

KIC 006848584

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|-----|-----|-----------------------------|-----------------|------------------------|------------------------|
| 006848584-01 | OBS | No | 0.587751 | 132.096530 | 1.2 | 5.142 | 9.1 | 2.7 | 2.88 | 9157 | 0.33 | 153088.42 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|------------------------------|
| 006848584-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—CENT_FEW_MEAS |

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

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

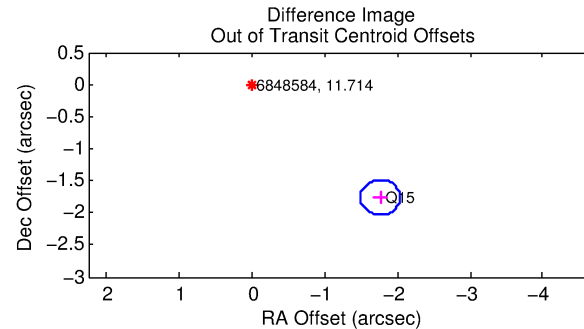
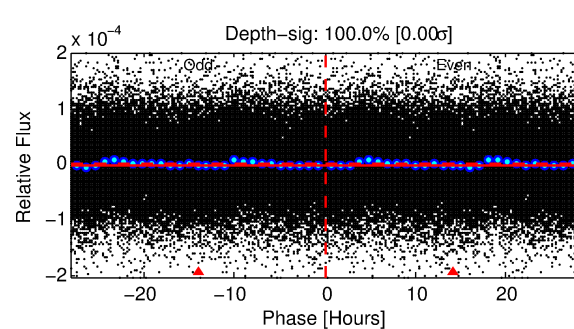
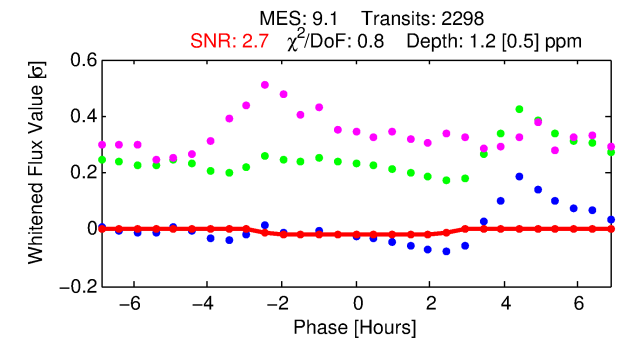
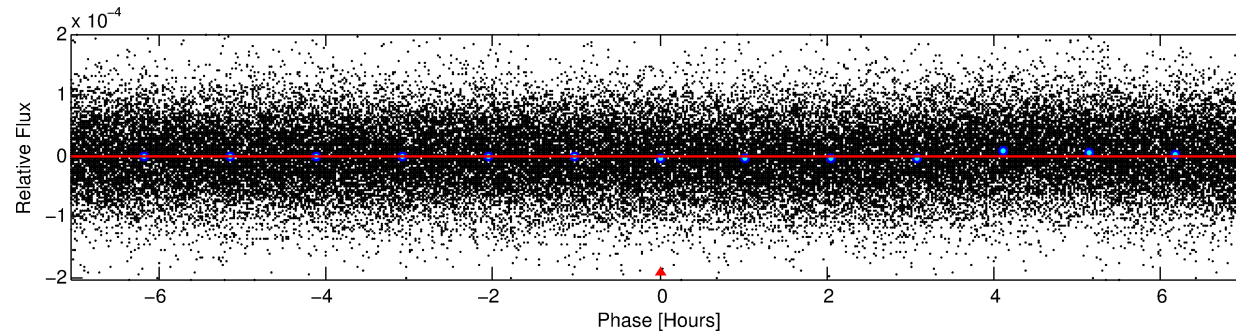
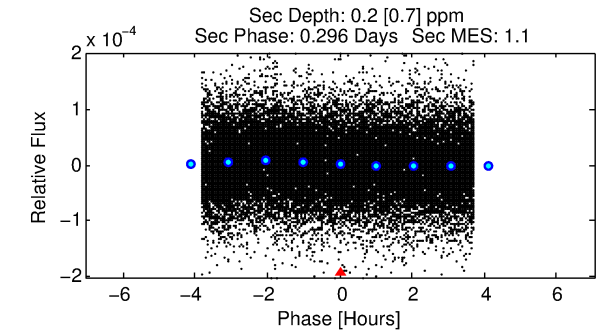
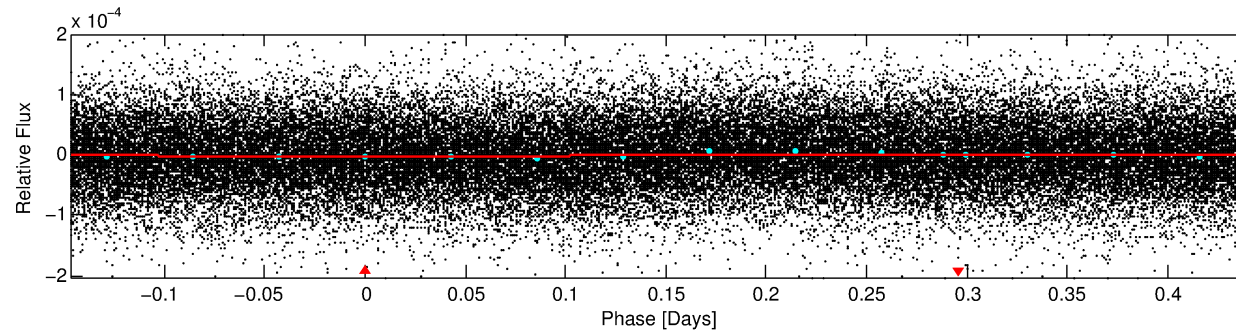
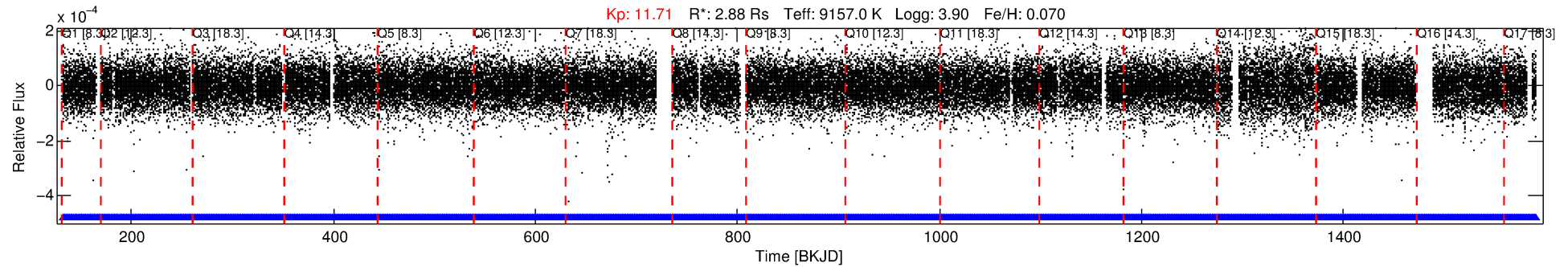
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006848584-01

No Significant Match Found

DV One-Page Summary

KIC: 6848584 Candidate: 1 of 1 Period: 0.588 d



DV Fit Results:

Period = 0.58775 [0.00004] d
Epoch = 132.0965 [0.0188] BKJD
Rp/R* = 0.0011 [0.0012]
a/R* = 1.05 [0.78]
b = 0.70 [5.65]
Seff = 153088.42 [81627.58]
Teq = 5044 [672] K
Rp = 0.33 [0.39] Re
a = 0.0185 [0.0062] AU
Ag = 0.35 [1.37] [-0.47σ]
Teff = 6011 [5802] K [0.17σ]

