

KIC 004485025

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})
004485025-01	OBS	No	1.871931	131.593435	6.0	15.672	9.3	2.3	3.60	6773	1.02	18985.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004485025-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT

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

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

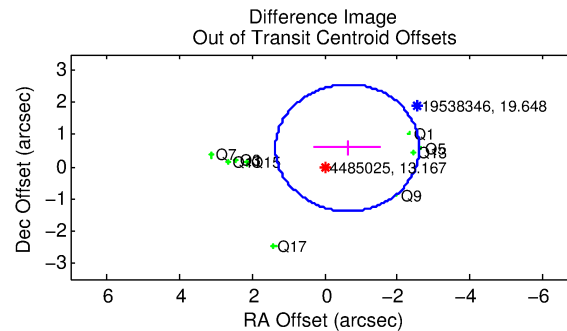
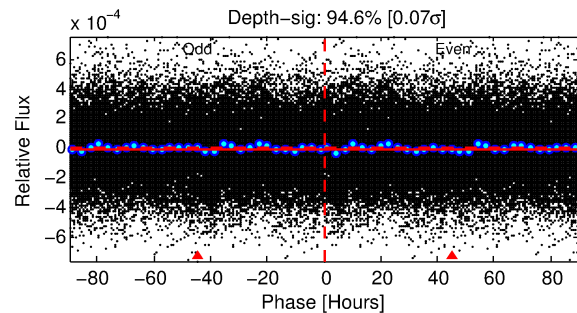
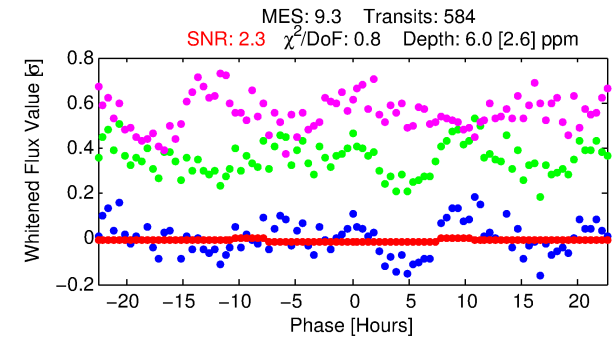
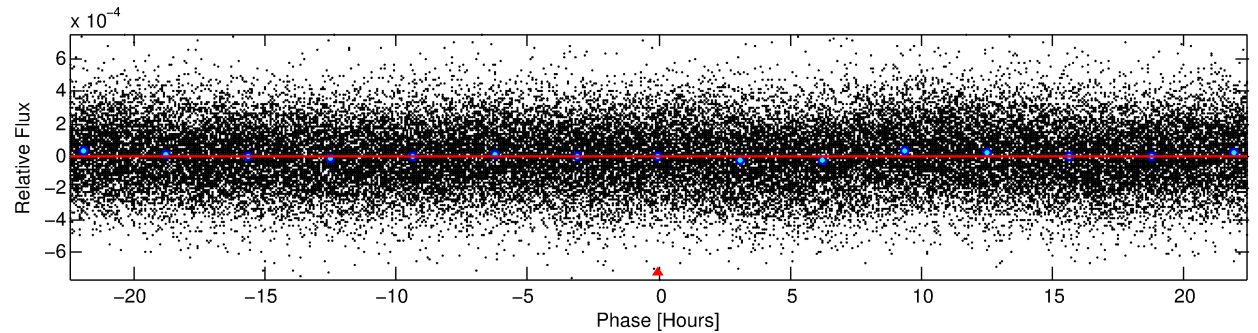
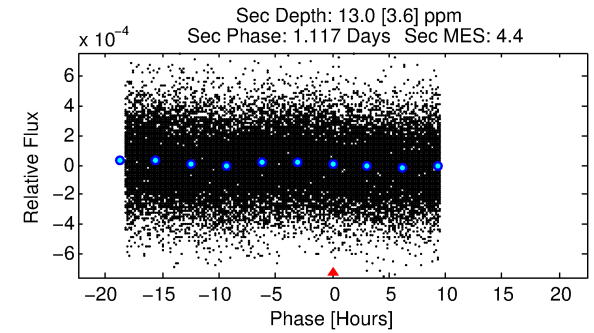
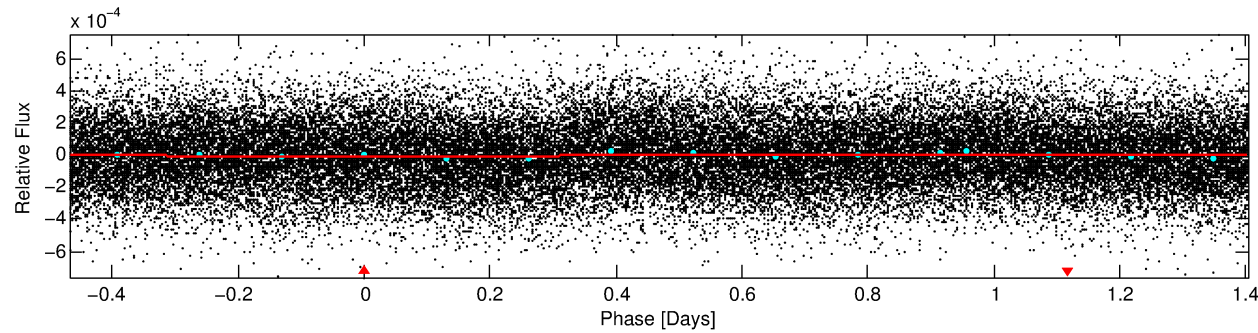
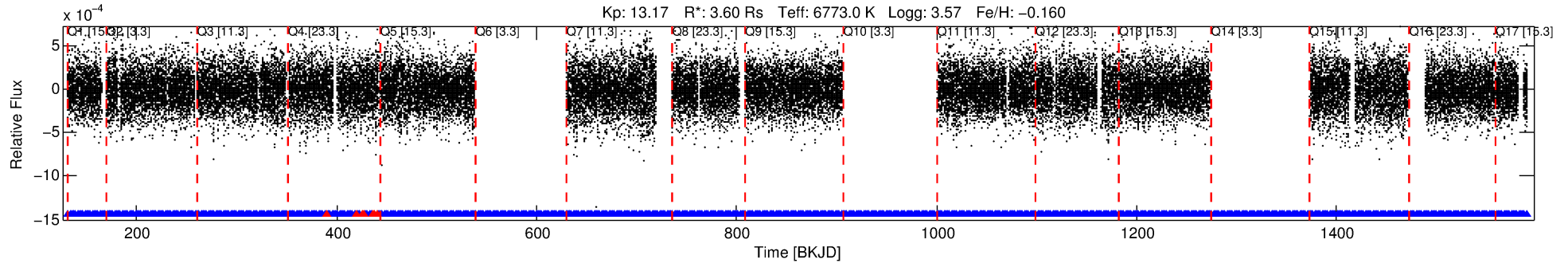
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004485025-01

No Significant Match Found

DV One-Page Summary

KIC: 4485025 Candidate: 1 of 1 Period: 1.872 d



DV Fit Results:

Period = 1.87193 [0.00013] d
Epoch = 131.5934 [0.0341] BKJD
Rp/R* = 0.0026 [0.0031]
a/R* = 1.03 [0.41]
b = 0.90 [1.59]
Seff = 18985.41 [10602.04]
Teq = 2993 [418] K
Rp = 1.02 [1.26] Re
a = 0.0359 [0.0122] AU
Ag = 8.83 [21.54] [0.36σ]
Teffp = 7976 [4758] K [1.04σ]

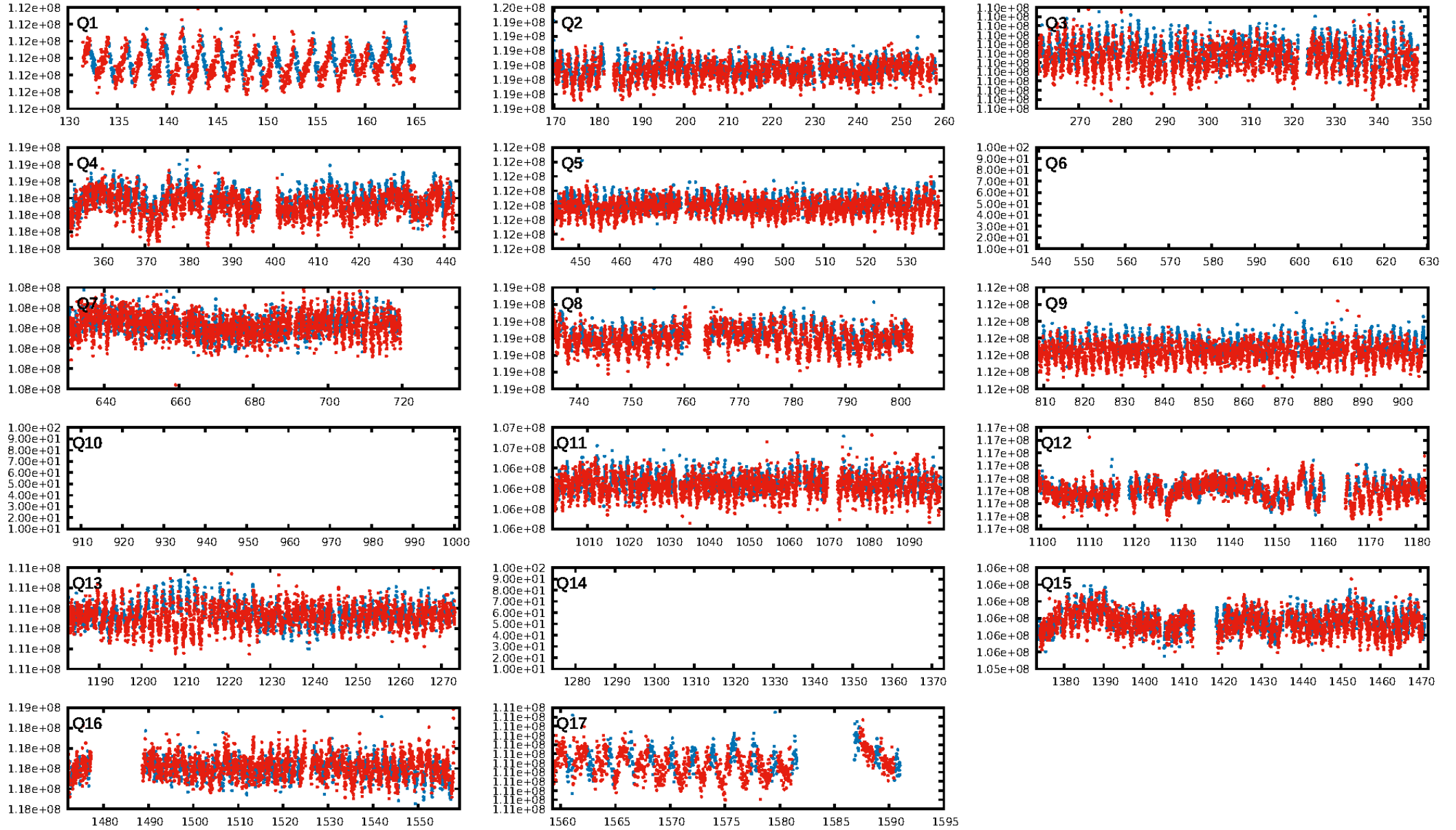
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [544/551]
GhostDiagnostic-chr: 0.2695
Centroid-sig: 1.3%
Centroid-so: 4.917 arcsec [1.57σ]
OotOffset-rm: 0.858 arcsec [1.30σ]
OotOffset-st: 0/4/0/5 [9]
KicOffset-rm: 0.839 arcsec [1.39σ]
KicOffset-st: 0/4/0/5 [9]
DiffImageQuality-fgm: 0.89 [8/9]
DiffImageOverlap-fno: 1.00 [14/14]

