

KIC 011611600

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}) |
|--------------|----------|---------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 011611600-01 | OBS | 1424.01 | 1.219563 | 132.241714 | 426.6 | 1.640 | 51.3 | 56.7 | 0.70 | 4838 | 1.76 | 582.23 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|------------|
| 011611600-01 | 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.

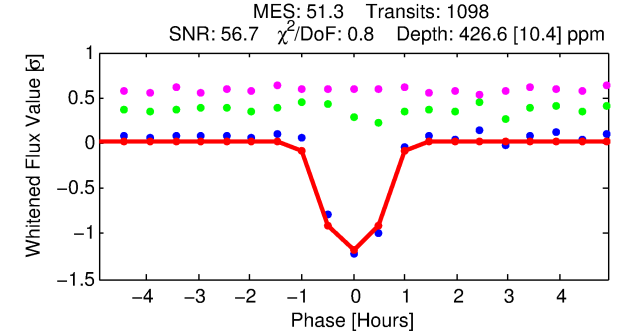
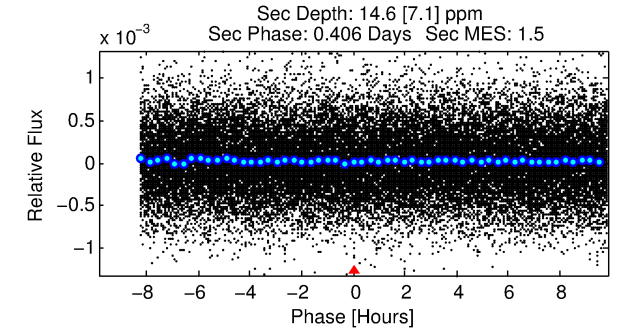
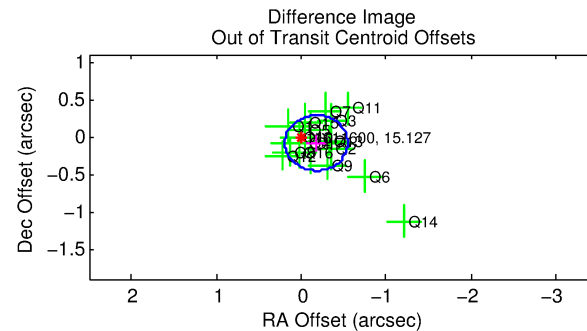
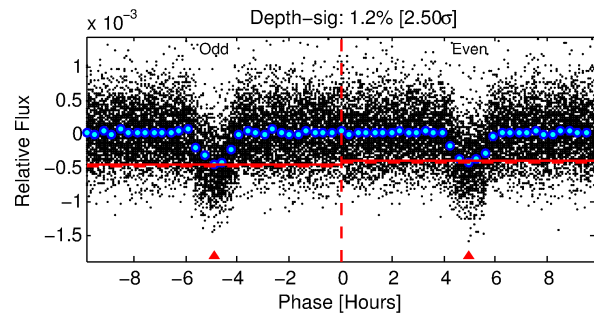
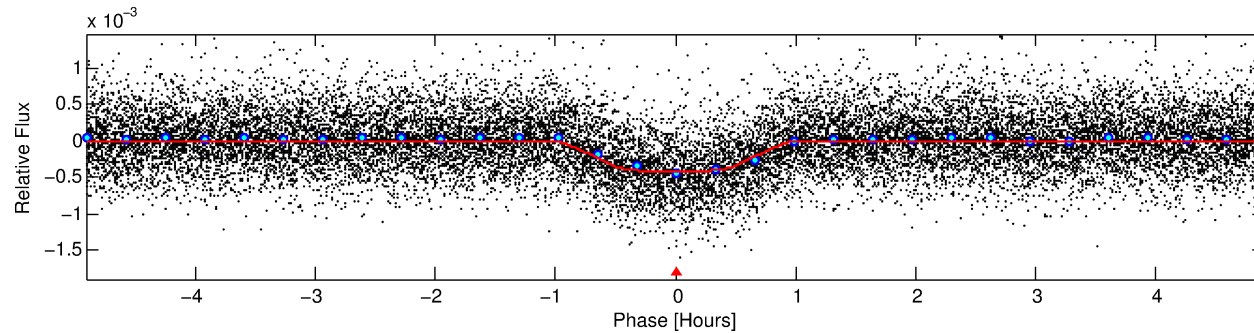
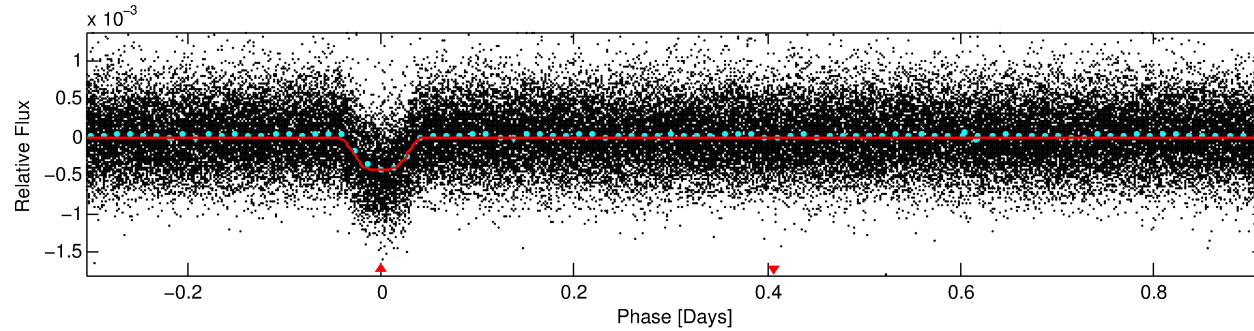
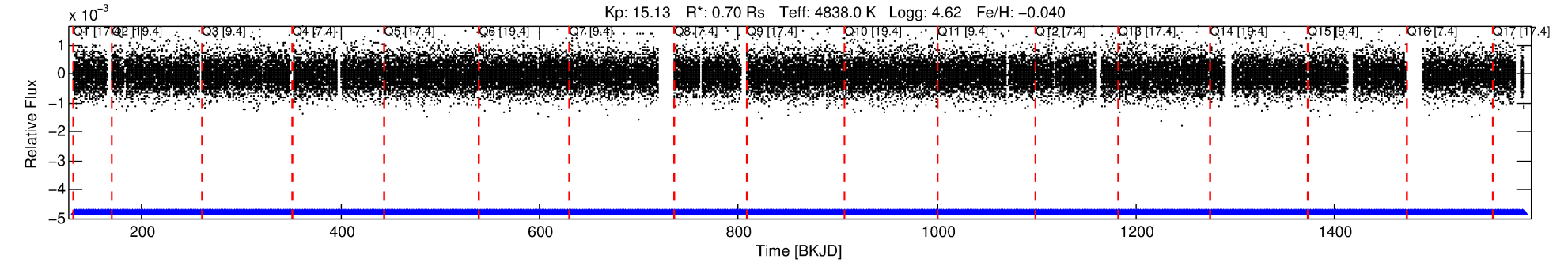
Ephemeris Match Information For 011611600-01

No Significant Match Found

DV One-Page Summary

KIC: 11611600 Candidate: 1 of 1 Period: 1.220 d

KOI: K01424.01 Corr: 0.964



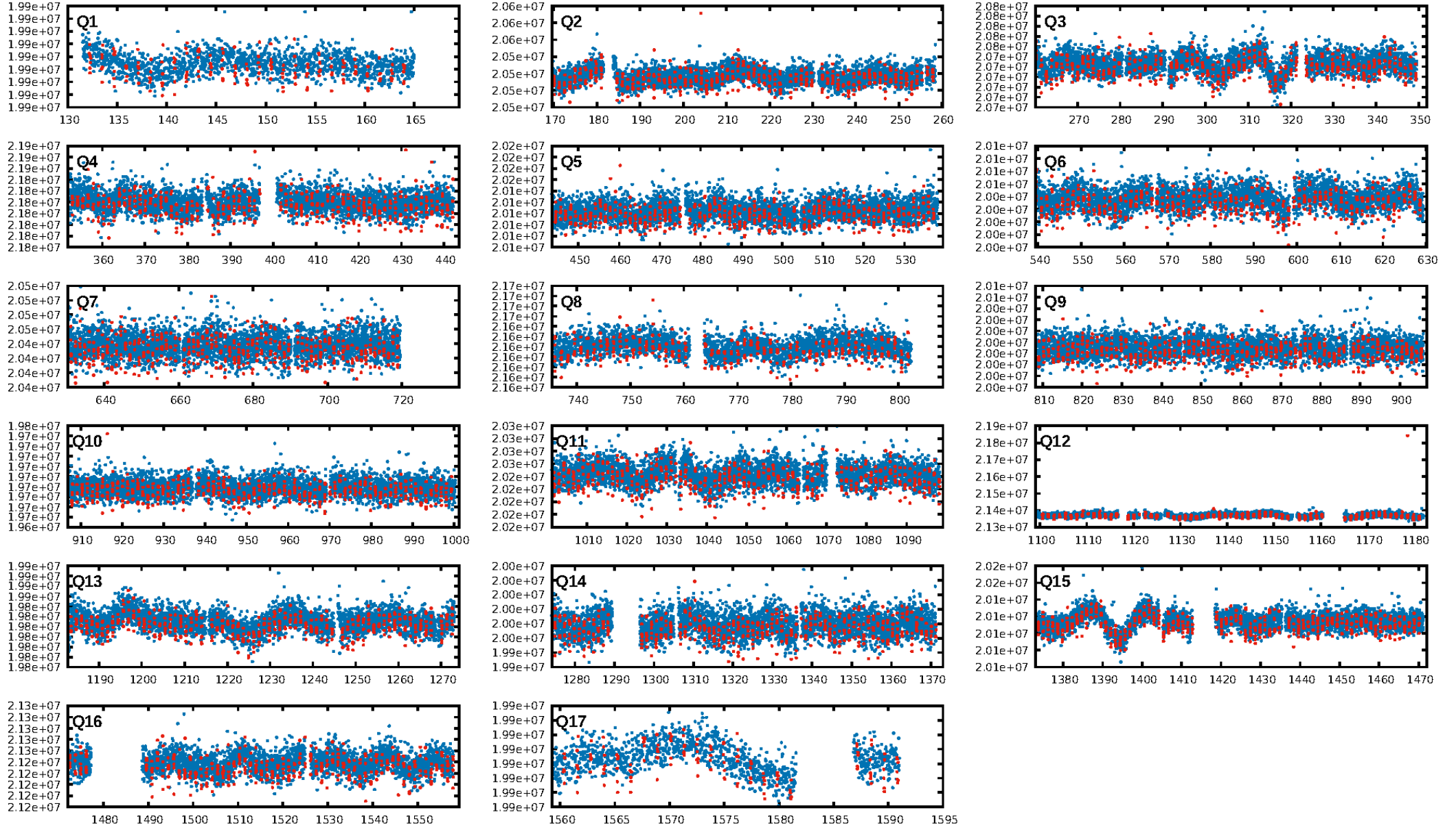
DV Fit Results:

Period = 1.21956 [0.00000] d
Epoch = 132.2417 [0.0004] BKJD
Rp/R* = 0.0230 [0.0039]
a/R* = 3.00 [1.67]
b = 0.89 [0.15]
Seff = 582.23 [97.08]
Teff = 1253 [52] K
Rp = 1.76 [0.35] Re
a = 0.0204 [0.0017] AU
Ag = 1.07 [0.64] [0.11 σ]
Teffp = 1970 [297] K [2.38 σ]

