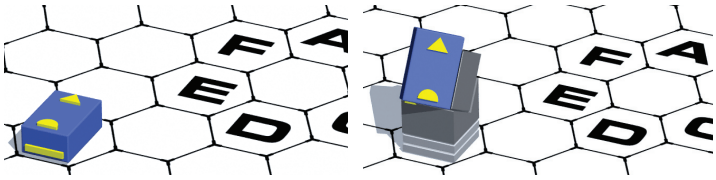
SPACE COMBAT WITH DEPTH!

Squadron Strike is a 3-D tactical combat system with the most robust ship design system on the market. You can make any ship, from any universe, and fly it in a fully 3-D combat environment. Through the use of different movement modes (named after the number of Newton's Laws being obeyed) you can add as much (or as little) respect for the laws of physics as you like.

Every graphic in this explanation is here for a specific purpose; look at all of them when they're referenced in the text.

Map Display

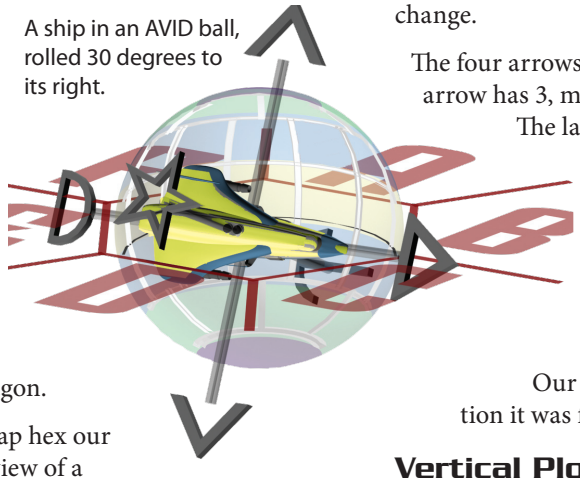
Your ship is shown on the map with a cardboard box with art on all six sides, called a "box miniature" or "box mini". By placing these in angled plastic parts called tilt blocks, we can show a ship's pitch and roll in 30° increments, like the illustration below:



The illustration on the left shows a box miniature level with the map; the illustration on the right shows one pitched up at 60° and rolled to the right at 30°. With altitude tiles, the box miniatures show complete orientation and altitude information on the map.

A ship's future position from momentum is shown by an End of Turn (EoT) marker.

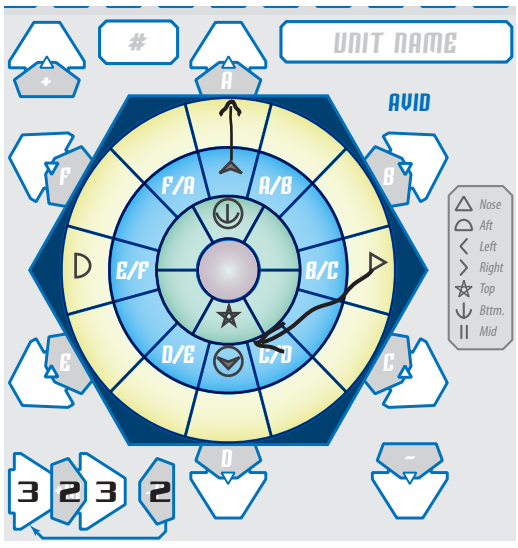
A ship in an AVID ball, rolled 30 degrees to its right.



The AVID

Moving in 3-D uses a play aid called an Attitude/Vector Information Display (AVID). They're keyed to the A-F directions printed in the center of the map. The AVID is fixed to the hex map; your ship rotates in the AVID the same way it changes facing in a hexagon.

The blue hexagon represents the map hex our ship is in. Inside of it is a top down view of a sphere, with the north pole (90°) being the purple circle, going to 60°, 30° and 0° for green, blue and yellow respectively. The rings are subdivided into spaces called "windows." The arrows around the hexagon are for Mode 2 movement, the lower arrows are for Mode 1.



A ship floats in the center of the sphere, like the illustration in the center of the page. On this ship, the nose (triangle), aft (semi-circle), top (star-coming out of the page) and sides (the two chevrons) are visible, with the bottom (the Anchor symbol) obscured by the hex map directions and the AVID 'wall'.

In the computer rendered illustration, notice that the ship's nose is pointed towards the B/C hex corner, and that the left side symbol is rolled up, and is sticking through the blue ring of the AVID that's printed behind the ship. This matches the orientation shown on the AVID printed at lower left, with the ship facing B/C, rolled to its right by 30°, with the left side marker in the blue ring, and the right side marker in the opposite blue ring, circled to show that it's sticking out of the bottom of the AVID.

Next to the AVID is a key showing the symbols used to record which way a part of your ship is facing. An orientation symbol that's on the underside of the AVID (like the anchor in this example) is circled. All AVID symbols have to be 3 windows (90°) apart.

