

Chapter 20**HYDROPLANE****A. OPEN B FILE.**

Step 1. When you start a new drawing away start with the B file. If you started this drawing with the B file go directly to Steps B. If your did not start with the B file complete these Steps: Click **Open** from the File Menu. Click **No** to save current part. Key in **a:b** for the filename and press ENTER.

B. CREATE A RECTANGLE.

Step 1. ESC to Main Menu.

Step 2. F1 CREATE.

Step 3. F1 LINE.

Step 4. F7 RECTANGLE.

Step 5. F2 WIDTH/HEIGHT.

Step 6. Key in **9** for width and press ENTER.

Step 7. Key in **3** for height and press ENTER.

Step 8. F9 KEY IN.

Step 9. Key in:
Zero (0) for coordinate X and press ENTER.
0 for Y and press ENTER.
0 for Z and press ENTER.

Step 10. ESC to Main Menu.

Step 11. Use **ALT-A** to center the rectangle on the screen. Hold down ALT and press A.

C. CREATE HORIZONTAL CENTER LINE.

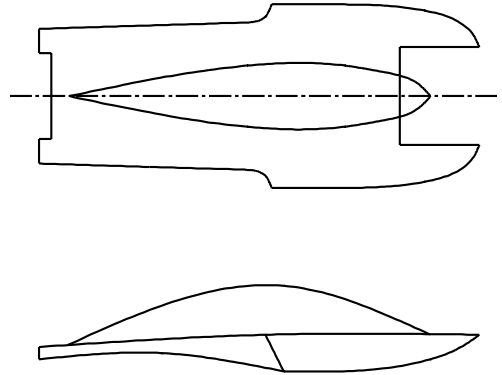
Step 1. Draw the center line **green**. Change the color to green. Click the color swatch in the side Tool Bar. Click green, number 1.

Step 2. ESC to Main Menu.

Step 3. F1 CREATE.

Step 4. F1 LINE.

Step 5. F5 HORIZONTAL/ VERTICAL.



Step 6. F1 HORIZONTAL.

Step 7. F4 CENTER.

Step 8. Click the vertical line of the rectangle, Line 1, **Fig. 1**.

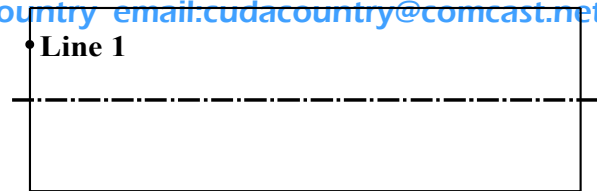


FIG. 1

Step 9. Save the drawing. Click **Save As** from the File Menu. Key **a:hydro** filename and press ENTER. Press ESC for Part Description.

D. DRAW TOP VIEW HULL SPLINES.

Step 1. Reduce the drawing down to see the grid, use **ALT-S**. Key in **1.3** and **press ENTER two times**.

Step 2. **Set the Snap to .1**. Use **CTRL-G**. Hold down CTRL and press G. Change the **Snap Properties Increment to X = .1 and Y = .1** Click OK.

Step 3. Draw the hull splines **blue**. Change the color to blue. Click the color swatch in the side Tool Bar. Click blue, number 5.

Step 4. Change the line type back to Object Lines. Use **ALT-T**. Hold down ALT and press T. Click the Object line, Line number 1. Click OK.

Step 5. ESC to Main Menu.

Step 6. F1 CREATE.

Step 7. F9 SPLINE.

Step 8. F2 3D CUBI.

Step 9. F1 CURSOR. Draw the splines in each figure. Click the points in a figure, then press ENTER **three times**.

