Review Exercises - Lesson 1

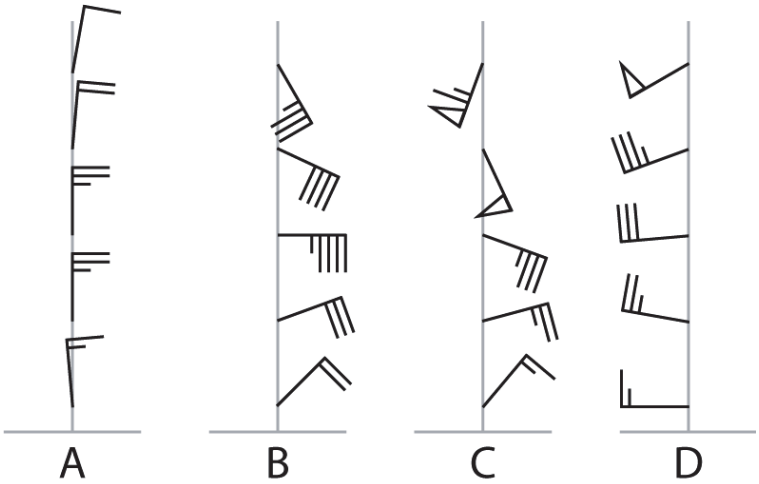
1. Match the wind profiles A through D to the velocity products shown in Figures 1 through 4.