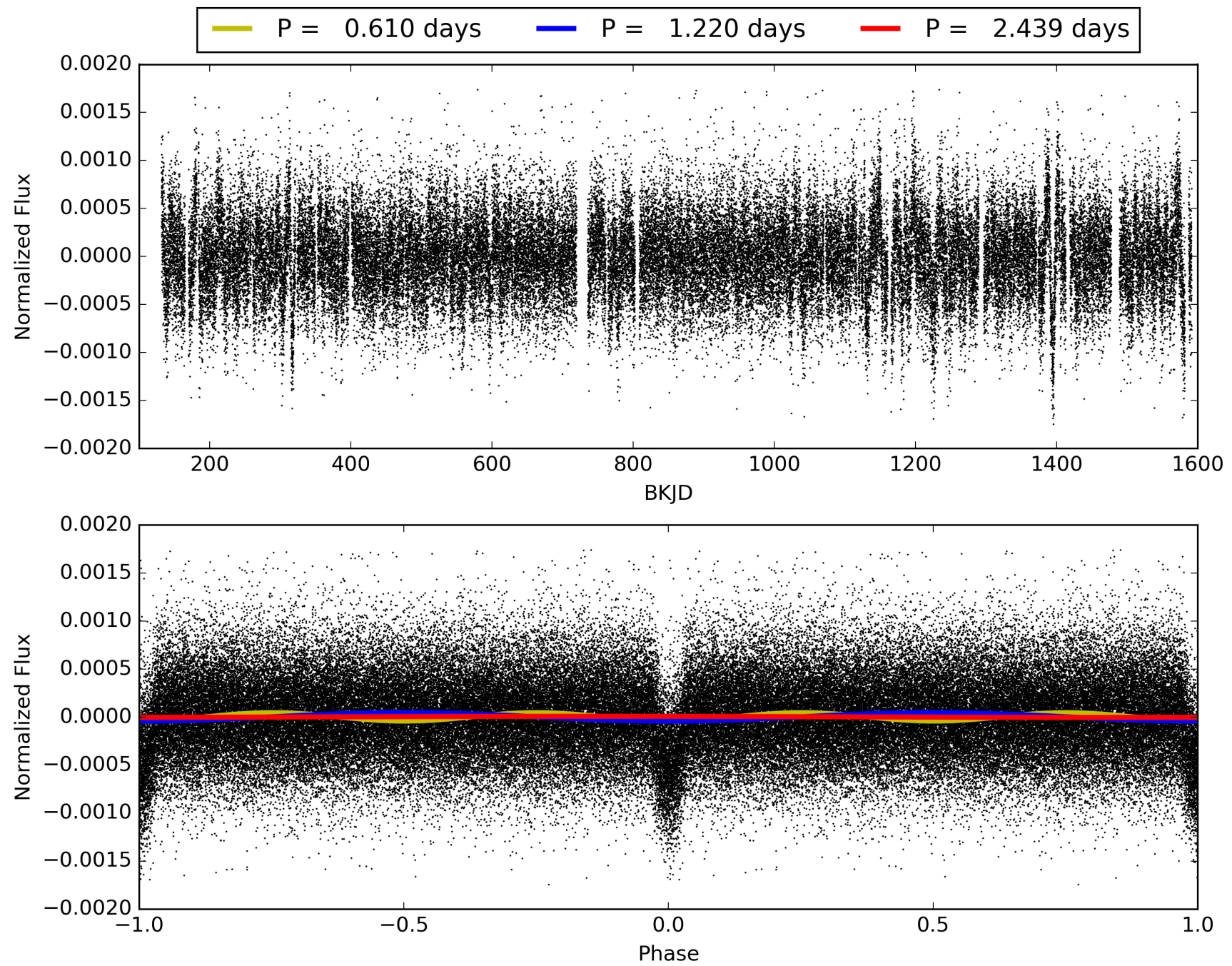
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [1049/1049]
GhostDiagnostic-chr: 3.943
Centroid-sig: 14.2%
Centroid-so: 0.467 arcsec [2.30 σ]
OotOffset-rm: 0.198 arcsec [1.60 σ]
KicOffset-rm: 0.082 arcsec [0.74 σ]
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]

