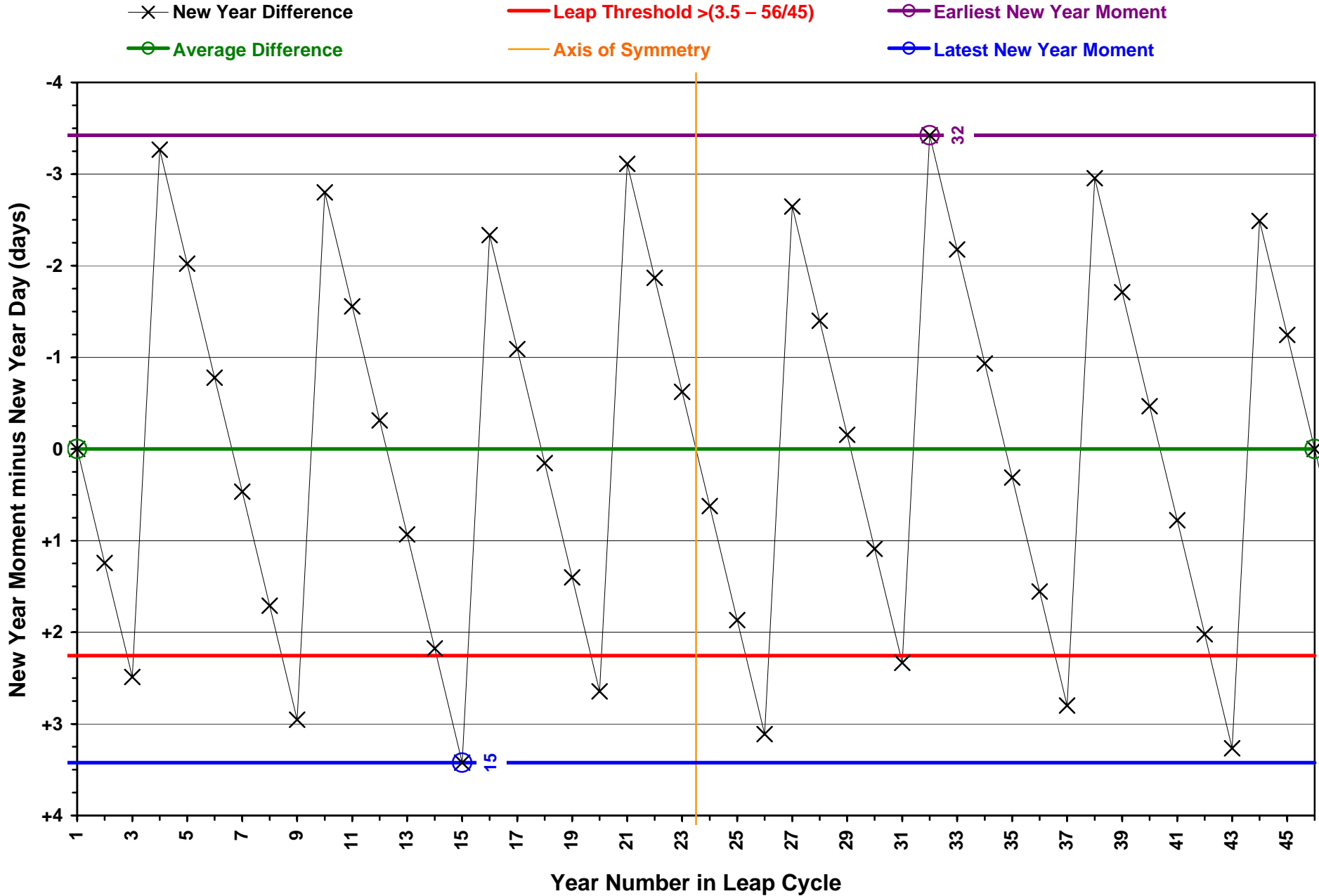# New Year Moment Variations for Symmetrical Leap Week Cycle
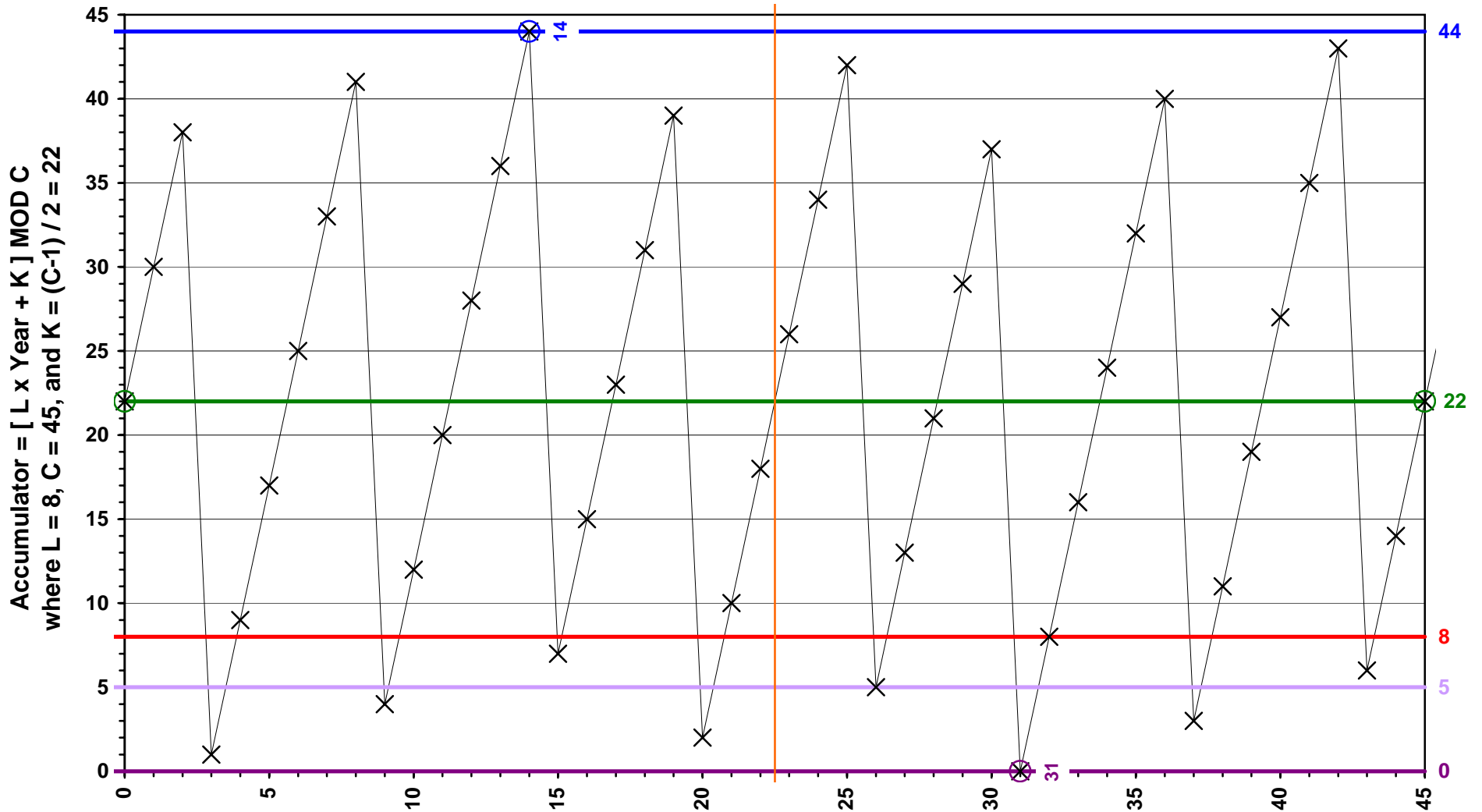
8 symmetrically distributed leap years in 45 years, mean year = $365 + \frac{11}{45} = 365.2444\ldots$ days = 365d 5h 52m

Legend:
- —✕— New Year Difference
- —⊖— Average Difference
- —— Leap Threshold >(3.5 − 56/45)
- —— Axis of Symmetry
- —⊖— Earliest New Year Moment
- —⊖— Latest New Year Moment

X-axis: Year Number in Leap Cycle

Y-axis: New Year Moment minus New Year Day (days)

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Accumulator Variations for Symmetrical Leap Week Cycle

8 symmetrically distributed leap years in 45 years, mean year = 365+$^{11}/_{45}$ = 365.2444… days = 365d 5h 52m

Legend:
- ✕ Accumulator
- Maximum Accumulator = C-1
- Minimum Accumulator = 0
- Average Accumulator = (C-1) / 2
- Leap Threshold (<8)
- 6-year inter-leap intervals = 5
- Axis of Symmetry

Y-axis: Accumulator = [L x Year + K] MOD C where L = 8, C = 45, and K = (C-1) / 2 = 22

X-axis: **Year Number in Leap Cycle:** **It is a leap year only if Accumulator < 8.**
If Accumulator < 5 then next leap 6 years later, otherwise 5 years later.