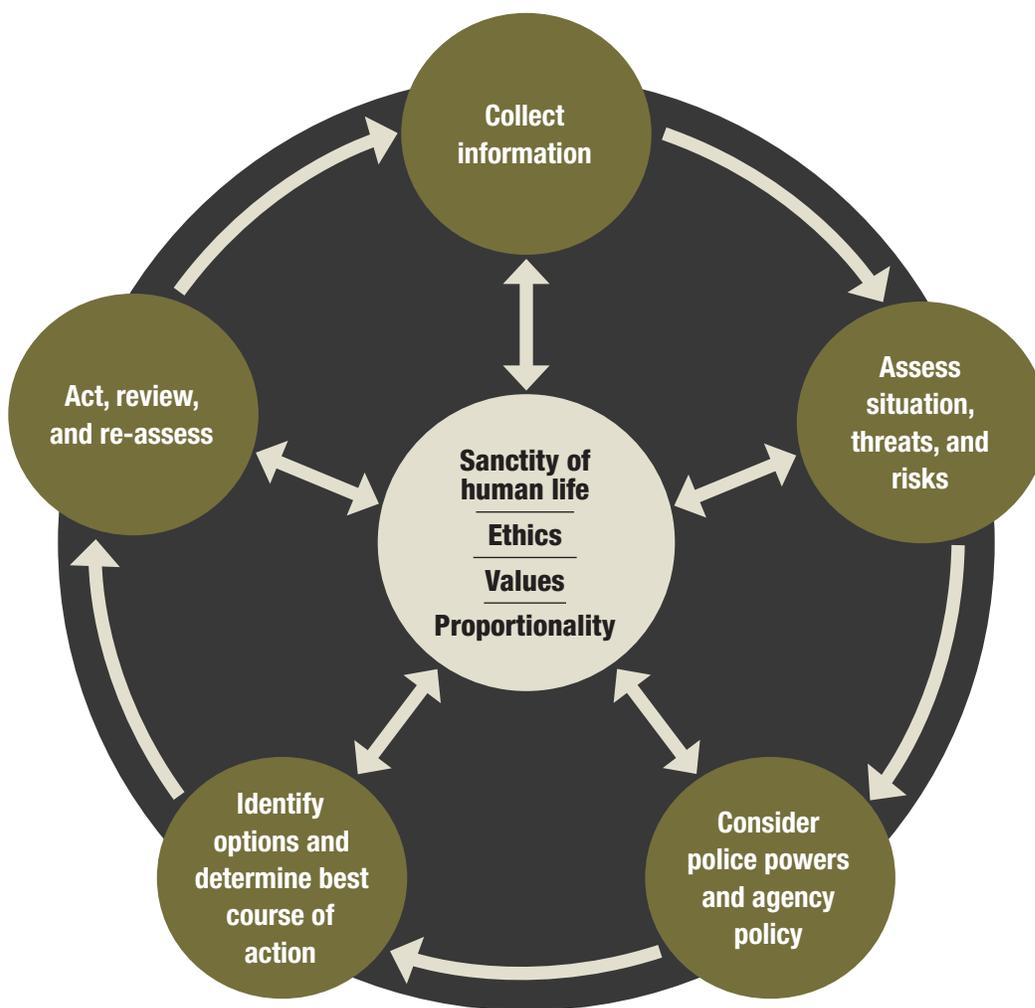
1. Collect information.
2. Assess the situation, threats, and risks.
3. Consider police powers and agency policy.
4. Identify options and determine the best course of action.
5. Act, review, and re-assess.

At the center of the CDM is an ethical core with four elements:

1. Sanctity of all human life
2. Police ethics
3. Agency values
4. Concept of proportionality

Figure 5 shows the CDM core at the center with the five steps of the model surrounding it.

Figure 5. PERF's Critical Decision-Making Model



Every step of the process is connected to the core, and the core informs and guides officers throughout the five steps. Everything an officer does within the CDM must support the ideals in the center; no action can go against those standards.¹⁶⁴

Agencies should adopt a CDM that fits their own agency values. Numerous departments across the country have adopted decision-making models.

Policy instruction

Often agencies teach officers about policies using an e-learning platform (e.g., PowerDMS) and may not even discuss pursuit policy as part of the academy’s regular driving course. These platforms have limitations. In fact, officers often are told only to read and sign, which provides no accountability for an officer to understand or interpret the policy properly. While the online format allows for more flexibility in when officers can review the policy, it does not allow officers to ask questions, so they must interpret the policy for themselves. Furthermore, many of these online policy platforms were designed primarily for policy management rather than dynamic, interactive critical decision-making training.

Agencies must provide regular training on the pursuit policy both online and in the classroom. Whenever an agency changes its pursuit policy, the training unit should design a course to instruct all officers on the changes as soon as possible. In-service training on pursuits should recur at least annually and include both online and classroom components.

Using the CDM for Remedial Pursuit Training

When a Burlington (North Carolina) Police Department officer does not meet the department’s expectations during a pursuit, they receive coaching or remedial training using that agency’s critical decision-making model:

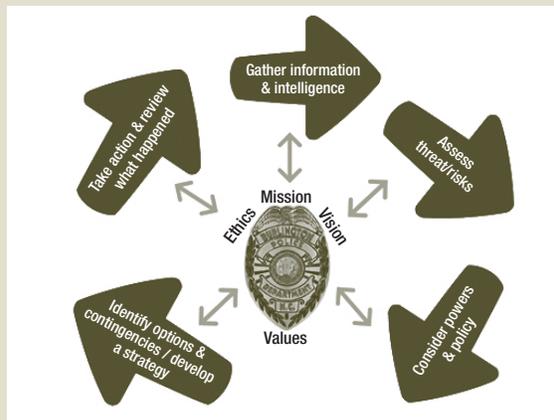


Image courtesy of Burlington (NC) Police Department

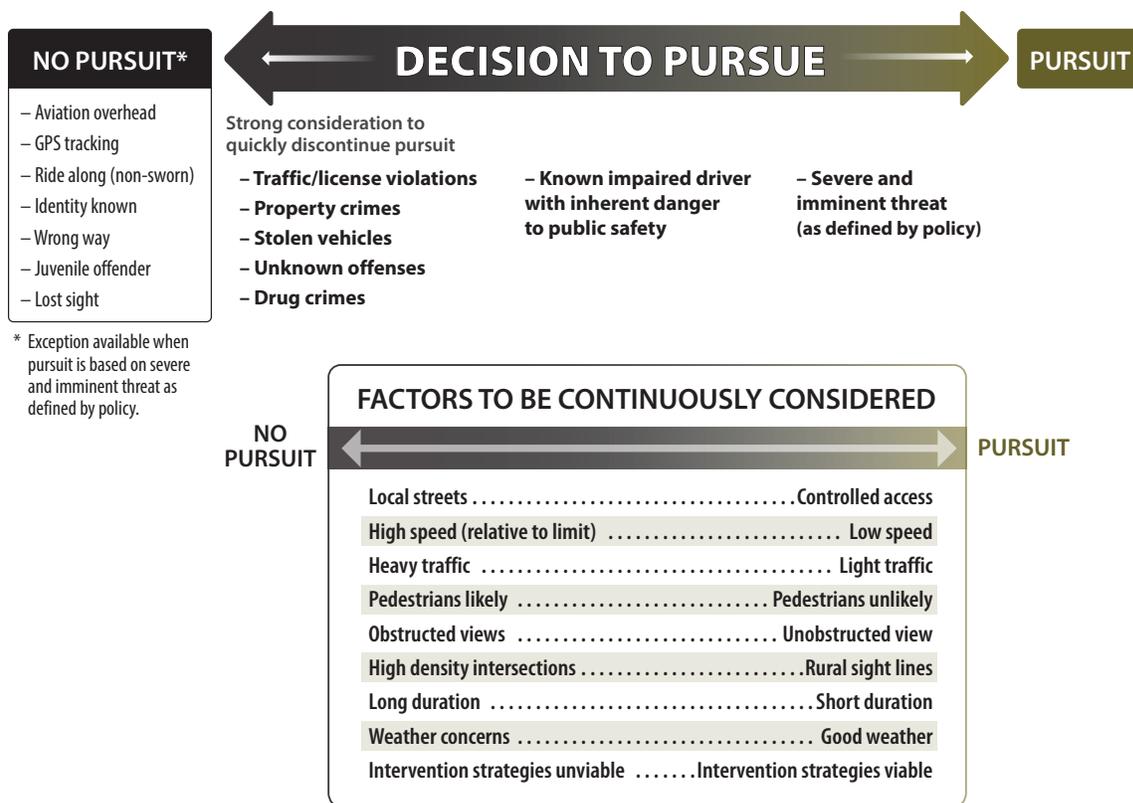
First, the officer is asked what information they knew that led to the pursuit (Gather Information & Intelligence). Next, officers review the threats and risks involved in engaging in the pursuit in the manner they did (Assess Threats/Risks). For example, what risks were presented to the officer, suspect, and community by driving at speeds greater than 50 miles per hour in a residential area? At that point, the trainer will review with the officer the department’s policy and state laws relevant to emergency driving (Consider Powers & Policy).

Given this information, the conversation turns to what other options could have been available (Identify Options & Contingencies / Develop a Strategy). For example, if the suspect’s identity was known, could the officer have developed a plan to apprehend the suspect at a later date? Finally, the trainer will review the actions taken by the officer and provide feedback in a debrief (Take Action & Review What Happened).

Going step by step using the decision-making model, the trainer can both critique the officer’s decision-making and show the officer how they could have made different choices at key points. This process allows the officer to understand how their performance missed the mark and learn from the experience.

164. PERF, *Guiding Principles on Use of Force*, 79–87.

Figure 6. Minnesota State Patrol TRIPS (travel, reason, identity, plate, speed) decision-making model



Source: Adapted from the Minnesota State Patrol.

Visual quick reference tools such as the example adapted from the Minnesota State Patrol in figure 6 can remind officers of the pursuit policy between trainings.

Agencies should consider having officers sign off on policy updates via an online platform, but this signoff should never serve as a substitute for classroom/roll-call training. In-person training allows officers to ask questions about issues they do not understand. Furthermore, in-person training conveys to officers that the organization’s leadership considers the matter important and is committed to making changes. In-person training on a new pursuit policy should emphasize that the ultimate goal is the safety of officers, the community, and suspects (i.e., sanctity of human life). Training on an agency’s pursuit policy should also be part of the driving portion of the academy curriculum for new recruits.

Recommendation 5.4. In-service training on an agency’s vehicle pursuit policy should occur at least annually and should include both classroom and online components. Any time an agency changes the policy, the training unit (or whoever is responsible for training development and delivery in the agency) should develop a course on those changes and deliver it agency-wide as soon as possible. Training on the pursuit policy should also be part of the emergency driving course for academy recruits.

Understanding the why

While training should instruct officers in what the policy says, it should also explain why the agency has that policy. This “why” is part of the agency’s pursuit philosophy (described in chapter 1), which articulates how officers should balance the need to apprehend a suspect with the need to protect officers and the public.

The working group agreed that agencies should emphasize that the purpose of the policy is to protect the officers (both physically from death or injury and legally from being criminally charged for their actions), as well as the suspect and broader public. Another way to explain the purpose of the policy is to highlight costs associated with vehicle crashes and how crashes can limit the vehicles officers drive (e.g., many vehicle pursuit crashes may lead to officers driving older cars). Making this personal is important—you can explicitly say, “We don’t want to be the leaders of an organization that has to bury an officer because of a pursuit, and that is why we have this policy.” Some agencies also use actual examples of officers who have been seriously injured or killed to demonstrate that the risk is real. A relatable example can help break down the feeling of invincibility and make the risk more tangible.

For some agencies, the “why” is very personal. In Charleston, South Carolina, the police department adopted a restrictive policy following a tragic event: In the early 2000s, when officers were pursuing a suspect wanted for a stolen vehicle through James Island, the suspect ran a red light and killed an innocent bystander. That death had a profound impact on the officers involved and the agency more broadly. Not only was the policy changed following that event but every new officer that joins that agency to this day also learns about that incident to explain why the agency continues to operate under a restrictive policy. Including agency-specific case studies in training—recommended through videos with officer narration—can be very impactful.

Recommendation 5.5. Training should help officers understand the importance of the policy and the agency’s commitment to it and emphasize that the policy reflects the agency’s ultimate goal of ensuring the safety of officers, suspects, and the community (i.e., the sanctity of human life).

In addition to providing examples of pursuits with negative outcomes, training should support appropriate decisions by including examples where officers discontinued pursuits. This positive reinforcement of decisions to discontinue can be a great way to change agency culture.

Addressing systemic issues

If an agency discovers an issue occurring in multiple pursuits, training on a specific element of the policy can help address it. For example, if an annual review of pursuits shows a significant number of uninvolved units driving parallel to the pursuit without authorization or without their emergency equipment activated, roll-call training could highlight the element of the agency’s pursuit policy that addresses this behavior. Using in-car camera video to highlight systematic issues such as officers trailing—i.e., driving at higher rates of speed at the conclusion of the pursuit after being told to deactivate their lights—is another way to address an issue with training.

These types of lessons are known as “microlessons,” meaning they are highly focused and deliver pieces of sound information in shorter periods of time (five to 15 minutes at most). They can also help an agency introduce new components of the policy.

