

KIC 007190849

Q1-17 DR25 TCE Parameters

| TCE | Run Type | KOI? | Period (Days) | Epoch (BKJD) | Depth (ppm) | Duration (Hours) | MES | SNR | R_{\star} (R_{\odot}) | T_{\star} (K) | R_p (R_{\oplus}) | S_p (S_{\oplus}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|-----|------|-----------------------------|-----------------|------------------------|------------------------|
| 007190849-01 | OBS | No | 364.938897 | 179.321408 | 1085.9 | 13.624 | 9.6 | 15.9 | 1.72 | 6675 | 10.61 | 4.25 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 007190849-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_MARSHALL—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS |

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

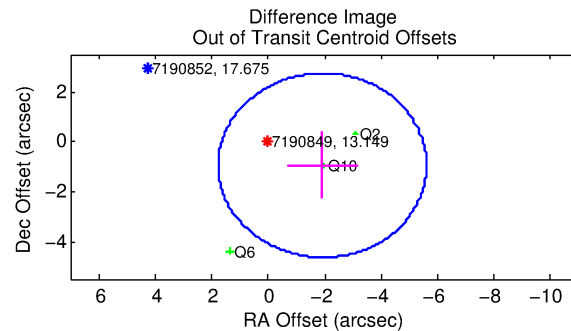
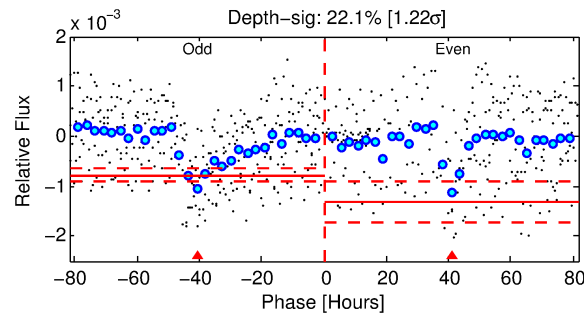
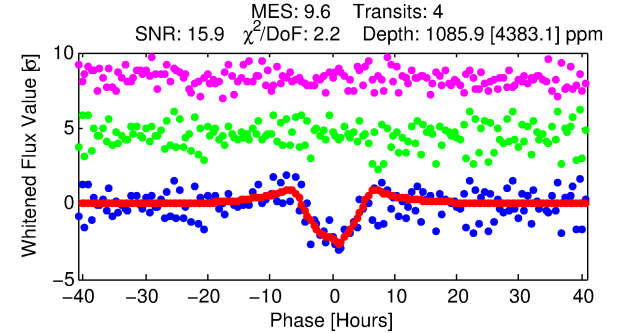
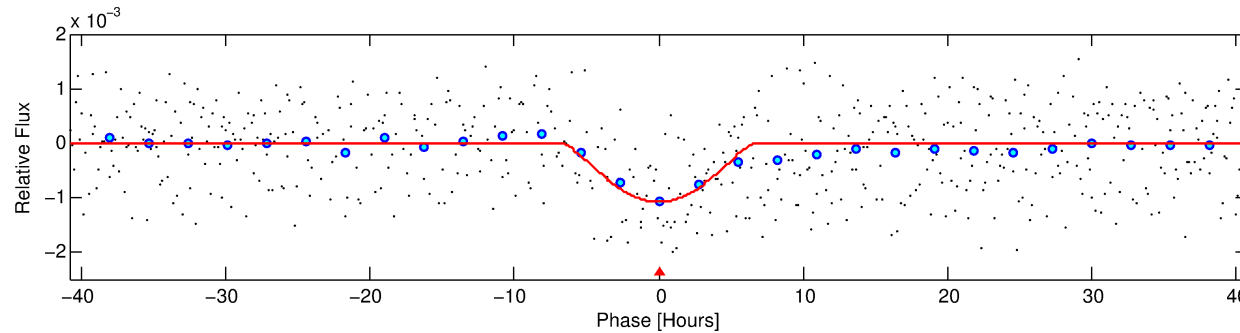
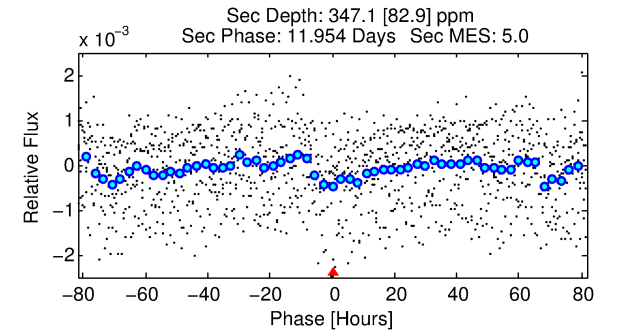
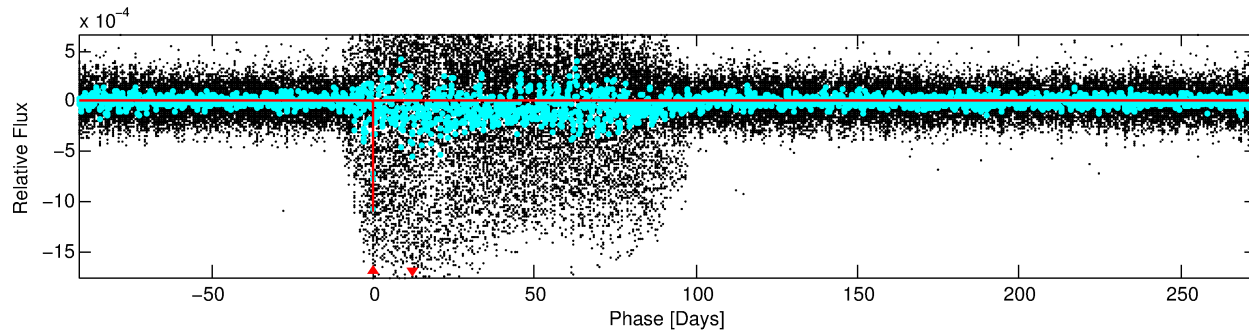
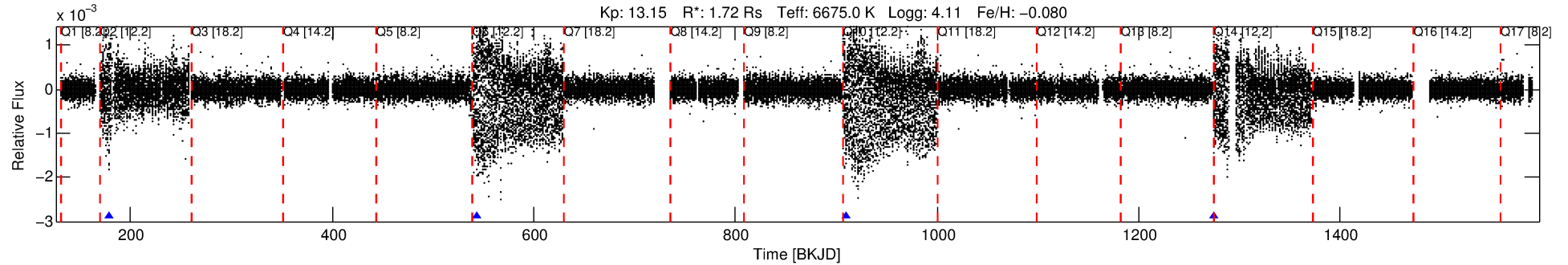
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007190849-01

No Significant Match Found

DV One-Page Summary

KIC: 7190849 Candidate: 1 of 1 Period: 364.939 d



DV Fit Results:

Period = 364.93890 [0.01272] d
Epoch = 179.3214 [0.0202] BKJD
Rp/R* = 0.0566 [0.1316]
a/R* = 69.86 [38.95]
b = 1.00 [0.03]
Seff = 4.25 [1.44]
Teq = 366 [31] K
Rp = 10.61 [24.78] Re
a = 1.1097 [0.2300] AU
Ag = 2089.69 [9746.85] [0.21σ]
Teffp = 3828 [4456] K [0.78σ]