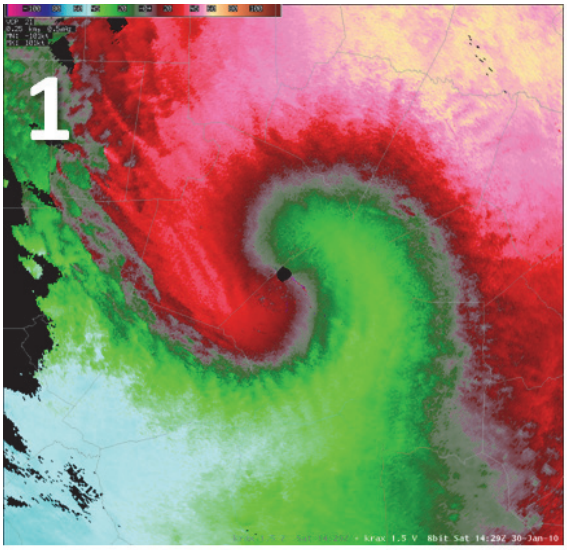
_____ A

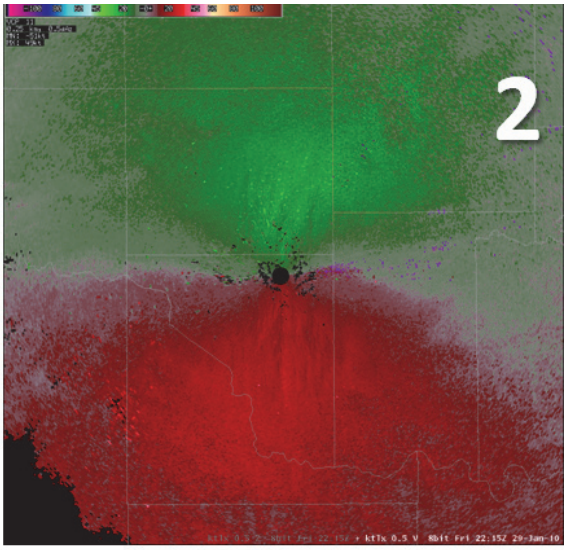
_____ B

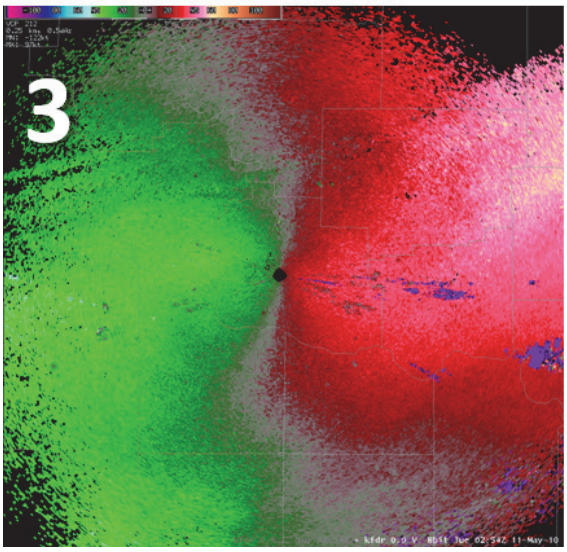
_____ C

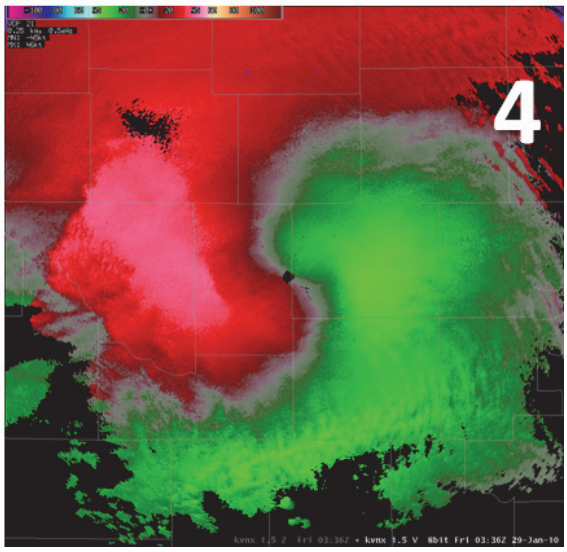
_____ D



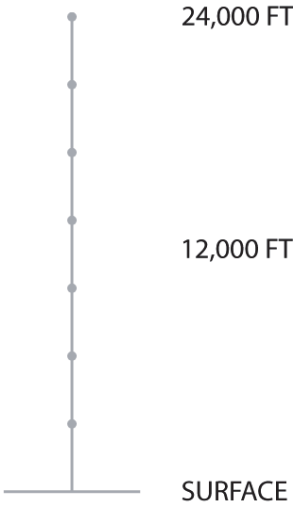








2. Construct a vertical wind profile to match Figure 5. (Assume the edge of the display is 24,000 ft.)

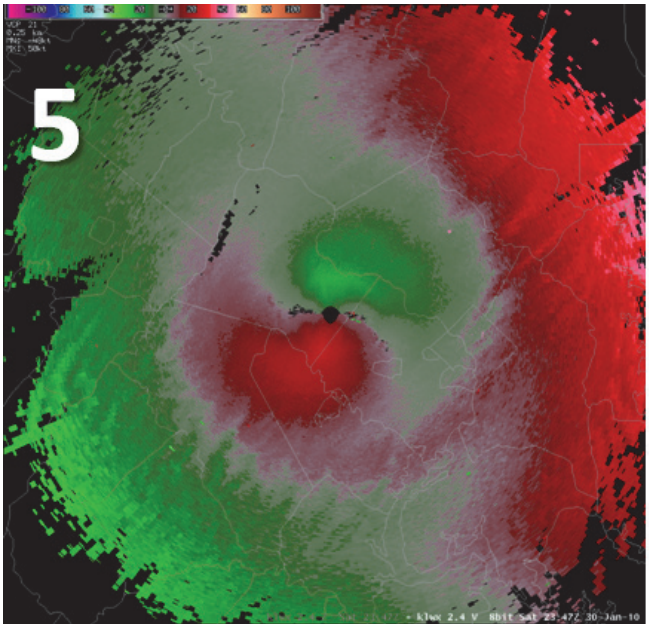


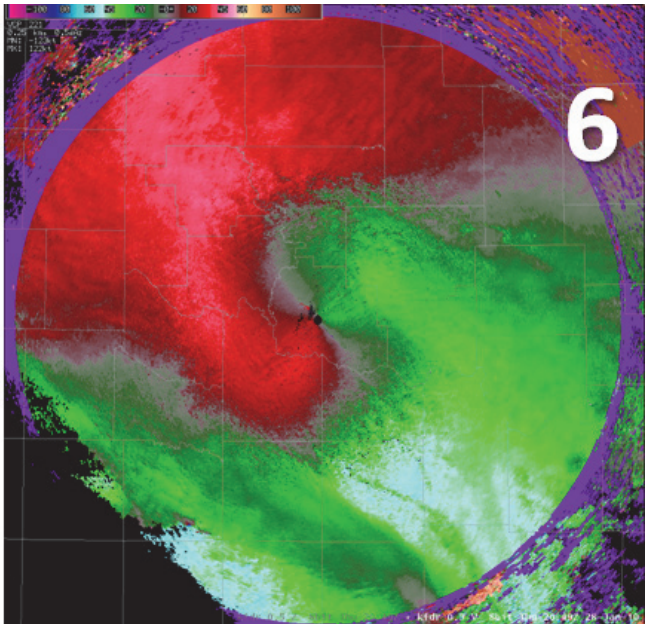
3. In Figure 6, the low level wind direction is from the _____.