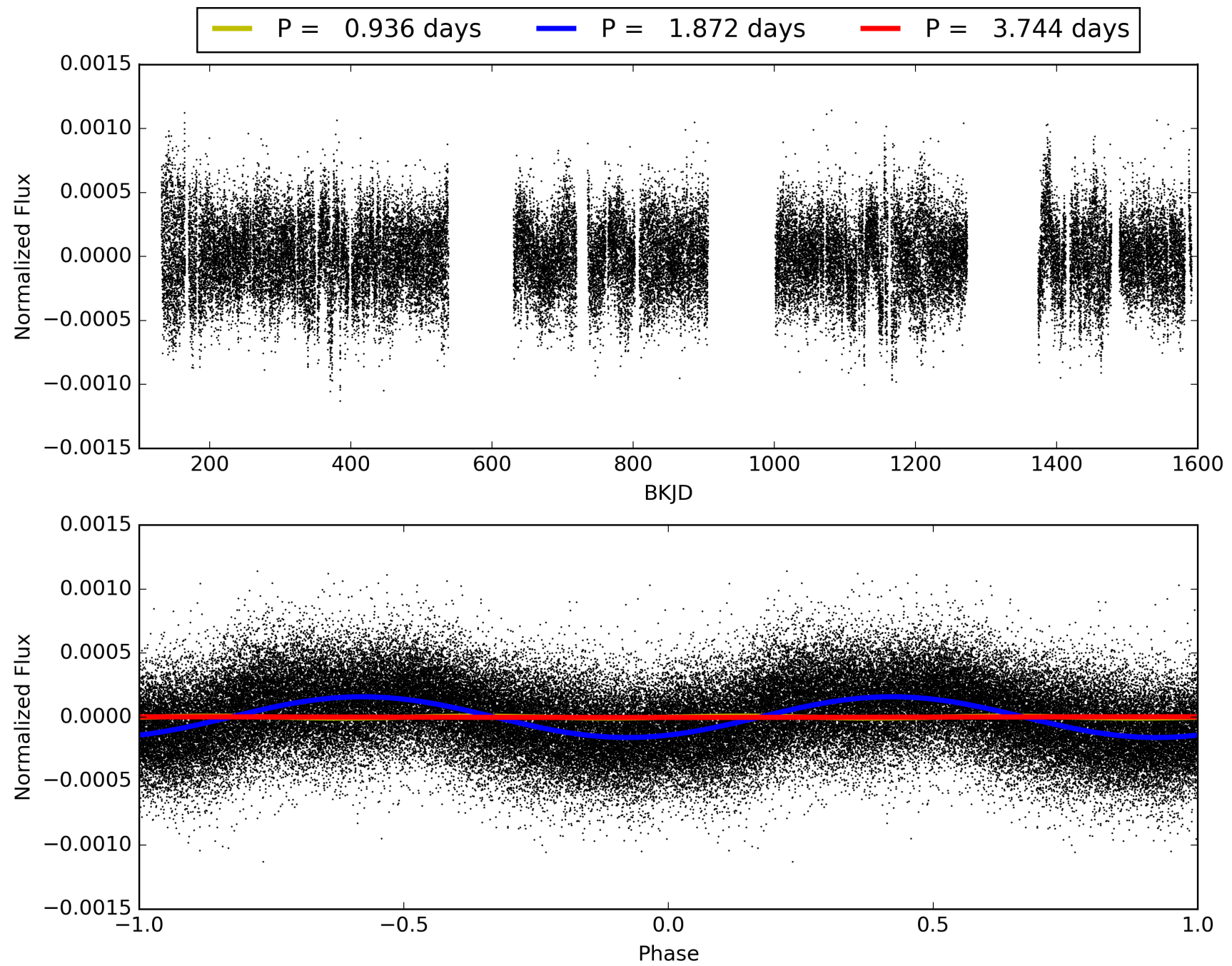
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:17:17 Z

