

1. Define "Enplanements"

*Number of passengers that board flights (in a day, month or year). Note: passengers on a direct itinerary will board a flight once. Passengers on a connecting itinerary will board a flight more than once.*

2. What does "RPM" stand for?

*Revenue Passenger Miles*

3. What is the definition of "RPM" (write the equation)

$$RPM = \sum_{i=1 \text{ to All Flights}} (\text{Number of Passengers (Flight } i) * \text{Distance Flown (Flight } i))$$

4. What does "ASM" stand for?

*Available Seat Miles*

5. Write the definition of "ASM" (write the equation)

$$ASM = \sum_{i=1 \text{ to All Flights}} (\text{Number of Seats (Flight } i) * \text{Distance Flown (Flight } i))$$

6. What is "System Load Factor"

*Percentage of total seats occupied*

7. Write the definition for "System Load Factor" (write the equation)

$$SLF = RPM/ASM$$

8. What is Yield (write the equation)

*Yield = Total Revenue/RPM = average airfare paid by passenger per mile flown*

9. Identify 7 factors that have resulted in improved "Yield" since 1928

*a. Jets*

*b. Radar Surveillance*

*c. Wide-bodies*

*d. Hub-and-Spoke Networks*

- e. Yield Management (also known as Revenue Management)
- f. Internet Reservations
- g. Low Cost Business Models

10. What is a Stage-length?

*Distance between an Origin and Destination Airport (can be Great Circle Distance or Distance flown)*

11. Describe the temporal behavior of U.S. Airline profits

*Oscillates with period 8 - 10 years. Amplitude of oscillations have been growing over time.*

12. What is Essential Air Service (EAS). What problem does it solve?

*EAS is federal government subsidies of airline service.*

*Ensures service to communities that do not have airline service. In many cases the number of passengers or their demand elasticity cannot support profitable airline service.*

13. Why is gate-to-gate velocity lower for short stage-length flights than long stage-length flights

*For shorter stage-lengths, larger percentage of flight spent in taxi, climb and cruise (with lower speeds).*

14. What is the money in the Airport & Airway Trust Fund (A&ATF) used for

*Funds the operation of the U.S. Air Traffic Control system.*

15. What are the two main reasons the A&ATF is running low

*Airfares getting lower (AATF gets 7.5% of ticket price + a segment fee \$2.50)*

*Air Traffic Controller wages going up fast.*