

KIC 011244682

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}) |
|--------------|----------|---------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 011244682-01 | OBS | 3933.01 | 3.490824 | 133.094449 | 326.5 | 1.575 | 20.0 | 28.2 | 0.72 | 5496 | 1.57 | 246.64 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|------------|
| 011244682-01 | OBS | PC | 1.00 | 0 | 0 | 0 | 0 | NO_COMMENT |

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.

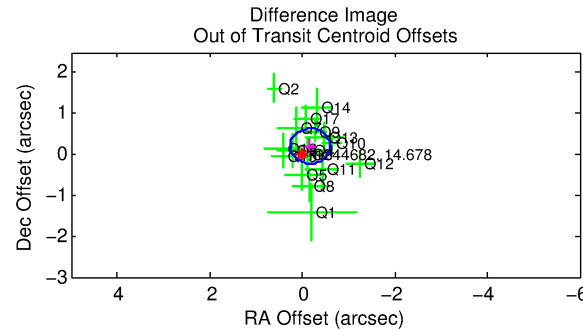
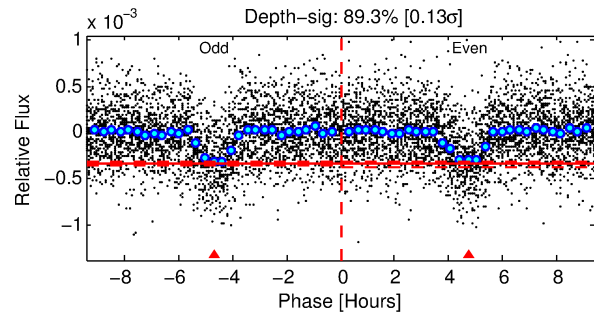
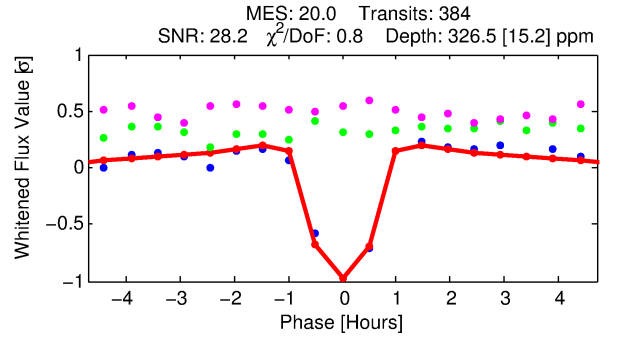
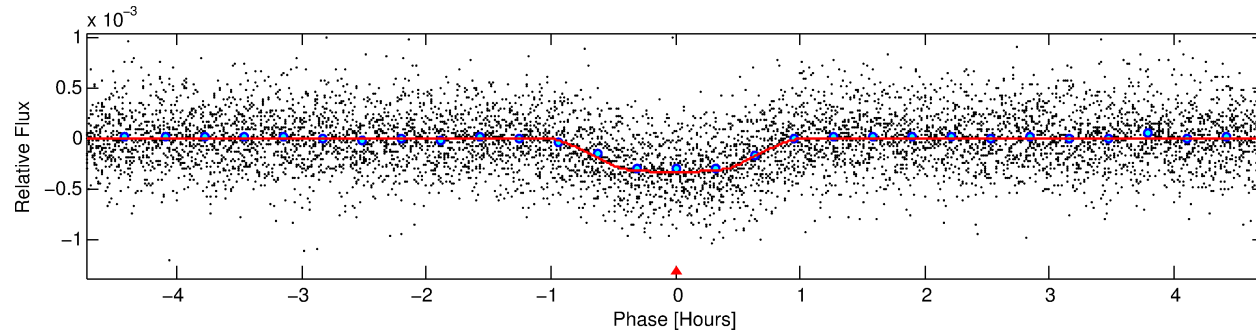
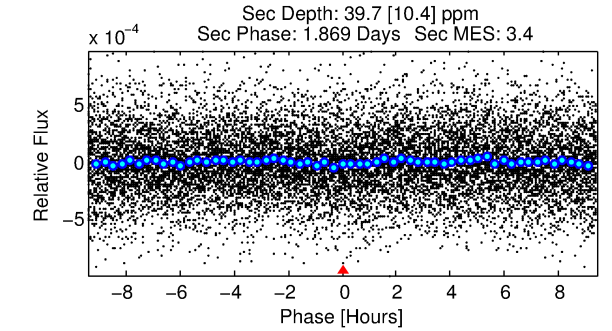
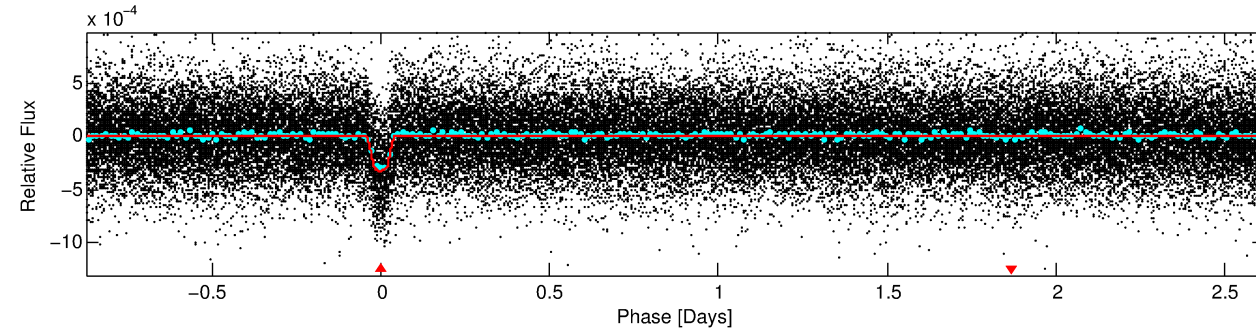
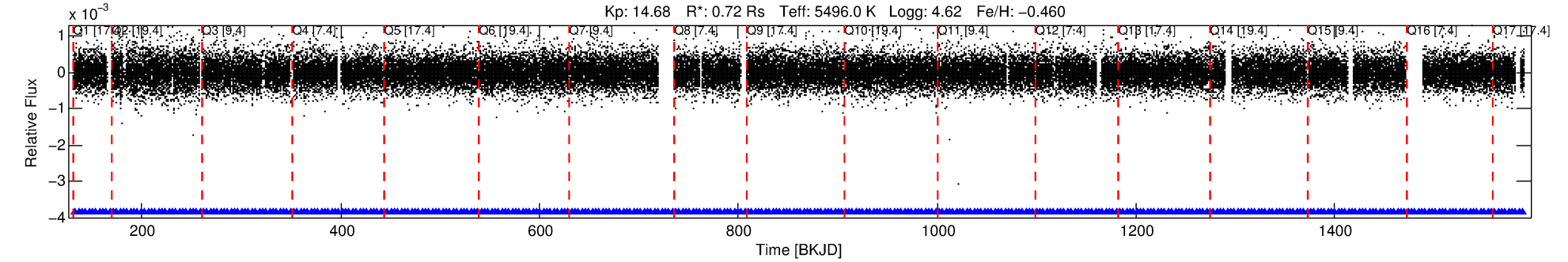
Ephemeris Match Information For 011244682-01

No Significant Match Found

DV One-Page Summary

KIC: 11244682 Candidate: 1 of 1 Period: 3.491 d

KOI: K03933.01 Corr: 0.937



DV Fit Results:

Period = 3.49082 [0.00001] d
Epoch = 133.0944 [0.0009] BKJD
Rp/R* = 0.0198 [0.0045]
a/R* = 8.13 [8.39]
b = 0.90 [0.22]
Seff = 246.64 [56.48]
Teff = 1011 [58] K
Rp = 1.57 [0.44] Re
a = 0.0417 [0.0057] AU
Ag = 15.49 [8.72] [1.66σ]
Teffp = 3100 [419] K [4.94σ]

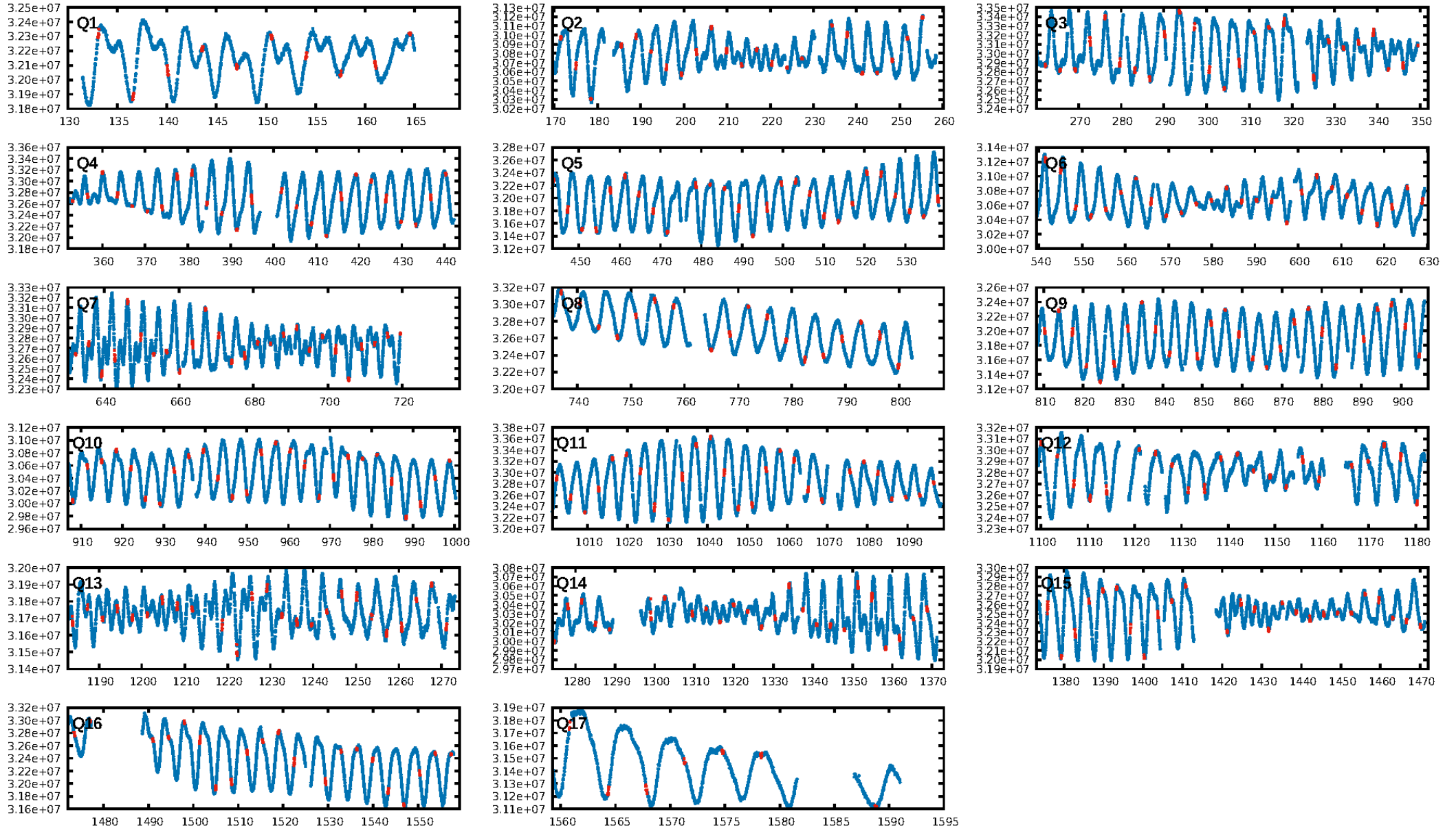
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.20e-87
RollingBand-fgt: 1.00 [367/367]
GhostDiagnostic-chr: -271.8
Centroid-sig: 2.0%
Centroid-so: 0.534 arcsec [1.32σ]
OotOffset-rm: 0.267 arcsec [1.87σ]
KicOffset-rm: 0.254 arcsec [1.56σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

