

KIC 002849805

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})
002849805-01	OBS	1116.01	3.749095	135.110517	180.2	1.980	32.2	36.6	0.98	5751	1.66	428.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002849805-01	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.

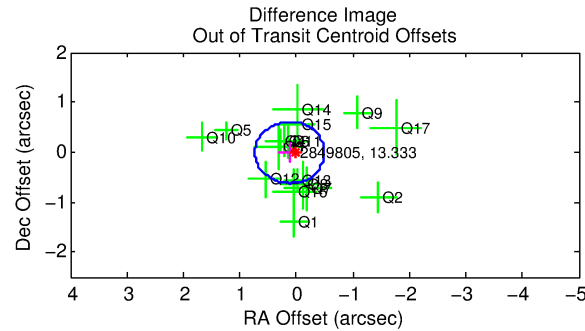
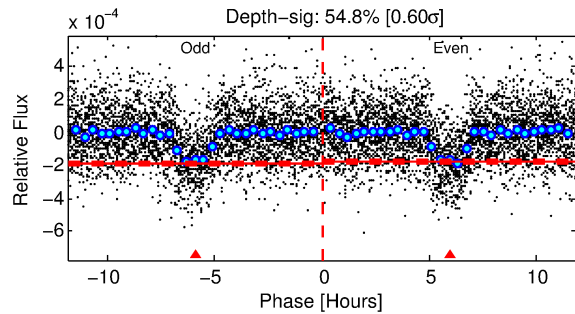
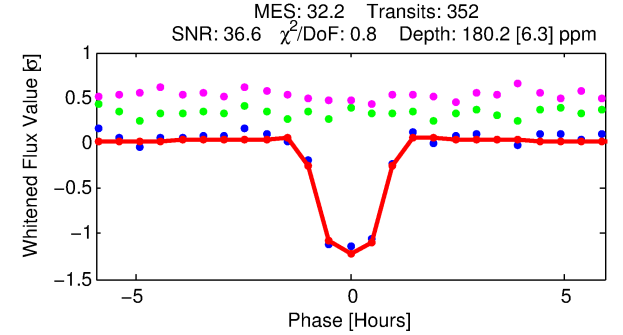
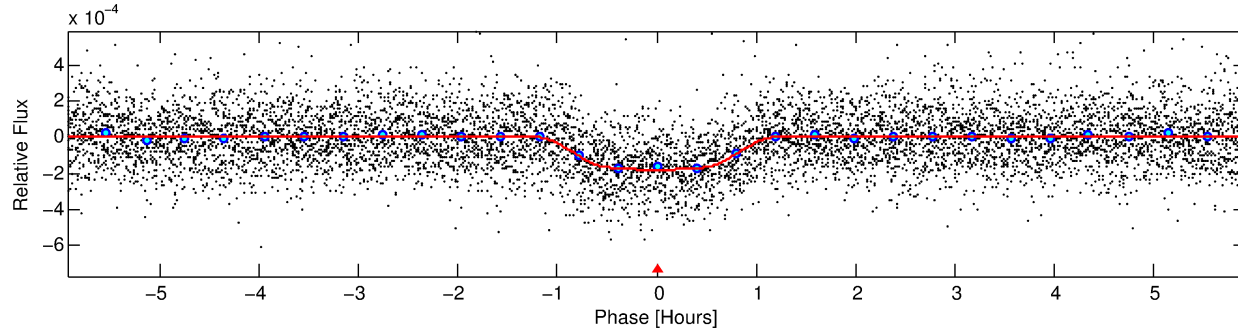
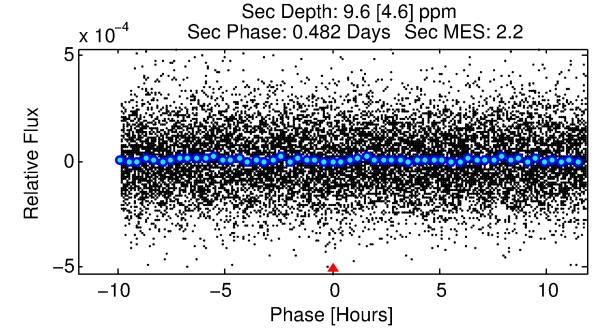
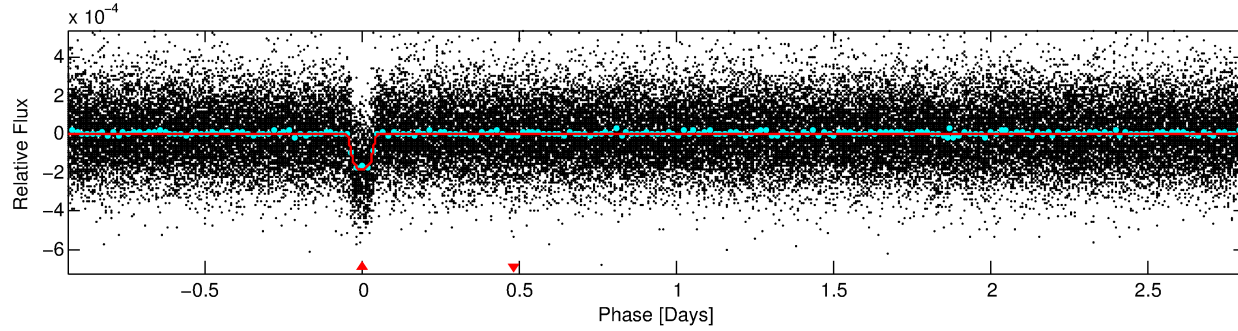
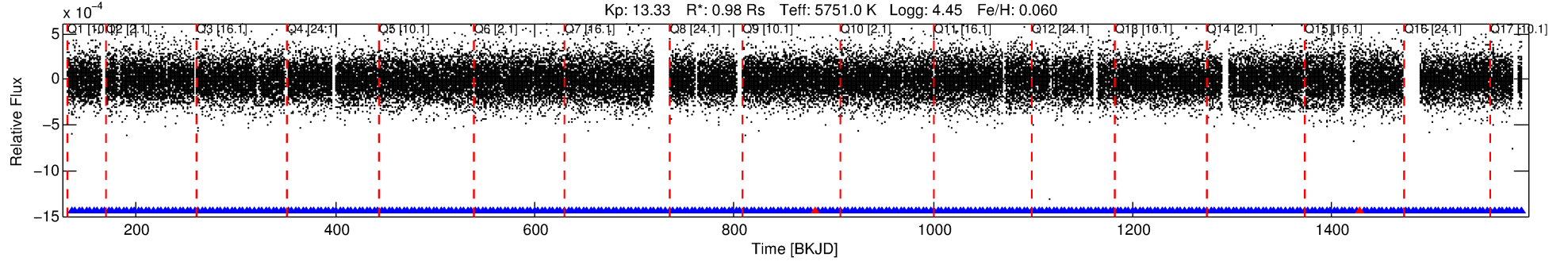
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002849805-01