TCE 011611600-01, PDC Light Curves

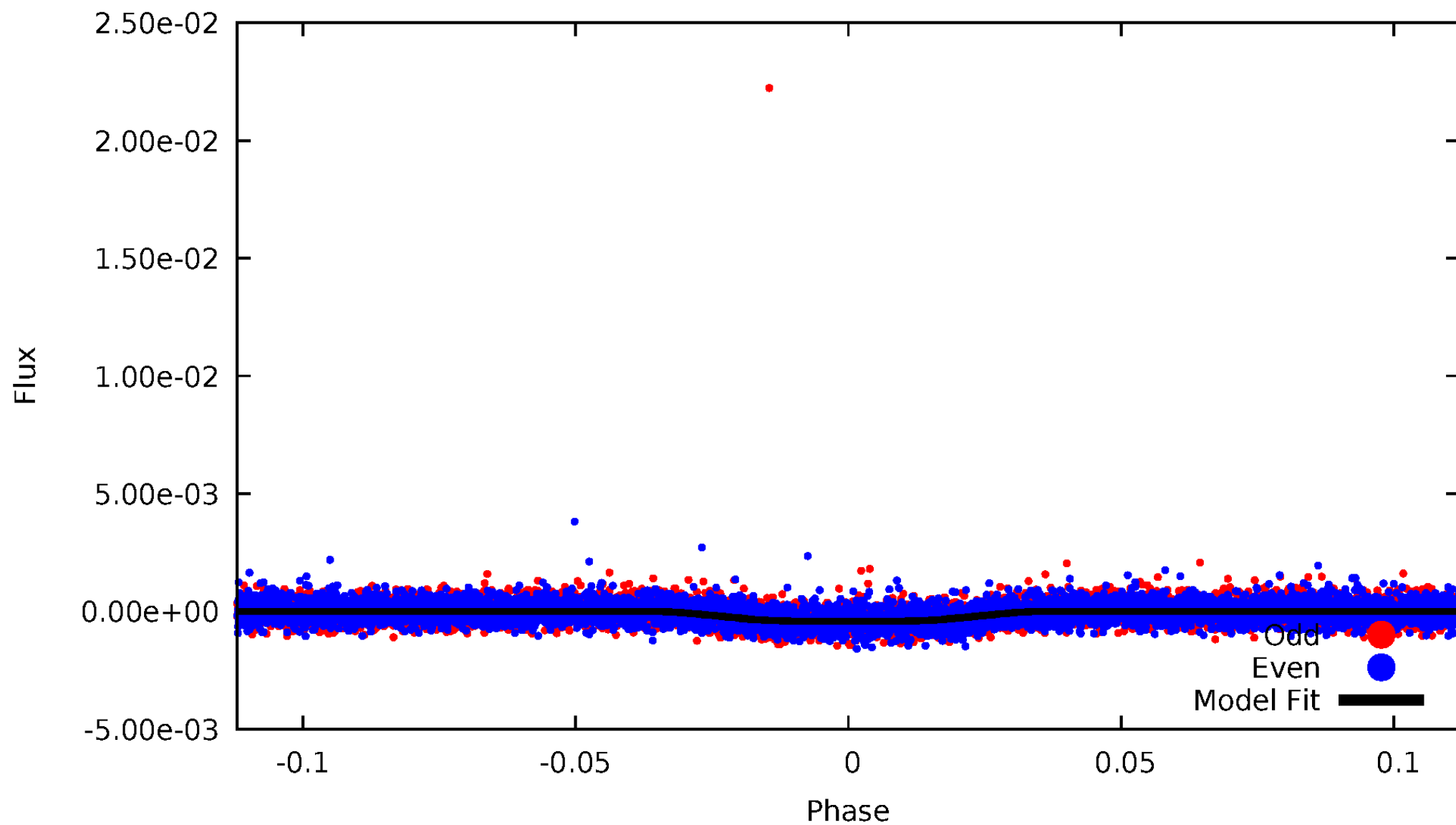


TCE 011611600-01



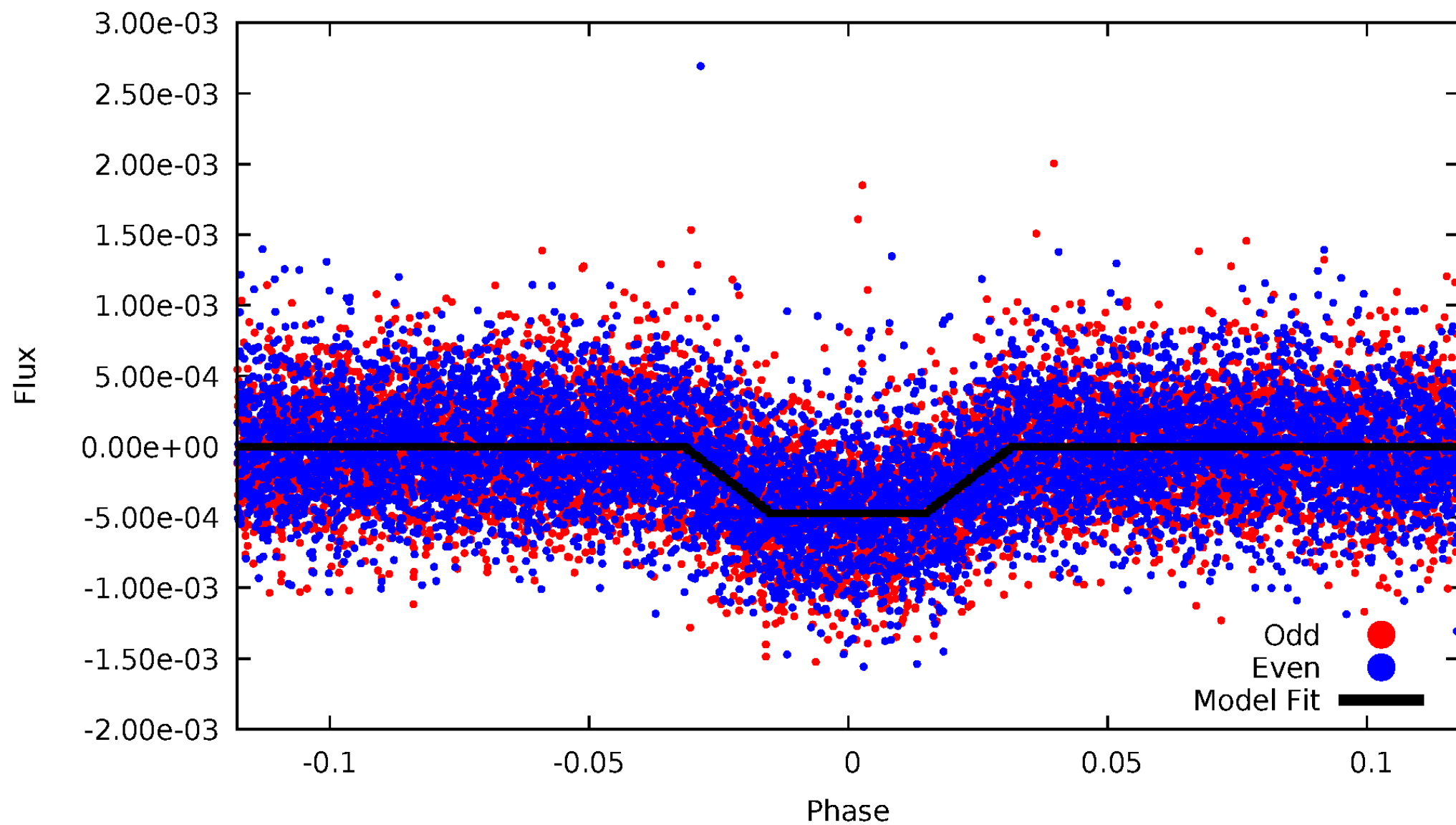
DV Odd/Even

TCE 011611600-01

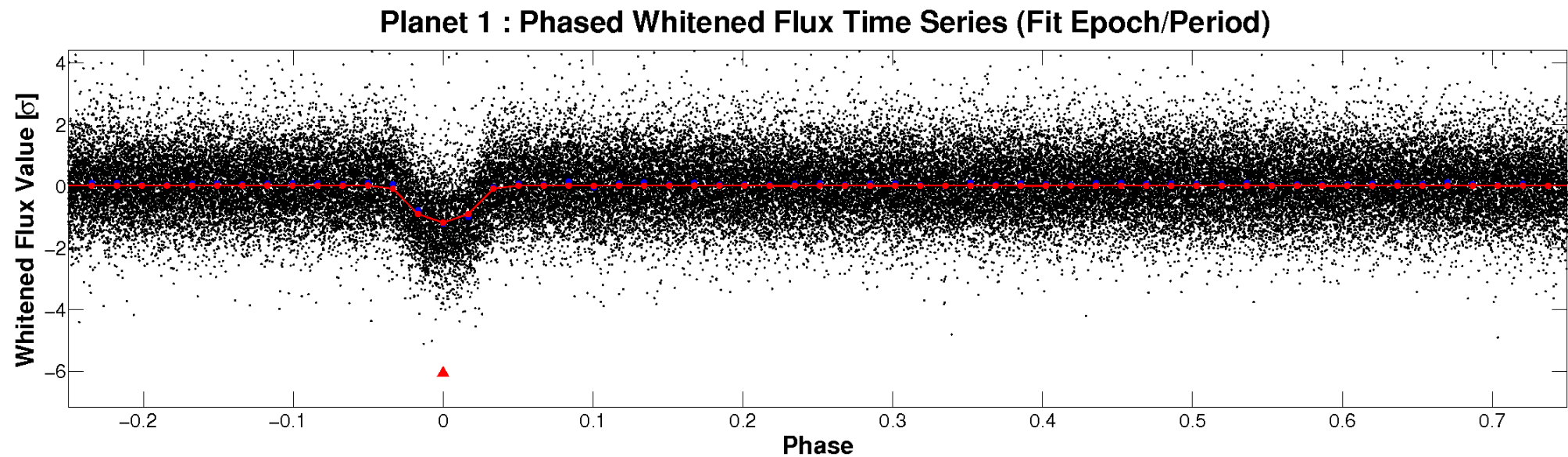
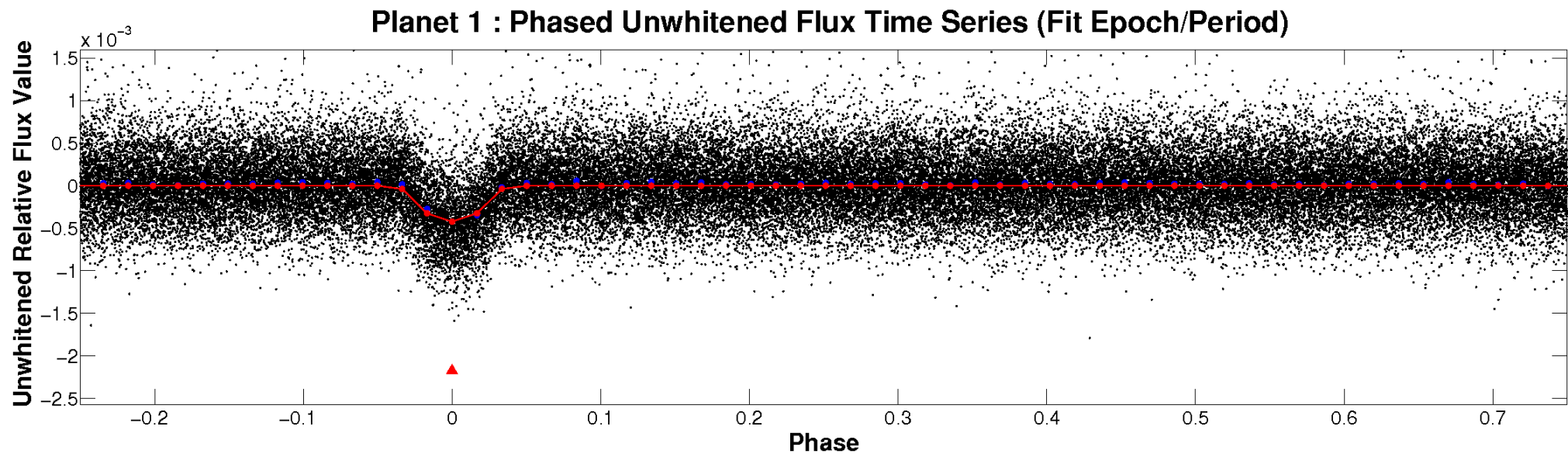


ALT Odd/Even

TCE 011611600-01

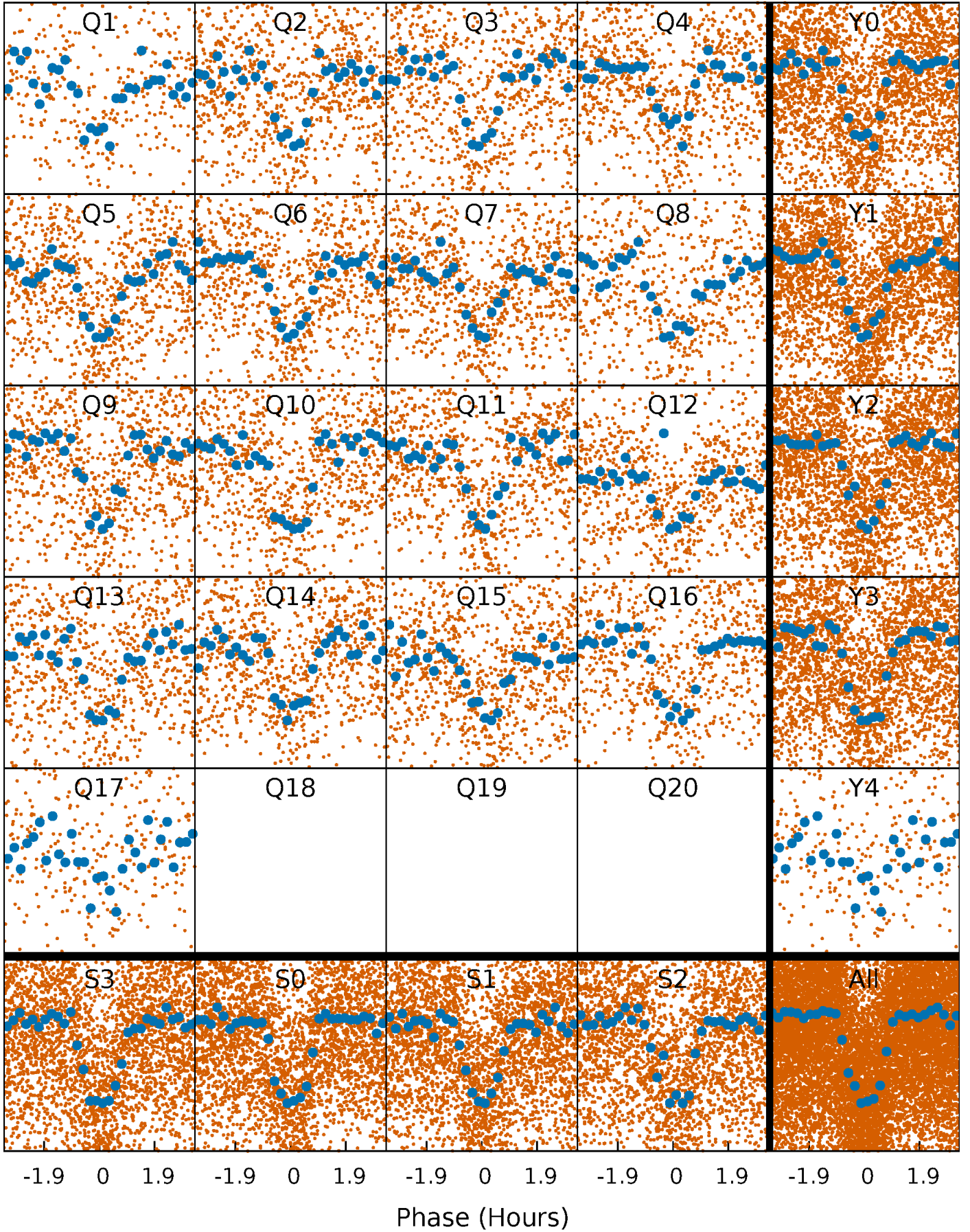


Non-Whitened Vs. Whitened Light Curve



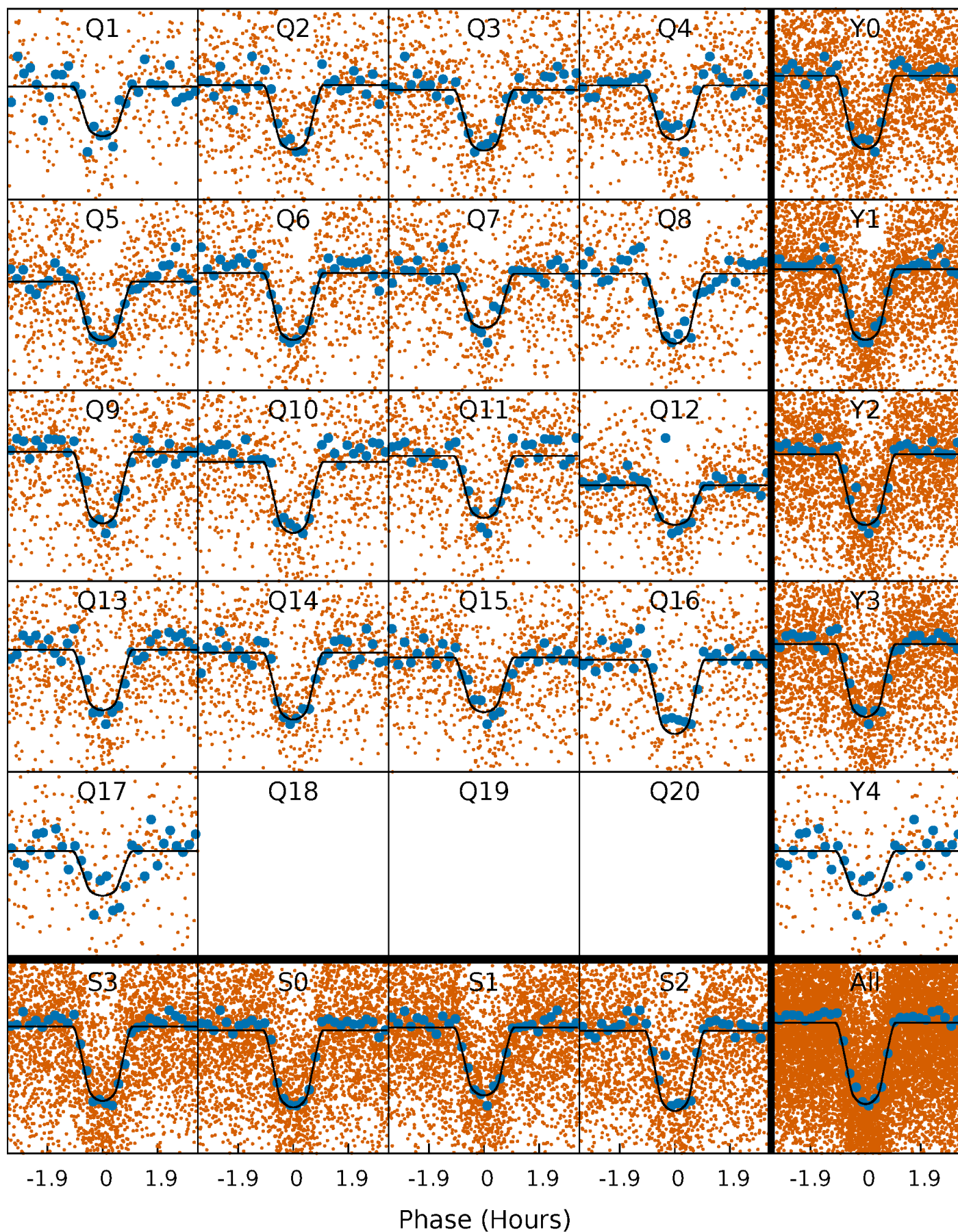
PDC Quarter-Phased Transit Curves

TCE 011611600-01 P= 1.219563 Days $T_0=132.241714$ (BKJD)