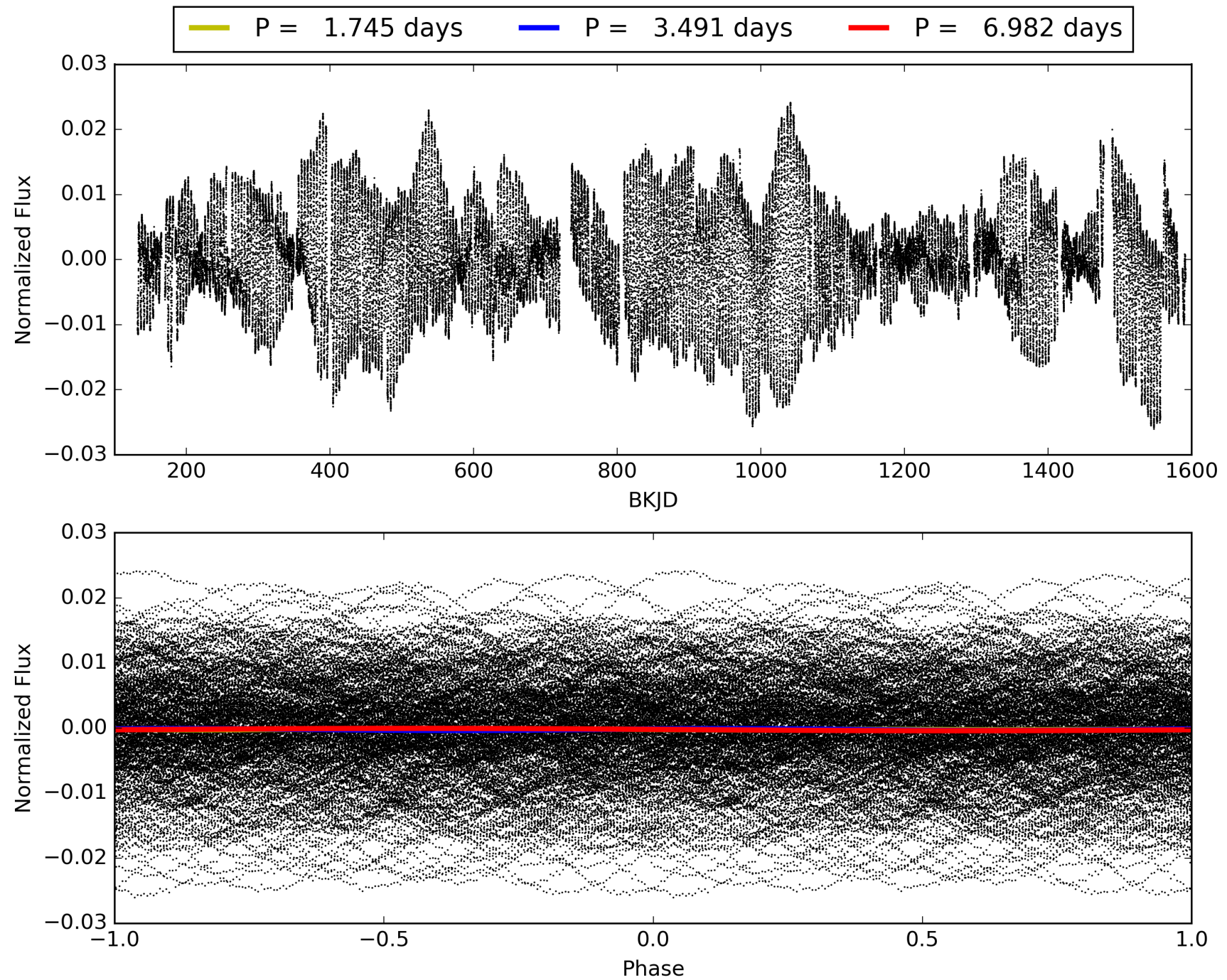
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:12:00 Z