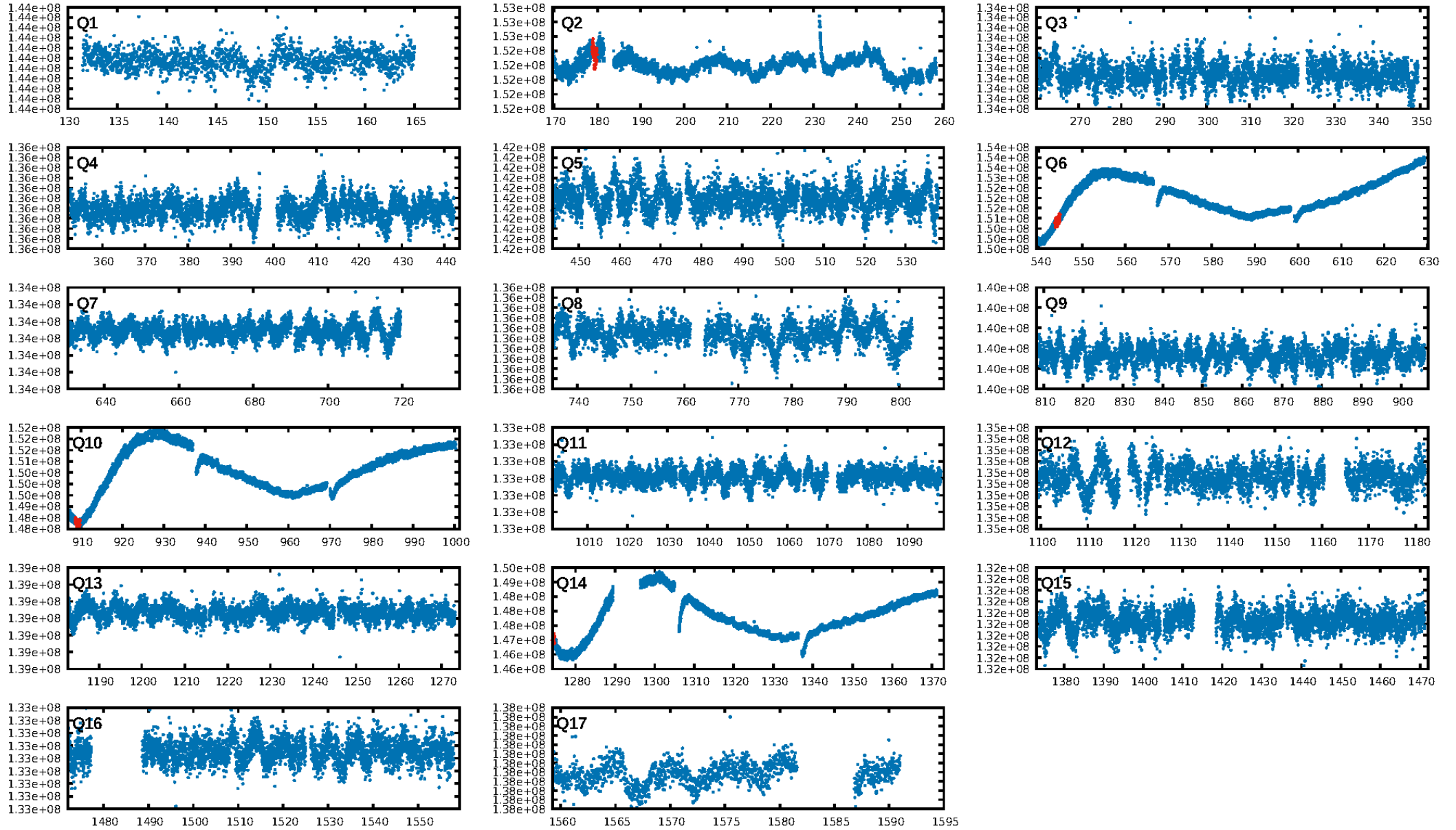
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 48.5%
ModelChiSquareGof-sig: 9.7%
Bootstrap-pfa: 8.79e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -39.79
Centroid-sig: 1.2%
Centroid-so: 2.363 arcsec [3.99σ]
OotOffset-rm: 2.141 arcsec [1.74σ]
KicOffset-rm: 2.514 arcsec [2.03σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

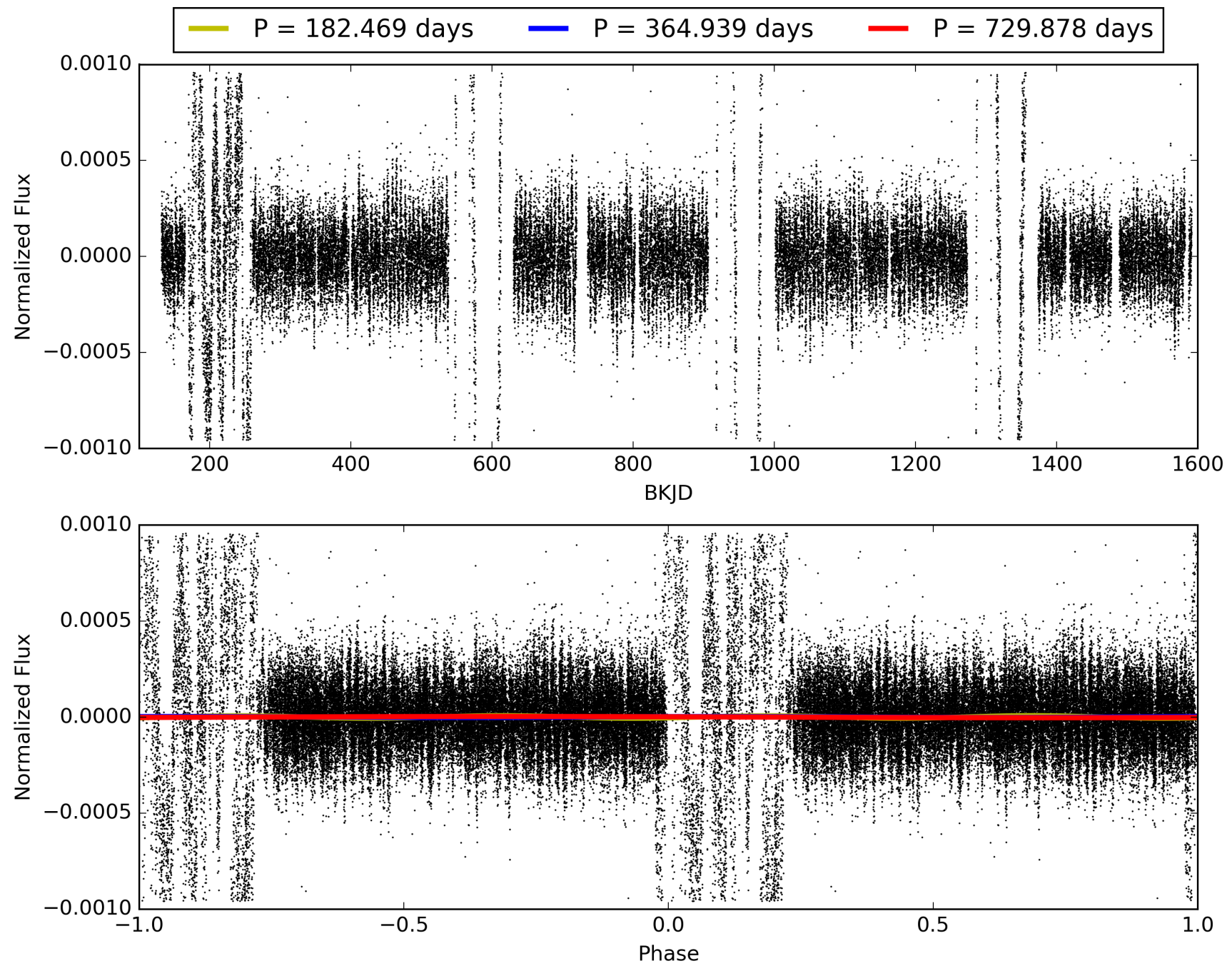
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 09:55:23 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007190849-01, PDC Light Curves

