

**Answers**  
**FLIGHT PLANNING PROBLEMS**

1.  $1/24000 = (6/12)/(H-350) \gggg H=12,350 \text{ ft.}$
- 2a. 52,800 ft.    b. 105,600 ft.
3.  $1:24000 \ggg 1 \text{ inch} = 2,000 \text{ ft} \ggg 9" \times 2,000 = 18,000 \text{ ft.}$
4.  $SLC = (1-.25)(18000) = 13,500$
5.  $ELC = (1-.60)(18000) = 7,200$
6.  $OHC = (.25)(18000) = 4,500 \text{ ft.}$
7.  $N = [52,800 + 2(4,500)]/(13,500) = 4.57 \gg 5 \text{ lines}$   
round up/down at 0.5 then check actual sidelap%
8. Interior lines =  $N-2 = 5-2 = 3$  or calculate as  
 $\{[52,800 - 2(4,500)]/(13,500)\} - 1 = 3.24 - 1 = 2.24 \gg 3$   
always round up
9. Line Spacing 1 & N =  $(0.5 - 0.25 \text{ OH\%})(18,000) = 4,500 \text{ ft.}$
10. Interior Line Spacing =  $[52,800 - 2(4,500)]/(3+1) = 10,950$
11. Actual Side% =  $(18,000 - 10,950)/18,000 = 39.2\%$
12. Photo spacing =  $ELC = 7,200 \text{ ft.}$
13. Photos per line =  $(105,600/7,200) + 4 = 14.66 + 4 = 19$
14. Total photos =  $19 * 5 \text{ lines} = 95$
15. Photo spacing, secs =  $7,200/[(160 * 6,076.11)/3600]$   
= 26.66 seconds
16. film, filter, scale, season, time of day