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

TCE 004485025-01, PDC Light Curves

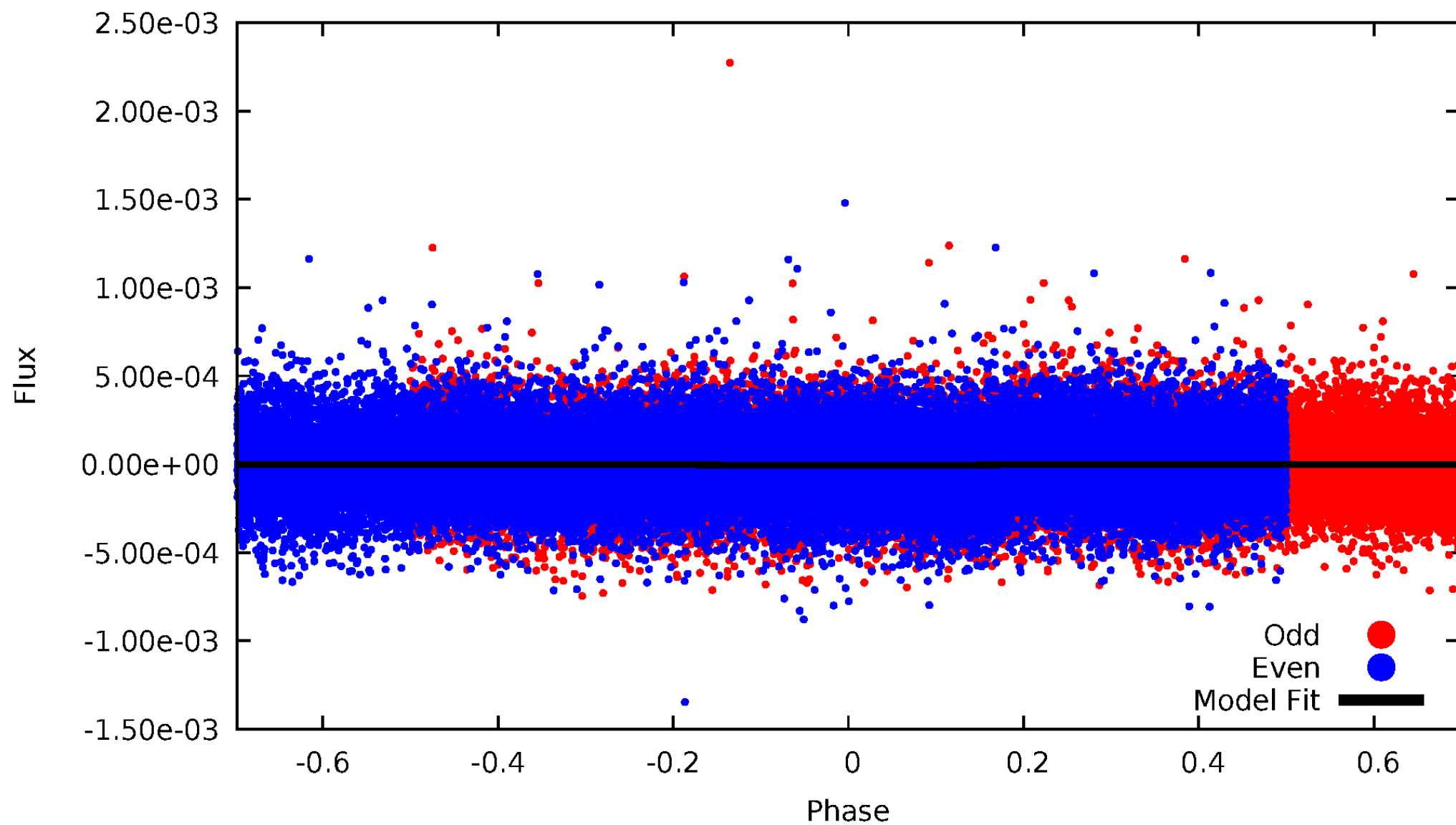


TCE 004485025-01



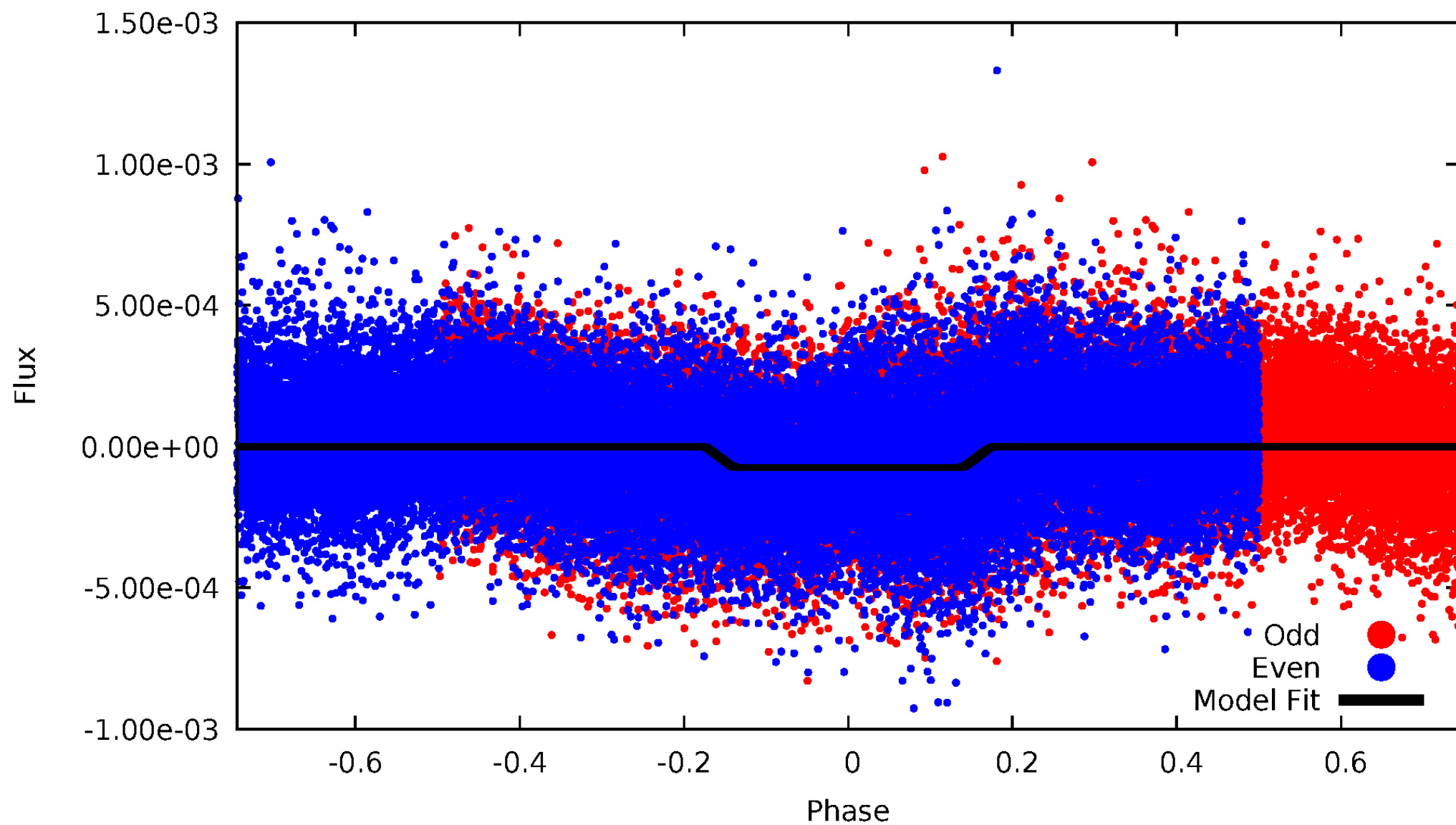
DV Odd/Even

TCE 004485025-01

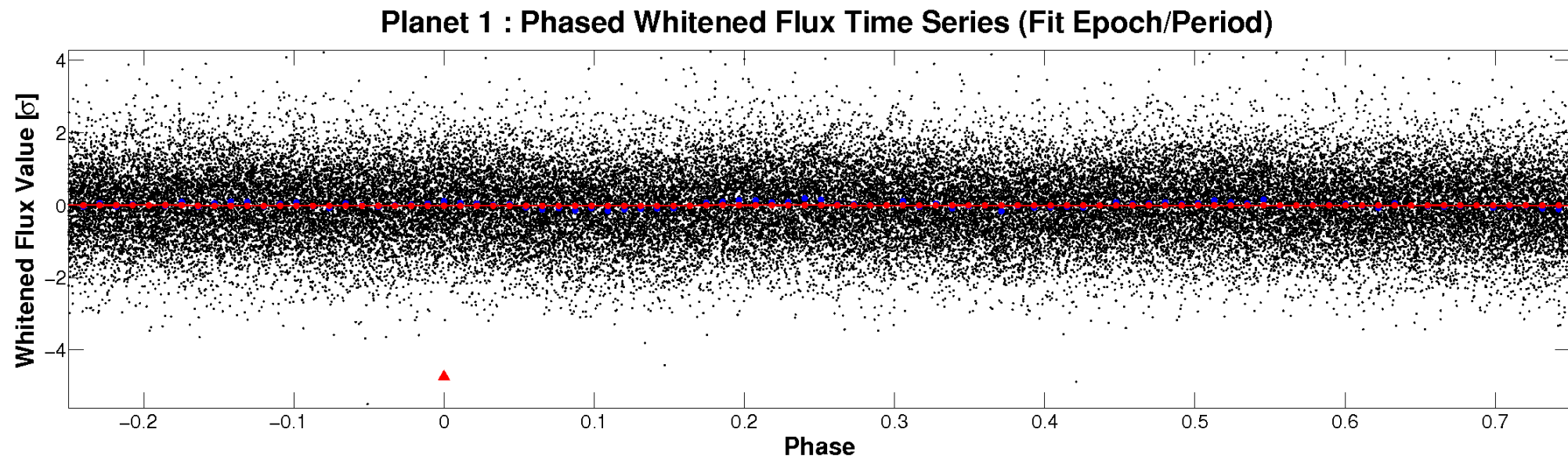
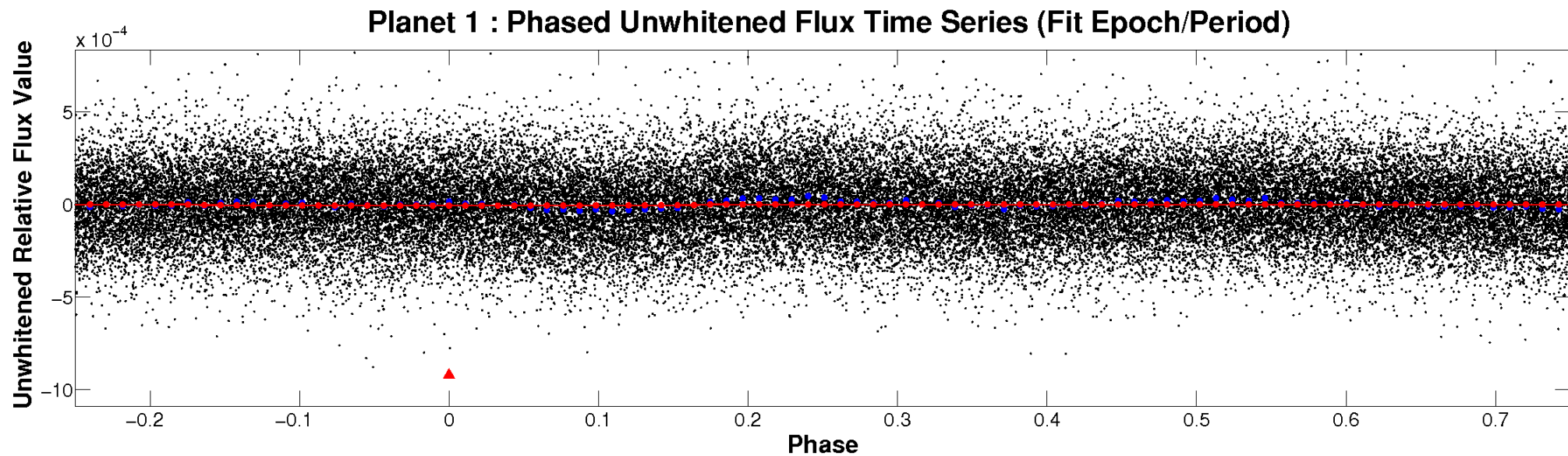