No Significant Match Found

DV One-Page Summary

KIC: 2849805 Candidate: 1 of 1 Period: 3.749 d
KOI: K01116.01 Corr: 0.965



DV Fit Results:

Period = 3.74910 [0.00001] d
Epoch = 135.1105 [0.0010] BKJD
Rp/R* = 0.0155 [0.0017]
a/R* = 5.59 [2.92]
b = 0.94 [0.07]
Seff = 428.22 [94.66]
Teff = 1160 [64] K
Rp = 1.66 [0.31] Re
a = 0.0470 [0.0064] AU
Ag = 4.23 [2.42] [1.34σ]
Teffp = 2573 [346] K [4.01σ]

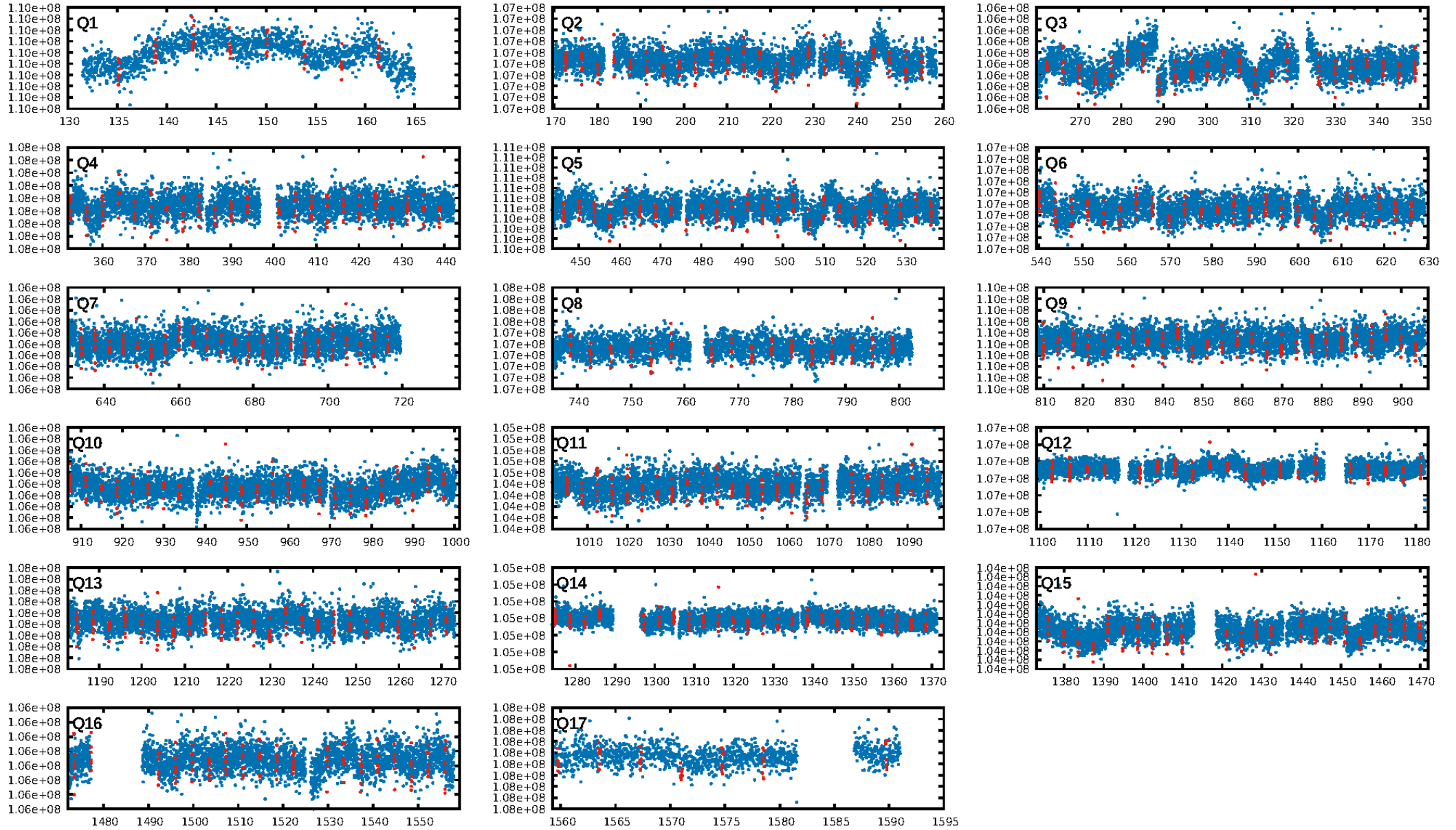
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.02e-225
RollingBand-fgt: 0.99 [335/337]
GhostDiagnostic-chr: 6.15
Centroid-sig: 2.7%
Centroid-so: 1.294 arcsec [3.55σ]
OotOffset-rm: 0.120 arcsec [0.58σ]
KicOffset-rm: 0.045 arcsec [0.23σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

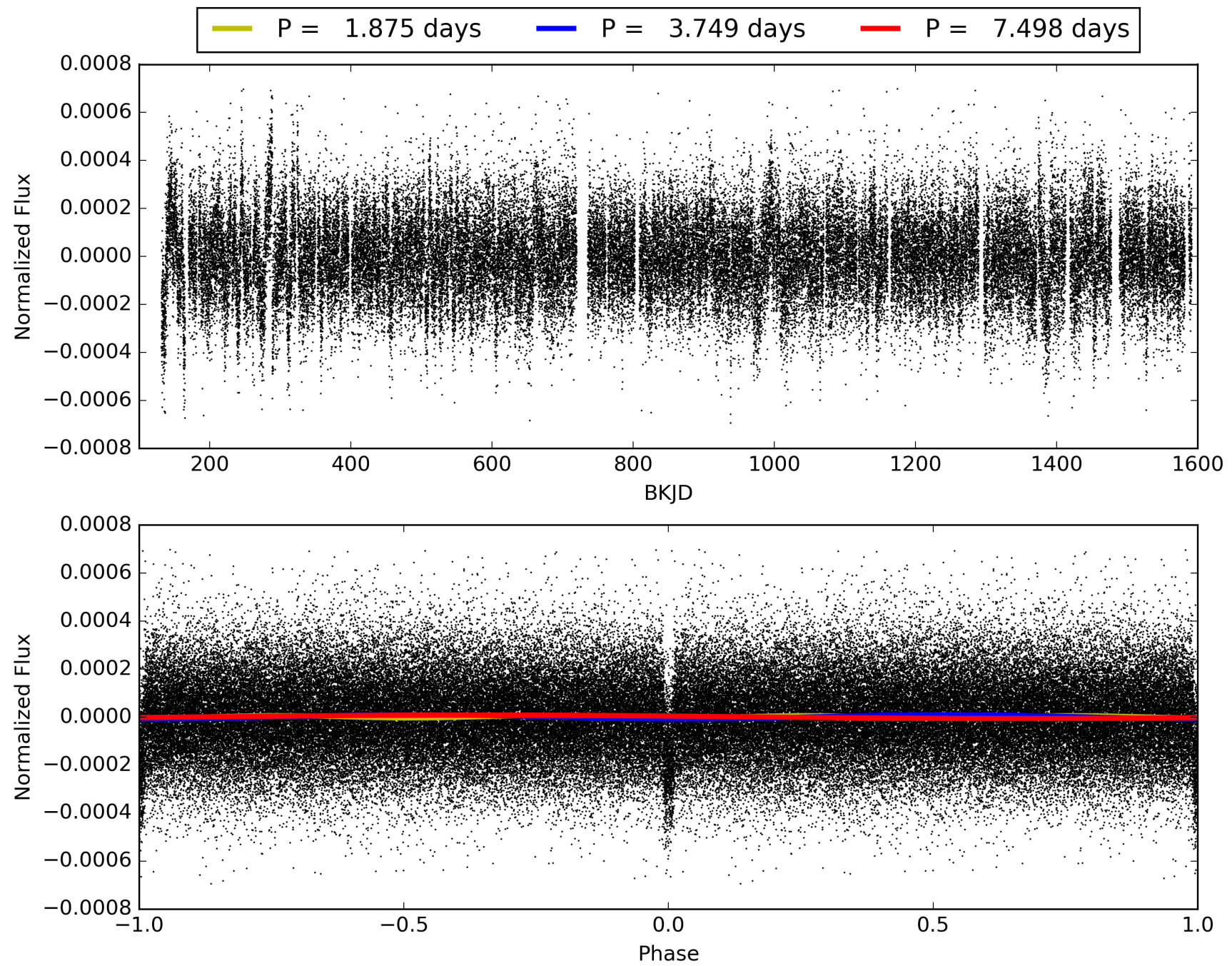
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:28:23 Z

