

FUNDAMENTALS OF WEATHER WORKSHEET #1

PILOT NAME: _____

1. What are the conditions for a Standard Day?

2. At what rate does atmospheric pressure decrease with an increase in altitude?

3. State the general characteristics in regard to the flow of air around high and low pressure systems in the northern hemisphere?

4. What factor primarily determines the type and vertical extent of clouds?

5. What is the difference between a stable and an unstable atmosphere?

6. List the effects of stable and unstable air on clouds, turbulence, precipitation, and visibility.

	Stable	Unstable
Clouds		
Turbulence		
Precipitation		
Visibility		

7. What are the two main types of icing?

8. Name 4 types of structural ice.

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9. Describe the 4 types of ice listed above.

_____ Ice- _____

_____ Ice- _____

_____ Ice- _____

_____ - _____

10. What conditions are necessary for structural icing to occur?

11. Which type of structural icing is more dangerous? Rime or Clear?

12. What factors must be present for a thunderstorm to form?

13. Describe the 3 main stages of a thunderstorm.

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14. When temperature and dew point are converging, what is likely to happen?

15. State two basic ways that fog may form.

16. Name 5 types of fog.

- _____
- _____
- _____
- _____
- _____

17. Pick three of the above types of fog and summarize the conditions that favor their formation. Include the how, when, and where that the fog is likely to form.

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18. Why is fog a major operational concern to pilots?

19. What is an AIRMET?

20. What is a SIGMET?

21. What is the main difference between AIRMETs and SIGMETs?

22. What is a Convective SIGMET?

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23. How would you use the valuable information that can be determined from a Winds and Temperatures Aloft Forecast?

- _____ - _____
- _____ - _____

24. Define and explain the weather conditions (ceilings and visibility) for the terms IFR, MVFR, and VFR.

IFR - _____

MVFR - _____

VFR - _____

25. List the approximate pressure in mb (millibars) for the following altitudes:

Sea Level - _____
10,000 ft - _____
18,000 ft - _____
34,000 ft - _____

26. Are Winds Aloft forecasts in true or magnetic direction?

27. TAF's are issued how many times a day and at what intervals?

Questions for your instructor that came up while you did this?

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