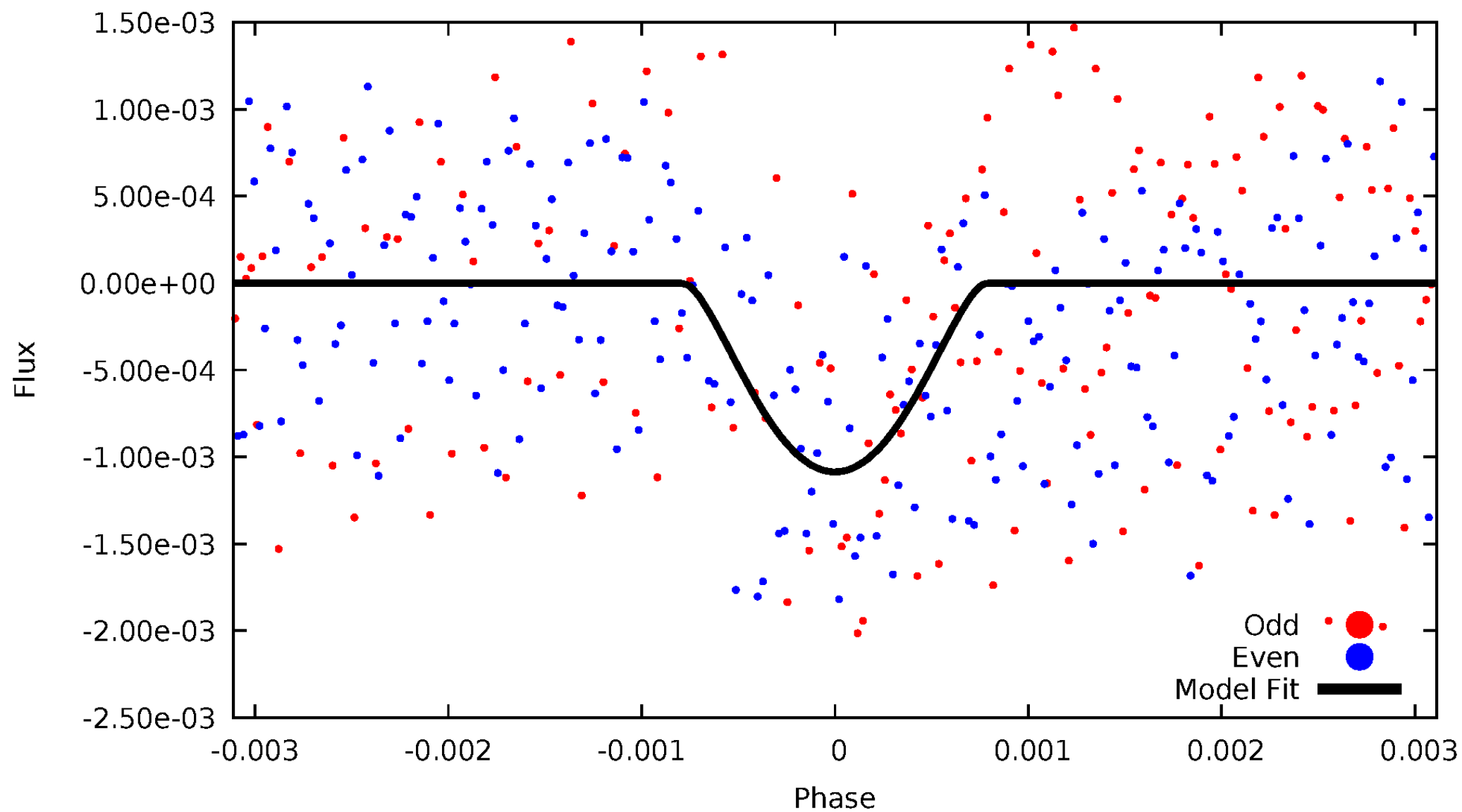


TCE 007190849-01



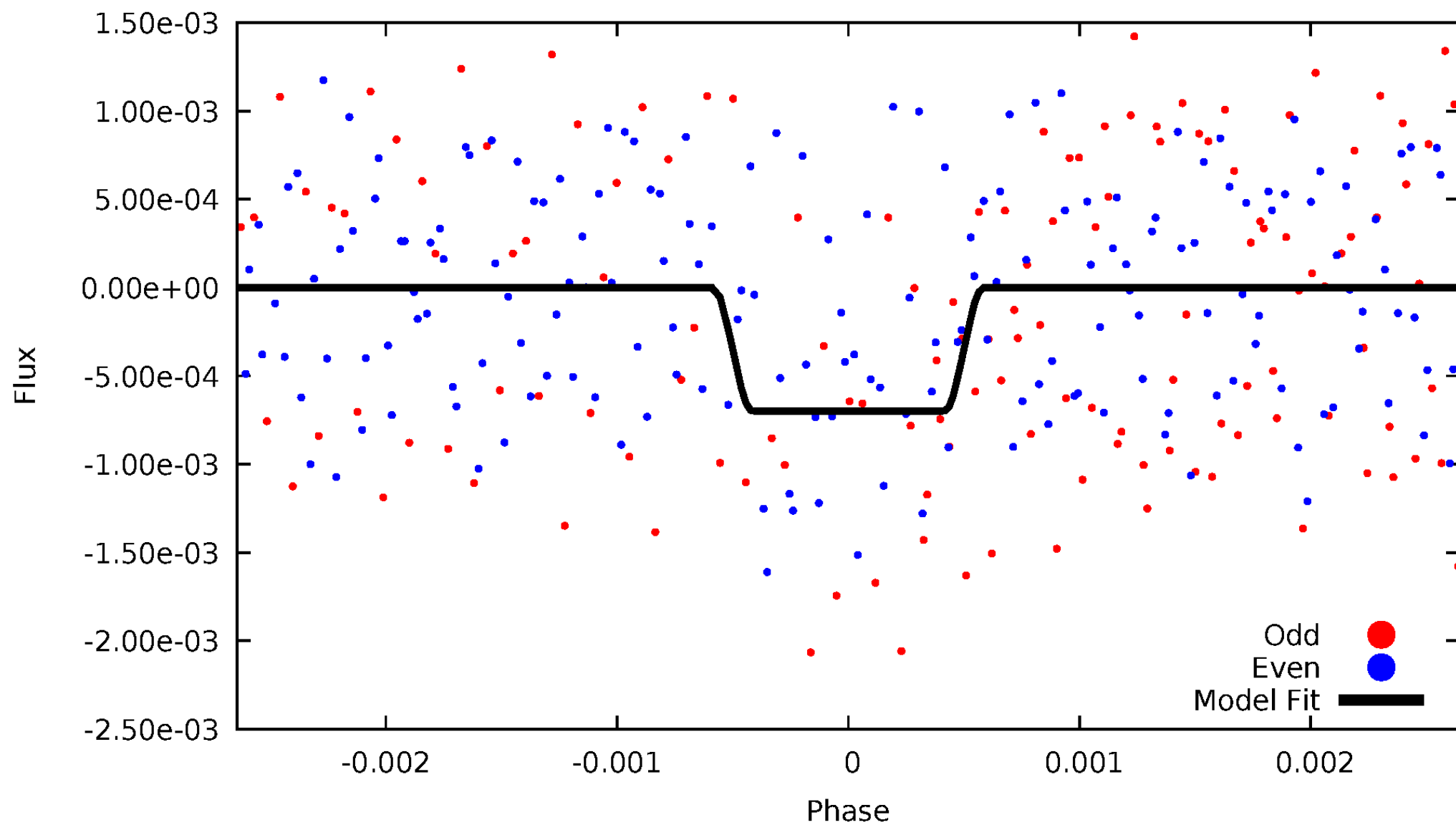
DV Odd/Even

TCE 007190849-01



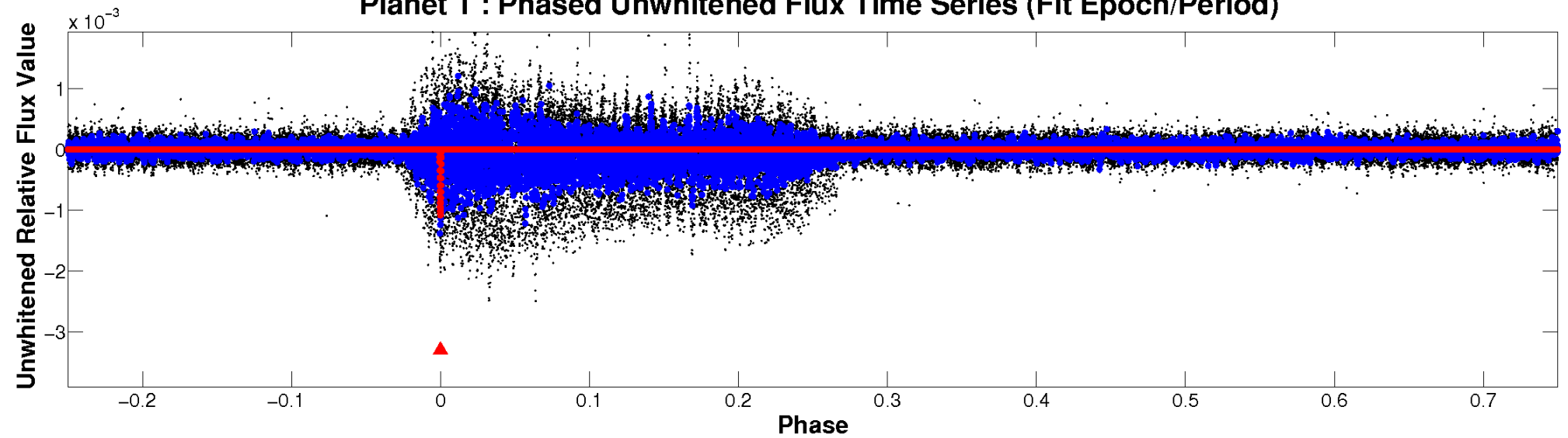
ALT Odd/Even

TCE 007190849-01

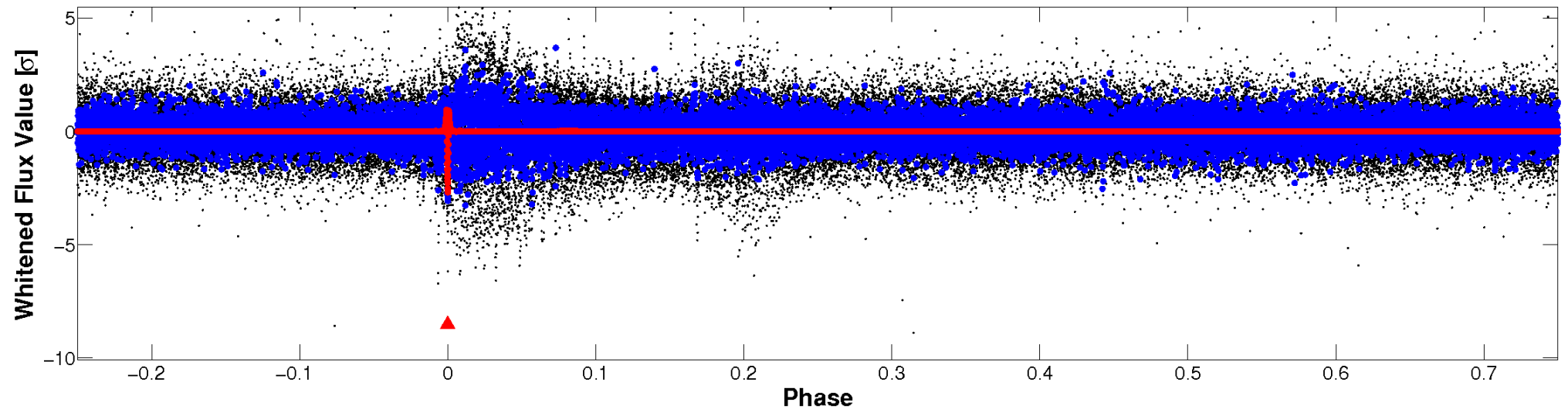