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

TCE 002849805-01, PDC Light Curves

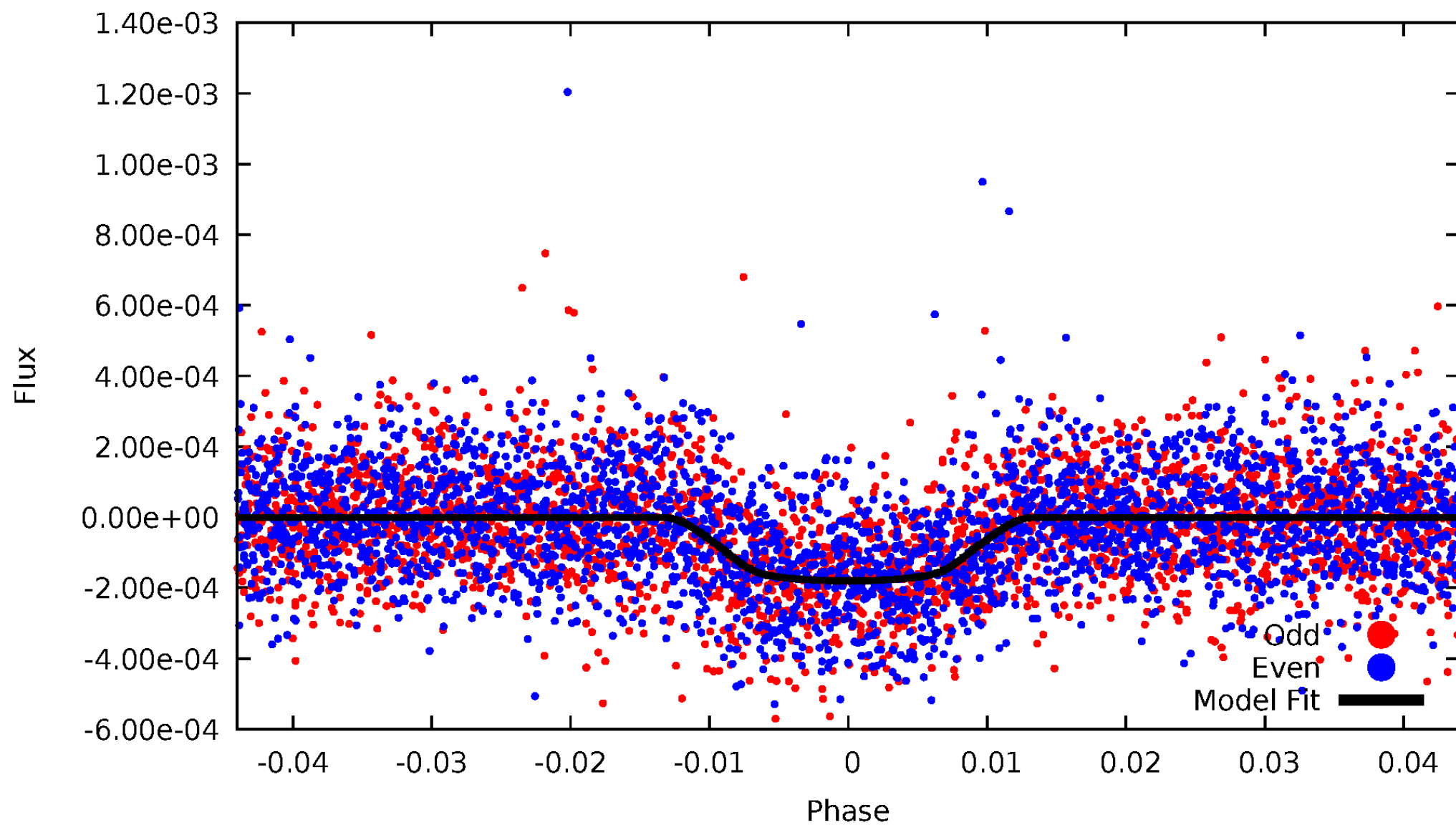


TCE 002849805-01



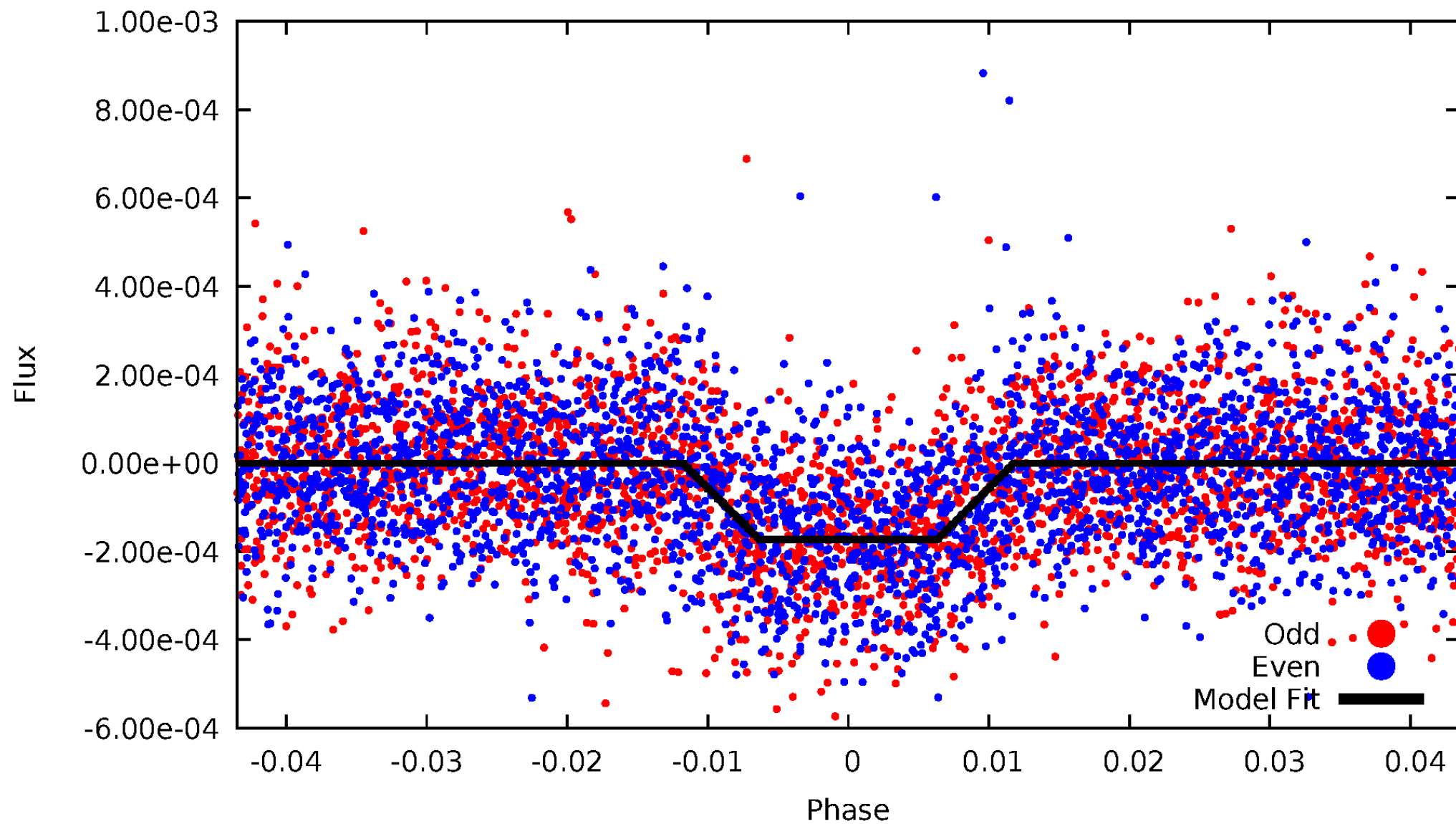
DV Odd/Even

TCE 002849805-01