The keys to an effective microlesson are as follows:

- Identify a single topic.
- Explain why the topic is important to the learner.
- Develop clear and concise content using subject matter experts.
- Focus on answering an immediate need (e.g., current issue related to vehicle pursuits).¹⁶⁵

Training in smaller units can be an effective way for agencies to increase the overall training hours officers receive.

Recommendation 5.6. Agencies should use shorter, targeted training sessions to deliver key information about the pursuit policy. Such microlessons can introduce newly added elements of an existing policy or address an issue that has been identified across the agency.

Recurring and realistic driving training

In some agencies, the only driving training that officers receive is emergency vehicle operations training during the academy. This driving training may not reach speeds faster than 35 miles per hour or include any nighttime or, more important, pursuit-specific driving. It also is unlikely to include any scenarios for officers to practice their decision-making skills.

Many agencies do not include driving as part of their regular in-service training, because of both the limited time available for training and lack of access to facilities such as tracks needed for hands-on training.

Emergency and pursuit driving are high-liability areas that should be part of an agency's training plans. After initial and general training at the academy, all officers should receive practical, agency-specific training as well as behind-the-wheel refresher training every two years. Officers should also receive more frequent training dedicated to reviewing the department's pursuit policy, pursuit data, and any developing trends.¹⁶⁶

To ensure this training is effective, agencies should employ scenario-based training methods and explore the use of driving simulators to compensate for a lack of physical facilities for road driving. [See sidebar on page 104.]

Scenario-based training

To make emergency and pursuit driving training as realistic as possible, academy and in-service training should incorporate scenarios. Scenario training places officers in a realistic, stressful situation and requires them to perform the types of tasks they would encounter in an actual pursuit. It also provides an opportunity to practice making decisions using the decision-making model. To make these scenarios relevant and relatable, they should incorporate situations that the agency's own officers experience on the street.

For example, an agency's annual review of pursuit reports may reveal that juveniles made up a substantial number of pursuit suspects from the prior year. Teenagers typically have minimal driving experience and may be more likely to engage in high-risk actions that put others in jeopardy. These already volatile situations can become even more hazardous if officers activate their emergency equipment and initiate a pursuit. An agency's training could include a scenario where the officer learns after initiating the pursuit that the driver is a juvenile. This allows the officers to practice evaluating the risks of continuing the pursuit with a juvenile suspect and articulate their reasons for deciding to discontinue (or not).

165. AELE, "Microlessons."

166. If an agency has in-car or body-worn cameras, this training can also provide instruction on when those must be activated and how officers can use them to document their decision-making in real time (e.g., narrating the suspect's actions and the officer's response).

A Note on Decision-Making in Pursuits

Decision-making training in the context of pursuits may tend to focus on the initial decision point: whether to initiate a pursuit. While this is an important decision, each decision to continue or discontinue a pursuit is equally important. Agency training should address each of these decision points individually.

Continuing the pursuit

It is critical to convey to officers that should they choose to continue a pursuit, they will need to articulate why in specific terms, and the agency will closely review those justifications. The reasons given for beginning a pursuit will not necessarily justify continuing it. Officers must articulate their considerations for justifying the risks of continuing a pursuit for the duration of the incident.

Training should also help officers understand how to assess the different factors used in making a decision. Consider, for example, the presence of pedestrians. In deciding whether to continue the pursuit, the officer must not only observe whether pedestrians are present at the moment, but also consider whether the pursuit may travel into an area where pedestrians may be present.

Discontinuing the pursuit

Discontinuing a pursuit can be one of the most difficult decisions for an officer to make, so this should be a focal point of any decision-making training. Training scenarios should specifically have officers practice discontinuing a pursuit—both making the decision and taking the proper actions to disengage as required by policy (e.g., pulling over, changing direction).^{*} This training should also convey to officers that they will not be penalized for deciding to discontinue a pursuit they believe is no longer justified.

Supervisor training

Agencies should also develop specific training for supervisors. Like officers, supervisors must be able to make judgements about whether continuing a pursuit is justified. Such training should include not only what information supervisors should gather from the officers in the pursuit and how to assess it but also how to evaluate the officers' emotional state.

Communications personnel training

Finally, agencies should train communications personnel, dispatch in particular, who will help handle pursuits. These individuals are integral to pursuit situations and should have a good understanding of the decision-making process used and expectations for their actions in pursuit situations.

^{*} See chapter 2 for more detail on what actions officers should be required to take when discontinuing a pursuit.

Alternatively, an agency may find that carjackings were the most common crime that precipitated a pursuit in the prior year. A training scenario might include a vehicle that has been reported stolen in a carjacking a day earlier. This scenario tests the officer's reasoning for deciding to initiate a pursuit. While carjacking is a violent crime, a day later the officer will not know if the driver is the suspect who committed the original crime. This

uncertainty can lead the officer to conclude that the risks of a pursuit outweigh the need to apprehend the current driver immediately.

More generally, an agency should design training scenarios based on situations that officers are likely to encounter in the field; this practice can include "Monday-morning quarterbacking" pursuit incidents from other jurisdictions. In training with these scenarios, officers should

Minnesota State Patrol Live Training Exercise

To keep troopers engaged during live training, the Minnesota State Patrol used an exercise where the trainer played a video of a real vehicle pursuit and each person had to decide when they would discontinue the pursuit. Specifically, each person had a clicker to use at the point that they would discontinue, and the results were displayed at the end of the exercise for the whole group to see. The training staff then debriefed each of the different points of the pursuit when someone said they would have discontinued. In this discussion, participants talked through their considerations in deciding to discontinue and related them back to the agency's pursuit policy. This was a low-cost and engaging format to demonstrate decision-making using a realistic scenario.

Photo courtesy of: Minnesota State Patrol



practice using the decision-making model to make sound decisions on whether a pursuit is necessary by assessing all the relevant environmental and situational conditions, evaluating whether the need to apprehend the suspect outweighs the risk of a pursuit, and determining if alternatives to a pursuit are available.

Driving simulator training

Pursuit training, particularly scenario-based training, can be difficult without proper facilities or resources. Some agencies that do not have the facilities to conduct regular training turn to simulators. Simulators allow officers to experience real-life scenarios and replicate stress-inducing situations in a virtual training environment.

Although physical driving skills are important when addressing training needs for pursuits, the decision-making process is also crucial. Several companies, such as FAAC and VirTra, make simulators specifically related to pursuit training and emergency driving. Some companies (e.g., Apex Officer) integrate virtual

reality into their system to immerse officers more fully in the experience. The benefits of driving simulators include the following:

- Instructors can control the training for custom scenarios.
- Video playback allows effective debriefs.
- Simulators provide flexibility with the training schedule.
- Minimal space is needed to conduct training.
- Policy training can be incorporated into each scenario.
- Officers' split-second decisions can be evaluated.
- Simulator training can reduce liability and costs.
- Simulator training can improve overall driving skills.

Most agencies cannot afford to purchase a simulator, but they may be able to lease one or share the cost of a simulator with another agency. Lack of access to a simulator should not preclude an agency from conducting high-quality trainings with real-world examples.

Recommendation 5.7. Agencies should ensure academy and in-service driver training incorporates scenario-based instruction. Scenarios should focus on realistic situations that officers experience in the field, and all officers should receive pursuit training at least every two years.

Recommendation 5.8. Agencies with limited ability to provide practical refresher training should consider purchasing, sharing, or leasing a driving simulator that can incorporate scenario-based and decision-making training.

Training in alternatives and methods of termination to minimize pursuit risks

To minimize the risks of pursuits, academy and in-service training should provide instruction on using alternatives to avoid initiating pursuits and methods for terminating pursuits safely. Officers should not be allowed to use any tactic or tool until they are trained.

Pursuit alternatives

Training in pursuit decision-making should always incorporate an evaluation of the alternatives available to officers.¹⁶⁷ In a carjacking scenario, for example, the offender might be known to police and a significant amount of time might elapse between the carjacking and locating the vehicle near a school on a rainy weekday

afternoon. In this scenario, the training would emphasize that, rather than initiate a pursuit, officers should surveil the car with an unmarked unit or air support until the occupant exits the vehicle or plan to apprehend the suspect at a later date when the risk to officers and the public is lower. Officers would then be asked to develop their strategy. Such a strategy might include surveilling the suspect vehicle from a distance, calling in unmarked units to block the vehicle in at an intersection, or deploying stop sticks to get the fleeing suspect to stop.

When providing training about pursuit alternatives, it is important to use a positive case study of an actual event where this approach was successful.

Recommendation 5.9. Agencies should develop training to instruct all officers on why and how to minimize or avoid the risks of a pursuit by using surveillance and alternative tactics to apprehend suspects.

Methods for ending a pursuit—Highlight the risks

As described in chapter 3, officers may have several available tactics to bring a pursuit to an end. These tactics include using a tire deflation device (TDD) and the precision immobilization (or pursuit intervention) technique (PIT), though each has associated risks. Agencies permitting these tactics should carefully consider their implementation when designing their training. Agencies must develop training for every tactic and tool authorized for use in a vehicle pursuit according to policy, and officers must also be retrained at least annually to maintain their proficiency.

PERF’s review of agency policies as part of this project indicates several agencies have no limit on how fast a vehicle can be traveling when using TDDs or the PIT maneuver.

167. See chapter 3 for more information on pursuit alternatives.

Using TDDs at high speeds can be particularly dangerous if suspects attempt to steer around them, which may even cause them to lose control of their vehicles. Furthermore, officers have been injured or killed when trying to deploy or retract TDDs. Agency training must specifically teach officers the safest method for deploying TDDs.

As discussed in chapter 3, the PIT maneuver is a high-risk technique for ending a pursuit that is not recommended. Given the increased risk to all posed by the PIT maneuver, agencies that permit this tactic must develop policies and specialized and ongoing training on it and the very limited circumstances that justify its use.

Recommendation 5.10. Agencies must develop training for every tactic and tool authorized for use by policy in a vehicle pursuit. Beyond the basic mechanics of how to use such tools, this training should cover the risks their deployment poses to the suspect, the deploying officer, and the public.

Recommendation 5.11. Officers should not be permitted to use any tactic or tool until they have received training. At least annually, officers should be retrained and tested on their knowledge and skill in executing the tactic or tool to maintain their proficiency.

Agency culture change

Fostering the right pursuit culture

The culture of a police agency should represent the values of the officers and the community they serve. Policy changes in a police agency can be challenging to implement when they represent a culture shift. With appropriate messaging and strong leadership, an agency can achieve the buy-in necessary to successfully implement a revised vehicle pursuit policy.

Messaging

From the beginning, agencies should carefully frame issues surrounding vehicle pursuits in the context of the agency’s mission and the underlying theme of protecting lives. Officers must understand why the policy exists and is structured in the way that it is. It is often useful to use real-world examples of the “why,” such as instances where officers lost their lives in a vehicle pursuit. Officers and particularly supervisors need to understand what is expected of them in various scenarios, regardless of their personal view of the policy.

Messaging may also address immunity and indemnification, or security against legal liability. While this conversation can be difficult to have with officers, it may help them understand that a restrictive vehicle pursuits policy not only protects officers and others from physical harm but also protects officers from situations where they may be held civilly or criminally liable for negative outcomes. Reasons for adhering to the policy go beyond avoiding discipline.

Messaging should emphasize that policy changes do not necessarily amount to a change in a “tough on crime” philosophy. A restrictive pursuits policy does not undermine the goal of “catching bad guys;” instead, it simply adopts new methods to do so safely, successfully, and without fear of future ramifications.

Importantly, agencies should also acknowledge how the pursuit policies in neighboring jurisdictions may differ from their own and clearly outline what to do when those policies diverge.

Leadership

An agency’s culture starts from the top. Invariably, top-down support of the vehicle pursuit policy from agency leaders is critical for policy acceptance and adherence. Police executives do not want to be seen as “soft on crime” or as “de-policing” the agency. However, leaders should not strive to be the most popular person in the agency. It is not their job to appease their officers only for the sake of keeping morale high. Because some

“Courageous conversations are the mark of a good leader—others will then follow.”

— Luther Reynolds, chief,
Charleston (South Carolina)
Police Department

officers might react negatively to a restrictive policy, leadership must make clear that officers may still use alternative techniques to catch offenders. An agency can be tough on crime even with a restrictive pursuits policy. It is imperative for agency leaders to have these courageous conversations.

Agency leaders need to take ownership of the vehicle pursuits policy and recognize that having a good policy in place is only a small step toward successful implementation. Communication on the policy should be continuous, and agencies should regularly measure and disseminate data on outcomes.

Getting buy-in

Agency buy-in for a vehicle pursuits policy—particularly one that represents an agency culture change—starts with careful messaging and leadership. All the police executives should be thoroughly educated on the policy first and clearly demonstrate their support of its legitimacy and importance to the agency.

Next, buy-in from command staff and first-line supervisors, the individuals managing the department, is critical to the culture change. Similarly, agencies need to get buy-in from other groups, such as dispatchers, affected by the pursuit policy. Their support will promote consistent messaging and proper execution.

Buy-in from police unions is also essential, as they are highly influential entities in many jurisdictions. Inviting the union president to conversations about the vehicle

pursuit policy can increase understanding of why a policy change is occurring and the ideals central to it (i.e., protecting officers and the public). Messaging from police unions to their officers might subsequently improve and spread acceptance of the new policy.

