

KIC 004263932

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|-----|-----------------------------|-----------------|------------------------|------------------------|
| 004263932-01 | OBS | No | 5.344986 | 135.988537 | 40.2 | 19.486 | 10.4 | 8.7 | 1.51 | 6735 | 1.09 | 978.12 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|----------|
| 004263932-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |

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

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

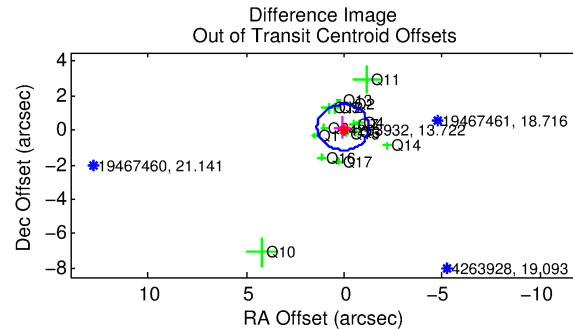
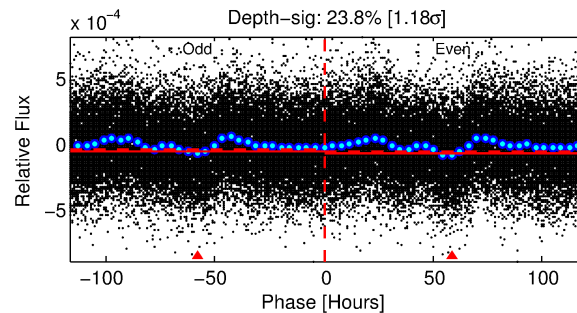
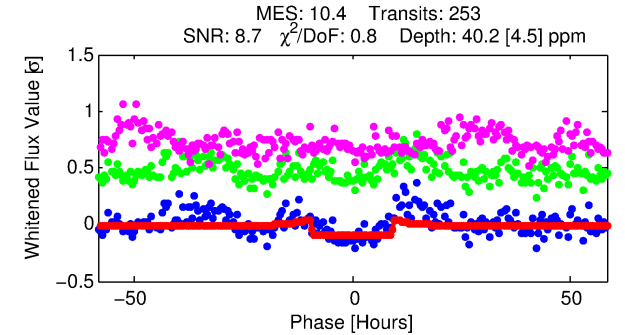
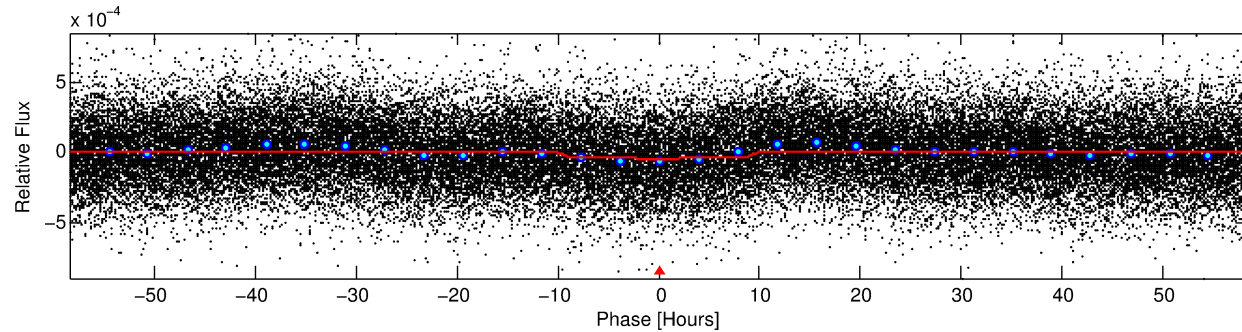
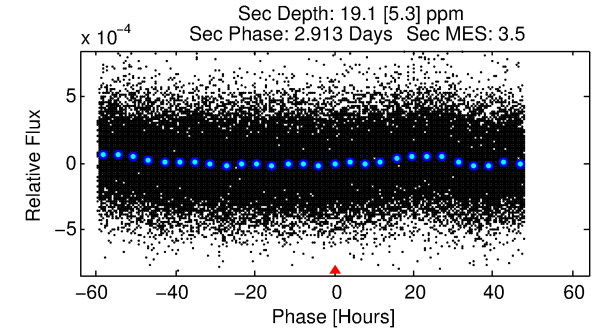
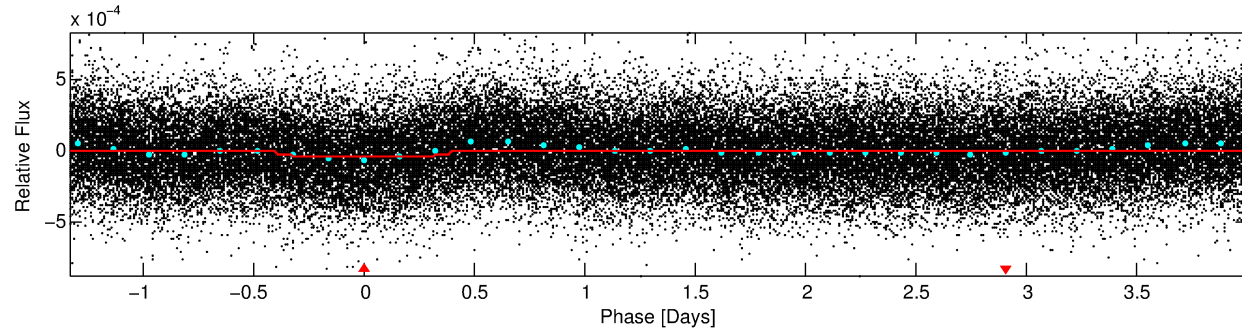
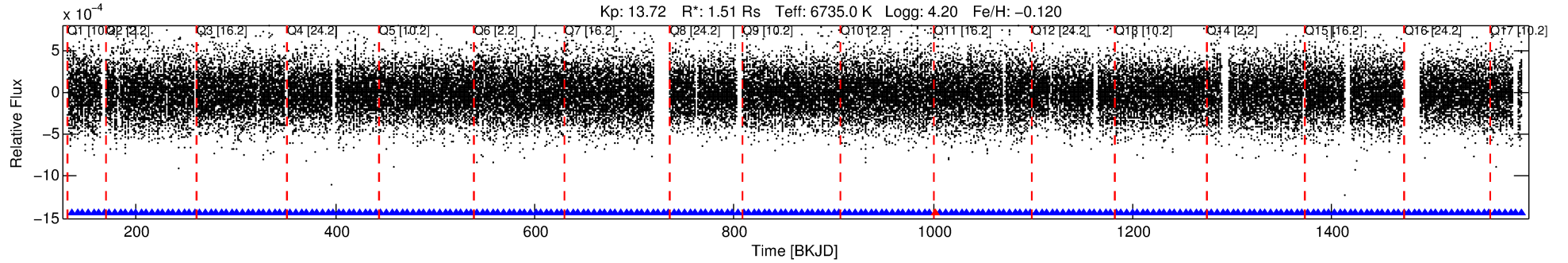
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004263932-01

No Significant Match Found

DV One-Page Summary

KIC: 4263932 Candidate: 1 of 1 Period: 5.345 d



DV Fit Results:

Period = 5.34499 [0.00010] d
Epoch = 135.9885 [0.0136] BKJD
Rp/R* = 0.0066 [0.0009]
a/R* = 1.41 [0.49]
b = 0.87 [0.20]
Seff = 978.12 [397.05]
Teq = 1426 [145] K
Rp = 1.09 [0.37] Re
a = 0.0654 [0.0170] AU
Ag = 38.02 [20.17] [1.83σ]
Teffp = 5475 [570] K [6.89σ]

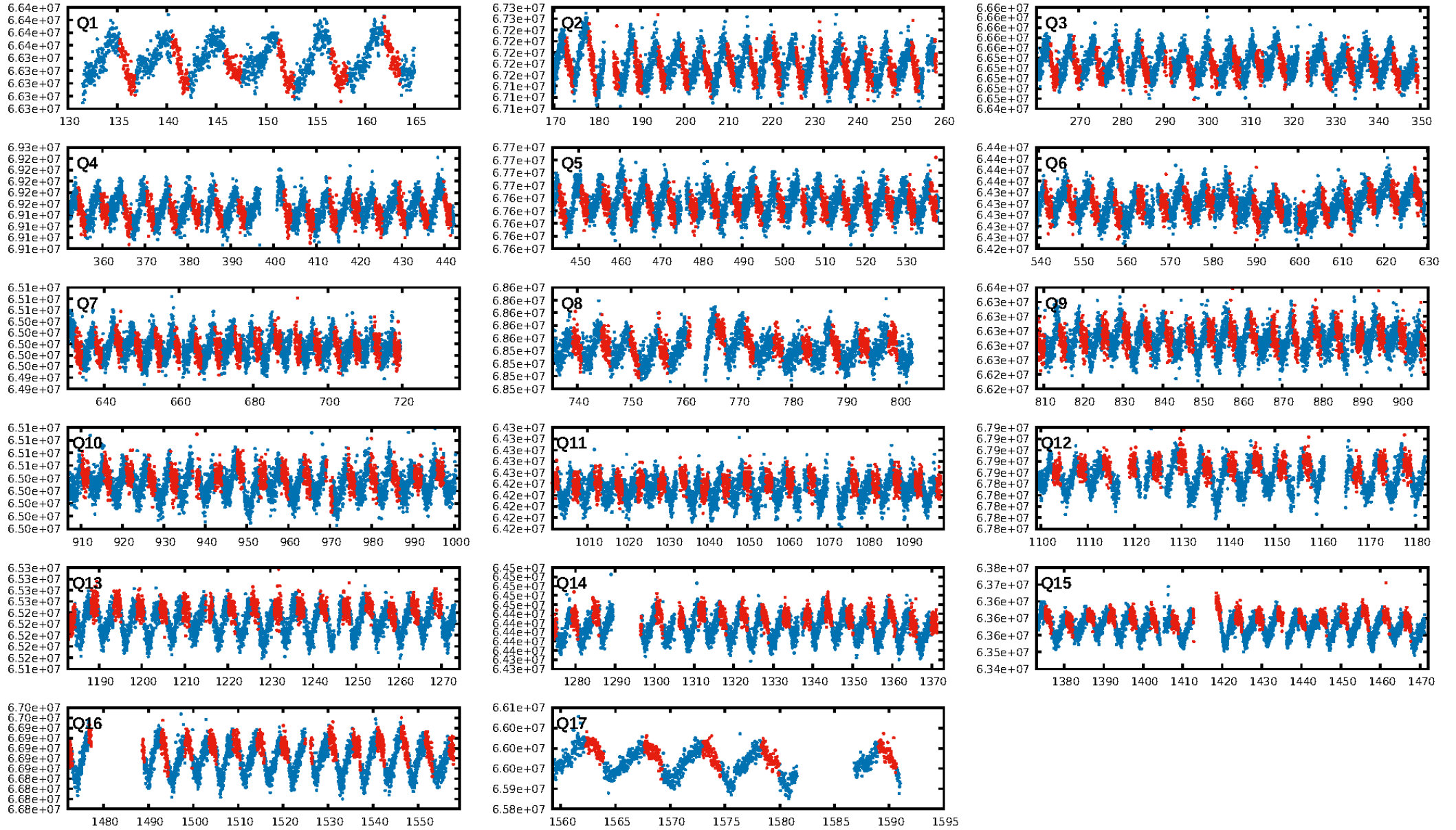
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.28e-15
RollingBand-fgt: 1.00 [241/242]
GhostDiagnostic-chr: 2.442
Centroid-sig: 12.2%
Centroid-so: 1.135 arcsec [1.12σ]
OotOffset-rm: 0.181 arcsec [0.41σ]
KicOffset-rm: 0.160 arcsec [0.34σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 1.00 [17/17]