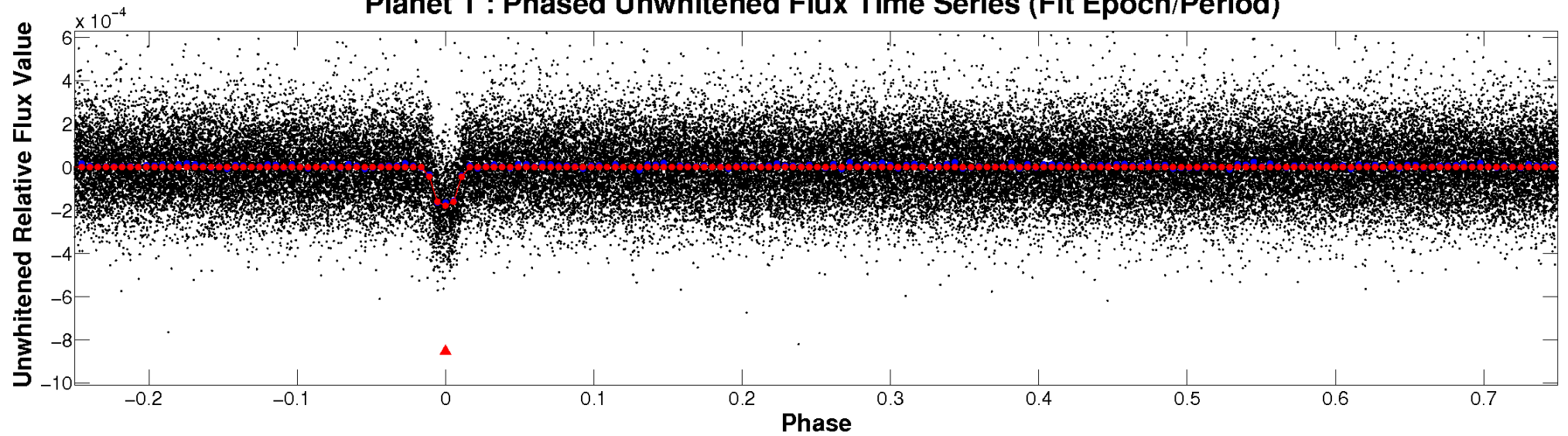
ALT Odd/Even

TCE 002849805-01

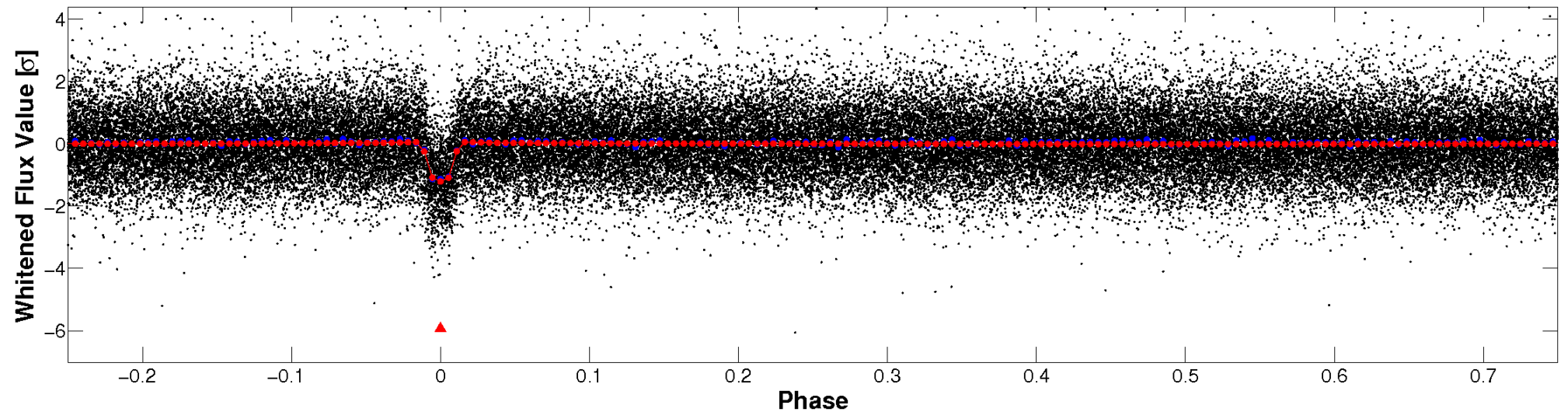


Non-Whitened Vs. Whitened Light Curve

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