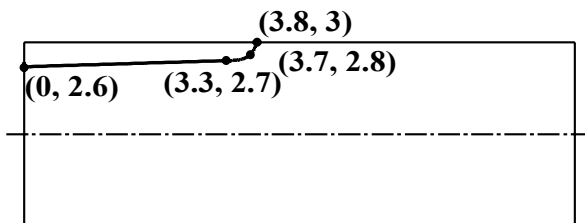


FIG. 2

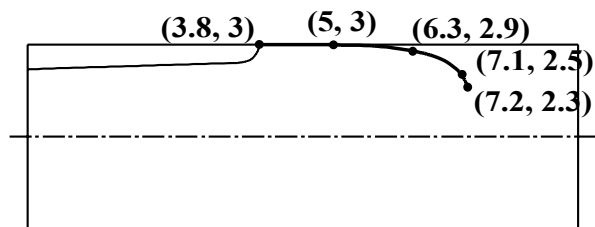


FIG. 3

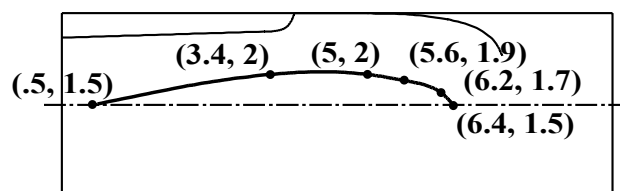


FIG. 4

E. DRAW LINES IN TOP VIEW.

Step 1. ESC to Main Menu.

Step 2. F1 CREATE.

Step 3. F1 LINE.

Step 4. F1 ENDPOINTS.

Step 5. Draw the lines **Fig. 5**.

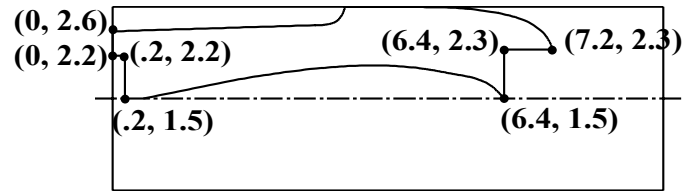


FIG. 5

F. MIRROR STARBOARD HULL.

Step 1. ESC to Main Menu.

Step 2. F4 X-FORM.

Step 3. F5 MIRROR.

Step 4. F2 COPY.

Step 5. F3 WINDOW.

Step 6. Window around the all the spline lines. To window, move the cursor to just above and to the left of the splines and click to start the 1ST WINDOW CORNER, **Fig 6**. Stretch the window to surround all the splines. Click to set 2ND WINDOW CORNER.

Step 7. F1 1 POINT HORIZONTAL.

Step 8. F4 CENTER.

Step 9. To indicate position on the plane, click the vertical line of the rectangle, **Fig. 6**.

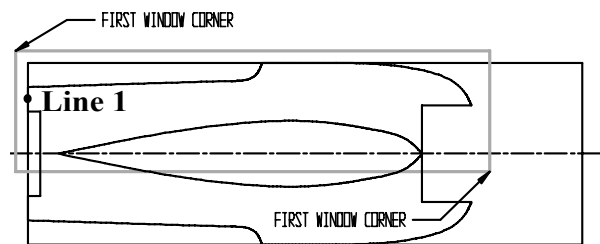


FIG. 6

Step 10. ESC to Main Menu.

Step 11. Save the drawing. Use **CTRL-S**.

G. CREATE A RECTANGLE FOR SIDE VIEW.

Step 1. ESC to Main Menu.

Step 2. F1 CREATE.

Step 3. F1 LINE.

Step 4. F7 RECTANGLE.

Step 5. F2 WIDTH/HEIGHT.

Step 6. Key in **9** for width and press ENTER.

Step 7. Key in **1.4** for height and press ENTER.

Step 8. F9 KEY IN.

Step 9. Key in:
 0 for X and press ENTER.
 -3 for Y and press ENTER.
 0 for Z and press ENTER. **Fig. 7**

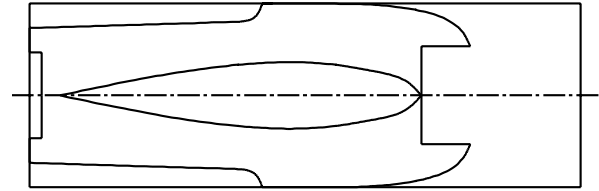


FIG. 7

Step 10. Use **ALT-A** to center the drawing on the screen. Hold down ALT and press A.