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

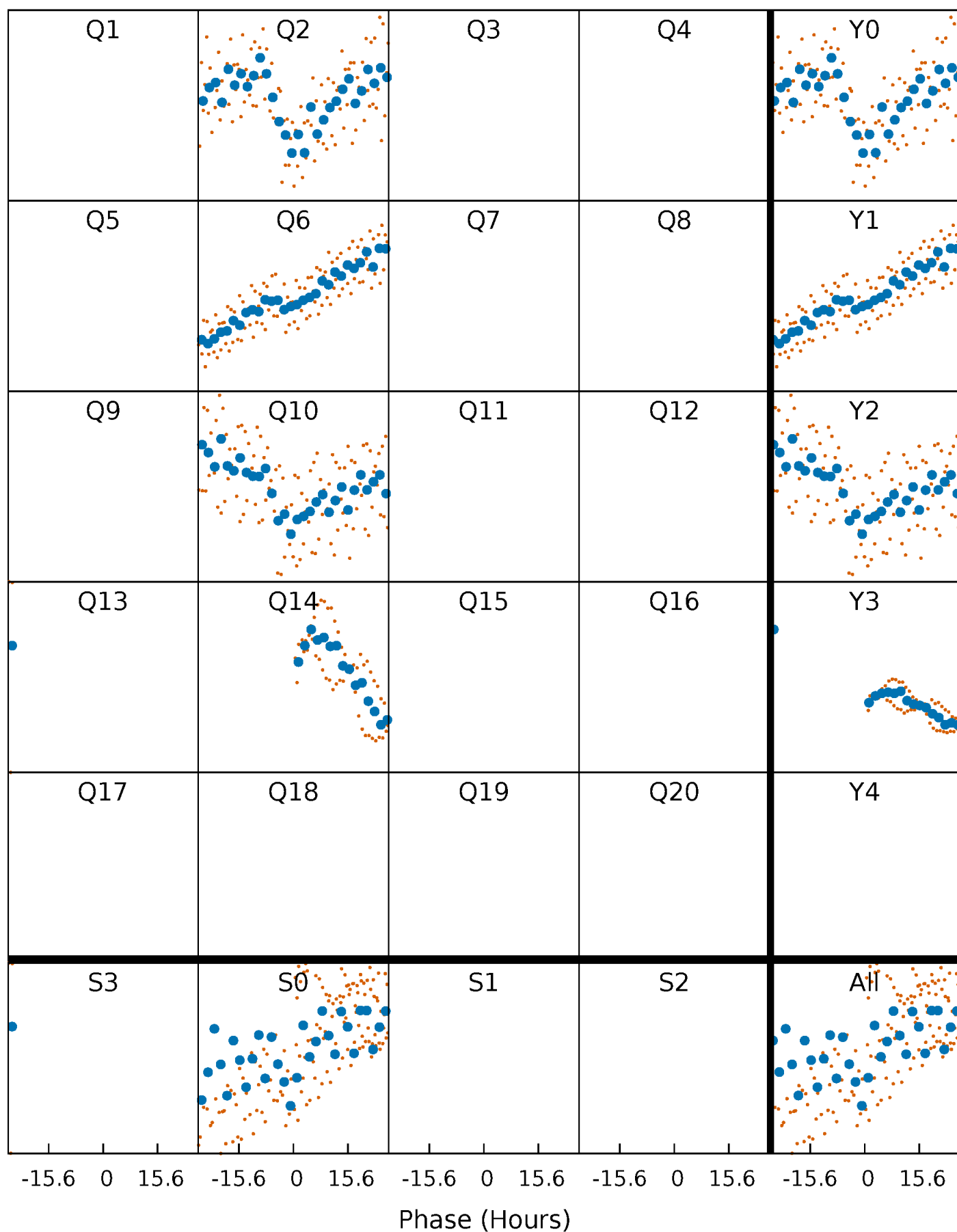


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



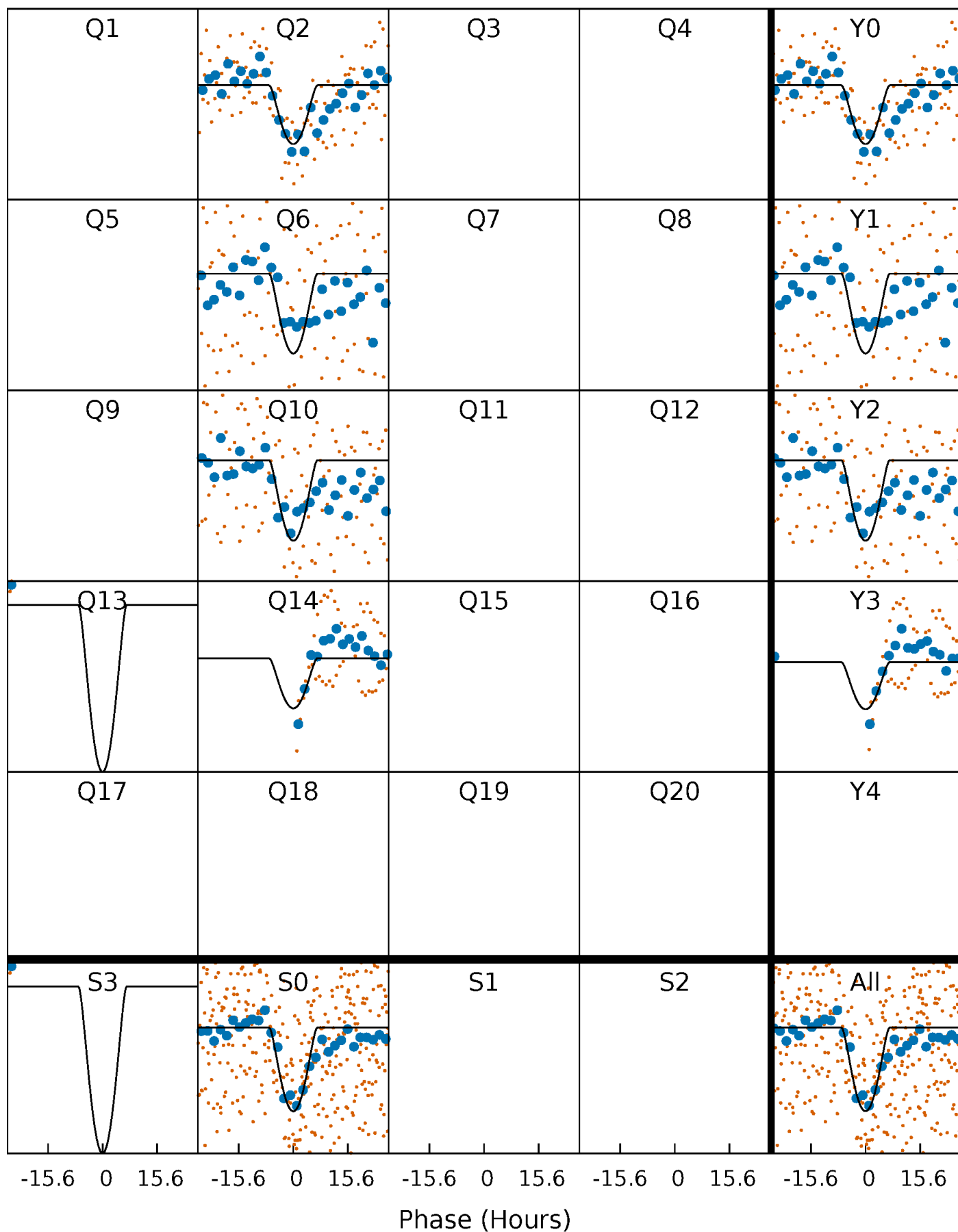
PDC Quarter-Phased Transit Curves

TCE 007190849-01 P=364.938897 Days $T_0=179.321408$ (BKJD)



