

Virtual vision. Better decisions.

Although Garmin synthetic vision is not intended to replace traditional attitude and directional cues as one's primary flight reference, it clearly does augment the pilot's view of this data – by giving it a realistic visual frame of reference. Thus, the "big picture" that pilots once struggled to mentally synthesize from a myriad of instruments on their panel is now clearly laid out right in front of them. It's the picture of confidence.

For example, when flying in areas or at altitudes where rising terrain may pose a hazard, SVT uses its terrain-alerting database to colorize the landscape – clearly showing with amber or red overlays those areas where potential flight-

into-terrain risks exist. What's more, any towers or obstacles that may encroach upon the flight path are color-highlighted and clearly displayed with height-appropriate symbology.

Likewise, for help in spotting airborne traffic, Garmin SVT shows TCAS/TAS/TIS targets in 3-D perspective, so you can visually gauge how high and how close they are. The familiar color- and shape-cued TCAS symbology grows larger as it gets nearer – making traffic conflicts easier to see and identify.



Seeing is believing.

Terrain, traffic, towers, obstacles, flight plan legs, approaches, runways: The integrated 3-D perspective view makes aeronautical orientation so much easier and more intuitive. And with SVT's graphical "pathway in the sky" guidance feature, you'll always know exactly where and how to intercept the next leg of your flight plan.

No wonder Garmin SVT is the choice for today's most forward-looking aircraft and their owners. Could any decision be simpler? Could any technology make vintage "steam gauge" instruments look even more obsolete? With SVT, you're following a seamless and clearly defined route to the future. All fully integrated. All delivered

from one manufacturer. And all reinforced by the confidence and peace-of-mind that comes with our award-winning Garmin Product Support.

Got the picture? Garmin SVT. It could just be the most useful, safety-enhancing visual display technology you've ever seen from an integrated flight deck. No doubt, you'll want to look into it, soon.

To find out more, contact your Garmin representative for a demo. Or visit our website at www.garmin.com.

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Follow the leader.



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SVT™: Synthetic Vision Technology.

A virtual revolution in visual flight reference.





Darkness? Fog? Haze? Driving rain? Solid IFR conditions?

Whatever it is that's keeping you from seeing the ground or the horizon clearly, Garmin SVT™ synthetic vision capability can make a world of difference in your cockpit: By filling in the details (via database simulation), it makes situational orientation far easier and less stressful. Which, in turn, makes for better decision-making and significantly reduced pilot workload.

[**Introducing Garmin SVT™:**
Virtual reality meets situational awareness.]

Check it out. In everything from piston singles to turbine-powered business aircraft, this visionary Garmin technology is coming to “part the clouds” for aircraft owners throughout General Aviation

On Garmin’s best-selling Integrated Flight Deck systems, SVT presents a real-time 3-D perspective view of terrain features, airports, obstacles, traffic, flight path information, and more. The technology is viable, reliable, surprisingly affordable. And it promises to literally change the way pilots visualize flight operations from now on.



Pathways in the sky.

Rectangular pathway “windows” on the display help pilots visualize and follow their intended route of flight. Guidelines in each corner of the pathway windows point in the direction of the active flight plan leg.



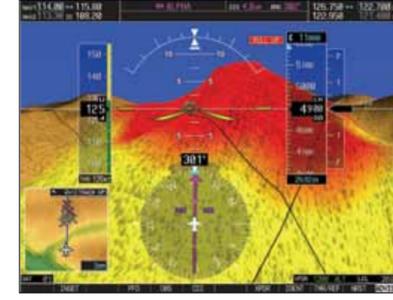
Watch for oncoming traffic.

Using familiar TCAS/TAS/TIS symbology in a three-dimensional format, Garmin SVT makes it easier to spot moving traffic*. You can see if they're above or below your altitude. And as intruders get closer, the symbols get larger.



Persistence pays off.

Inadvertent entry into an unusual attitude situation can be tough on pilots and airplanes. But with Garmin SVT, a “persistent” strip of color on the display shows “which way the ground or sky went” – to aid in orientation and recovery.



Seeing red?

Terrain alerting with Garmin SVT is a real attention-getter. Potential terrain conflict areas are indicated by a color overlay on the topography: Amber for caution. Red for WARNING.



Identify that runway.

