

Following the Math To the Postseason

By JAY JAFFE

There's an old baseball axiom which holds that the team in first place on July 4 will win the division. While the direct route from regular-season glory to the World Series has disappeared, that maxim is still good news for the Red Sox, White Sox, Angels, Nationals, Cardinals, and Padres. If history holds true, four of those six division leaders should make the postseason.

Like most axioms, no one is exactly sure where this one came from. But as far back as 1934, a Time magazine cover story noted that in the previous 25 years, the leader on July 4 had gone on to the World Series two-thirds of the time. Since then, the major leagues have expanded from 16 to 30 teams, adding two preliminary playoff rounds while quadrupling the number of clubs invited to the postseason. But the predictive power of Independence Day remains intact.

Since baseball's three-division era began in 1995, teams in first place on July 4 (including ties) have won their divisions 63.5% of the time, a rate uncannily similar to the single-division era of 1901-68, during which 62.7% of July 4 leaders went on to the pennant. The two-division era, 1969-93, saw an inexplicable dip to 56.4%, but order appears to have been restored.

If we include those in first place who went on to grab the wild cards — and why not, given that wild cards begat the past three World Champions — July 4 gains even more predictive power. More than two-thirds (68.2%) of leaders on that day went on to make the playoffs.

This year, the Cardinals — who lead their division by 10½ games — should feel especially safe. Of teams with double-digit leads in the standings on July 4, only one out of 22 — the 1979 Houston Astros — failed to make the playoffs, though teams have blown bigger leads later in the year. Most famously, the 1978 Red Sox held a 14½-game lead on July 19, only to succumb to Bucky Dent's Yankees; the 1951 Dodgers, who held a 13½-game lead on August 11, were felled by the Giants and Bobby Thomson's very loud shot. Suffice it to say that given the Cards' lead, the rival Cubs must be contemplating a possible Waveland Wonder to turn the tide.

As you might expect, there are more scientific means of projecting which teams will reach the playoffs at this juncture. Years ago, Bill James showed that a team's winning percentage could be reliably predicted by the number of runs scored (RS) and runs allowed (RA) in what he called a Pythagorean equation: $\text{Winning Percentage} = (\text{RS}^2) / (\text{RS}^2 + \text{RA}^2)$. More recently, studies by Baseball Prospectus writer Clay Davenport have shown that a team's Pythagorean winning percentage is an excellent predictor of future performance, and that teams tend to be drawn closer to their projected record the larger the sample size.

Davenport has refined James's Pythagorean equation, taking into account not only actual runs scored and allowed but hits, walks, total bases, and other numbers that can help predict the number of runs a team scores or allows with a great deal of accuracy. He also adjusts for park, league, and the quality of opposition, then runs a simulation to determine the odds of a given team of that caliber winning the division or the wild card.

RACE TO OCTOBER

Here are the odds, as of the start of play yesterday, of baseball's six division leaders holding onto the top spot. (The figures are published daily at http://www.baseball-prospectus.com/statistics/ps_odds.php.)

Division	Leader	W-L	Div. Lead	Odds
AL East	Red Sox	46-35	2.5	61.5
AL Central	White Sox	55-26	8.5	68.6
AL West	Angels	50-32	6.5	78.4
NL East	Nationals	50-32	4.5	39.0
NL Central	Cardinals	52-30	11.5	92.3
NL West	Padres	45-38	4.5	79.2



JAMIE SQUIRE/GETTY

ALL HANDS ON DECK Despite playing over their heads in baseball's most competitive division, the Nationals are still the favorites to win the NL East.

In the AL East, the world champion Red Sox have only recently sailed past the upstart Orioles (whose odds of winning the division still stand at 18.0%), and can look forward to the return of ace pitcher Curt Schilling in the coming weeks. Meanwhile, the Yankees — who have had a hard time staying above .500 — have a mere 10.8% shot by this measure.

The NL East is a real dogfight: All five teams are at .500 or better, which is unprecedented this late in the year since the dawn of the three-division era. At the summit, the Nationals are playing well above their heads in their new digs. They're 22-7 in one-run games — which tend to even out over time — and they've allowed more runs than they've scored (thanks mostly to a few early-season blowouts). You can expect the Nats to hover around .500 or lower in the second half of the season, but since their 4½-game cushion is already in the books, Washington still rates as the favorite. The Braves, who haven't lost a division title in a non-strike year since 1990, are right in the hunt at 32.6%, while the Mets, Marlins, and Phillies fluctuate between 8%-12% on a daily basis. The Braves are also the favorite for the NL wild card at 21%.

No team is outperforming its projection more than the White Sox, who have ridden a 22-8 record in one-run games to an 8½-game lead in the standings. The White Sox can be expected to regress in the second half of the season, but they've already managed to knock the three-time defending AL Central champion Twins against the ropes. The division also features the league's top wild-card hopeful, the Indians (34.2%), whose run differential is slightly better than the Twins' to date. (The Twins' wild-card hopes are estimated at 18.9%.)

The biggest lock for the postseason according to Davenport's system is the defending NL Champion Cardinals, whose shot exceeds 95% with the wild card factored in. If there's one certainty halfway through this 2005 season, it's that the Cards will still be playing in October.

Mr. Jaffe writes for Baseball Prospectus. For more state-of-the-art content, visit www.baseballprospectus.com.