The Wedding Case

On March 31st of last year, Mary Jackson burst into the family living room and announced that she and Larry Adams (her college boyfriend) were going to be married. After recovering from the shock, her mother hugged her and asked, “When?” The following conversation resulted:

Mary: April 22

Mother: What?

Father: The Adams-Jackson wedding will be the social hit of the year. Why so soon?

Mary: Because on April 22nd the cherry blossoms on campus are always in full bloom! The wedding pictures will be beautiful.

Father: Ugh!

Mary: I want Jane summers to be my maid of honor.

Father: But she’s in the Peace Corps, in Guatemala, isn’t she? It would take her 10 days to get ready and drive up here.

Mary: But we could fly her up in two days, and it would cost only $500. She would have to be here in time to have her dress fitted.

Father: Ugh!

Mother: And catering! It takes two days to choose the cake and table decorations, and Jack’s Catering wants at least 10 days’ notice prior to the rehearsal dinner (the night before the wedding).

Mary: Can I wear your wedding dress, Mom?

Mother: Well, we’d have to replace some lace, but you could wear it, yes. We could order the lace from New York when we order the material for the bridesmaids’ dresses. It takes eight days to order and receive the material. The pattern needs to be chosen first, and that would take three days.

Father: We could get the material here in five days if we paid and extra $25 to airfreight it.

Mary: I want Mrs. Watson to work on the dress.

Father: But she charges $120 a day!

Mother: If we did all the sewing, we could finish the dress in 11 days. If Mrs. Watson helped, we could cut that down to six days, at a cost of $120 for each day less than 11 days.

Mary: I don’t want anyone but her.

Father: Everything should be completed by rehearsal night, and that’s only 21 days from now. I bet that will be a busy day.

Mother: We’ve forgotten something. The invitations.

Father: We should order the invitations from Bob’s Printing Shop, and that usually takes 12
and she didn’t have to fly people up from Guatemala, hire extra people, use airfreight, or anything like that.

Source: Chase, Jacobs, Aquilano (2006)

Questions to answer as a team

1. Given the activities and precedence relationships described in the case, develop a task list (with durations, predecessors, crash cost, and crash time) and a network diagram for the wedding plans.

2. Identify the paths. Which are critical?

3. What is the minimum-cost plan that meets the April 22 date?

Hints:

- Assume Mary and her mother can multi-task (multiple tasks can be worked on at the same time as long as precedence relationships are honored).
- Work begins on April 1st and the wedding takes place on April 22nd so there are 21 days to get the work done and the wedding takes place on day 22.
- Any path without slack time is critical.