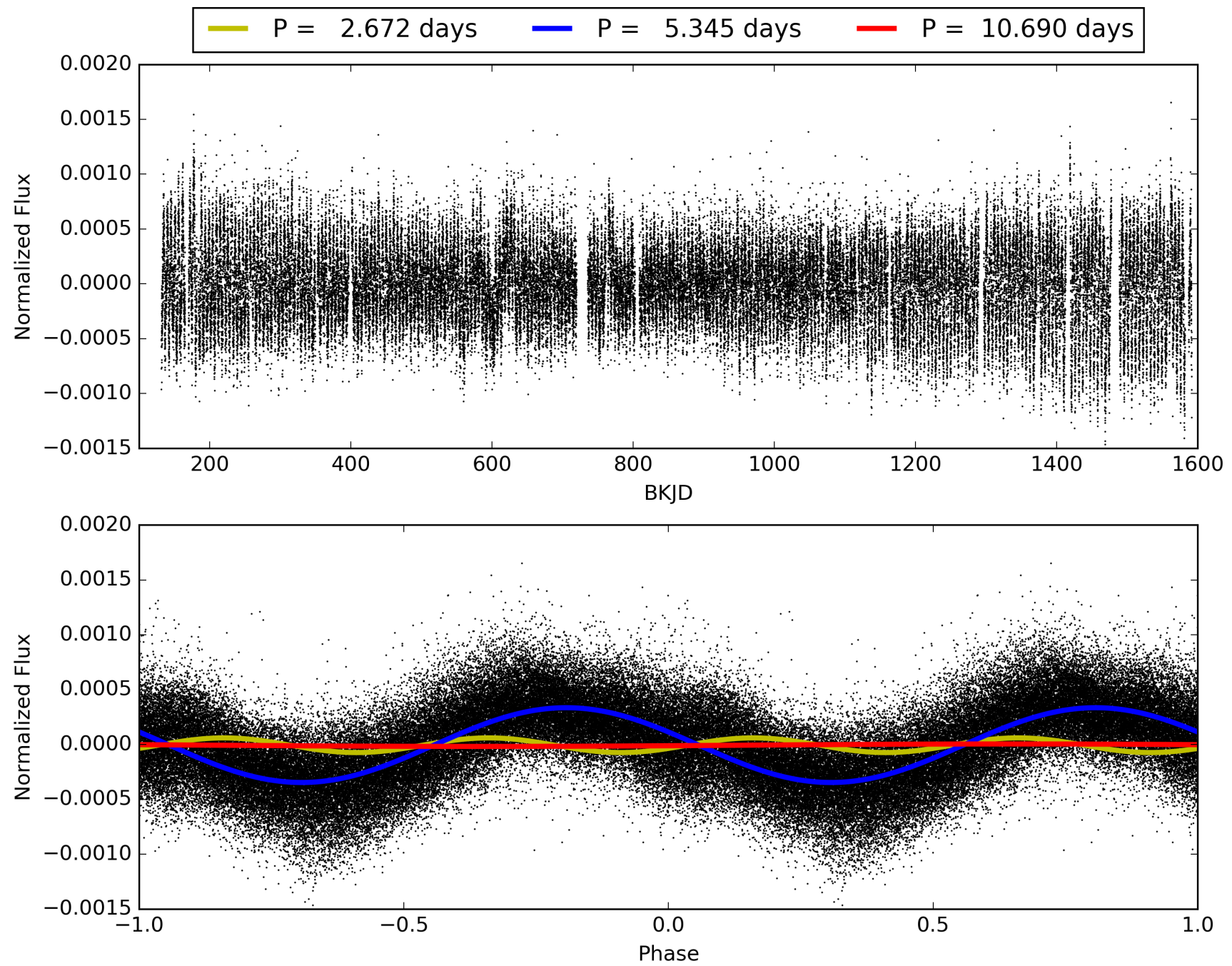
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:27:30 Z