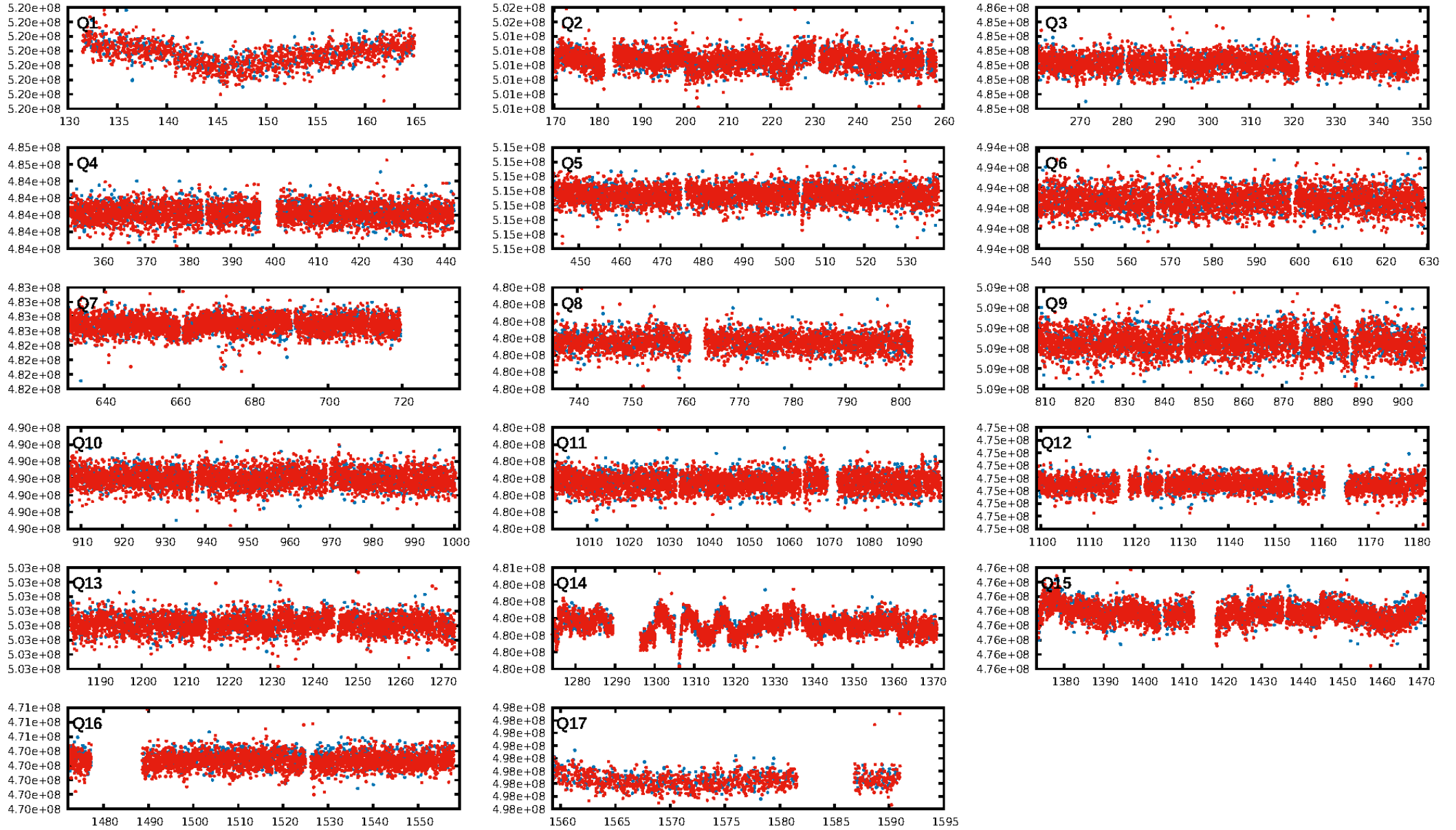
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2193/2193]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.492 arcsec [27.17σ]
KicOffset-rm: 2.428 arcsec [26.60σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [17/17]

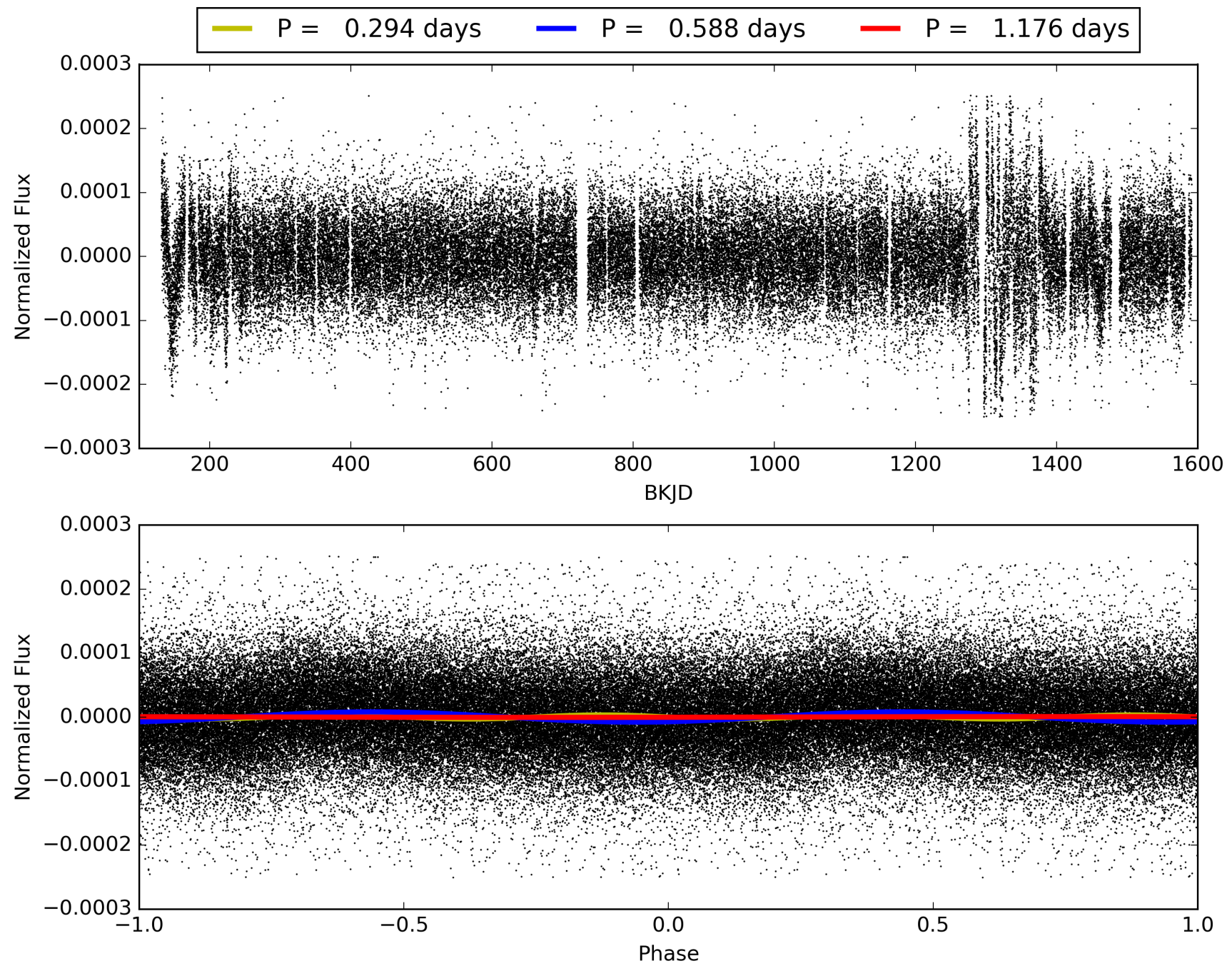
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:46:06 Z