Consistency is another crucial component of creating buy-in. The agency must be consistent with implementation (e.g., messaging, training) and give the policy legitimacy by following through with accountability for violations. Individual officers need to be aware that the agency will hold them accountable for policy violations and that resisting the policy and culture shift will not be tolerated. Ideally, officers would comply not solely to avoid disciplinary action but because proper messaging and strong leadership inspire them to truly believe in the policy.

Changing the culture of a police agency takes time. Acceptance across the agency likely will not be immediate regardless of thoughtful messaging and strong leadership.

“At a minimum, 30 percent of the agency has to know only the new system before the agency tips towards support of a culture change.”

— Mike Lee, chief deputy, Harris
County (Texas) Sheriff’s Office

Resistance and backsliding will occur, particularly for officers initially trained on the previous policy. Therefore, agencies should closely monitor culture and morale and maintain consistent communication on the pursuit policy and expectations. Buy-in and ownership at all levels of the agency is the ultimate, long-term goal.

Navigating a culture change when implementing a restrictive policy

The culture change that occurs when moving toward a more restrictive pursuits policy can be particularly challenging to manage. Reward structures and tracking systems can help.

Recognizing good decision-making

Officers are often recognized for catching suspects or seizing a significant amount of drugs during a traffic stop, but what if officers were recognized for calling off

a potentially dangerous vehicle pursuit? This may be the best decision based on critical decision-making and agency policy. Highlighting these successes in making the right decision to not pursue fleeing suspects, especially when suspects are captured through other methods, might go a long way in garnering support for a more restrictive policy. As shown in the sidebar, Colonel Matthew Langer of the Minnesota State Patrol often makes a point to highlight good decision-making in vehicle pursuits.

Message to the Minnesota State Patrol

The following is an excerpt of an email from Colonel Matthew Langer to his staff:

Drivers continue to flee the police at record levels all across the country and here in Minnesota. This is one of the most difficult aspects of our work. We spent considerable time working on our policy and training a few years ago, to make sure we are doing our best to balance the risk of each pursuit along with any benefit of immediate apprehension. Two recent examples highlight the decision-making that we strive to make during these continuously evolving and dynamic events.

One was a recent pursuit in the Rochester district. A vehicle fled after a traffic stop for speed. The trooper discontinued the pursuit but coordinated with a Commercial Vehicle T/Sgt. [technical sergeant] and local agency to check a recent address for the vehicle. Once they arrived, they found the vehicle parked inside a barn. The driver was sitting in the driver's seat and was arrested for fleeing, DAC-IPS,* a quarter-pound of methamphetamine, possession of a loaded handgun, and outstanding warrants. As we know, discontinuing a pursuit does not mean the driver gets away. In this case, solid police work led to the safe apprehension of the driver.

In another case, a trooper in the Detroit Lakes district attempted a traffic stop on a vehicle. The vehicle fled and a pursuit was initiated. The lieutenant advised that the pursuit would be discontinued if it entered an upcoming city. The fleeing vehicle exited the interstate onto a trunk highway.† The trooper discontinued the pursuit and began to make a left turn to go back the other way. As he was turning, he saw the fleeing vehicle enter an intersection and crash. Because he was turning left, he saw this through the passenger side window. Thankfully, injuries appear to be minor to all involved. The driver was arrested. The decision to discontinue this pursuit was a good one. Making a left-hand (or right-hand) turn is good strategy to unequivocally demonstrate that we discontinued the pursuit.

While there are many examples like these two examples, I wanted to acknowledge good decision-making when it comes to these difficult situations. Thanks for all that you do to keep our roads safe.

— Colonel Matthew Langer,
Minnesota State Patrol

* Driving After Cancellation as Inimical to Public Safety.

† A “trunk highway” is a major road that is the recommended route for long-distance travel.

Tracking progress

Tracking progress on the adoption of a more restrictive pursuit policy is important to understanding where adjustments may be needed in messaging or practices. It also allows the agency to celebrate successes in implementation. Existing data collection and monitoring systems should provide indicators of whether the policy or culture change is effective (e.g., by reducing the number of pursuits for minor offenses). Agencies should regularly review data for all vehicle pursuits, not just those with policy violations or negative outcomes.

Constant monitoring can determine if changes to the enacted policy and practice are needed. Agencies are encouraged to establish a pursuit review board for these reviews. Data collection and tracking is discussed in more detail in chapter 4.

Potential challenges

Setbacks can be expected when implementing a policy change that also requires a change in agency culture. Without the buy-in from key stakeholders within the organization, some may perceive a restrictive policy as

“If you only review issues that come to your attention, you may be missing something. There is a difference between being lucky and doing everything correctly.”

— James Nolette, assistant chief,
Fayetteville (North Carolina)
Police Department

politically motivated or contrary to the agency’s mission. Spikes in crime could be another source of a setback if the public believes the restrictive pursuits policy has contributed to them. Agencies must be prepared to defend their stance on vehicle pursuits and use available data and research to support their position. Chapter 6 details various methods for fostering community buy-in.

6. Community Engagement—Education, Input, and Transparency

Every agency serves a community with challenges, and each community will have its own expectations for policing. These expectations are important to consider in developing policy and practices around vehicle pursuits.

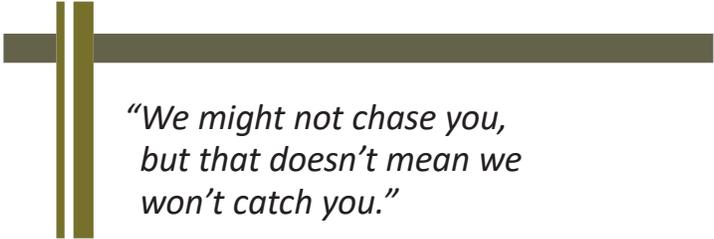
Community engagement is an ongoing process, and agencies should take a multipronged approach to it. First and foremost, an agency should educate the community on its policy. This education promotes community understanding on when officers may pursue a fleeing suspect and other considerations regarding pursuits. While there have been concerns about alerting the community to restrictions in pursuit policies (e.g., providing suspects with information on conditions when a pursuit must be terminated), the benefit of setting realistic expectations will outweigh these risks.

Transparency and accountability regarding vehicle pursuits will also help build community support. By regularly providing information about these incidents in public reports and media releases, the agency can help the community better see the impact of agency policy and assess the effectiveness of its procedures.

Educating the community on the vehicle pursuit policy

Vehicle pursuits have both positive and negative outcomes. In striving to both educate the community and obtain its buy-in for a vehicle pursuit policy, an agency must help the community understand these tradeoffs and how the agency's pursuit policy balances the benefits and risks.

Agencies that adopt restrictive pursuit policies, as recommended in this guide, must communicate to the public that a restrictive policy protects the safety and interests of the community—in fact, a more restrictive vehicle pursuit policy is designed to prioritize public safety and save lives. When talking about pursuits, agencies should highlight the technologies and investigative techniques they have at their disposal to track down offenders and hold them accountable.



*“We might not chase you,
but that doesn’t mean we
won’t catch you.”*

— Colonel Matthew Langer,
Minnesota State Patrol

A Note on Victims of Crime

Educating the community on the agency’s vehicle pursuit policy takes on special significance when speaking with victims of crime. In addition to being in distress over, for example, their stolen vehicle, a victim of crime may also have no prior knowledge of the agency’s vehicle pursuits policy. This can create frustration if a victim feels police are not doing everything possible to retrieve their property.

It is particularly important in these situations for victims to understand why police will not engage in a pursuit to retrieve stolen property. Emphasis on the “why”

(i.e., preservation of life) may increase understanding. In addition to educating victims on the agency’s vehicle pursuits policy, agencies should take the time to explain how the reporting process works in these cases and how insurance companies operate. Simply helping victims contact their insurance company can be very helpful. Furthermore, victims need to understand that police will still employ investigative techniques (e.g., GPS tracking of vehicle, automated license plate reader (ALPR) cameras, be-on-the-lookout bulletins) to identify and catch perpetrators.

Increases in crime, particularly in certain types of crimes such as reckless driving or vehicle thefts, may heighten the public’s fear and put pressure on an agency’s leaders to loosen a restrictive policy. While it is always important to be responsive to the community’s desires, agencies should not revert to policies that take on more risks than potential rewards without first explaining to the community the potential consequences of that action.

For example, allowing officers to initiate pursuits for reckless driving will increase the number of vehicle pursuits, which in turn will increase the numbers of injuries and deaths to suspects, officers, and bystanders. The Milwaukee (Wisconsin) Police Department serves as a real-world example. Following revisions to the agency’s policy allowing pursuits for reckless driving and vehicle-based drug dealing, pursuits increased sharply from 369 in 2017 to 940 in 2018.¹⁶⁸ Pursuits for reckless driving, which represented 67 percent of all pursuits in 2018, were the primary reason for the increase. Pursuit-related injuries—to suspects, officers, and third parties—also increased significantly, by at least 200 percent.¹⁶⁹

Recommendation 6.1. Agencies should educate their communities on the vehicle pursuit policy. This education should include helping the community understand the tradeoffs involved in initiating a pursuit and how the agency has decided to balance the risks (i.e., the agency’s pursuit philosophy).

Recommendation 6.2. Agencies that have adopted a restrictive pursuit policy should communicate to the public that the policy does not neglect the safety and interests of the community. They also should highlight the technologies and investigative techniques at their disposal to track down offenders and hold them accountable.

168. City of Milwaukee Fire and Police Commission, 2018 City of Milwaukee Fire and Police Commission Vehicle Pursuit Report, 4.

169. City of Milwaukee Fire and Police Commission, 2018 City of Milwaukee Fire and Police Commission Vehicle Pursuit Report, 9–10. For more details on this case study, see chapter 1 of this guide.

Publicly posting the full policy

A community's expectation of transparency is entirely reasonable when it comes to an agency's vehicle pursuit policy. However, there are also valid concerns that publishing all the details of an agency's policy online could put officers or the public in danger or provide suspects with information that can aid their escape. Agencies should examine their policies and move to publicly share as much information as possible regarding the pursuits policy.¹⁷⁰

Recommendation 6.3. Agencies should make their vehicle pursuit policies available to the public by posting them online, providing as much information as possible.

Understanding expectations and educating

There are several methods for engaging the community to educate them on vehicle pursuit policy, including hosting community presentations or attending town hall meetings, offering civilian police academies, engaging with police advisory boards, having discussions with neighborhood watch captains, or reaching out to community stakeholders and city leaders. For example, an agency planning to change its pursuit policy can give presentations throughout the community and include question-and-answer sessions to hear a range of community voices. Educating the media is also an important aspect of community engagement. Agencies should inform the community of any actions they take in response to feedback, even if only to let the community know their input was appreciated and considered.

Advisory boards, which many agencies have established, are another good way to solicit community input. The Vallejo (California) Police Department's Chief's

“By including our Chief’s Advisory Board in this process, we are giving them a voice—and in being sincere about what we are doing with our community, we are able to strengthen the trust and confidence they have in us.”

— Jason Potts, chief, Las Vegas (Nevada) Department of Public Safety (former captain, Vallejo (California) Police Department)

Advisory Board¹⁷¹ consists of about 15 individuals who meet monthly to review department policies and solicit feedback. This board gives a voice to the community and boosts trust in the agency. Similarly, the Charleston (South Carolina) Police Department had its Citizens Police Advisory Council review the agency's vehicle pursuit policy as a way of communicating to the community what the agency was doing and why.

Recommendation 6.4. Agencies should engage with the community on the pursuit policy in multiple ways, including hosting community presentations or attending town hall meetings, offering civilian police academies, engaging with police advisory boards, having discussions with neighborhood watch captains, or reaching out to community stakeholders and city leaders.

170. Depending on the jurisdiction, there may be open records laws that require greater transparency. Agencies should always consult with their legal advisors prior to determining what policies to release to the public.

171. Vallejo (California) Police Department, “Chief’s Advisory Board.”

A proactive rather than a reactive approach is always preferable for community engagement. Agencies should use positive case studies to celebrate successful outcomes (e.g., recovery of a stolen vehicle without a pursuit). Agencies can share such case studies broadly through media releases, social media postings, and public reports.

Responding to community concerns after pursuits with negative outcomes

Vehicle pursuits are inherently high-risk and can have negative outcomes regardless of agency policy. Agencies must prepare to respond to and thoroughly investigate such incidents (see chapter 4). Agencies should also practice transparency by communicating often and openly with the community about what happened and what they are doing to prevent similar outcomes.

Negative outcomes are possible even when officers follow the pursuit policy and their training. It is important to distinguish whether a negative outcome resulted from a policy violation, which may indicate the need for officer discipline and re-training, or from a problem with the policy itself, which would indicate the need for broader review. Agencies may even encounter negative outcomes after a pursuit is discontinued, which they should also investigate to better understand the effects of their policy.

Critical incident briefings

When a vehicle pursuit results in death or significant injuries or otherwise attracts public attention, an agency should conduct a critical incident briefing with the community.¹⁷² While investigations of these incidents may take weeks or months to complete, the agency should brief the community as soon as possible with available information. Agencies might conduct such briefings through the press, with public statements, or by posting



“Often we prepare our statements even before the barrage of requests to be out front with it, and that’s the main thing—being transparent and immediate.”

“Of course you have to handle individual incidents on a case-by-case basis, because you don’t want to put information out too fast and then it’s not accurate and you have to back it up. We always preface that by saying ‘this is ongoing, things could change, facts could change.’ The main thing is to just try and get in front of the situation by being transparent and up-front with as many accurate facts as possible.”

