

KIC 003353679

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|-----|-----|-----------------------------|-----------------|------------------------|------------------------|
| 003353679-01 | OBS | No | 215.455078 | 330.801084 | 771.5 | 19.596 | 7.9 | 7.9 | 2.35 | 6085 | 12.62 | 11.45 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|-----------------------------------------------------------------------|
| 003353679-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_MARSHALL—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—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.

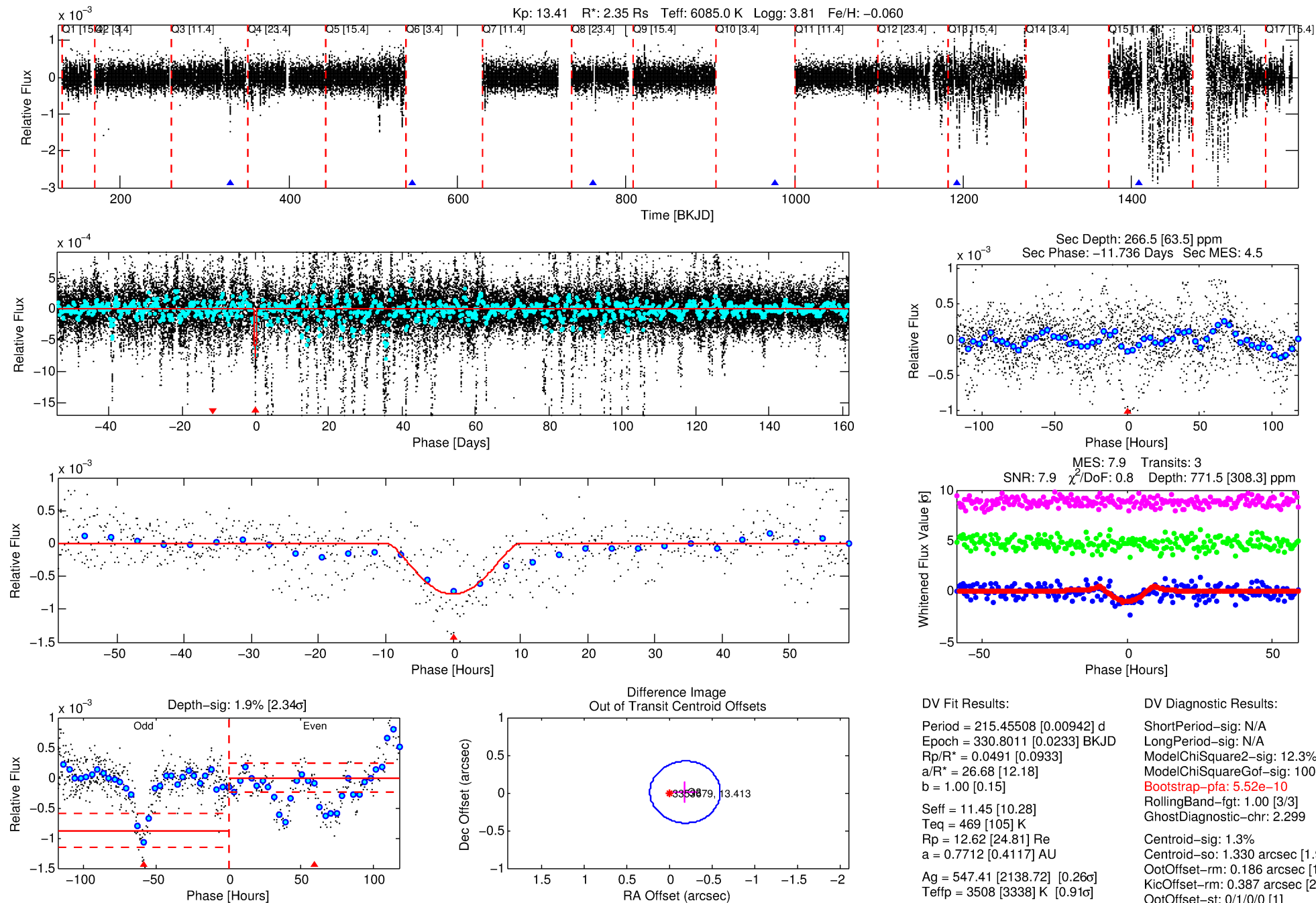
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003353679-01

No Significant Match Found

DV One-Page Summary

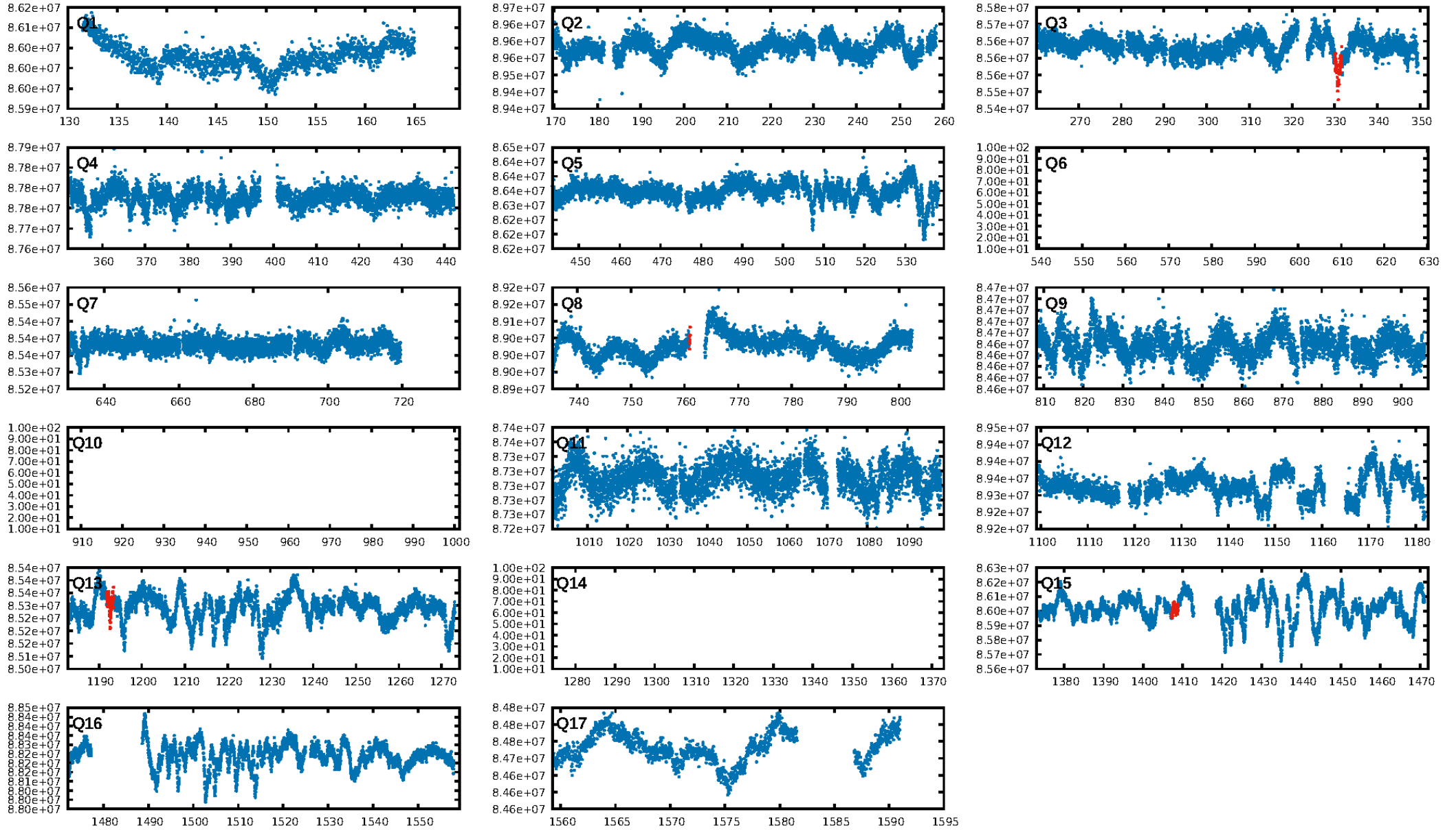
KIC: 3353679 Candidate: 1 of 1 Period: 215.455 d