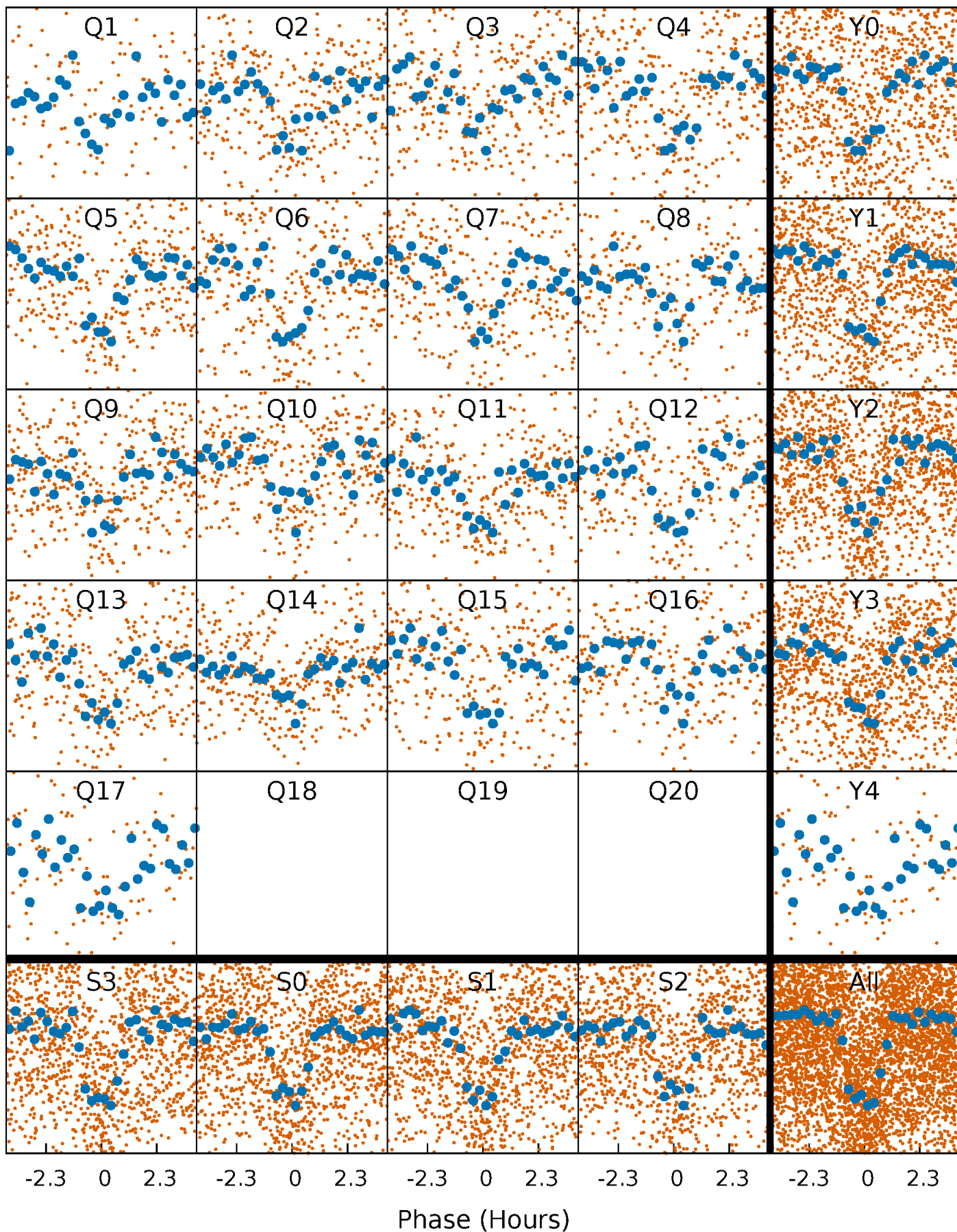


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



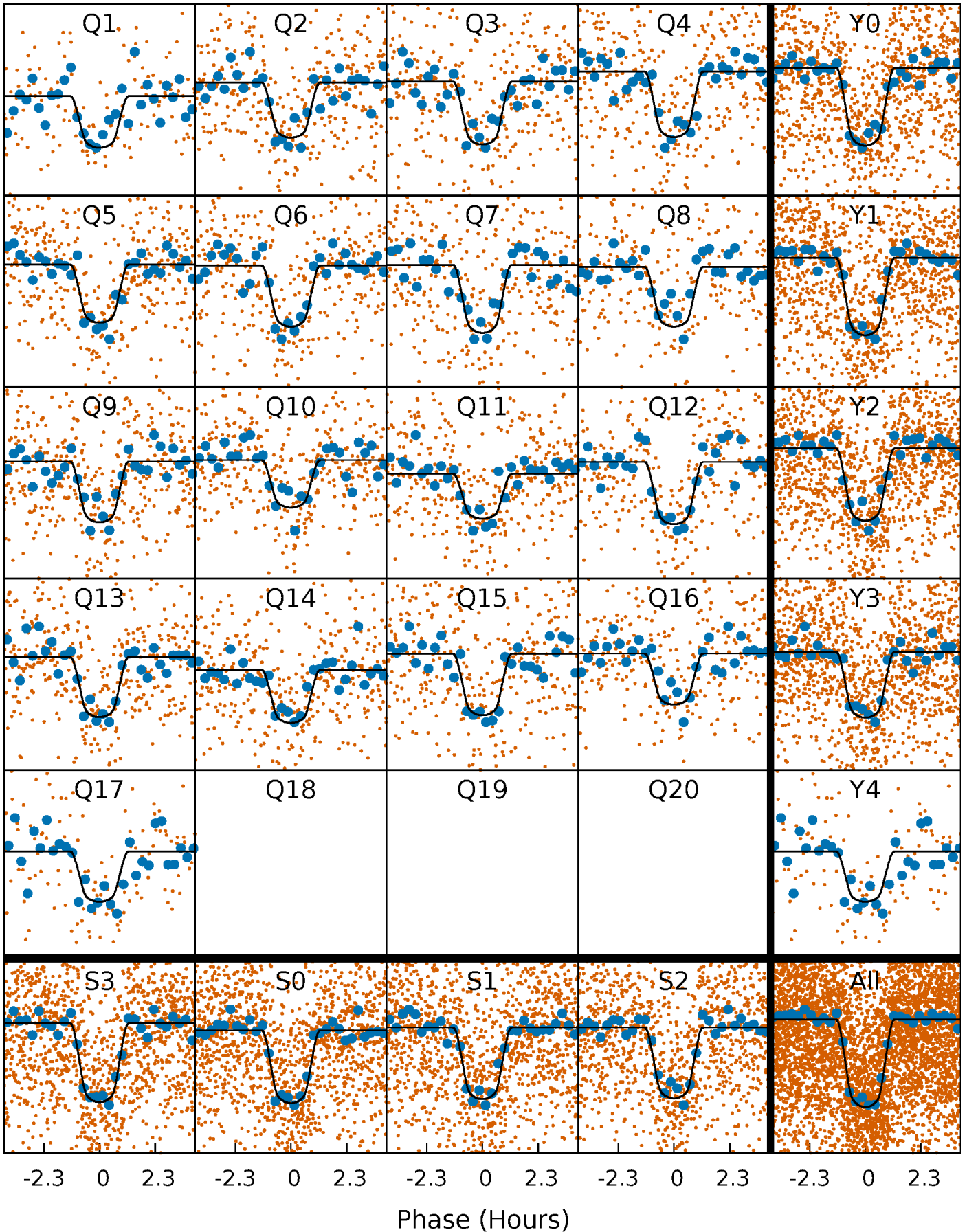
PDC Quarter-Phased Transit Curves

TCE 002849805-01 P= 3.749095 Days $T_0=135.110517$ (BKJD)



