**Review:** Fly from CRQ to Borrego Springs  
**Objective:** Preparing a flight plan using pilotage, dead reckoning, and VORs  
**Materials:** Charts, E6B, flight log, POH

**INTRODUCTION:** Attention/motivation: (1 minute)  
You've done it! You can take off and land the plane, do the essential maneuvers, and follow emergency procedures. It's time to go somewhere! This is where all the fun is.

**DEVELOPMENT:** Overview and explanation: ( minutes)  
Step by step, the instructor gets the student to plan a flight from CRQ, including pilotage, dead reckoning, and the use of VORs. During this, by using the flight log, I demonstrate use of the E6B computer ("Whiz wheel") and discuss alternates.

Big picture – a to b safely. We want to know:

* If we should go
* HOW much fuel we need
* HOW to find our way there (and back)
* HOW High should we fly?
* WHAT do want to know ahead of time? What can we do while we are flying?

TC +/- WCA = TH +/- Variance = MH +/c DEV = CH

1. Decide course to fly (nav plus pilotage)
2. Draw course
3. Decide altitudes
4. Any obstacles an issue?
5. Choose DR visual points and navaids
6. Enter legs in NavLog (distances in SEC/NM)
7. Determine TC using plotter
8. Determine Winds aloft (use simple one to start)
9. Find Isogonic Lines

CHECKLIST TO COVER, BELOW:  
  
**PILOTAGE CHECKLIST:**  
o Chart symbols and interpretation  
o Terrain features and landmarks for pilotage  
o Planning and flying a ground track  
o Selection of checkpoints  
o Time, speed, distance calculations, ETA  
o Fuel computations and reserves  
o Flight log preparation  
o Weather briefing  
o Filing a flight plan

**DEAD RECKONING CHECKLIST:**  
o Isogonic line  
o Variation vs. deviation  
o True course to magnetic heading calculation  
o IAS vs TAS

**VOR :**  
o Parts: CDI, OBS, To/From indicator, on/off flag  
o Needle deflection  
o Identifying a station and checking location  
o Determining a position fix  
o Accuracy check  
o Difference between this and ADF.

**FLIGHT FOLLOWING**  
o Put on flight plan  
o Request when cleared after departure

**FLIGHT BRIEFING AND PLAN FILING:**  
Locations of FSSs, and the telephone number 1-800-WX-BRIEF  
What's included in the briefing.  
Making a go/no-go decision. (Use decision tool)

**Possible errors:** (2 minutes)  
There are many, and therefore the first several flight plans should be overseen and checked meticulously by the instructor.

**Oral evaluation/quiz and discussion questions:** (3 minutes)  
Q: How do you know the frequency and Morse code identifiers of VORs?  
Q: When do you need to have an alternate airport on your flight log?  
Q: Would you "go," based on the weather briefing, today?