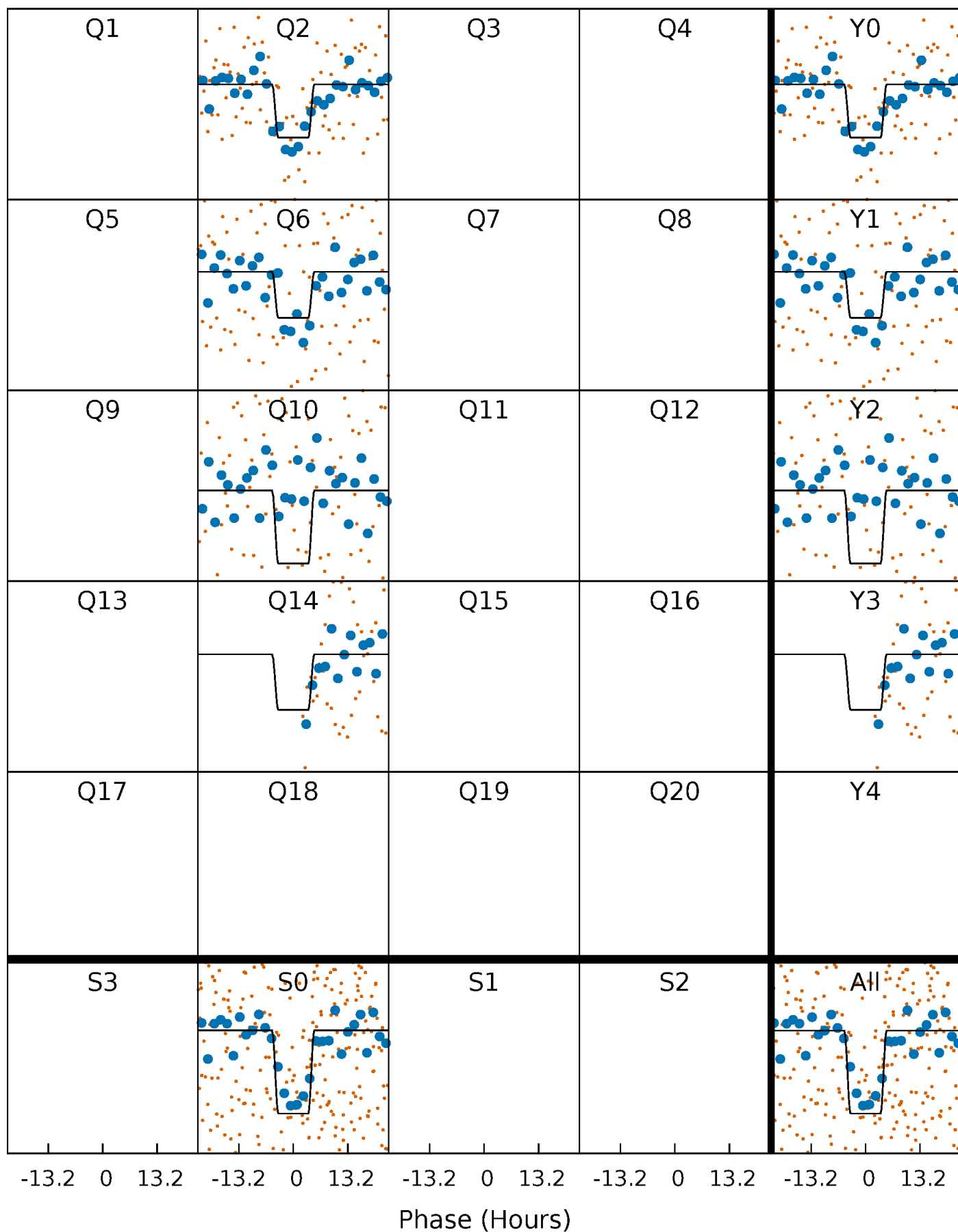
DV Quarter-Phased Transit Curves

TCE 007190849-01 P=364.938897 Days $T_0=179.321408$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

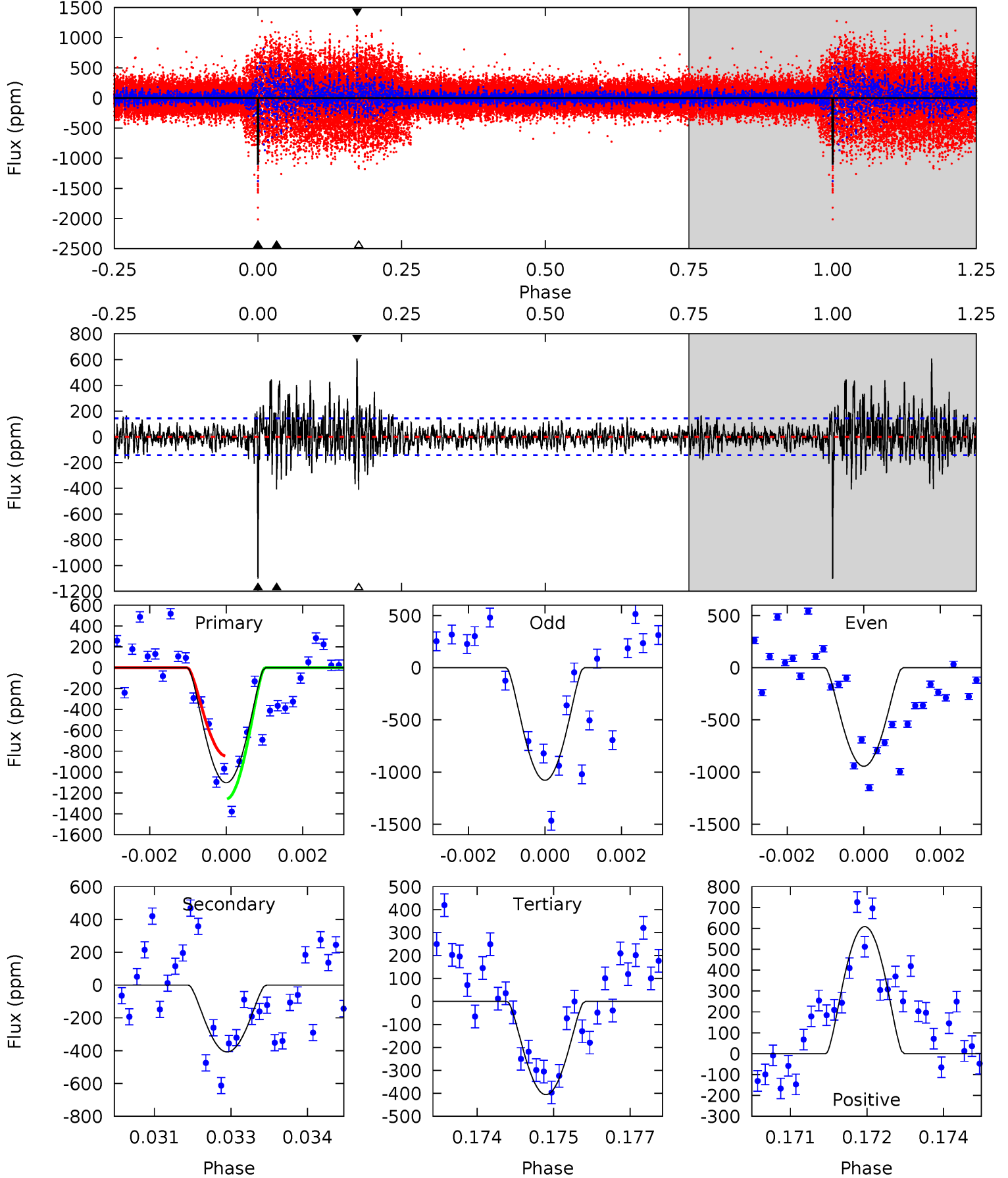
TCE 007190849-01 P=364.916137 Days $T_0=179.313687$ (BKJD)



DV Model-Shift Uniqueness Test

007190849-01, P = 364.938897 Days, E = 179.321408 Days

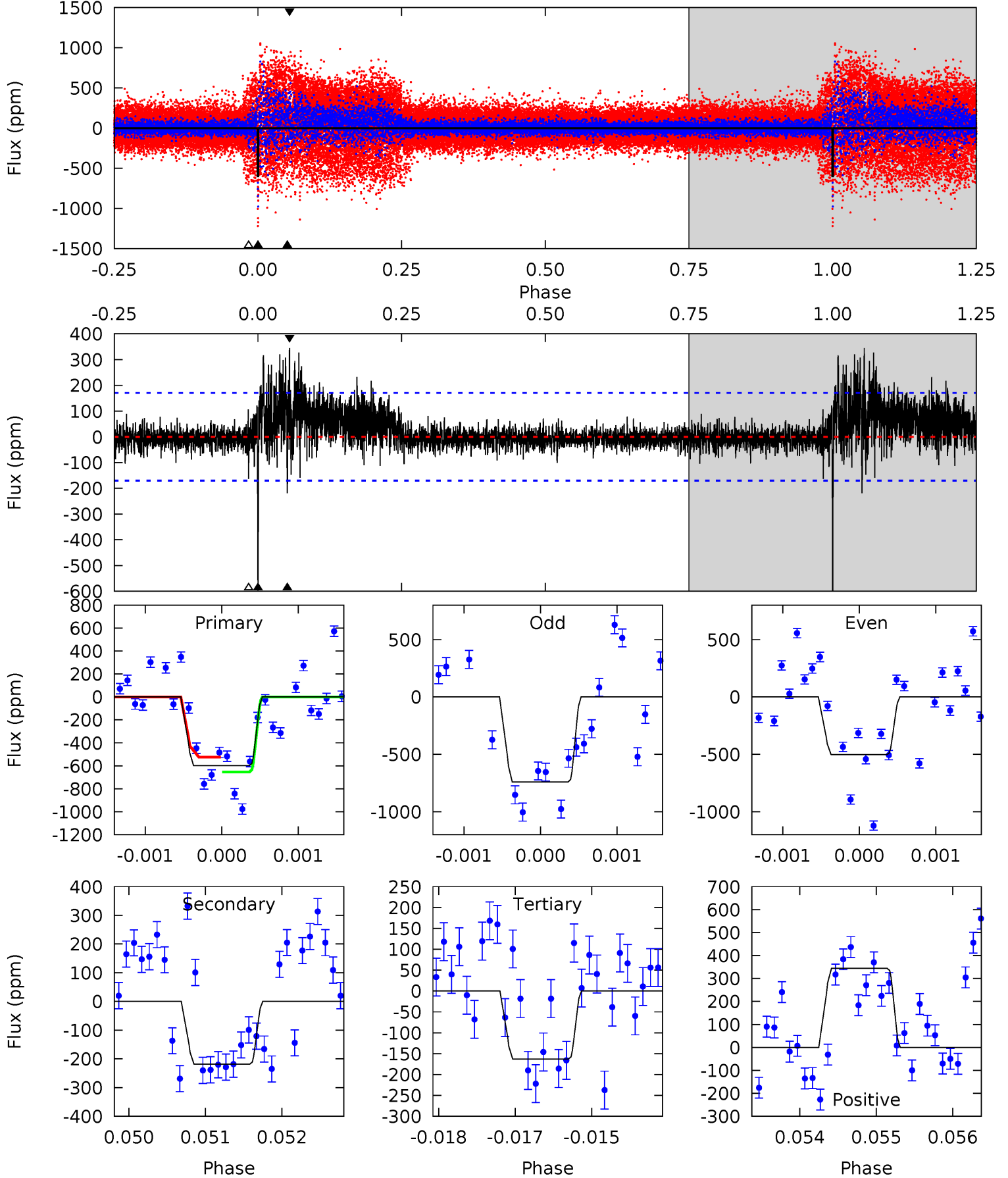
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|-----|
| 41.7 | 15.4 | 15.3 | 23.0 | 5.37 | 3.16 | 3.03 | 26.3 | 18.7 | 0.08 | -7.57 | 2.23 | 0.98 | 0.36 | 0 |



