

VNCs ARE GETTING AN UPDATE



The November 2020 visual navigation charts are smaller, more accurate and clearer than their predecessors. There are other important differences – and pilots need to understand those before flying with the 2020 VNCs.

Size matters

If you buy a new set of VNCs in November, the first thing you'll notice is they're slightly smaller – moving from B1 to A1 size. That means you can fold them more easily into an A4 or A5 size – standard for pilot kneeboards.

The old B1 format had become a 'non-standard' size that few modern printing presses could produce economically, says the Aeronautical Information Management (AIM) team at Aeropath, who produce the charts.

"The B1 format had reached a point where it was going to cost significantly more to maintain, and we didn't want to increase the cost of the charts," says Matt Day, who leads the AIM team. "So working with the CAA and after surveying our chart users, we've reduced the sheet size and will be reducing their cost."

The improvements

With the move to the smaller size, Aeropath says it's taken the opportunity to improve the readability of the charts.

They're a lot sharper and clearer than previous charts, and they feature enhanced symbols for obstacles, aerodromes, visual reporting points and danger areas.



// Symbology in current VNC



// Symbology in new VNC

Matt says previous VNCs had many elements overlapping, particularly in busy areas like Manawatū.

“The new VNCs are less cluttered. Obstacles lower than 150 feet above ground level, for instance, are no longer displayed and neither are minor roads. This has improved chart readability.”



// The current VNCs have given way to the new VNCs (example below) which are less cluttered.



// New VNC

“In addition all chart elements have been reprioritised. For instance critical obstacles now take precedence over less important features. They’re larger, clearer, and aren’t hidden behind airspace lines.”

Over the past two years Aeropath has been working with the defence force to verify obstacles that have been identified over the years by both civilian and military pilots.

Matt says it was a major undertaking.

“But now all obstacles have been merged into a central set for the country and each one (there were more than 1000) has been cross-checked against known survey data, satellite and LiDAR imagery to make sure its location and height are accurate.”

Other improvements include a faint black outline on all red danger symbols, making them more readable under red light at night; updated terrain, spot heights, roads, power lines and towns; and two new terminal charts, Manawatū and Queenstown, both at the 1:125 000 scale.

The charts have also been produced in the latest New Zealand Transverse Mercator 2000 projection which also makes them more accurate than previous charts.

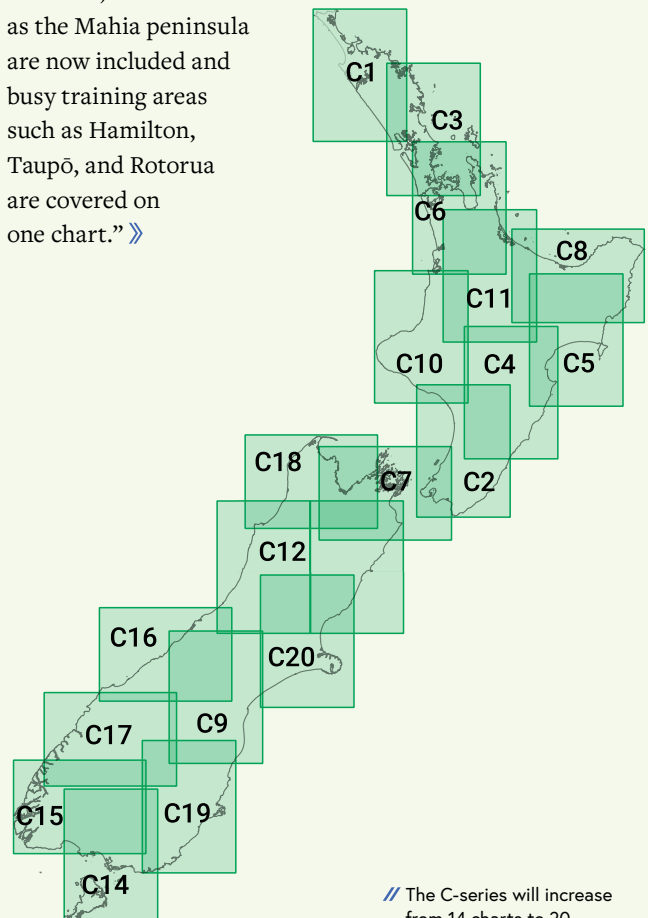
Check the differences

It’s crucial pilots understand the two key differences between the current charts and those rolling off the press in November.

Firstly, there’s a change in the numbering of the charts and the areas they cover.

“With the move to a slightly smaller sheet size,” says Matt, “the coverage area of individual charts will change. That means within some chart scales, the physical number of charts in each series will increase to cover the same area at the same scale.”

“For instance, the current C-series (1:250 000 scale) comprises 14 charts. In the new format, there will be 20. However, areas such as the Mahia peninsula are now included and busy training areas such as Hamilton, Taupō, and Rotorua are covered on one chart.”