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

TCE 011244682-01, PDC Light Curves

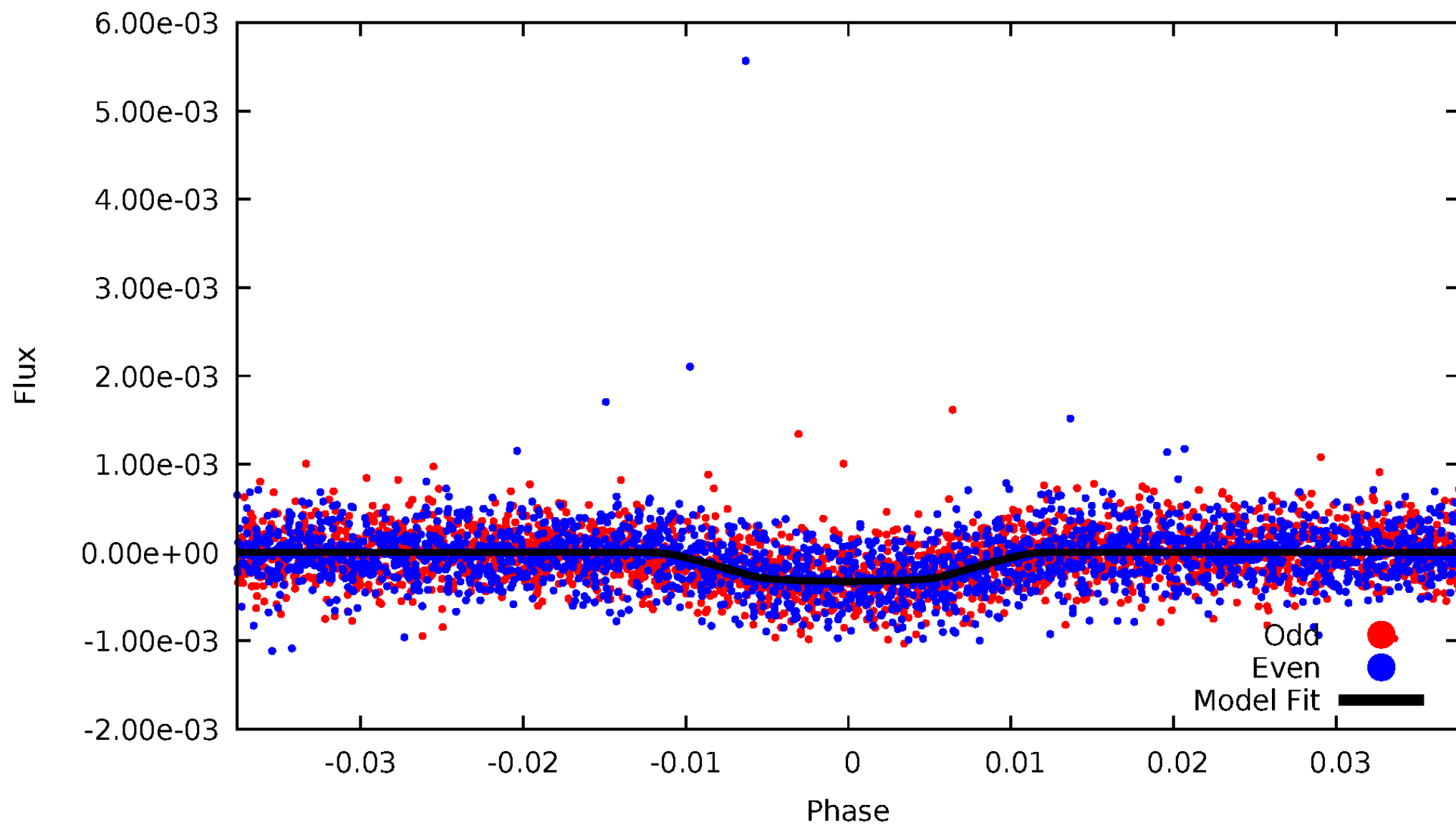


TCE 011244682-01



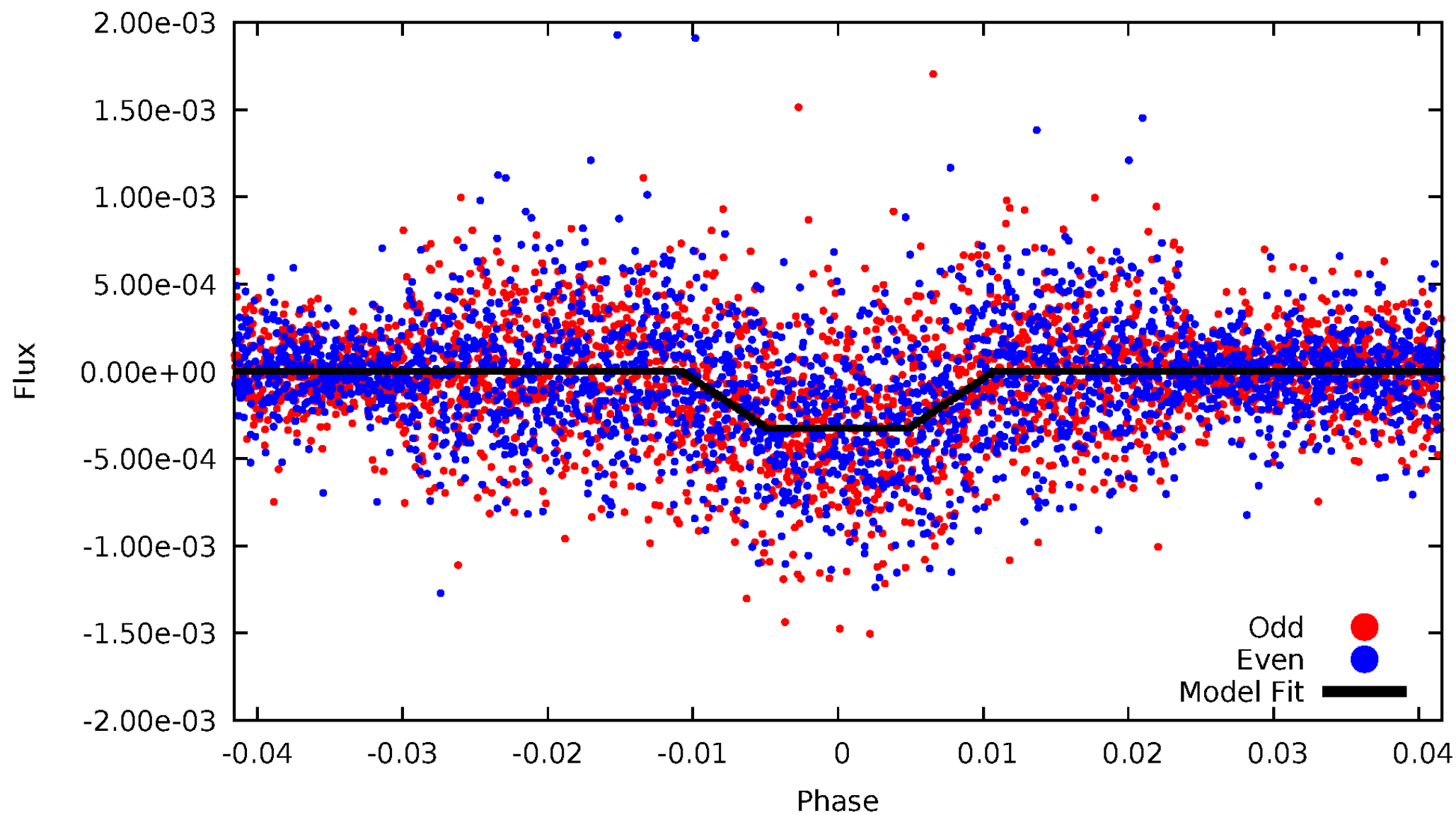
DV Odd/Even

TCE 011244682-01



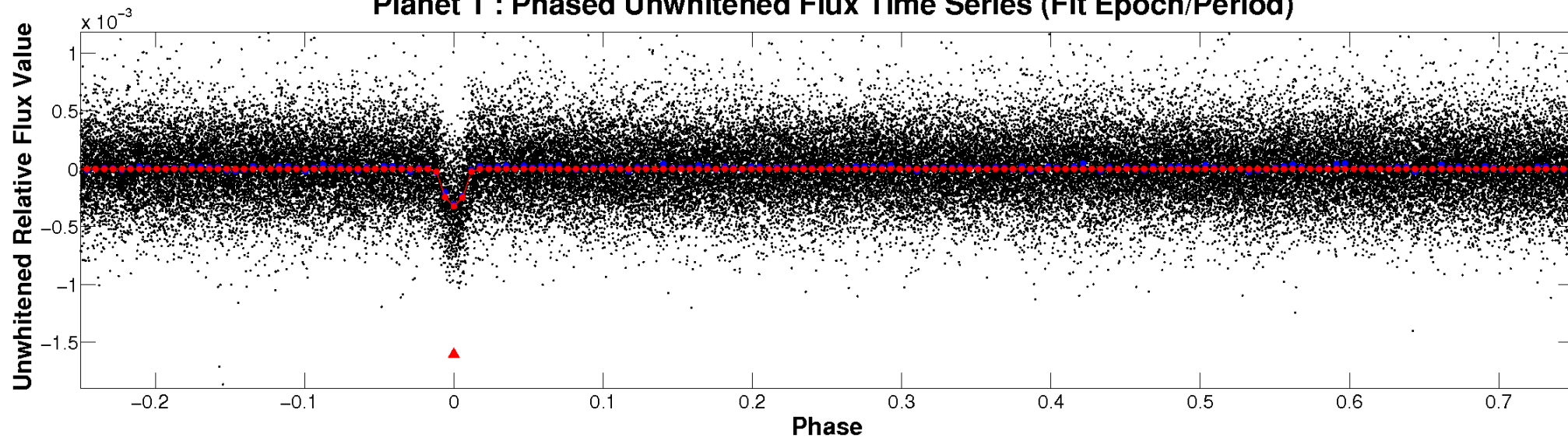
ALT Odd/Even

TCE 011244682-01

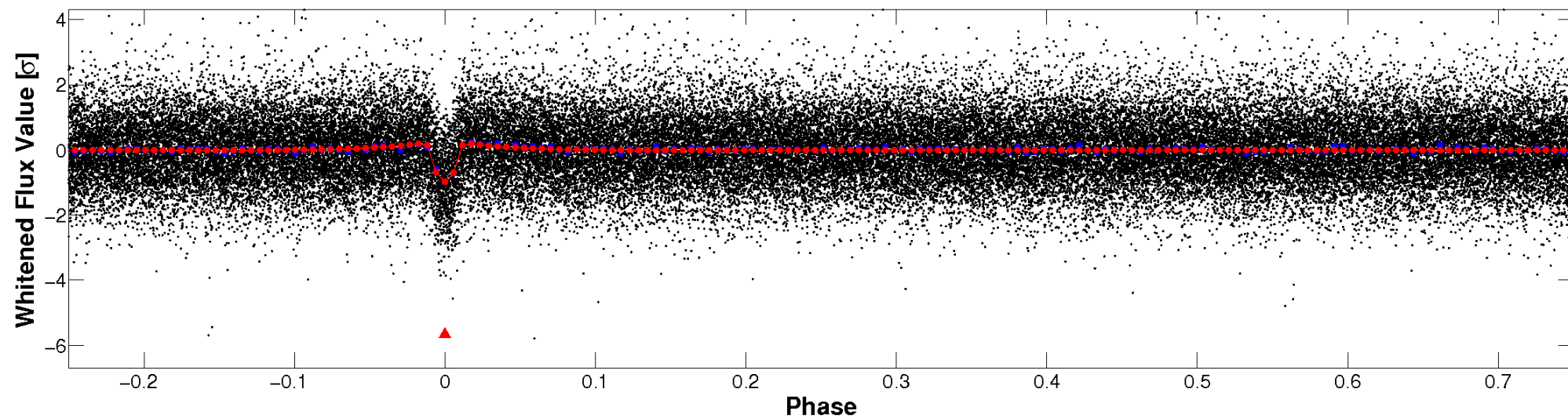


Non-Whitened Vs. Whitened Light Curve

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

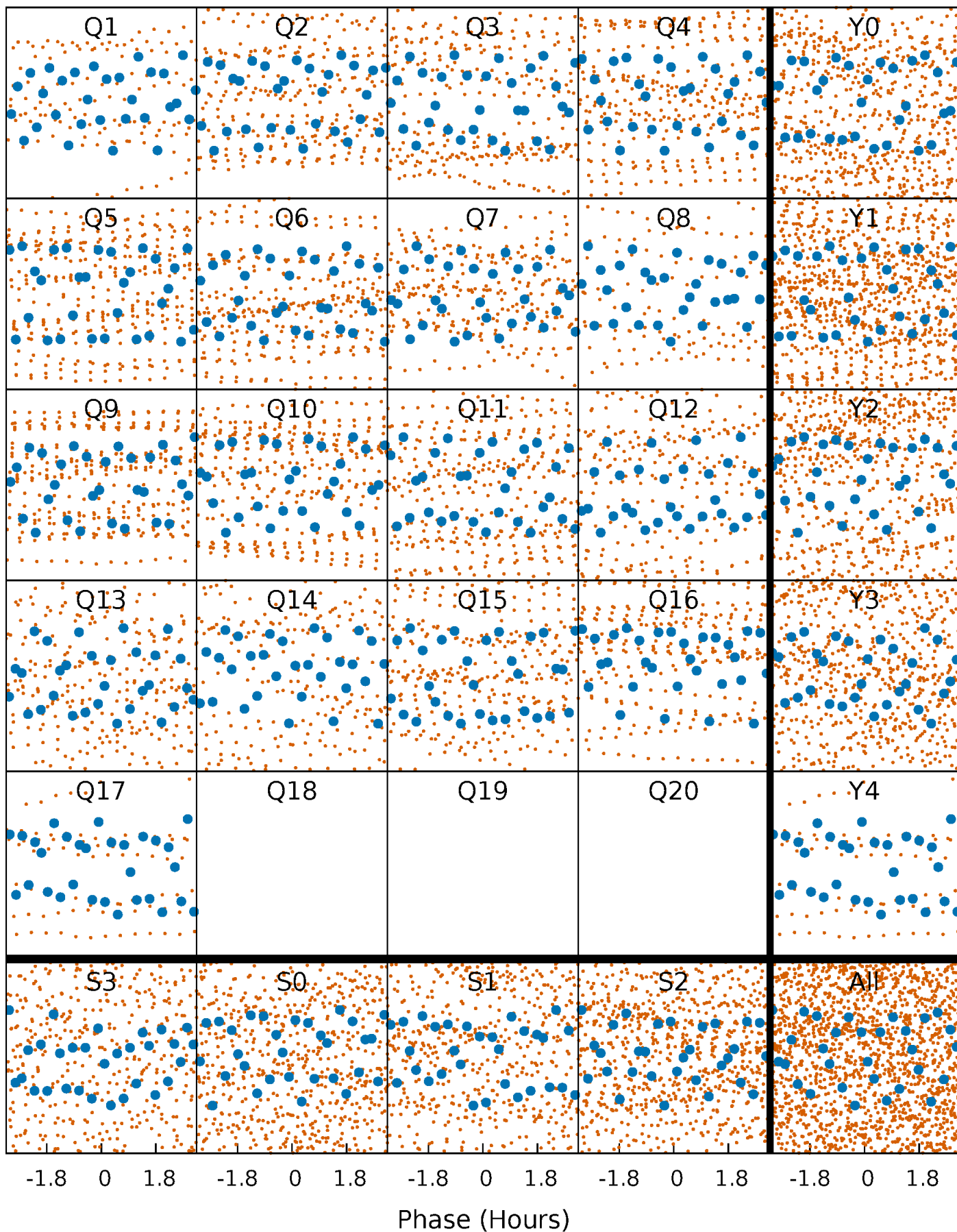