— Celeste Murphy, chief,
Chattanooga (Tennessee)
Police Department

a video online describing what occurred.¹⁷³ Agencies may also develop policies regarding the timely public release of body-worn or in-car camera footage of the incident.

A key piece of advice from police executives whose agencies have experienced fatal vehicle pursuits is to try to get in front of the situation and be transparent—provide as much accurate information as you can. Agency officials may have to pull video footage from the officer’s body-worn or in-car camera while the investigation is proceeding. It is also important to review statements

172. Agencies must also do a thorough, internal review after every pursuit. This process is discussed in chapter 4.

173. For an example of a critical incident briefing video, see City of Charleston, South Carolina, “Critical Incident Briefing Videos.”

and other materials (e.g., video of the incident) ahead of time and prepare to release available information to the public promptly and proactively rather than waiting for a request to come from the community. Regular and frequent updates can set expectations about when additional information will be provided.

While an agency should strive to provide only accurate information, agencies should also emphasize that information may change as the investigation evolves. Doing so can be important should later corrections to prior statements be necessary.

One potential pitfall to avoid relates to whether an incident is categorized as a “vehicle pursuit.” While the agency may have a specific definition in policy, the public will interpret the officers’ actions from their own perspective. In a situation where the officers are in pursuit but terminate just moments before the suspect vehicle crashes, the community may still see the officers’ actions as connected to the outcome. Agencies should take this into consideration when developing their messaging around an event.

Recommendation 6.5. When a vehicle pursuit results in death or significant injuries or otherwise attracts public attention, agencies should conduct a critical incident briefing with the community. Agencies should provide as much accurate information as possible to explain what happened and what they will do to prevent similar outcomes in the future.

Addressing victims’ needs

Vehicle pursuits resulting in the injury or death of third-party bystanders require additional response from police agencies. While the needs of victims of these tragic incidents will vary, agencies should be prepared to provide them with a clear account of the events that took place and an explanation of whether the pursuit was carried out in accordance with policy. Victims and families should receive this information directly

Recommendation 6.6. Agencies should prepare a response strategy to ensure victims receive the services they need when a vehicle pursuit results in the injury or death of a bystander. This is a high priority—agencies should be prepared to reach out to victims and meet with them.

from the agency, not secondhand from media or other sources. Agencies should also ensure victims receive any services needed.

Transparency through annual reports

As with other high liability areas of policing like use of force, the public expects transparency from its law enforcement agency on vehicle pursuits. A good way to provide this transparency is by including data on vehicle pursuits

Recommendation 6.7. Agencies should include data on vehicle pursuits in an annual report. Such information should include, at a minimum,

- overall counts;
- the reasons for initiating the pursuit;
- how many pursuits were terminated by officers or supervisors;
- how many pursuits resulted in collisions, injuries, deaths, or property damage;
- the number of suspects identified;
- the number of drivers who fled but were not pursued;
- the ultimate outcome of the case (e.g., whether an arrest was made);
- the results of the administrative review (e.g., how many pursuits were within policy).

in an agency’s annual report. Public reports should include basic statistics such as overall counts; the reason for initiating the pursuit (i.e., crime or violation); how many were terminated by officers or supervisors; how many resulted in collisions, injuries, deaths, or property damage; and the number of suspects identified. Agencies, particularly those with restrictive policies, may also wish to report the number of drivers who fled but were not pursued. Reporting on drivers who fled offers an important baseline for the number of incidents that could have resulted in a pursuit.

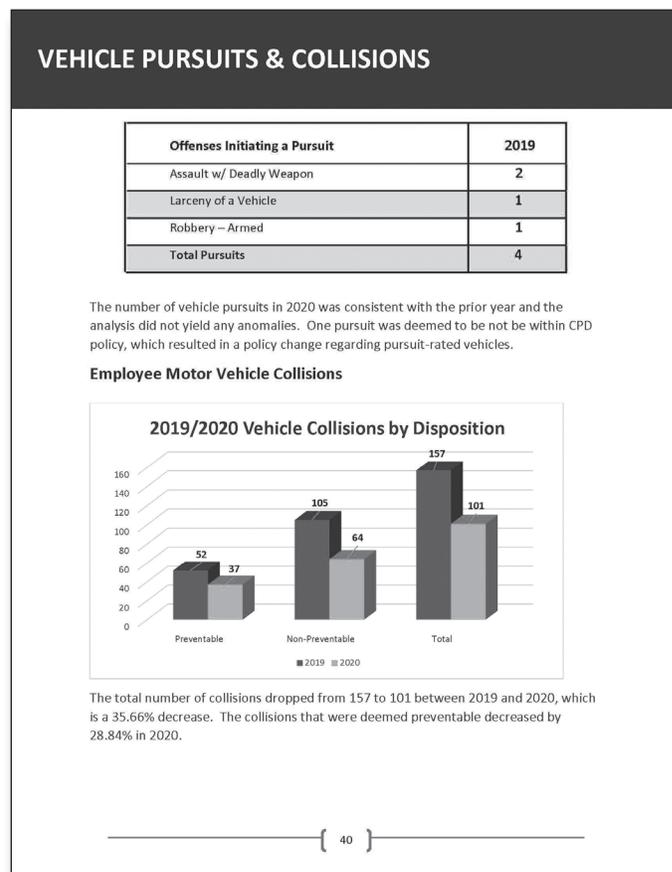
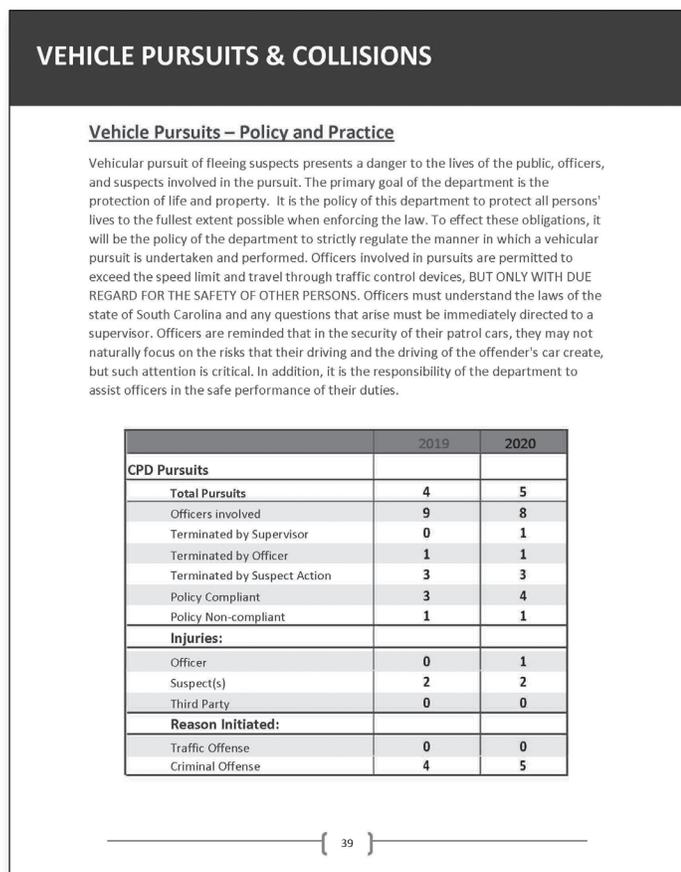
The ultimate outcome of the case (e.g., whether an arrest was made) is also a valuable piece of data to include in public reports. For example, the number of offenders

who are ultimately arrested through other investigative means, even if a pursuit did not occur or was terminated, can demonstrate improved public safety both in pursuit policy and in apprehending offenders.

Agencies should report the results of administrative reviews of pursuits incidents so that the community can see how many pursuits were conducted within policy and what actions (e.g., policy changes, training adjustments, officer discipline recommendations) the agency has taken to address identified issues or deficiencies.¹⁷⁴

Figure 7 is a snapshot from an annual report that shows how information about vehicle pursuits can be presented.

Figure 7. Charleston (South Carolina) Police Department Internal Affairs Annual Report



Source: Office of Professional Standards, 2020 Internal Affairs Report, 39–40.

174. This review process is described in detail in chapter 4.

Conclusion

Managing the risks of vehicle pursuits is critically important for protecting officers, suspects, and the public from injury or death. Effective pursuit risk management can also protect both personal and public property from costly damage. Rising violent crime, risky driving behaviors, and suspects fleeing from police put particular emphasis on this issue today. Agencies should prioritize review of their vehicle pursuit policies. This publication offers practical guidance and examples for agencies to draw from when developing or revising their pursuits policy.

- Agencies first need to balance the risk of engaging in a pursuit with the goal of apprehending a particular suspect. The amount of risk an agency is willing to take on sets its philosophy and policy standard. Such a standard might require having reasonable suspicion that the suspect is wanted for a violent crime and presents an imminent threat to the community.
- Agencies must next provide clear guidance to officers and supervisors about how to safely conduct vehicle pursuits. This guidance should include direction to supervisors on how to manage a pursuit and direction to officers on what intervention tactics are permitted.
- Agencies should discuss pursuit interventions, pursuit alternatives, and technology for managing pursuit risks and specify the conditions under which they can be used.
- Pursuit policy should include plans for thorough post-pursuit reporting and review and methods for holding individual officers and the agency accountable.
- To implement the policy properly, agencies need a robust training program covering the policy, driving tactics, and decision-making skills through realistic and scenario-based training.
- Finally, agencies must engage their communities to educate them on the pursuit policy, offer them an opportunity to provide input, and be transparent regarding pursuits—particularly ones with negative outcomes.

Online Training

The expertise of the working group and the contents of this guide have provided the foundation for an online pursuits training, which will be available on the COPS Online Training Portal in 2024. It will be an interactive and engaging web-based course designed to support the law enforcement community in creating and implementing effective policies and critical decision-making skills regarding pursuits. The self-paced, asynchronous, modular online course (with an estimated two-hour run time) will include activities, original scenario-based videos, knowledge assessments, and a stand-alone testing component.

By implementing these recommendations, police agencies can effectively manage the risks associated with vehicle pursuits. Leadership can refer to the prioritized action plan at the beginning of this publication to get started on reviewing their agency's vehicle pursuits. Its specific steps are as follows:

1. Gather information
2. Outline key issues
3. Solicit subject matter expert input
4. Draft or update policy
5. Solicit feedback on draft policy

6. Finalize policy
7. Conduct training
8. Implement policy
9. Assess and address issues

As issues arise in how an agency is addressing pursuits and community expectations evolve, the agency will need to repeat the review process. Agencies should be careful to not revert to more risky policies as they balance the risks of vehicle pursuits with the reward of apprehending suspects. This guide has highlighted how agencies can still be tough on crime while not engaging in high-risk pursuits.

Appendix A. Pursuits Working Group Members and Project Staff

This list reflects working group members' titles and positions at the time the working group was constituted and convened.

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Virginia Beach (VA) Police Department

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Appendix B. Overview of Pursuit Policies Reviewed

Policies reviewed (n=48; * indicates working group member)

- ▶ Alexandria (VA) Police Department
<https://media.alexandriava.gov/docs-archives/police/directives/policedirective1011bpublic.pdf>
- ▶ Arizona Department of Public Safety
<https://www.azdps.gov/sites/default/files/media/4.1.20PursuitOperations.pdf>
- ▶ Atlanta (GA) Police Department*
<https://www.atlantapd.org/home/showpublisheddocument/3955/637557932766212556>
- ▶ Austin (TX) Police Department
<https://www.austintexas.gov/sites/default/files/files/Police/General%20Orders/214%20Vehicle%20Pursuits.pdf>
- ▶ Burlington (NC) Police Department*
- ▶ Charleston (SC) Police Department*
<https://public.powerdms.com/CPD5/tree/documents/599971>
- ▶ Charlotte-Mecklenburg (NC) Police Department
<https://www.charlottenc.gov/files/assets/police/documents/directives/cmpddirectives.pdf>
- ▶ Chicago (IL) Police Department
<http://directives.chicagopolice.org/#directive/public/6607>
- ▶ Colorado State Patrol
- ▶ Dallas (TX) Police Department
<https://dallaspolice.net/resources/Shared%20Documents/General-Orders.pdf>
- ▶ Fayetteville (NC) Police Department*
<https://www.fayettevillenc.gov/Home/ShowDocument?id=16009>
- ▶ Florida Highway Patrol
<https://www.flhsmv.gov/pdf/fhp/policies/1705.pdf>

- ▶ Fresno (CA) Police Department
https://www.fresno.gov/police/wp-content/uploads/sites/5/2020/08/PolicyManual_Redacted-Chap-1-to-3.pdf
- ▶ Georgia Department of Public Safety
<https://dps.georgia.gov/document/publication/1702-pursuits-revision-april-7-2016pdf/download>
- ▶ Greenville (SC) Police Department
<https://www.greenvillesc.gov/DocumentCenter/View/9920/Vehicular-Pursuit?bidId=>
- ▶ Harris County (TX) Sheriff's Office*
<https://hcsopolicy.com/policy/803-vehicle-pursuits>
- ▶ Houston (TX) Police Department
https://www.houstontx.gov/police/general_orders/600/600-04%20Motor%20Vehicle%20Pursuits.pdf
- ▶ Illinois State Police
<https://police.illinoisstate.edu/downloads/transparency/Policy%20315%20Vehicle%20Pursuits.pdf>
- ▶ Iowa State Police
<https://www.policinginstitute.org/wp-content/uploads/2020/02/ISP-Pursuit-policy.pdf>
- ▶ Las Vegas (NV) Metropolitan Police Department
<https://nleomf.org/wp-content/uploads/2022/09/Code-3-Pursuit-Policy.pdf>
- ▶ Los Angeles (CA) Police Department
- ▶ Los Angeles County (CA) Sheriff's Department
<https://pars.lasd.org/Viewer/Manuals/10008/Content/12380#!>
- ▶ Maricopa County (AZ) Sheriff's Office
<https://www.mcso.org/home/showpublisheddocument/210/637751726652300000>
- ▶ Maryland State Police
<https://www.thechesapeake.com/wp-content/uploads/2019/03/Maryland-State-Police-Pursuit-Policy-OPS-09.02-Vehicle-Pursuits.pdf>
- ▶ Metropolitan (DC) Police Department
https://go.mpdonline.com/GO/GO_301_03.pdf