Once a ship's orientation is indicated, we can plot its movement.

Facing Change Plotting

Plotting a movement in 3-D is graphical. We're going to do a Mode 1 (cinematic movement) example.

The first step is drawing your facing changes, if any. Any facing change that moves the front of the ship is a pivot. Any facing change that does not move the front of the ship is a roll. Both rolls and pivots can be done on the same turn, pivots resolve first.

We'll do a 2 window pivot, from direction B/C, at 0°, to C/D, angled 30° up, while also rolling our ship back to level. We draw this with arrows, like the ones in the illustration at lower left. You're allowed to make one diagonal transition between AVID windows per facing change.

The four arrows under the AVID have numbers in them; the first arrow has 3, meaning the ship has a velocity of 3 from a prior turn. The last arrow has a 2, which is the number of windows pivoted, and will be subtracted from our speed *after* movement.

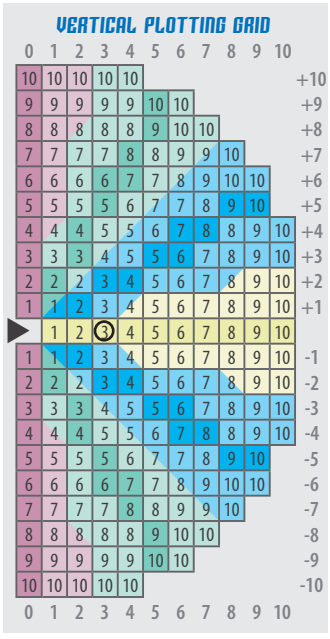
The third arrow shows how far the ship will move this turn - it's equal to the starting velocity. The second arrow shows that the player chose to thrust 2 to cancel out the speed lost from pivoting.

Our ship will move three hexes this turn, in the direction it was facing before the pivot.

Vertical Plotting

The next step takes our movement (3) and plots it on the vertical plotting grid - because our Nose was in the yellow ring before we started our pivot, we're constrained to the yellow boxes; we can pick any of the yellow boxes with a 3 in them - there's only one. This translates into moving 3 hexes in the plane of the map and no altitude change.

If we'd been angled at 30°, the choice could have been one of two blue boxes - this ability to pick which box you're using (limited by your speed) gives flexibility in movement without sideslips or turn modes.



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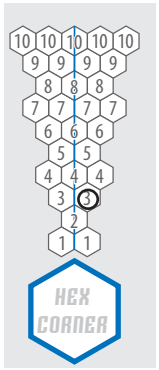
Horizontal Plotting



Once the vertical plot is done, it's time to do the horizontal plot. Our movement is on the hex spine between directions B and C on the hex map, and we use the horizontal plotting grid to pick the exact hex we move into.

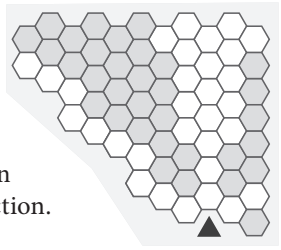
We know we're moving 3 hexes in the plane of the map from the vertical plotting step, so we can pick any hexagon with a 3 in it. We have two to choose from and take the one to the right (shifting a bit in direction C on the map plane). We place our future position marker in accordance with our plot.

Once everyone has placed their future position markers, all units move, completing any pivots.

After movement, we subtract one from our speed for every window we pivoted, and add one to our speed for every level of thrust plotted. In this case, they cancel out, and we start next turn facing direction C/D angled up at a 30° angle, with no roll, and an initial velocity of 3, as is shown on the AVID in the next column. We select the deep blue cell with the number 3 on the vertical plotting grid, and one of the hexagons with a 3 in it, and put our End of Turn (EoT) marker where we'll be if nothing changes on next turn's move.

Shooting Bearings

The AVID is part of a 3-D firing arc solution. Finding the window a target is visible through is called *shooting a bearing*.



Shooting a bearing is a multi-step process: Check if the target is visible through a hex side or a hex corner. If you think of the AVID as being sliced like the wedges of an orange, this will tell you which wedge you see the target in. If the target is 3x as far away in one map direction as it is in the other, it's visible through that map direction. Otherwise, it's visible through a hex corner.

The horizontal bearing illustration shades hexes according to this rule, with the triangle representing our ship. If the target's hex is in a gray zone, it's on a hex corner; otherwise, it's on a hex side.