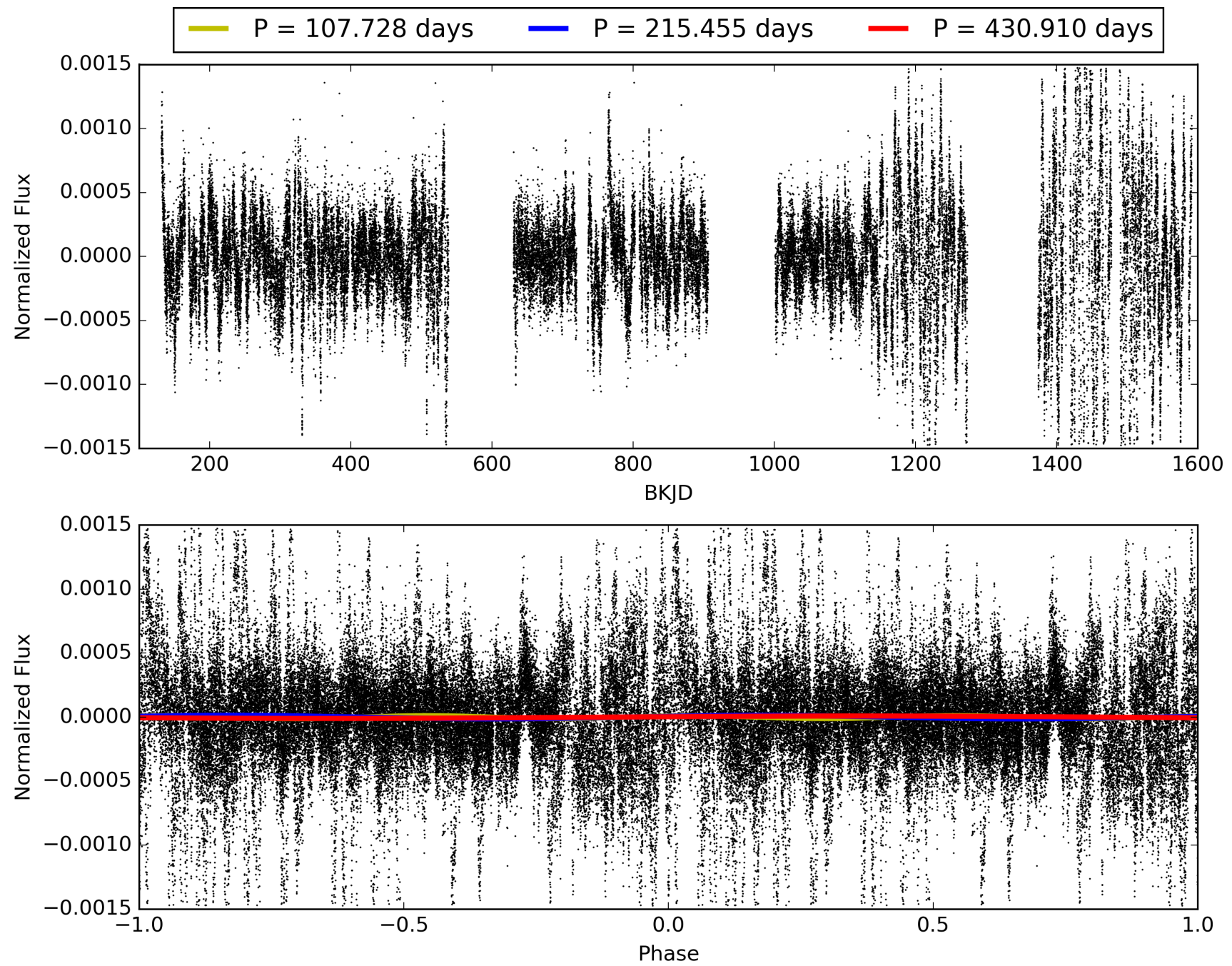
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:17:14 Z