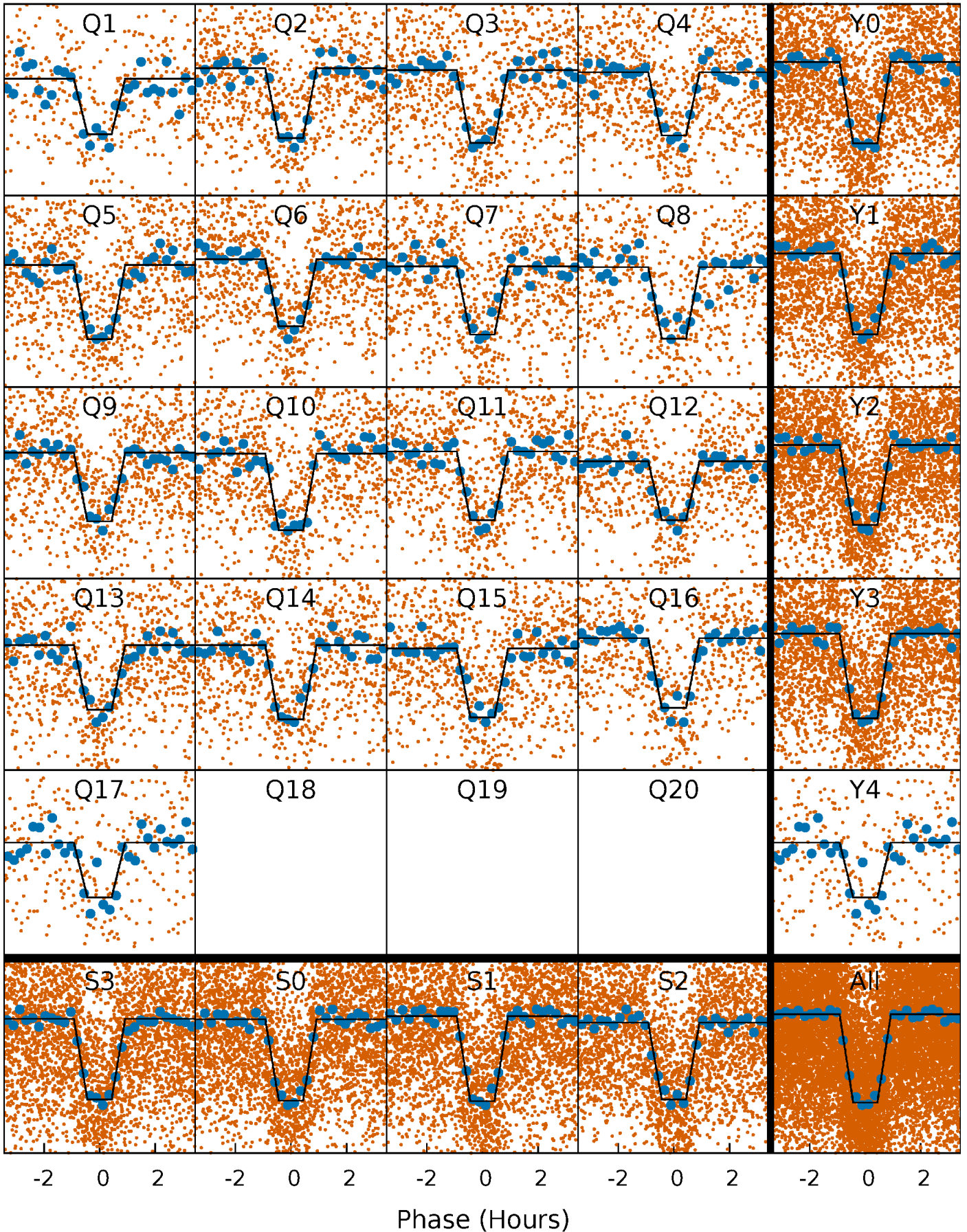
DV Quarter-Phased Transit Curves

TCE 011611600-01 P= 1.219563 Days $T_0=132.241714$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

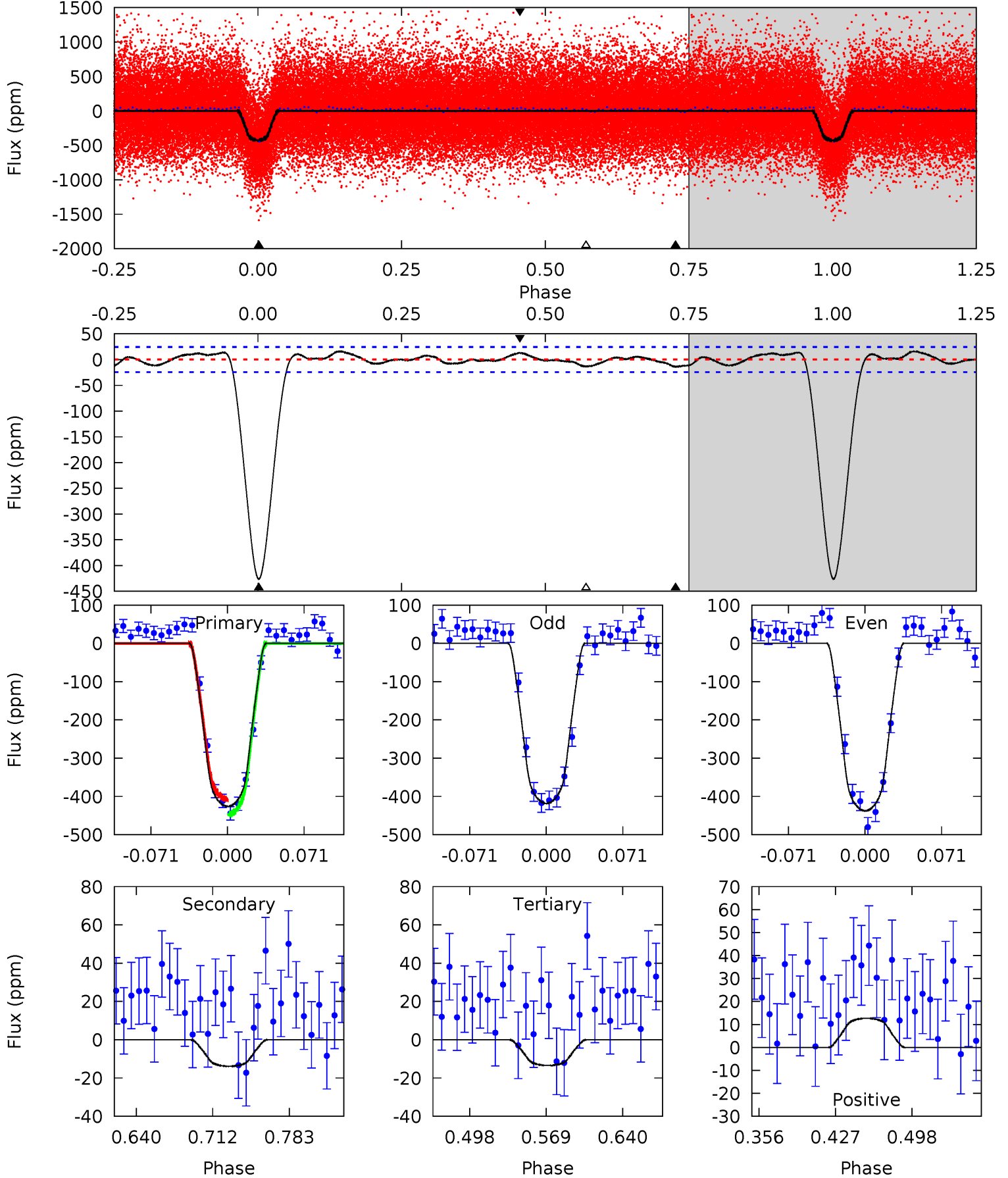
TCE 011611600-01 P= 1.219567 Days $T_0=132.241382$ (BKJD)



DV Model-Shift Uniqueness Test

011611600-01, P = 1.219563 Days, E = 131.022151 Days

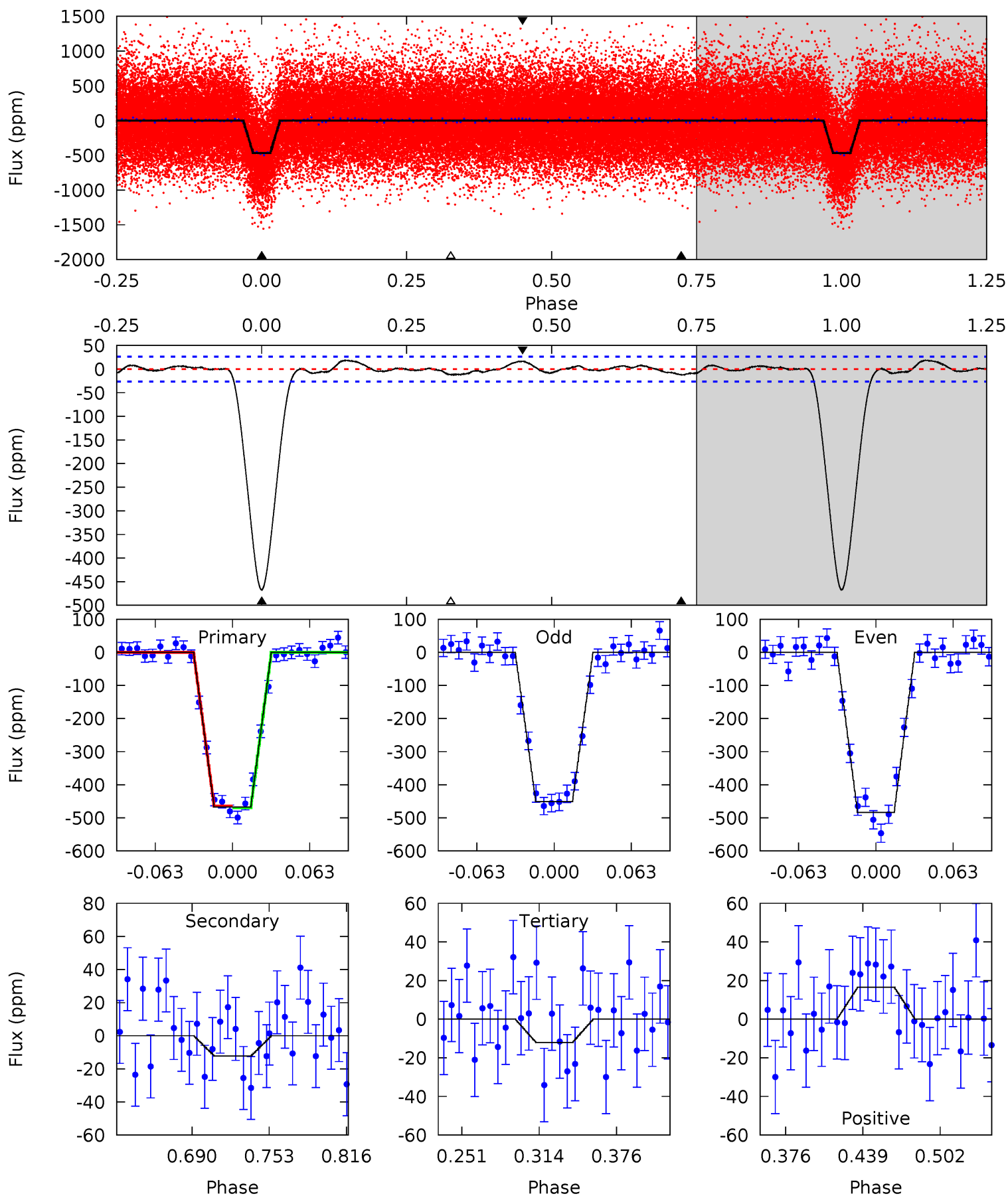
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 80.8 | 2.63 | 2.55 | 2.41 | 4.64 | 1.80 | 1.31 | 78.2 | 78.4 | 0.08 | 0.23 | 1.84 | 0.97 | 0.04 | 3.84 |



