

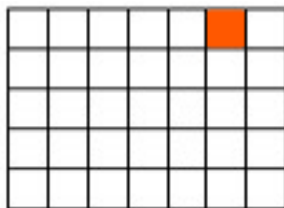
PROBABILITIES FOR CLEAR NIGHTS

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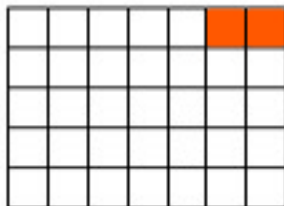
The following chart shows the average percent probabilities (“chances”) of getting 1 clear night during a month under various scheduling scenarios for the Lubbock area. It also shows the resulting number of months per year that on average would be expected to have at least 1 clear night under each scenario. For example, Scenario 1 represents the case where we have one fixed date during the month to hold a star party. In this case, we could expect that date would be clear for only 5 months during an “average” year.

	Scenario	Probability	Months/Year
1	1 night per month	41.3	5.0
2	2 consecutive nights per month	64.7	7.8
3	2 nights per month separated by 1 week	67.9	8.1
4	2 nights per month separated by 2 weeks	65.0	7.8
5	2 nights per month separated by 3 weeks	64.8	7.8
6	3 consecutive nights per month	85.4	10.2
7	3 nights per month each separated by 1 week	82.6	9.9
8	2 pairs of consecutive nights separated by 1 week	90.0	10.8
9	2 pairs of consecutive nights separated by 2 weeks	86.6	10.4
10	4 consecutive nights per month	97.5	11.7
11	4 nights per month each separated by 1 week	90.8	10.9

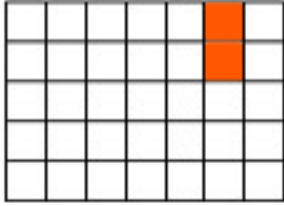
Details for each scenario are described below. In the small figures representing the calendar, I’ve placed the selected dates around the weekend since that’s when we usually schedule these kinds of events. However, the same probabilities would apply if other days of the week were selected.



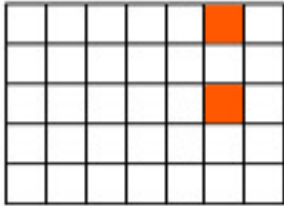
Scenario 1: This is where we’ve set aside one night per month for a star party. This could be a fixed date (like “the first Friday in the month”) or a floating date (like “the Friday closest to the First Quarter Moon”). This is how we currently do our Public Star Parties. In this case, we can expect that in an average year this night will be clear only 41.3% of the time and star parties will occur for only 5 months during the year.



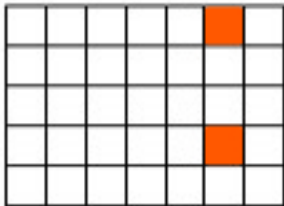
Scenario 2: This is the case where we’ve set aside two consecutive dates (maybe a Friday and Saturday) for a star party. If the first night is cloudy, the second night is the back-up. In this case, the probability that one of the two nights is clear increases dramatically to 64.7% and star parties will successfully occur for almost 8 months during an average year.



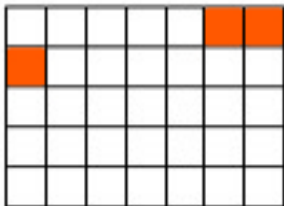
Scenario 3: This is the case where we've set aside two fixed dates during the month for a star party, but the dates are in consecutive weeks (like "the first two Fridays in the month"). In this case, the probability that one of the two nights is clear is slightly better than in Scenario 2 (67.9% versus 64.7%). We could expect that star parties will successfully occur for 8 months during an average year.



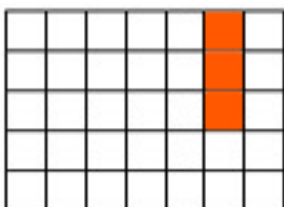
Scenario 4: This is similar to Scenario 3 except that the two dates are separated by 2 weeks (like "the first and third Fridays in the month"). In this case, the probability that one of the two nights is clear is slightly less than in Scenario 3 (65.0% versus 67.9%). We could expect that star parties will successfully occur for almost 8 months during an average year.



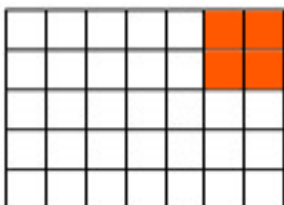
Scenario 5: This is similar to Scenarios 3 and 4 except that the two dates are separated by 3 weeks (like "the first and fourth Fridays in the month"). The probabilities for this scenario are essentially the same as for Scenario 4.



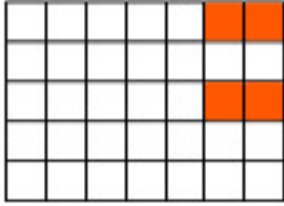
Scenario 6: In this scenario, three consecutive dates (like "Friday-Saturday-Sunday") have been selected for a star party. The first date is the primary date while the two other dates are back-ups. In this case, the probability that one of the 3 nights is clear jumps to 85.4% and we could expect that star parties will successfully occur for 10 months during an average year.



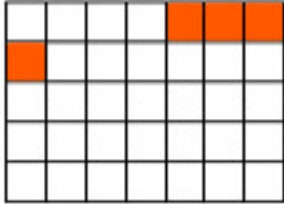
Scenario 7: This is the case where we've set aside 3 fixed dates during the month for a star party, but the dates are in consecutive weeks (like "the first, second and third Fridays in the month"). In this case, the probability that one of the 3 nights is clear is 82.6% and we could expect that star parties will successfully occur for almost 10 months during an average year.



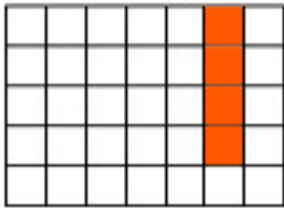
Scenario 8: Here, two pairs of consecutive nights have been set aside for a star party, with each pair separated by 1 week (like "the first Friday and Saturday plus the second Friday and Saturday in the month"). The probability that one of the 4 nights is clear is quite high (90.0%) and we could expect that star parties will successfully occur for almost 11 months during an average year.



Scenario 9: This is similar to Scenario 8, except that the pairs of dates are separated by 2 weeks. For this case, the probability that one of the 4 nights is clear is less than in Scenario 8 (86.6% versus 90.0%). We could expect that star parties will successfully occur for around 10 months during an average year.



Scenario 10: In this scenario, 4 consecutive dates (like “Thursday-Friday-Saturday-Sunday”) have been selected for a star party. The first date is the primary date while the 3 other dates are back-ups. The probability that one of the 4 nights is clear is very high (97.5%) and we could expect that star parties will successfully occur for almost every month during an average year.



Scenario 11: This is the case where we’ve set aside 4 fixed dates during the month for a star party, but the dates are in consecutive weeks (like “the first, second, third and fourth Fridays in the month”). In this case, the probability that one of the 4 nights is clear is 90.8% and we could expect that star parties will successfully occur for almost 11 months during an average year.

Remember that these results are for an “average” year. Results for actual years could be significantly better or worse than what is presented here. For simplicity, these results assume a 30-day month, although they should be reasonably valid for months with a fewer or greater numbers of days. Also, actual results for May could be somewhat less than what is presented here because May tends to be about 10% more cloudy than other months in the Lubbock area.

There is always a degree of uncertainty with statistical results like these. Thus, results for some scenarios might not be significantly different from others even though the average results are numerically different. These results can serve as a general guide to which ways for scheduling star parties might be more effective than others.