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

TCE 003353679-01, PDC Light Curves

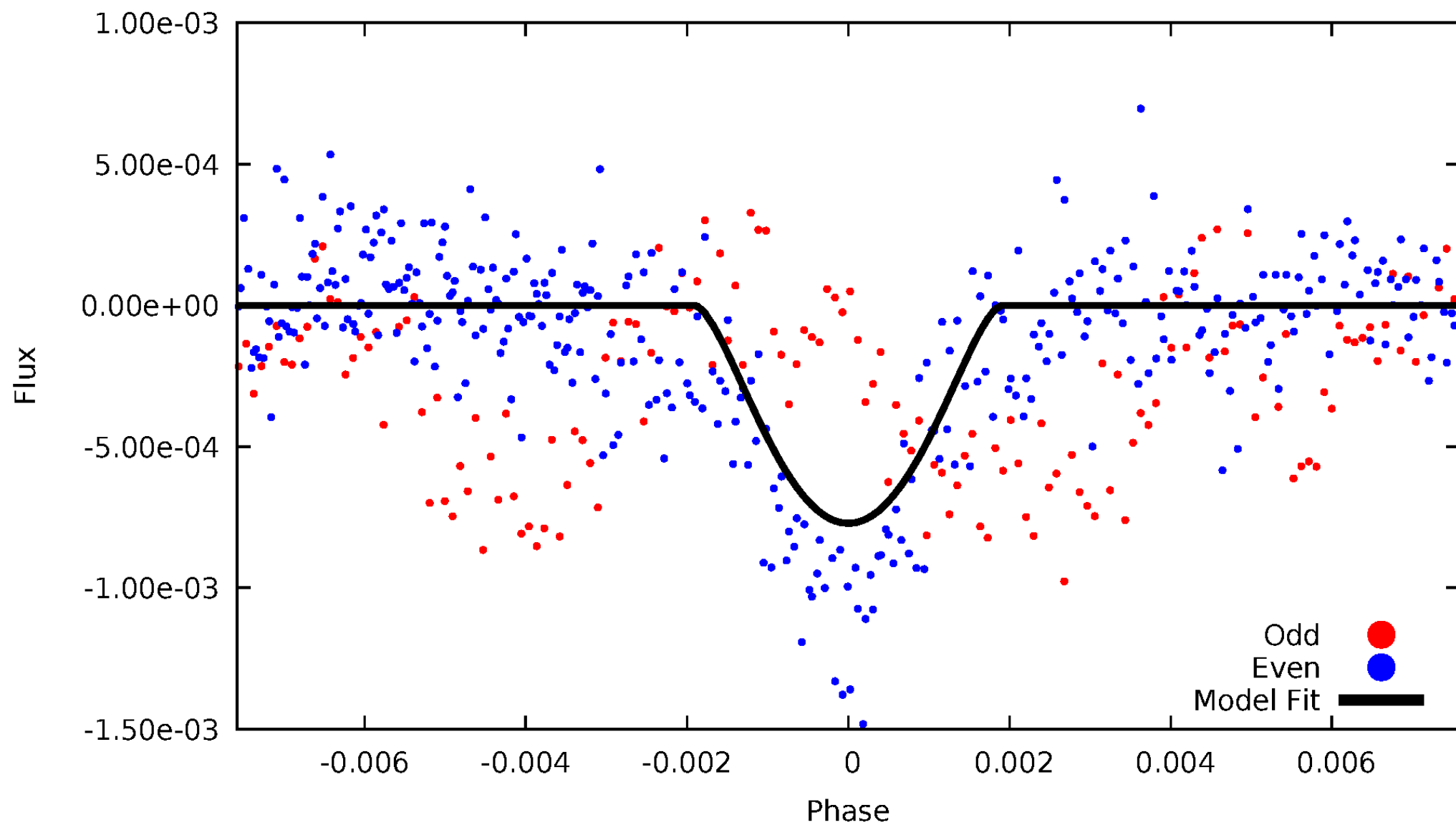


TCE 003353679-01



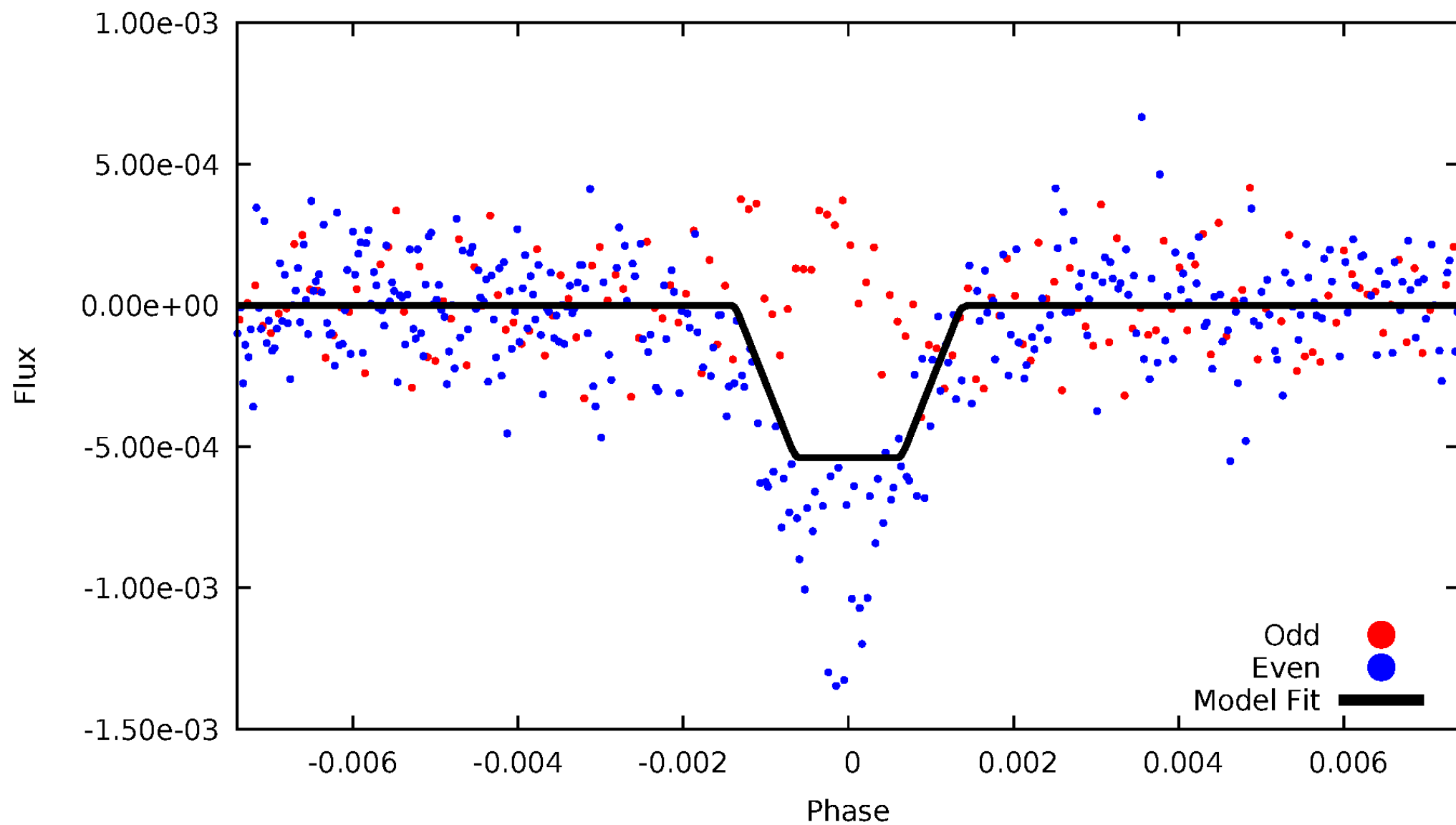
DV Odd/Even

TCE 003353679-01



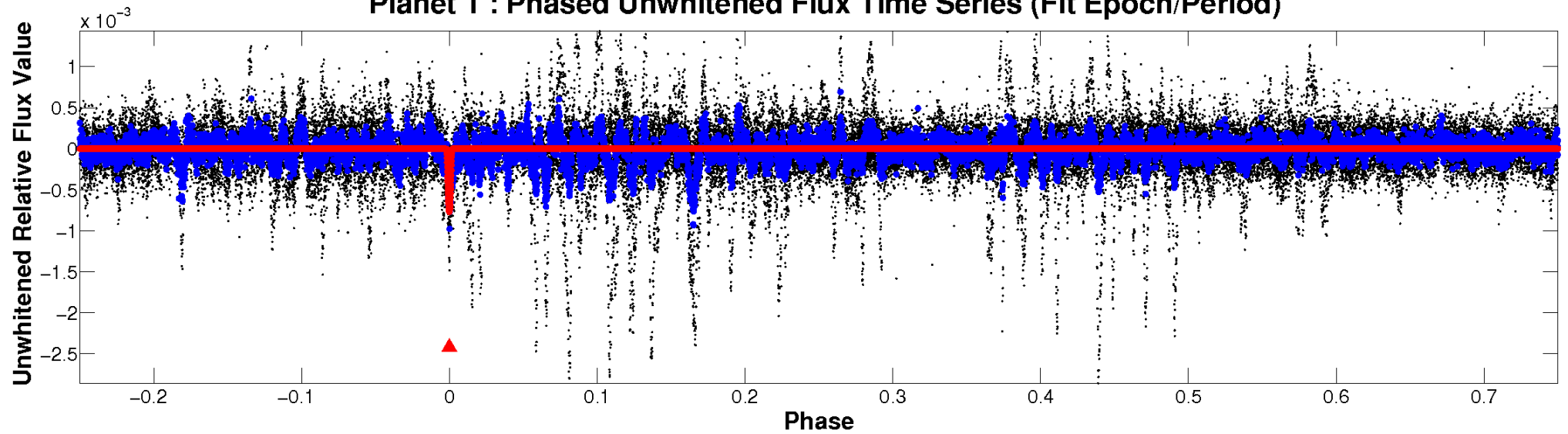
ALT Odd/Even

TCE 003353679-01

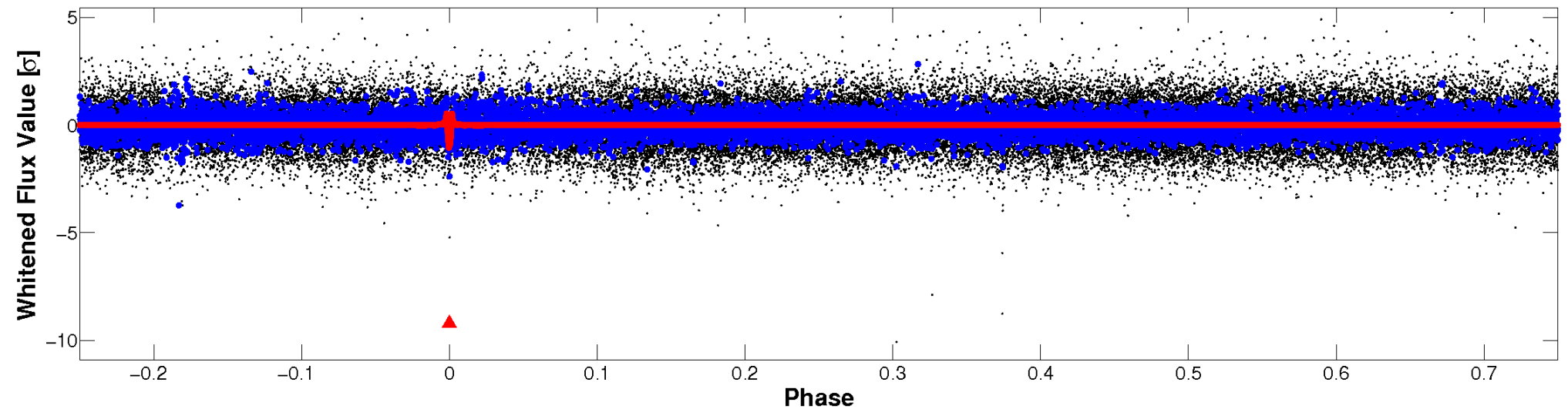


Non-Whitened Vs. Whitened Light Curve

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