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

TCE 006848584-01, PDC Light Curves

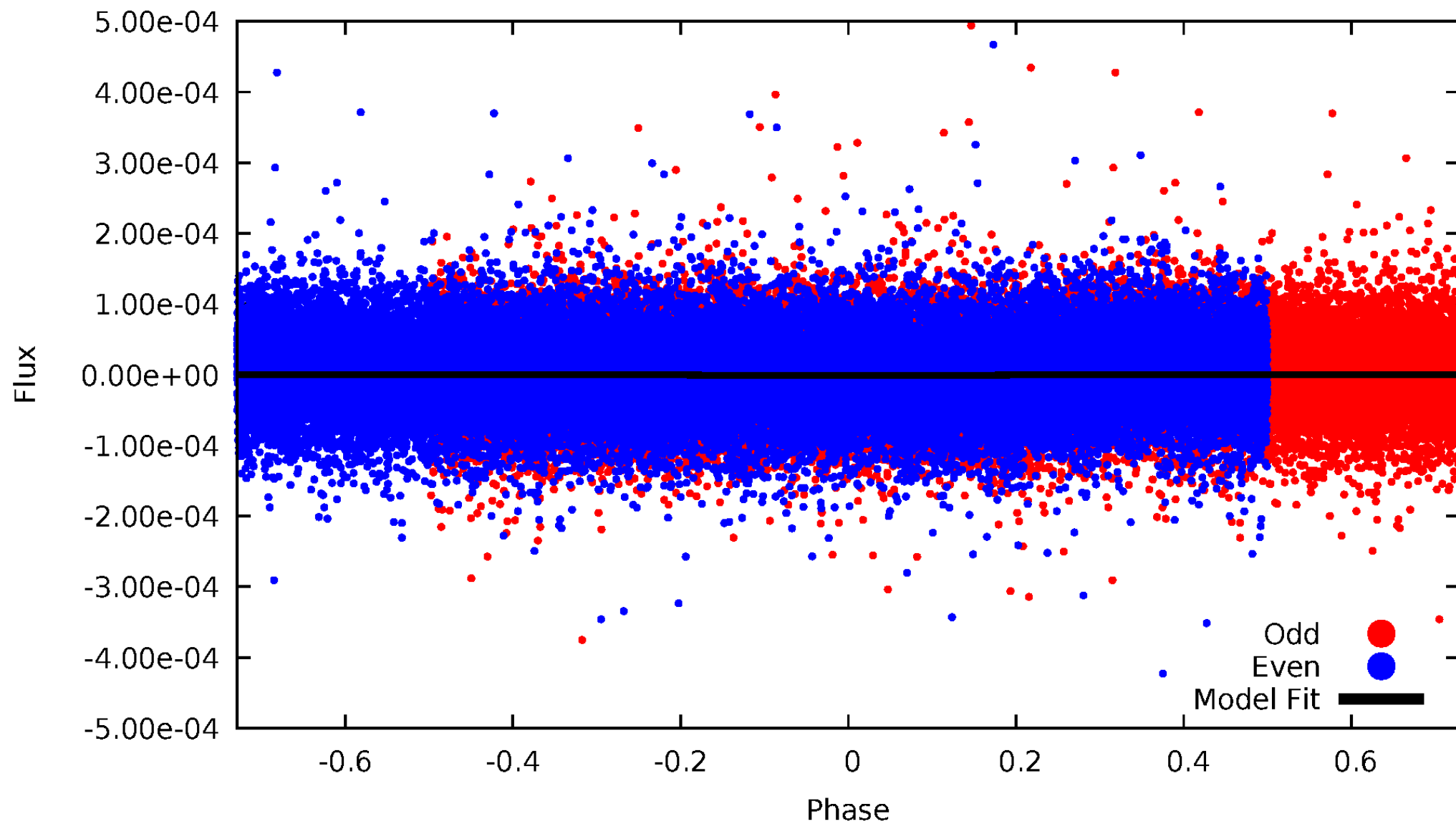


TCE 006848584-01



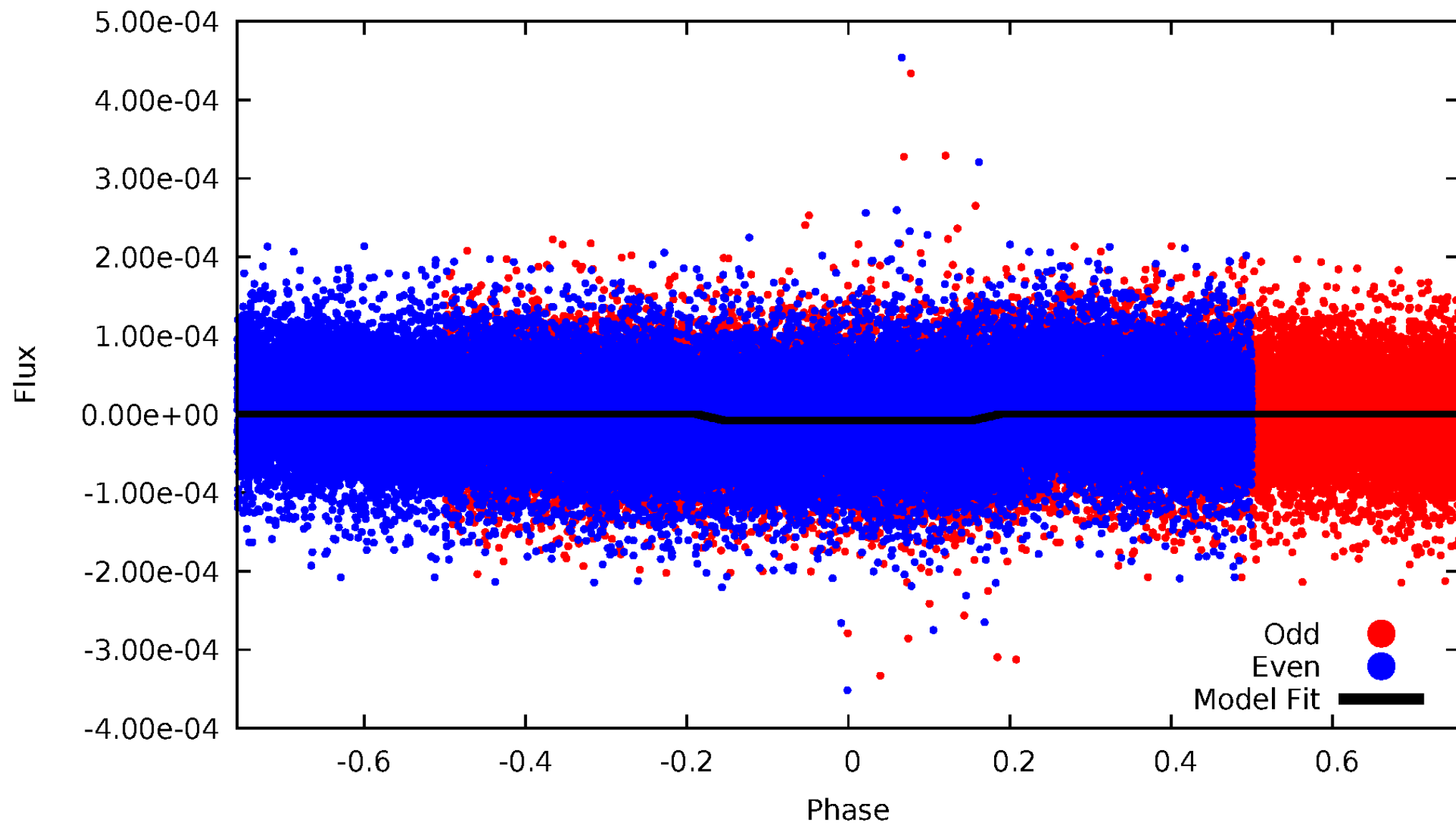
DV Odd/Even

TCE 006848584-01

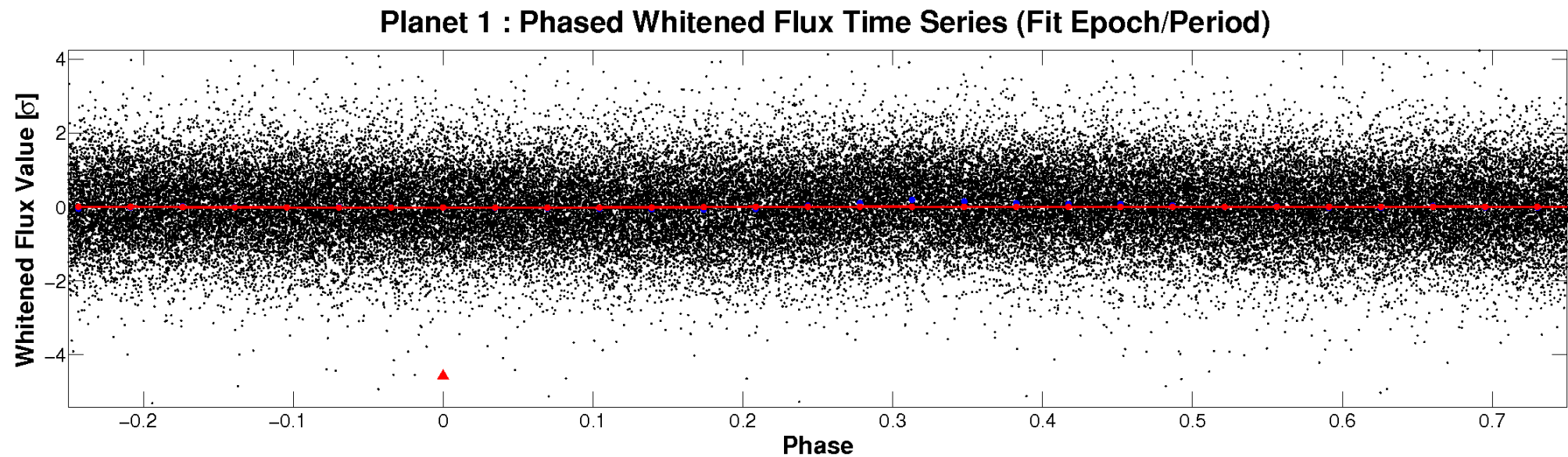
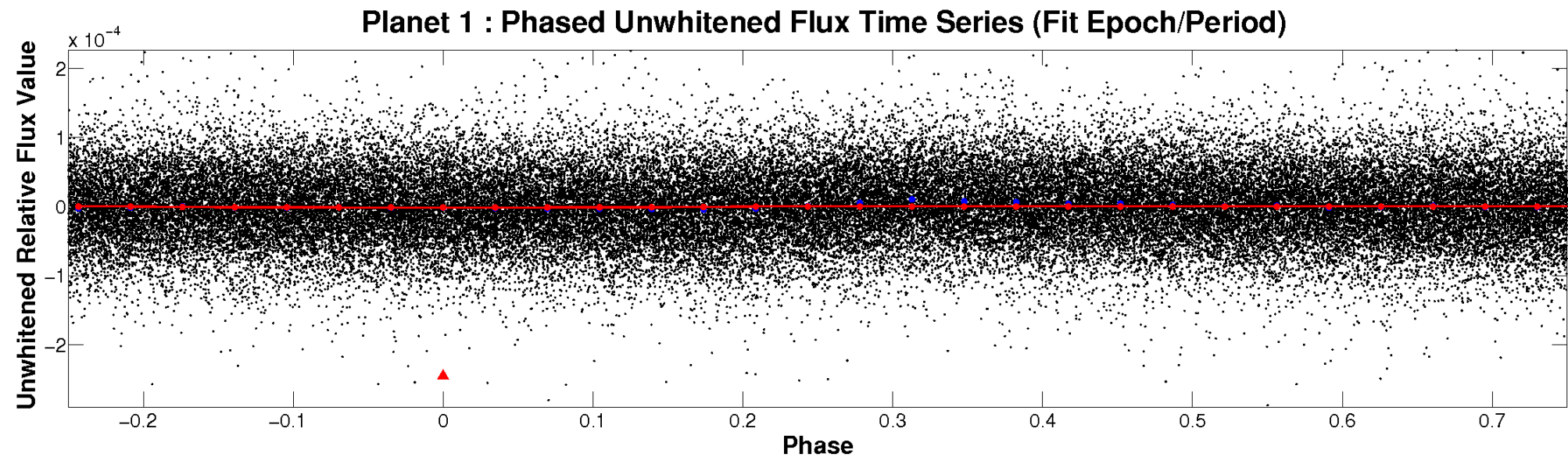