- ▶ Michigan State Police
<https://www.michigan.gov/msp/about-msp/departement-policies>
- ▶ Milwaukee (WI) Police Department
<https://city.milwaukee.gov/ImageLibrary/Groups/mpdAuthors/SOP/660-VEHICLEPURSUITSANDEMERGENCYVEHICLEOPERATIONS1.pdf>
- ▶ Minneapolis (MN) Police Department
<https://www.minneapolismn.gov/media/-www-content-assets/documents/MPD-Policy-and-Procedure-Manual.pdf>
- ▶ Minnesota State Patrol*
<https://www.minnpost.com/wp-content/uploads/2020/12/Pursuit-Policy-19-20-012.pdf>
- ▶ New Jersey State Police
<https://www.nj.gov/oag/force/docs/Vehicular-Pursuit-Policy-Addendum-12.15.20.pdf>
- ▶ New Orleans (LA) Police Department*
<https://nola.gov/getattachment/NOPD/NOPD-Consent-Decree/Chapter-41-5-Vehicle-Pursuits.pdf/>
- ▶ New York Police Department
https://www1.nyc.gov/assets/ccrb/downloads/pdf/investigations_pdf/pg221-15-vehicle-pursuits.pdf
- ▶ Ohio State Highway Patrol
- ▶ Oklahoma Highway Patrol
- ▶ Orlando (FL) Police Department
<https://www.orlando.gov/files/sharedassets/public/documents/opd/policies-and-procedures/police-operations/1120.13-vehicle-pursuits-and-apprehension.pdf>
- ▶ Philadelphia (PA) Police Department
<https://www.phillypolice.com/assets/directives/D9.4-VehicularPursuits.pdf>
- ▶ Rhode Island State Police
<https://risp.ri.gov/media/606/download?language=en>
- ▶ San Antonio (TX) Police Department
<https://www.sa.gov/files/assets/main/sapd/policy-and-procedures/620-vehicle-pursuits-and-stop-techniques-02-16-2023.pdf>
- ▶ St Paul (MN) Police Department
<https://www.stpaul.gov/sites/default/files/Media%20Root/Police/443.00%20Vehicle%20Pursuit%20Policy%20Clean.pdf>

- ▶ Tempe (AZ) Police Department
- ▶ Texarkana (TX) Police Department
<https://tx-texarkana.civicplus.com/DocumentCenter/View/2628/7131-Vehicle-Pursuits-PDF>
- ▶ U.S. Park Police
<https://www.nps.gov/aboutus/foia/upload/G-O-2205-Vehicular-Pursuits-06-08-18.pdf>
- ▶ U.S. Park Service
<https://www.nps.gov/aboutus/foia/upload/RM-9-redacted-V-2.pdf>
- ▶ Utah Department of Public Safety
- ▶ Vallejo (CA) Police Department*
[https://cdn5-hosted.civiclive.com/UserFiles/Servers/Server_16397369/Image/Public%20Information/Codes%20and%20Policies/RELEASE_20210921_T164033_Vallejo_PD_Policy_Manual%20\(1\).pdf](https://cdn5-hosted.civiclive.com/UserFiles/Servers/Server_16397369/Image/Public%20Information/Codes%20and%20Policies/RELEASE_20210921_T164033_Vallejo_PD_Policy_Manual%20(1).pdf)
- ▶ Vermont State Police
<https://public.powerdms.com/VSP/tree/documents/193656>
- ▶ Virginia Beach (VA) Police Department*
<https://www.vbgov.com/government/departments/police/Documents/10.04%20Vehicle%20Pursuits.pdf>
- ▶ Washington State Patrol

States covered

- | | | |
|-------------------------|--------------------|--------------------|
| 1. Arizona | 10. Maryland | 19. Pennsylvania |
| 2. California | 11. Michigan | 20. Rhode Island |
| 3. Colorado | 12. Minnesota | 21. South Carolina |
| 4. District of Columbia | 13. Nevada | 22. Texas |
| 5. Florida | 14. New Jersey | 23. Utah |
| 6. Georgia | 15. New York | 24. Vermont |
| 7. Illinois | 16. North Carolina | 25. Virginia |
| 8. Iowa | 17. Ohio | 26. Wisconsin |
| 9. Louisiana | 18. Oklahoma | 27. Washington |

Abbreviations, Acronyms, and Initialisms

ALPR	automated license plate reader	LEMAS	Law Enforcement Management and Administrative Statistics
AVL	automatic vehicle locator	LPR	license plate reader
BPD	Baltimore Police Department	MADD	Mothers Against Drunk Driving
CAD	computer-aided dispatch	MPD	Milwaukee Police Department
CALEA	Commission on Accreditation for Law Enforcement Agencies	NHTSA	National Highway Traffic Safety Administration
CDM	critical decision-making model	NIJ	National Institute of Justice
CIRB	Critical Incident Review Board	PERF	Police Executive Research Forum
COPS Office	Office of Community Oriented Policing Services	PIT	precision immobilization technique or pursuit intervention technique
DUI	driving under the influence	PRB	Performance Review Board
FARS	Fatality Analysis Reporting System	SUV	sport utility vehicle
FLETC	Federal Law Enforcement Training Center	TDD	tire deflation device
GPS	global positioning system	TRIPS	travel, reason, identity, plate, speed
IACP	International Association of Chiefs of Police	TTD	tagging and tracking device
ICAT	Integrating Communications, Assessment, and Tactics	UAS	unmanned aircraft systems
		WPSTC	Weapons and Protective Systems Technology Center of Excellence

References

- Ad Hoc Committee on Law Enforcement Pursuits. *Law Enforcement Pursuits in Georgia: Review and Recommendations*. Atlanta: Georgia Association of Chiefs of Police, 2006.
<https://gilee.gsu.edu/publications/blue-ribbon-commission-and-research-reports/>.
- AELE (Americans for Effective Law Enforcement). “Microlessons: An Overview on Developing Robust, Short, No-Cost Training.” Webinar. February 10, 2022.
<https://www.aeleoec.org/courses/webinar-microlessons-an-overview-on-developing-robust-short-no-cost-training/>.
- Alaban, Lloyd. “UPDATE: San Jose Approves Penalties for Encouraging Sideshow Spectators.” *San Jose Spotlight*, June 29, 2021. <https://sanjosespotlight.com/san-jose-considers-penalties-for-encouraging-sideshow-spectators/>.
- Alexandria (Virginia) Police Department. *Directive 10.11B Emergency Vehicle Pursuit*. Alexandria, VA: Alexandria Police Department, 2015.
<https://www.alexandriava.gov/police-department/police-department-directives>.
- Alpert, Geoffrey P. “Appendix 1. StarChase Report,” in *Pursuit Management: Fleeing Vehicle Tagging and Tracking Technology*, by Trevor A. Fischbach, Keo Hadsdy, and Amanda McCall, 54. Virginia Beach, VA: StarChase LLC, 2013. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/pursuit-management-fleeing-vehicle-tagging-and-tracking-technology>.
- Alpert, Geoffrey P. “Helicopters in Pursuit Operations.” *National Institute of Justice Research in Action*. Washington, DC: National Institute of Justice, 1998.
<https://www.ojp.gov/pdffiles/171695.pdf>.
- Alpert, Geoffrey P. “The Management of Police Pursuit Driving: Assessing the Risks.” In *Critical Issues in Policing, 2nd Edition*, edited by Roger G. Dunham and Geoffrey P. Alpert, 508–525. Prospect Heights, IL: Waveland Press, 1993.
- Alpert, Geoffrey P. “Police Pursuit: Policies and Training.” *NIJ Research in Brief*. Washington, DC: National Institute of Justice, 1997.
<https://nij.ojp.gov/library/publications/police-pursuit-policies-and-training-research-brief>.
- Alpert, Geoffrey P. “Questioning Police Pursuits in Urban Areas.” *Journal of Police Science and Administration* 15, no. 4 (1987), 298–306.
<https://www.ojp.gov/ncjrs/virtual-library/abstracts/questioning-police-pursuits-urban-areas>.
- Alpert, Geoffrey P., and Patrick R. Anderson. “The Most Deadly Force: Police Pursuits.” *Justice Quarterly* 3, no. 1 (1986), 1–14. <https://doi.org/10.1080/07418828600088761>.

- Alpert, Geoffrey P., and Roger G. Dunham. "Policing Hot Pursuits: The Discovery of Aleatory Elements." *Journal of Criminal Law and Criminology* 80, no. 2 (1989), 521–539. <https://doi.org/10.2307/1143803>.
- Alpert, Geoffrey P., and Roger G. Dunham. "Research on Police Pursuits: Applications for Law Enforcement." *American Journal of Police* 7, no. 2 (1988), 123–131. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/research-police-pursuits-applications-law-enforcement>.
- Alpert, Geoffrey P., Roger G. Dunham, and Meghan S. Stroshine. *Policing: Continuity and Change*. Long Grove, IL: Waveland Press, 2014.
- Alpert, Geoffrey P., Dennis J. Kenney, Roger G. Dunham, and William C. Smith. *Police Pursuits: What We Know*. Washington, DC: Police Executive Research Forum, 2000.
- Alpert, Geoffrey P., Dennis Jay Kenney, and Roger Dunham. "Police Pursuits and the Use of Force: Recognizing and Managing "The Pucker Factor"—A Research Note." *Justice Quarterly* 14, no. 2 (1997), 371–385. <https://doi.org/10.1080/07418829700093371>.
- Alpert, Geoffrey P., Dennis Kenney, Roger Dunham, William Smith, and Michael Cosgrove. *Police Pursuit and the Use of Force*. Washington, DC: National Institute of Justice, 1996. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/police-pursuit-and-use-force>.
- Alpert, Geoffrey P., and Cynthia Lum. *Police Pursuit Driving: Policy And Research*. New York: Springer Science & Business Media, 2014.
- Alpert, Geoffrey P., Jeff Rojek, and J. Andrew Hansen. 2013. *Building Bridges between Police Researchers and Practitioners: Agents of Change in a Complex World*. Washington, DC: National Institute of Justice, 2013. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/building-bridges-between-police-researchers-and-practitioners>.
- American Civil Liberties Union Foundation of Southern California. *Not Just Isolated Incidents: The Epidemic of Police Pursuits in Southern California*. Los Angeles: American Civil Liberties Foundation of Southern California, 1996.
- Aronie, Jonathan, and Geoffrey Alpert. "16 To A Dealer's 10: Could Blackjack Odds Help Inform Police Pursuit Policies?" *Police1*, March 2, 2020. <https://www.police1.com/police-products/pursuit-management-technology/articles/16-to-a-dealers-10-could-blackjack-odds-help-inform-police-pursuit-policies-Y9x2Avr8SWzJG1c4/>.
- Associated Press. "New Georgia Street Racing Law: Alleged Organizer Charged." June 13, 2021. <https://apnews.com/article/ga-state-wire-georgia-laws-f1290ad20f5eca2712c7a2daa69d897e>.
- Atlanta (Georgia) Police Department. *APD, SOP .3050 Pursuit Policy*. Atlanta, GA: Atlanta Police Department, 2021. <https://public.powerdms.com/APD13/list/documents/488599>.

- Auten, James H. *Police Pursuit Driving Operations in Illinois: 1990*. Champaign, IL: Police Training Institute, University of Illinois, 1991. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/police-pursuit-driving-operations-illinois-1990>.
- Baltimore (Maryland) Police Department. *Policy 724 Performance Review Board*. Baltimore, MD: Baltimore Police Department, 2022. <https://www.baltimorepolice.org/transparency/bpd-policies/724-performance-review-board-0>.
- Becknell, Conan, G. Larry Mays, and Dennis M. Giever. "Policy Restrictiveness and Police Pursuits." *Policing: An International Journal of Police Strategies and Management* 22, no. 1 (1999), 93–111. <https://doi.org/10.1108/13639519910256901>.
- Best, David, and Kate Eves. *Police Pursuits in Wales: The Results from a One-Year Monitoring Exercise in the Four Welsh Police Forces, 2002–2003*. London: Police Complaints Authority, 2004.
- Best, David, and Kate Eves. "Why Are There No Lessons Learned from Road Traffic Incidents Involving the Police?" *Criminology & Criminal Justice* 5, no. 1 (2005), 37–53. <https://doi.org/10.1177/1466802505050978>.
- BJA (Bureau of Justice Assistance). *Compstat: Its Origins, Evolution, and Future in Law Enforcement Agencies*. Washington, DC: Police Executive Research Forum, 2013. https://www.policeforum.org/assets/docs/Free_Online_Documents/Compstat/compstat%20-%20its%20origins%20evolution%20and%20future%20in%20law%20enforcement%20agencies%202013.pdf.
- BJS (Bureau of Justice Statistics). *Law Enforcement Management and Administrative Statistics (LEMAS), 2013*. Ann Arbor, MI: Inter-University Consortium for Political and Social Research, 2015. <https://doi.org/10.3886/ICPSR36164.v2>.
- BJS (Bureau of Justice Statistics). *Law Enforcement Management and Administrative Statistics (LEMAS), 2016*. Ann Arbor, MI: Inter-University Consortium for Political and Social Research, 2020. <https://doi.org/10.3886/ICPSR37323.v1>.
- Bocuzzi, Erica. *An Analysis of Police Pursuits in CT During 2019*. Master's Thesis. Fairfield, CT: Sacred Heart University, 2020. https://digitalcommons.sacredheart.edu/cj_theses/1/.
- Brewer, Neil, and Gerry McGrath. "Characteristics of Offenders in High-Speed Pursuits." *American Journal of Police* 10, no. 3 (1991), 63–68. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/characteristics-offenders-high-speed-pursuits>.
- Brooks, Connor. *Local Police Departments: Policies and Procedures, 2016: Personnel*. Statistical Brief. Washington, DC: Bureau of Justice Statistics, 2020. <https://bjs.ojp.gov/content/pub/pdf/lpdpp16.pdf>.