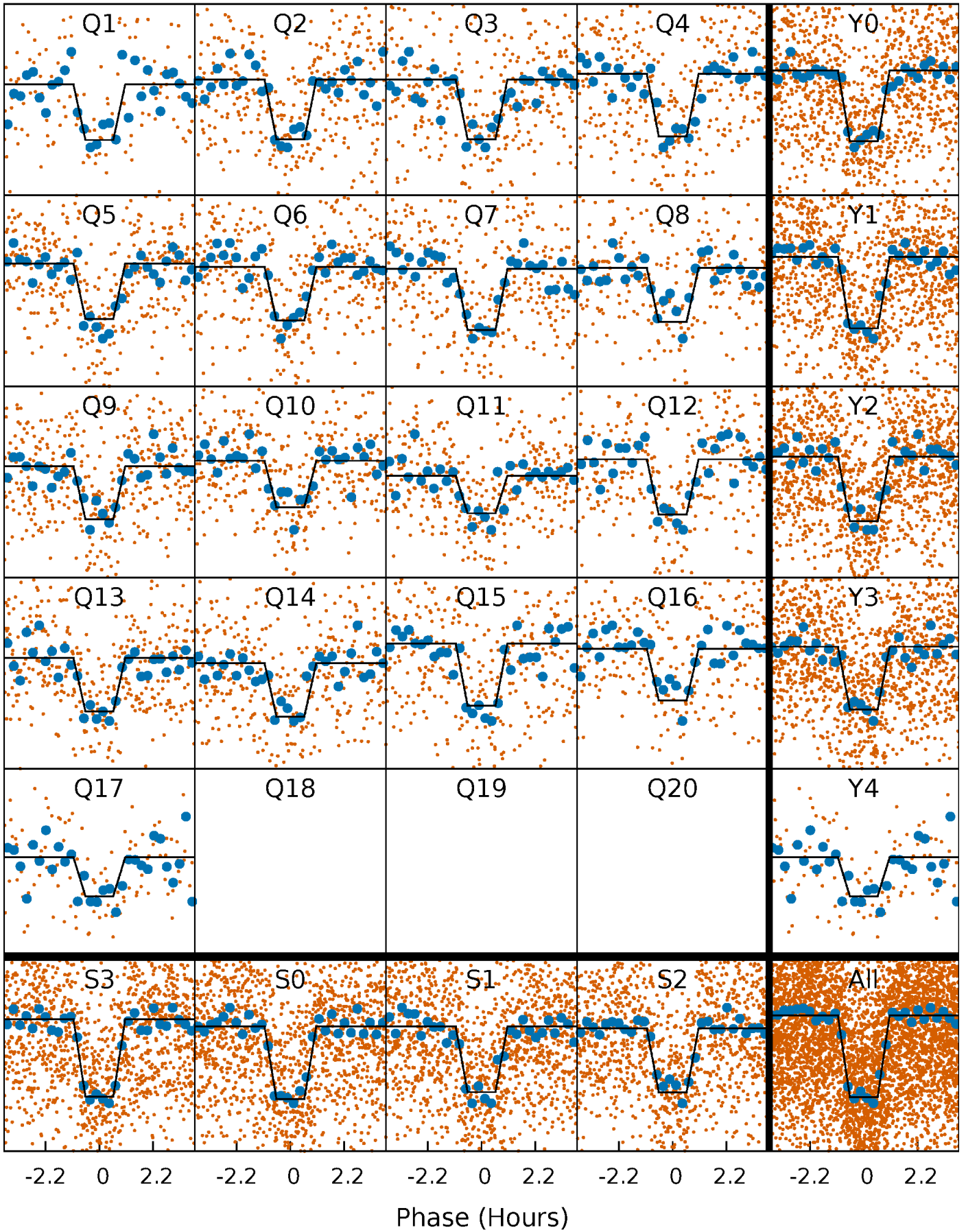
DV Quarter-Phased Transit Curves

TCE 002849805-01 P= 3.749095 Days $T_0=135.110517$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

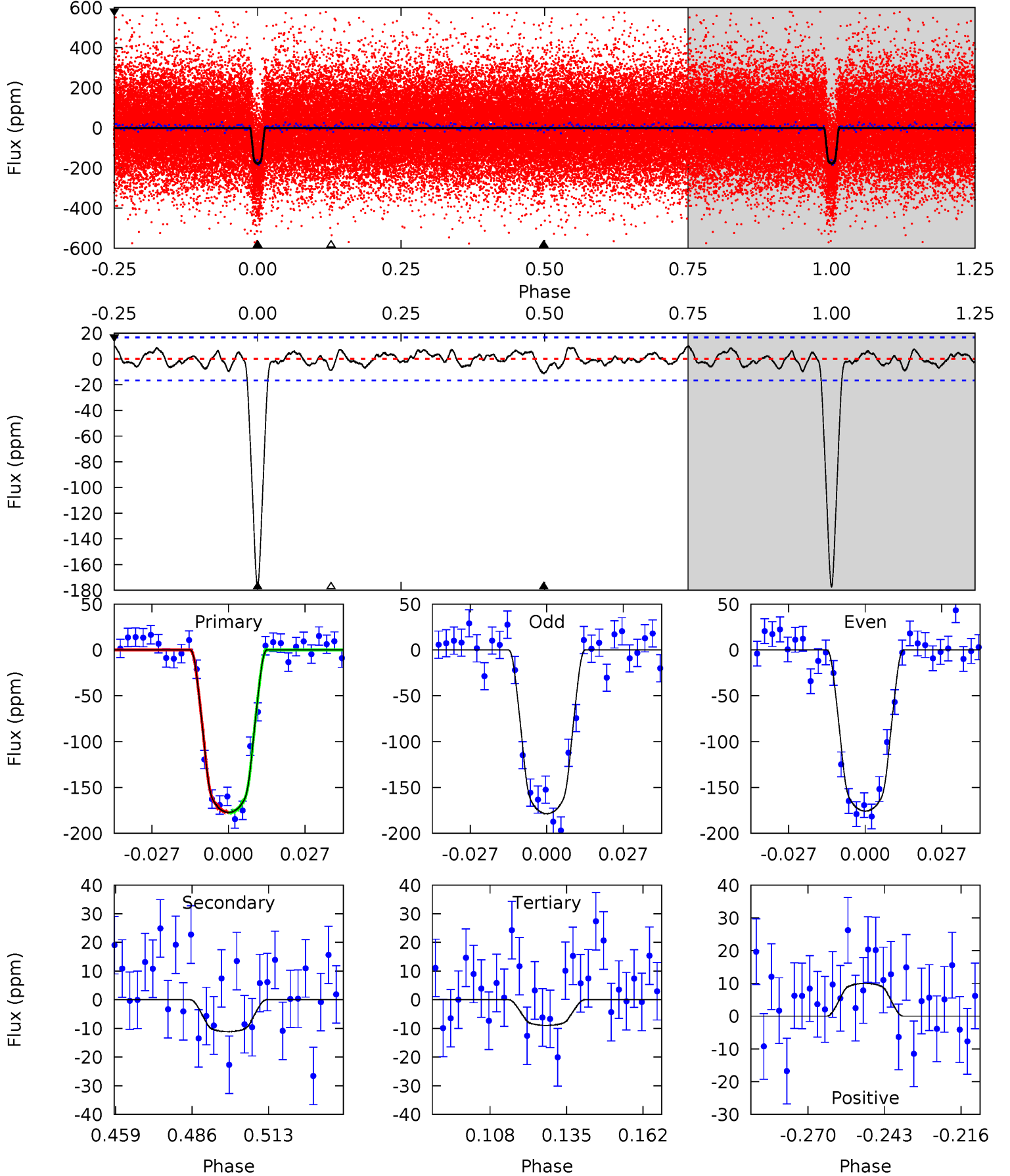
TCE 002849805-01 P= 3.749102 Days $T_0=135.108835$ (BKJD)