ALT Odd/Even

TCE 006848584-01

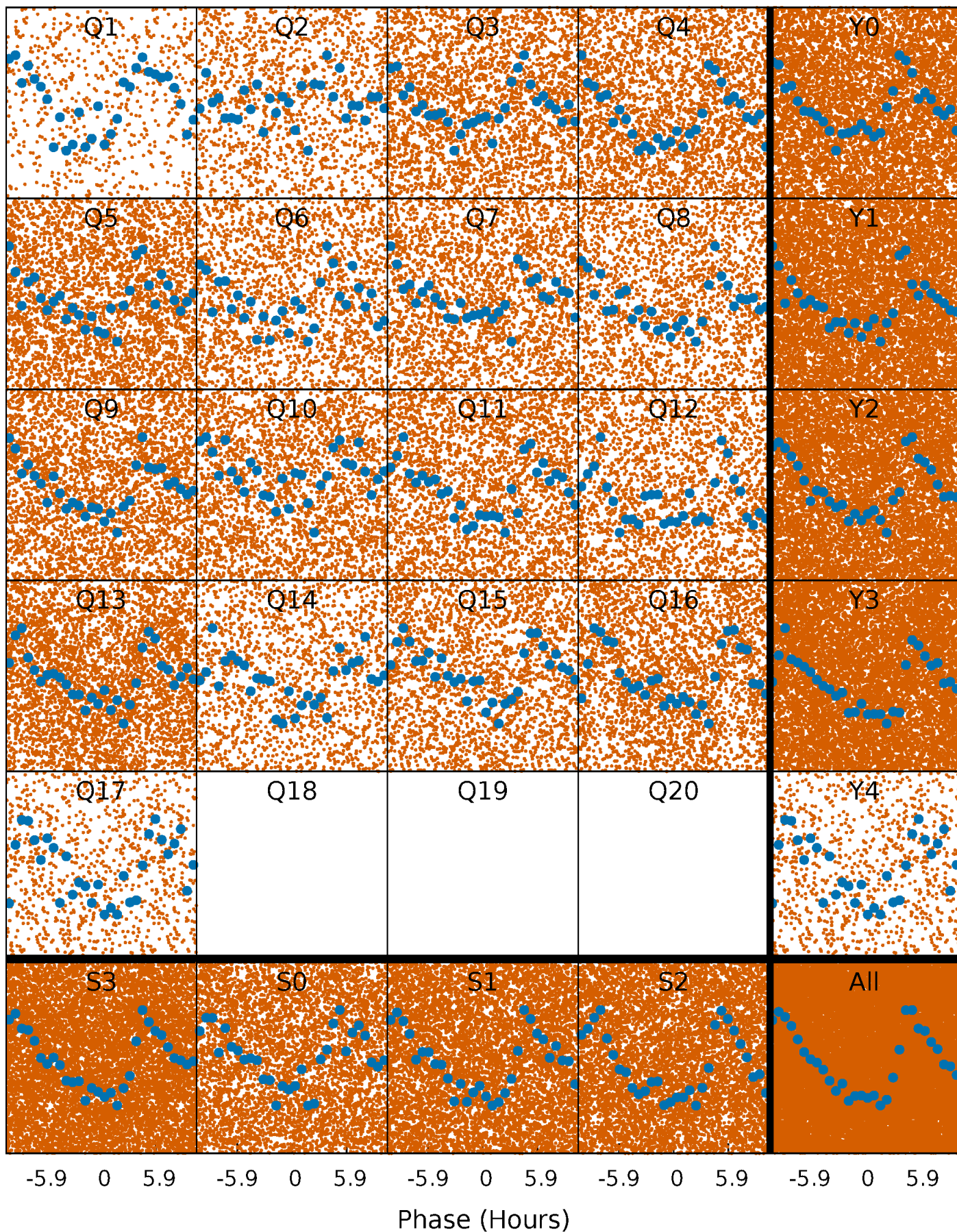


Non-Whitened Vs. Whitened Light Curve



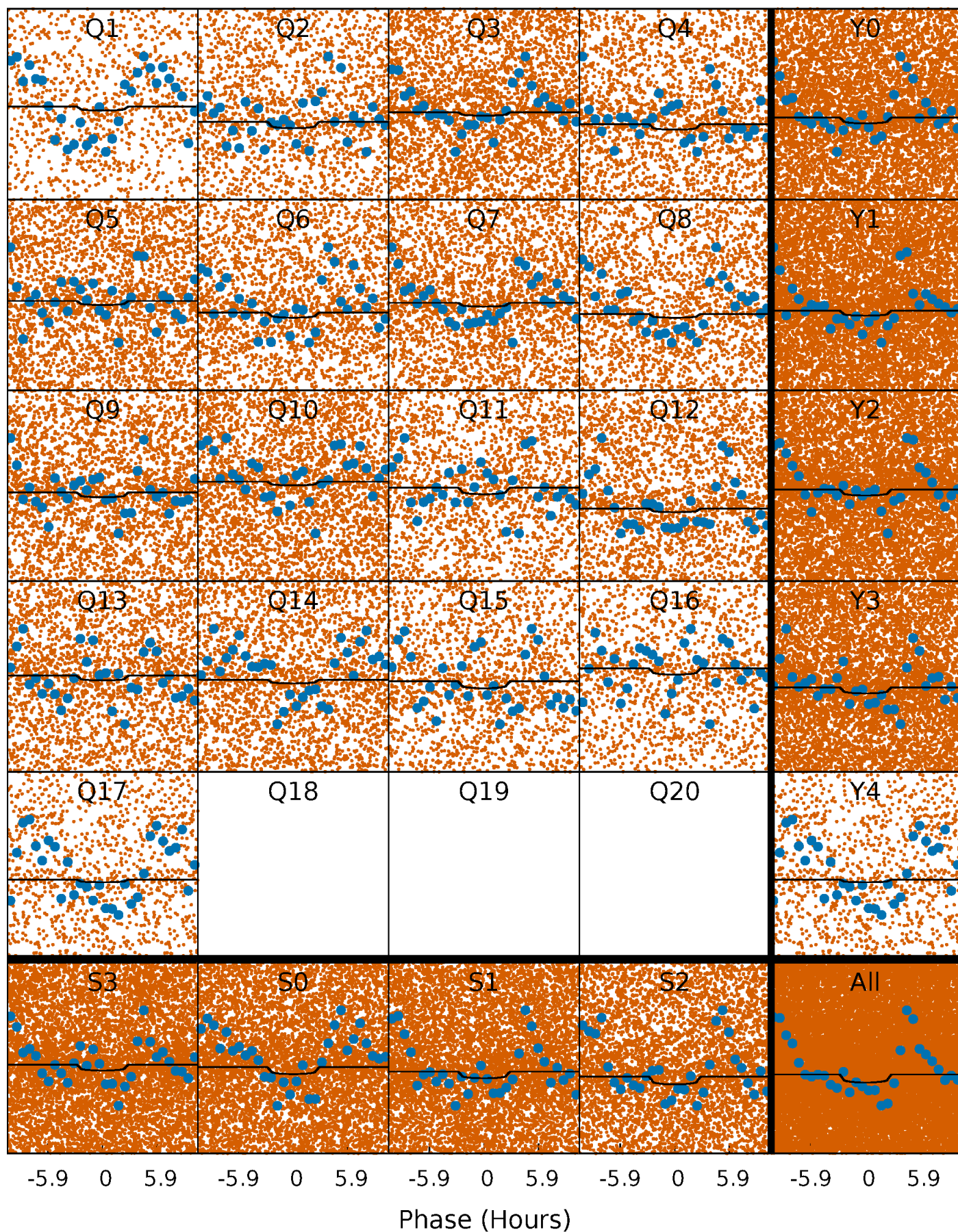
PDC Quarter-Phased Transit Curves

TCE 006848584-01 P= 0.587751 Days $T_0=132.096530$ (BKJD)