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



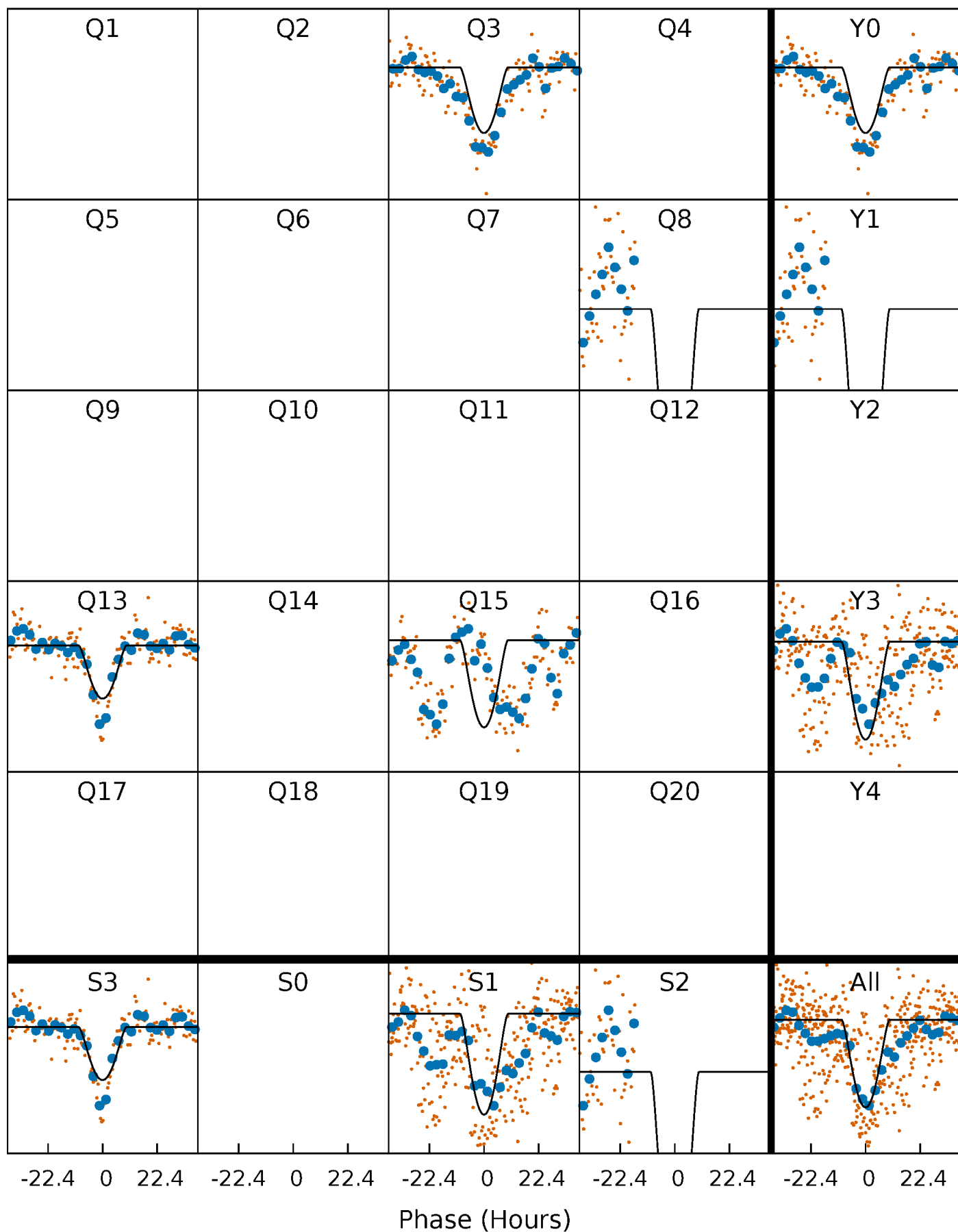
PDC Quarter-Phased Transit Curves

TCE 003353679-01 P=215.455078 Days $T_0=330.801084$ (BKJD)



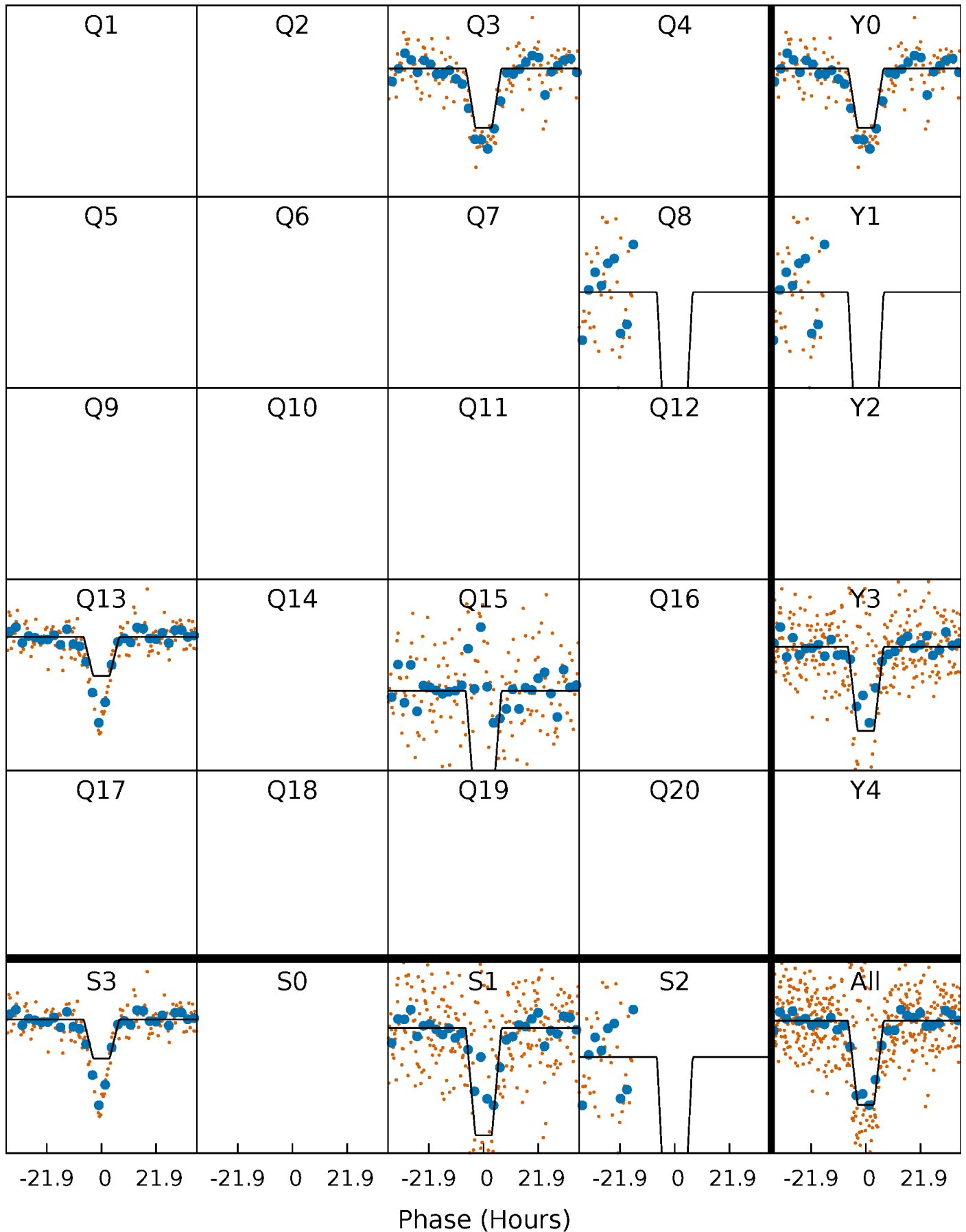
DV Quarter-Phased Transit Curves

TCE 003353679-01 P=215.455078 Days $T_0=330.801084$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

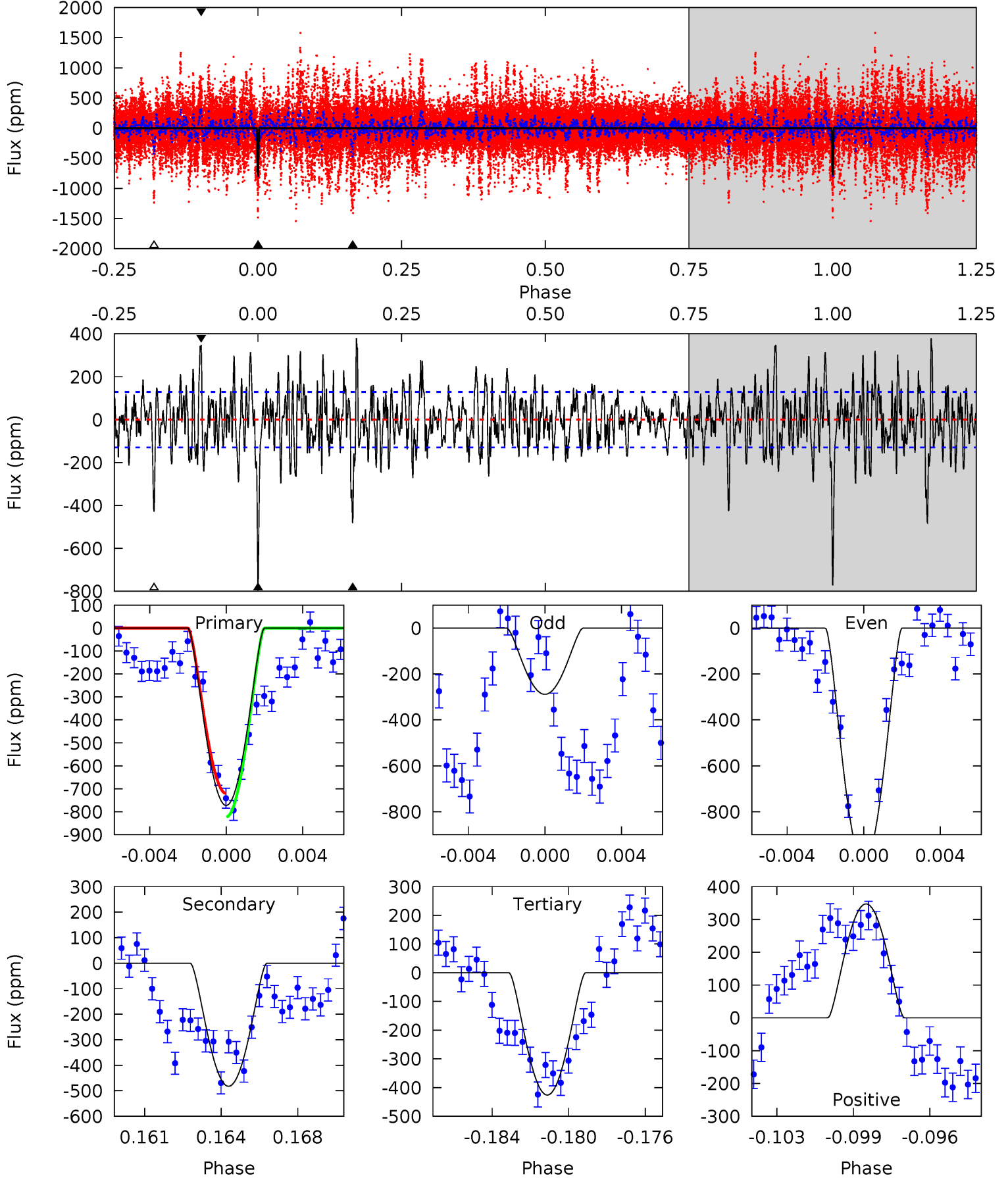
TCE 003353679-01 P=215.458268 Days $T_0=330.804689$ (BKJD)