Alt Model-Shift Uniqueness Test

011611600-01, P = 1.219567 Days, E = 131.021815 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 82.8 | 2.17 | 2.13 | 2.93 | 4.66 | 1.86 | 1.18 | 80.6 | 79.8 | 0.04 | -0.76 | 2.92 | 0.98 | 0.04 | 0.46 |



Stellar Parameters For KIC 011611600

| | $T_{\text{eff}}(K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 4838^{+130}_{-145} | $4.625^{+0.027}_{-0.059}$ | $-0.040^{+0.300}_{-0.300}$ | $0.701^{+0.076}_{-0.047}$ | $0.778^{+0.054}_{-0.082}$ | $3.186^{+0.436}_{-0.721}$ |
| | +3%/-3% | +1%/-1% | +750%/-750% | +11%/-7% | +7%/-11% | +14%/-23% |
| 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 011611600-01 / KOI 1424.01

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|----------------------|---------------------------|
| DV | -14 ± 5 | $1.81^{+0.34}_{-0.32}$ | 1767^{+60}_{-61} | 2560^{+223}_{-288} | $0.981^{+0.580}_{-0.441}$ |
| Alt. | -12 ± 6 | $1.69^{+0.31}_{-0.31}$ | 1766^{+57}_{-65} | 2570^{+242}_{-368} | $0.995^{+0.719}_{-0.501}$ |

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 $A_{\text{obs}} \gg 1.0$

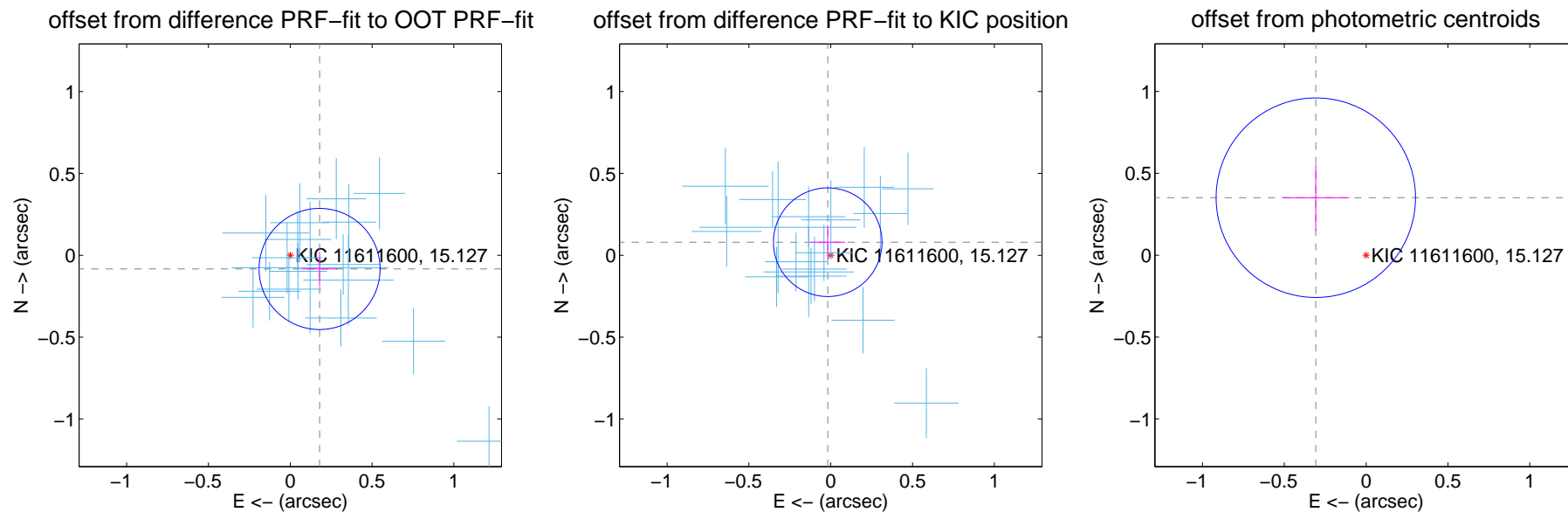
DV Centroid Data

Supplemental centroid analysis for 011611600-01. Kepler magnitude: 15.13. Transit SNR 56.67

There are 17 quarters with good PRF difference image offsets

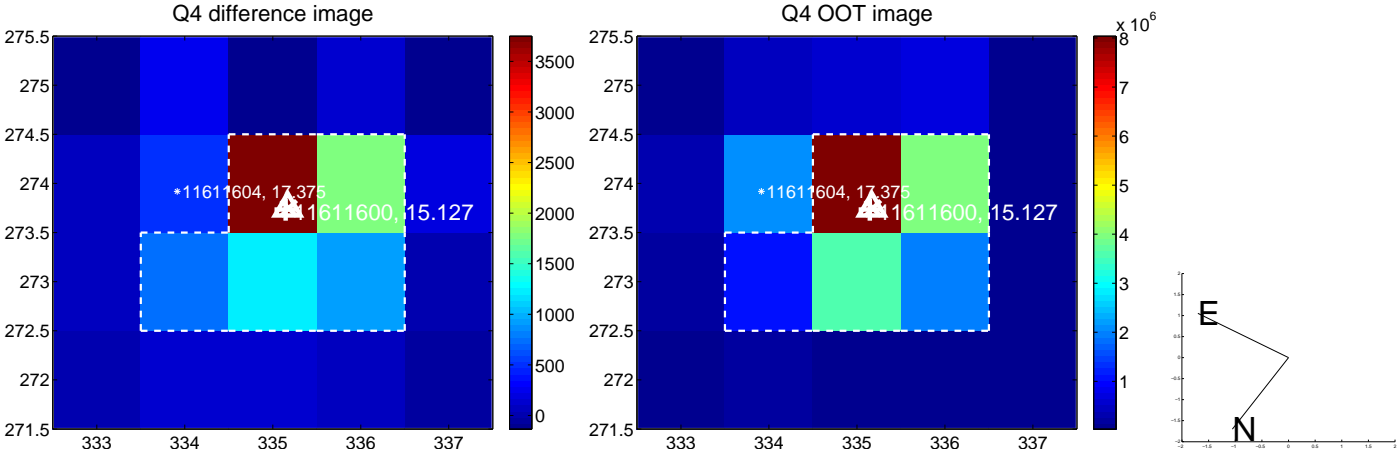
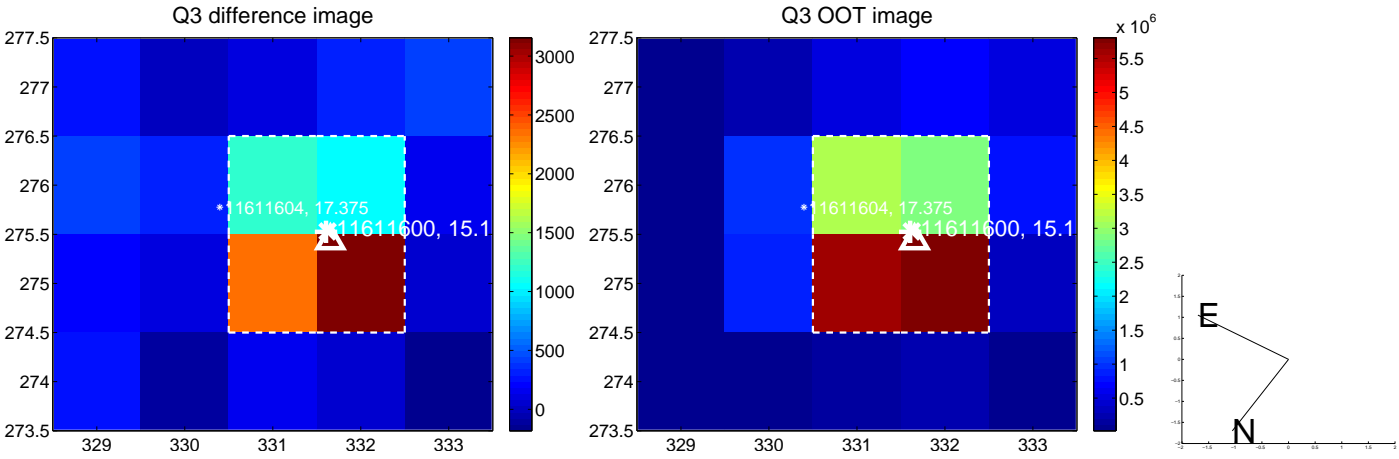
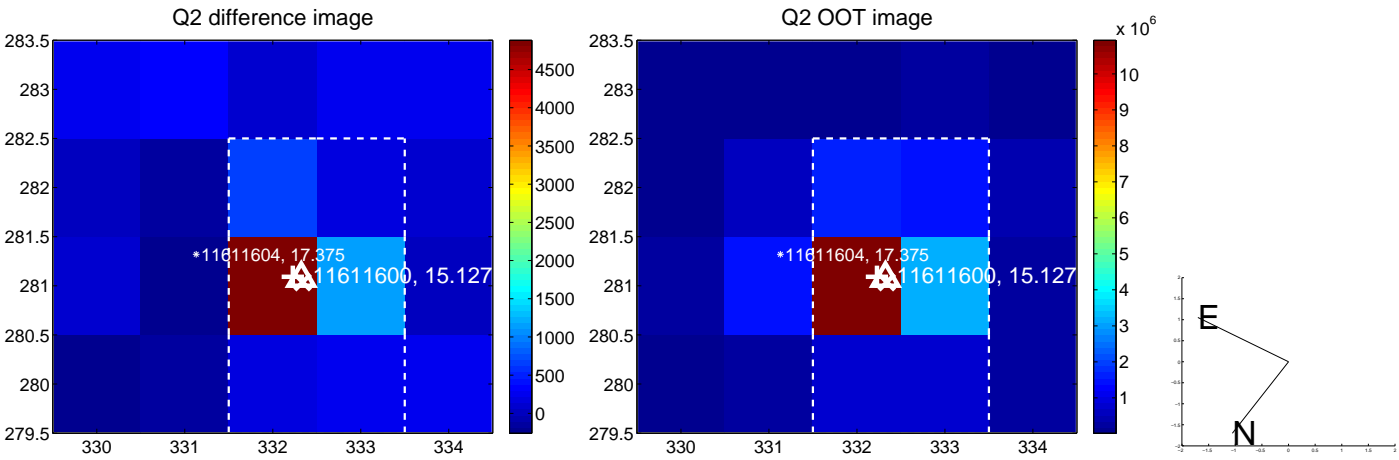
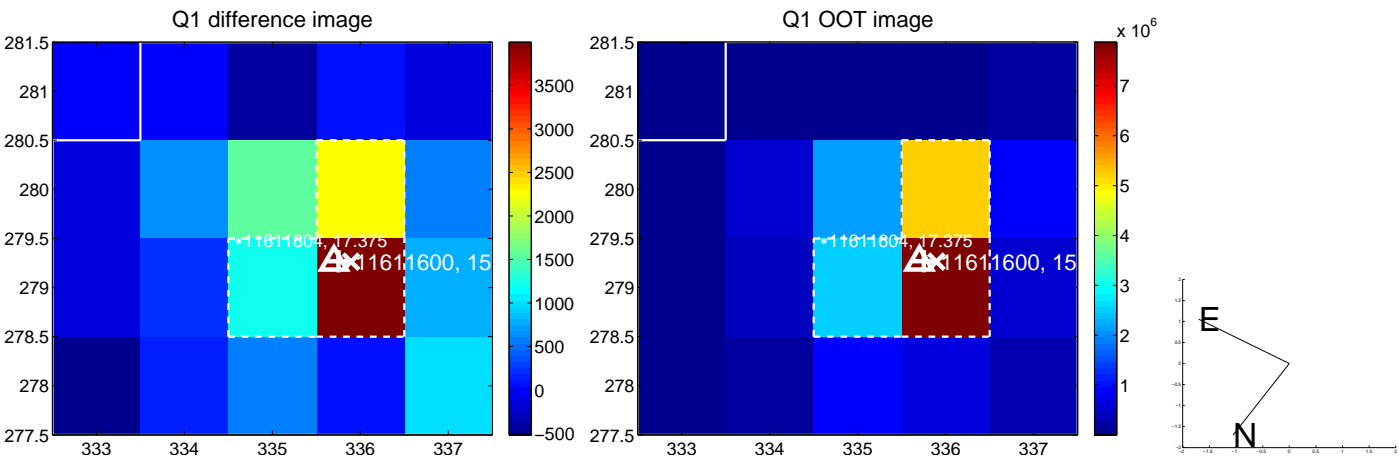
The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.198 ± 0.123 | 1.60 | -0.179 ± 0.112 | -0.084 ± 0.104 |
| PRF-fit source offset from KIC position | 0.082 ± 0.111 | 0.74 | 0.018 ± 0.106 | 0.080 ± 0.104 |
| photometric centroid source offset | 0.47 ± 0.20 | 2.30 | 0.31 ± 0.20 | 0.35 ± 0.20 |