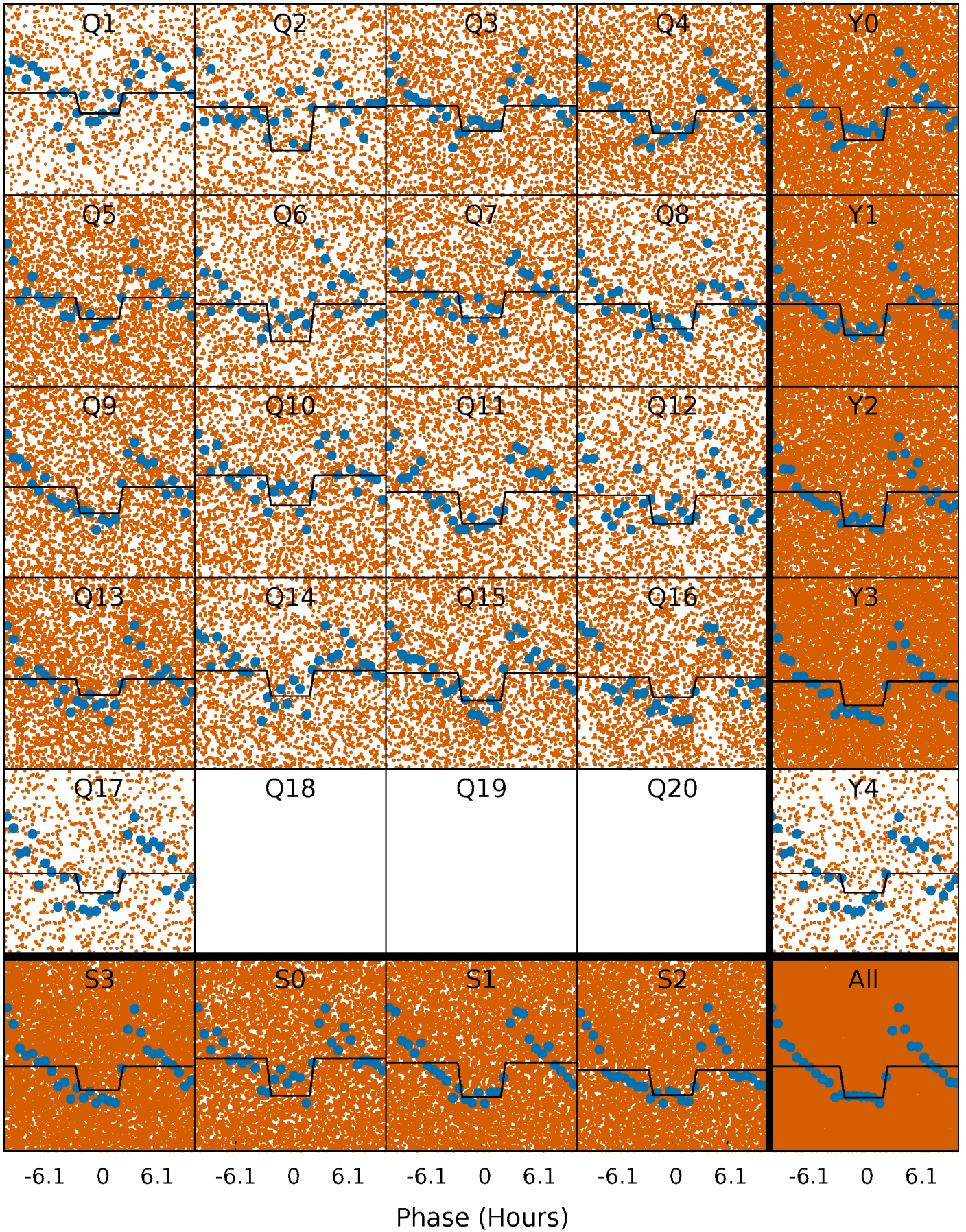
DV Quarter-Phased Transit Curves

TCE 006848584-01 P= 0.587751 Days $T_0=132.096530$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

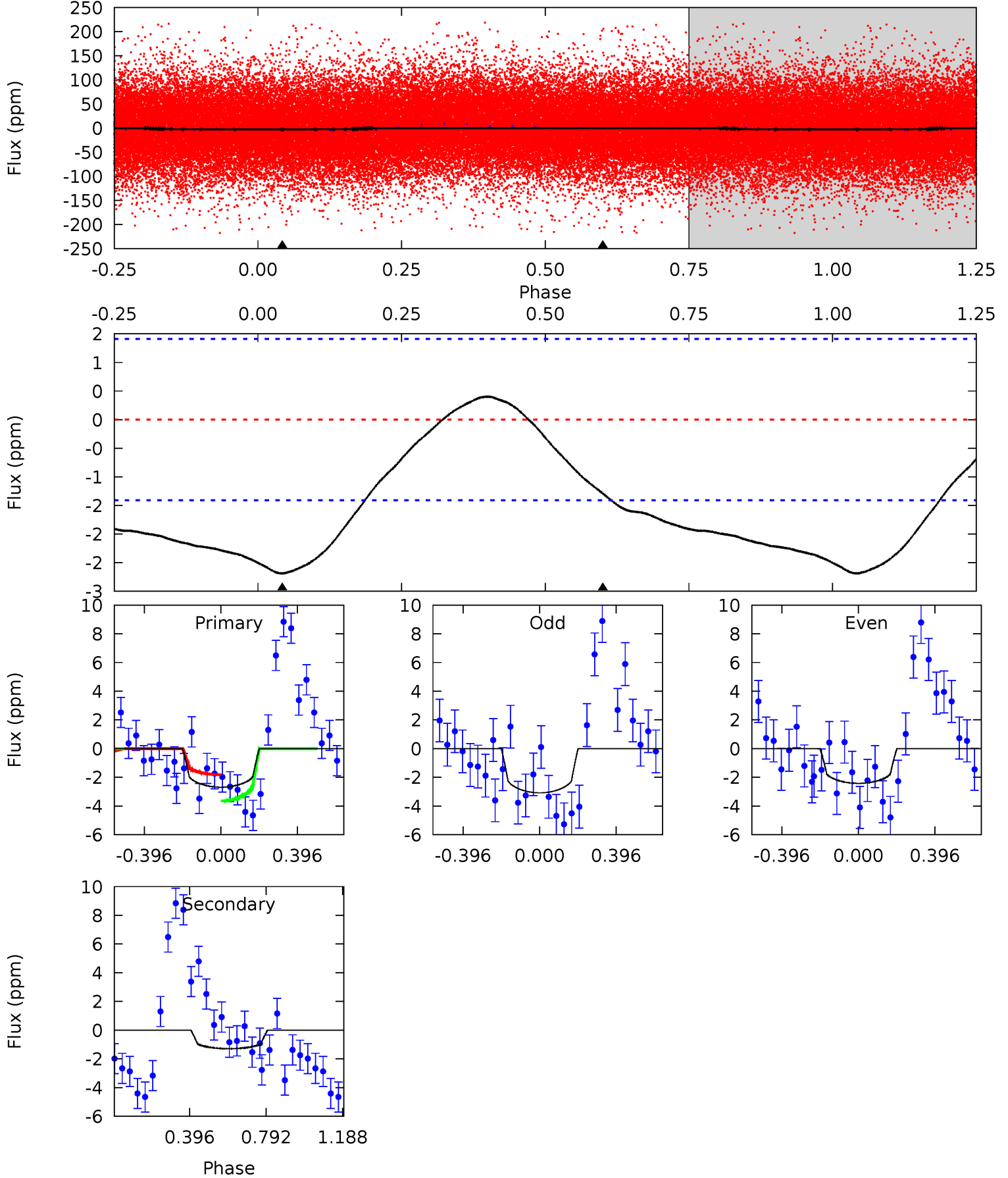
TCE 006848584-01 P= 0.587791 Days $T_0=132.079653$ (BKJD)