DV Model-Shift Uniqueness Test

003353679-01, P = 215.455078 Days, E = 115.346006 Days

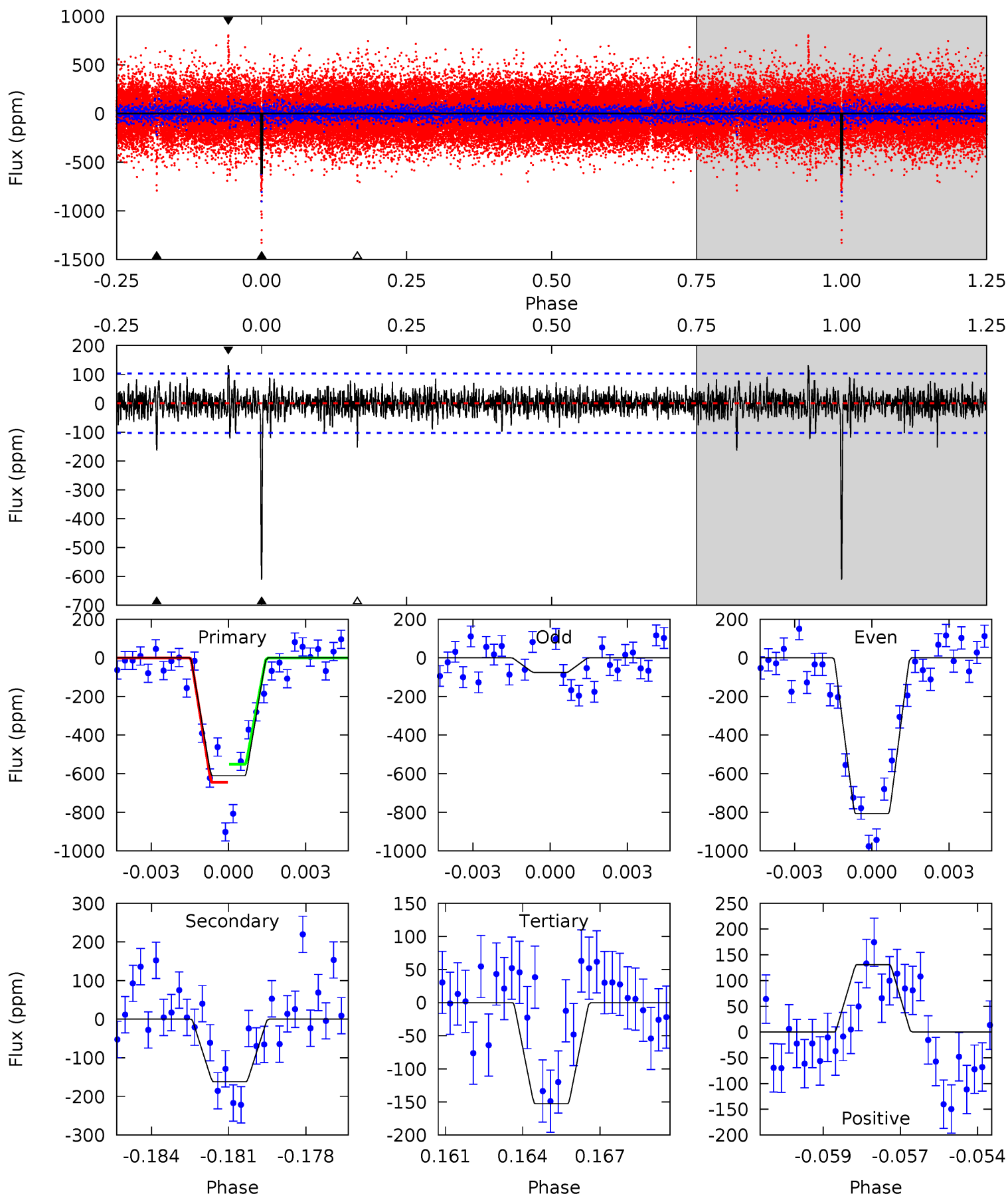
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 31.0 | 19.4 | 17.1 | 14.0 | 5.21 | 2.89 | 4.20 | 13.9 | 17.1 | 2.27 | 5.43 | 11.8 | 0.82 | 0.33 | 2.05 |



Alt Model-Shift Uniqueness Test

003353679-01, P = 215.458268 Days, E = 115.346421 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 31.2 | 8.28 | 7.81 | 6.70 | 5.26 | 2.99 | 1.42 | 23.4 | 24.5 | 0.47 | 1.58 | 18.6 | 0.71 | 0.18 | 2.40 |



Stellar Parameters For KIC 003353679

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|-----------------------------------------------|
| | 6085^{+192}_{-192} | $3.814^{+0.535}_{-0.126}$ | $-0.060^{+0.300}_{-0.300}$ | $2.354^{+0.516}_{-1.205}$ | $1.315^{+0.185}_{-0.343}$ | $0.142^{+0.853}_{-0.051}$ |
| | +3%/-3% | +14%/-3% | +500%/-500% | +22%/-51% | +14%/-26% | +600%/-36% |
| 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 003353679-01 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|---------------|---------------------------|----------------------|-----------------------|----------------------|
| DV | -482 ± 25 | $19.16^{+19.75}_{-13.11}$ | 637^{+54}_{-92} | 3585^{+1955}_{-666} | 423^{+3978}_{-321} |
| Alt. | -162 ± 20 | $15.79^{+20.75}_{-11.15}$ | 637^{+52}_{-91} | 3201^{+1776}_{-622} | 211^{+2240}_{-170} |

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

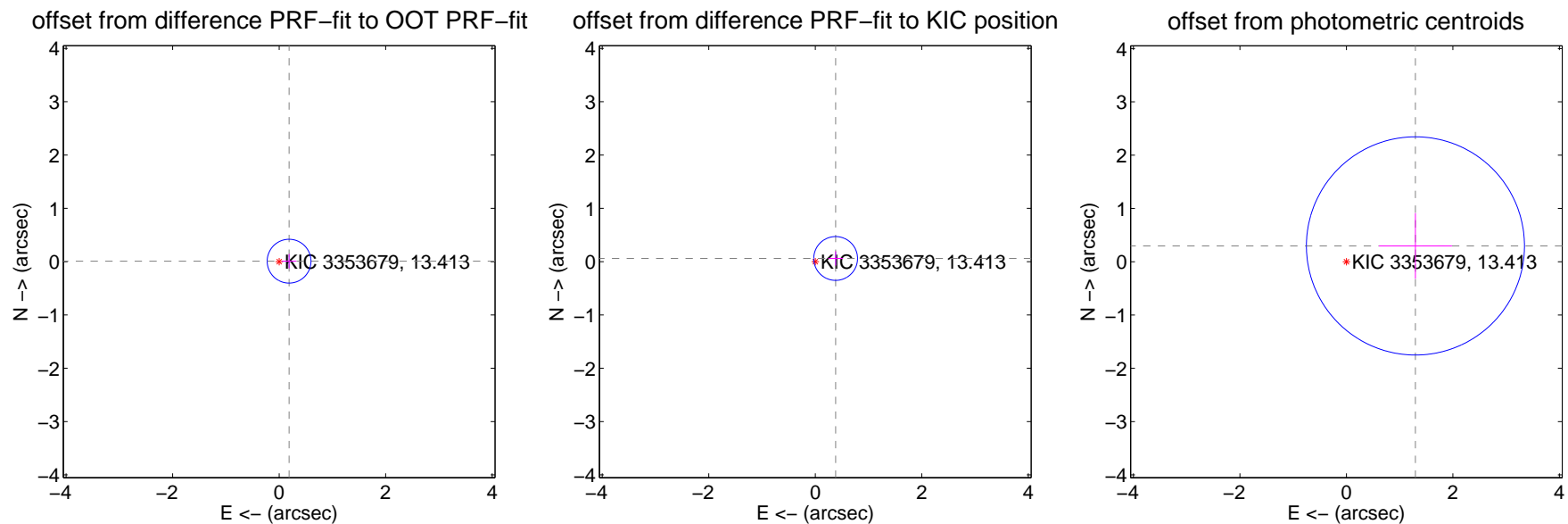
DV Centroid Data

Supplemental centroid analysis for 003353679-01. Kepler magnitude: 13.41. Transit SNR 7.93

