

**USAFA Aero Club
Night Standardization Knowledge Test
Updated April 2017**

Instructions

Complete the following exam using the answer sheet provided. Do not assume information not specifically provided in the questions. You may use the following as open book references: FAR/AIM, AFMAN 34-232, USAF Aero Club SOP, AFD/SW.

1. The definition of night is

2. For the purposes of maintaining night currency you must have logged at least ____take offs and landings during the period

3. Official sunset is listed as 2013 local. Assuming your night currency has lapsed, what is the latest time you may fly solo? What is the latest time you may fly with passengers?

4. In order to regain night currency at the Aero club you must

5. The Aero Club night VFR minimums are

6. To qualify to make night flights in the local area, the PIC must

7. Night flights outside the local area are subject to the following limitations:

8. The following may not be performed at night: aerobatics, unusual attitudes, stalls, approach to stalls, or flight at minimum controllable airspeed. Are there any exceptions when these maneuvers may be performed?

9. Must a flight plan be filed with FSS for local area night flights, or for only night flights outside the local area, or both?

10. Refer to the SW AFD listing for Lamar. Which frequency is used to activate the PCL? What PCL options are available at Lamar?

11. How is PCL activated for the highest intensity available?

12. During a night flight you observe a steady red light and a flashing red light ahead that appear to be at your same altitude. What is the general direction of the other aircraft?

13. During a night flight you observe steady green (on the left) and steady red (on the right) lights ahead that appear to be at the same altitude. What is the general direction of the other aircraft?

14. The regulations state that supplemental oxygen is required only for crewmembers on flights above 12,500 ft for longer than 30 minutes or flights above 14,000 ft. Night vision begins to degrade without the use of supplemental oxygen at what altitude?

15. At night you are scanning for traffic when you notice a lighted tower which suddenly appears to takeoff and fly around. You are experiencing which illusion in flight?

16. An absence of ground features at night can create the illusion that the aircraft is _____ than actual. If this illusion is not recognized the pilot may fly a _____ approach than normal.

17. Sloping cloud formations, an obscured horizon, a dark scene with ground lights and stars, and certain geometric patterns of ground lights can cause which illusion in flight?

18. How many minutes of exposure to total darkness are required for complete dark adaptation?

19. What are two disadvantages of using red light at night in the cockpit?

20. When scanning at night, pilots should use off-center viewing. Why?

USAFA Aero Club
Night Standardization Knowledge Test Key
Updated April 2017

Instructions

Complete the following exam using the answer sheet provided. Do not assume information not specifically provided in the questions. You may use the following as open book references: FAR/AIM, AFMAN 34-232, USAF Aero Club SOP, AFD/SW.

1. The definition of night is: **The time between the end of evening civil twilight and the beginning of morning civil twilight as published in the American Air Almanac converted to the local time.**
2. For the purposes of maintaining night currency you must have logged at least 3 take offs and landings during the period **within the preceding 90 days**
3. Official sunset is listed as 20:13 local. Assuming your night currency has lapsed, what is the latest time you may fly solo? What is the latest time you may fly with passengers?
You cannot fly at night if you are noncurrent for night flights
4. In order to regain night currency at the Aero club you must
Fly with a Aero Club CFI who is night current
5. The Aero Club night VFR minimums are
2,500 ft ceiling and 5 miles visibility
6. To qualify to make night flights in the local area, the PIC must
have logged at least 50 hrs as PIC and maintain visual contact with an airport approved for night operations or hold a current instrument rating
7. Night flights outside the local area are subject to the following limitations:
must be operated under IFR or the flight may be conducted under VFR if under an approved syllabus of instruction and the CFI and the airplane are IFR qualified
8. The following may not be performed at night: aerobatics, unusual attitudes, stalls, approach to stalls, or flight at minimum controllable airspeed. Are there any exceptions when these maneuvers may be performed?
Except for aerobatics all other maneuvers may be performed if required by an approved syllabus and the CFI and airplane are IFR qualified
9. Must a flight plan be filed with FSS before flying local area night flights, or only for night flights outside the local area, or for both?
Both
10. Refer to the SW AFD listing for Lamar. Which frequency is used to activate the PCL? What PCL options are available at Lamar?
CTAF 122.8 MIRL Rwy 08-26 and Rwy 18-36 and VASI for Rwy 18

11. How is PCL activated for the highest intensity available?

7 clicks within 5 seconds (AFD)

12. During a night flight you observe a steady red light and a flashing red light ahead that appear to be at your same altitude. What is the general direction of the other aircraft?

Left to Right

13. During a night flight you observe steady green (on the left) and red (on the right) lights ahead that appear to be at the same altitude. What is the general direction of the other aircraft?

Heading straight towards you

14. The regulations state that supplemental oxygen is required only for crewmembers on flights above 12,500 feet for longer than 30 minutes or flights above 14,000 feet. Night vision begins to degrade without the use of supplemental oxygen at what altitude?

5,000 ft MSL

15. At night you are scanning for traffic when you notice a lighted tower suddenly appear to takeoff and fly around. You are experiencing which illusion in flight?

Autokinesis

16. An absence of ground features at night can create the illusion that the aircraft is _____ than actual. If this illusion is not recognized the pilot may fly a _____ approach than normal.

Higher than actual / lower approach

17. Sloping cloud formations, an obscured horizon, a dark scene with ground lights and stars, and certain geometric patterns of ground lights can cause which illusion in flight?

False horizon and not being aligned with the real horizon

18. How many minutes of exposure to total darkness are required for complete dark adaptation?

30 minutes

19. What are two disadvantages of using red light at night in the cockpit?

Severely distorts colors (especially on aeronautical charts), causes difficulties in focusing

20. When scanning at night pilots should use off center viewing. Why?

Peripheral vision is more effective at night