4. In Figure 6, the wind direction at the edge of the display is from the _____.

5. In Figure 6, the velocity pattern suggests that _____. Choose the best answer.

a) a frontal boundary is approaching from the southwest
b) a frontal boundary is aloft over the RDA
c) diffluent flow is over the area





Review Exercises - Lesson 2

6. In Figure 7,

a) What would be the quickest/most accurate way to obtain the range and azimuth of the feature that the arrow is pointing towards using AWIPS?

_____

b) Where is the RDA relative to the display? _____

c) The small scale feature that the arrow is pointing towards is _____. Choose the best answer.

1. cyclonic convergence
2. cyclonic rotation
3. anticyclonic rotation

7. In Figure 8,

a) Where is the RDA relative to the display? _____

b) The small scale feature that the arrow is pointing towards is _____. Choose the best answer.

1. cyclonic convergence
2. anticyclonic divergence
3. convergence

8. In Figure 9,

a) What would be the quickest/most accurate way to obtain the elevation of the feature that the arrow is pointing towards using AWIPS?

_____

b) Where is the RDA relative to the display? _____

c) The small scale feature that the arrow is pointing towards is _____. Choose the best answer.

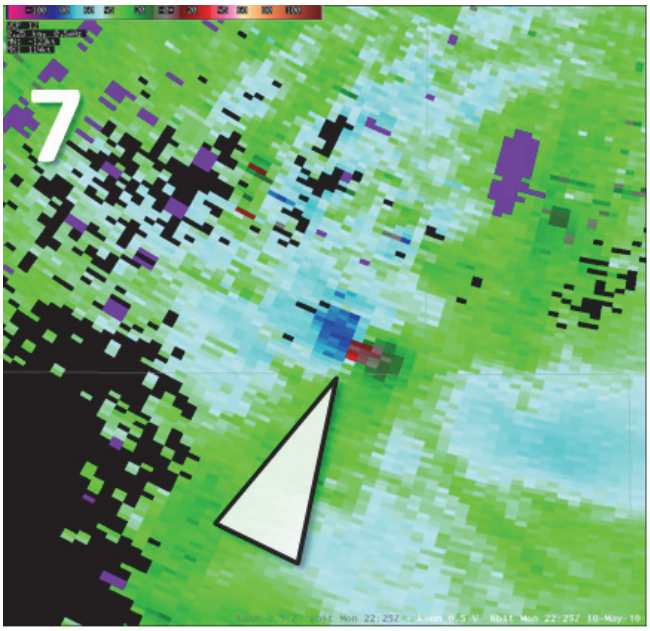
1. convergence
2. divergence
3. cyclonic rotation

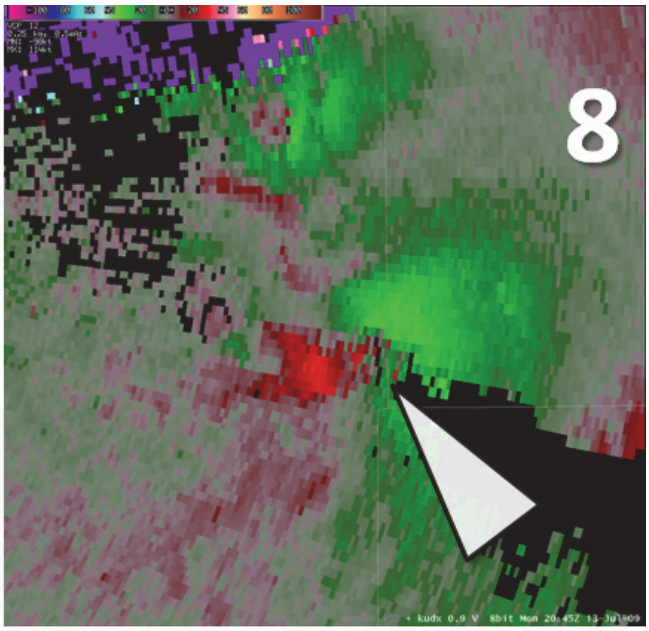
9. In Figure 10,

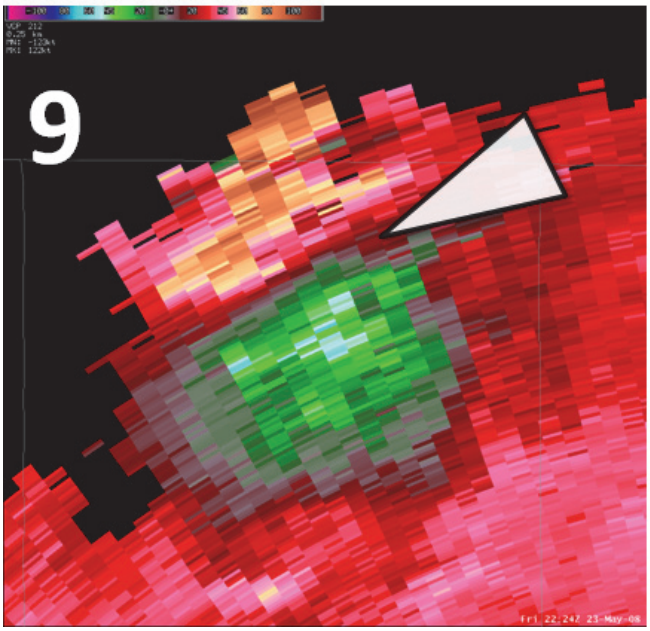
a) Where is the RDA relative to the display? _____