There are 1 quarters with good PRF difference image offsets

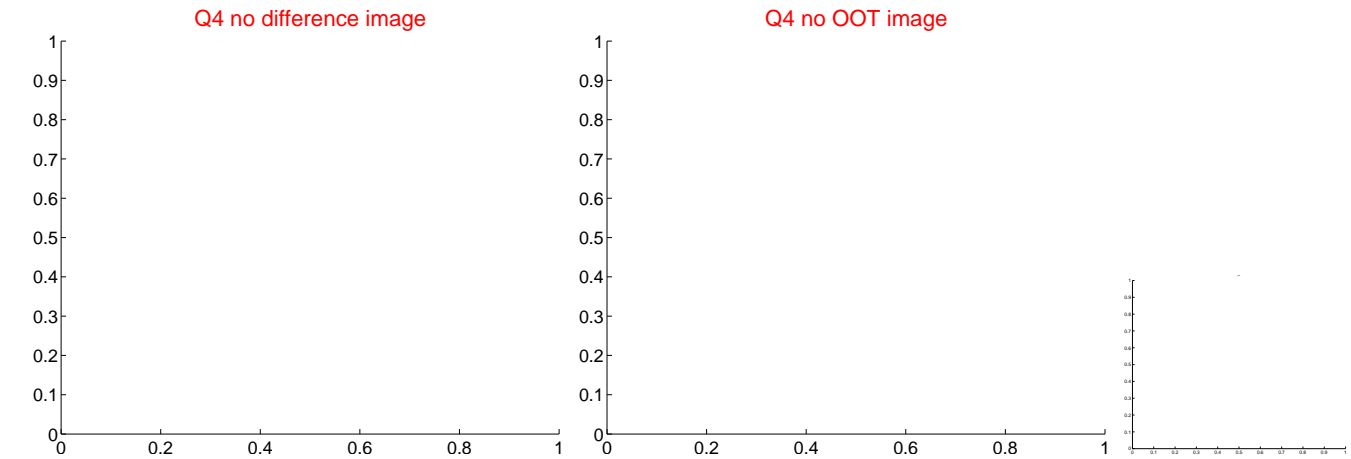
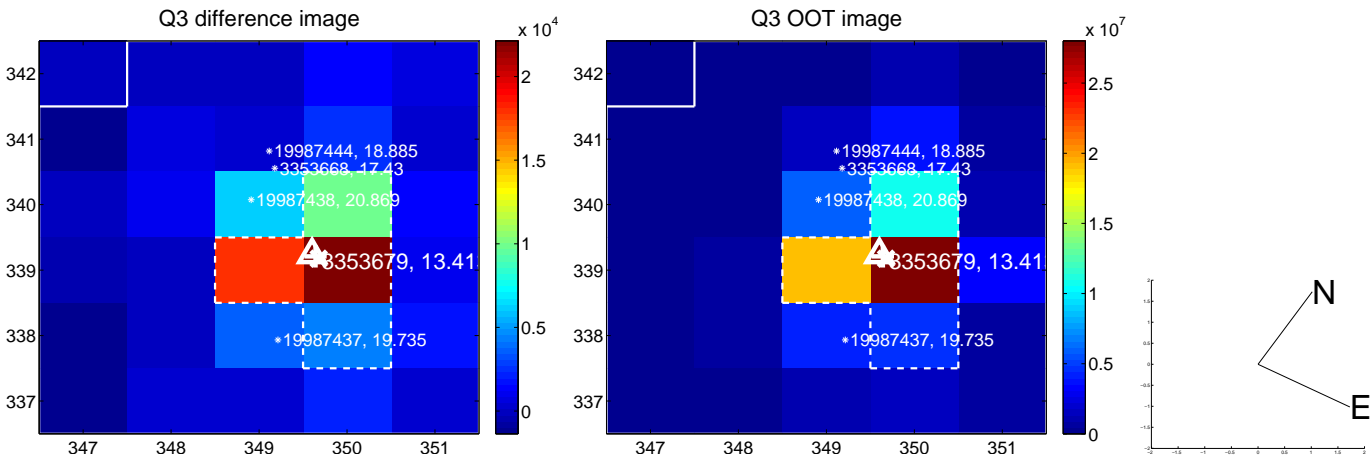
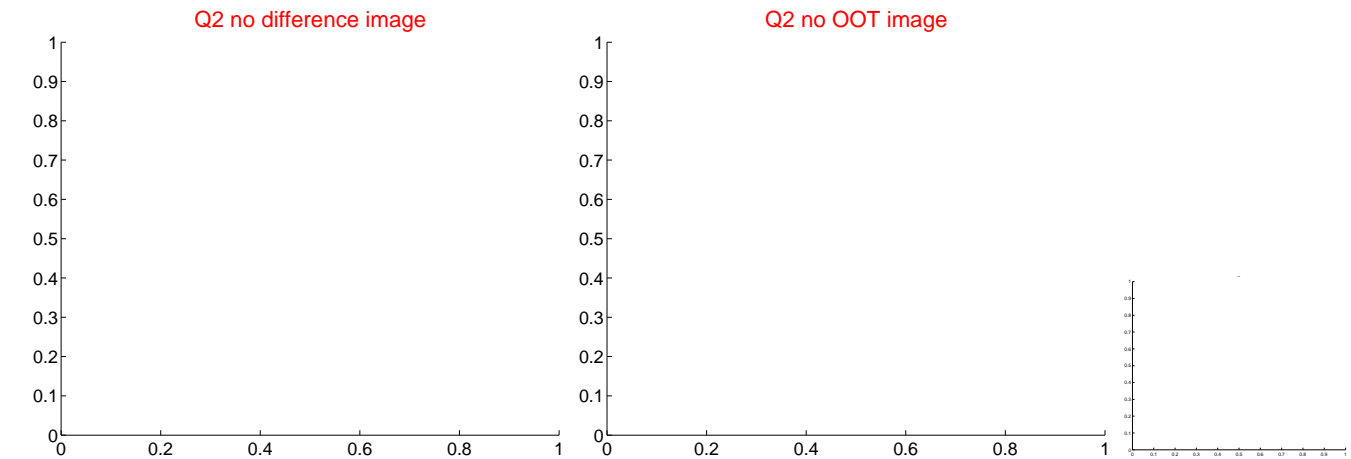
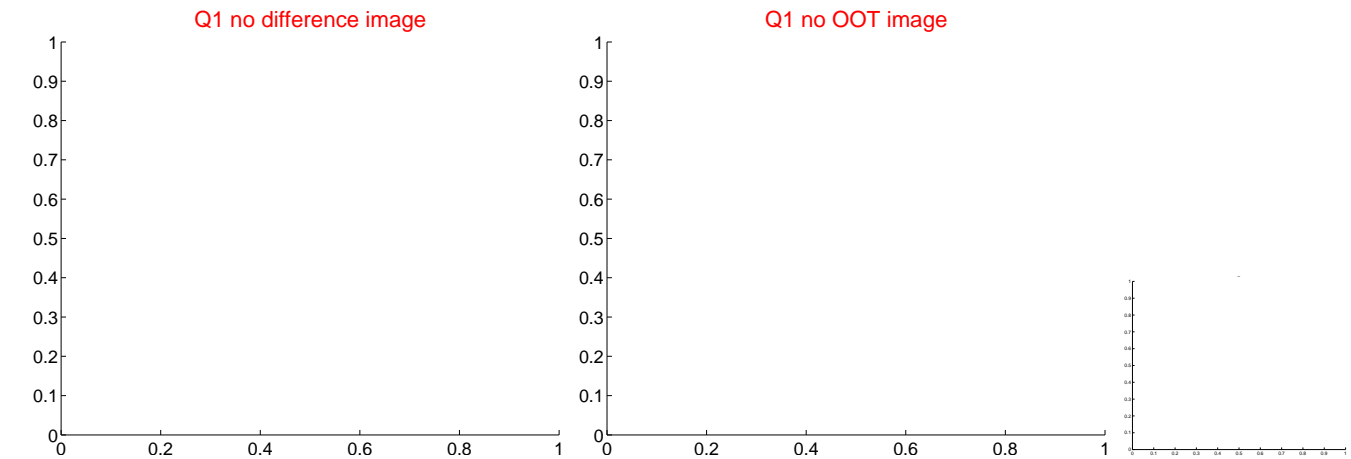
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|-----------------------------------------|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT | 0.186 ± 0.137 | 1.36 | -0.186 ± 0.137 | 0.009 ± 0.136 |
| PRF-fit source offset from KIC position | 0.387 ± 0.137 | 2.82 | -0.382 ± 0.137 | 0.060 ± 0.136 |
| photometric centroid source offset | 1.33 ± 0.68 | 1.95 | -1.30 ± 0.69 | 0.30 ± 0.62 |