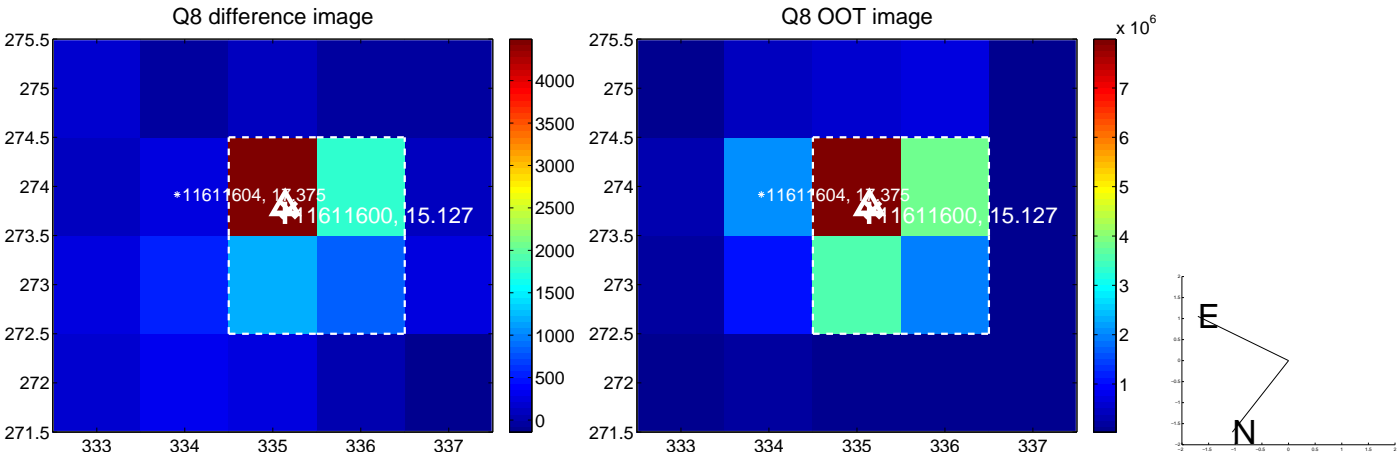
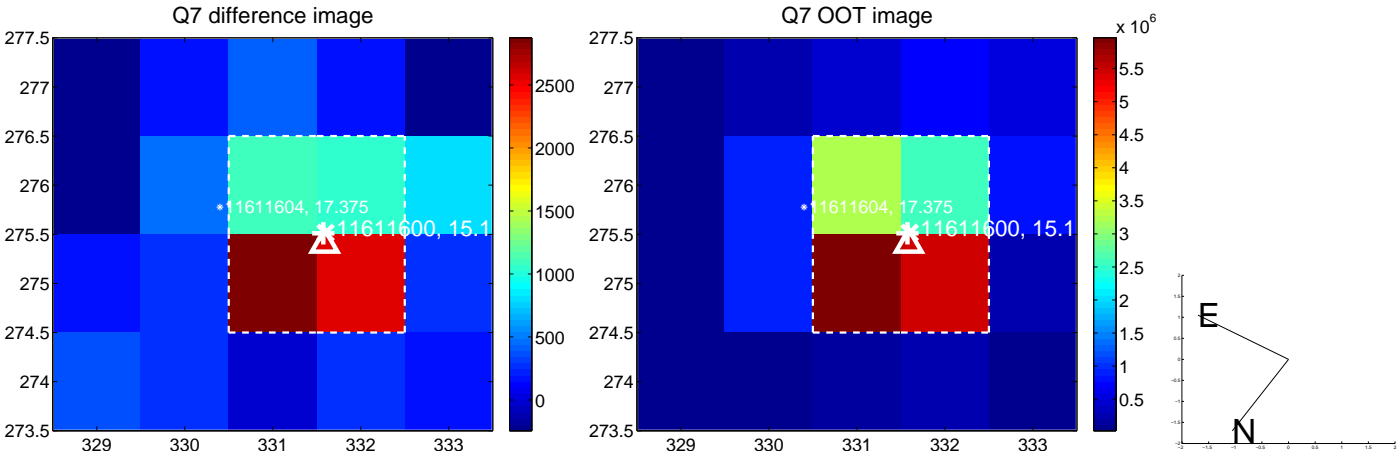
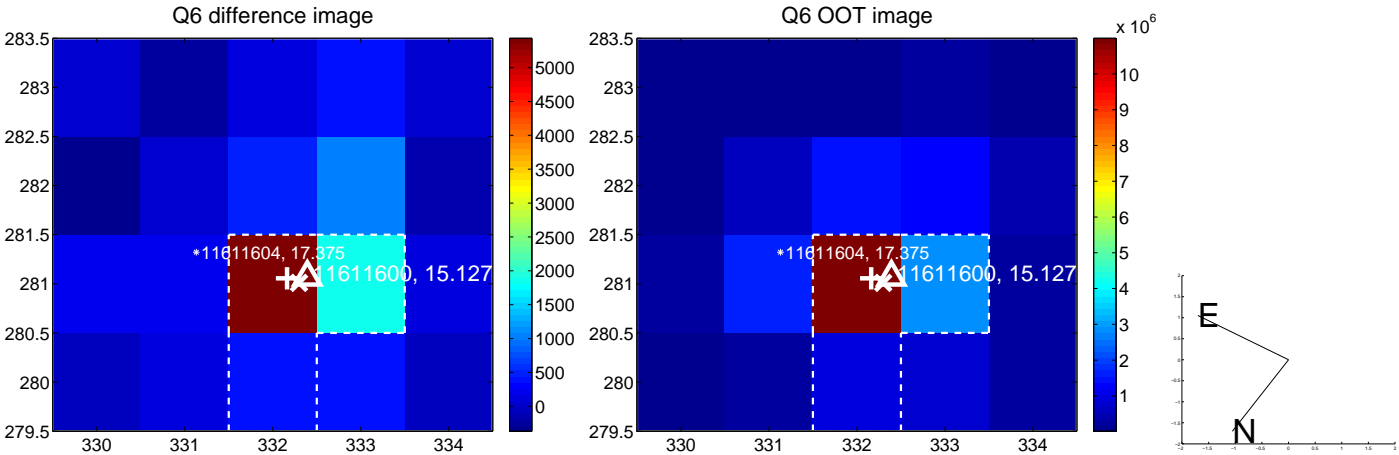
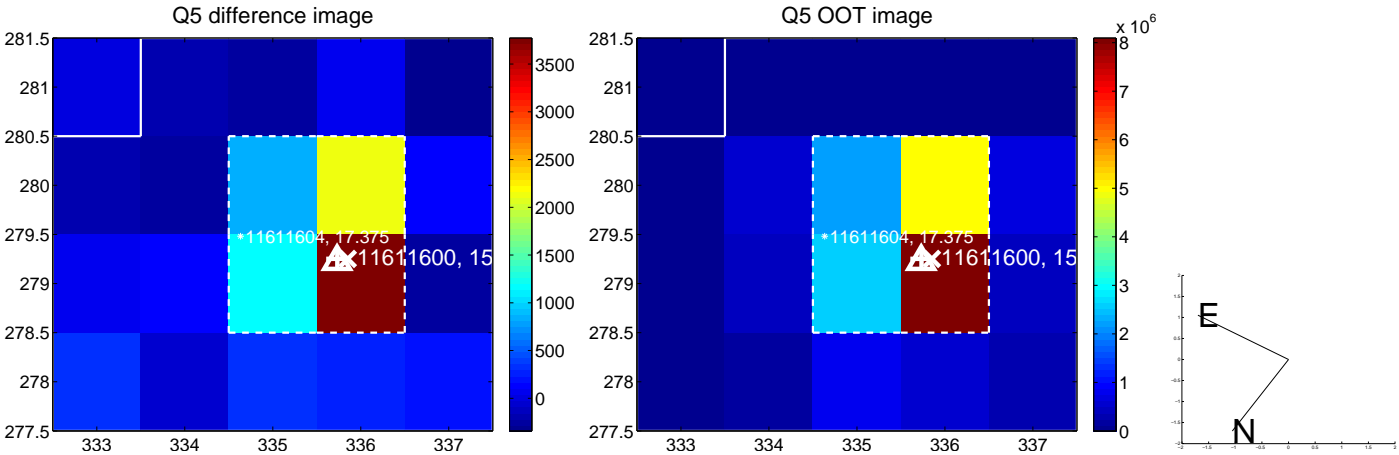