// The C-series will increase from 14 charts to 20.

// ...not all information is displayed on all charts. //

» To see what charts you need for a given area, visit www.vnc.aeropath.aero. You can select a chart scale and see where the chart boundaries are. Clicking an area will give you the list of charts covering it and a link to the store to buy it.

Secondly, pilots need to remember that different VNCs are designed for different purposes and *not all information is displayed on all charts*.

The higher scales show more area, but less low-level detail, and are better suited for long distance planning, while the smaller scales provide less area and more detail for local navigation.

The A and B-series charts (1:1 000 000 and 1:500 000 scales) don't show all low-level information such as low-flying zones or obstacles. The C-series charts (1:250 000) do show low-level information, but not all airspace information above 9500 feet.

For a detailed list of the differences between chart scales, see "Visual Navigation Chart (VNC) Scale Differences" at aviation.govt.nz > Airspace & Aerodromes > Airspace.

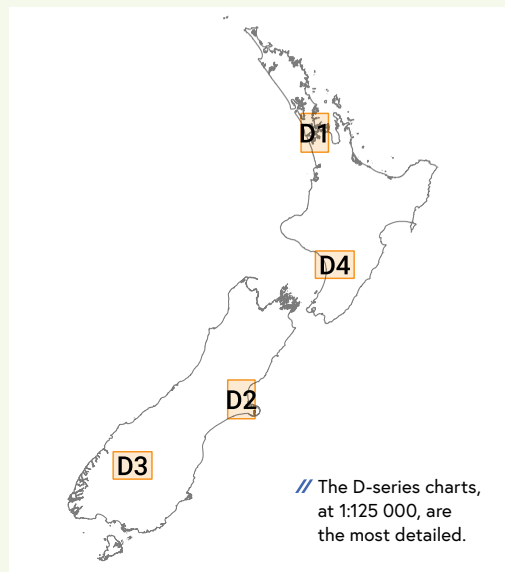
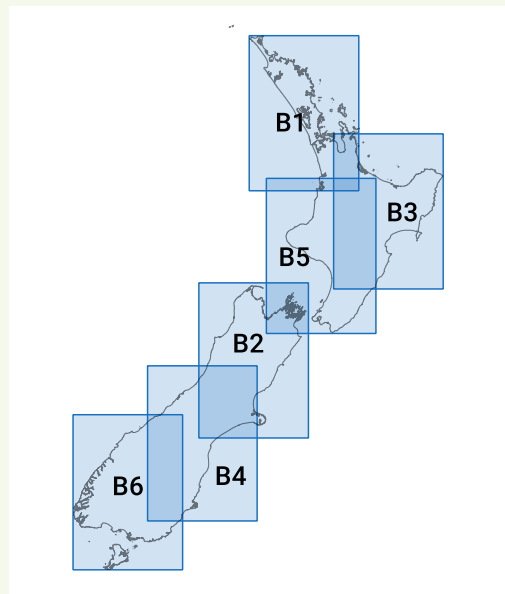
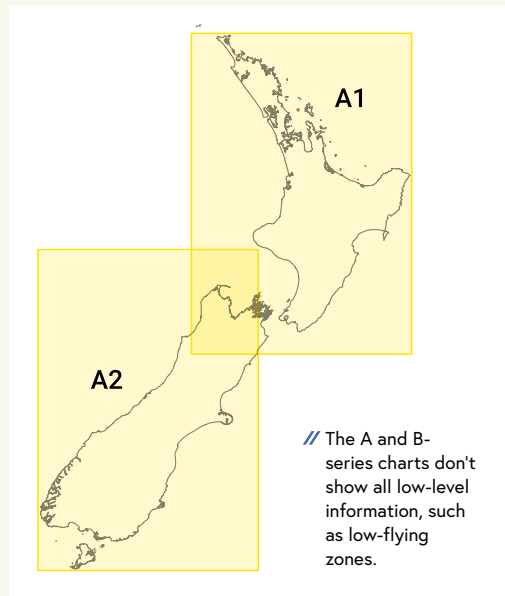
"How do I get the new VNCs?"

The 2020 VNCs will be available from early October and are effective from 5 November. They can be bought from normal suppliers or www.aipshop.co.nz.

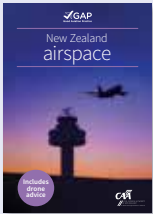
The following electronic flight bag applications are licensed through Aeropath to incorporate the VNCs:

- Air Nav Pro
- AvPlan
- OzRunways

Guidance on the use of EFBs is in Advisory Circular 91-20 *Guidelines for the Approval and Use of Electronic Flight Bag Devices.* ➔



// AIRSPACE



For your free copy of the CAA's Good Aviation Practice booklet *Airspace*, email publications@caa.govt.nz