ALT Odd/Even

TCE 004485025-01

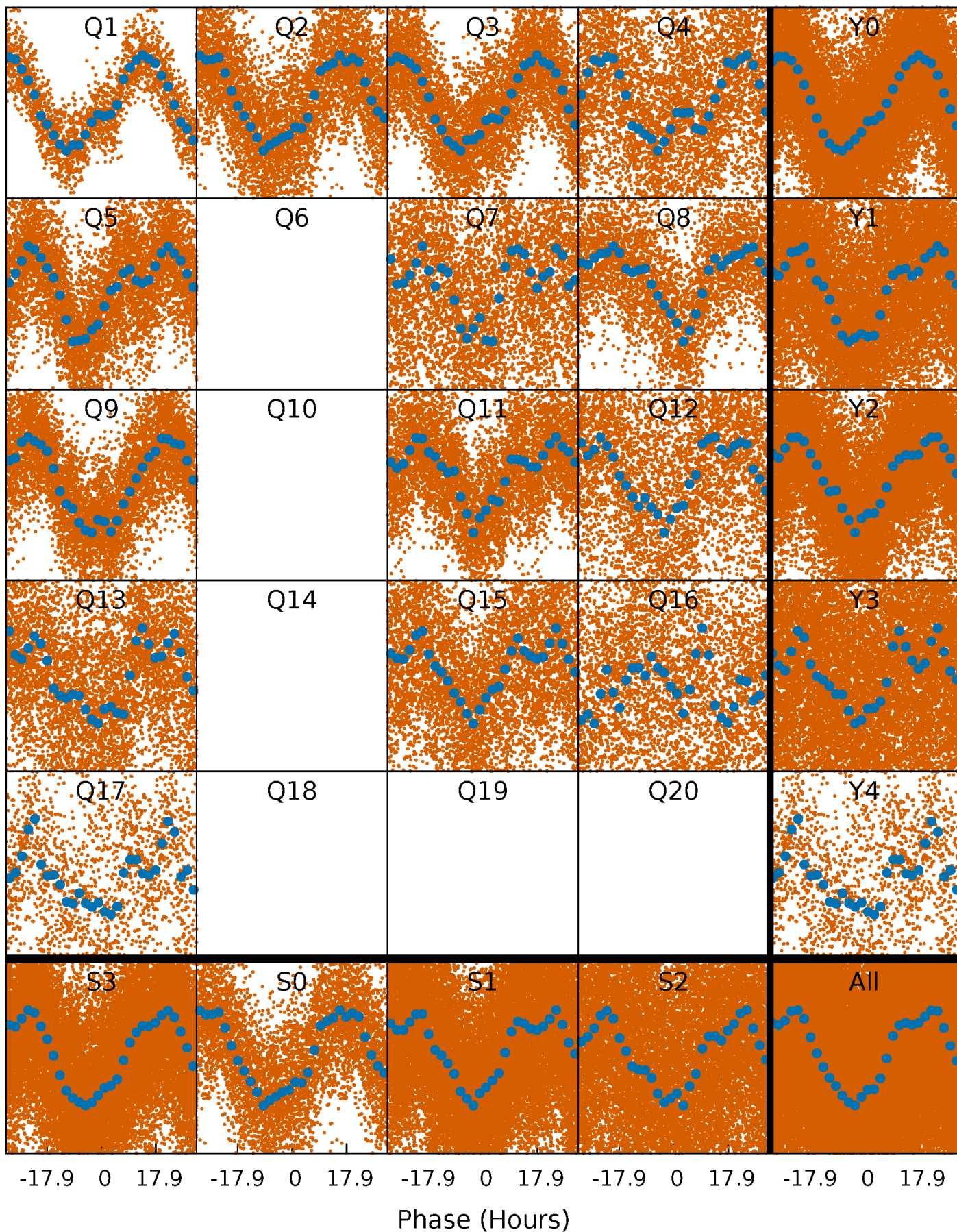


Non-Whitened Vs. Whitened Light Curve



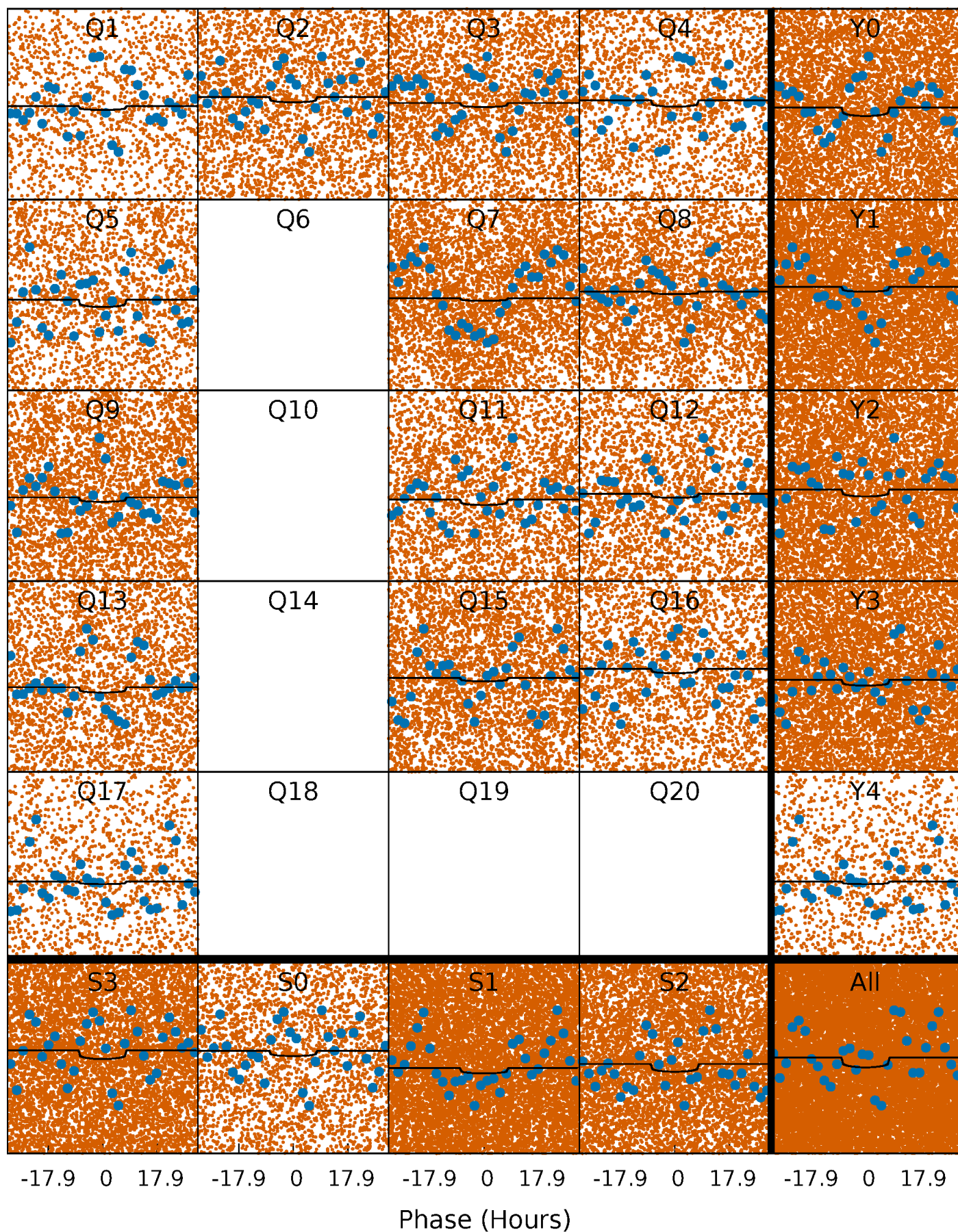
PDC Quarter-Phased Transit Curves

TCE 004485025-01 P= 1.871931 Days $T_0=131.593435$ (BKJD)



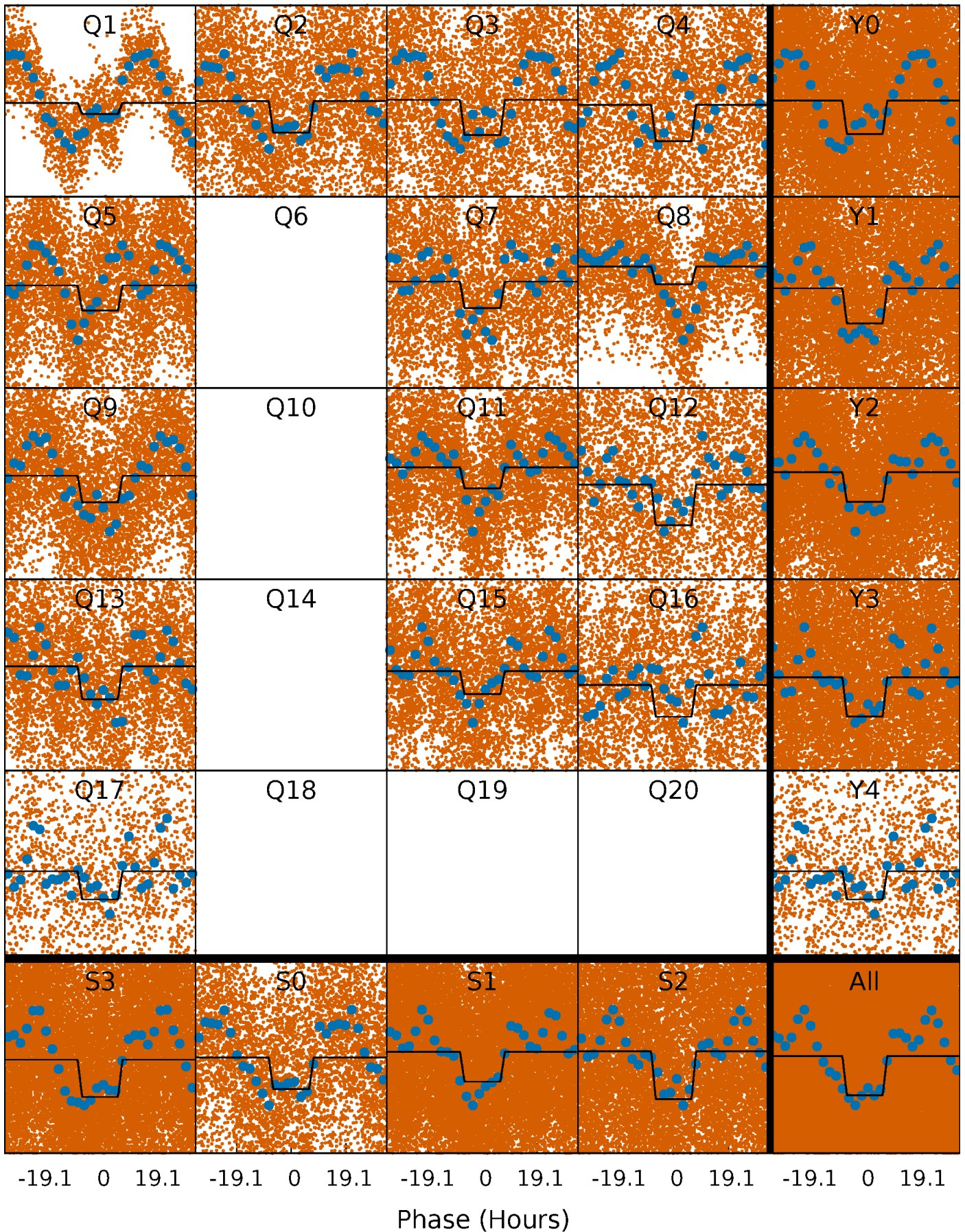
DV Quarter-Phased Transit Curves

TCE 004485025-01 P= 1.871931 Days $T_0=131.593435$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