DV Model-Shift Uniqueness Test

002849805-01, P = 3.749095 Days, E = 131.361422 Days

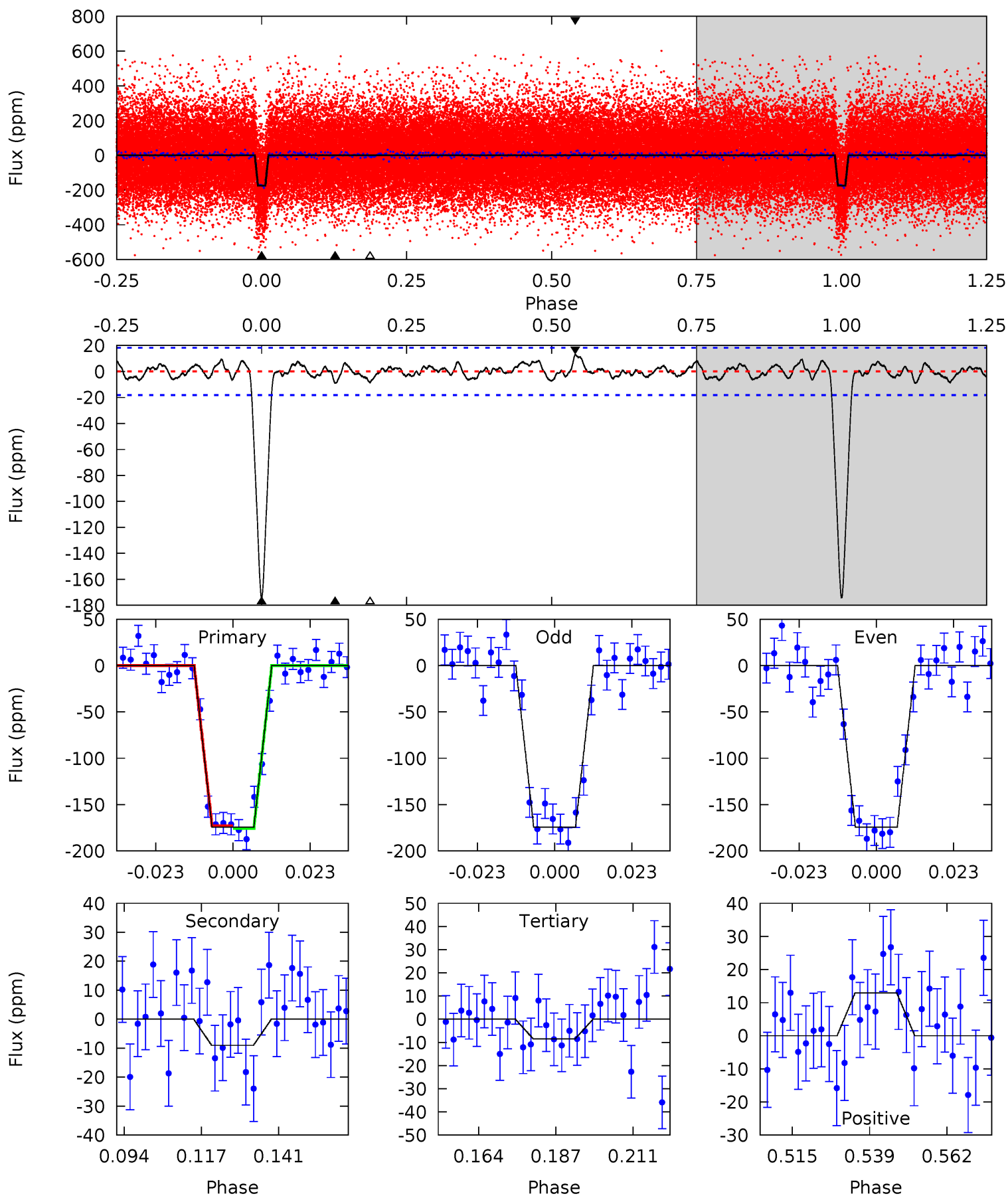
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.3	3.22	2.59	2.89	4.83	2.21	1.14	48.7	48.4	0.63	0.33	0.41	0.97	0.05	0.10



Alt Model-Shift Uniqueness Test

002849805-01, P = 3.749102 Days, E = 131.359733 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.6	2.42	2.28	3.45	4.86	2.27	1.05	44.3	43.2	0.14	-1.04	0.01	1.00	0.07	0.39



Stellar Parameters For KIC 002849805

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5751^{+104}_{-115}	$4.447^{+0.063}_{-0.117}$	$0.060^{+0.150}_{-0.150}$	$0.983^{+0.149}_{-0.080}$	$0.987^{+0.068}_{-0.068}$	$1.462^{+0.358}_{-0.490}$
	+2%/-2%	+1%/-3%	+250%/-250%	+15%/-8%	+7%/-7%	+25%/-34%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 002849805-01 / KOI 1116.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 3	$1.69^{+0.23}_{-0.22}$	1633^{+71}_{-54}	3199^{+206}_{-208}	$4.578^{+2.377}_{-1.720}$
Alt.	-9 ± 4	$1.44^{+0.21}_{-0.21}$	1628^{+70}_{-52}	3252^{+258}_{-256}	$5.128^{+3.265}_{-2.163}$

