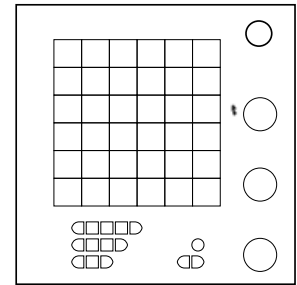# On the Subject of Battleship

FIRE! ... (splash) Missed.

Attention, Cadet. We've narrowed the enemy's locations to within this 6×6 grid. The targets in this area are concealed, but we do have a fair bit of intelligence on them.

We suspect this information may not be enough to determine with accuracy where the enemy forces are deployed. This is where you come in. We need you to figure out which locations within the battle arena we can safely survey without being seen:

- Take the first letter and the first digit of the serial number. Add or subtract 6 to the letter or digit until it is in the range A-F or 1-6. This is the first safe location.
- Do the same for the second letter and the second digit. Keep going until you run out of either letter or digits.
- Finally, convert the number of ports into a letter A-F and the number of indicators plus batteries into a digit 1-6 in the same manner. This is your final safe location.
- In each case, the letter indicates columns (left to right), the number indicates rows (top to bottom).

Attention, Ensign. We need you to ascertain the locations of all enemy vessels. When you have done so, the module is disarmed. The following tools are at your disposal:

- Survey the safe locations by using the radar tool. Using the radar on any unsafe location reveals our position to the enemy, so don't do that.
- Use the water tool to mark locations that definitely have no enemy vessel in them. You may also click the number above a column or beside a row to mark every unmarked location in that row/column as water.
- Use the torpedo to attack the enemy. Do not waste torpedos on water!

Our intelligence indicates that:

- Every enemy ship is either horizontal or vertical.
- None of the vessels are directly adjacent, not even diagonally.
- We know how many squares in each row and each column have a piece of a ship in them. This is indicated by the numbers along the edges of the grid.
- We also know how many ships of each size there are. This is indicated by the symbols below the grid.

Good luck. Make us proud.