

CAT[®] DETECT

PEOPLE DETECTION

ENHANCE OPERATOR AWARENESS AND SAFETY

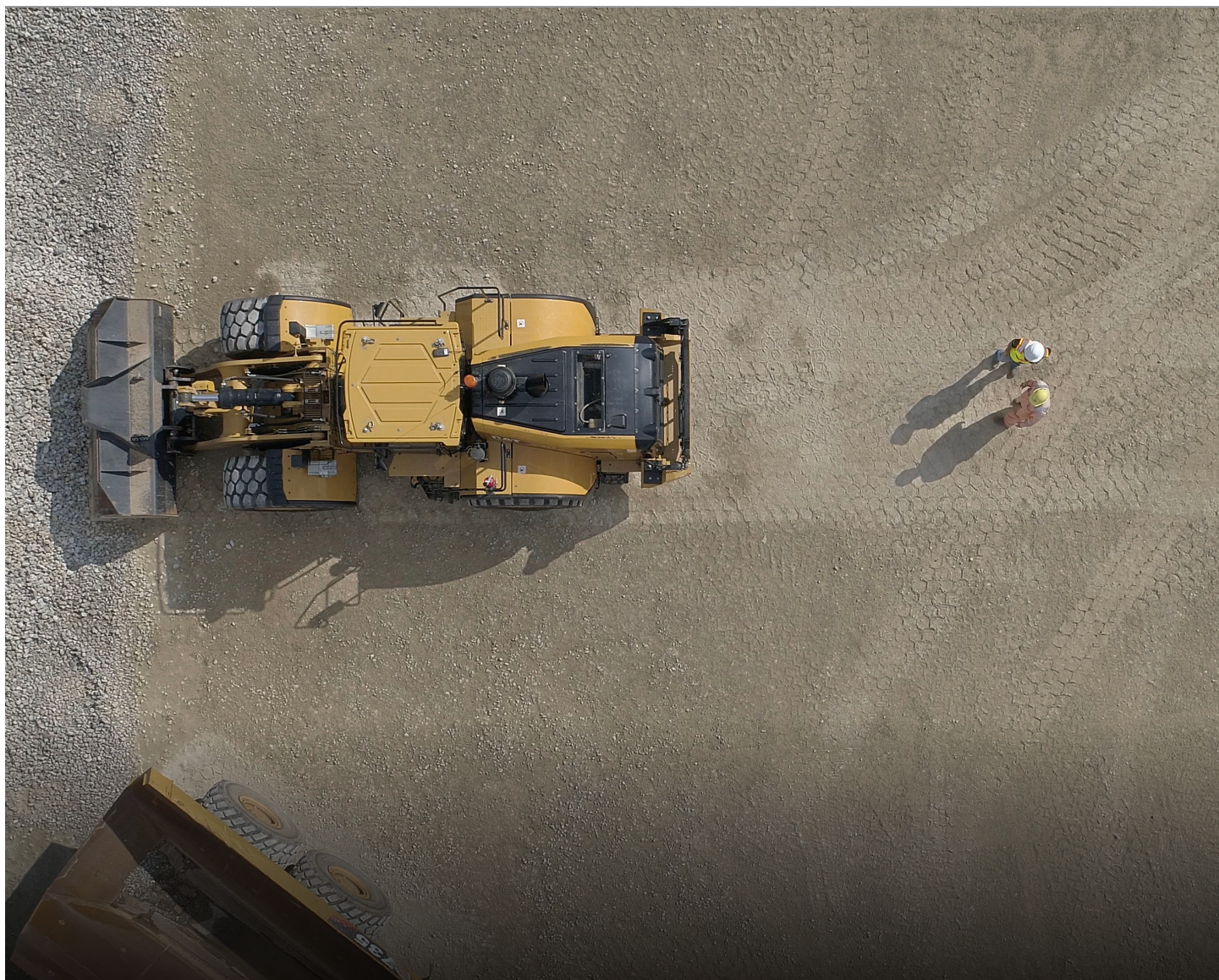


CAT[®] DETECT

PEOPLE DETECTION

IMPROVE SAFETY AROUND MACHINES

While machines are designed to maximize operator visibility, it can be challenging to constantly monitor what is going on around them. Cat[®] Detect – People Detection is an intelligent vision camera system that can alert an operator when someone enters within a machine's hazard zone.



IMPROVE JOBSITE SAFETY

Reduce the risk of injury for people working around machinery by detecting multiple moving and stationary workers on the jobsite.