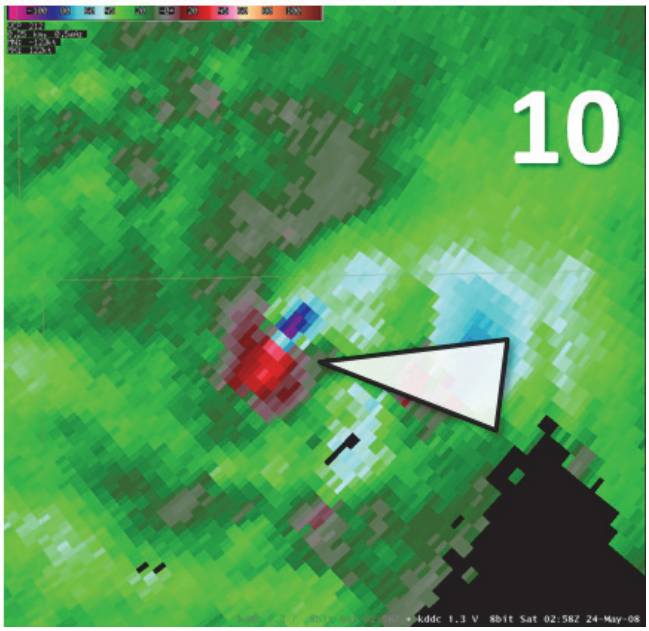
b) The small scale feature that the arrow is pointing towards is _____.
Choose the best answer.

1. cyclonic convergence
2. anticyclonic rotation
3. cyclonic rotation





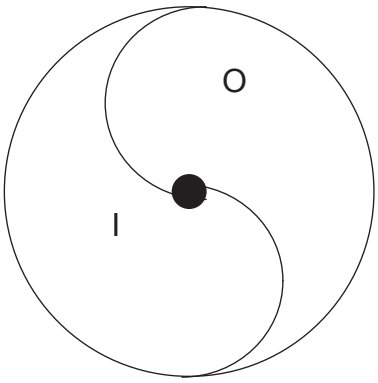




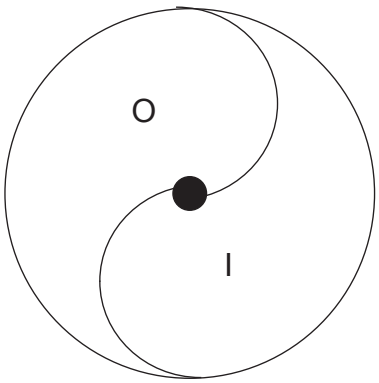
Practice Exercise - Lesson 1

For each of the following examples, use the zero isodop to determine wind direction at different levels using the method presented in class. The RDA is assumed to be at the center of each circle.