Alt Model-Shift Uniqueness Test

007190849-01, P = 364.916137 Days, E = 179.313687 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 19.1 | 6.96 | 5.19 | 11.0 | 5.43 | 3.26 | 1.54 | 13.9 | 8.08 | 1.77 | -4.03 | 3.60 | 0.78 | 0.37 | 2.02 |



Stellar Parameters For KIC 007190849

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 6675^{+159}_{-239} | $4.105^{+0.171}_{-0.140}$ | $-0.080^{+0.250}_{-0.300}$ | $1.716^{+0.376}_{-0.413}$ | $1.373^{+0.152}_{-0.228}$ | $0.383^{+0.389}_{-0.156}$ |
| | +2%/-4% | +4%/-3% | +312%/-375% | +22%/-24% | +11%/-17% | +102%/-41% |
| Source | PHO1 | FLK73 | KIC0 | DSEP | | |

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007190849-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|---------------|---------------------------|-------------------|-----------------------|----------------------|
| DV | -408 ± 26 | $20.88^{+22.16}_{-14.10}$ | 509^{+32}_{-34} | 3334^{+1640}_{-602} | 626^{+5038}_{-479} |
| Alt. | -218 ± 31 | $18.53^{+20.03}_{-13.05}$ | 510^{+32}_{-34} | 3147^{+1654}_{-545} | 414^{+4432}_{-315} |

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

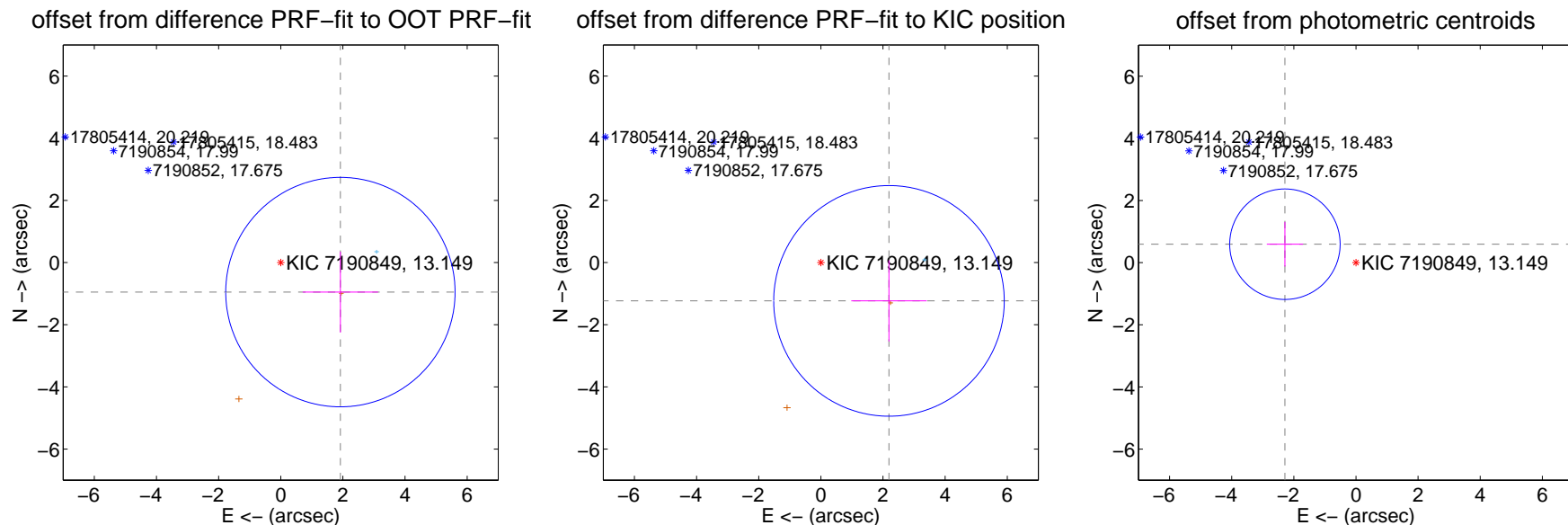
DV Centroid Data

Supplemental centroid analysis for 007190849-01. Kepler magnitude: 13.15. Transit SNR 15.87

There are 1 quarters with good PRF difference image offsets

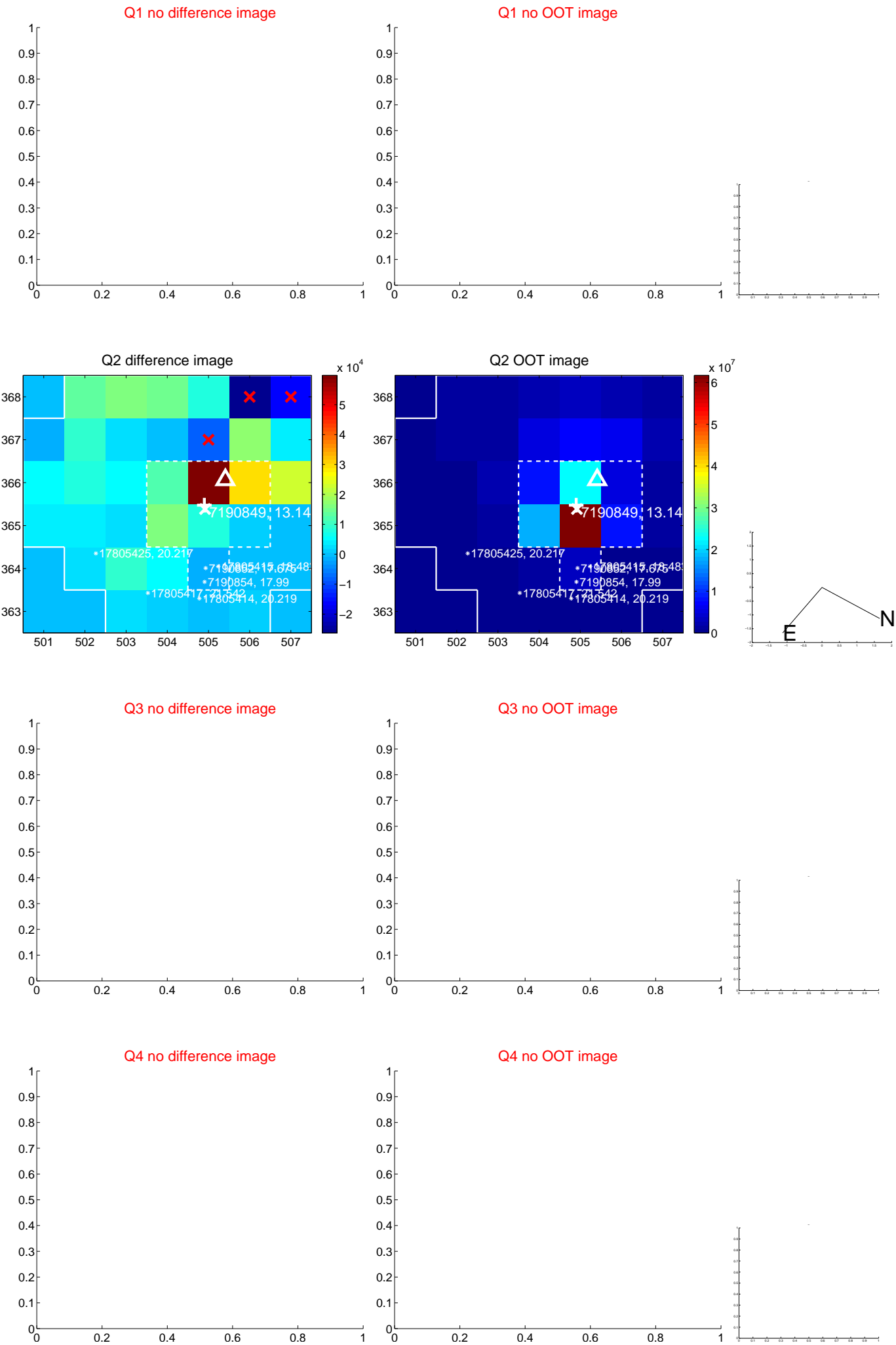
The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 2.141 ± 1.230 | 1.74 | -1.920 ± 1.212 | -0.949 ± 1.303 |
| PRF-fit source offset from KIC position | 2.514 ± 1.236 | 2.03 | -2.192 ± 1.213 | -1.232 ± 1.306 |
| photometric centroid source offset | 2.36 ± 0.59 | 3.99 | 2.29 ± 0.58 | 0.59 ± 0.72 |