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

TCE 004263932-01, PDC Light Curves

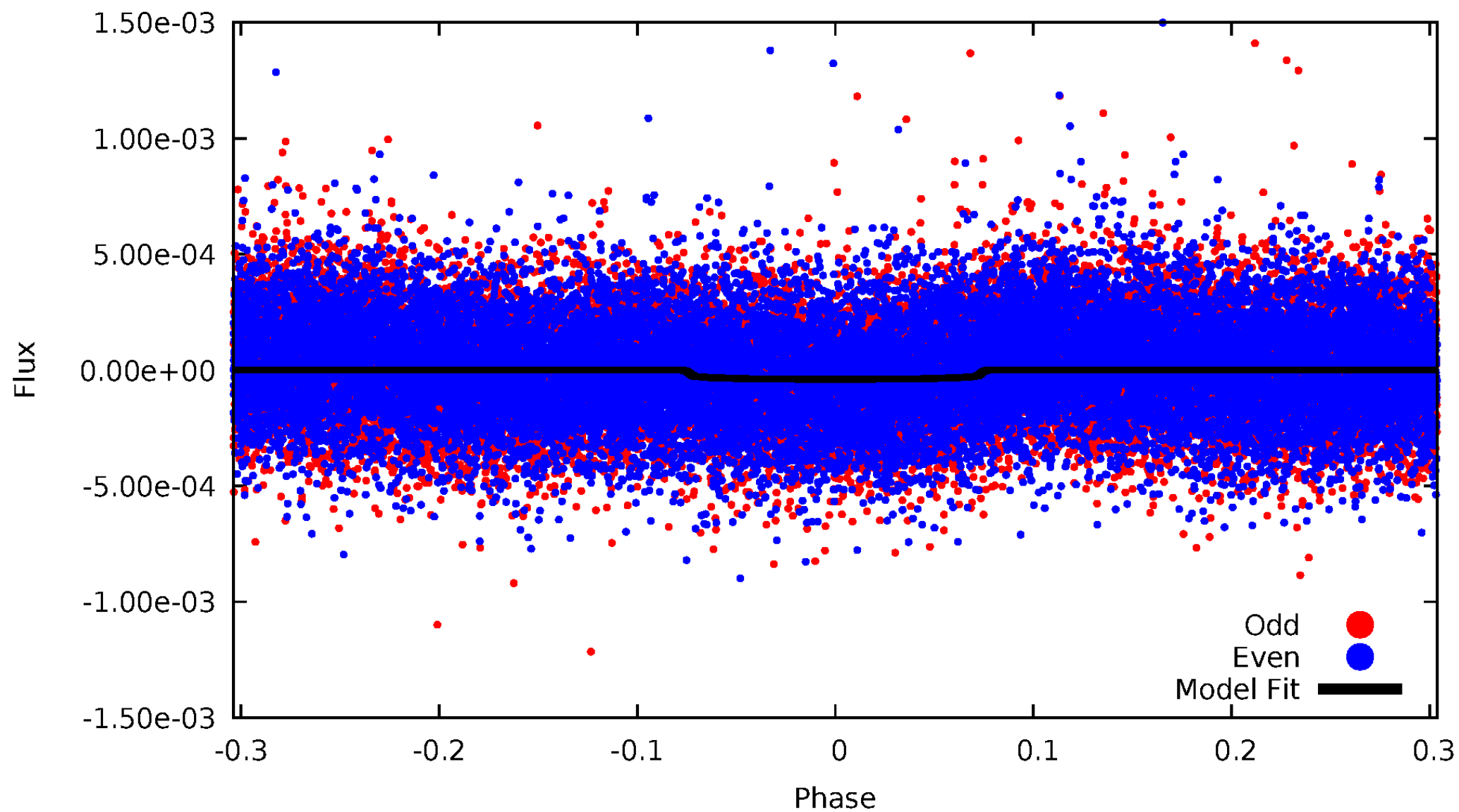


TCE 004263932-01



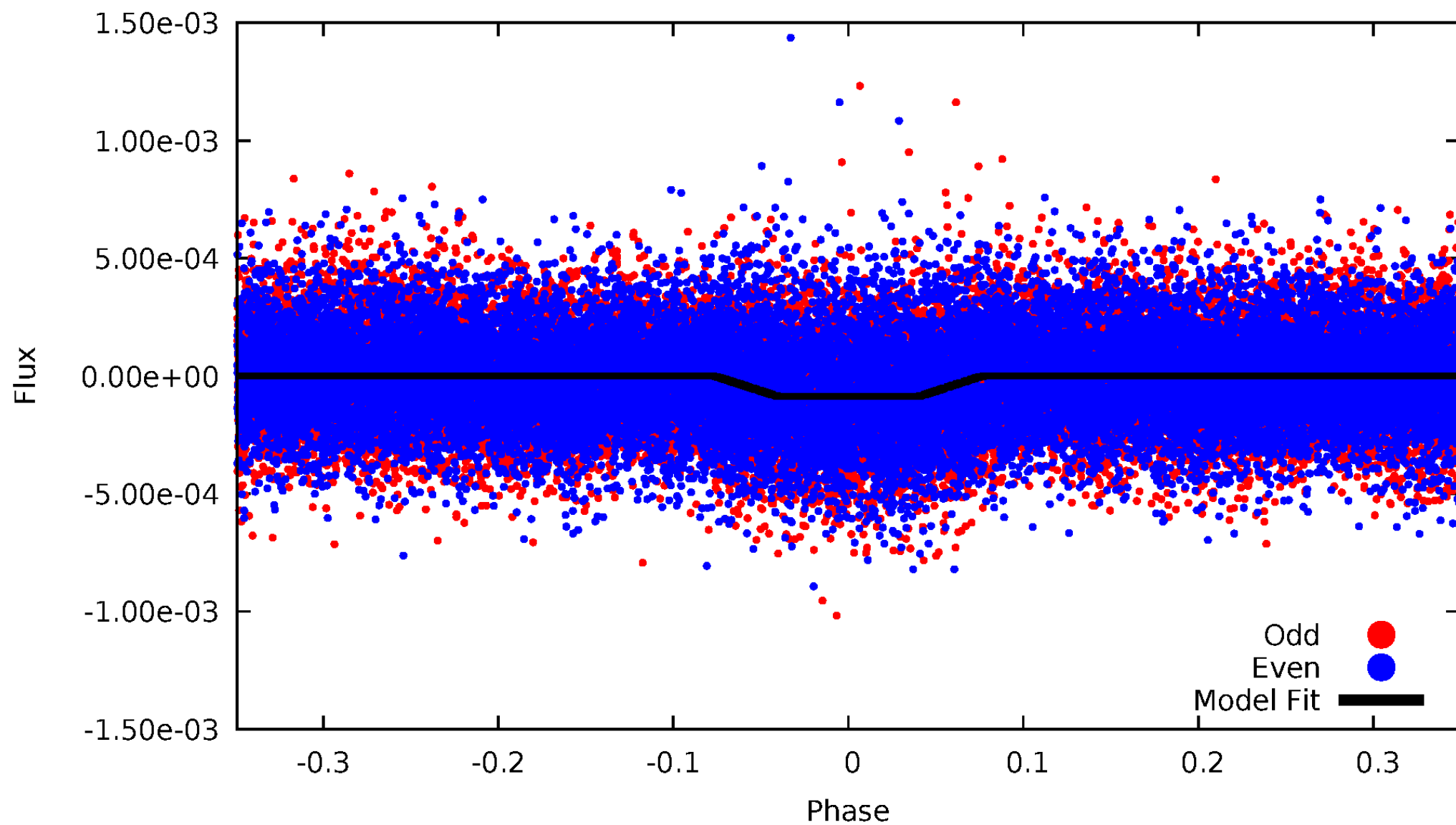
DV Odd/Even

TCE 004263932-01

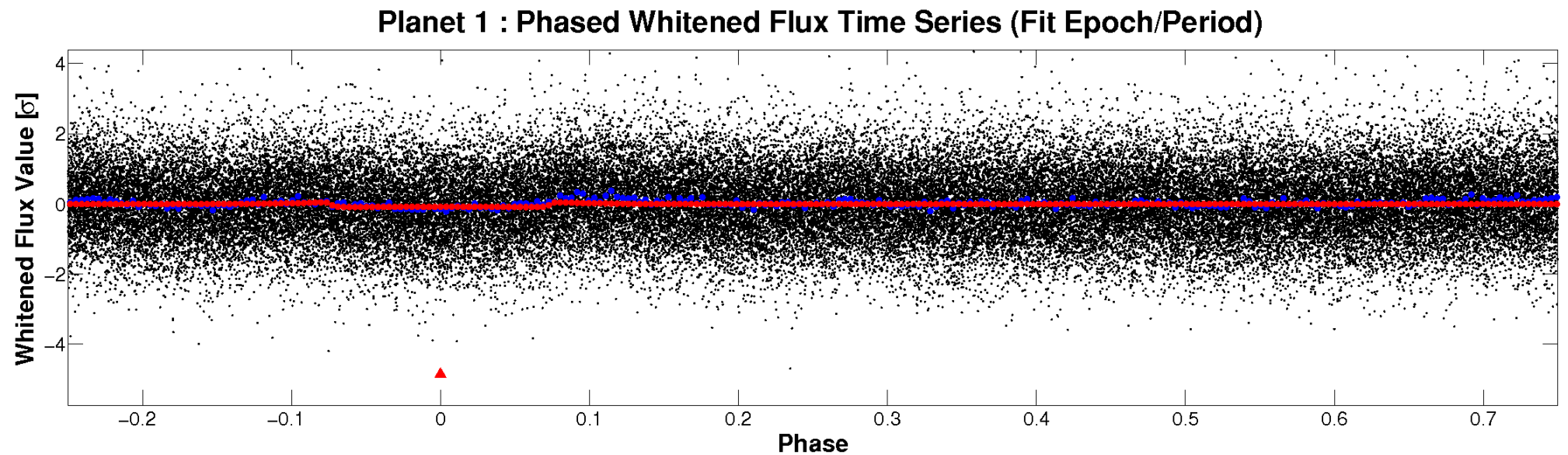
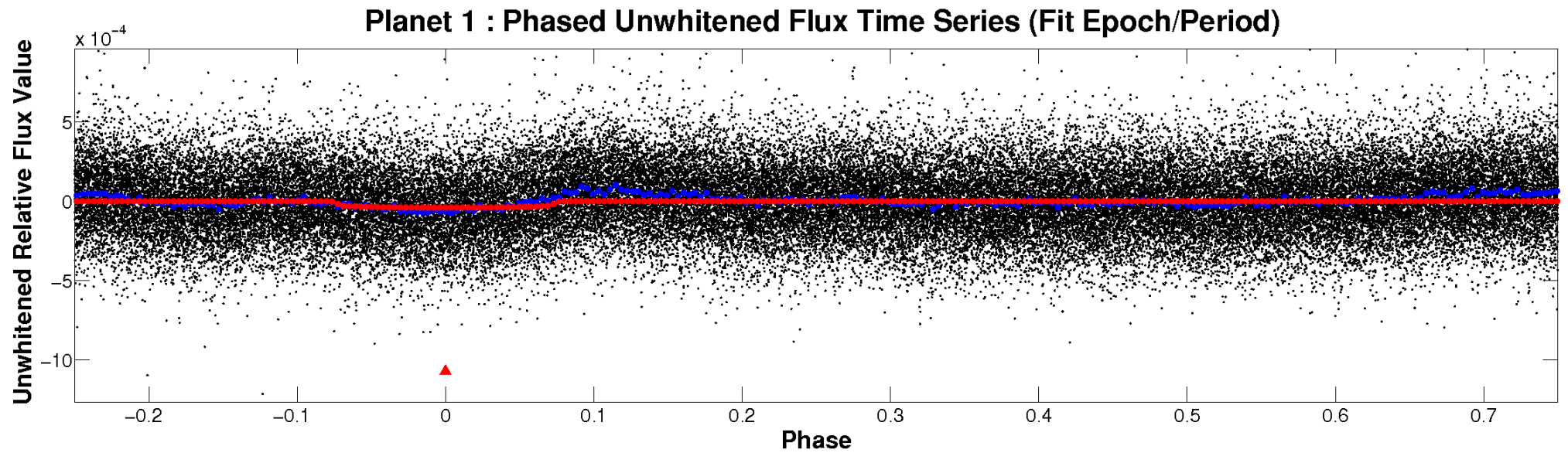