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



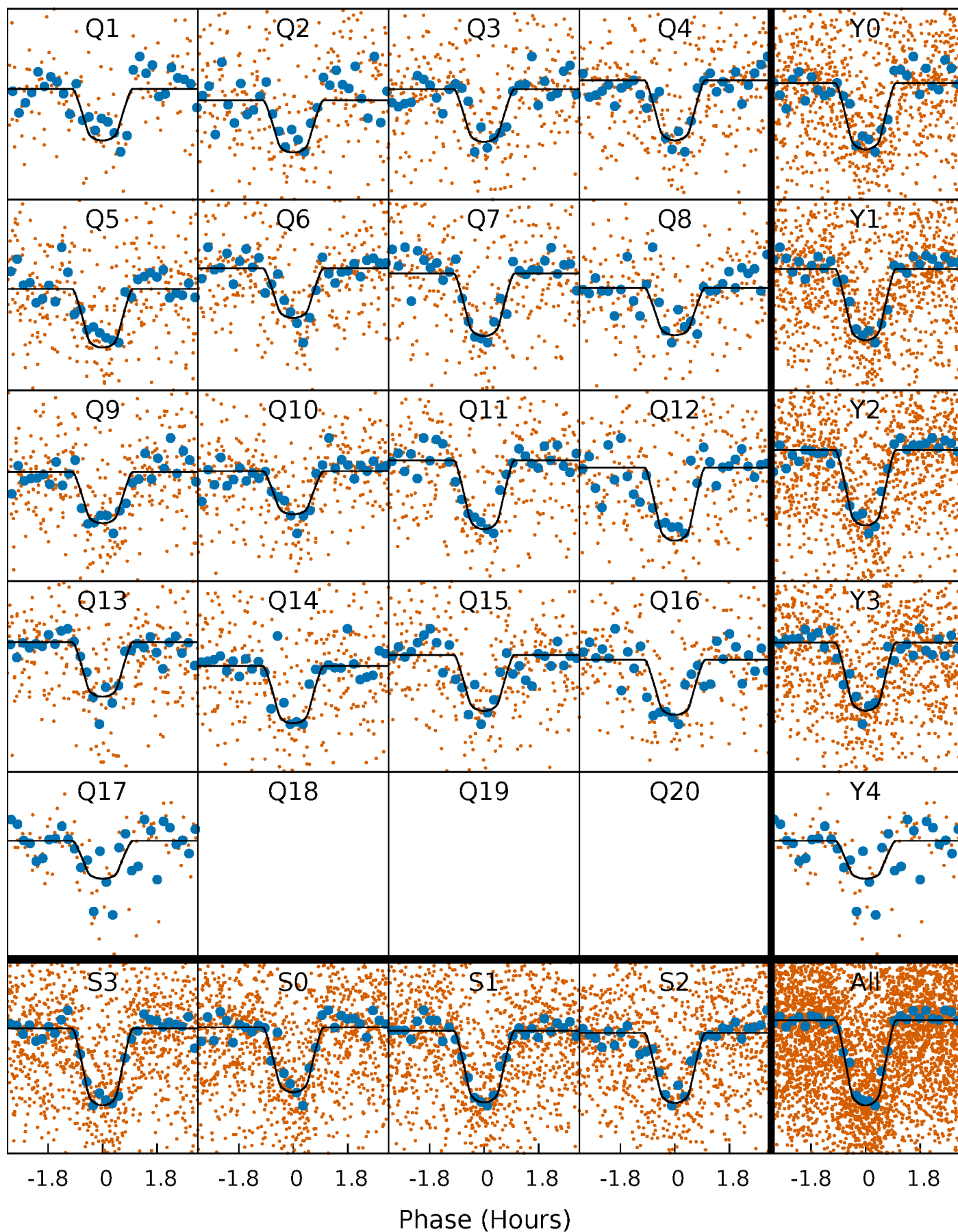
PDC Quarter-Phased Transit Curves

TCE 011244682-01 P= 3.490824 Days $T_0=133.094449$ (BKJD)



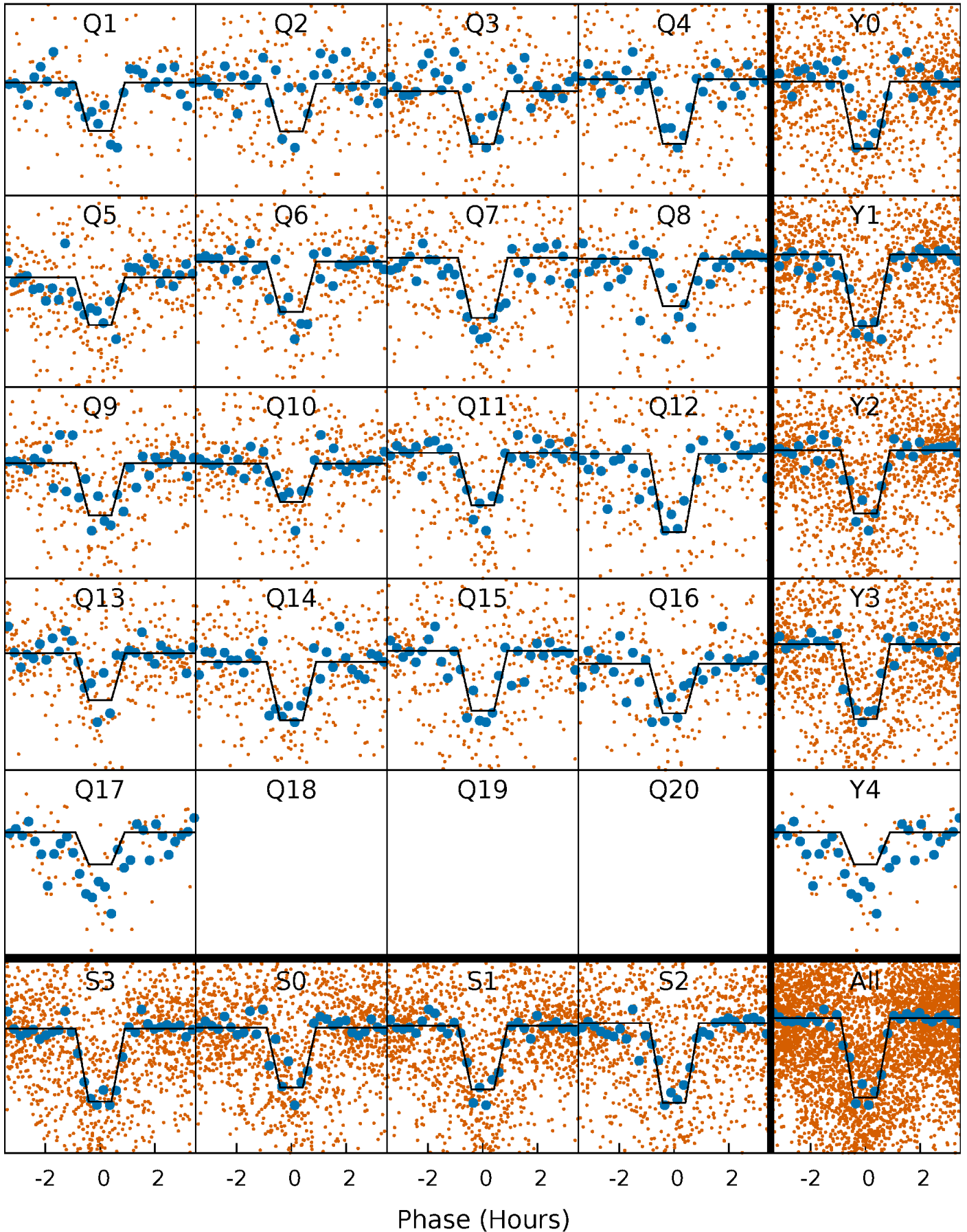
DV Quarter-Phased Transit Curves

TCE 011244682-01 P= 3.490824 Days $T_0=133.094449$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

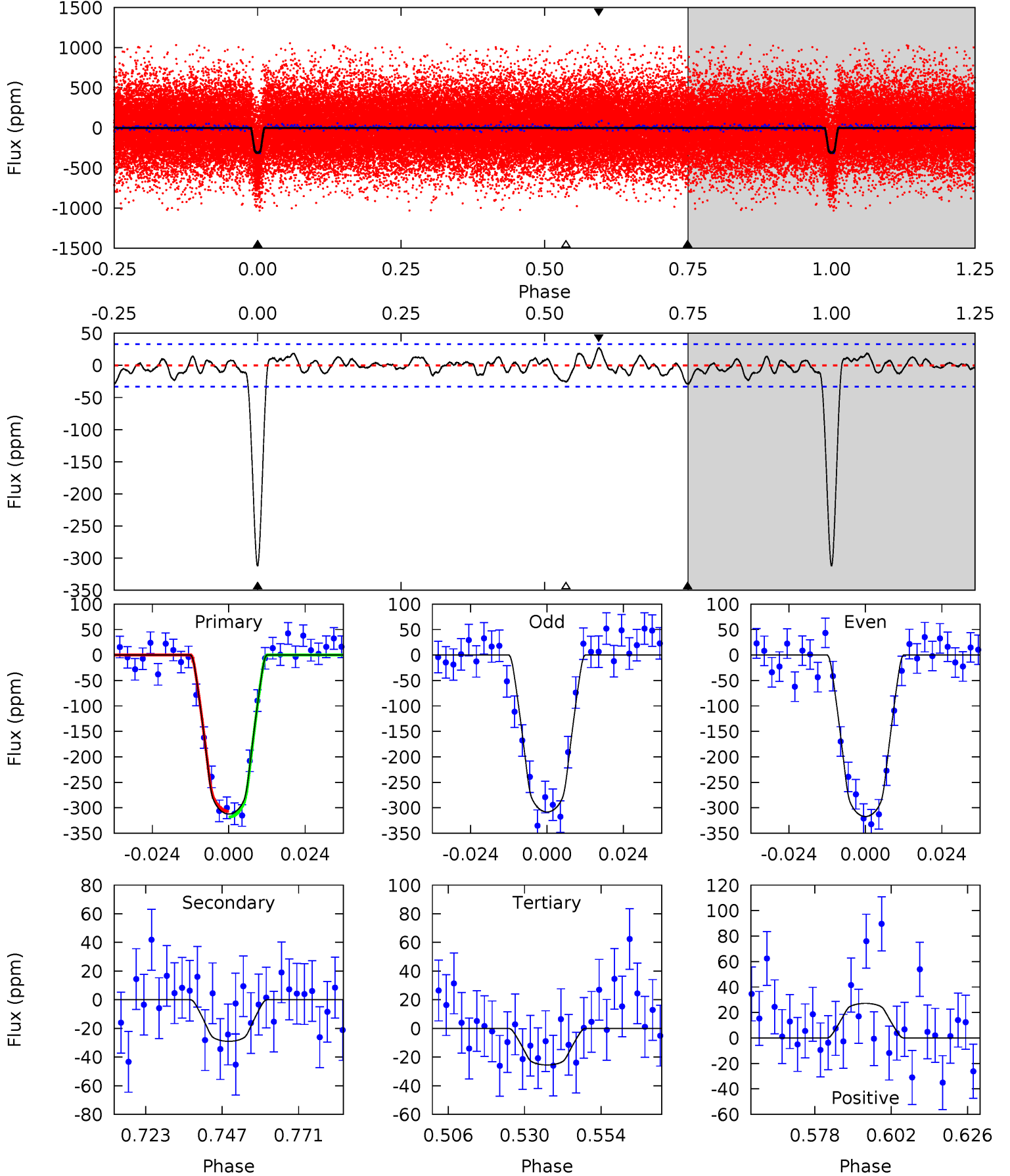
TCE 011244682-01 P= 3.490816 Days $T_0=133.096290$ (BKJD)