DV Model-Shift Uniqueness Test

006848584-01, P = 0.587751 Days, E = 131.508779 Days

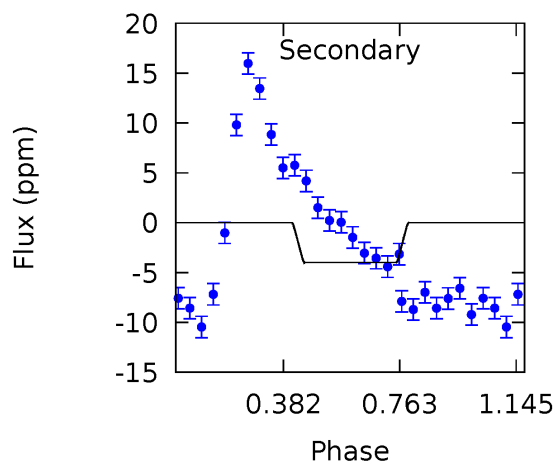
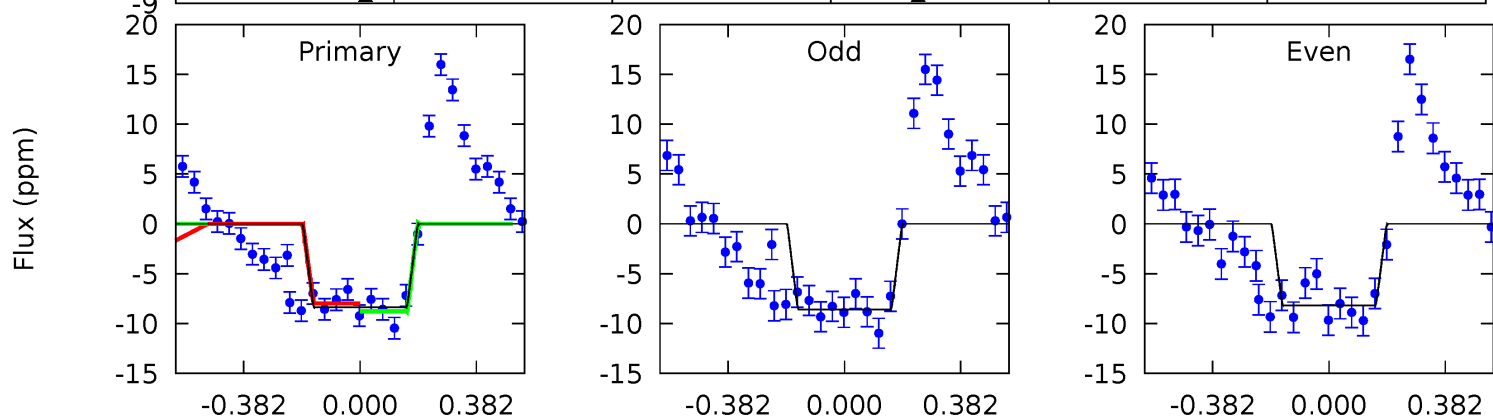
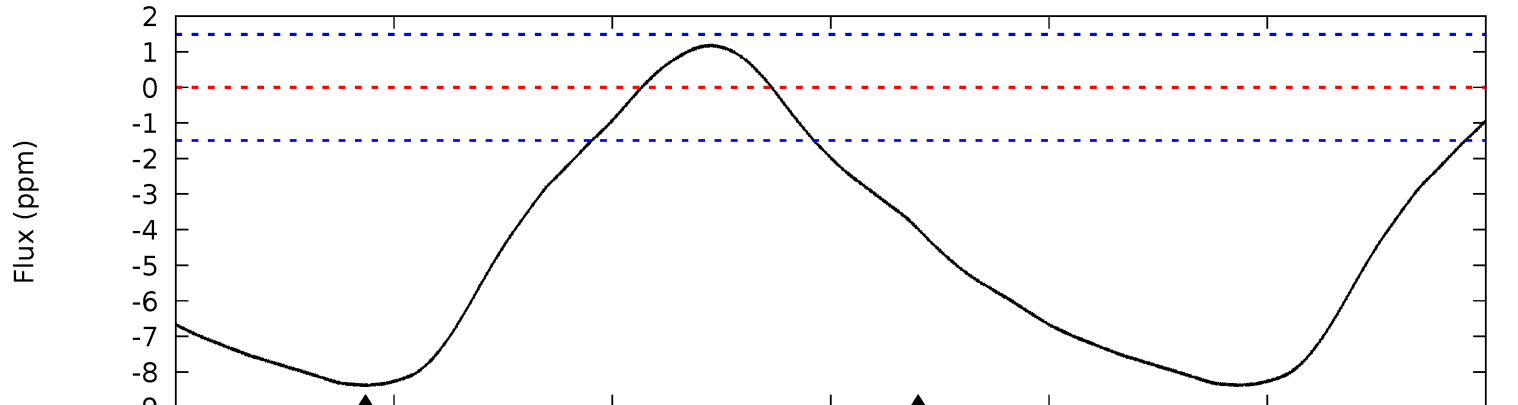
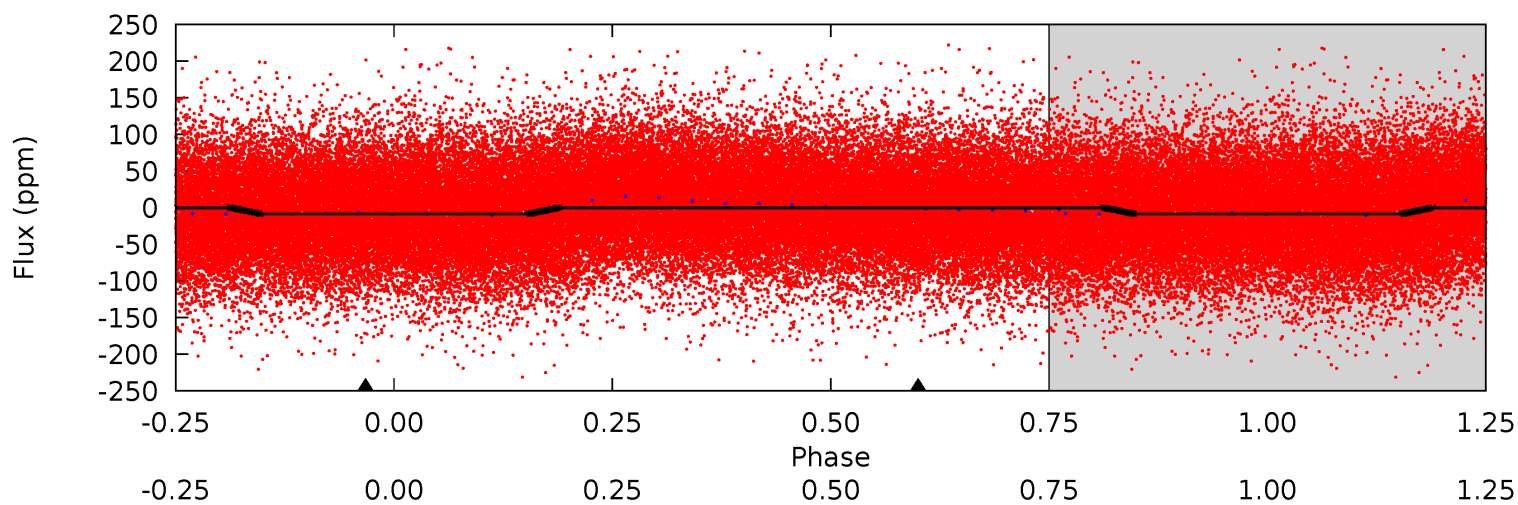
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 8.14 | 3.91 | 0 | 0 | 4.27 | 0.85 | 0.71 | 8.14 | 8.14 | 3.91 | 3.91 | 1.00 | 0.96 | 0.13 | 2.74 |



Alt Model-Shift Uniqueness Test

006848584-01, P = 0.587791 Days, E = 131.491862 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 24.0 | 11.4 | 0 | 0 | 4.28 | 0.87 | 2.05 | 24.0 | 24.0 | 11.4 | 11.4 | 0.62 | 0.98 | 0.12 | 1.14 |



Stellar Parameters For KIC 006848584

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | M (M_{\odot}) | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 9157^{+292}_{-438} | $3.905^{+0.276}_{-0.184}$ | $0.070^{+0.150}_{-0.650}$ | $2.877^{+0.922}_{-1.127}$ | $2.428^{+0.336}_{-0.783}$ | $0.143^{+0.288}_{-0.075}$ |
| | +3%/-5% | +7%/-5% | +214%/-929% | +32%/-39% | +14%/-32% | +200%/-52% |
| Source | KIC0 | 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 006848584-01 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|-------------|------------------------|----------------------|-------------------------|---------------------------|
| DV | -1 ± 0 | $0.43^{+0.34}_{-0.28}$ | 7009^{+634}_{-724} | 7307^{+11207}_{-3115} | $1.274^{+9.139}_{-0.895}$ |
| Alt. | -4 ± 0 | $0.86^{+0.42}_{-0.38}$ | 6941^{+638}_{-666} | 6544^{+3534}_{-1927} | $0.987^{+2.052}_{-0.560}$ |

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 $A_{obs} \gg 1.0$

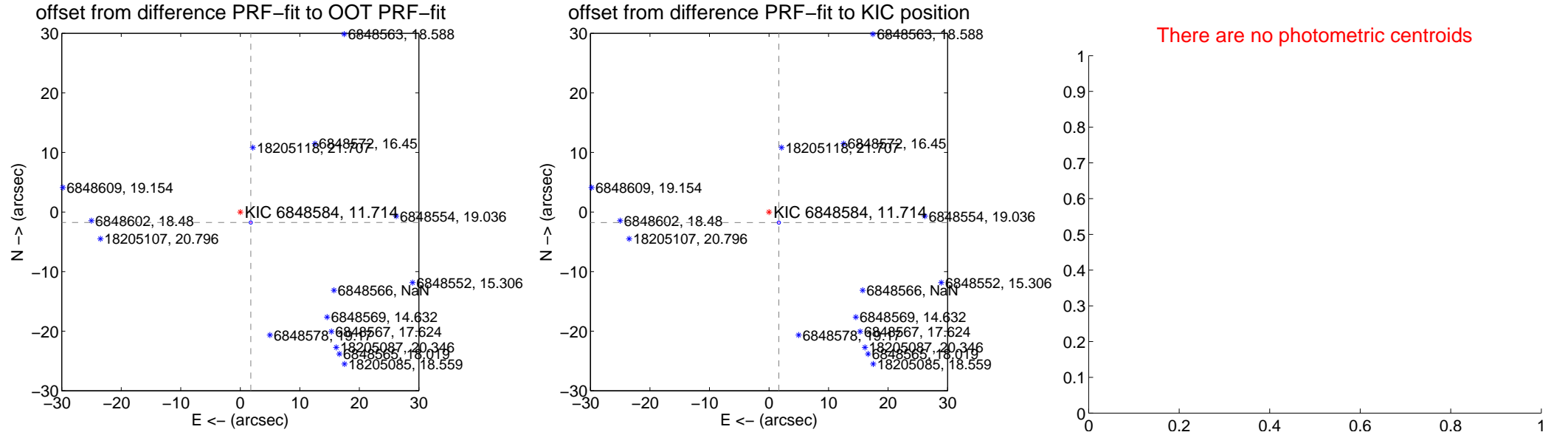
DV Centroid Data

Supplemental centroid analysis for 006848584-01. **Kepler magnitude: 11.71.** Transit SNR 2.73