ALT Odd/Even

TCE 004263932-01

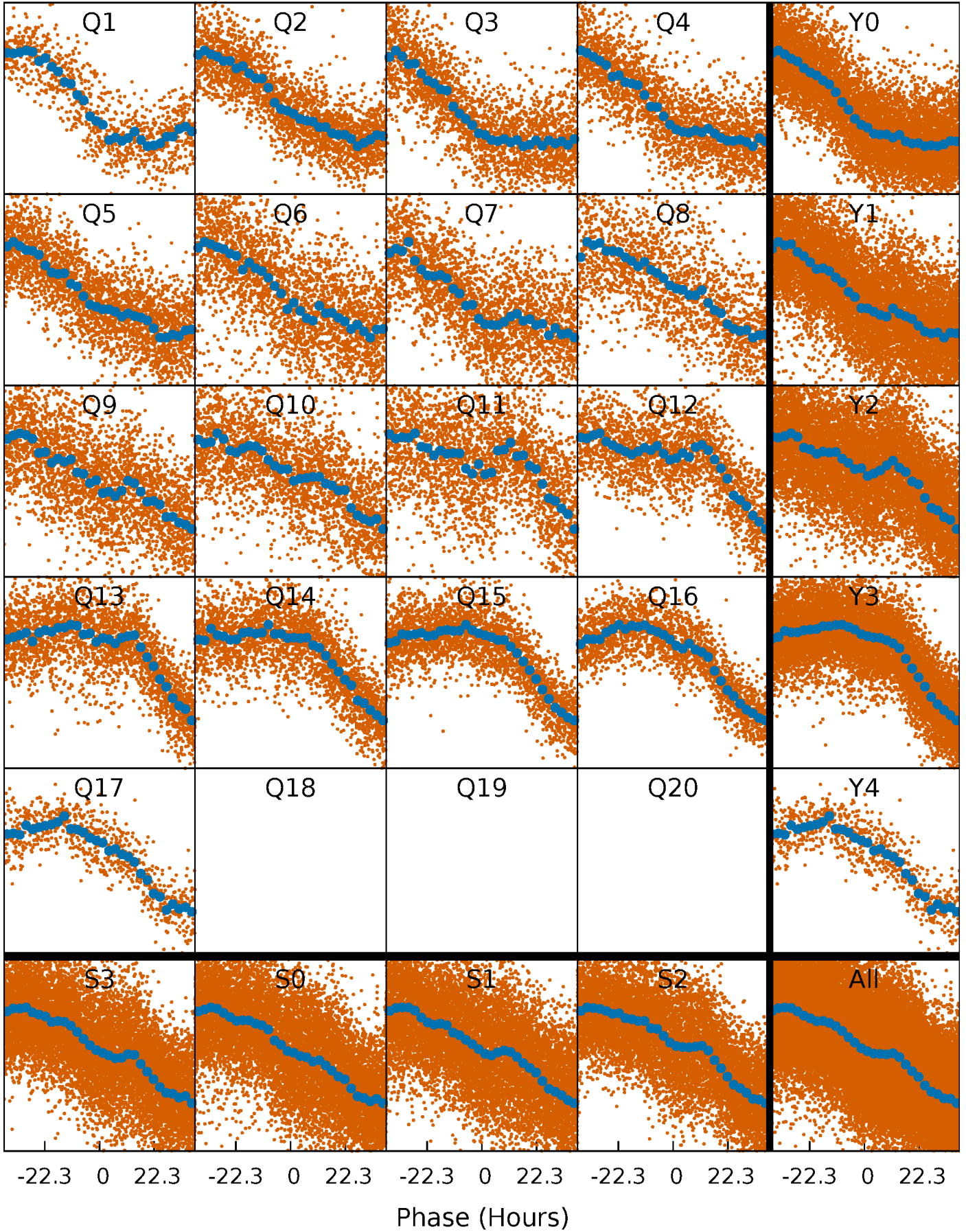


Non-Whitened Vs. Whitened Light Curve



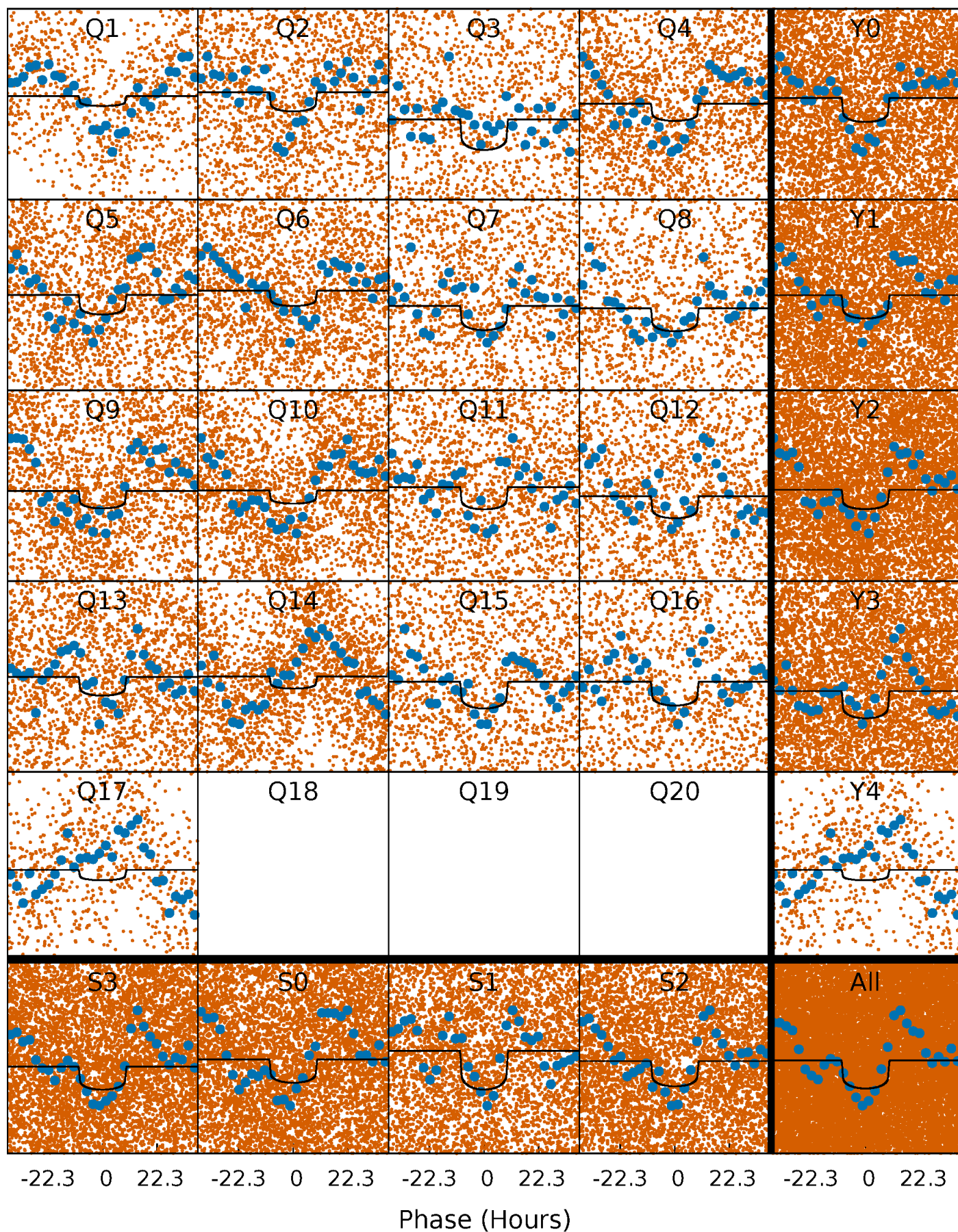
PDC Quarter-Phased Transit Curves

TCE 004263932-01 P= 5.344986 Days $T_0=135.988537$ (BKJD)



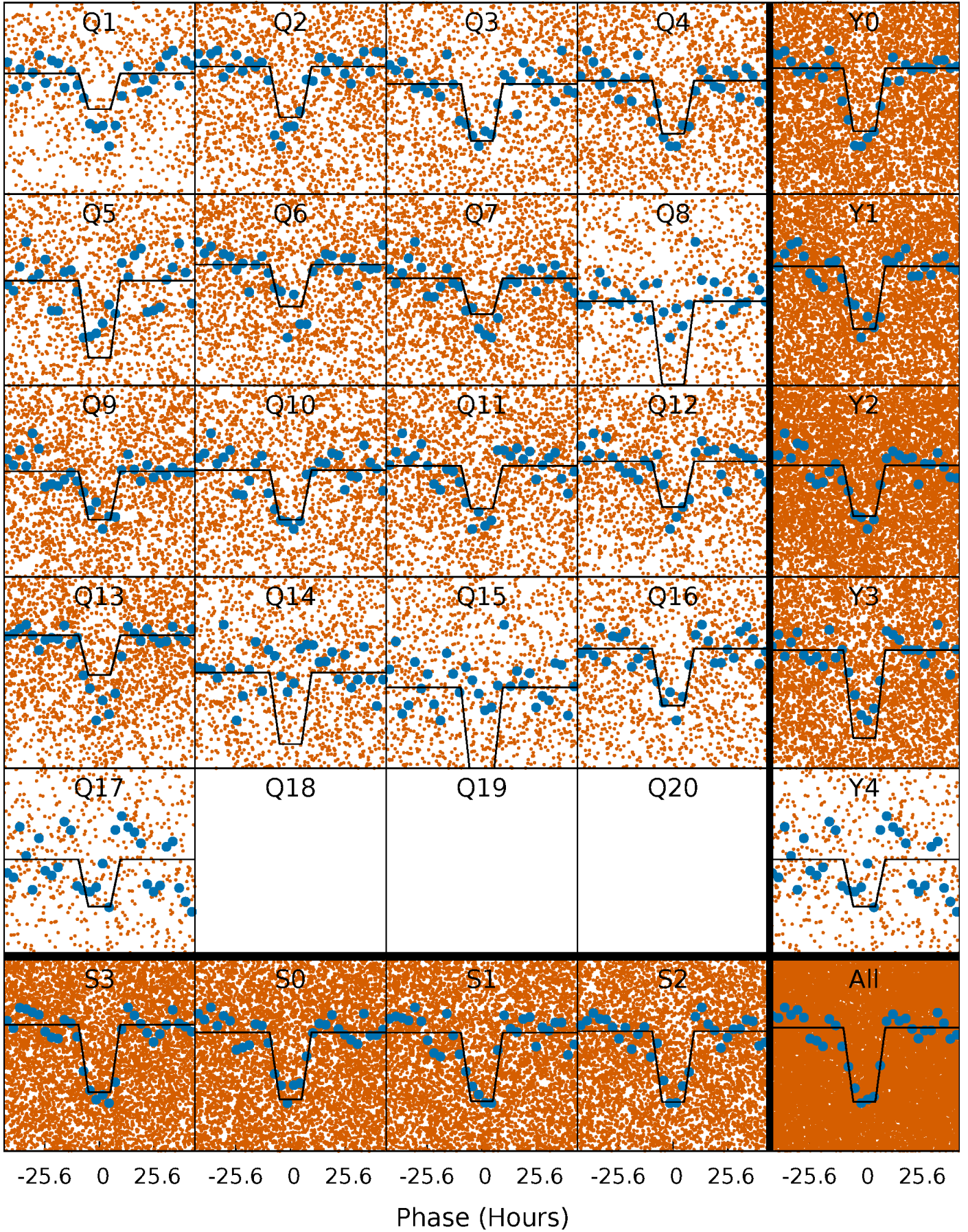
DV Quarter-Phased Transit Curves

TCE 004263932-01 P= 5.344986 Days $T_0=135.988537$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

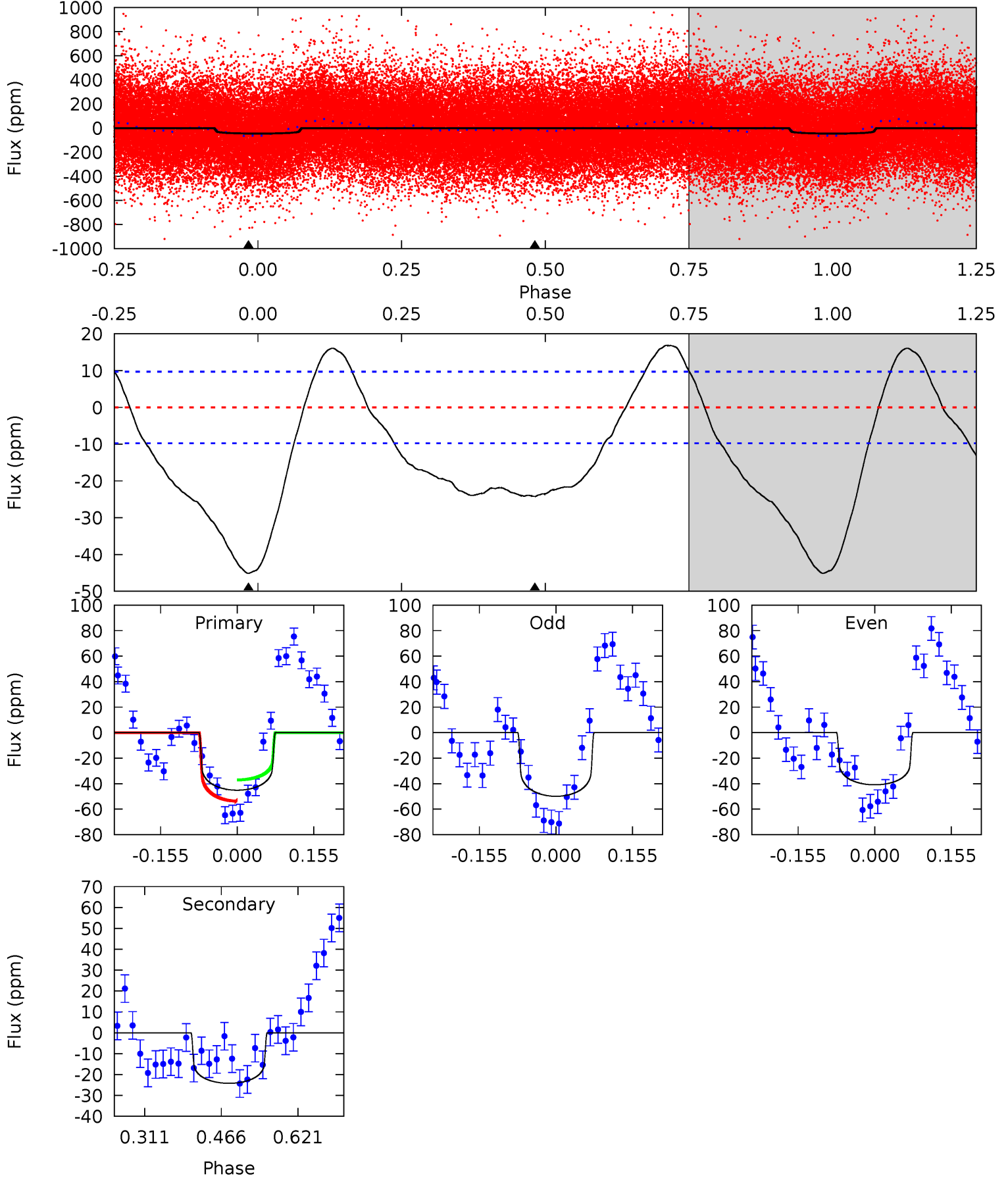
TCE 004263932-01 P= 5.344839 Days $T_0=136.025295$ (BKJD)