DV Model-Shift Uniqueness Test

011244682-01, P = 3.490824 Days, E = 129.603625 Days

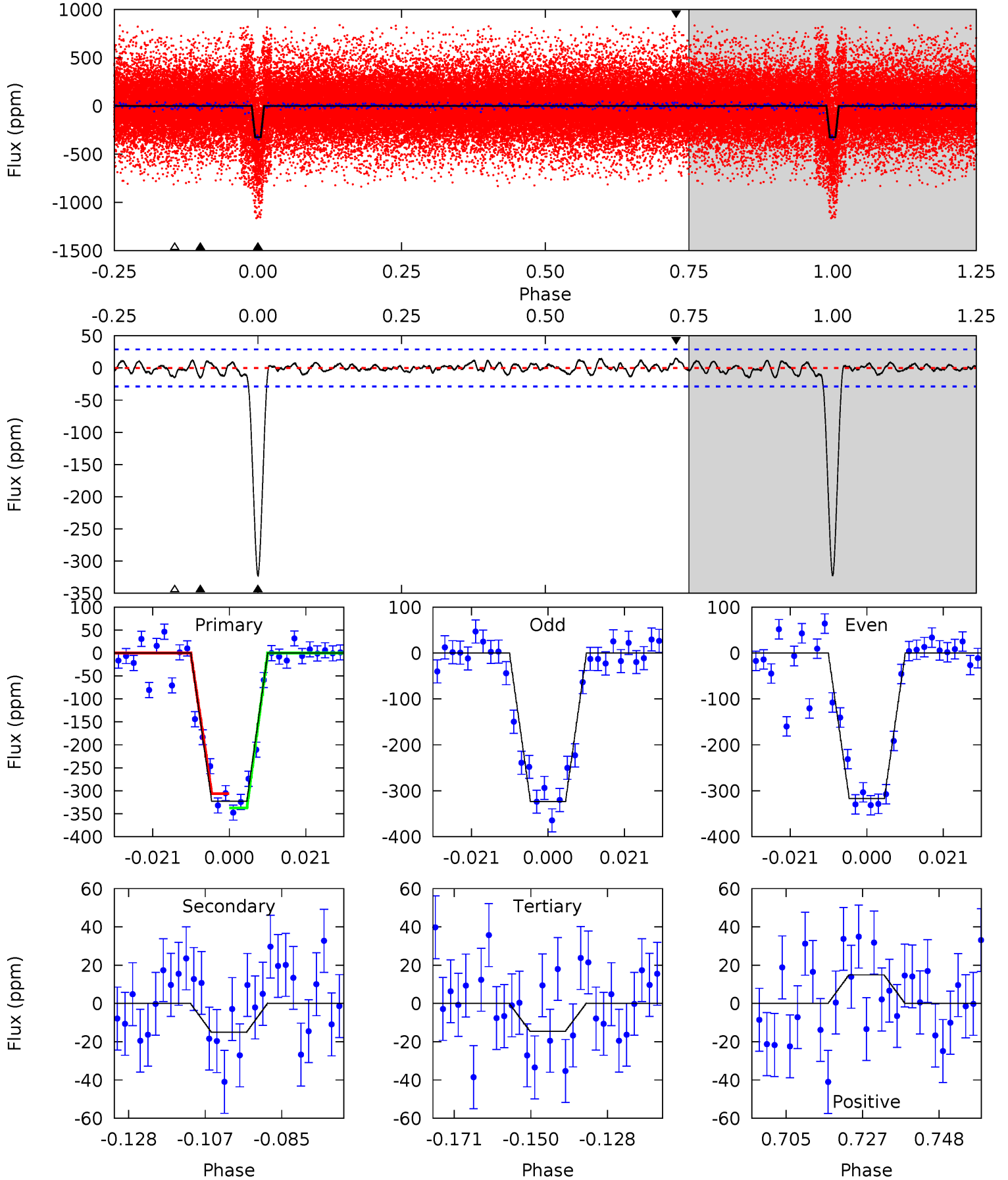
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 45.8 | 4.26 | 3.74 | 3.98 | 4.85 | 2.26 | 1.37 | 42.0 | 41.8 | 0.51 | 0.27 | 0.66 | 0.96 | 0.08 | 0.81 |



Alt Model-Shift Uniqueness Test

011244682-01, P = 3.490816 Days, E = 129.605474 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 54.8 | 2.55 | 2.48 | 2.53 | 4.88 | 2.30 | 0.95 | 52.3 | 52.3 | 0.07 | 0.02 | 0.55 | 0.96 | 0.04 | 2.65 |



Stellar Parameters For KIC 011244682

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | M (M_{\odot}) | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 5496^{+147}_{-163} | $4.618^{+0.035}_{-0.105}$ | $-0.460^{+0.300}_{-0.300}$ | $0.725^{+0.121}_{-0.056}$ | $0.810^{+0.074}_{-0.091}$ | $3.001^{+0.448}_{-1.027}$ |
| | +3%/-3% | +1%/-2% | +65%/-65% | +17%/-8% | +9%/-11% | +15%/-34% |
| Source | PHO1 | KIC0 | 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 011244682-01 / KOI 3933.01

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|-------------|------------------------|----------------------|----------------------|---------------------------|
| DV | -29 ± 7 | $1.61^{+0.39}_{-0.37}$ | 1427^{+62}_{-49} | 3370^{+301}_{-267} | 11^{+7}_{-4} |
| Alt. | -15 ± 6 | $1.46^{+0.43}_{-0.37}$ | 1430^{+64}_{-54} | 3093^{+410}_{-298} | $6.289^{+7.188}_{-3.156}$ |

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

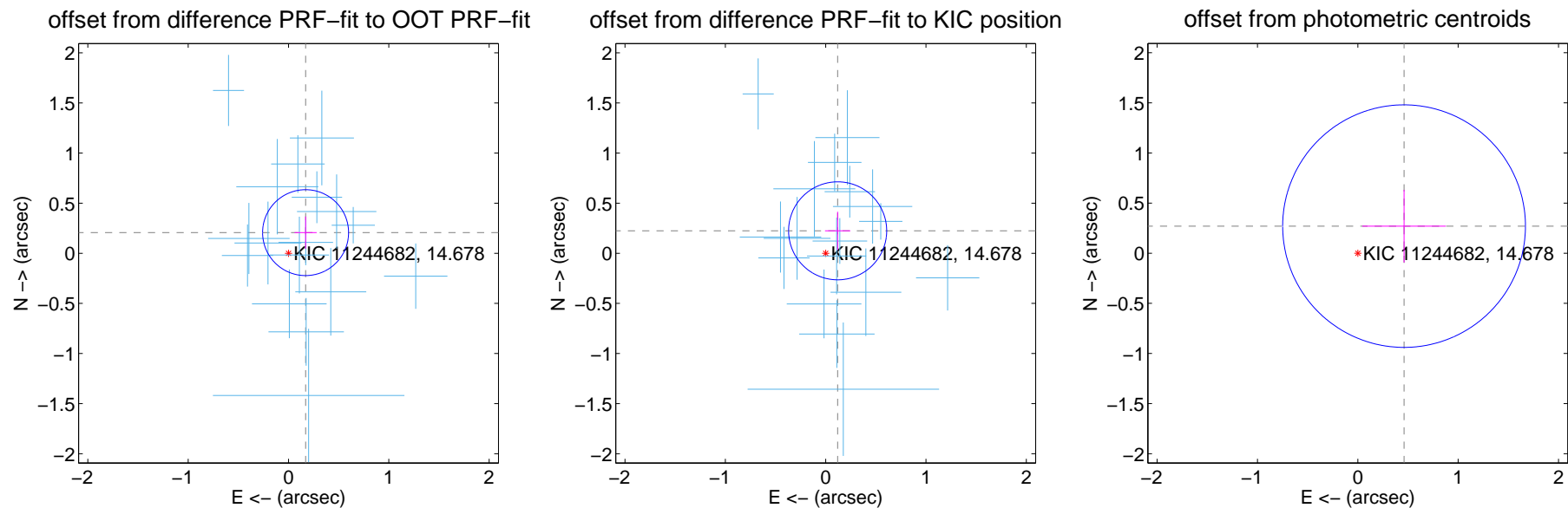
DV Centroid Data

Supplemental centroid analysis for 011244682-01. Kepler magnitude: 14.68. Transit SNR 28.20