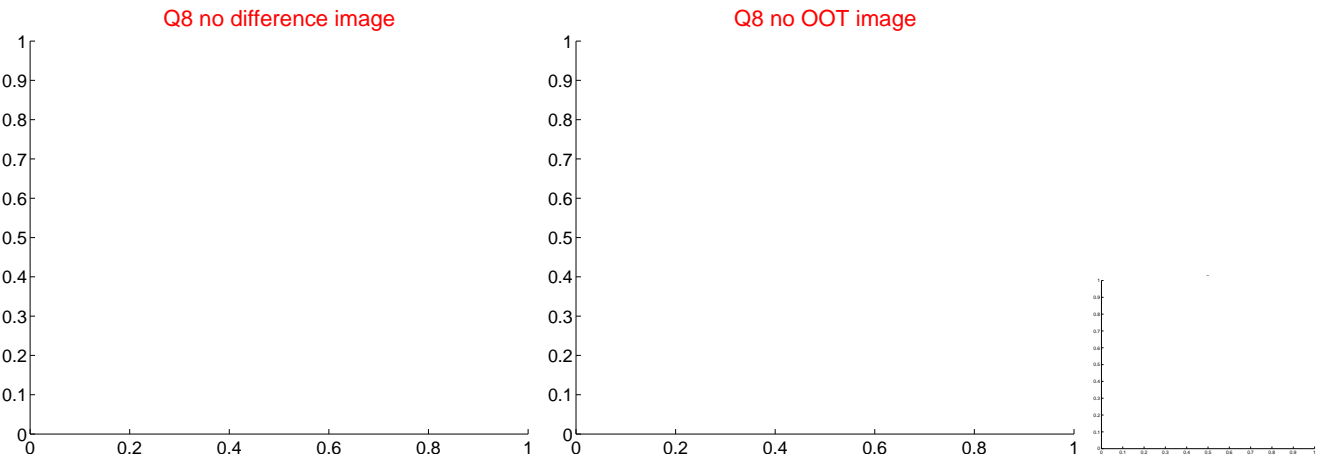
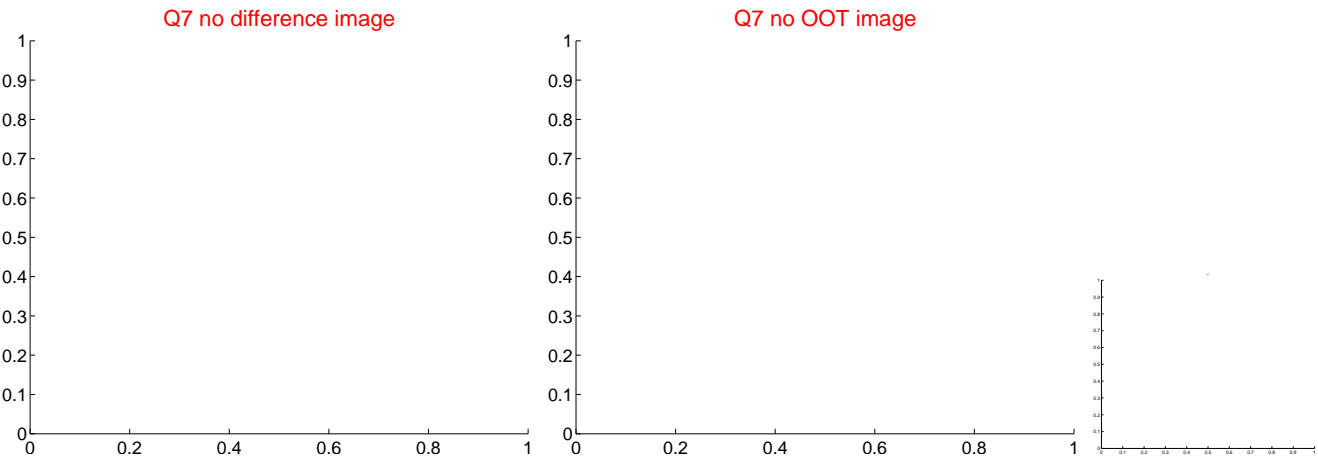
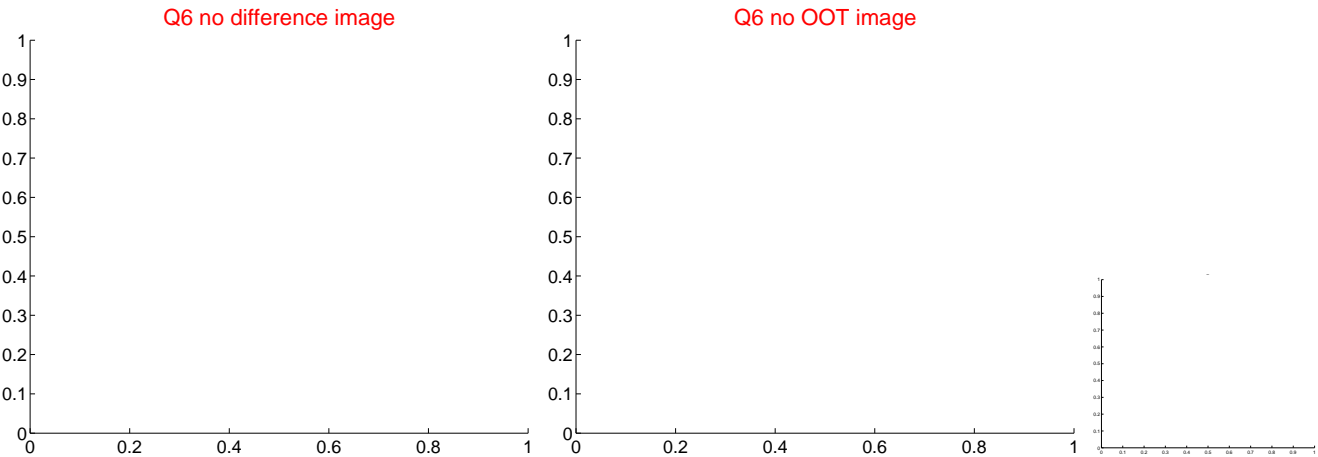
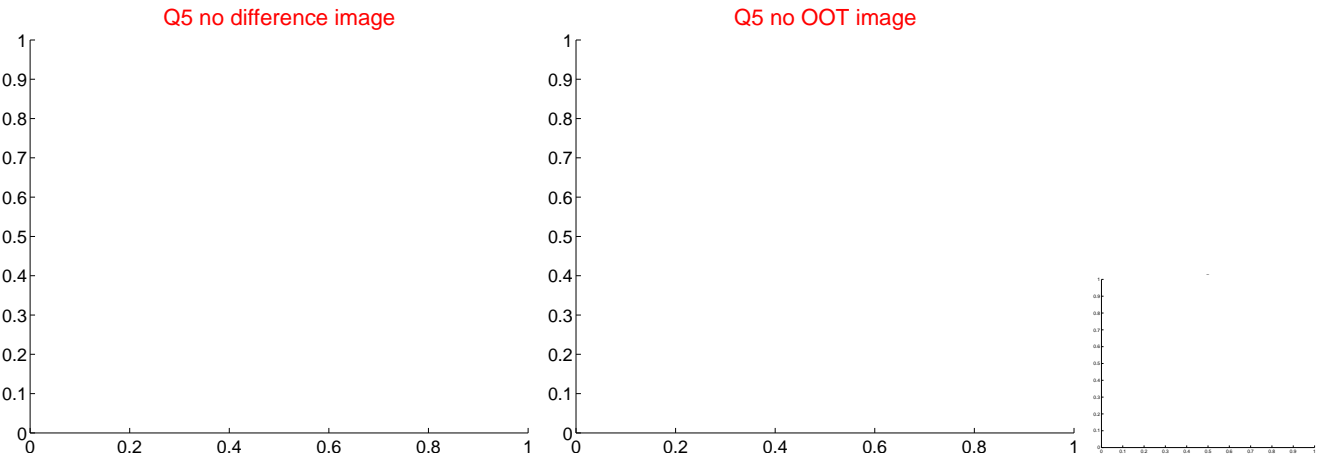