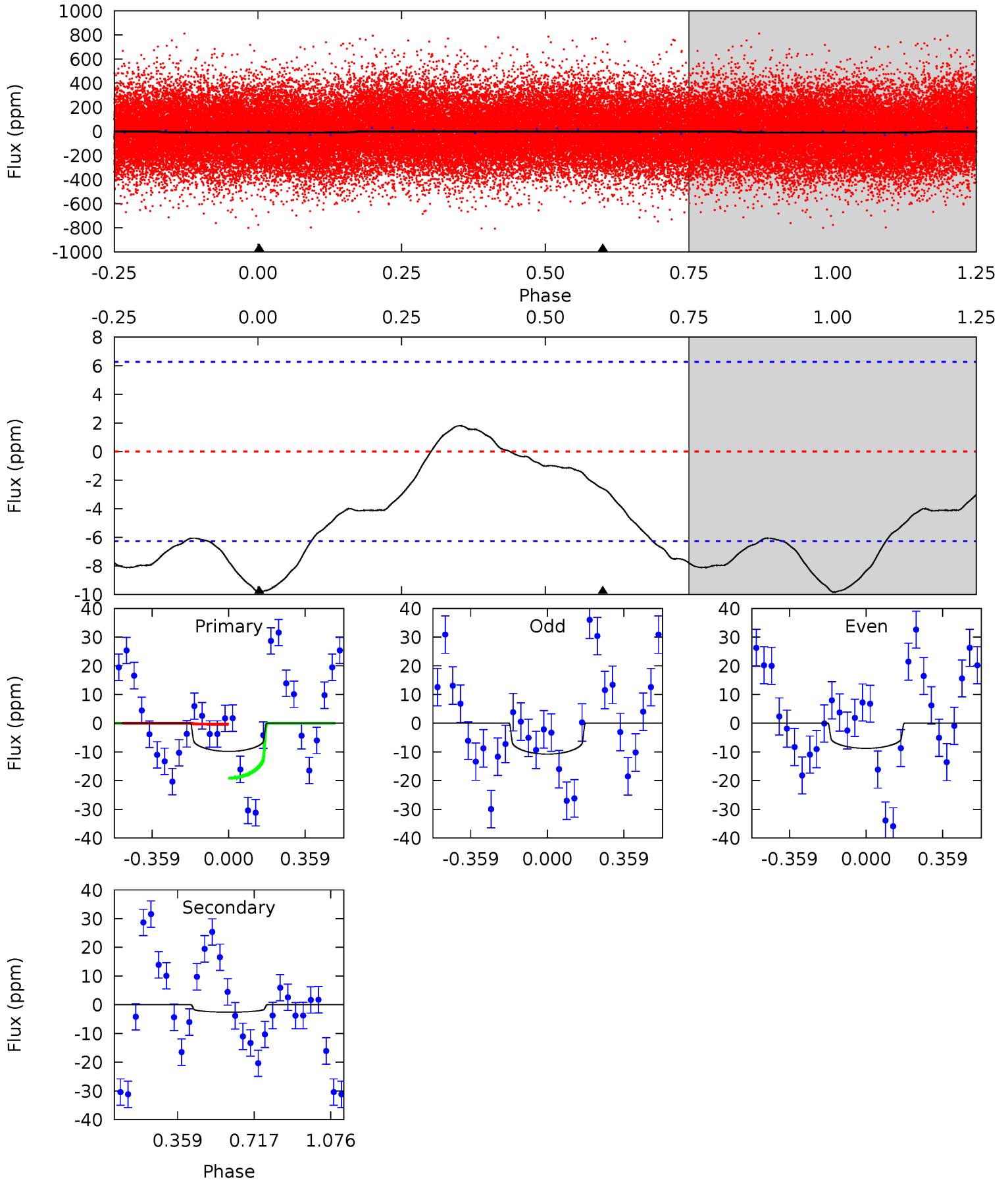
TCE 004485025-01 P= 1.871972 Days $T_0=131.568673$ (BKJD)



DV Model-Shift Uniqueness Test

004485025-01, P = 1.871931 Days, E = 129.721504 Days

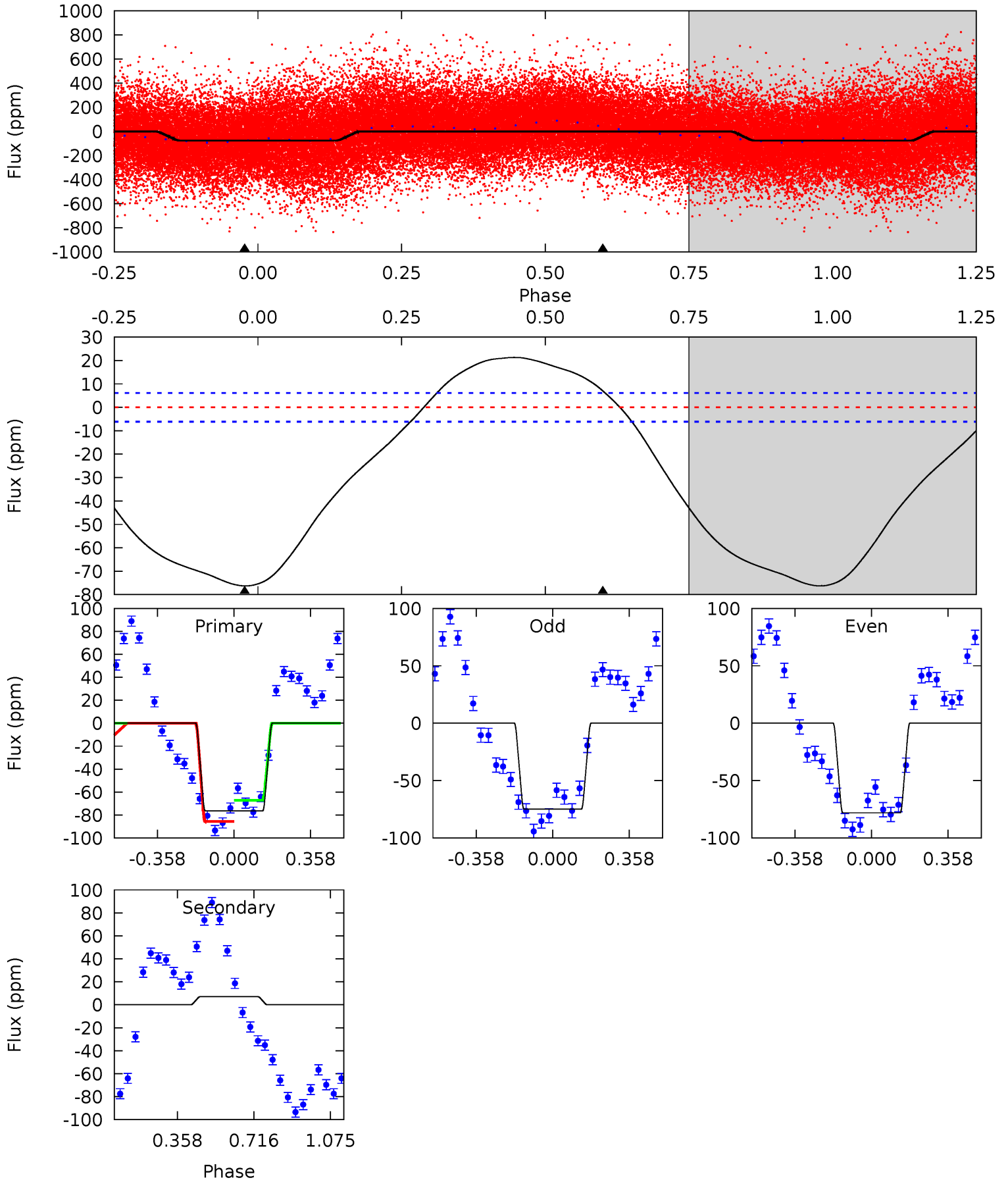
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.73	1.77	0	0	4.29	0.92	1.07	6.73	6.73	1.77	1.77	0.69	1.24	0.15	6.49



Alt Model-Shift Uniqueness Test

004485025-01, P = 1.871972 Days, E = 129.696701 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.6	-4.95	0	0	4.29	0.92	5.27	53.6	53.6	-4.95	-4.95	1.17	1.07	0.22	6.45



Stellar Parameters For KIC 004485025

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6773^{+213}_{-261}	$3.570^{+0.312}_{-0.078}$	$-0.160^{+0.300}_{-0.250}$	$3.599^{+0.409}_{-1.308}$	$1.756^{+0.185}_{-0.344}$	$0.053^{+0.116}_{-0.010}$
	+3%/-4%	+9%/-2%	+188%/-156%	+11%/-36%	+11%/-20%	+219%/-18%
Source	PHO1	FLK73	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 004485025-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 1	$1.22^{+1.04}_{-0.85}$	4074^{+267}_{-363}	4432^{+4044}_{-7349}	$1.133^{+10.913}_{-0.899}$
Alt.	7 ± 1	$3.04^{+1.33}_{-1.14}$	4102^{+237}_{-378}	-4467^{+356}_{-591}	$-0.524^{+0.273}_{-0.834}$

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 $A_{obs} \gg 1.0$

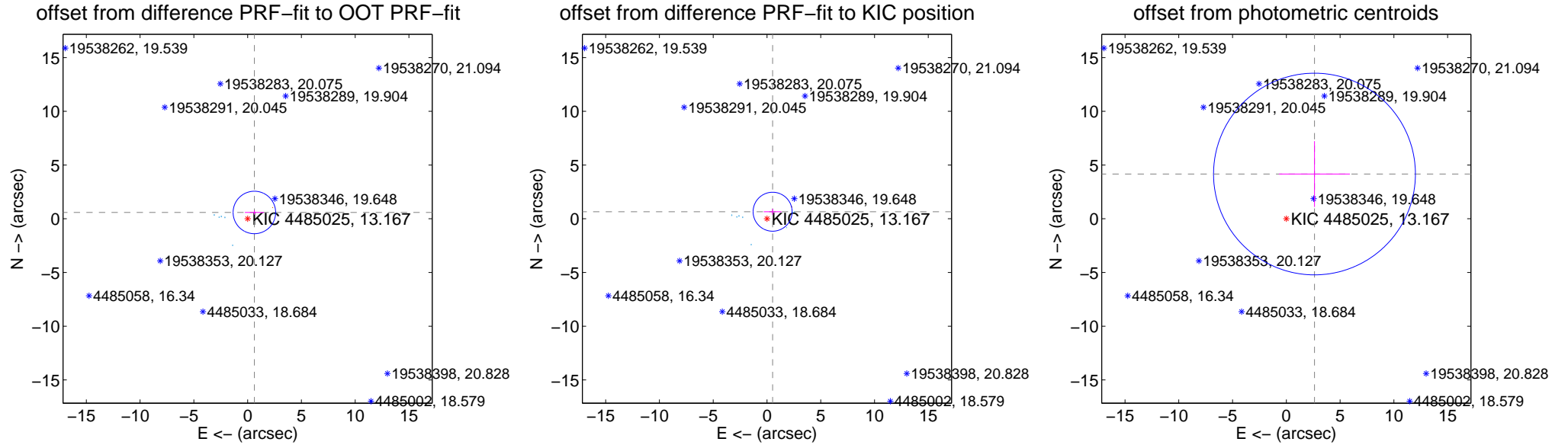
DV Centroid Data

Supplemental centroid analysis for 004485025-01. Kepler magnitude: 13.17. Transit SNR 2.30