There are 17 quarters with good PRF difference image offsets

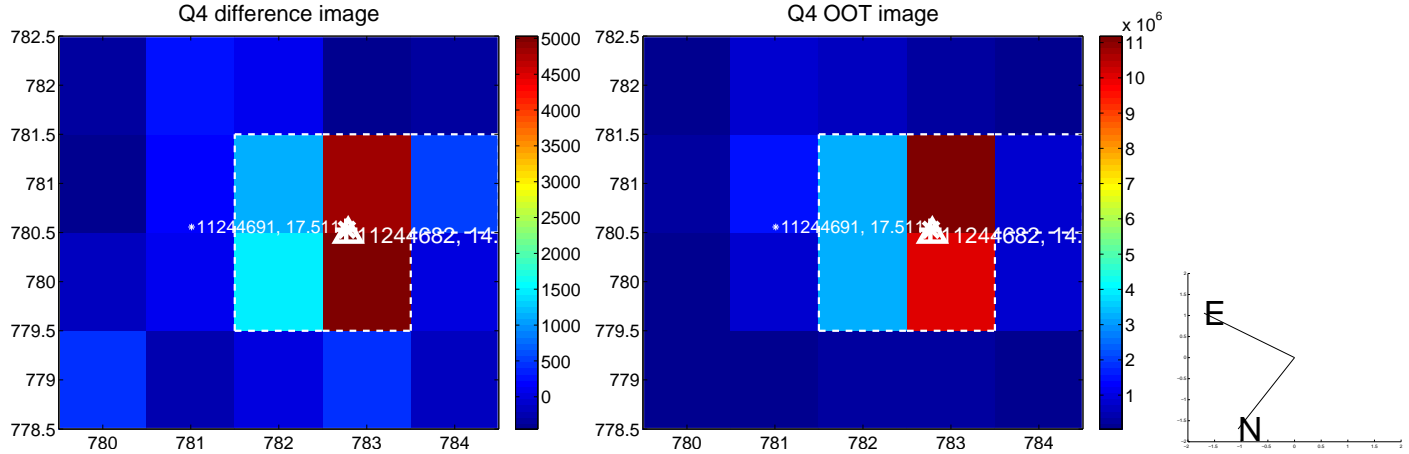
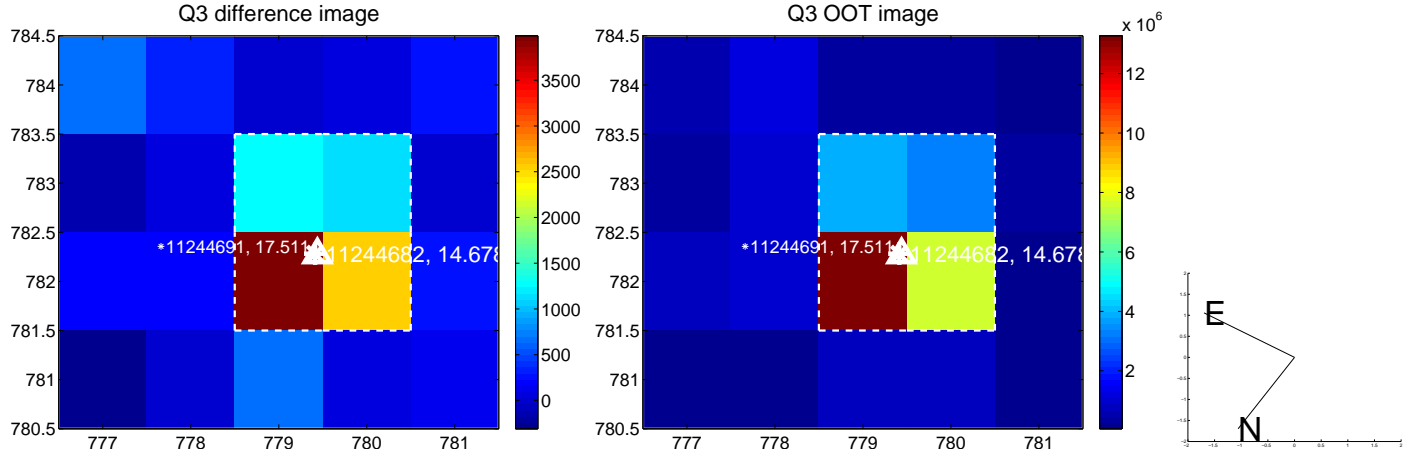
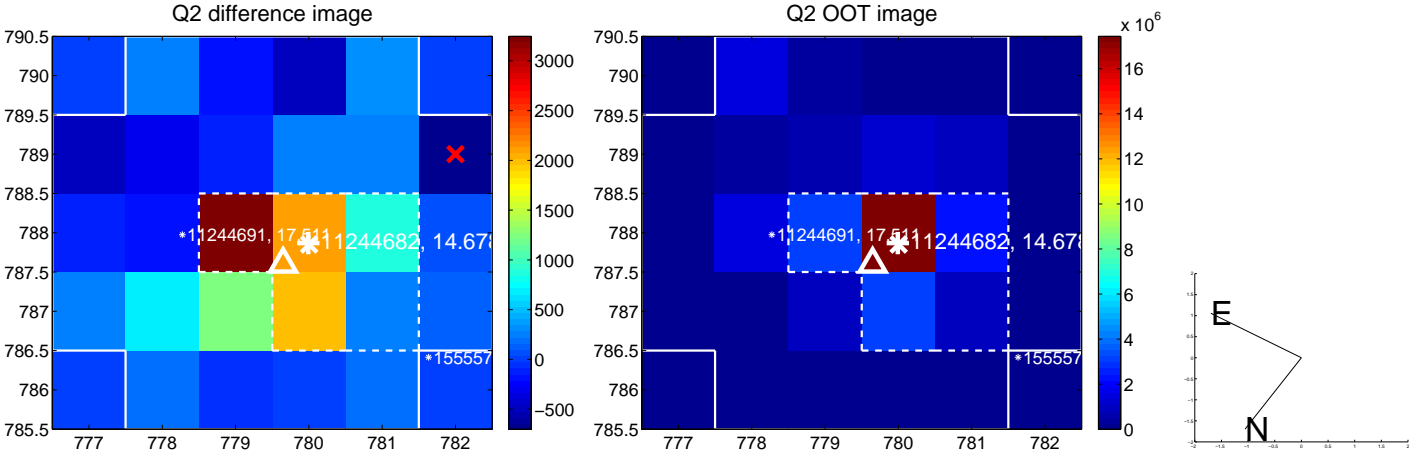
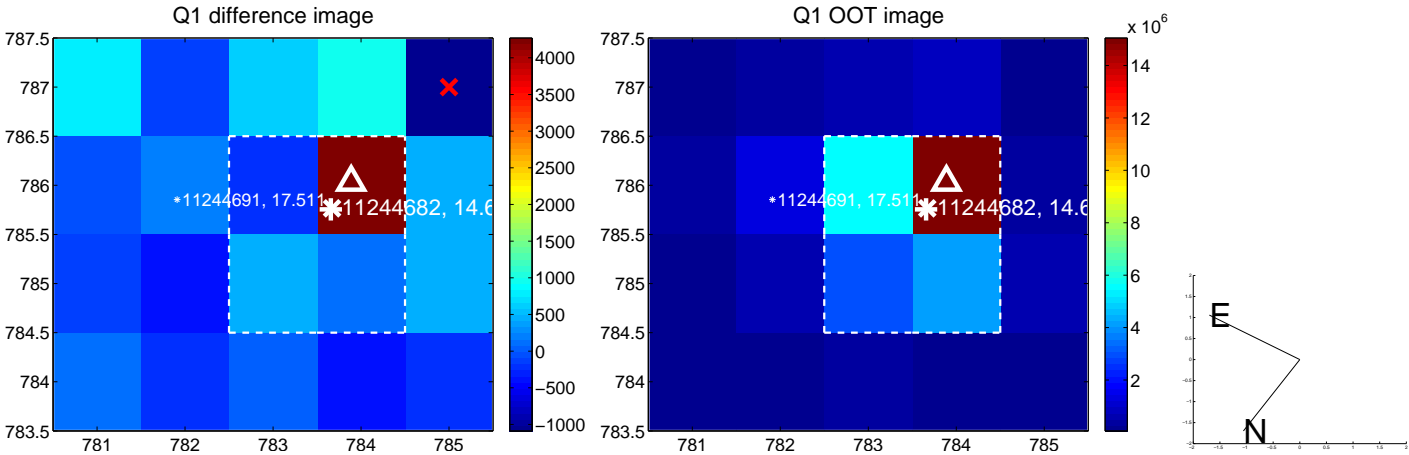
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT | 0.267 ± 0.143 | 1.87 | -0.170 ± 0.110 | 0.206 ± 0.161 |
| PRF-fit source offset from KIC position | 0.254 ± 0.163 | 1.56 | -0.119 ± 0.126 | 0.224 ± 0.191 |
| photometric centroid source offset | 0.53 ± 0.40 | 1.32 | -0.46 ± 0.42 | 0.27 ± 0.36 |