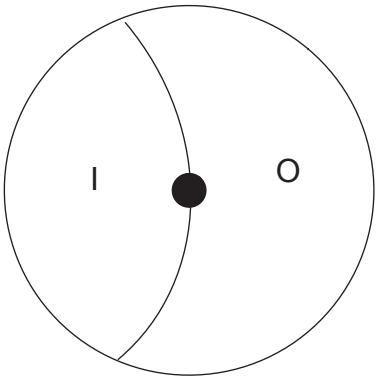
1



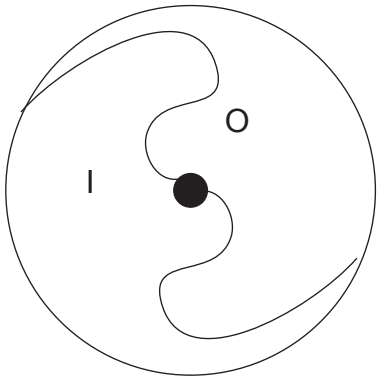
2



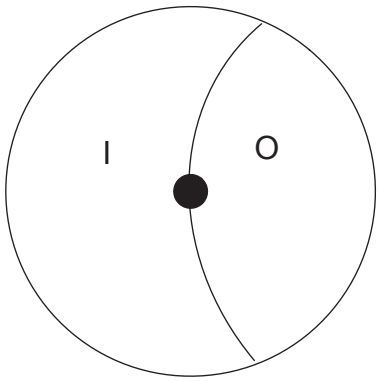
3



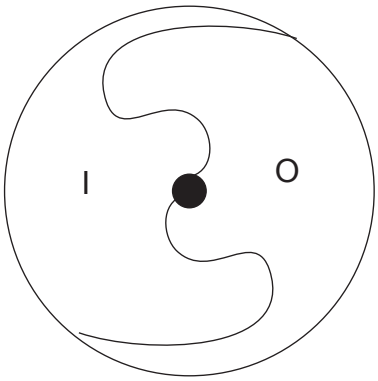
4



5



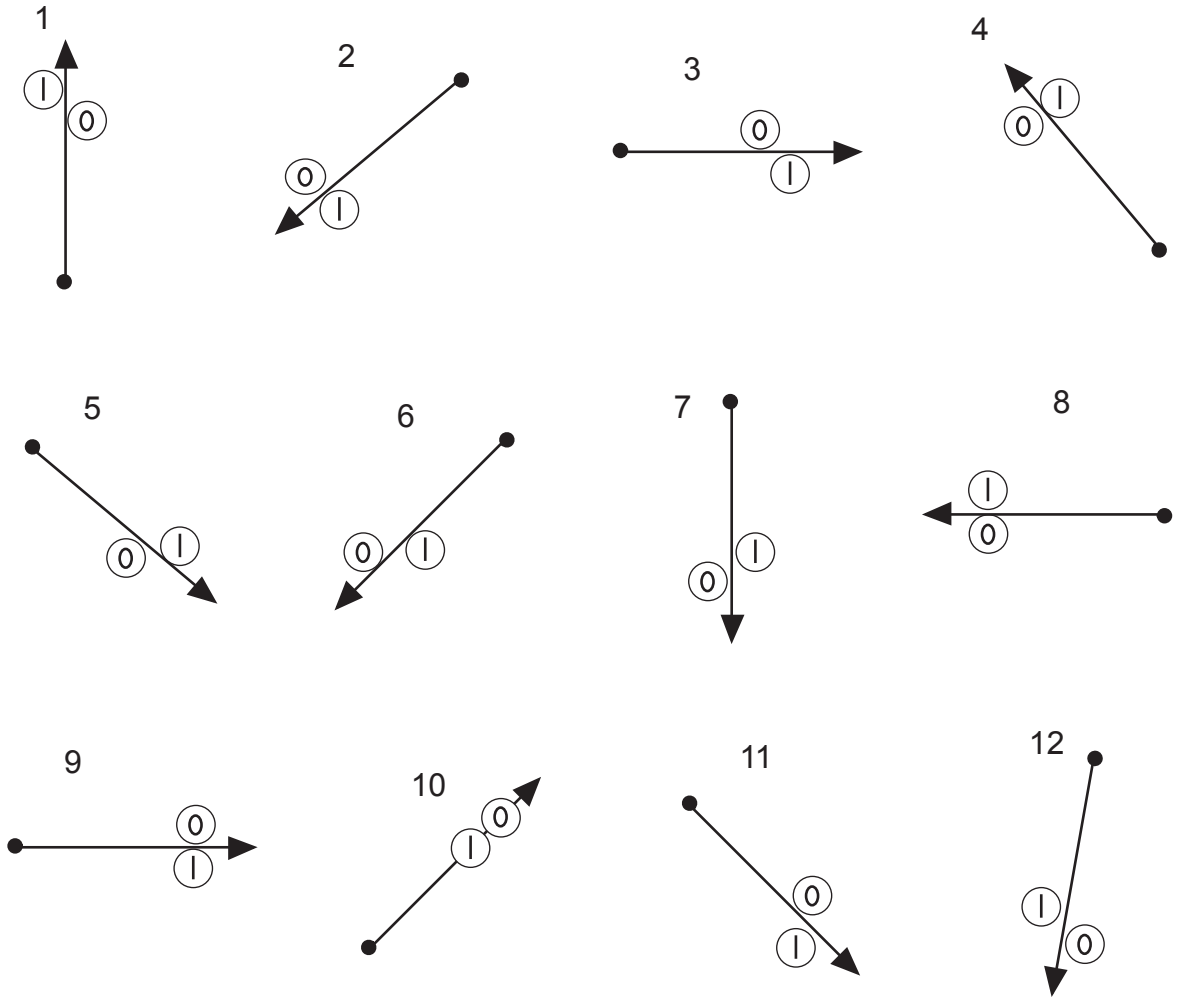
6

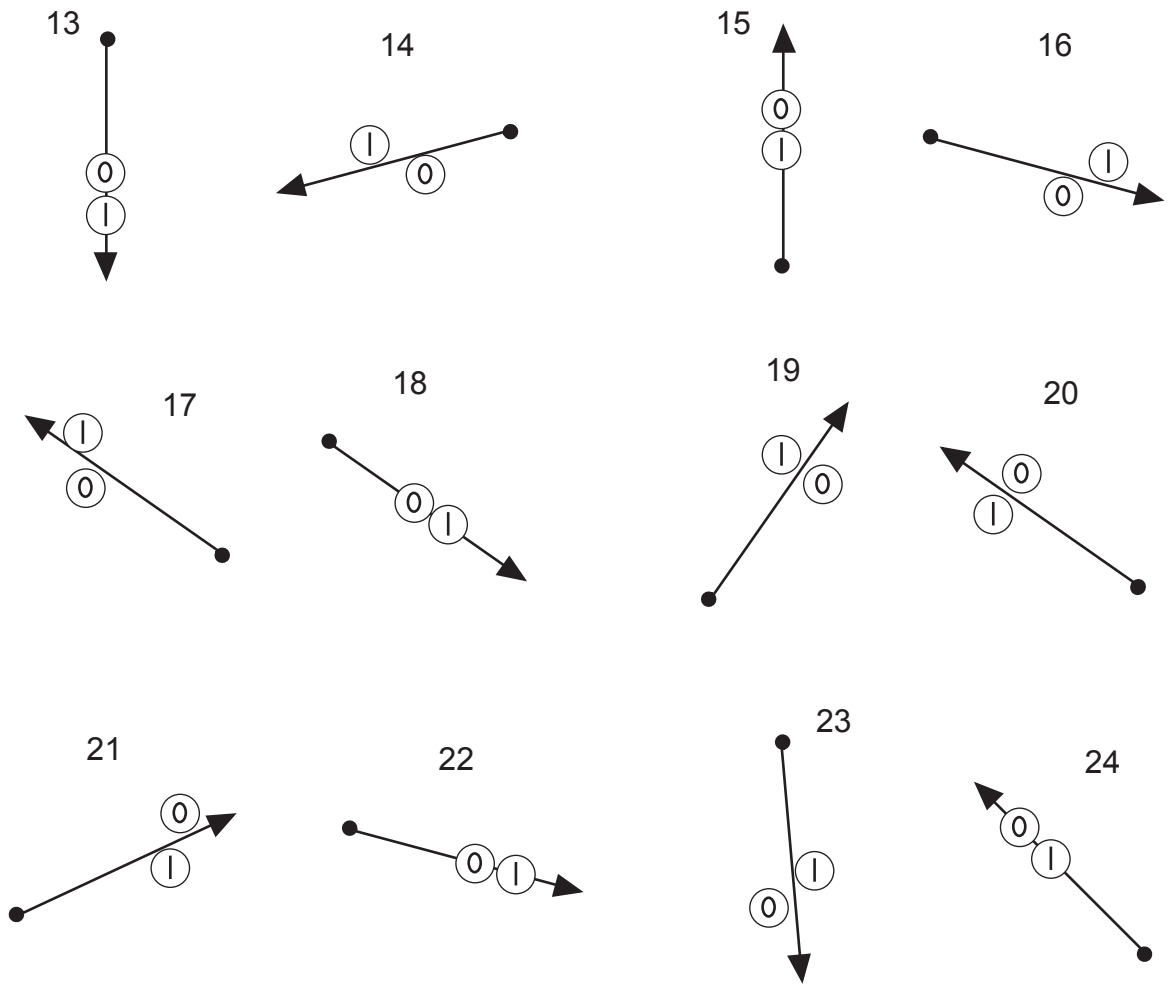


Practice Exercise - Lesson 2

The velocity couplets below represent small scale patterns. The RDA is located at the dot at one end of the arrow and the arrow is pointed in the direction of the radar beam. The I and O represent the inbound and outbound velocity maxima, respectively. Determine the type of flow pattern and enter the initials on the following answer sheet: Pure convergence (PC), pure divergence (PD), pure cyclonic rotation (CR), pure anticyclonic rotation (AR), cyclonic divergence (CD), anticyclonic divergence (AD), cyclonic convergence (CC), or anticyclonic convergence (AC).

There is a place to write your answers down on the following page.





