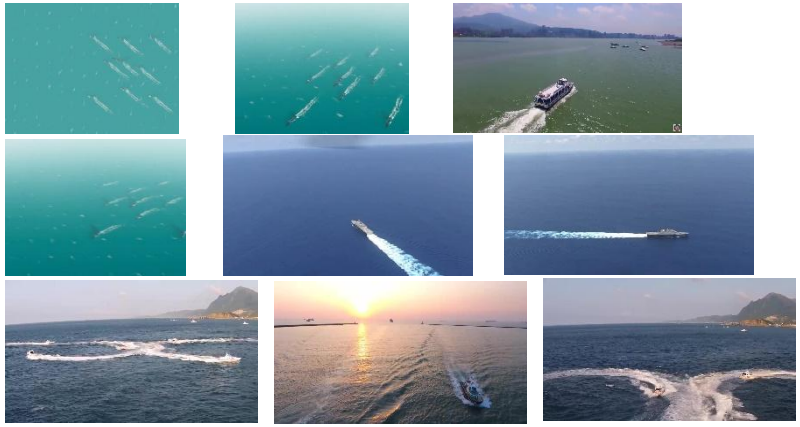
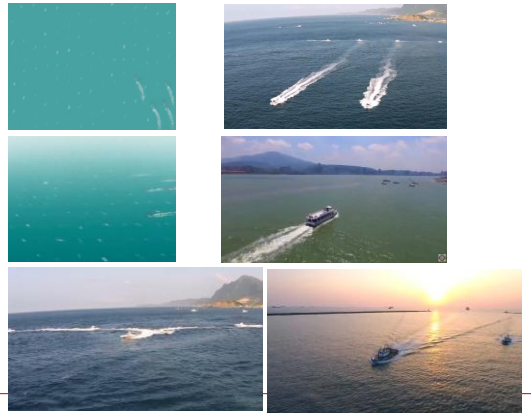
Final Project

- Identify the stern wave in image
  - Use the same program and parameters for all photos
    - Easy (a)
    - Medium (b)
    - Hard (c)



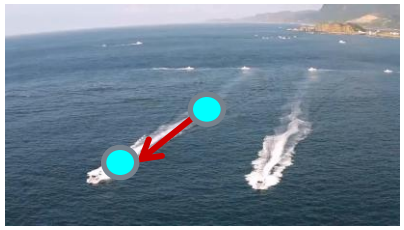
- Identify the boat direction in image sequence
  - Use the same program and parameters for all videos
    - Easy (d)
    - Medium (e)
    - Hard (f)



Final Project

- Evaluation
  - Region of stern wave
    - Ground truth: 4 vertices
      - [373, 173] [321, 131] [327, 124] [379, 166]
    - Evaluation table

a1: IOU/time	a2: IOU/time	a3: IOU/time
b1: IOU/time	b2: IOU/time	b3: x
c1: IOU/time	c2: x	c3: x



  - Angle of boat direction
    - Ground truth: vector endpoints
      - [608, 297] [553, 305]
    - Direction error of one boat in one frame: $\sqrt{(\theta_e - \theta_g)^2}$
    - Average error: average of errors over all boats and all frames
    - Evaluation table

d1: average error/average time	d2: x
e1: average error/average time	e2: x
f1: x	f2: x

Final Project

- Requirements
  - Presentation at 1/8
    - Present 5mins., including: flowchart, key methods, results, reference (function, library or paper).
  - Upload program and report to 北科i學園 before 1/12
    - Describe the employed source code editor, library, and how to execute your program (input/interface/output)
      - E.g. Identify the version of Visual Studio and OpenCV
    - Introduce your work, method, and discussions
    - Analyze your results, including tracking rate and fps
  - You can use OpenCV or any other library to complete this project.