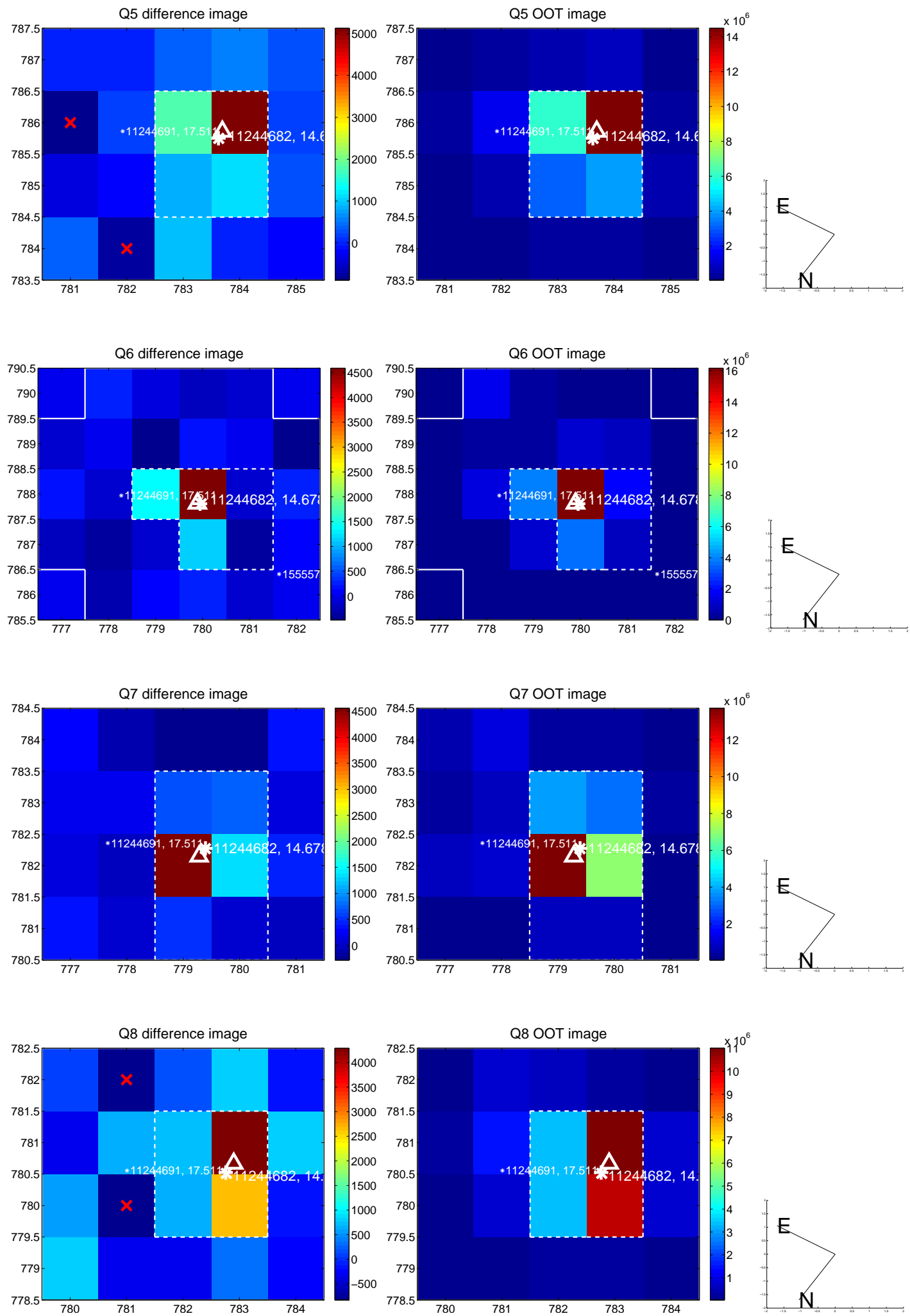


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

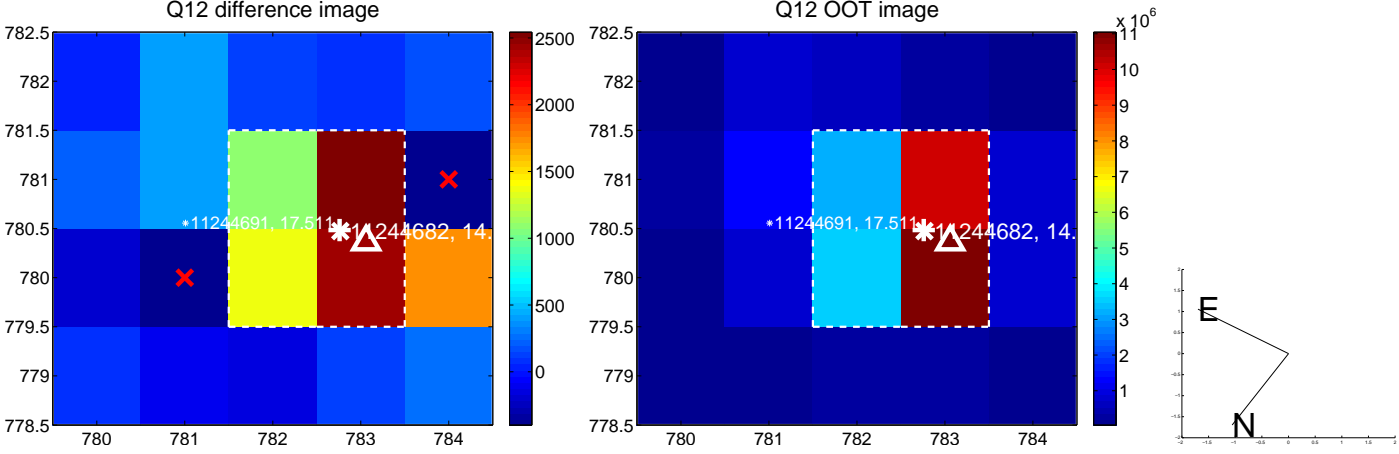
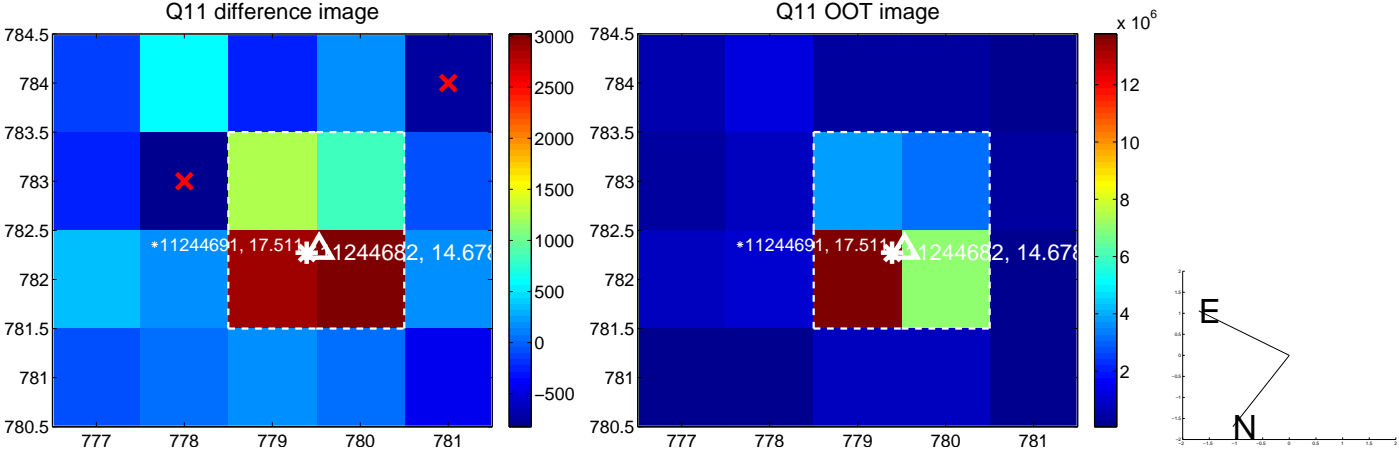
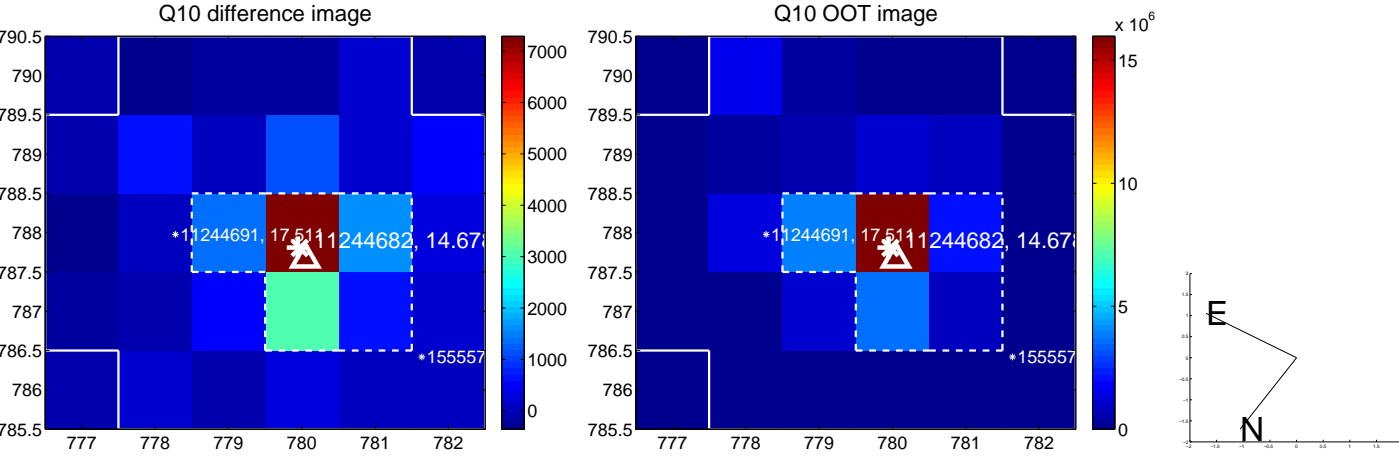
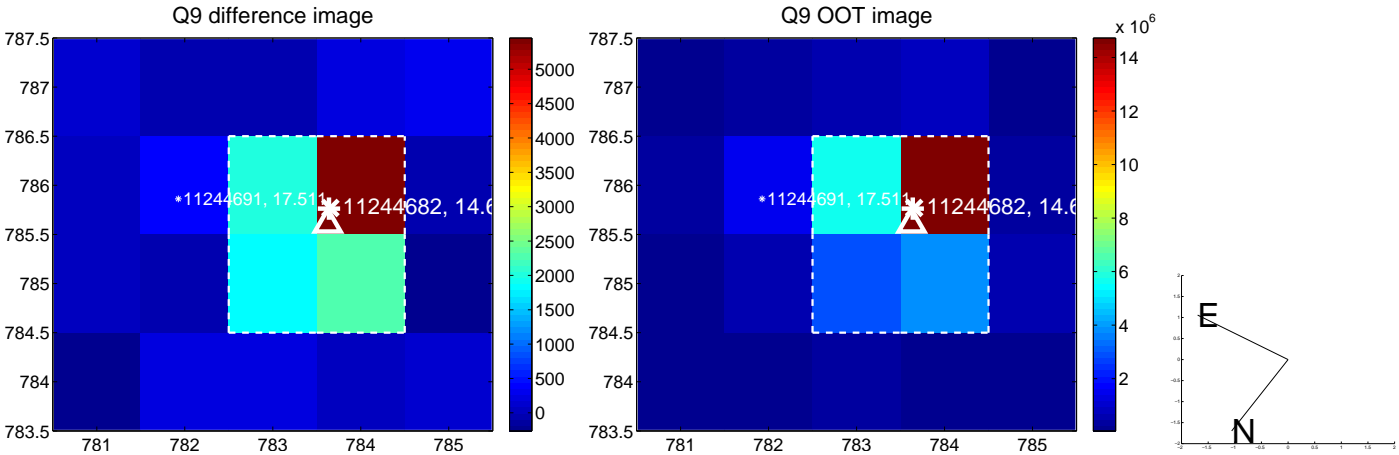
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