1. _____	7. _____	13. _____	19. _____
2. _____	8. _____	14. _____	20. _____
3. _____	9. _____	15. _____	21. _____
4. _____	10. _____	16. _____	22. _____
5. _____	11. _____	17. _____	23. _____
6. _____	12. _____	18. _____	24. _____

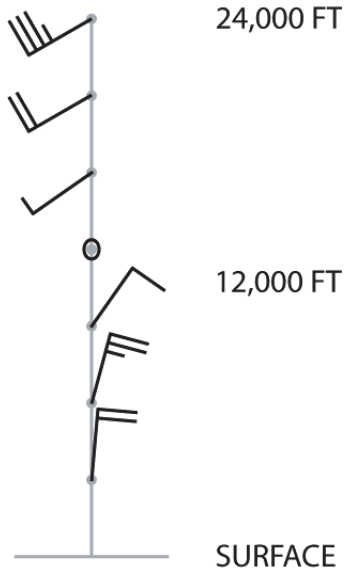
Review Exercises - Lesson 1 Answer Key

1. Match the wind profiles A through D to the velocity products shown in Figures 1 through 4.

__2__ A __4__ B __1__ C __3__ D

2. Construct a vertical wind profile to match Figure 5. (Assume the edge of the display is 24,000 ft.)

Note: This profile is an approximation. There will be variations in interpretation due to variations in the color copy quality.



3. In Figure 6, the low level wind direction is from the ***northeast***.

4. In Figure 6, the wind direction at the edge of the display is from the ***south-southeast***.

5. In Figure 6, the velocity pattern suggests that _____. Choose the best answer.

a) a frontal boundary is approaching from the southwest
b) a frontal boundary is aloft over the RDA
c) diffluent flow is over the area

Review Exercises - Lesson 2 Answer Key

6. In Figure 7,

a) What would be the quickest/most accurate way to obtain the range and azimuth of the feature that the arrow is pointing towards using AWIPS? ***Place the cursor on the point of interest and hold down the left mouse button.***

b) Where is the RDA relative to the display? ***North-northeast***

c) The small scale feature that the arrow is pointing towards is _____. Choose the best answer.

1. cyclonic convergence
2. cyclonic rotation
3. anticyclonic rotation

7. In Figure 8,

a) Where is the RDA relative to the display? ***West***

b) The small scale feature that the arrow is pointing towards is _____. Choose the best answer.

1. cyclonic convergence
2. anticyclonic divergence
3. convergence

8. In Figure 9,

a) What would be the quickest/most accurate way to obtain the elevation of the feature that the arrow is pointing towards using AWIPS? ***Place the cursor on the point of interest and hold down the left mouse button.***

b) Where is the RDA relative to the display? ***South-southeast***

c) The small scale feature that the arrow is pointing towards is _____. Choose the best answer.

1. convergence
2. divergence
3. cyclonic rotation

9. In Figure 10,

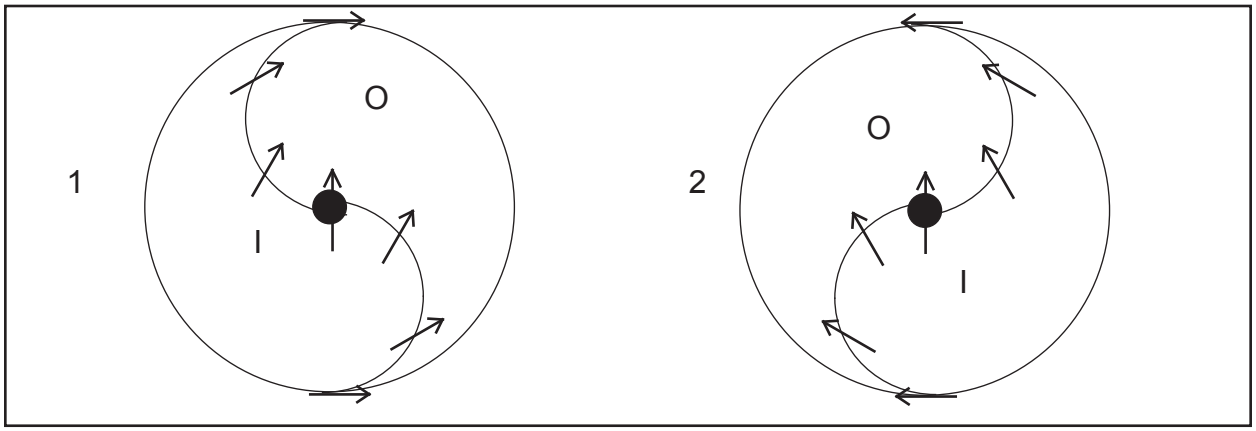
a) Where is the RDA relative to the display? ***Northwest***