INCREASE OPERATOR AWARENESS

Monitor ever changing jobsite conditions by providing progressive visual and audible safety alerts to the operator based on a person's proximity to the machine.

ENHANCE MACHINE SAFETY

Expand machine safety distances for ground people with technology that detects individuals with up to 270 degrees of People Detection coverage, depending on the machine.

PEOPLE DETECTION

ENSURING A SAFE JOBSITE



- People Detection helps to reduce the risk of injury for people working around machinery.
- Differentiates people from background objects - detects multiple moving and stationary workers.
- Provides visual and audible alerts to the operator using the in-cab display.
- Utilizes the machine's existing in-cab display and harness with a dealer-installed kit of up to three cameras.
- Designed to function without the need for additional technologies.
- Complements other safety systems and enhances operator safety awareness.

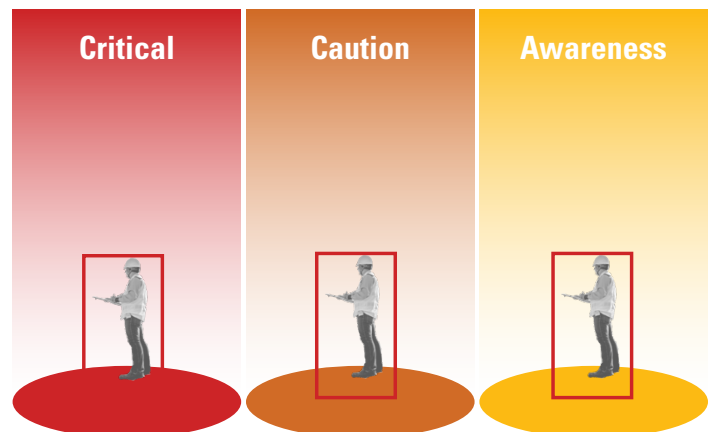
Continuously monitors for people within three detection zones around excavators or behind other machines.

DETECTION ZONES

Critical Zone (Red)

Caution Zone (Amber)

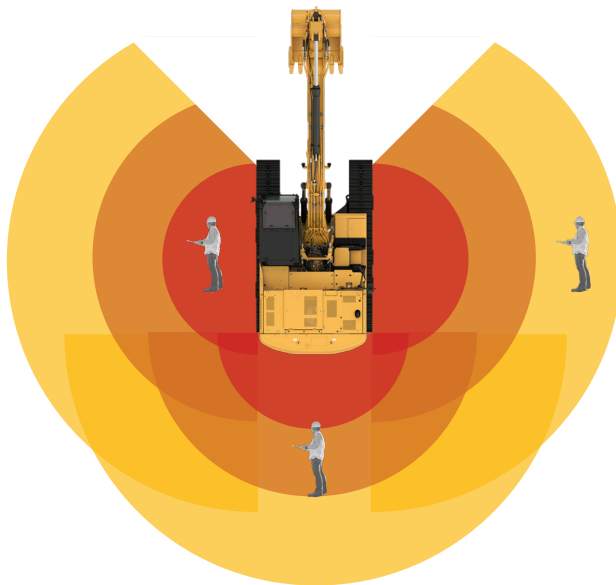
Awareness Zone (Yellow)