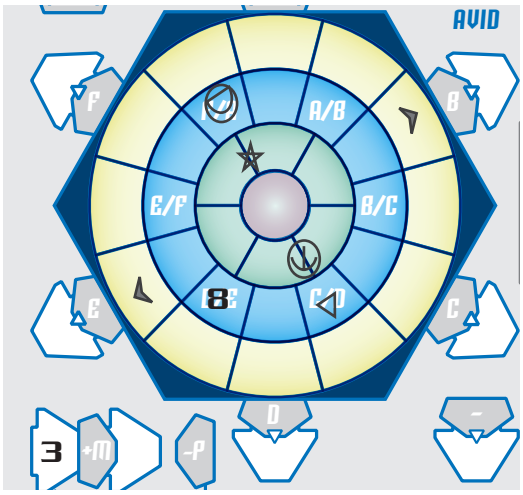
For the rest of this example, we're going to shoot a bearing to the target shown with the circle on the hex map at right, while the stylized spaceship is our ship, having completed the pivot we drew on the last page - it's facing the C/D hex corner at altitude level 0, with its Nose up in the blue ring. Counting hexes, it's 2 hexes away in D, and 5 hexes away in E. Using the tool shown above, that means we see it on the D/E hex corner relative to our ship. The +4 in the circle means it's 4 hexes above us.

Next, we count the distance to the target on the hex map, and the difference in altitude. We'll use these numbers on the Range/Angle Lookup Table (RALT). By cross-referencing the difference in altitude with the map distance, the number will give us the range to the target, while the cell color tells us the AVID ring it's visible through.

10	10	10	10	10	11	11	12	12	13	14
9	9	9	9	9	10	10	11	12	12	13
8	8	8	8	8	9	10	10	11	12	12
7	7	7	7	8	8	9	9	10	11	12
6	6	6	6	7	7	8	9	10	10	11
5	5	5	5	6	7	7	8	9	10	11
4	4	4	5	5	6	7	8	8	9	10
3	3	3	4	5	5	6	7	8	9	10
2	2	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10

Extending our example, a target 7 hexes out, with 4 hexes of altitude difference would be visible through the blue ring, at range 8.

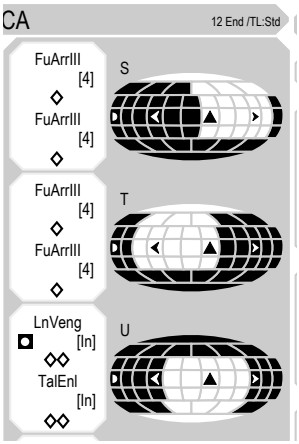
Combining all the steps, we'd write the range to the target in the blue window facing the D/E hex spine, like we've shown on the AVID at right.



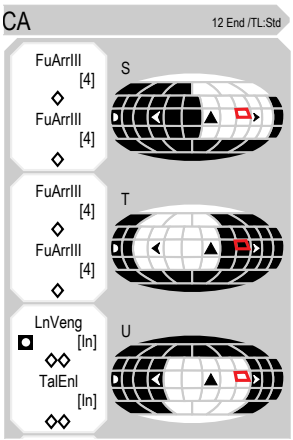
Now we need to see what weapons can shoot the target. The next illustration has firing arcs for mounts S, T and U.

Firing Arcs

Where the AVID is a top-down view of a sphere fixed to the map, firing arcs are a sphere fixed to your ship, with the Top of the ship at the top of the diagram. When looking at the firing arcs, we use the same symbols for Nose, Aft, Left and Right as we did on the AVID.



Count from the Top of our ship on the AVID (the star) to the target bearing (the number 8). This comes to two or three windows, because the star is on the spine, meaning the attacker gets to choose. We'll treat it as two windows down from the Top, putting the target's bearing two rows down from the top window.



Next, count from the closest orientation marker on the AVID to the bearing (the Right side marker). The target is one window away from the Right marker, diagonally towards the Nose and up. We'll count the same way on the firing arc diagram. If the resulting cell is white, the weapon can shoot.

Our ship sees the target in the cell outlined in red on the diagrams to the right. Mounts S and U can shoot, but T can't.

To fire a weapon, find the range to the target on a weapon table and read across. Shading on the range column means it takes Action Points to fire the weapon. The second column is target number you need to equal or exceed to hit the target on a 10-sided die (d10).

The third column shows the static damage the weapon does every time it hits. The fourth column gives the maximum damage from a special die roll called 2d10-, where 2d10 are rolled and the lesser result is subtracted from the greater.

A fourth d10 tells the target what part of the ship ishit, and all of these dice can be rolled at once to save time, calling out "Hit, 8 points to location 7."

Lance of Vengeance [LnVeng] ◘ x1

RNG	ACC	DMG	PEN	
0-4	3+	6	7	2x Hits - Hull
5-7	4+	5	7	Bursting
8-13	7+	4	5	No Dmg Torps

Fury's Arrow III [FuArrIII] x3

RNG	ACC	DMG	PEN	
0-10	2+	5	7	Sz 3 Pro 3 Ev 8+
11-19	4+	5	7	Guidance Arc +1