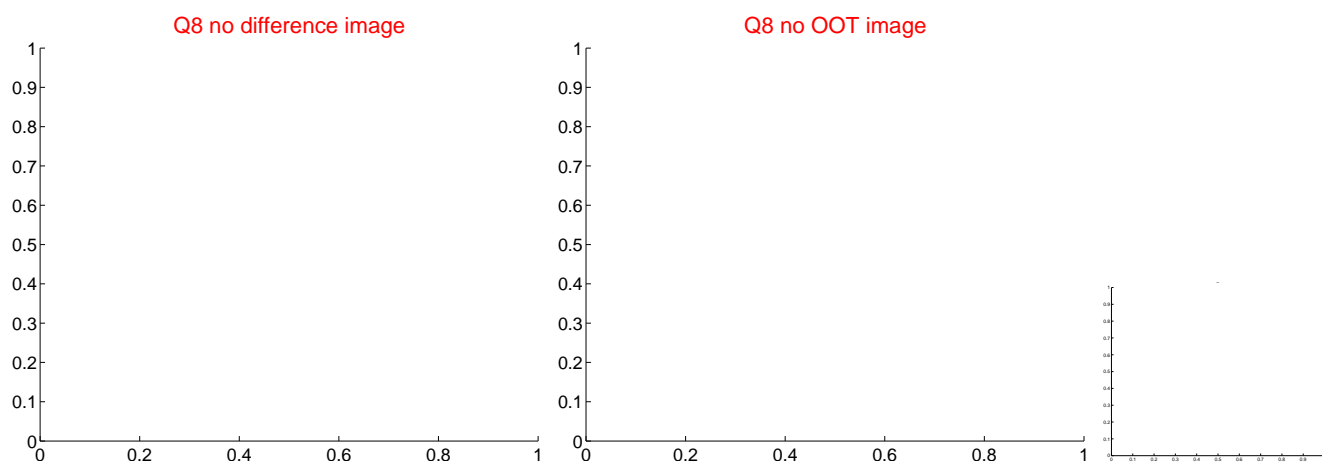
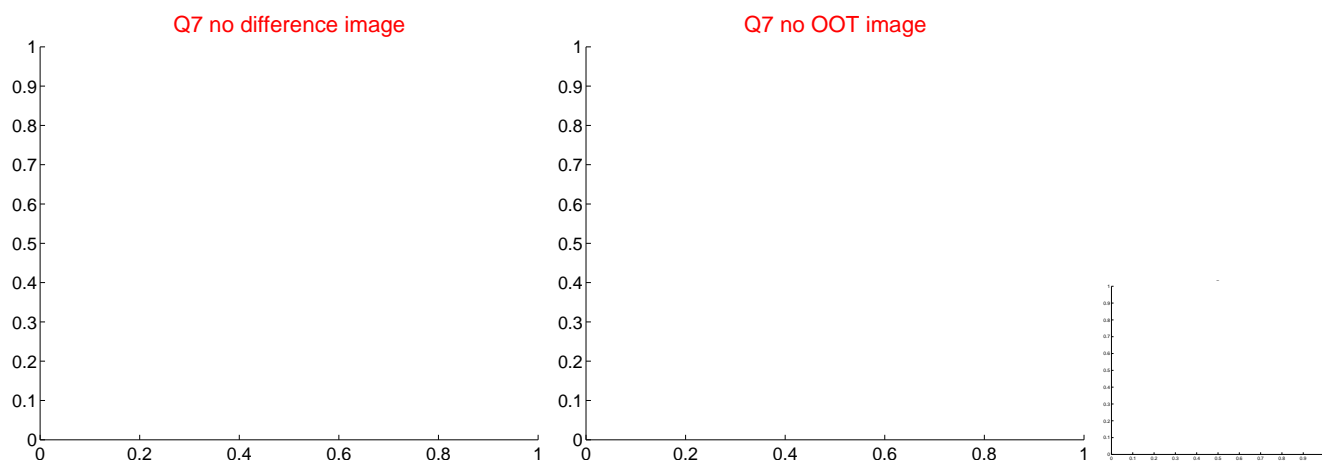
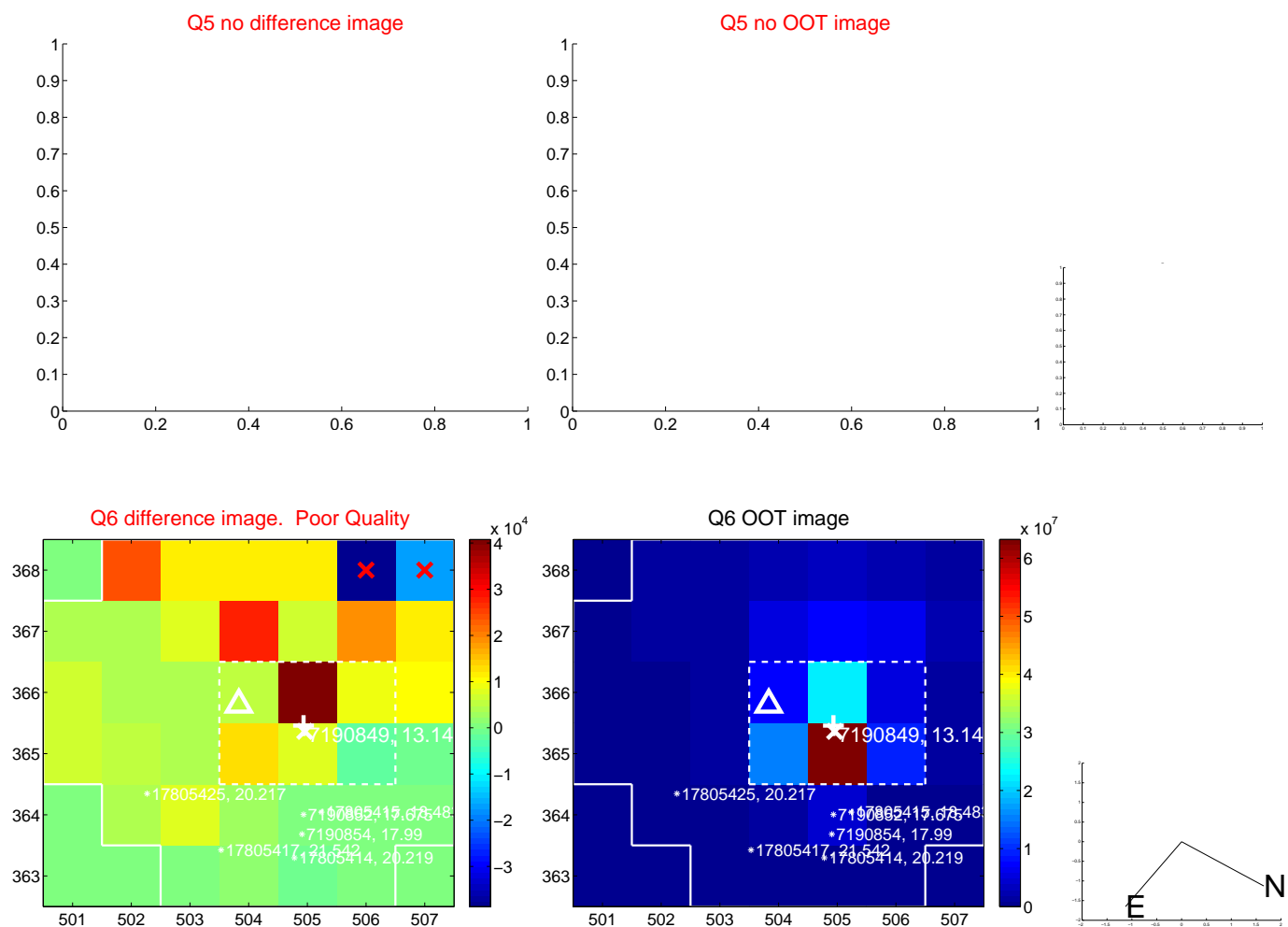