There are 8 quarters with good PRF difference image offsets

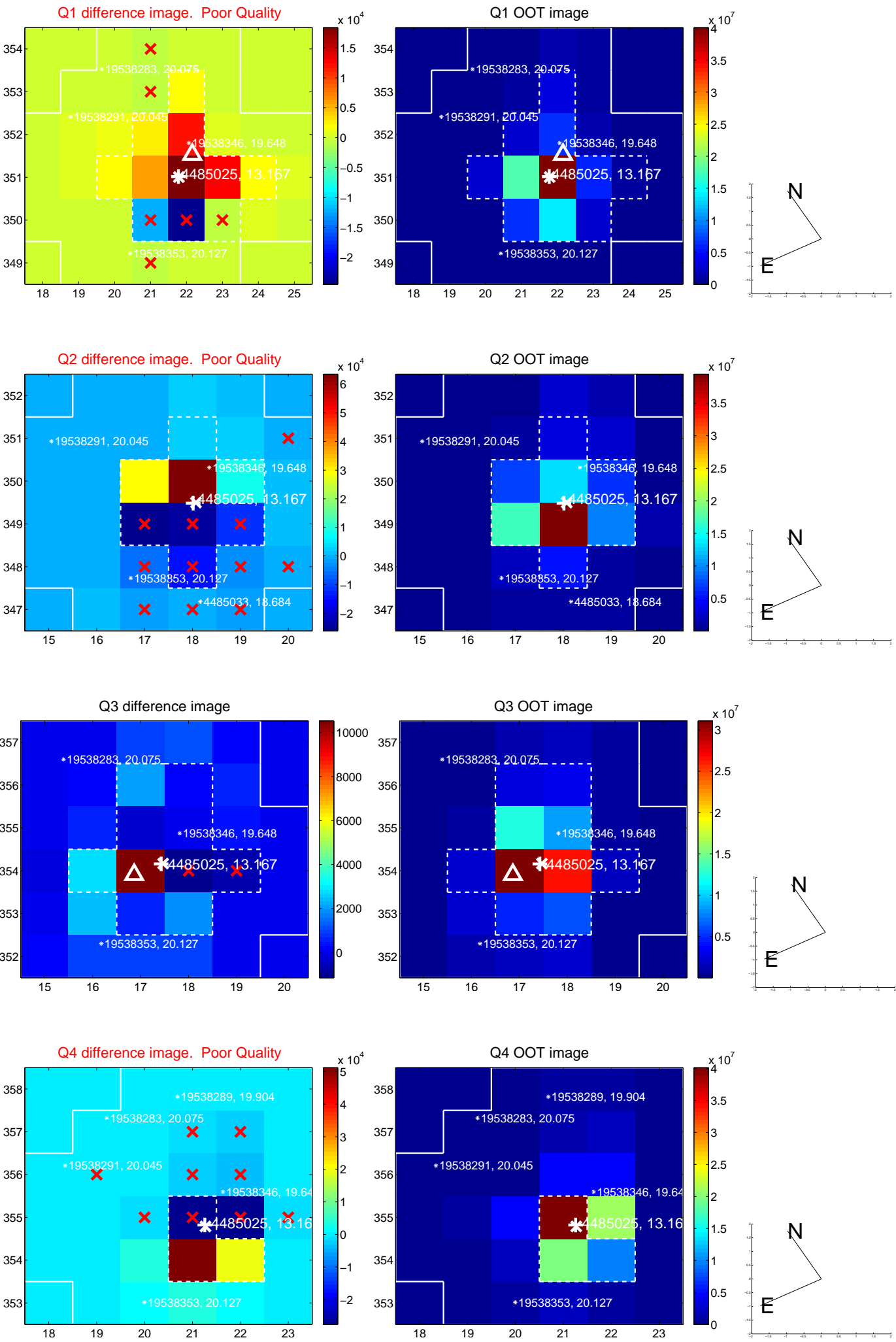
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.858 ± 0.659	1.30	-0.626 ± 0.886	0.587 ± 0.186
PRF-fit source offset from KIC position	0.839 ± 0.604	1.39	-0.523 ± 0.824	0.656 ± 0.274
photometric centroid source offset	4.92 ± 3.13	1.57	-2.62 ± 3.29	4.16 ± 3.06

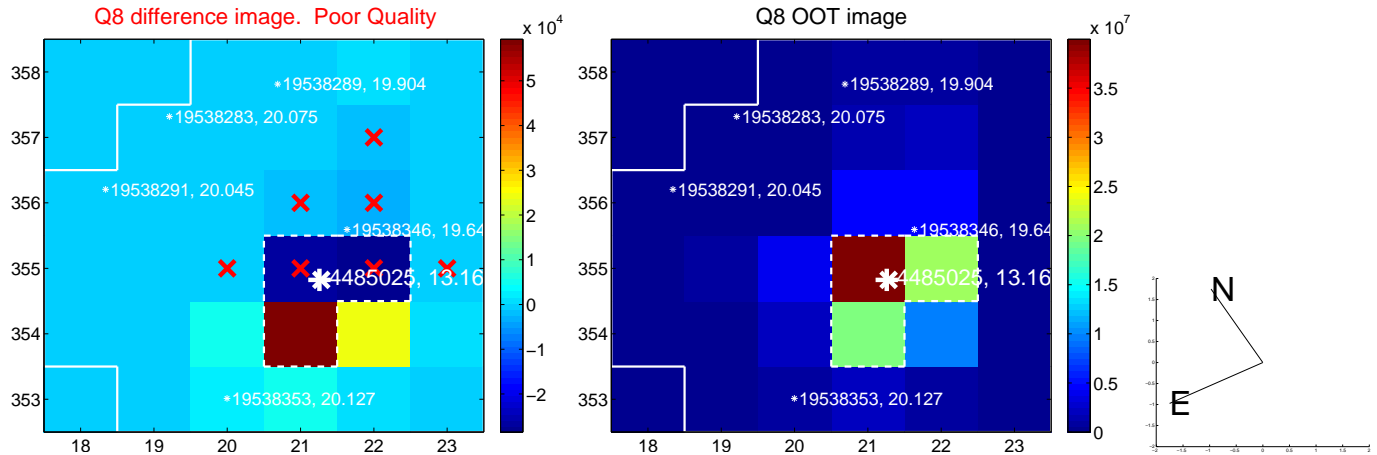
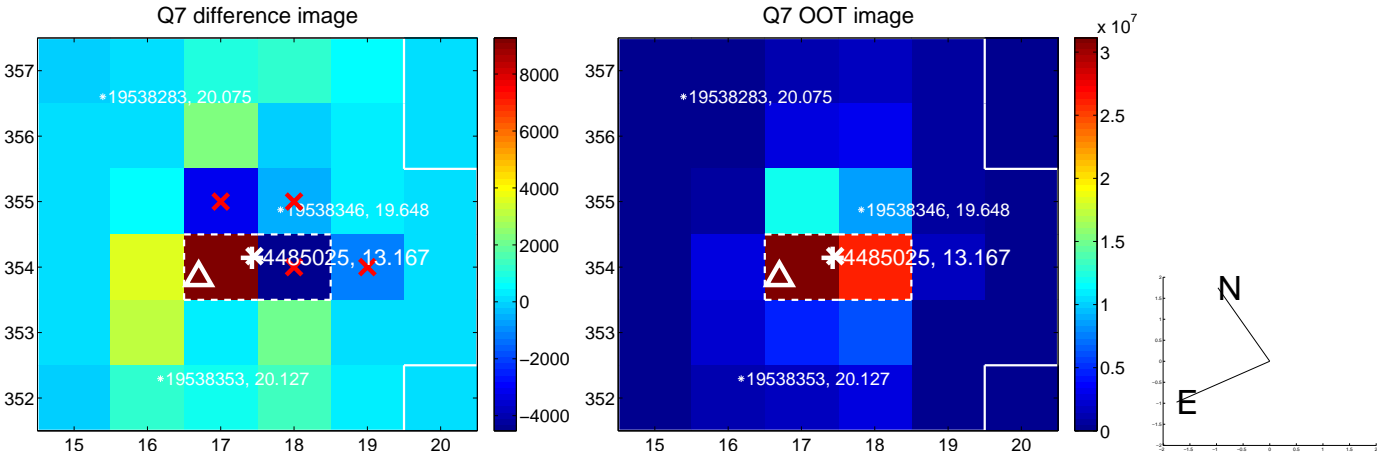
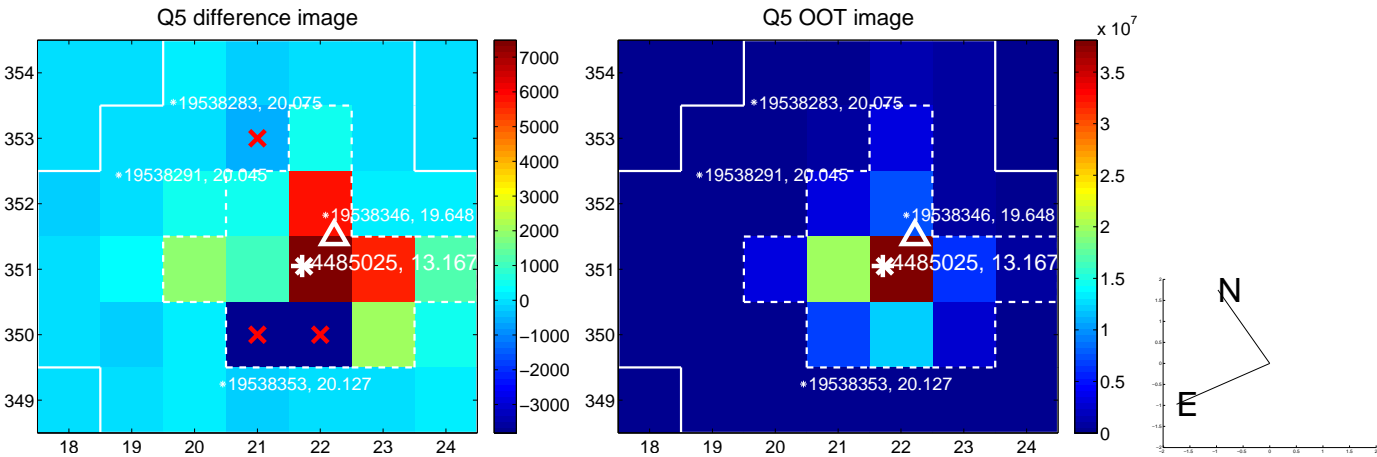