PEOPLE DETECTION BY MACHINE

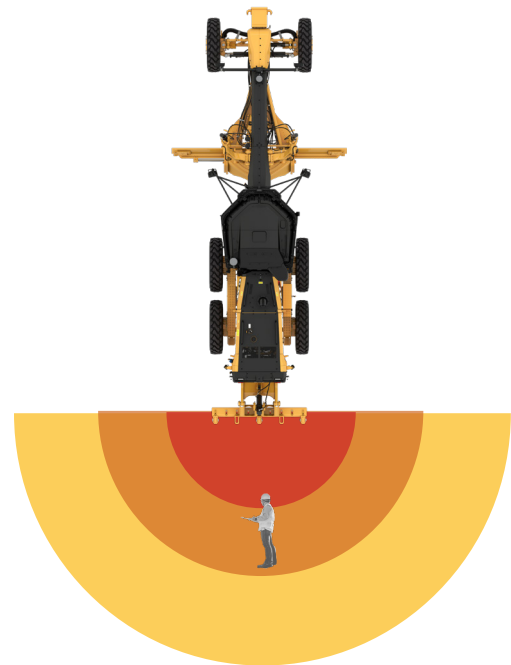
EXCAVATORS, MOTOR GRADERS, DOZERS, WHEEL LOADERS

- + **Excavators (313-395):** Continuously monitors for people within three detection zones around the excavator. Utilizes three smart cameras with up to 270-degree coverage - 9 m (29.5 ft) maximum detection distance.*
- + **Dozers (D4-D8), Motor Graders (140-160), Wheel Loaders (950-982):** Continuously monitors for people within three detection zones behind the machine. Utilizes one rear smart camera with up to 180-degree coverage - 16 m (52.5 ft) maximum detection distance.*
- + Highlights people with red detection boxes on the in-cab display to help increase operator awareness.
- + Triggers progressive visual and audible alerts based on a person's proximity to the machine - three detection zones.
- + Detects multiple moving and stationary people simultaneously during machine travel and operation.
- + Provides both in-camera and off-camera monitoring.
- + Cat Detect – People Detection is not compatible with Cat Command remote control technologies.



EXCAVATORS

- + three smart cameras
- + monitors around the machine
- + up to 270-degree coverage - 9 m (29.5 ft) maximum detection distance.*



OTHER MACHINES

- + one rear smart camera
- + monitors behind the machine
- + up to 180-degree coverage - 16 m (52.5 ft) maximum detection distance.*

**Detection distance is the approximate range from each camera.*

SUPPLEMENT OPERATOR VISIBILITY

ENHANCE SITUATIONAL AWARENESS

> ON-DISPLAY MONITORING

When people are detected near a hazard zone, and within direct camera view, a visual alert is shown on the in-cab display¹, and an optional audible alarm is played.

- **Visual Alert Icons** - Directional icon alerts indicate both location and distance level when people are detected. Three color levels provide approximate proximity to the machine - red (critical), amber (caution), and yellow (awareness).
- **Audible Alert Icons** - Communicate if the People Detection system is active (standby/on/off), if an audible alarm is active (on/off), or if there is a system error causing People Detection not to function properly.
- **People Detection Indicator** - A red boundary box surrounds people that have been detected within a hazard zone to help increase operator awareness.



ALERT ICONS



RED BOUNDARY BOX

Indicates a Person Has Been Detected

In Camera View

> OFF-DISPLAY MONITORING

When people are detected near a hazard zone but are not within direct camera view, a visual alert is shown on the in-cab display¹, and an optional audible alarm is played.

- **Audible Alert Icons** - Identical to in-camera monitoring.
- **Visual Alert Icons** - Identical to in-camera monitoring.
- **Side Bar Indicators** - Off-camera directional icon alerts indicate both location and distance level when people are detected. Three color levels provide approximate proximity to the machine - red (critical), amber (caution), and yellow (awareness).
- **People Detection Indicator** - The red boundary box for people detection is not available in off-camera or 360-degree views.