There are 0 quarters with good PRF difference image offsets

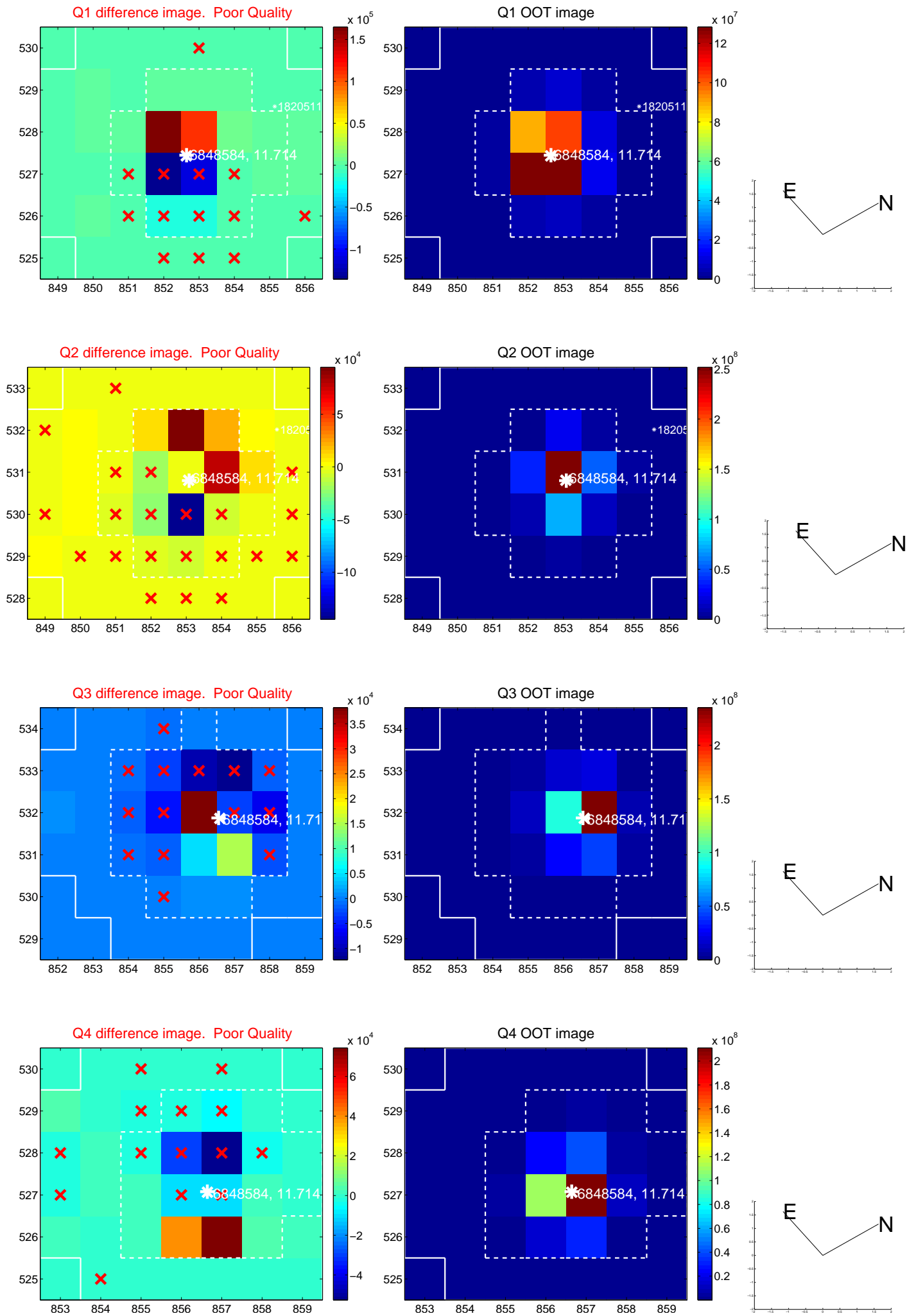
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|-------------------------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 2.492 \pm 0.092 | 27.17 | -1.766 \pm 0.098 | -1.759 \pm 0.085 |
| PRF-fit source offset from KIC position | 2.428 \pm 0.091 | 26.60 | -1.659 \pm 0.098 | -1.773 \pm 0.085 |
| photometric centroid source offset | — | — | — | — |