When flying into an unfamiliar airport, SVT helps simplify the approach. Airports are shown with identifier signs. And runway surfaces, numbers and thresholds are clearly depicted in 3-D. Also, the destination runway in your active flight plan is outlined in white – just so there's no confusion.



Obstacle alerting.

When visibility is low, it's reassuring to have Garmin's Towers and Obstacles database looking out for non-terrain structural hazards. Color-coded 3-D symbols are depicted on SVT if their highest point is within 1,000 feet vertically of the aircraft.

It's like taking the blinders off.

The vision may be synthetic. But the benefits are absolutely real.

Garmin SVT turns a flat-panel primary flight display (PFD) into something visually much deeper and richer. The “virtual reality” presentation looks so detailed and lifelike, it's almost like having a full color replica of your “out the window” view from the cockpit on a clear day.

Seamlessly integrated with all standard flight attitude, airspeed, climb rate, altitude and course/heading information, Garmin SVT creates a graphically modeled 3-D topographic landscape from the avionics system's terrain-alerting database. So, instead of looking at the flight instruments, one has a sense of looking through them – to “see” what lies beyond the nose of the aircraft.

With SVT, the traditional flat blue-over-brown representation on the PFD is replaced by a hi-res dimensional view of realistic terrain features rising into the distance. Land, water and sky are clearly differentiated with realistic shading and textures – similar to those used on most sectional charts or MFD moving map displays. Airports, obstacles and airborne traffic are shown in relative proximity to the aircraft. And a zero-pitch line, or level-flight indicator, is drawn completely across the display to represent the artificial horizon. This line will not always be aligned with the terrain horizon; particularly when the nearby topography is sloped or mountainous. (Terrain above the aircraft altitude will appear above the zero-pitch line, while terrain below the aircraft altitude will appear below the zero-pitch line.)

Yet, one's visual reference for wings-level flight is always clearly and intuitively depicted on the display. For added directional guidance, compass heading marks are positioned atop the zero-pitch line in 30-degree intervals.

Which way is the runway?

Flying into an unfamiliar airport can raise a lot of questions. But Garmin SVT makes it easy to find down-to-earth answers. Runway data from the system's navigation database is superimposed on the SVT terrain display – giving pilots a constant visual representation of how runways and approaches line up in relation to the surrounding terrain. Airports within 8.5 nm of the aircraft's position enroute are identified with rectangular signs on the SVT landscape. Then, as the aircraft approaches to within 2 nm of a runway, the relevant threshold markings and runway numbers are clearly depicted on the 3-D surface to create a realistic view of the airport environment. There's even a solid white outline that appears around the edges of the runway listed as your flight plan destination – just so you'll know that you're lined up for the right approach.

Find your pathway in the sky.

In addition to identifying airports and showing runways in graphical perspective, Garmin SVT helps simplify enroute navigation as well. It can create a three-dimensional “pathway” view of your flight-planned route of flight – including enroute legs, terminal procedures and ILS or GPS/WAAS vertical approaches – all laid out in front of the aircraft by means of outlined “windows” on the PFD screen. These windows vary in size to depict the flight path in perspective, making it easy to visualize course intercepts, procedure turns, etc. Pathway windows are color-referenced to the active navigation aid in use. And the pilot can easily follow the “pathway in the sky” by flying the displayed flight path marker symbol through the windows in sequence. A softkey on the PFD bezel lets pilots select or remove the pathway guidance feature, as desired.

GARMIN SVT FEATURES AT A GLANCE

- 3-D synthetic vision renders terrain-alerting data into realistic virtual landscape
- Enables pilots to visualize terrain, obstacles and traffic
- Simulates clear-day “out-the-window” view of flight situation on PFD
- Helps compensate for visual impairment from darkness or weather
- Amber or red highlighting shows potential flight-into-terrain hazards
- Familiar TCAS/TAS/TIS symbology grows larger as traffic gets closer*
- Towers and Obstacles database depicts non-terrain structural hazards
- “Pathway in the sky” windows create virtual 3-D tunnel for enroute navigation and instrument procedures
- Flight Path Marker displays projected path of the aircraft
- Gridlines on the terrain surface enhance distance perception
- Airport layouts and runway thresholds are accurately depicted on terrain
- Locator signs identify nearby airports on the SVT landscape
- Brings new levels of situational awareness to the Integrated Flight Deck

*When installed with compatible traffic alerting systems.