SIDE BAR INDICATORS



Off-Camera View



360-Degree View

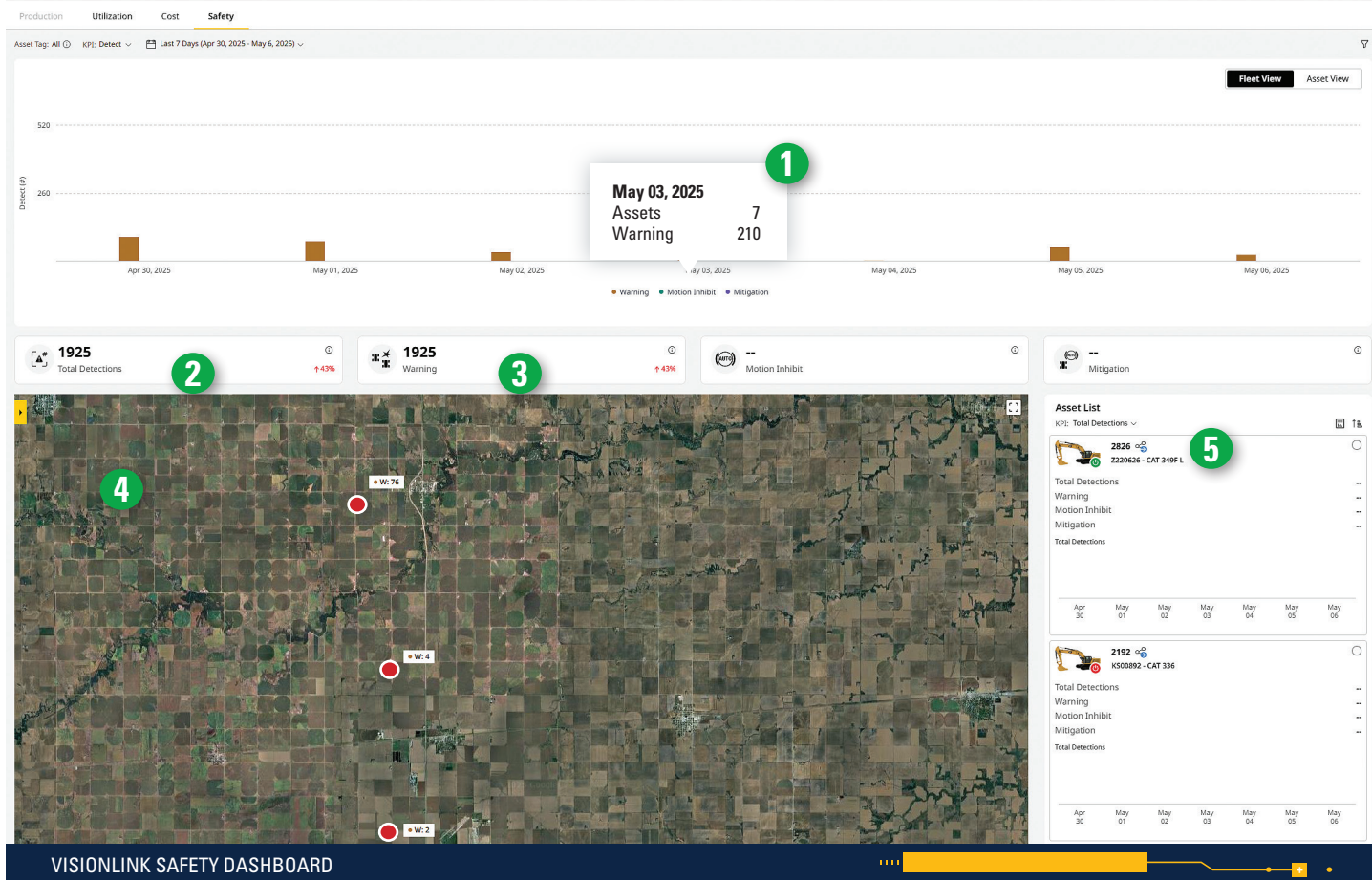
Excavator Display Shown

¹ The system may not detect people in certain circumstances, such as fast swings speeds, people lying down or crouching, or when cameras are impaired by low light conditions (dusk, dawn, overcast), inclement weather (snow, rain, fog), or other similar conditions. See operation and maintenance manual regarding limitations of use.

² Detection distance is the approximate range from each camera.

VISIONLINK™ INTEGRATION

REAL-TIME SAFETY MONITORING



REAL TIME SAFETY MONITORING*

When someone is detected within a critical red zone, an operator alert is triggered, and the event data is transmitted in real-time to VisionLink™. This allows you to monitor detection frequency and identify opportunities to enhance safety training on the jobsite. By staying informed, you can create a safer working environment and optimize your operations.

KEY SAFETY INDICATORS

Using the safety dashboard in VisionLink, you can easily assess your operators' safety performance at a glance. Analyze safety KPIs on your site cards to identify trends and determine where you can take action to promote safe and productive work.

1. You can view a graphical representation of total detect warnings over a specified date range (up to 7 days). By clicking on a specific date, you can see a detailed list of detections.
2. Total Detections - This represents the sum of all warning, motion inhibit, and mitigation counts for all assets within the selected date range.
3. Warning - Denotes the total number of critical (red zone) warnings for all equipment during the selected date range.
4. Asset Map - This feature displays the location of each asset's detection warning.
5. Asset List - This provides a detailed view of safety data for each machine within the selected date range.

**VisionLink subscription and compatible Product Link hardware required. Availability may vary by region, consult your Cat Dealer for more details.*



When you select Cat equipment and technology, you benefit from the support of the largest and most experienced dealer network in the industry.

You gain a partner committed to assisting you and your operation at every stage. Whether you require expert advice or emergency service, your Cat dealer is there for you from day one.

Contact your Cat dealer for more information and how to order Cat Detect – People Detection for your machine.

- Cat Detect – People Detection is currently available for excavators, medium wheel loaders, dozers, and motor graders. Model and technology availability may vary by region.
- Cat Detect – People Detection compliments but does not replace the basic safety precautions and procedures for machine operation.
- Always follow recommended safety procedures when operating or working around equipment.

**Cat Technologies May Vary by Region and Model.
Consult Your Cat Dealer for Details.**

For more complete information on Cat products, dealer services and industry solutions, visit us on the web at www.cat.com

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