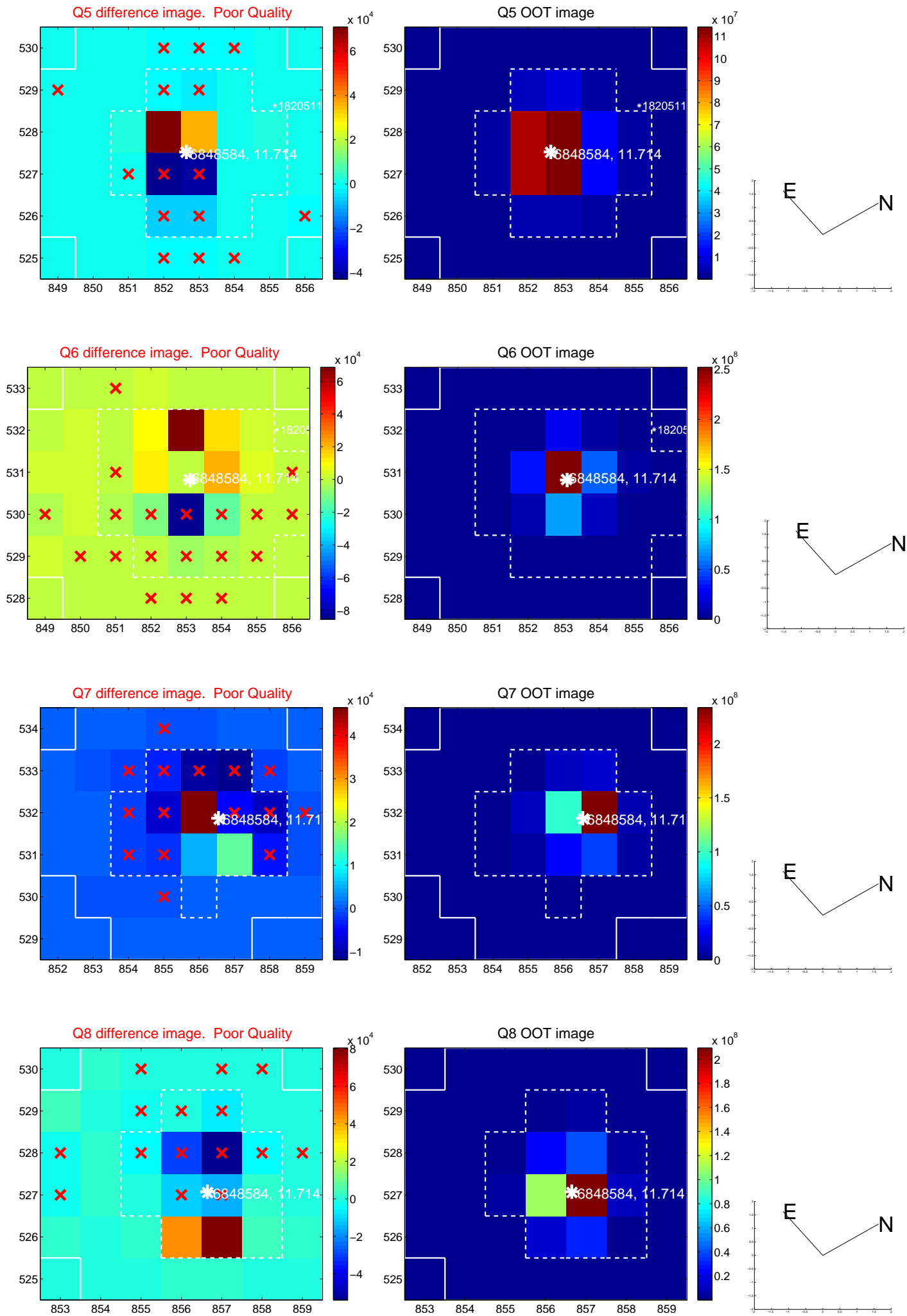


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

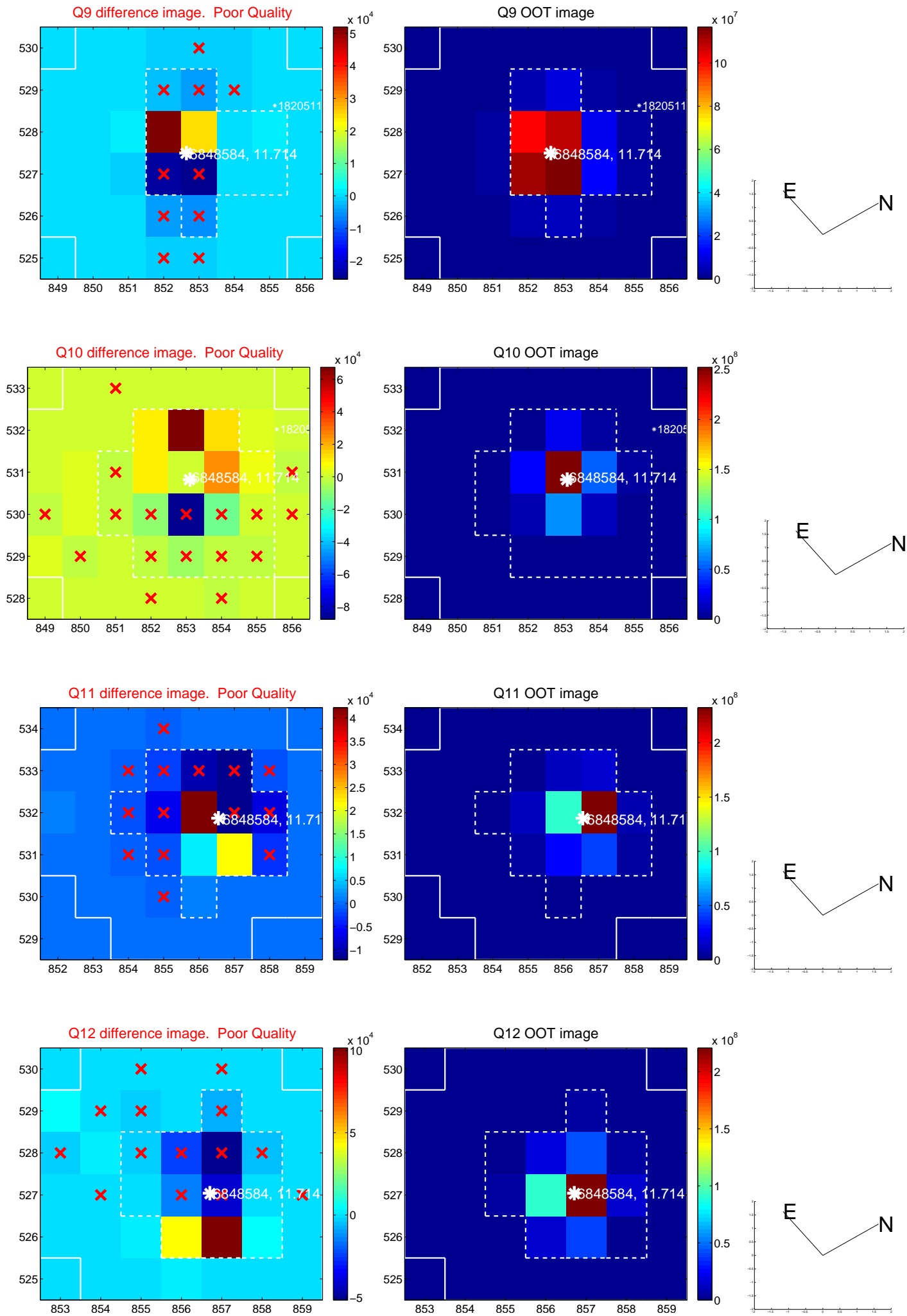
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



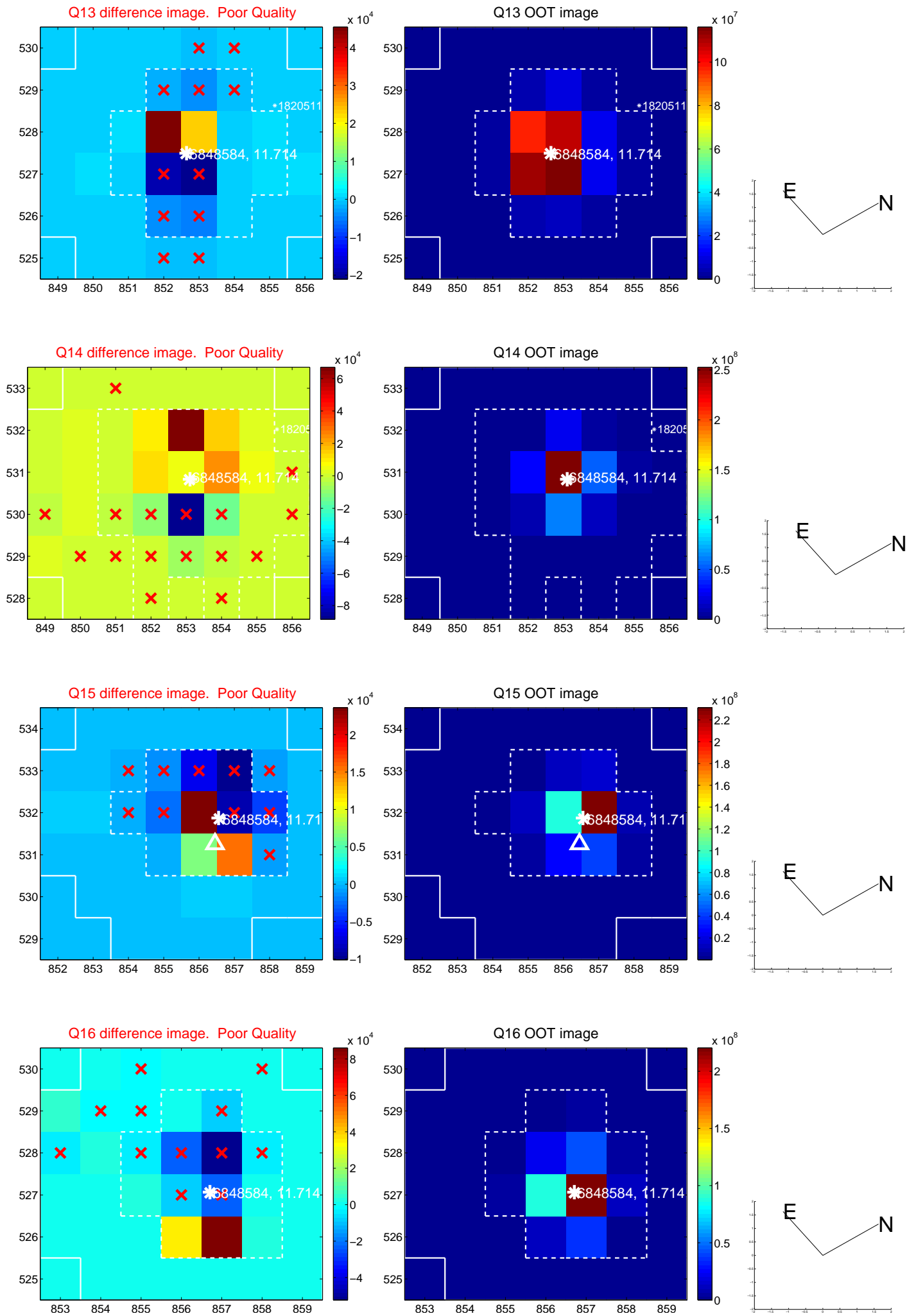
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



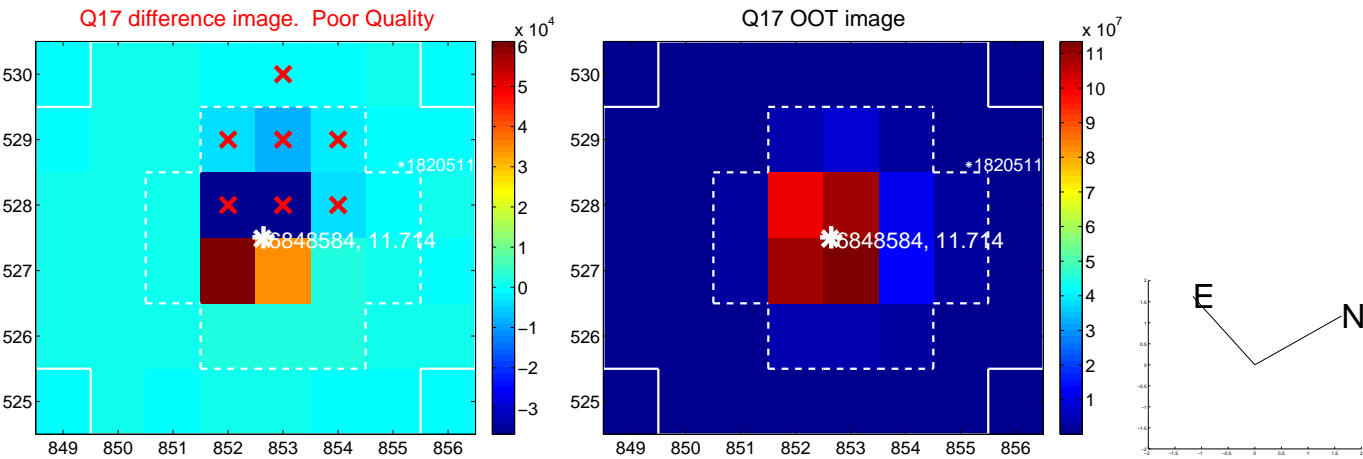
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

