

values from the graph (Figure 5-31). Now, subtract the values obtained from the field conditions from the values obtained from the cruise conditions to find the true fuel, time and distance values needed for the flight plan.

The values obtained by proper utilization of the graphs for the descent segment of the example are shown below.

- | | |
|------------------------------|------------|
| (1) Time to Descend | |
| (7.5 min. minus 4.5 min.) | 3.0 min.* |
| (2) Distance to Descend | |
| (13.5 miles minus 8.0 miles) | 5.5 miles* |
| (3) Fuel to Descend | |
| (1.0 gal. minus .5 gal.) | .5 gal.* |

(e) Cruise

Using the total distance to be traveled during the flight, subtract the previously calculated distance to climb and distance to descend to establish the total cruise distance. Refer to the appropriate Avco Lycoming Operator's Manual when selecting the cruise power setting. The established pressure altitude and temperature values and the selected cruise power should now be utilized to determine the true airspeed from the Cruise Performance graph (Figure 5-21 or 5-23).

Calculate the cruise fuel consumption for the cruise power setting from the information provided by the Avco Lycoming Operator's Manual.

The cruise time is found by dividing the cruise distance by the cruise speed and the cruise fuel is found by multiplying the cruise fuel consumption by the cruise time.

The cruise calculations established for the cruise segment of the flight planning example are as follows:

- | | |
|--------------------------------------|-------------|
| (1) Total Distance | 300 miles |
| (2) Cruise Distance | |
| (e)(1) minus (c)(4) minus (d)(2), | |
| (300 minus 12 miles minus 5.5 miles) | 282.5 miles |

*reference Figure 5-31