DV Model-Shift Uniqueness Test

004263932-01, P = 5.344986 Days, E = 130.643551 Days

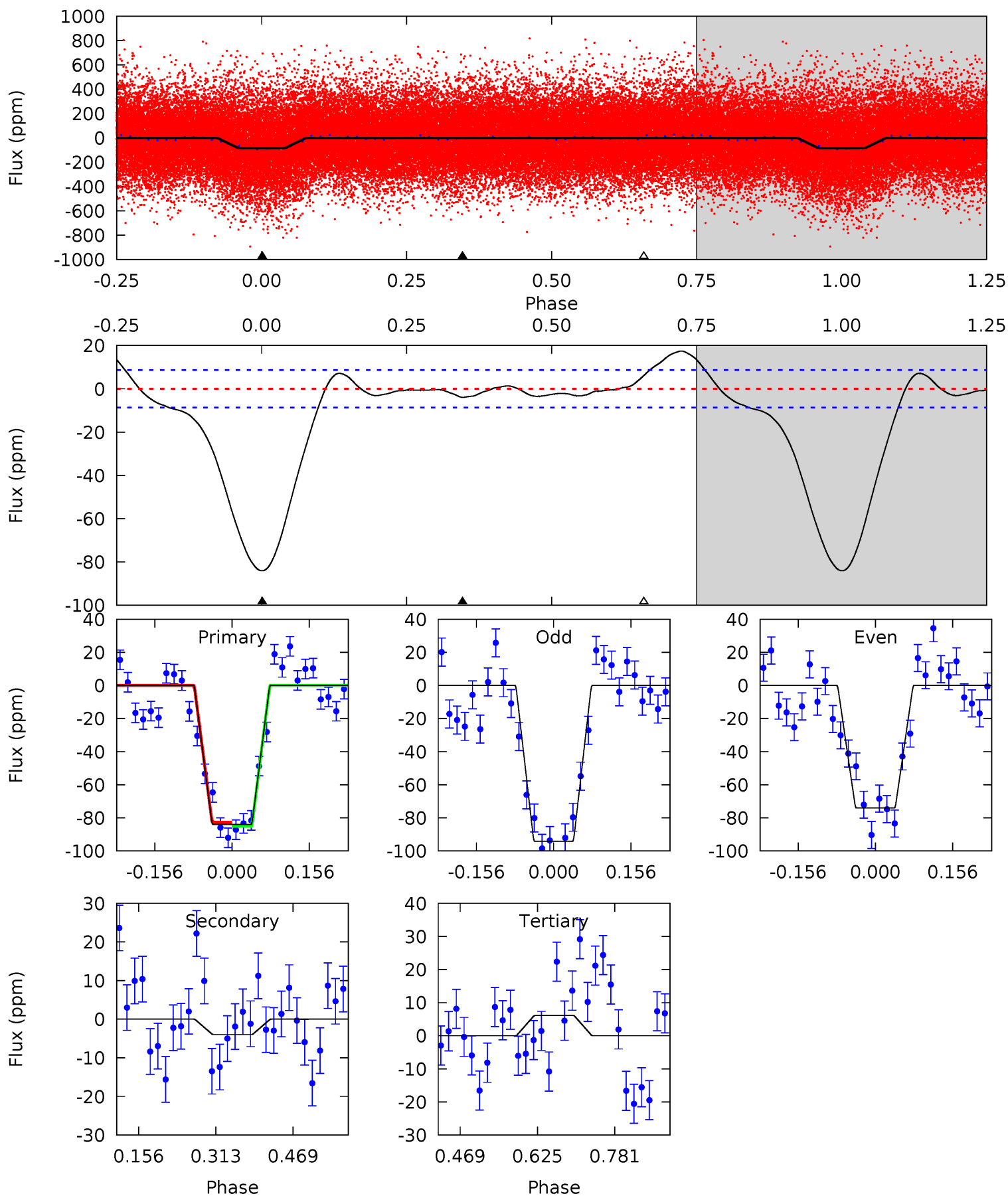
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 20.7 | 11.1 | 0 | 0 | 4.47 | 1.42 | 5.51 | 20.7 | 20.7 | 11.1 | 11.1 | 2.07 | 1.02 | 0.27 | 3.83 |



Alt Model-Shift Uniqueness Test

004263932-01, P = 5.344839 Days, E = 130.680456 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-------|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 43.4 | 2.06 | -3.16 | 0 | 4.47 | 1.42 | 3.80 | 46.6 | 43.4 | 5.22 | 2.06 | 5.21 | 0.91 | 0.17 | 0.60 |



Stellar Parameters For KIC 004263932

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 6735^{+189}_{-283} | $4.198^{+0.149}_{-0.198}$ | $-0.120^{+0.250}_{-0.300}$ | $1.507^{+0.475}_{-0.317}$ | $1.317^{+0.204}_{-0.204}$ | $0.541^{+0.413}_{-0.270}$ |
| | +3%/-4% | +4%/-5% | +208%/-250% | +32%/-21% | +15%/-15% | +76%/-50% |
| Source | PHO54 | PHO54 | PHO54 | DSEP | | |

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

Secondary Eclipse Parameters for KIC 004263932-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|----------------------|---------------------------|
| DV | -24 ± 2 | $1.12^{+0.25}_{-0.19}$ | 2003^{+162}_{-139} | 5731^{+445}_{-372} | 45^{+20}_{-14} |
| Alt. | -4 ± 2 | $1.54^{+0.29}_{-0.23}$ | 1985^{+169}_{-126} | 3501^{+316}_{-377} | $3.801^{+2.751}_{-1.964}$ |

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

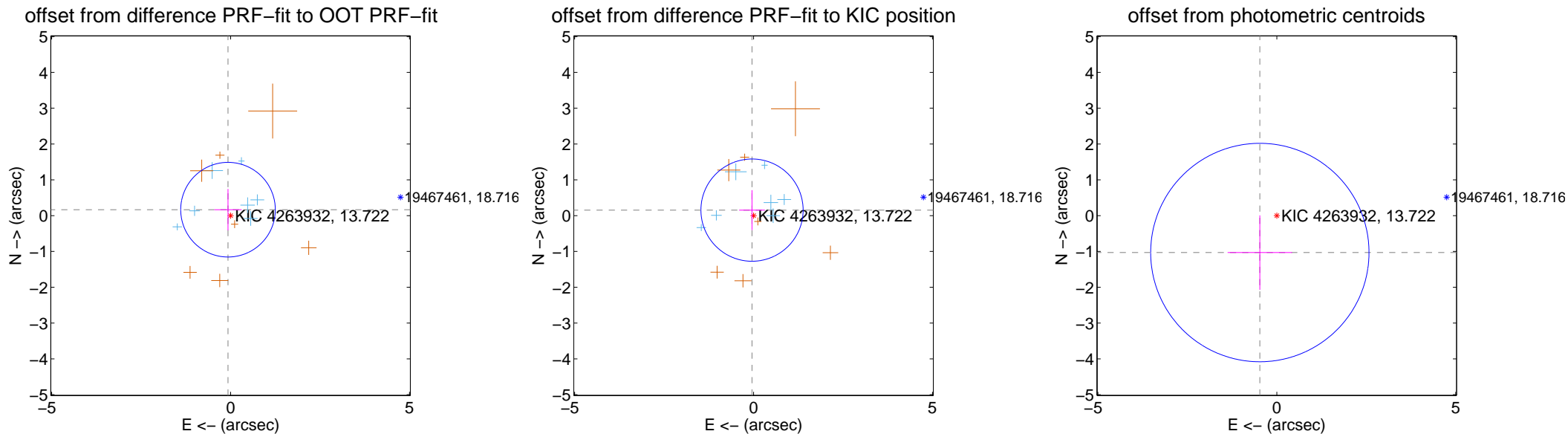
DV Centroid Data

Supplemental centroid analysis for 004263932-01. Kepler magnitude: 13.72. Transit SNR 8.66

There are 7 quarters with good PRF difference image offsets

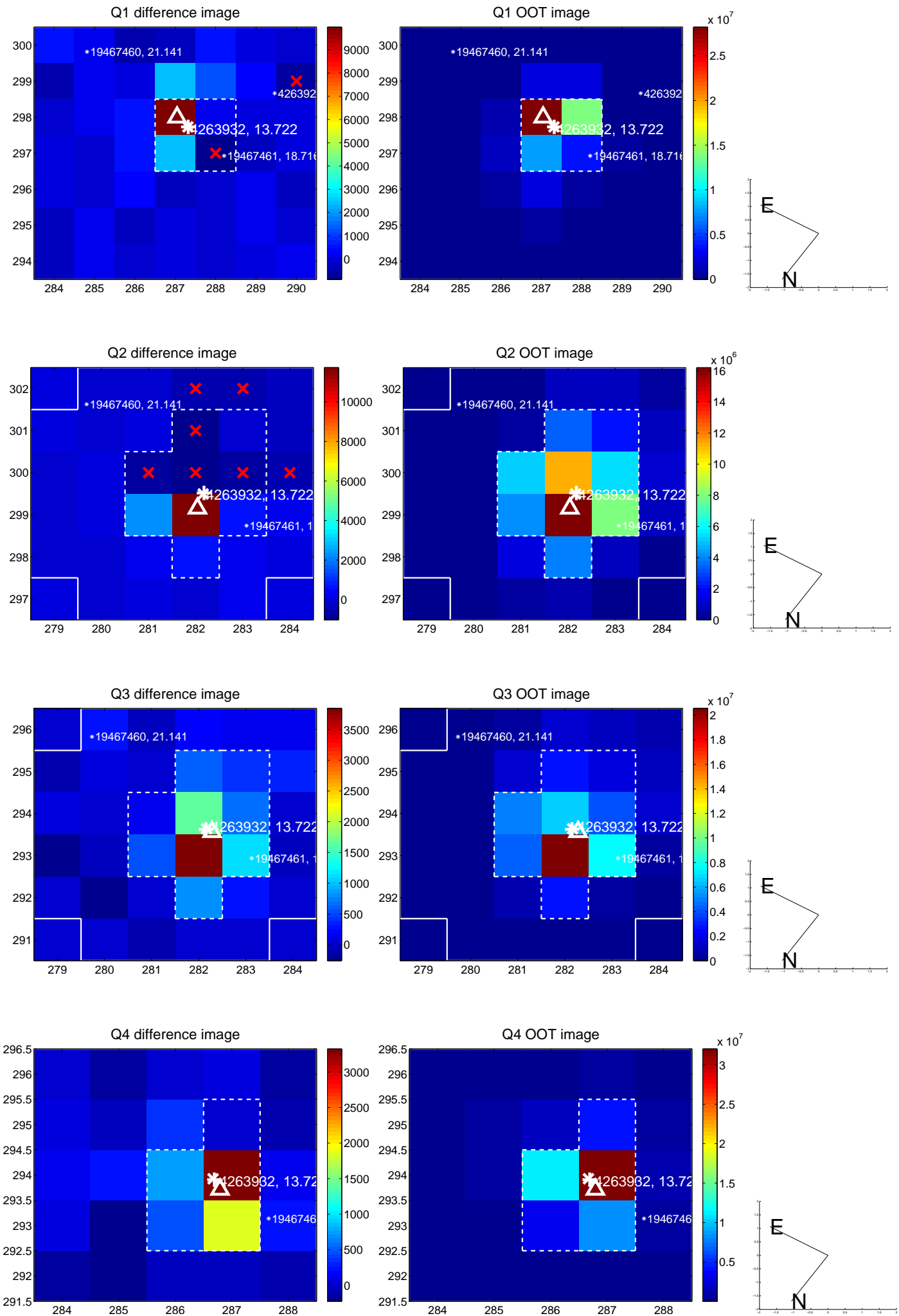
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|-------------------|
| PRF-fit source offset from OOT | 0.181 ± 0.441 | 0.41 | 0.072 ± 0.382 | 0.166 ± 0.578 |
| PRF-fit source offset from KIC position | 0.160 ± 0.476 | 0.34 | 0.043 ± 0.360 | 0.154 ± 0.558 |
| photometric centroid source offset | 1.13 ± 1.02 | 1.12 | 0.47 ± 0.90 | -1.03 ± 1.04 |