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

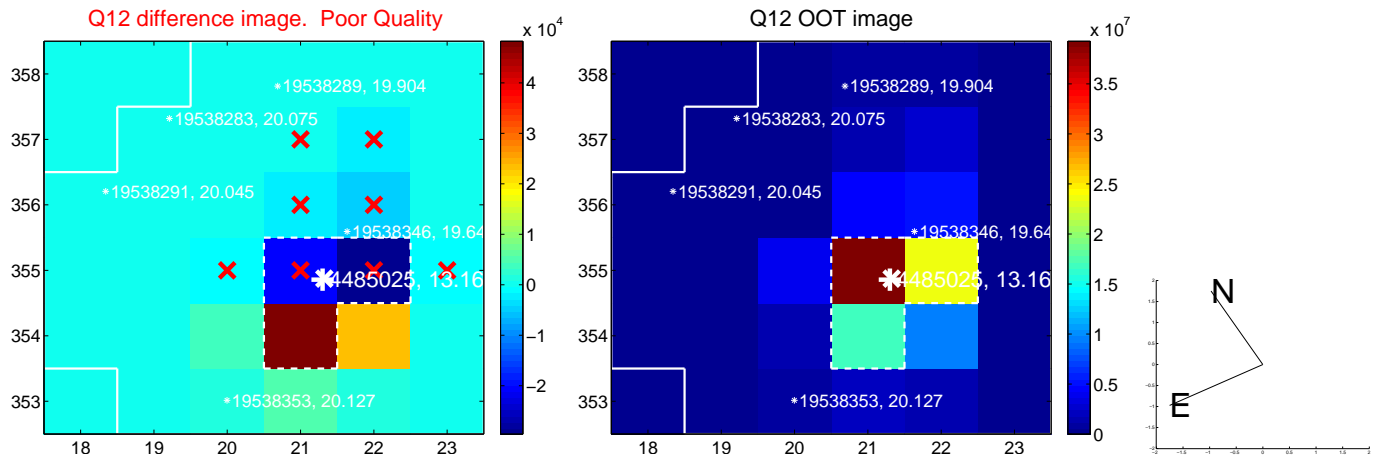
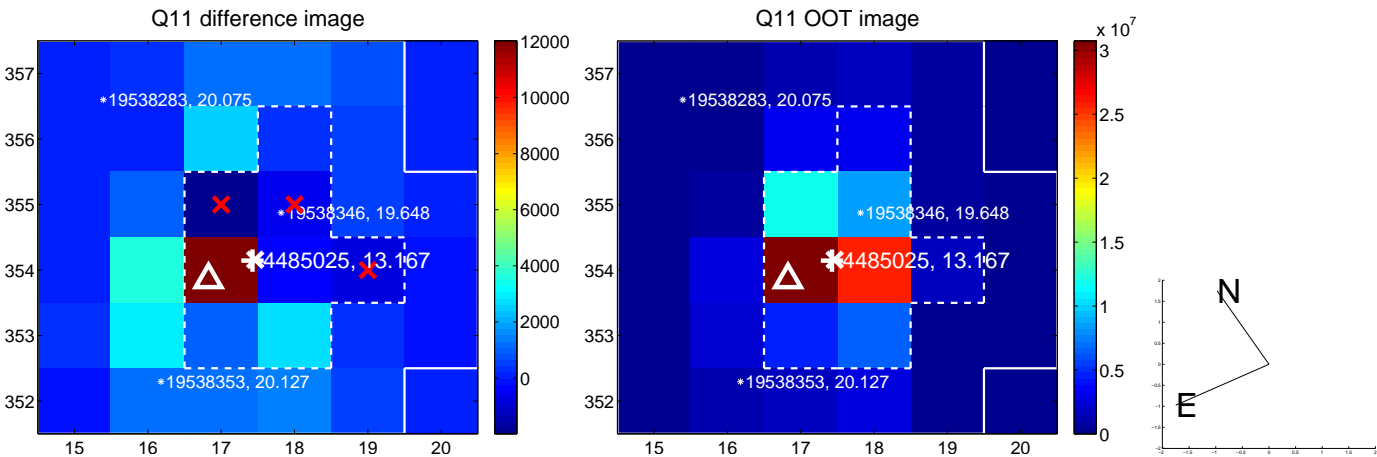
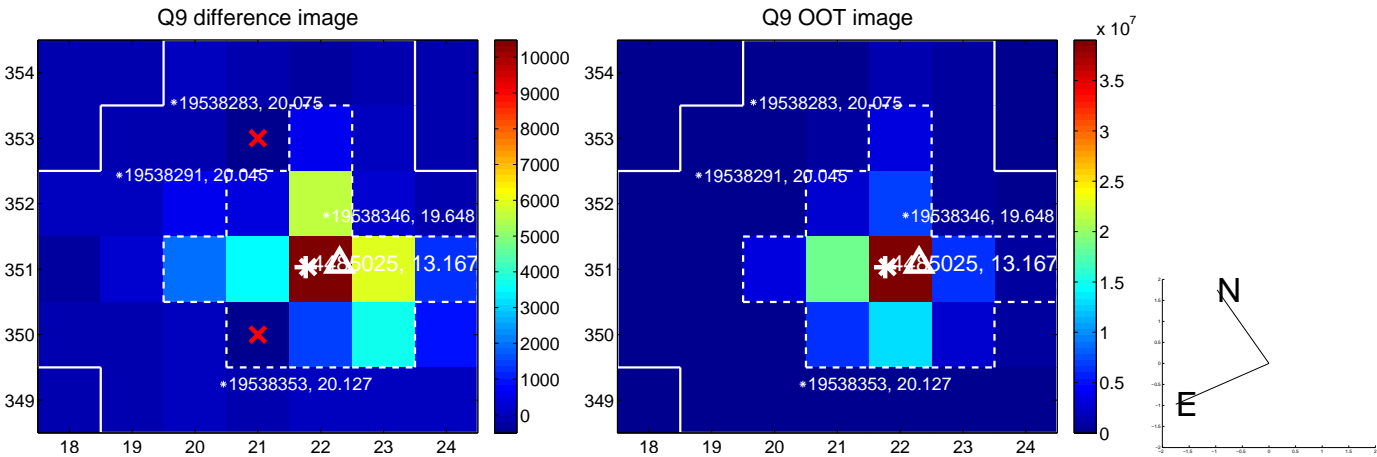
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