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

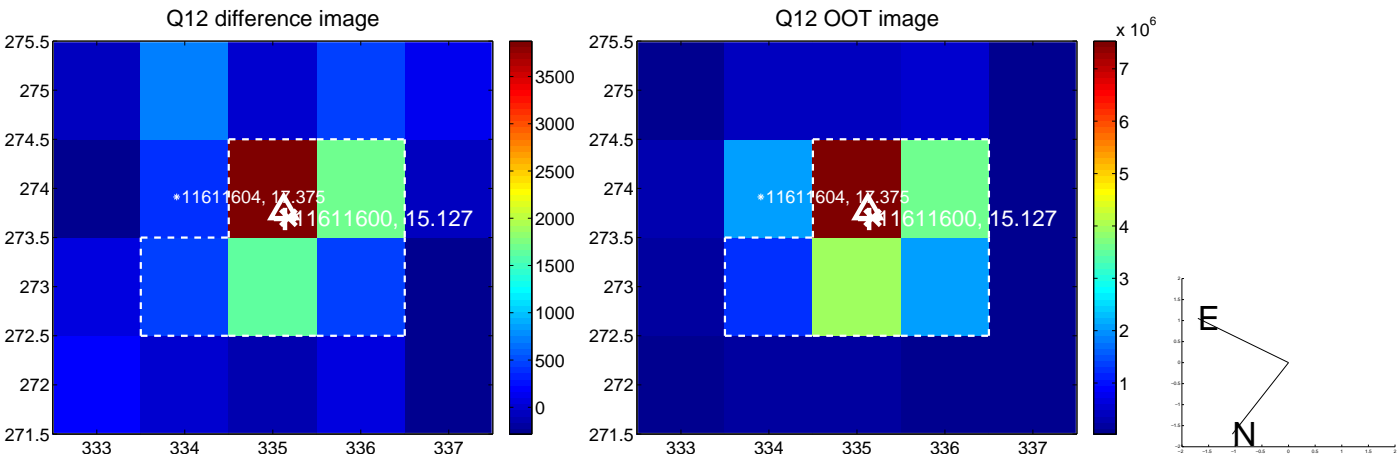
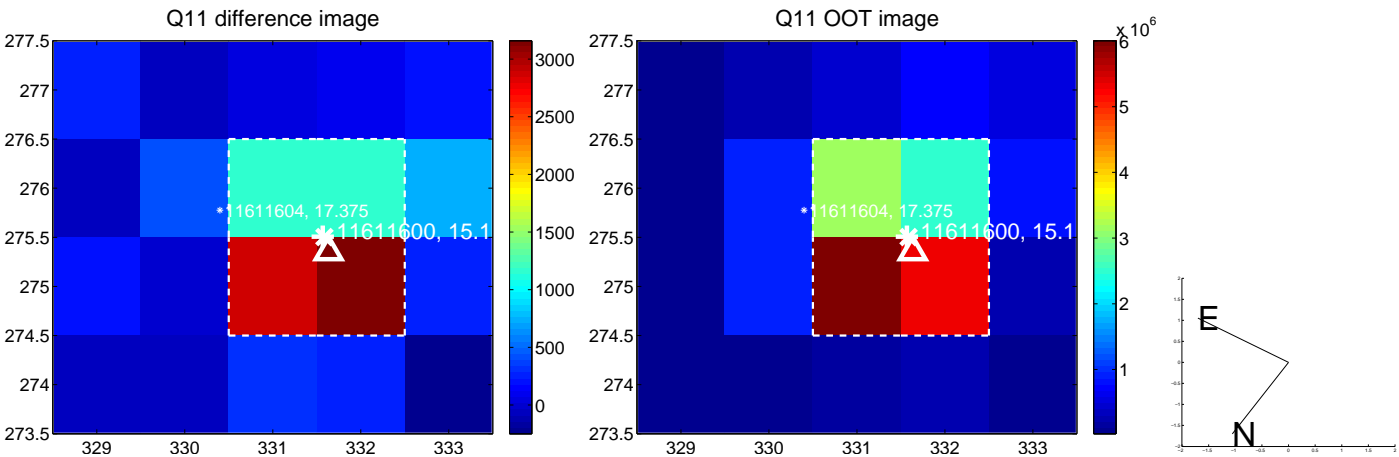
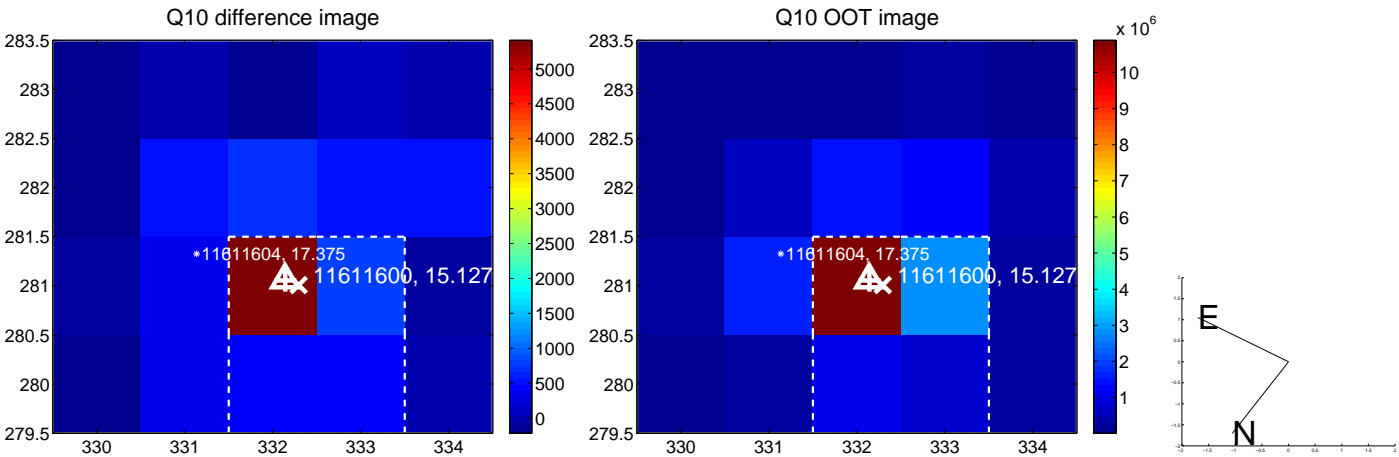
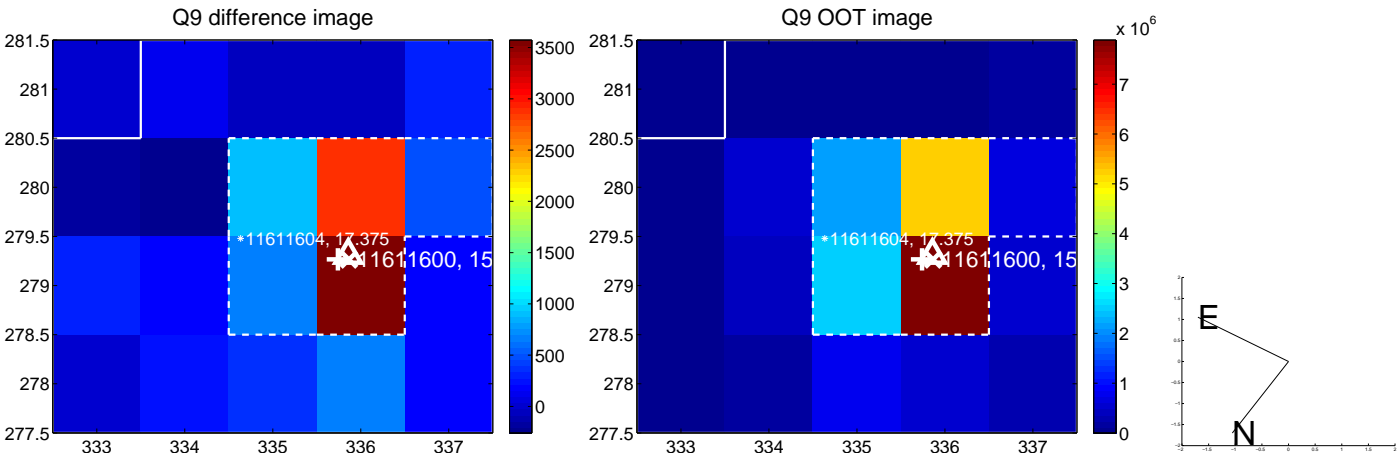
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