Step 11. ESC to Main Menu.

H. DRAW SIDE VIEW HULL SPLINES.

Step 1. Reduce the drawing down to see the grid, use **ALT-S**. Key in **1.3** and press ENTER two times.

Step 2. ESC to Main Menu.

Step 3. F1 CREATE.

Step 4. F9 SPLINE.

Step 5. F2 3D CUBI.

Step 6. F1 CURSOR. Draw the splines in each figure. Click the points in a figure, then press ENTER three times.

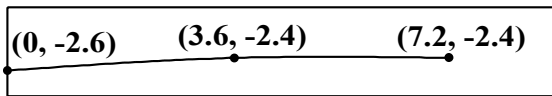


FIG. 8

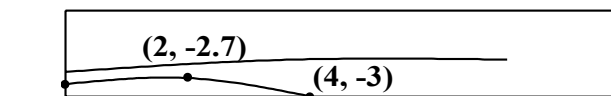


FIG. 9

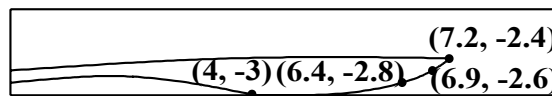


FIG. 10

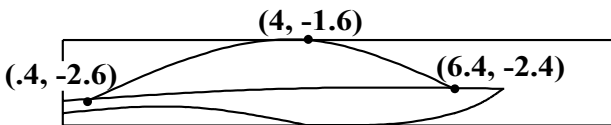


FIG. 11

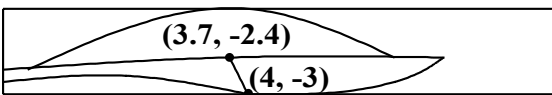


FIG. 12



FIG. 13

I. EDIT USING TRIM FIRST.

Step 1. ESC to Main Menu.

Step 2. F2 EDIT.

Step 3. F1 TRIM/EXTEND.

Step 4. F1 FIRST.



FIG. 14

Step 5. Trim Line 1 that extends beyond Line 2. To trim part of a line, click the line you are to keep, Line 1, **Fig. 14**. Move cursor close to the intersection with Line 2 and click. Repeat at other line. That is, click the part of the line you are keeping, Line 1, then move cursor close to the intersection with Line 2 and click.

J. DRAW STERN LINES.

Step 1. ESC to Main Menu.

Step 2. Delete the two rectangles, Lines 1 through 8, **Fig. 15**. Use **CTRL-Q** to delete the line. Hold down CTRL and press Q. Move the cursor over each line and select with a click. After all 8 lines are selected press ENTER.

Step 3. Use **CTRL-R** to redraw the lines. Hold down CTRL and press R.

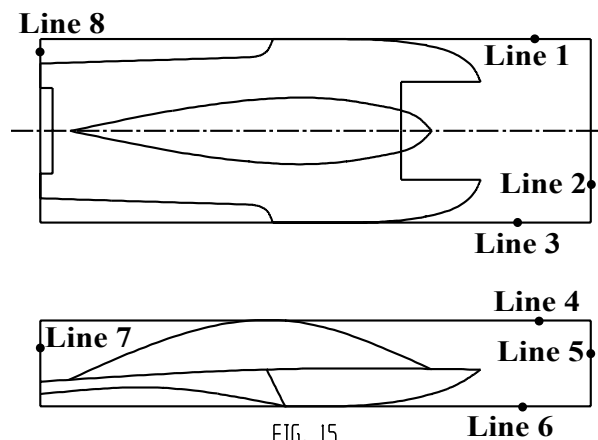


FIG. 15

K. ADD YOUR NAME and PERIOD TO DRAWING.

Step 1. Use: **Detail, Note, Key-In** commands to add text. Save the drawing. Use **CTRL-S**.