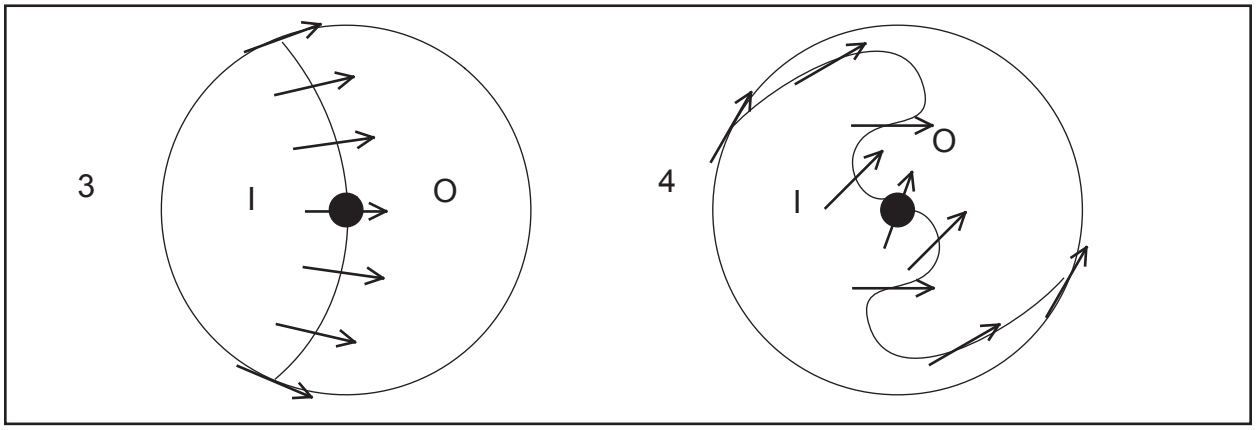
b) The small scale feature that the arrow is pointing towards is _____.
Choose the best answer.

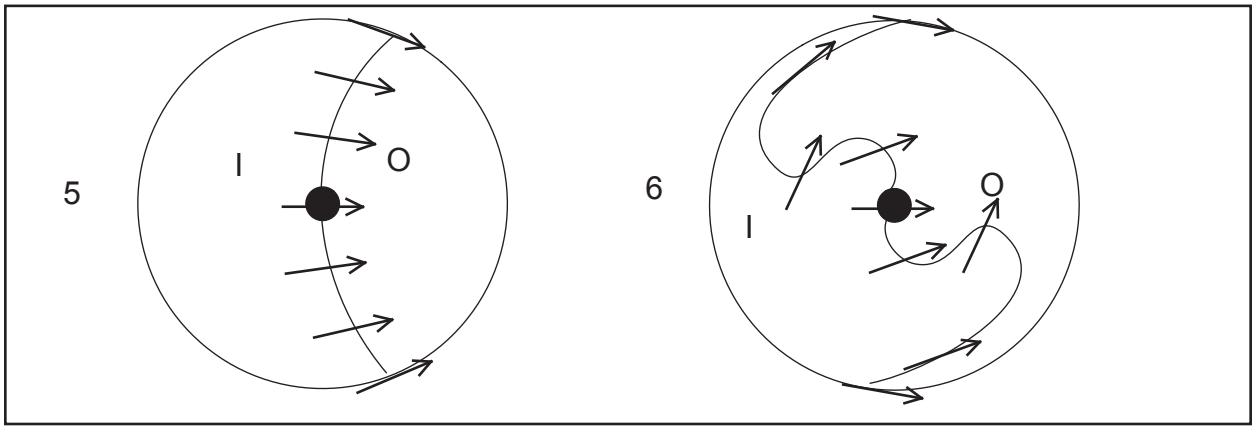
1. cyclonic convergence
2. anticyclonic rotation
3. cyclonic rotation

Practice Exercise - Lesson 1 Answer Key

For each of the following examples, use the zero isodop to determine wind direction at different levels using the method presented in class. The RDA is assumed to be at the center of each circle.







Practice Exercise - Lesson 2 Answer Key

The velocity couplets below represent small scale patterns. The RDA is located at the dot at one end of the arrow and the arrow is pointed in the direction of the radar beam. The I and O represent the inbound and outbound velocity maxima, respectively. Determine the type of flow pattern and enter the initials on the following answer sheet: Pure convergence (PC), pure divergence (PD), pure cyclonic rotation (CR), pure anticyclonic rotation (AR), cyclonic divergence (CD), anticyclonic divergence (AD), cyclonic convergence (CC), or anticyclonic convergence (AC).

1. ***CC***	7. ***CD***	13. ***PC***	19. ***CR***
2. ***CR***	8. ***AR***	14. ***AC***	20. ***CR***
3. ***AC***	9. ***AR***	15. ***PD***	21. ***AD***
4. ***AR***	10. ***PD***	16. ***CC***	22. ***PC***
5. ***CC***	11. ***AC***	17. ***AC***	23. ***CD***
6. ***CD***	12. ***AD***	18. ***PC***	24. ***PD***