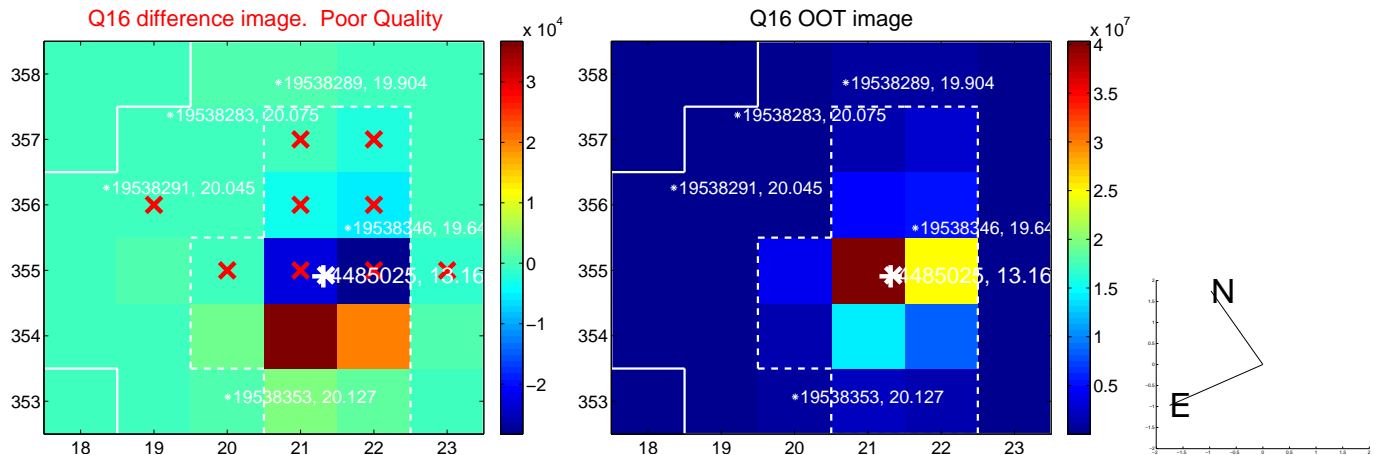
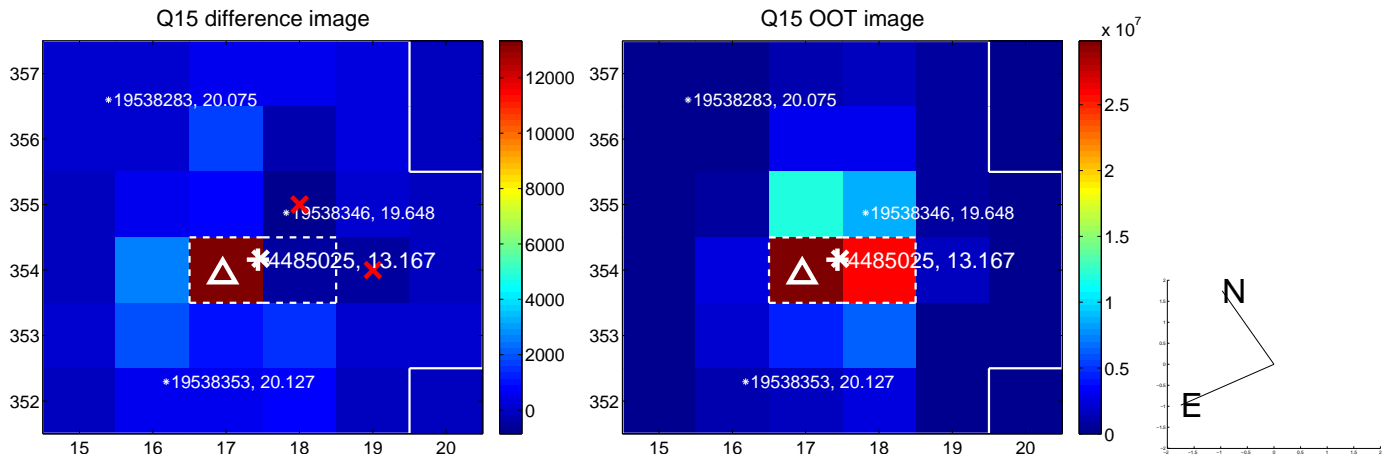
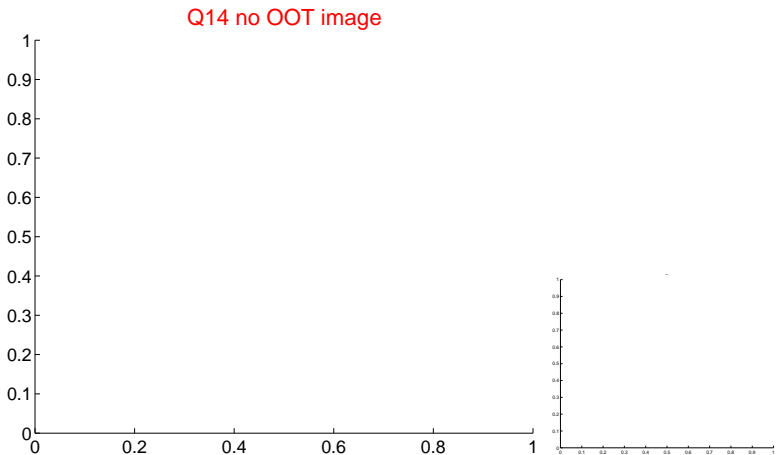
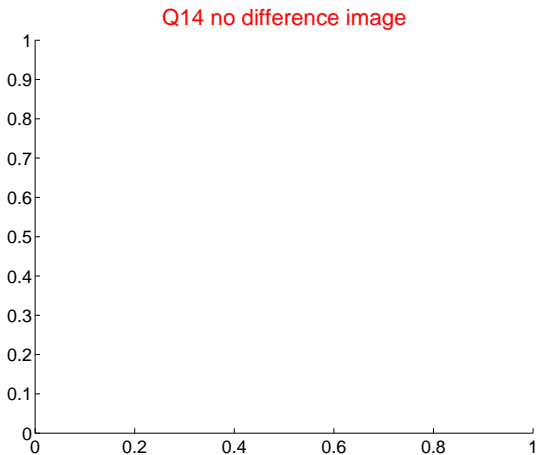
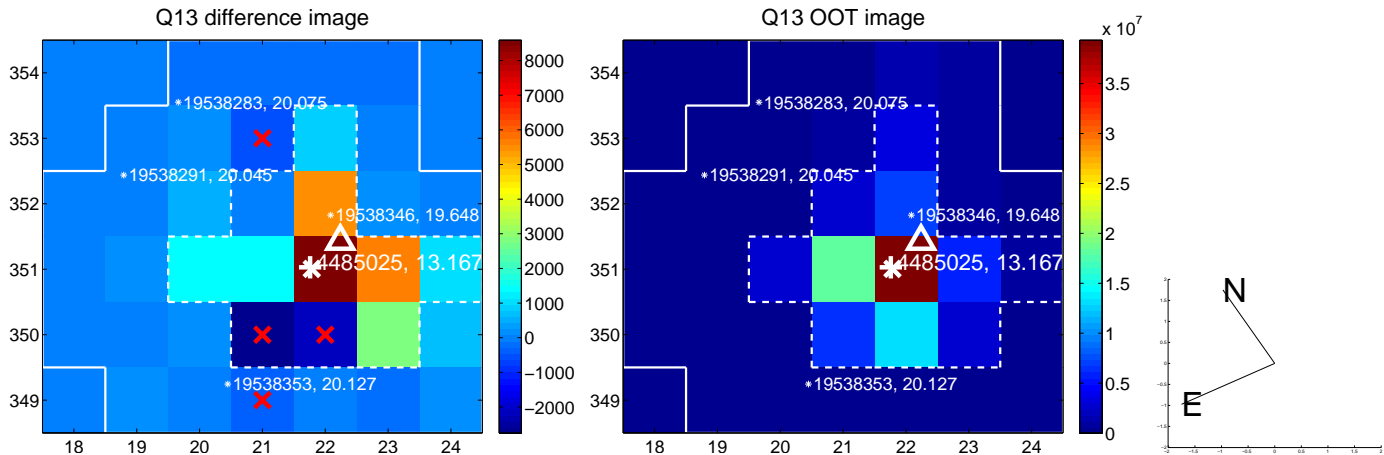
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



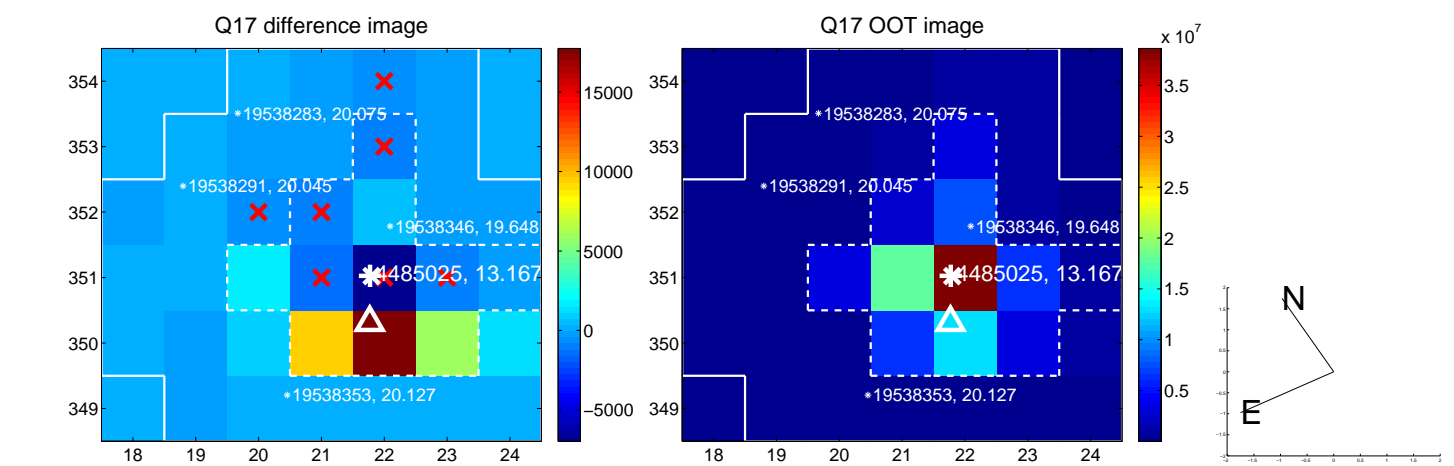
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



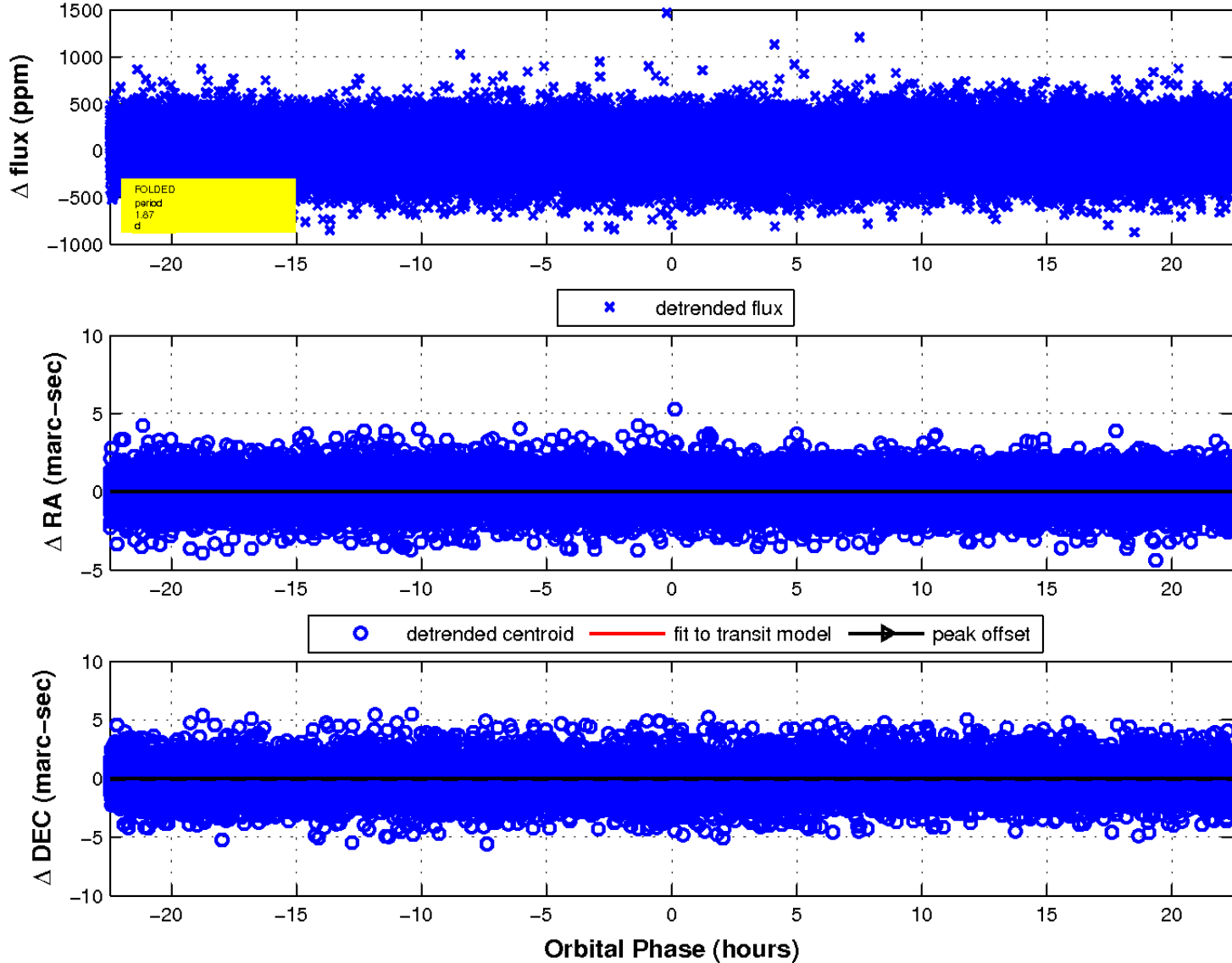
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