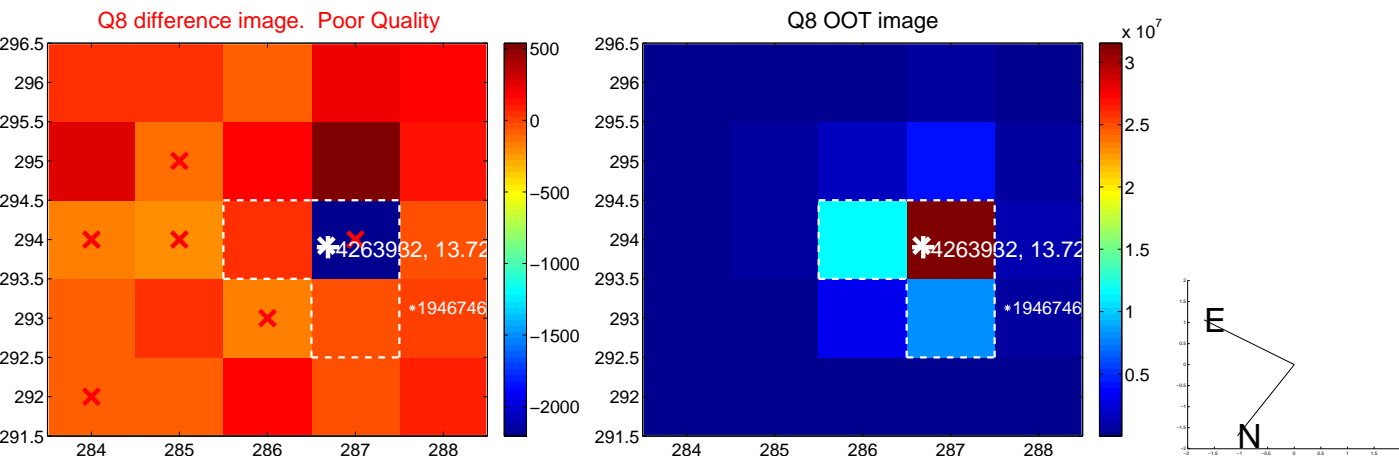
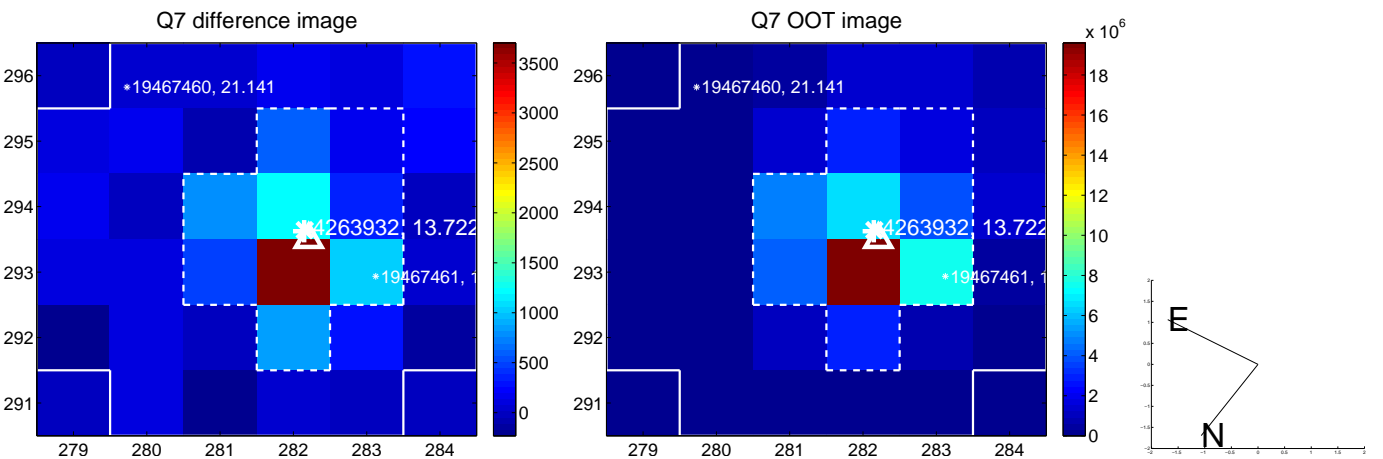
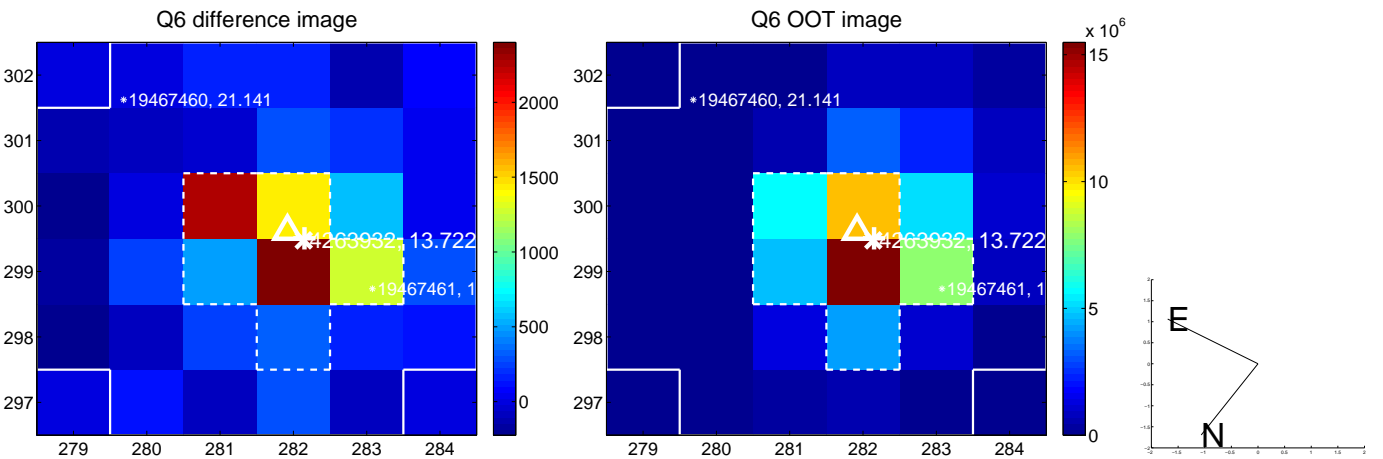
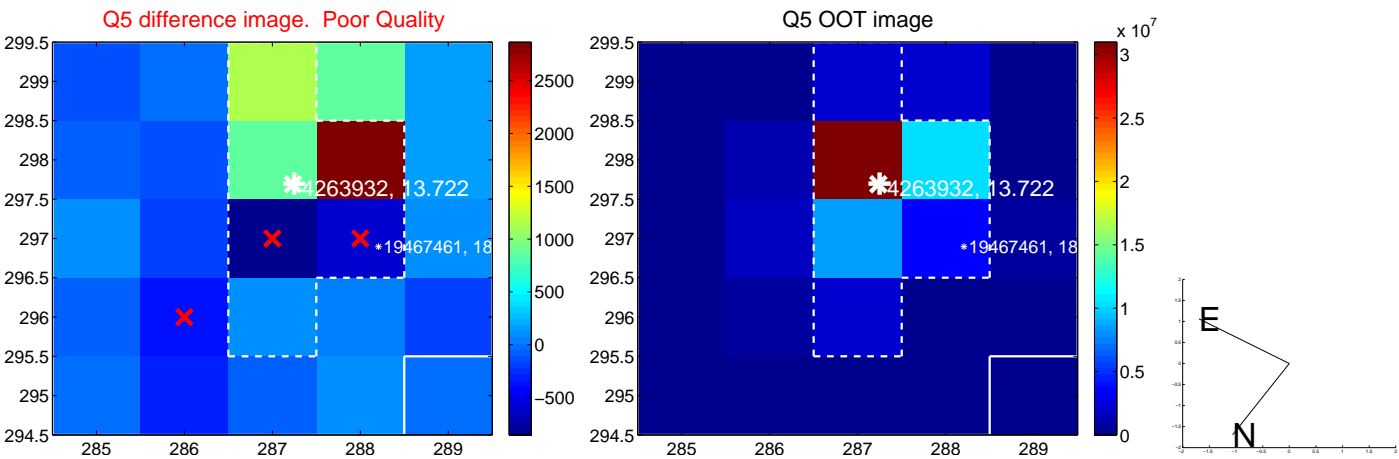