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

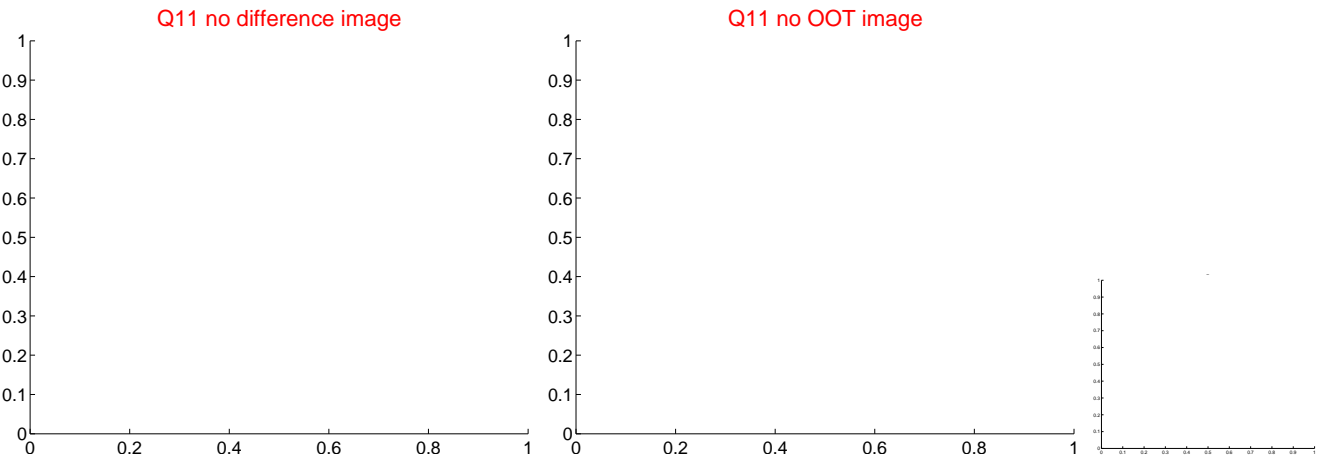
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



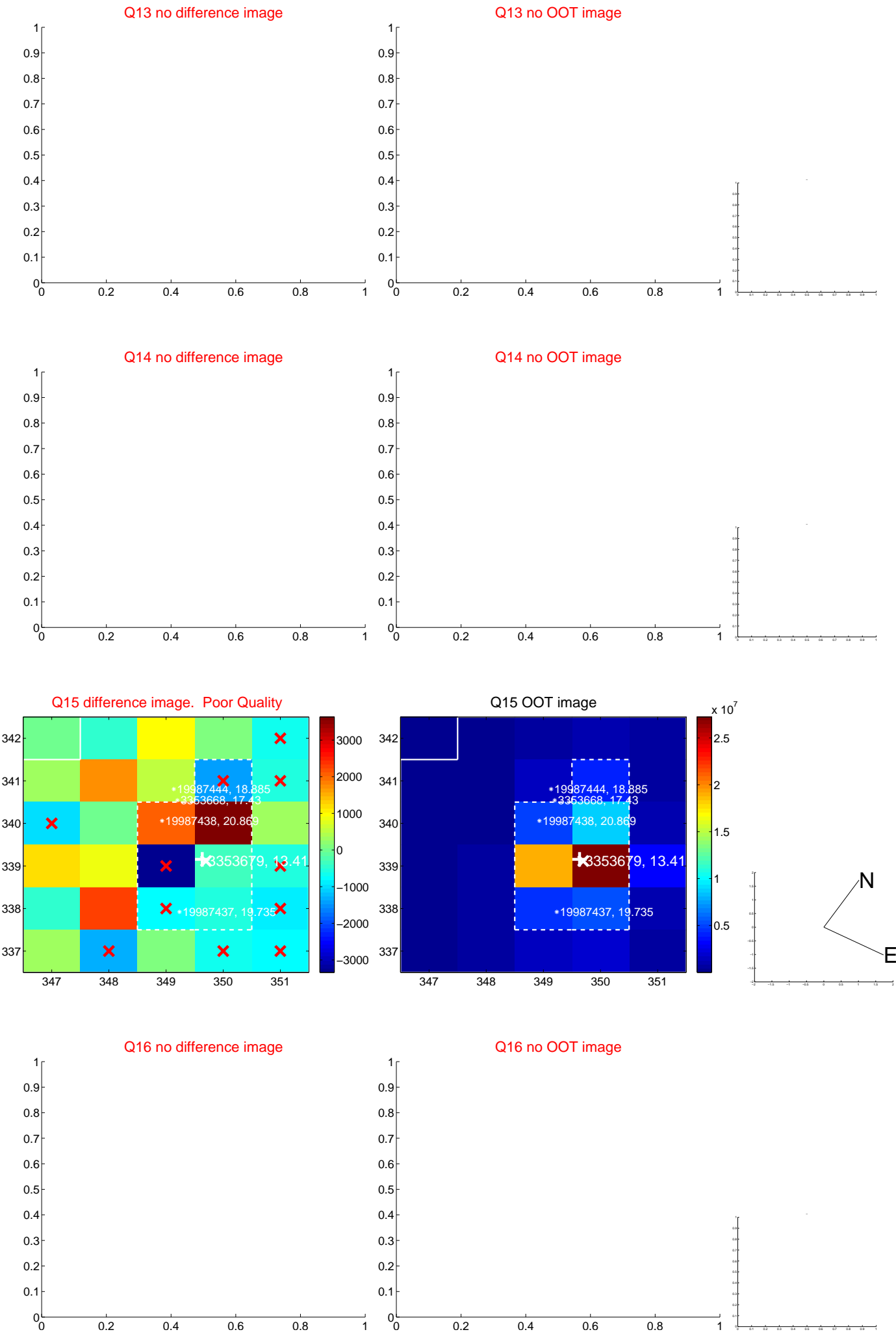
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



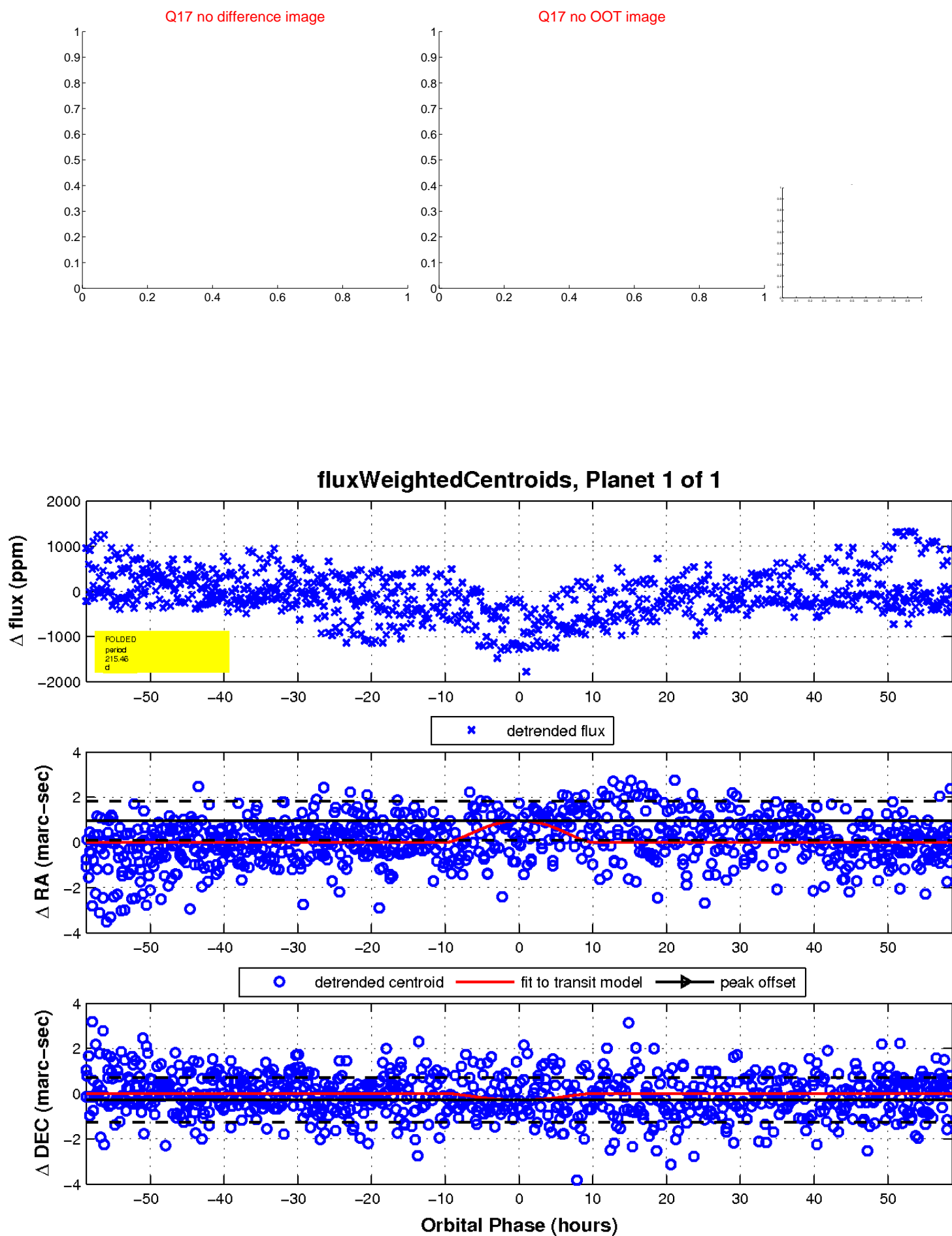
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

