ITS AMERICA

V2X: A Cyclist's Co-Pilot

V2X, otherwise known as Vehicle-to-Everything, is a technology which allows vehicles to communicate with their surroundings. V2X communications systems are mainly used for the **purpose of increasing safety and preventing collisions** through a number of applications. These applications provide drivers with instant, highly accurate alerts (basic safety messages shared 10 times a second from the vehicles or immediately from nearby pedestrian or cyclists) so that the driver can take action to avoid a crash or reduce the severity of injuries or damage to vehicles and infrastructure. NHTSA has estimated that this technology will decrease the frequency and severity of non-impaired road **crashes by up to 80%**. USDOT, NHTSA, city and state DOTs, and a wide-ranging coalition of safety groups have recognized the value of this tool for averting fatalities and injuries on our roads.

SUPPORTING CYCLISTS IS CENTRAL TO ITS AMERICA'S VISION OF MAKING OUR TRANSPORTATION SYSTEM SAFER, GREENER, AND SMARTER.

SAFER
Evidence suggests that high-bicycling-mode-share cities are not only safer for cyclists **but for all road users**.

GREENER
Cycling produces **no pollution** and consumes no fossil fuel.

SMARTER
Shifts to cycling have been shown to **decrease general traffic congestion**.

6.3%
increase in cyclist fatalities from 2017.

CURRENT THREATS TO CYCLISTS

The 2018 number of cyclist fatalities is the **highest since 1990 (859 fatalities)** and represented a **6.3% increase from 2017**. These fatalities often occurred after dark – 50% of the time. Many drivers do not practice adequate scans of the road to foster awareness of non-car road users. Often times, cyclists are struck in intersections by motorists who fail to give way when they turn across oncoming traffic.

BRIDGING THE GAP BETWEEN AUTOMATED VEHICLES & CYCLISTS

While automated vehicle technology continues to develop and move closer to deployment, it is important that connected vehicle technology be paired with automation to ensure robust safety measures for cyclists. V2X technologies enable applications that cannot be performed by un-connected automated vehicles. V2X complements sensors by providing information that is more precise, over longer ranges, and in non-line-of-sight conditions.

HOW DOES V2X SUPPORT BICYCLIST SAFETY?

V2X can provide a **warning to a driver in low light conditions**, when many bicyclists and pedestrian are hit due to poor visibility. It can provide **a warning to a driver when line of sight is obscured**, such as on a windy road or when there are parked cars obscuring a crossing, provide a notification to infrastructure to **improve signal timing, providing time for a person biking or walking** to safely cross an intersection, and **improve the operation of advanced safety features**, such as Forward Collision Warning, Automated Emergency Braking, Blind Spot Detection, or Intelligent Speed Assistance by providing real-time information to vehicle systems.

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THREAT TO V2X

The FCC is trying to take away **45 MHz of the 75 MHz of spectrum allocated to V2X** technologies within the 5.9 GHz band in order to free that spectrum up for Wi-Fi.

Secretary of Transportation Elaine Chao wrote that the FCC plan "**jeopardizes the significant transportation safety benefits** that the allocation of this Band was meant to foster." USDOT testing indicates that the **30 MHz may be unusable for V2X** because of interference from the use of unlicensed devices in the lower 45 MHz.

Without this spectrum, applications which support cyclist safety will be curtailed, critically weakening a promising tool to reduce cyclist fatalities on our roads.

WHAT YOU CAN DO TO HELP PRESERVE V2X

Submit a **comment to the FCC** on behalf of your organization or as an individual, and support comments being submitted by the **League of American Bicyclists** on this issue.

Talk to your member of Congress about the importance of preserving the 5.9 GHz Safety Spectrum for transportation safety purposes.

Support **policy in the reauthorization of the FAST Act** that makes clear the 5.9 GHz band is preserved for existing, new, and developing V2X technologies that send hazard alerts to infrastructure, motorists, cyclists, pedestrians, and other transportation system users and hold the promise to enhance automated driving systems.

CYCLING GROUPS OPPOSED TO THE FCC'S PLAN

- League of American Bicyclists
- East Coast Greenway
- Bicycle Advocacy of Central Arkansas
- Calif. Assoc. of Bicycling Organizations
- San Diego County Bicycling Coalition
- BikeWalkSolana
- Florida Bicycle Association
- Georgia Bikes
- Treasure Valley Safe Routes to School Program
- Ride Illinois

- Hawaii Bicycling League
- Friends of Cycling in Elk Grove
- Bicycle Indiana
- Bicyclists of Iowa City
- MassBike
- Bicycle Alliance of Minnesota
- Missouri Bicycle & Pedestrian Federation
- BikeWalkKC
- New Jersey Bike & Walk Coalition
- Law Office of Diane Albert
- Long Island Streets Inc.

- West Virginia Connecting Communities
- Po Campo Company
- Transportation Alternatives
- Bike Cleveland
- Bicycle Coalition of Greater Philadelphia
- Bike Pittsburgh
- Palmetto Cycling Coalition
- Walk/Bike Nashville
- Local Motion
- Virginia Bicycling Federation
- Cascade Bicycle Club
- Wyoming Pathways