- Burbank, Hannah. "New Law Allows Police to Seize Vehicles Involved in Street Racing." CBS7, September 15, 2021. <https://www.cbs7.com/2021/09/15/new-law-allows-police-seize-vehicles-involved-street-racing/>.
- Burleson, Tracy, Emma Covelli, Steve Westerberg, and Mike Brady. *Effects of Electronic Stability Control on the Pursuit Intervention Technique*. Portland, OR: Portland Police Bureau, 2015. <https://www.valorforblue.org/Clearinghouse/329/Effects-of-Electronic-Stability-Control-on-the-Pursuit-Intervention-Technique>.
- Burlington (North Carolina) Police Department. *Policy 307 Vehicle Pursuits*. Burlington, NC: Burlington Police Department, 2020.
- California Highway Patrol. *Allied Agency Pursuit Report CHP 187A (Rev. 5-16) OPI 033*. Sacramento, CA: California Highway Patrol, 2016. <https://www.chp.ca.gov/Documents/Chp187A.pdf>.
- California Highway Patrol. *California Highway Patrol Report to the Legislature Senate Bill 719 Police Pursuits*. Sacramento, CA: California Highway Patrol, 2020. https://www.chp.ca.gov/Documents/Police_Pursuits_SB_719_%202020.pdf.
- California POST Commission (Commission on Peace Officer Standards and Training). *California Law Enforcement Vehicle Pursuit Guidelines 2022*. Sacramento, CA: California Commission on Peace Officer Standards and Training, 2022. <https://post.ca.gov/Publication-List>.
- California Vehicle Code §14602.1. Division 6. Drivers' Licenses, Chapter 4. Violation of License Provisions. 2006. https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH§ionNum=14602.1.
- Charlotte-Mecklenburg (North Carolina) Police Department. *Directive 600-022 Emergency Response and Pursuit Vehicle Operations*. Charlotte, NC: Charlotte-Mecklenburg Police Department, 2022. <https://www.charlottenc.gov/files/assets/police/documents/directives/cmpddirectives.pdf>.
- Cherbonneau, Michael, and Bruce A. Jacobs. "Imminent Capture and Noncompliance: Probing Deterrence in Extreme Environments." *Justice Quarterly* 36, no. 6 (2019), 1122–1143. <https://doi.org/10.1080/07418825.2018.1476577>.
- City of Charleston, South Carolina. "Critical Incident Briefing Videos." Accessed October 7, 2022. <https://www.charleston-sc.gov/2545/Critical-Incident-Briefing-Videos>.
- City of Charleston (South Carolina) Police Department. *General Order 27 Vehicle Pursuit*. Charleston, SC: City of Charleston Police Department, 2007. <https://public.powerdms.com/CPD5/documents/599971>.

- City of Milwaukee Fire and Police Commission. *2018 City of Milwaukee Fire and Police Commission Vehicle Pursuit Report*. Milwaukee, WI: City of Milwaukee Fire and Police Commission, 2018. <https://city.milwaukee.gov/ImageLibrary/Groups/cityFPC/Reports/Vehicle-Pursuit-Reports/2018VehiclePursuitReport.pdf>.
- College of Policing. “National Decision Model.” Last modified December 15, 2014. <https://www.college.police.uk/app/national-decision-model/national-decision-model>.
- Corley, Cheryl. “Juveniles Part of a Huge Increase in Carjackings Across the Country.” National Public Radio, February 10, 2021. <https://www.npr.org/2021/02/10/964609023/juveniles-part-of-a-huge-increase-in-carjackings-across-the-country>.
- Crew, Robert E., and Robert A. Hart. “Assessing the Value of Police Pursuit.” *Policing: An International Journal of Police Strategies and Management* 22, no. 1 (1999), 58–74. <https://doi.org/10.1108/13639519910256884>.
- Crew, Robert E., Jr. “An Effective Strategy for Hot Pursuit: Some Evidence from Houston.” *American Journal of Police* 11, no. 3 (1992), 89–95.
- Criminal Justice Commission. *Police Pursuits in Queensland Resulting in Death or Injury*. Brisbane, Australia: Queensland Police Service, 1998. <https://www.ccc.qld.gov.au/sites/default/files/Docs/Publications/CJC/Police-pursuits-in-qld-resulting-in-death-or-injury-Report-1998.pdf>.
- Dean, Bryan. “For County Sheriff, Police-Chase Issue Became Personal.” *The Oklahoman*, December 12, 2005. <https://www.oklahoman.com/story/news/2005/12/12/for-county-sheriff-police-chase-issue-became-personal/61911059007/>.
- Docking, Maria, Tom Bucke, Kerry Grace, and Helen Dady. *Police Road Traffic Incidents: A Study of Cases Involving Serious and Fatal Injuries*. London: Independent Police Complaints Commission, 2007.
- Dolan, Timothy J., Gregory W. Reinhardt, James R. Kobolt, Nicholas J. Laurent, Steven M. Volden, Kasey A. Tucker, and Candace Wilczynski. “Minneapolis Police Department Pursuit Study.” In *Law Enforcement Executive Forum: Critical Issues in Police Civil Liability*, ed. Thomas J. Jurkanin, 95–102. Macomb, IL: Western Illinois University, 2007. https://www.researchgate.net/profile/Carol-Archbold/publication/233980819_Police_liability_incidents_that_result_in_litigation_An_examination_of_the_causes_and_costs/links/5a7db616a6fdccc013f854fd/Police-liability-incidents-that-result-in-litigation-An-examination-of-the-causes-and-costs.pdf.
- Dunham, Roger G., and Geoffrey P. Alpert. “Understanding the Dynamics of Officer Age and Gender in Police Pursuits.” *American Journal of Police* 10, no. 3 (1991), 51–61. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/understanding-dynamics-officer-age-and-gender-police-pursuits>.

- Dunham, Roger G., Geoffrey P. Alpert, Dennis Jay Kenny, and Paul Cromwell. "High-Speed Pursuit: The Offenders' Perspective." *Criminal Justice and Behavior* 25, no. 1 (1998), 30–45. <https://doi.org/10.1177/0093854898025001003>.
- Fayetteville (North Carolina) Police Department. *Written Directive 4.2 Vehicle Operations and Pursuits*. Fayetteville, NC: Fayetteville Police Department, 2020. <https://www.fayettevillenc.gov/home/showdocument?id=16273>.
- Fennessy, Edmund F., Thomas Hamilton, K. B. Joscelyn, and J. S. Merrit. *A Study of the Problem of Hot Pursuit by the Police*. Washington, DC: U.S. Department of Transportation, 1970.
- Fennessy, Edmund F., Jr., and Kent B. Joscelyn. "A National Study of Hot Pursuit." *Denver Law Journal* 48 (1972), 389–403. <https://digitalcommons.du.edu/cgi/viewcontent.cgi?article=3455&context=dlr>.
- Fischbach, Trevor A., Keo Hadsdy, and Amanda McCall. *Pursuit Management: Fleeing Vehicle Tagging and Tracking Technology*. Virginia Beach, VA: StarChase LLC, 2013. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/pursuit-management-fleeing-vehicle-tagging-and-tracking-technology>.
- Gaither, Morgan, Mark Gabriele, Nancy Andersen, Sean Healy, and Vivian Hung. *Pursuit Technology Assessment, Version 1.1*. Laurel, MD: The Johns Hopkins University Applied Physics Laboratory, 2017. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/pursuit-technology-impact-assessment-version-11>.
- Gillooly, Jessica, Emily Owens, and Michael Mueller-Smith. *Measuring the Costs and Benefits Associated with Vehicle Pursuit Policies in Roanoke City and Roanoke County, VA*. New York: Policing Project at NYU School of Law, 2021. <https://www.policingproject.org/vehicle-pursuits-roanoke>.
- Goodison, Sean E., Jeremy D. Barnum, Michael J.D. Vermeer, Dulani Woods, Tatiana Lloyd-Dotta, and Brian A. Jackson. *Autonomous Road Vehicles and Law Enforcement*. Santa Monica, CA: RAND Corporation, 2020. https://www.rand.org/content/dam/rand/pubs/research_reports/RRA100/RRA108-4/RAND_RRA108-4.pdf.
- Graham v. Connor et al.* 490 U.S. 386 (1989). <https://www.loc.gov/item/usrep490386/>.
- Gramlich, John. "What We Know about the Increase in U.S. Murders in 2020." Pew Research Center, October 27, 2021. <https://www.pewresearch.org/fact-tank/2021/10/27/what-we-know-about-the-increase-in-u-s-murders-in-2020/>.
- H.R. Rep. No. 116-106 and S. Rep. No. 116.009. Incorporated by reference in the Joint Explanatory Statement to the Further Consolidated Appropriations Act, 2020, Pub. L. 116-94 (2019). <https://www.congress.gov/116/plaws/publ94/PLAW-116publ94.pdf>.

- Hannigan, M.J., and K.A. Hawkins. *The Evaluation of Risk: Initial Cause vs. Final Outcome in Police Pursuits*. Sacramento, CA: California Highway Patrol, 1995.
<https://www.ojp.gov/ncjrs/virtual-library/abstracts/evaluation-risk-initial-cause-vs-final-outcome-police-pursuits>.
- Harris County (Texas) Sheriff's Office. "416 – Unmanned Aircraft Systems (UAS)." Last modified August 27, 2021. <https://hcsopolicy.com/policy/416-unmanned-aircraft-systems-uas/>.
- Harris County (Texas) Sheriff's Office. "Policy 803—Vehicle Pursuits." Last modified February 19, 2021. <https://hcsopolicy.com/policy/803-vehicle-pursuits/>.
- Harris County (Texas) Sheriff's Office. *Vehicle Pursuits 2020 – An Upward Trend*. Houston, TX: Harris County Sheriff's Office, 2020.
- Harvard Law Review. "Fresh Pursuit from Indian Country: Tribal Authority to Pursue Suspects onto State Land." *Harvard Law Review* 129, no. 6 (2016), 1685–1708.
<https://harvardlawreview.org/print/vol-129/fresh-pursuit-from-indian-country-tribal-authority-to-pursue-suspects-onto-state-land/>.
- Hicks, Wendy L. "Police Vehicular Pursuits: An Overview of Research and Legal Conceptualizations For Police Administrators." *Criminal Justice Policy Review* 14, no. 1 (2003), 75–95.
<https://doi.org/10.1177/0887403402250925>.
- Hoffmann, Gabi. *Police Pursuits: A Law Enforcement and Public Safety Issue for Queensland*. Brisbane, Australia: Queensland Crime and Misconduct Commission, 2003.
<https://www.ccc.qld.gov.au/publications/police-pursuits-law-enforcement-and-public-safety-issue-queensland>.
- Hoffman, Kelsie. "Police: Officer Hits 12-Year-Old Girl During Chase, Car Had No Siren or Police Lights On." KSBW Action News 8, October 16, 2019. <https://www.ksbw.com/article/police-officer-hits-12-year-old-girl-during-chase-car-had-no-siren-or-police-lights-on/29483093#>.
- Hollway, John F., and Ben Grunwald. "Applying Sentinel Event Reviews to Policing." *Criminology & Public Policy* 18, no. 3 (2019), 705–730. <https://doi.org/10.1111/1745-9133.12457>.
- Homel, Ross J. *High Speed Police Pursuits in Perth: A Report to The Police Department of Western Australia*. Brisbane, Australia: Griffith University, 1990.
<https://research-repository.griffith.edu.au/handle/10072/29623>.
- Hutson, H. Range, Phillip L. Rice Jr., Jasroop K. Chana, Demetrios N. Kyriacou, Yuchiao Chang, and Robert M. Miller. "A Review of Police Pursuit Fatalities in the United States from 1982–2004." *Prehospital Emergency Care* 11, no. 3 (2007), 278–283.
<https://doi.org/10.1080/10903120701385414>.