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

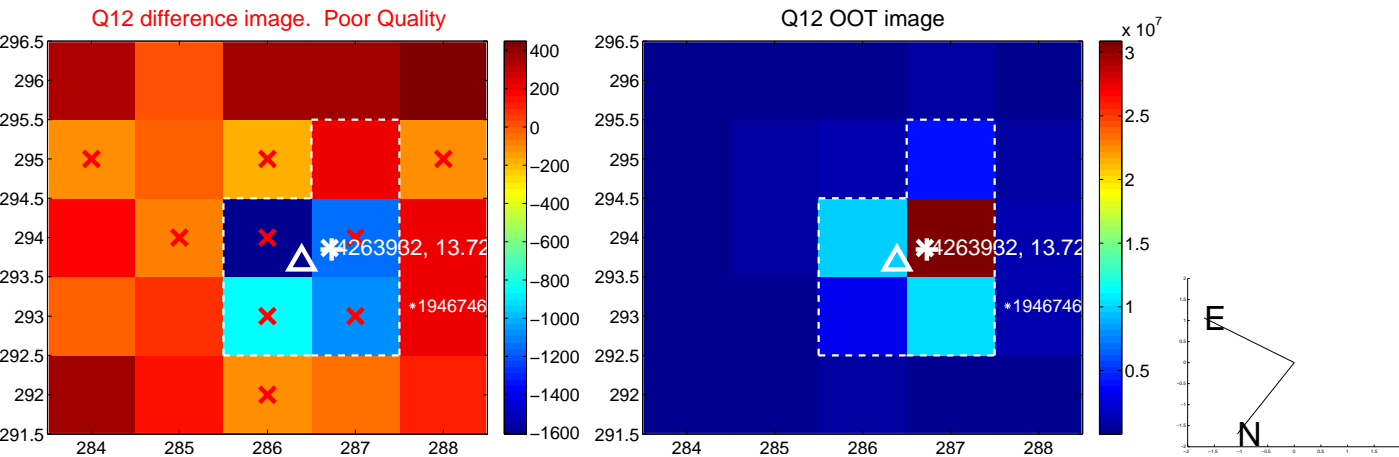
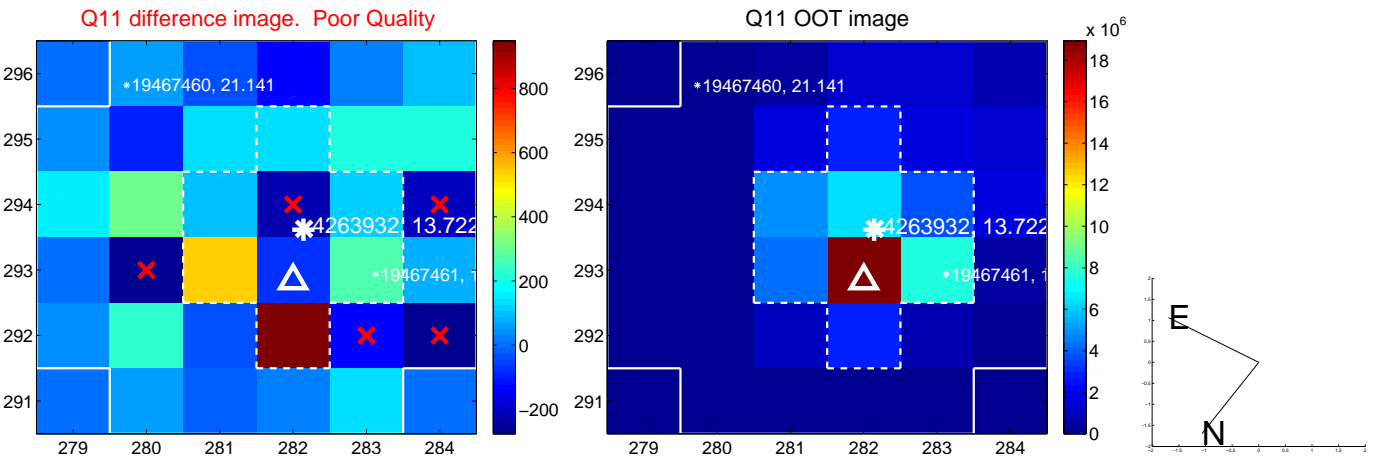
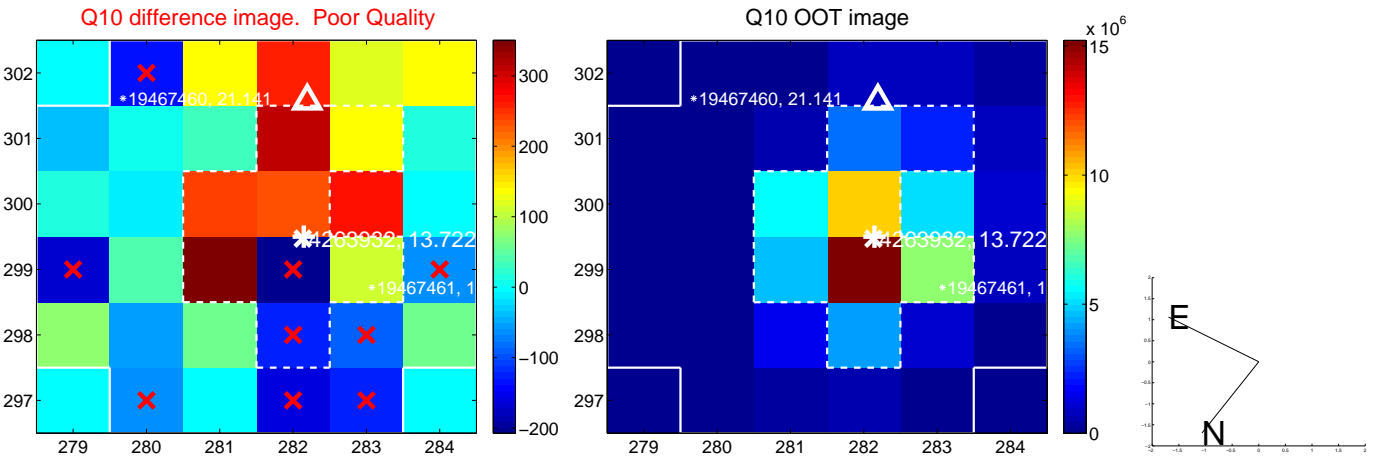
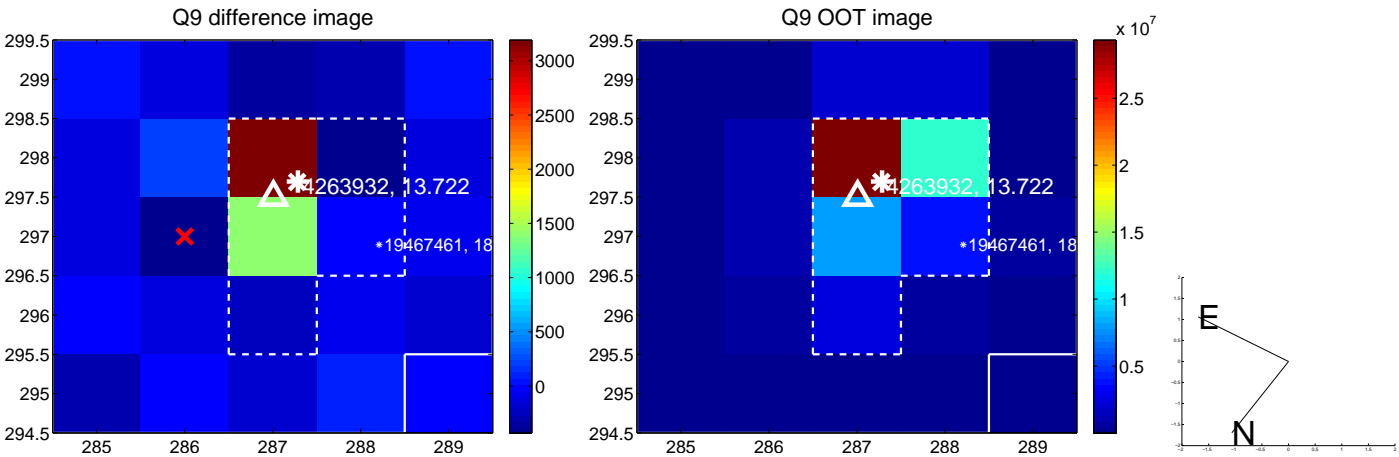
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