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

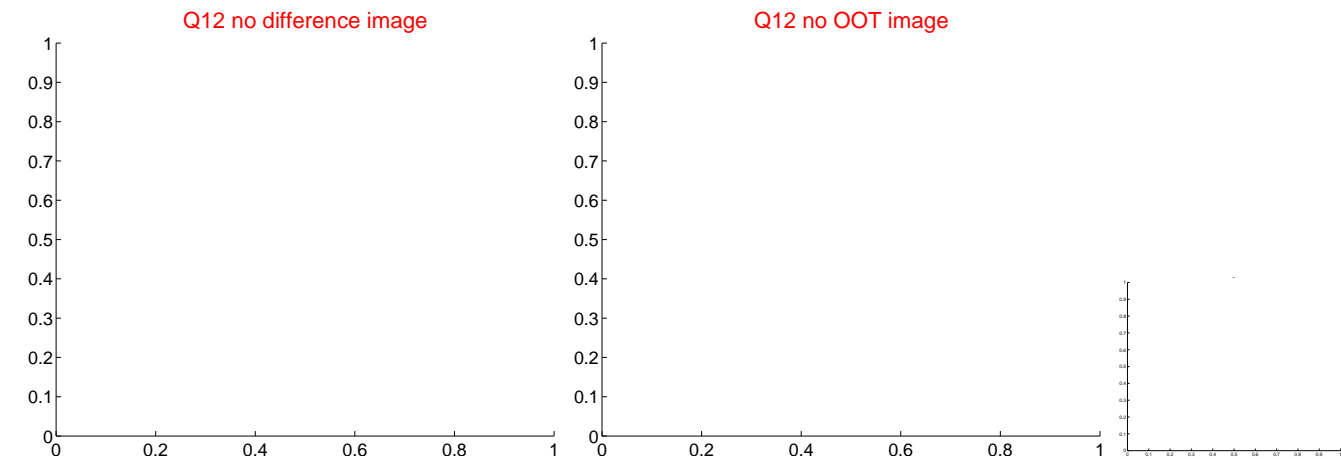
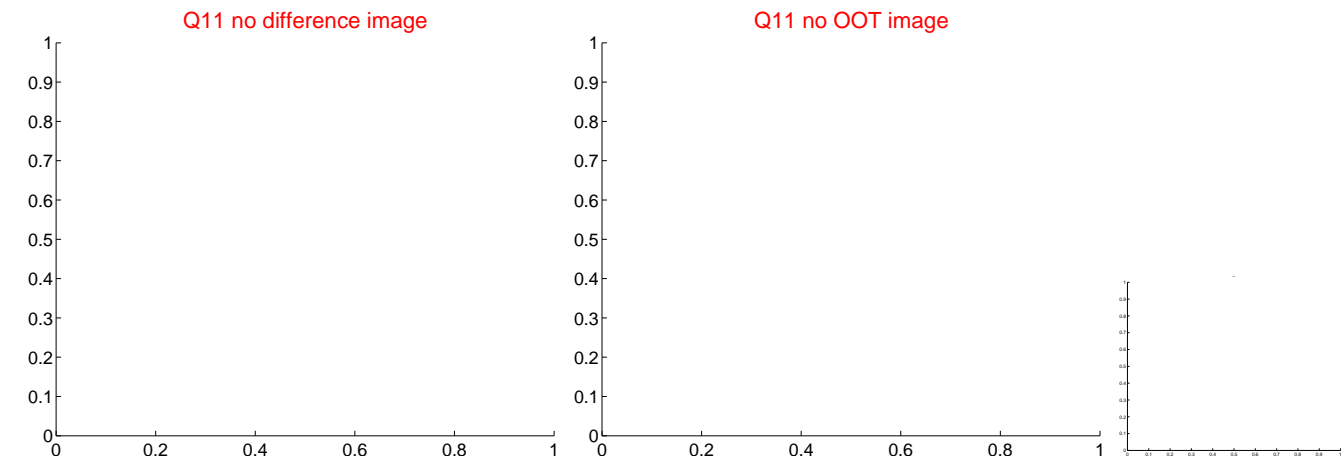
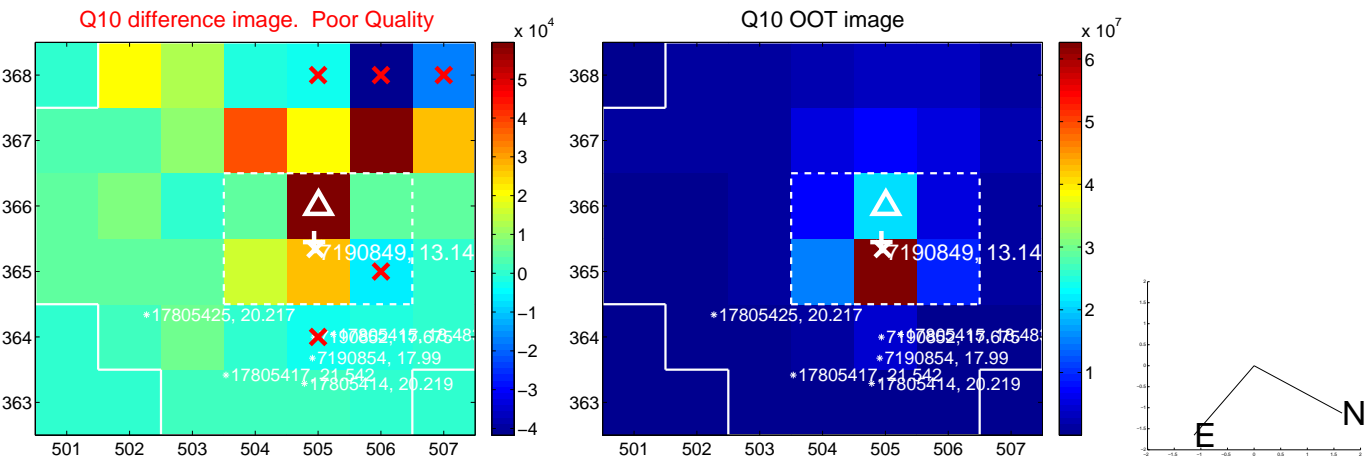
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



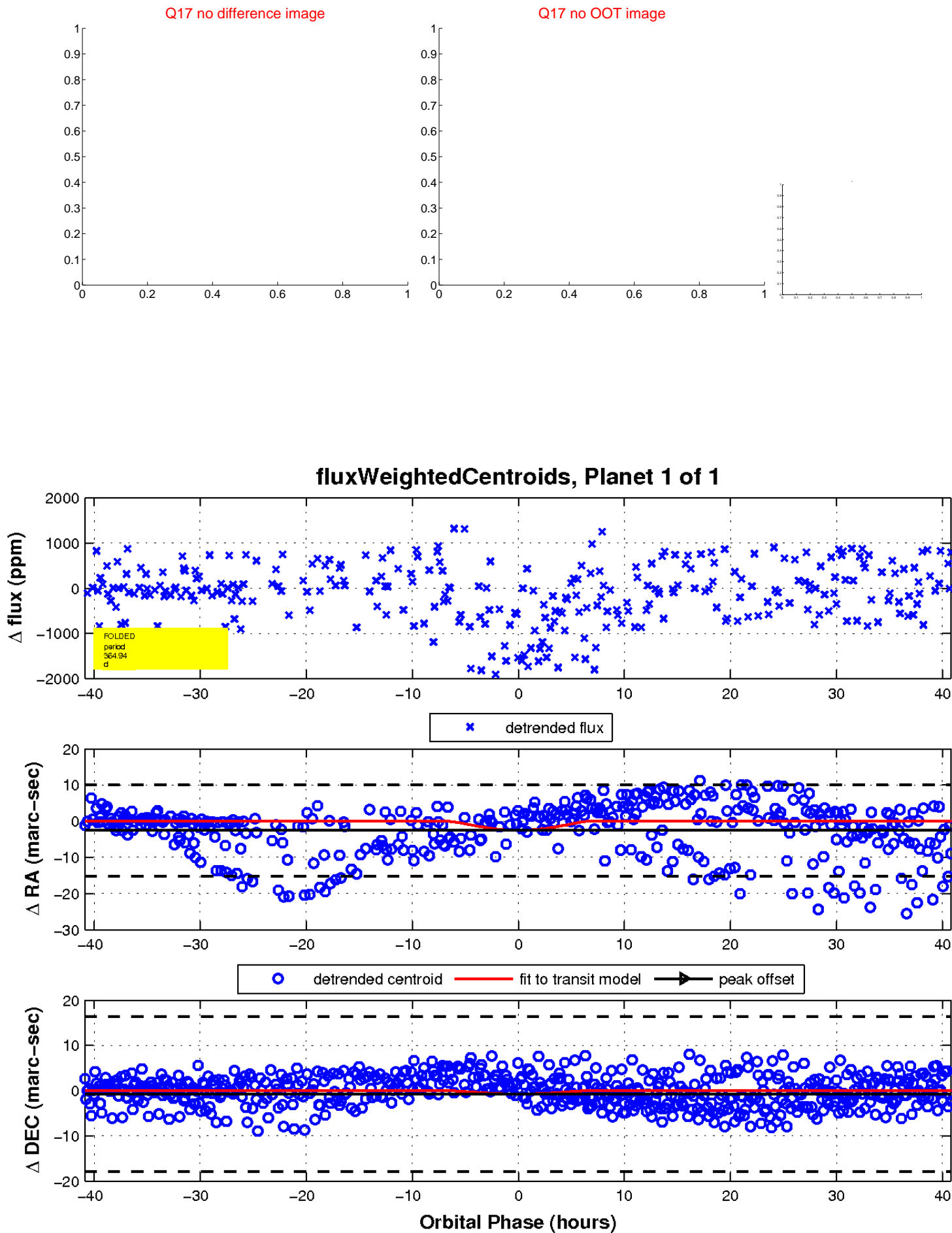
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