- IACP (International Association of Chiefs of Police). *Model Policy: Law Enforcement-Researcher Collaborative Partnerships*. Alexandria, VA: International Association of Chiefs of Police, 2017. <https://www.theiacp.org/resources/policy-center-resource/research-partnerships>.
- IACP (International Association of Chiefs of Police). *Vehicular Pursuits*. Alexandria, VA: International Association of Chiefs of Police, 2019. <https://www.theiacp.org/iacp-law-enforcement-policy-center>.
- Illinois State Police. *Directive OPS-003, Vehicle Pursuits and Forcible Vehicle Stops*. Springfield, IL: Illinois State Police, 2023. <https://isp.illinois.gov/StaticFiles/docs/DepartmentDirectives/OPS-003%20DIR.pdf>.
- Kenney, Dennis Jay, and Geoffrey P. Alpert. "A National Survey of Pursuits and the Use of Police Force: Data from Law Enforcement Agencies." *Journal of Criminal Justice* 25, no. 4 (1997), 315–323. [https://doi.org/10.1016/S0047-2352\(97\)00016-0](https://doi.org/10.1016/S0047-2352(97)00016-0).
- KTVU Fox 2 San Francisco. "Vallejo Police Chief Calls Sideshows 'Street Terrorism.'" YouTube, September 29, 2021. <https://www.youtube.com/watch?v=OwVCxAgFd70>.
- La Vigne, Nancy G., Samantha S. Lowry, Allison M. Dwyer, and Joshua A. Markman. *Using Public Surveillance Systems for Crime Control and Prevention: A Practical Guide for Law Enforcement and Their Municipal Partners*. Washington, DC: Office of Community Oriented Policing Services, 2011. <https://cops.usdoj.gov/RIC/ric.php?page=detail&id=COPS-P211>.
- Langton, Lynn. "Engaging in a More Complete Assessment of the Operations of Airborne Police Units: A Research Note." *Police Practice and Research* 15, no. 1 (2014), 17–34. <https://doi.org/10.1080/15614263.2012.695554>.
- Las Vegas (Nevada) Metropolitan Police Department. *Policy 3.110 Use of Force Policy*. Las Vegas, NV: Las Vegas Metropolitan Police Department, 2021. <https://www.lvmpd.com/en-us/Documents/Use%20of%20Force%20Policy%20082422.pdf>.
- Lewis, Becky. "Studying How to Maneuver Suspects to a Stop." *TechBeat* (Spring 2013), 8–9. <https://www.ojp.gov/pdffiles1/nij/nlectc/241848.pdf>.
- Lie, Anders, Claes Tingvall, Maria Krafft, and Anders Kullgren. "The Effectiveness of Electronic Stability Control (ESC) in Reducing Real Life Crashes and Injuries." *Traffic Injury Prevention* 7, no. 1 (2006), 38–43. <https://doi.org/10.1080/15389580500346838>.
- LoJack by Spireon. "Working Together to Recovery [sic] Vehicles." Accessed March 29, 2023. <https://lojack.com/for-law-enforcement/>.
- Lum, Cynthia, and George Fachner. *Police Pursuits in an Age of Innovation and Reform: the IACP Police Pursuit Database*. Alexandria, VA: International Association of Chiefs of Police, 2008. <https://www.theiacp.org/sites/default/files/all/p-r/Police%20Pursuit.pdf>.

- Lum, Cynthia, Christopher S. Koper, James Willis, Stephen Happeny, Heather Vovak, and Jordan Nichols. "The Rapid Diffusion of License Plate Readers in U.S. Law Enforcement Agencies." *Policing: An International Journal* 42, no. 3 (2019), 376–393.
<https://doi.org/10.1108/PIJPSM-04-2018-0054>.
- Lyneham, Mathew, and Alana Hewitt-Rau. "Motor Vehicle Pursuit-Related Fatalities in Australia, 2000–11." *Trends & Issues in Crime and Criminal Justice* 452 (2013).
<https://www.aic.gov.au/publications/tandi/tandi452>.
- Maricopa County (Arizona) Sheriff's Office. *Policy CP-4 Emergency and Pursuit Driving*. Phoenix, AZ: Maricopa County Sheriff's Office, 2021.
<https://www.mcso.org/home/showpublisheddocument/210/637751726652300000>.
- Martin, Jeff. "Pursuit Termination." *Law and Order* 49, no. 7 (2001), 32.
<https://www.ojp.gov/ncjrs/virtual-library/abstracts/pursuit-termination>.
- Maryland State Police. *Operations Directive 09.02 Vehicle Pursuits*. Annapolis, MD: Maryland State Police, 2020.
- Minnesota State Patrol. *General Order 19-20-012 Motor Vehicle Pursuit*. Saint Paul: Minnesota State Patrol, 2019.
<https://www.minnpost.com/wp-content/uploads/2020/12/Pursuit-Policy-19-20-012.pdf>.
- Moreno, Ivan. "Milwaukee Police Officer Killed in Crash During Pursuit." *Police1*, June 8, 2018.
<https://www.police1.com/officer-down/milwaukee-police-officer-killed-in-crash-during-pursuit-1H2uYI8ZhClcULO4/>.
- Morris, Nicole, and Curtis Craig. *Understanding the Nature of Vehicle Pursuits*. Minneapolis: University of Minnesota, 2020.
<https://www.cts.umn.edu/research/project/understanding-the-nature-of-vehicle-pursuits>.
- National Center for Statistics and Analysis. *Motorcycles: 2019 Data*. Washington, DC: National Highway Traffic Safety Administration, 2021.
<https://crashstats.nhtsa.dot.gov/Api/Public/Publication/813112>.
- New Jersey Office of the Attorney General. *Use of Force Policy Addendum B: Vehicular Pursuit Policy*. Trenton: New Jersey Department of Law & Public Safety, 2020.
<https://www.njoag.gov/force/>.
- New Orleans (Louisiana) Police Department. *Chapter 41.5 Vehicle Pursuits*. New Orleans, LA: New Orleans Police Department, 2015. <https://nola.gov/getattachment/NOPD/NOPD-Consent-Decree/Chapter-41-5-Vehicle-Pursuits.pdf/>.

- New Zealand Police. "Investigation into Dirt Bikes and Street Racing Sees Almost 100 Vehicles Impounded, More than 100 People Charged." Last modified January 14, 2022. <https://www.police.govt.nz/news/release/investigation-dirt-bikes-and-street-racing-sees-almost-100-vehicles-impounded-more-100>.
- NHTSA (National Highway Traffic Safety Administration). *Fatality Analysis Reporting System (FARS): 2015–2020 Final File*. Washington, DC: National Highway Traffic Safety Administration, 2022. <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>.
- NHTSA (National Highway Traffic Safety Administration). "NHTSA Early Estimates Show Record Increase in Fatalities Nationwide." Press release, August 17, 2022. <https://www.nhtsa.gov/press-releases/early-estimates-first-quarter-2022>.
- NHTSA (National Highway Traffic Safety Administration). "Teen Driving." Accessed April 29, 2021. <https://www.nhtsa.gov/road-safety/teen-driving#resources>.
- NIJ (National Institute of Justice). *Mending Justice: Sentinel Event Reviews*. Washington, DC: National Institute of Justice, 2014. <https://www.ojp.gov/pdffiles1/nij/247141.pdf>.
- NIJ (National Institute of Justice). *Paving the Way: Lessons Learned in Sentinel Event Reviews*. Washington, DC: National Institute of Justice, 2015. <https://www.ojp.gov/pdffiles1/nij/249097.pdf>.
- NIJ (National Institute of Justice). "Technology for Pursuit Management." Last modified March 3, 2013. <https://nij.ojp.gov/topics/articles/technology-pursuit-management>.
- Nugent, Hugh, Edward F. Connors III, J. Thomas McEwen, and Lou Mayo. *Restrictive Policies for High-speed Police Pursuits*. Alexandria, VA: Institute for Law and Justice, Inc., 1990. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/restrictive-policies-high-speed-police-pursuits>.
- Office of Professional Standards. *2020 Internal Affairs Report*. Charleston, SC: City of Charleston Police Department, 2020. <https://www.charleston-sc.gov/DocumentCenter/View/30118/2020-Internal-Affairs-Annual-Report>.
- Ohio Attorney General's Advisory Group on Law Enforcement Vehicular Pursuits. *Special Report*. Columbus: Ohio Attorney General's Advisory Group on Law Enforcement Vehicular Pursuits, 2016. <https://www.ohioattorneygeneral.gov/Law-Enforcement/Advisory-Group-on-Law-Enforcement-Vehicular-Pursui>.
- OnStar. "Not So Fast, Car Thieves." Accessed March 29, 2023. <https://www.onstar.com/services/stolen-vehicle-assistance>.

- Orlando (Florida) Police Department. *Policy and Procedure 1120.14 Vehicle Pursuits and Apprehension*. Orlando, FL: Orlando Police Department, 2022.
<https://www.orlando.gov/files/sharedassets/public/documents/opd/policies-and-procedures/police-operations/1120.14-vehicle-pursuits-and-apprehension.pdf>
- Parker, Kim, and Kiley Hurst. “Growing Share of Americans Say They Want More Spending on Police in Their Area.” Pew Research Center. Last modified October 26, 2021.
<https://www.pewresearch.org/fact-tank/2021/10/26/growing-share-of-americans-say-they-want-more-spending-on-police-in-their-area/>.
- Patinkin, Howard P., and Harry Bingham. “Police Motor Vehicle Pursuits: The Chicago Experience.” *Police Chief* 53, no. 7 (1986), 61–62.
- Payne, Dennis M., and John C. Fenske. “An Analysis of the Rates of Accidents, Injuries and Fatalities under Different Light Conditions: A Michigan Emergency Response Study of State Police Pursuits.” *Policing: An International Journal of Police Strategies & Management* 20, no. 2 (1997), 357–373. <https://doi.org/10.1108/13639519710169180>.
- PERF (Police Executive Research Forum). *Guiding Principles on Use of Force*. Critical Issues in Policing. Washington, DC: Police Executive Research Forum, 2016.
<https://www.policeforum.org/assets/30%20guiding%20principles.pdf>.
- PERF (Police Executive Research Forum). *ICAT Module 2: The Critical Decision-Making Model*. Washington, DC: Police Executive Research Forum, 2016.
https://www.policeforum.org/assets/ICAT/Module%202_website.pdf.
- PERF (Police Executive Research Forum). “PERF Daily Critical Issues Report.” June 22, 2020.
<https://www.policeforum.org/criticalissuesjune22>.
- Pfeiffer, Michael A., and Geoffrey P. Alpert. “Developing Methodology for Finding Ghosted Police Vehicle Pursuits.” *Translational Criminology* (Spring 2020), 17–19.
<https://cebcp.org/wp-content/uploads/2020/04/TC18-Spring2020.pdf>.
- Queally, James, and Nicole Santa Cruz. “Out of Control.” *Los Angeles Times*, March 16, 2018.
<https://www.latimes.com/projects/la-me-street-racing/>.
- Queally, James, and Richard Winton. “Street Racers are Taking Over California Roads Emptied by Coronavirus.” *Los Angeles Times*, April 22, 2020. <https://www.latimes.com/california/story/2020-04-22/speed-over-social-distancing-the-coronavirus-isnt-slowng-street-racers>.

- Ratcliffe, Jerry H., Matthew Lattanzio, George Kikuchi, and Kevin Thomas. "A Partially Randomized Field Experiment on the Effect of an Acoustic Gunshot Detection System on Police Incident Reports." *Journal of Experimental Criminology* 15, no. 1 (2019), 67–76. <https://link.springer.com/article/10.1007/s11292-018-9339-1>.
- Raviv, Shaun. "Fast, Precise, and Deadly: How Police Use a Dangerous Anti-Terrorism Tactic to End Pursuits." *The Intercept*, February 11, 2016. <https://theintercept.com/2016/02/11/pit-maneuver-how-police-use-anti-terrorism-tactic-to-end-pursuits/>.
- Raviv, Shaun, and John Sullivan. "Deadly Force Behind the Wheel." *The Washington Post*, August 24, 2020. <https://www.washingtonpost.com/graphics/2020/investigations/pit-maneuver-police-deaths/>.
- RCW 10.116.060 Vehicular Pursuit (2021 c 320 § 7). 2021. <https://app.leg.wa.gov/RCW/default.aspx?cite=10.116.060>.
- Reaves, Brian A. *Local Police Departments, 2013: Personnel, Policies, and Practices*. Washington, DC: Bureau of Justice Statistics, 2015. <https://bjs.ojp.gov/library/publications/local-police-departments-2013-personnel-policies-and-practices>.
- Reaves, Brian A. *Police Vehicle Pursuits, 2012–2013*. Washington, DC: Bureau of Justice Statistics, 2017. <https://bjs.ojp.gov/library/publications/police-vehicle-pursuits-2012-2013>.
- Reaves, Brian A. *Tribal Law Enforcement, 2008*. Washington, DC: Bureau of Justice Statistics, 2011. <https://www.ojp.gov/library/publications/tribal-law-enforcement-2008>.
- Rivara, Frederick P., and Christopher D. Mack. "Motor Vehicle Crash Deaths Related to Police Pursuits in the United States." *Injury Prevention* 10, no. 2 (2004), 93–95. <http://dx.doi.org/10.1136/ip.2003.004853>.
- Rosenfeld, Richard, and Ernesto Lopez. *Pandemic, Social Unrest, and Crime in U.S. Cities*. Washington, DC: Council on Criminal Justice, 2020. <https://counciloncj.org/impact-report-covid-19-and-crime-2/>.
- San Diego Municipal Code, Chapter 5, Article 2, Division 52. "Spectators Prohibited at Illegal Speed Contests or Exhibitions of Speed." 2002. <https://docs.sandiego.gov/municode/MuniCodeChapter05/Ch05Art02Division52.pdf>.
- San Diego Municipal Code, Chapter 5, Article 2, Division 53. "Forfeiture of Nuisance Vehicles Engaged in Motor Vehicle Speed Contests or Exhibitions of Speed." 2003. <https://docs.sandiego.gov/municode/MuniCodeChapter05/Ch05Art02Division53.pdf>.