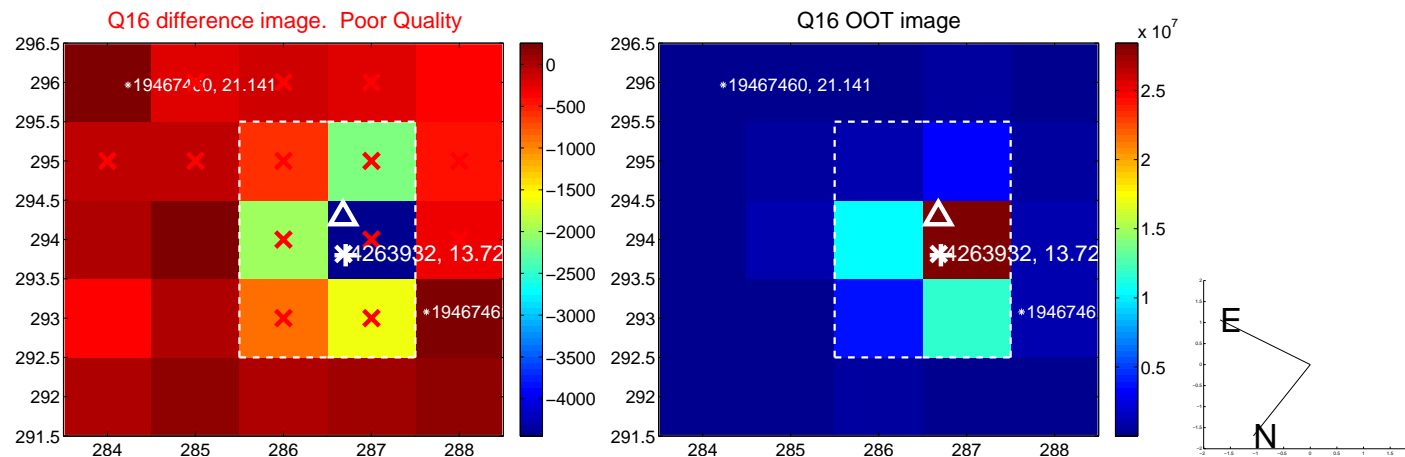
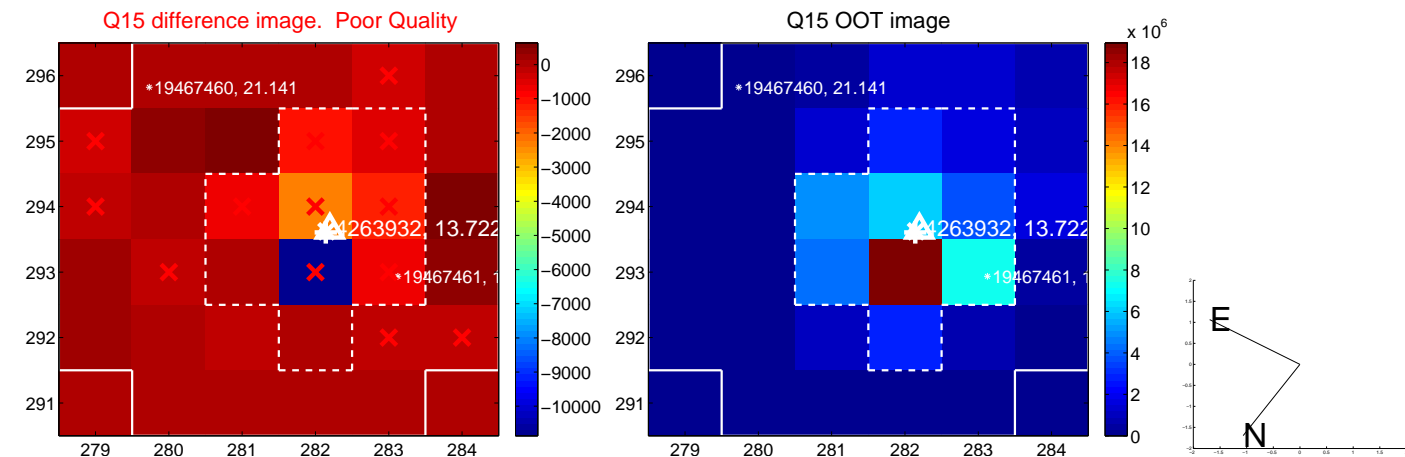
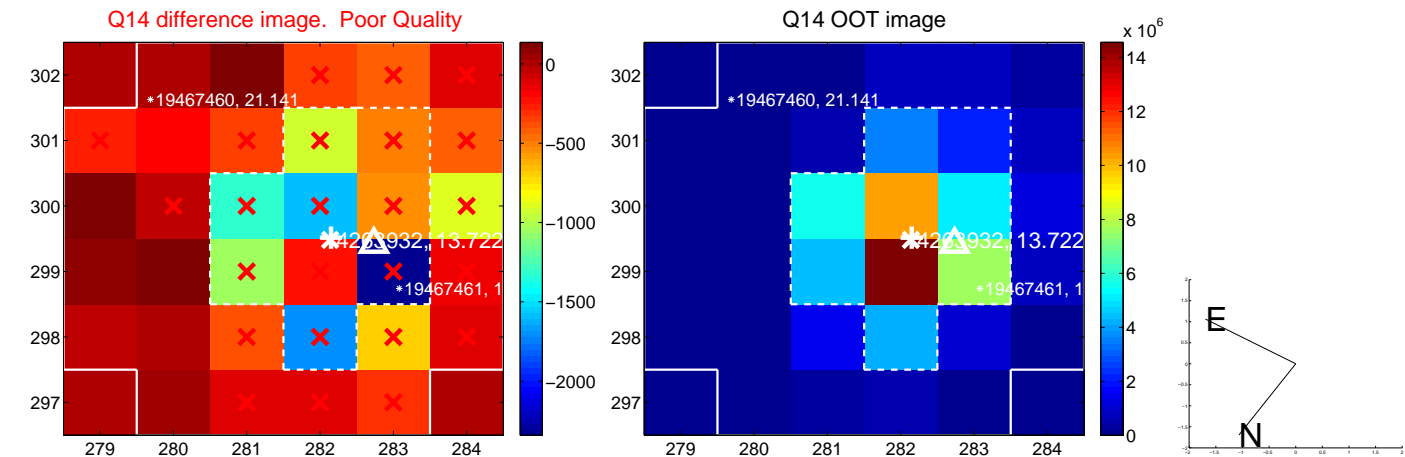
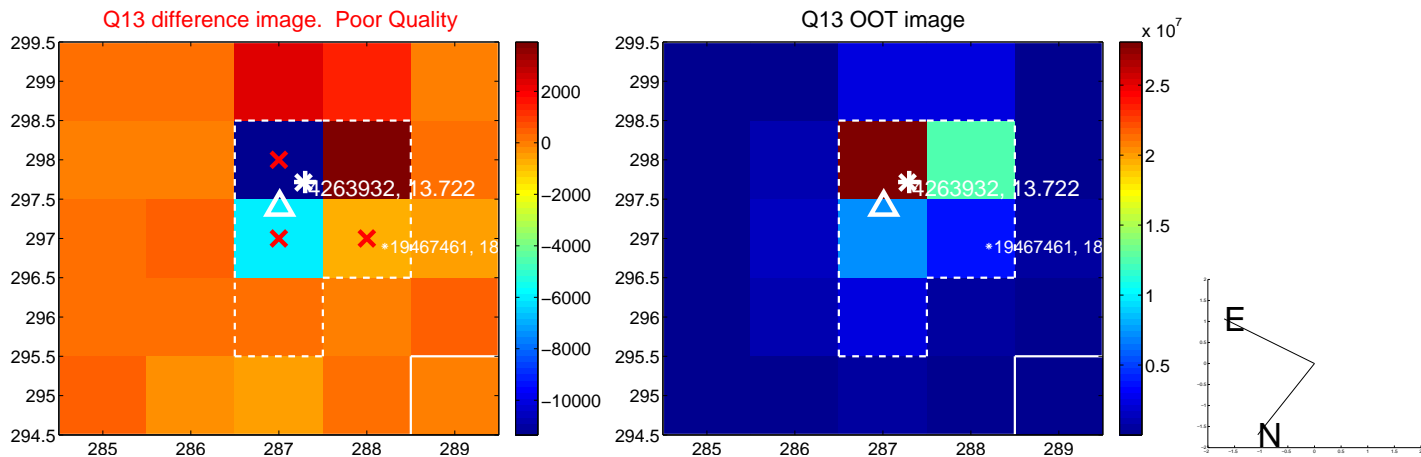
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



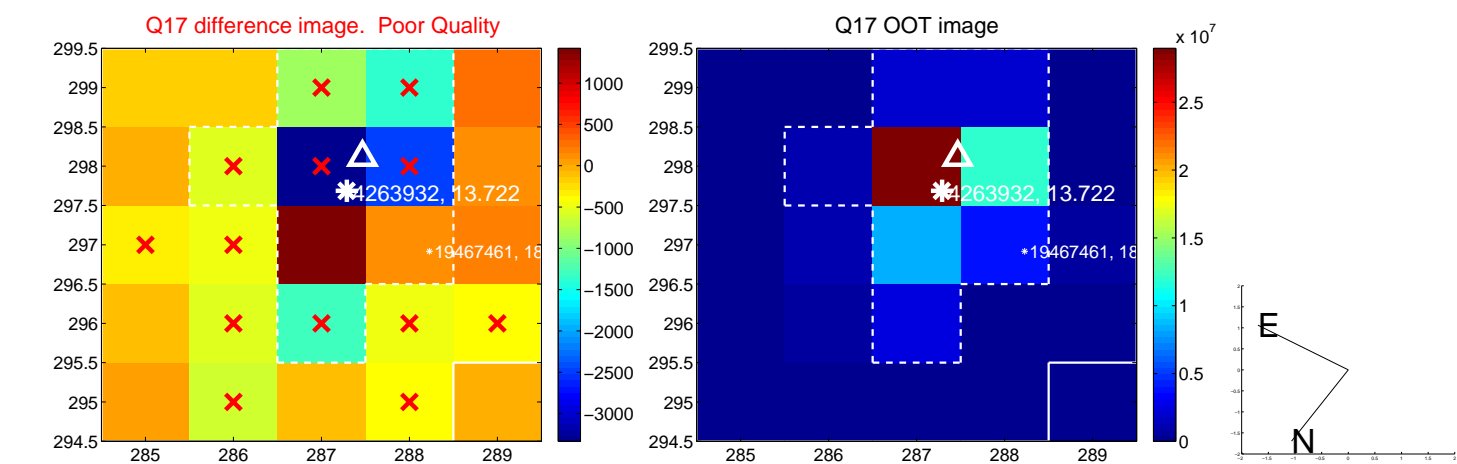
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



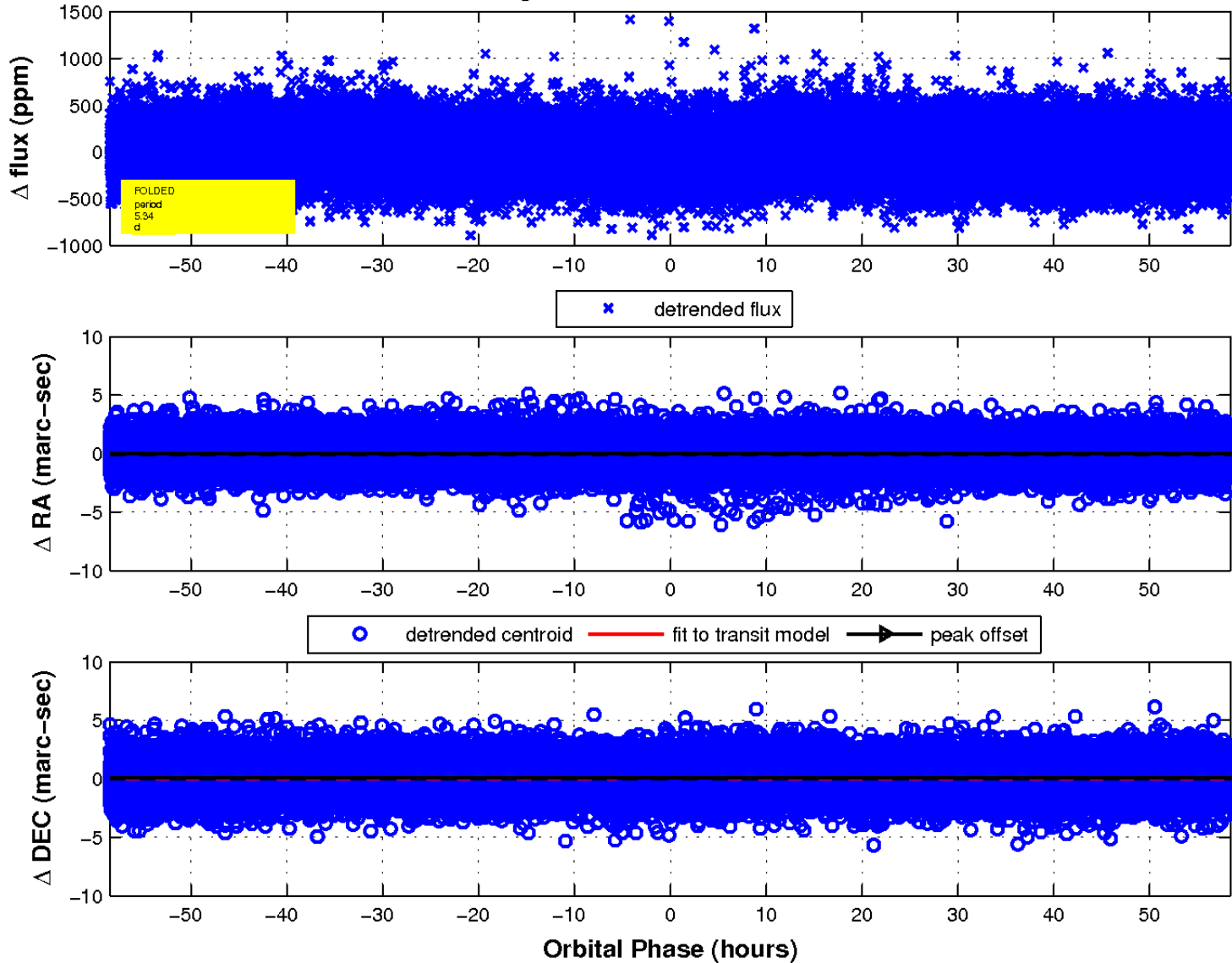
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