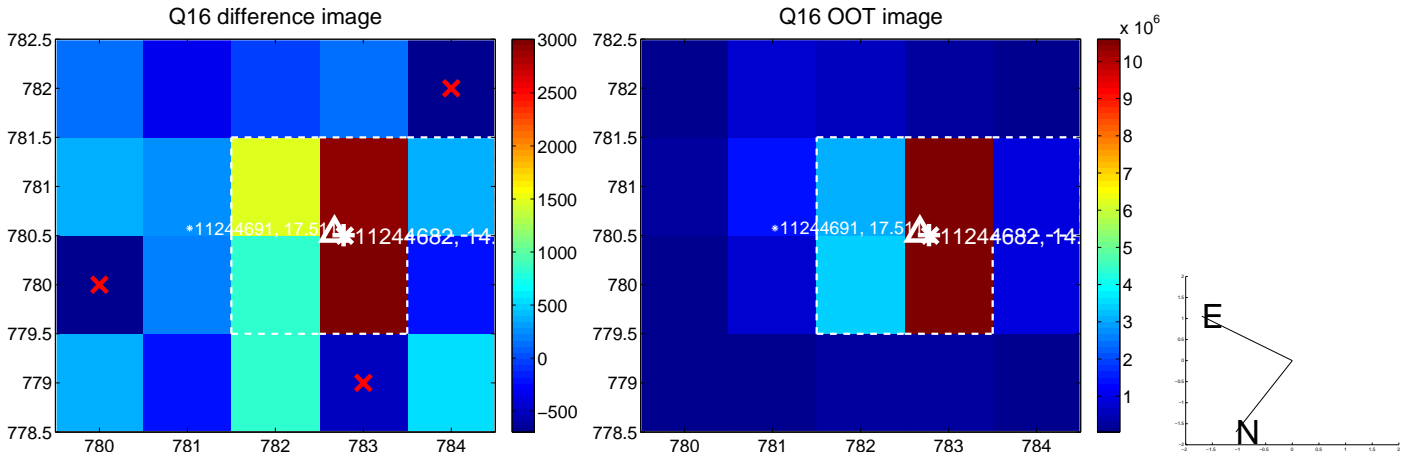
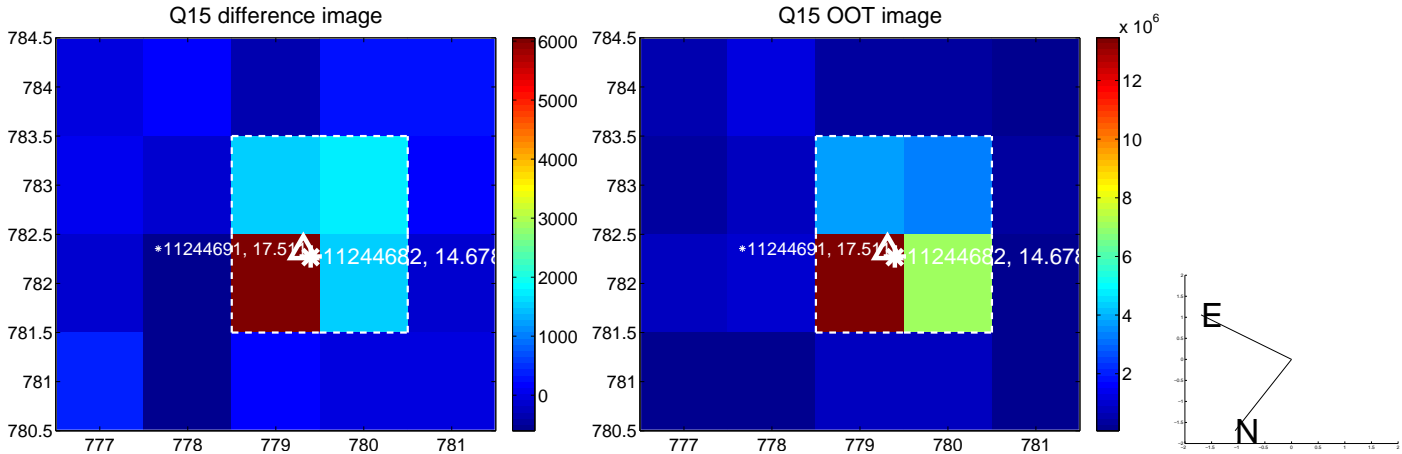
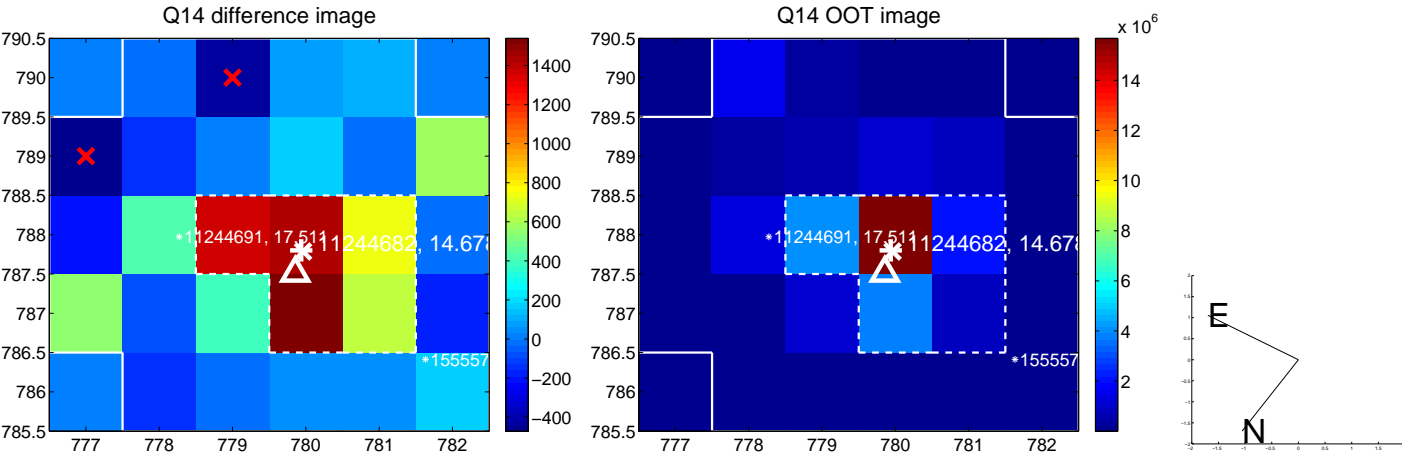
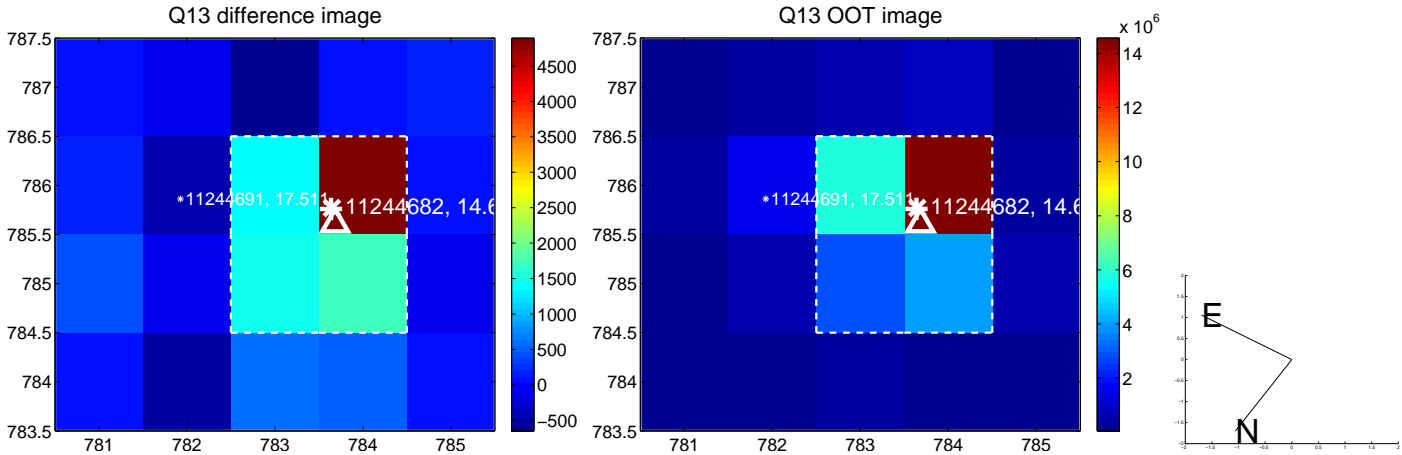
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



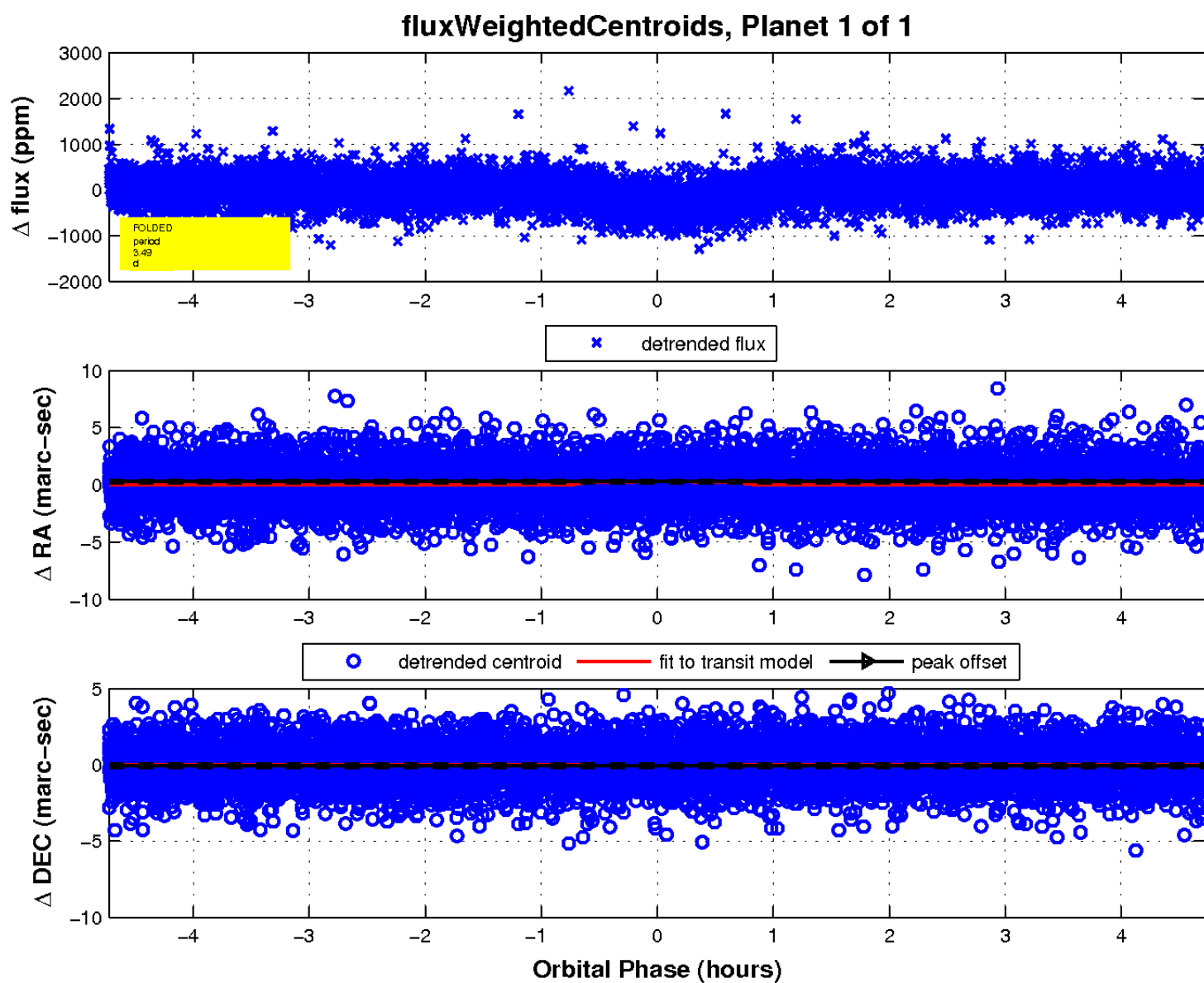
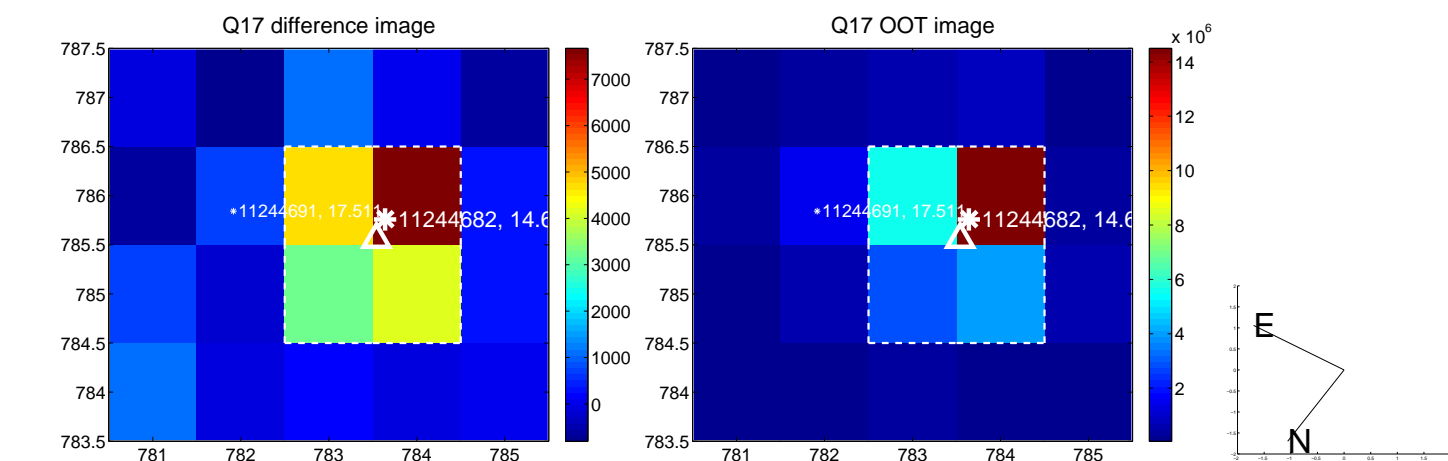
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