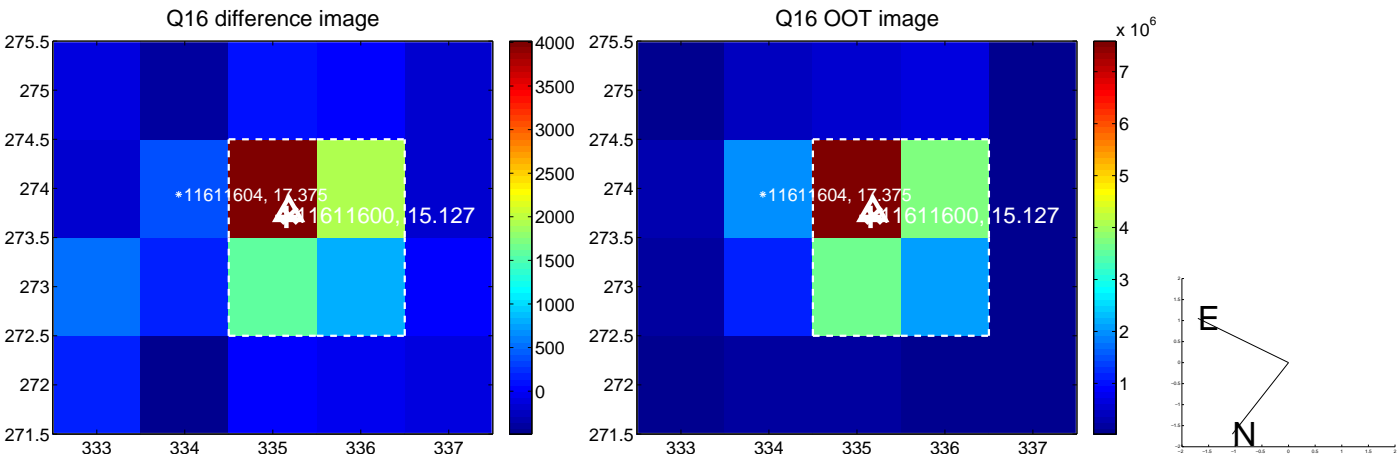
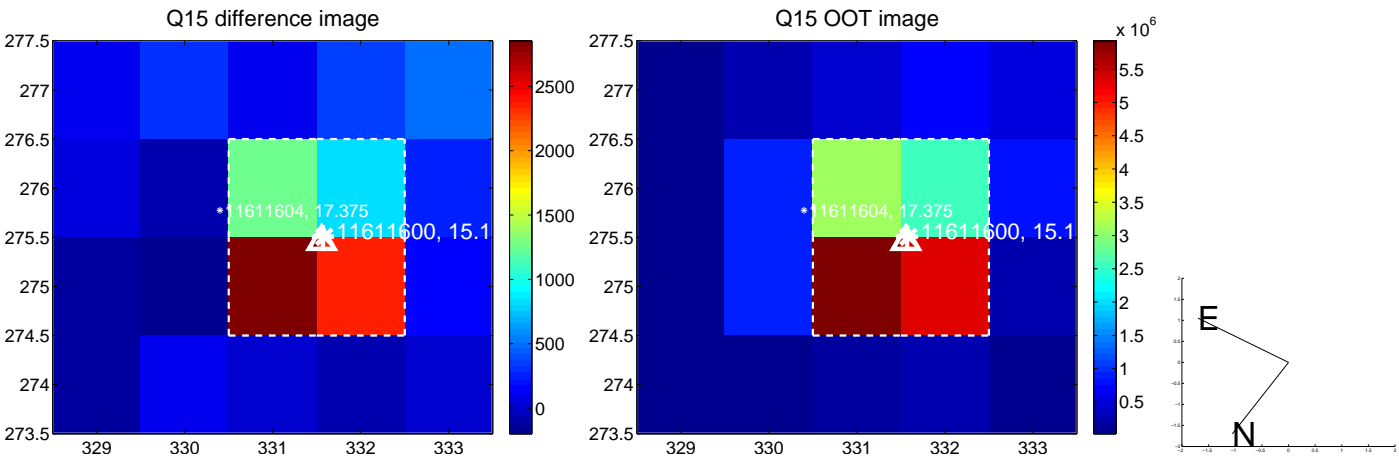
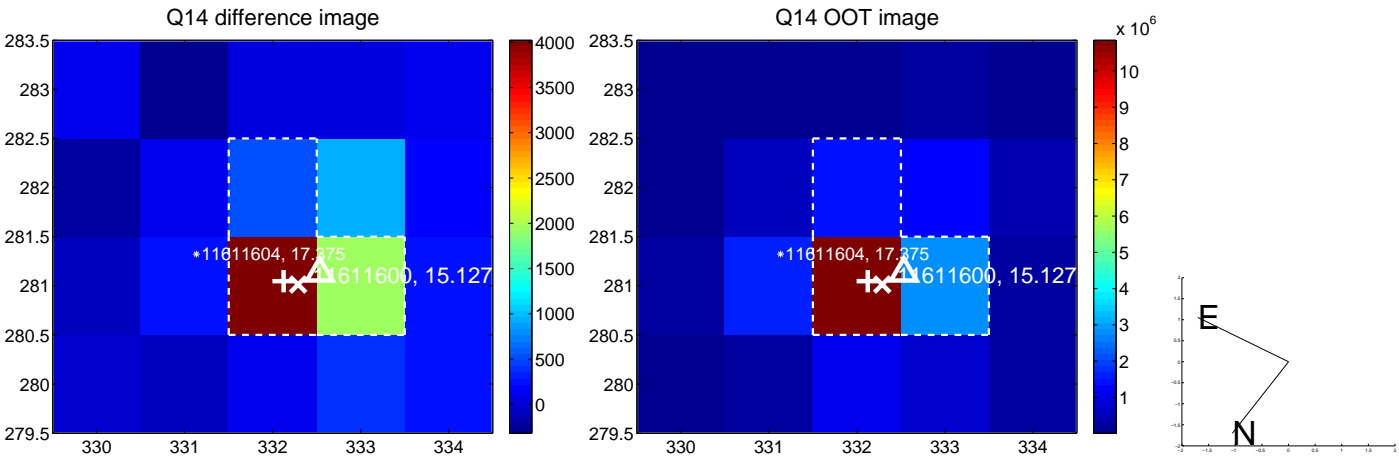
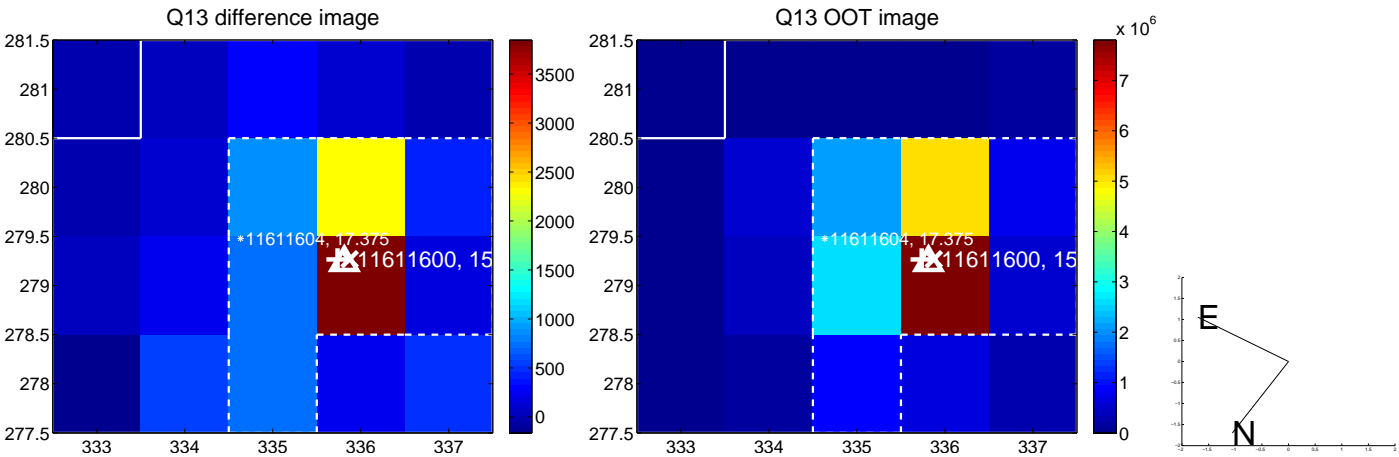
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



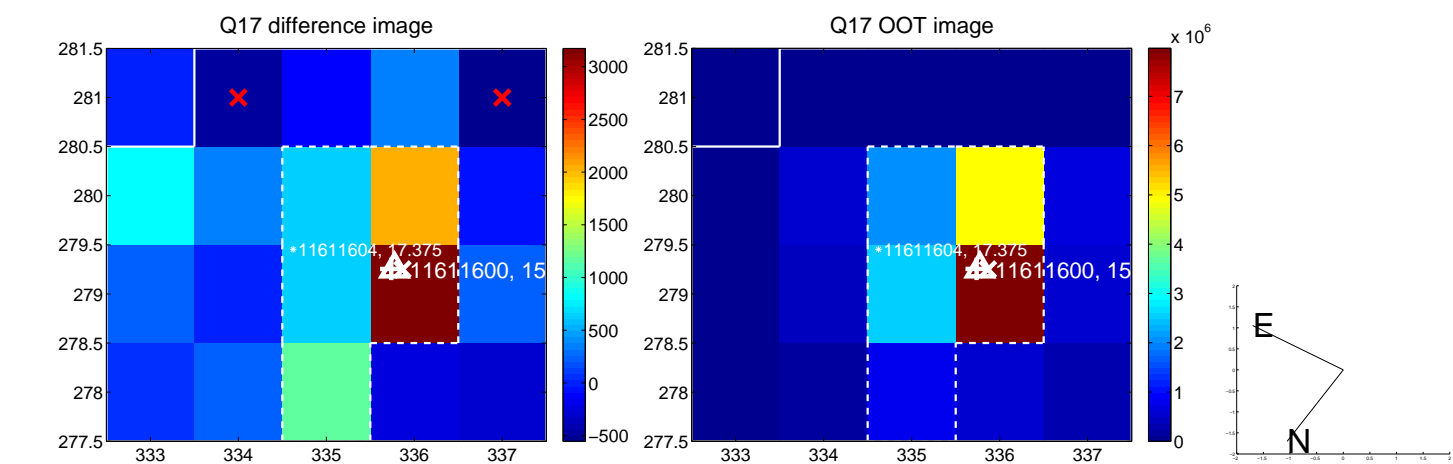
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



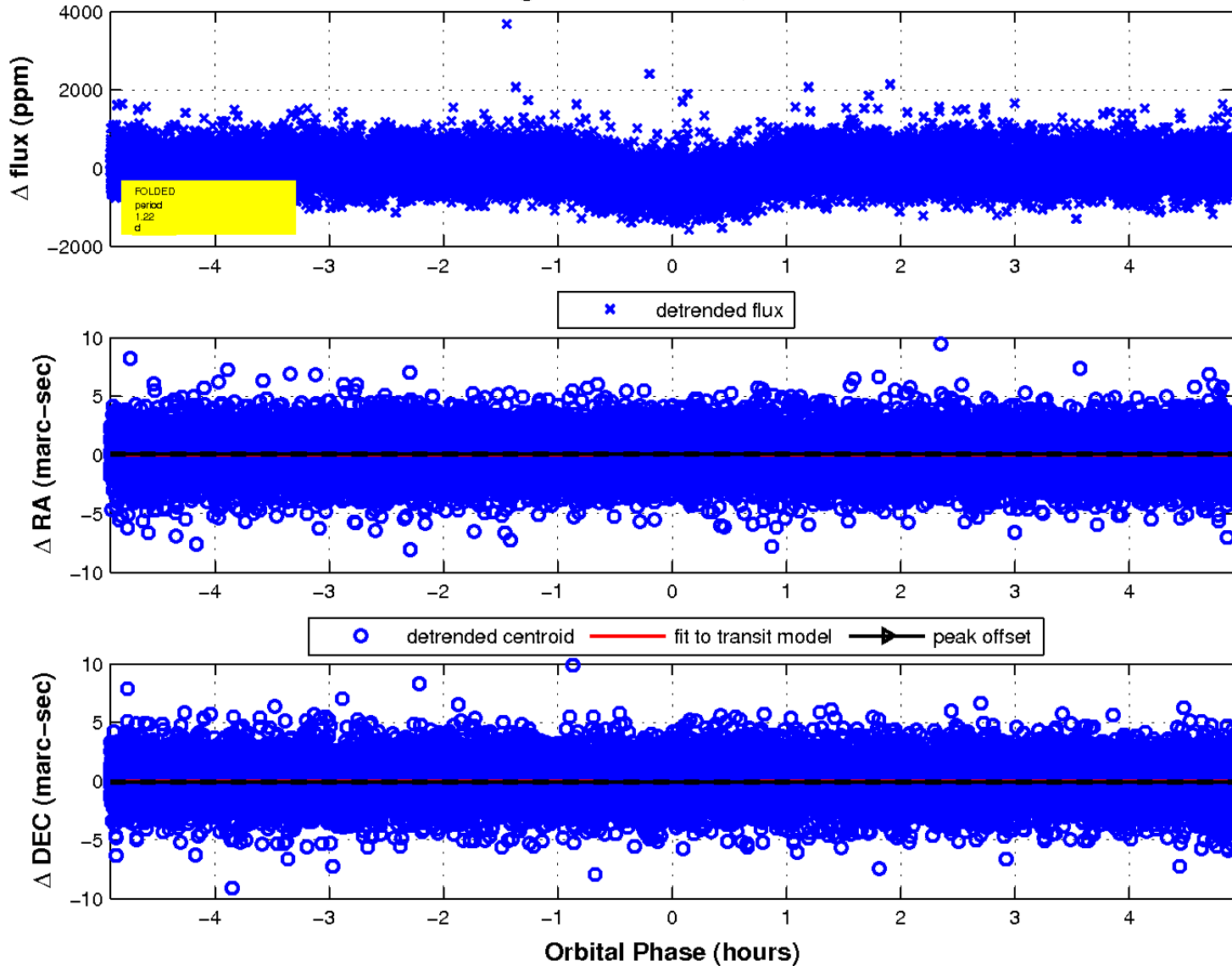
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