- Schultz, David P., Ed Hudack, and Geoffrey P. Alpert. "Evidence-Based Decisions on Police Pursuits: The Officer's Perspective." *FBI Law Enforcement Bulletin*, March 1, 2010. <https://leb.fbi.gov/articles/featured-articles/evidence-based-decisions-on-police-pursuits-the-officers-perspective>.
- Senese, Jeffrey D., and Thomas Lucadamo. "To Pursue or Not Pursue? That Is the Question: Modeling Police Vehicular Pursuits." *American Journal of Police* 15, no. 4 (1996), 55–77. <https://doi.org/10.1108/07358549610151816>.
- Seward, Larry. "Meet 'Maverick' and 'Goose': Precinct 5's Crime-Fighting Drones." KHOU 11. Last modified January 7, 2020. <https://www.khou.com/article/news/local/meet-maverick-and-goose-precinct-5s-crime-fighting-drones/285-44cf1514-150f-44e1-b164-632369d64749>.
- Seyfried, David. *An Evidence Based Evaluation of the Effectiveness of Continuous In-Service Police Pursuit Training in Minnesota*. PhD dissertation. Grand Forks: University of North Dakota, 2012. <https://commons.und.edu/cgi/viewcontent.cgi?article=2321&context=theses>.
- Shute, R., M.N. Parsons, L. Miller, M. Camello, M. Mecray, and M. Planty. *Vehicle Stoppage and Pursuit Management for Law Enforcement Agencies: Enabling Safer and Faster Resolutions through Policy and Technology*. Washington, DC: National Institute of Justice, 2022. <https://cjtec.org/vehicle-stoppage-and-pursuit-management-for-law-enforcement-agencies/>.
- Statista. "Reported Violent Crime Rate in the United States from 1990 to 2021." Last modified October 10, 2022. <https://www.statista.com/statistics/191219/reported-violent-crime-rate-in-the-usa-since-1990/>.
- Stevens, Alexis. "Atlanta Police Chief Halts All Vehicle Chases." *Atlanta Journal Constitution*, January 3, 2020. <https://www.ajc.com/news/crime--law/breaking-atlanta-police-chief-halts-all-vehicle-chases/Oa9YietoId748P8VdQrh7I/>.
- Stockton Municipal Code Title 10, Chapter 10.56, §10.56.030. "Spectator at Illegal Speed Contest, Sideshow, Motorcycle Stunt Event, or Exhibitions of Speed—Violation." 2022. https://library.qcode.us/lib/stockton_ca/pub/municipal_code/item/title_10-chapter_10_56-10_56_030.
- Stop Stick, Ltd. *Guidelines for Use of Stop Stick: Instructor Lesson Plan Issue No. 9*. Harrison, OH: Stop Stick, Ltd., 2016. https://stopstick.com/wp-content/uploads/StopStick_ILP_3-23-16.pdf.
- Stoughton, Seth W., Jeffrey J. Noble, and Geoffrey P. Alpert. *Evaluating Police Uses of Force*. New York: New York University Press, 2020.
- Syed, Matthew. *Black Box Thinking: Why Most People Never Learn from Their Mistakes—But Some Do*. London: Penguin, 2015.

- Tefft, Brian C., Leon Villavicencio, Aaron Benson, Lindsay Arnold, Woon Kim, Victoria Añorve, and William J. Horrey. *Self-Reported Risky Driving in Relation to Changes in Amount of Driving during the COVID-19 Pandemic*. Research Brief. Washington, DC: AAA Foundation for Traffic Safety, 2022. <https://aaafoundation.org/self-reported-risky-driving-in-relation-to-changes-in-amount-of-driving-during-the-covid-19-pandemic/>.
- Tempe (Arizona) Police Department. *Order 07.103 Pursuits & Emergency Code 3 Response*. Tempe, AZ: Tempe Police Department, 2021.
- Tiesman, Hope M., Melody Gwilliam, Jeff Rojek, Scott Hendricks, Brian Montgomery, and Geoff Alpert. "The Impact of a Crash Prevention Program in a Large Law Enforcement Agency." *American Journal of Industrial Medicine* 62, no. 10 (2019), 847–858. <https://doi.org/10.1002/ajim.23032>.
- Tiesman, Hope M., and Rebecca J. Heick. *Law Enforcement Officer Motor Vehicle Safety: Findings from A Statewide Survey*. Cincinnati, OH: U.S. Department of Health and Human Services, 2014. <https://stacks.cdc.gov/view/cdc/26008>.
- Tortorell, Pete and Rick D. Giovengo. "Electronic Stability Control and the Precision Immobilization Technique." *Federal Law Enforcement Training Centers Training Research*, 2017. <https://www.fletc.gov/sites/default/files/ARB%20Newsletter-2017-1%20PrintVersion10-030317%20%28002%29.pdf>.
- Uleski, Michael. "How Unmanned Aerial Systems Can Assist Police Pursuits." *Police1.com*, March 19, 2018. <https://www.police1.com/police-products/police-drones/articles/how-unmanned-aerial-systems-can-assist-police-pursuits-4s3K7BXNHqOKyp6V/>.
- Utah Department of Public Safety. *Policy 614 Vehicle Pursuits*. Salt Lake City: Utah Department of Public Safety, 2021.
- Vallejo (California) Police Department. "Chief's Advisory Board." Accessed March 30, 2023. https://vallejopd.net/community/boards_programs/chiefs_advisory_board.
- Vallejo (California) Police Department. *Policy 308 Vehicle Pursuits*. Vallejo, CA: Vallejo Police Department, 2021. <https://www.vallejopd.net/common/pages/DisplayFile.aspx?itemId=18101732>.
- Victoria Police. *Inspectorate Review 20/2011 Evaluation of Pursuits Final Report*. Victoria, Australia: Victoria Police, n.d. https://www.police.vic.gov.au/sites/default/files/2019-01/Pursuit-Report-Final-Version_0.pdf.
- Virginia Beach (Virginia) Police Department. *Operational General Order 10.04 Biased*. Virginia Beach, VA: Virginia Beach Police Department, 2020. <https://www.vbgov.com/government/departments/police/Documents/10.04%20Vehicle%20Pursuits.pdf>.

- Wade, Lee Miller. *Chasing Until the Wheels Fall Off: Developing a Typology of High-Risk Police Pursuits in Georgia*. PhD dissertation. Hattiesburg, MS: University of Southern Mississippi, 2012. <https://aquila.usm.edu/cgi/viewcontent.cgi?article=1880&context=dissertations>.
- Wells, L. Edward, and David N. Falcone. "Research on Police Pursuits: Advantages of Multiple Data Collection Strategies." *Policing: An International Journal of Police Strategies & Management* 20, no. 4 (1997), 729–748. <https://doi.org/10.1108/13639519710368125>.
- Wexler, Chuck. "Don't Revert to Police Pursuits that Endanger the Public." *Milwaukee Journal Sentinel*, August 6, 2017. <https://www.jsonline.com/story/opinion/contributors/2017/08/06/wexler-dont-revert-police-pursuits-endanger-public/536438001/>.
- Wexler, Chuck. "How Do We Get Out of this Mess? Here's A First Step." Police Executive Research Forum. Last modified August 29, 2020. <https://www.policeforum.org/trendingaugust29>.
- Wexler, Chuck. "PERF Members Tell Me They Agree That Policing Needs 'Monday-Morning Quarterbacking.'" Police Executive Research Forum. Last modified September 5, 2020. <https://www.policeforum.org/trendingsep5>.
- Whalen, Michael. *Police Pursuits: Managing Risk and Providing Accountability with a Well-Drafted Pursuit Policy*. Plantsville, CT: Daigle Law Group, LLC, n.d. <https://daiglelawgroup.com/wp-content/uploads/2017/09/Police-Pursuits-Managing-Risk-and-Providing-Accountability-with-a-Well-Drafted-Pursuit-Policy.pdf>.
- Williams, Frederick A., Jr. *A Contemporary Trend Analysis of Kentucky State Police Vehicular Pursuit Related Collisions and Injuries*. PhD dissertation. Louisville, KY: University of Louisville, 2019. <https://ir.library.louisville.edu/etd/3205/>.
- Winton, Richard, and Julia Wick. "Street Racing Surged During the Pandemic: L.A. Now Wants to Crack Down." *Los Angeles Times*, October 20, 2021. <https://www.latimes.com/california/story/2021-10-20/la-city-council-street-racing-crackdown>.
- Wolfe, Scott E., Jeff Rojek, Geoffrey Alpert, Hope M. Tiesman, and Stephen M. James. "Characteristics of Officer-Involved Vehicle Collisions in California." *Policing: An International Journal of Police Strategies & Management* 38, no. 3 (2015), 458–477. <https://doi.org/10.1108/PIJPSM-03-2015-0029>.
- Worrall, John L., and Stephen G. Tibbetts. "Explaining San Diego's Decline in Illegal Street-Racing Casualties." *Justice Quarterly* 23, no. 4 (2006), 530–544. <https://doi.org/10.1080/07418820600985370>.
- Zhou, Jing, Jianbo Lu, and Huei Peng. "Vehicle Dynamics in Response to the Maneuver of Precision Immobilization Technique." *Proceedings of the ASME 2008 Dynamic Systems and Control Conference*, 577–584. <https://doi.org/10.1115/DSCC2008-2183>.

About PERF

The **Police Executive Research Forum (PERF)** is an independent research organization that focuses on critical issues in policing. Since its founding in 1976, PERF has identified best practices on fundamental issues such as police use of force; developing community policing and problem-oriented policing; using technologies to deliver police services to the community; and evaluating crime reduction strategies.

PERF strives to advance professionalism in policing and to improve the delivery of police services through the exercise of strong national leadership, public debate of police and criminal justice issues, and research and policy development.

In addition to conducting research and publishing reports on our findings, PERF conducts management studies of individual law enforcement agencies; educates hundreds of police officials each year in the Senior Management Institute for Police, a three-week executive development program; and provides executive search services to governments that wish to conduct national searches for their next police chief.

All of PERF's work benefits from PERF's status as a membership organization of police officials, who share information and open their agencies to research and study. PERF members also include academics, federal government leaders, and others with an interest in policing and criminal justice.

All PERF members must have a four-year college degree and must subscribe to a set of founding principles, emphasizing the importance of research and public debate in policing, adherence to the Constitution and the highest standards of ethics and integrity, and accountability to the communities that police agencies serve.

PERF is governed by a member-elected President and Board of Directors and a Board-appointed Executive Director.

To learn more, visit PERF online at www.policeforum.org.

About the COPS Office

The **Office of Community Oriented Policing Services (COPS Office)** is the component of the U.S. Department of Justice responsible for advancing the practice of community policing by the nation's state, local, territorial, and tribal law enforcement agencies through information and grant resources.

Community policing begins with a commitment to building trust and mutual respect between police and communities. It supports public safety by encouraging all stakeholders to work together to address our nation's crime challenges. When police and communities collaborate, they more effectively address underlying issues, change negative behavioral patterns, and allocate resources.

Rather than simply responding to crime, community policing focuses on preventing it through strategic problem-solving approaches based on collaboration. The COPS Office awards grants to hire community policing officers and support the development and testing of innovative policing strategies. COPS Office funding also provides training and technical assistance to community members and local government leaders, as well as all levels of law enforcement.

Since 1994, the COPS Office has been appropriated more than \$20 billion to add community policing officers to the nation's streets, enhance crime fighting technology, support crime prevention initiatives, and provide training and technical assistance to help advance community policing. Other achievements include the following:

- To date, the COPS Office has funded the hiring of approximately 136,000 additional officers by more than 13,000 of the nation's 18,000 law enforcement agencies in both small and large jurisdictions.
- More than 800,000 law enforcement personnel, community members, and government leaders have been trained through COPS Office-funded training organizations and the COPS Training Portal.
- Almost 800 agencies have received customized advice and peer-led technical assistance through the COPS Office Collaborative Reform Initiative Technical Assistance Center.
- To date, the COPS Office has distributed more than eight million topic-specific publications, training curricula, white papers, and resource CDs and flash drives.

The COPS Office also sponsors conferences, roundtables, and other forums focused on issues critical to law enforcement. COPS Office information resources, covering a wide range of community policing topics such as school and campus safety, violent crime, and officer safety and wellness, can be downloaded via the COPS Office's home page, <https://cops.usdoj.gov>.

The COPS Office and the National Highway Traffic Safety Administration (NHTSA) collaborated with the Police Executive Research Forum to develop this resource to help law enforcement agencies manage the risks of conducting and not conducting vehicular pursuits. This guide uses findings from NHTSA research and other credible institutions on crashes and collisions involving police pursuits as well as focus group discussions and review of 48 agencies' policies to provide safety information and model policies to encourage the development of safer vehicular pursuits. It includes 65 recommendations that agencies of all sizes and circumstances can consider to develop or refine their vehicular pursuit policies.



COPS

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