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 $A_{obs} \gg 1.0$

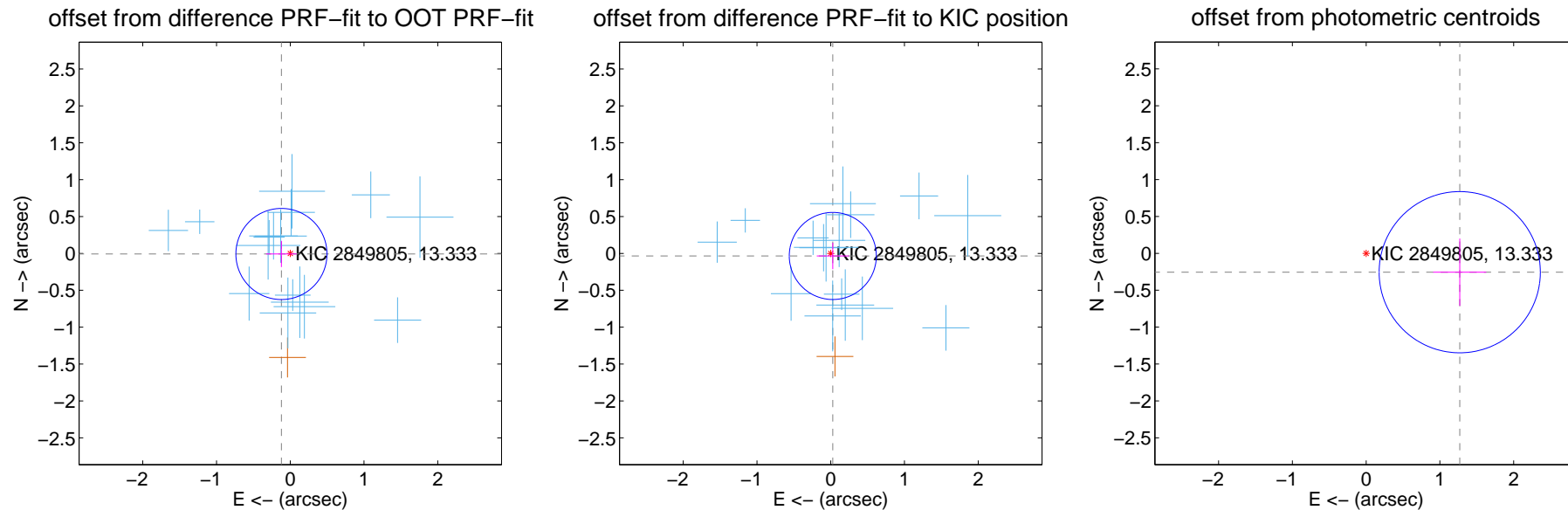
DV Centroid Data

Supplemental centroid analysis for 002849805-01. Kepler magnitude: 13.33. Transit SNR 36.56

There are 16 quarters with good PRF difference image offsets

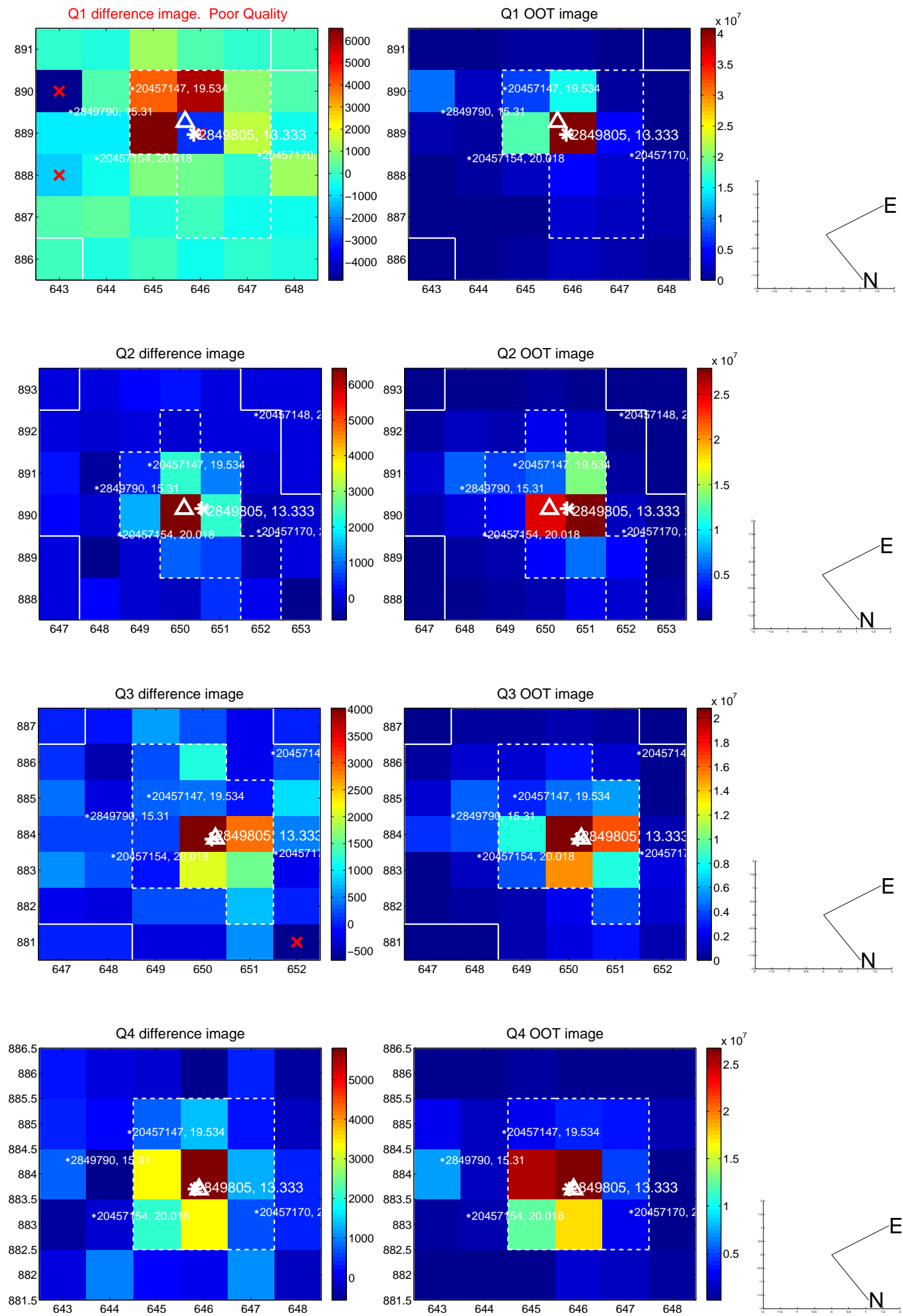
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.120 ± 0.206	0.58	0.120 ± 0.207	-0.008 ± 0.178
PRF-fit source offset from KIC position	0.045 ± 0.197	0.23	-0.028 ± 0.218	-0.035 ± 0.179
photometric centroid source offset	1.29 ± 0.36	3.55	-1.27 ± 0.36	-0.26 ± 0.46

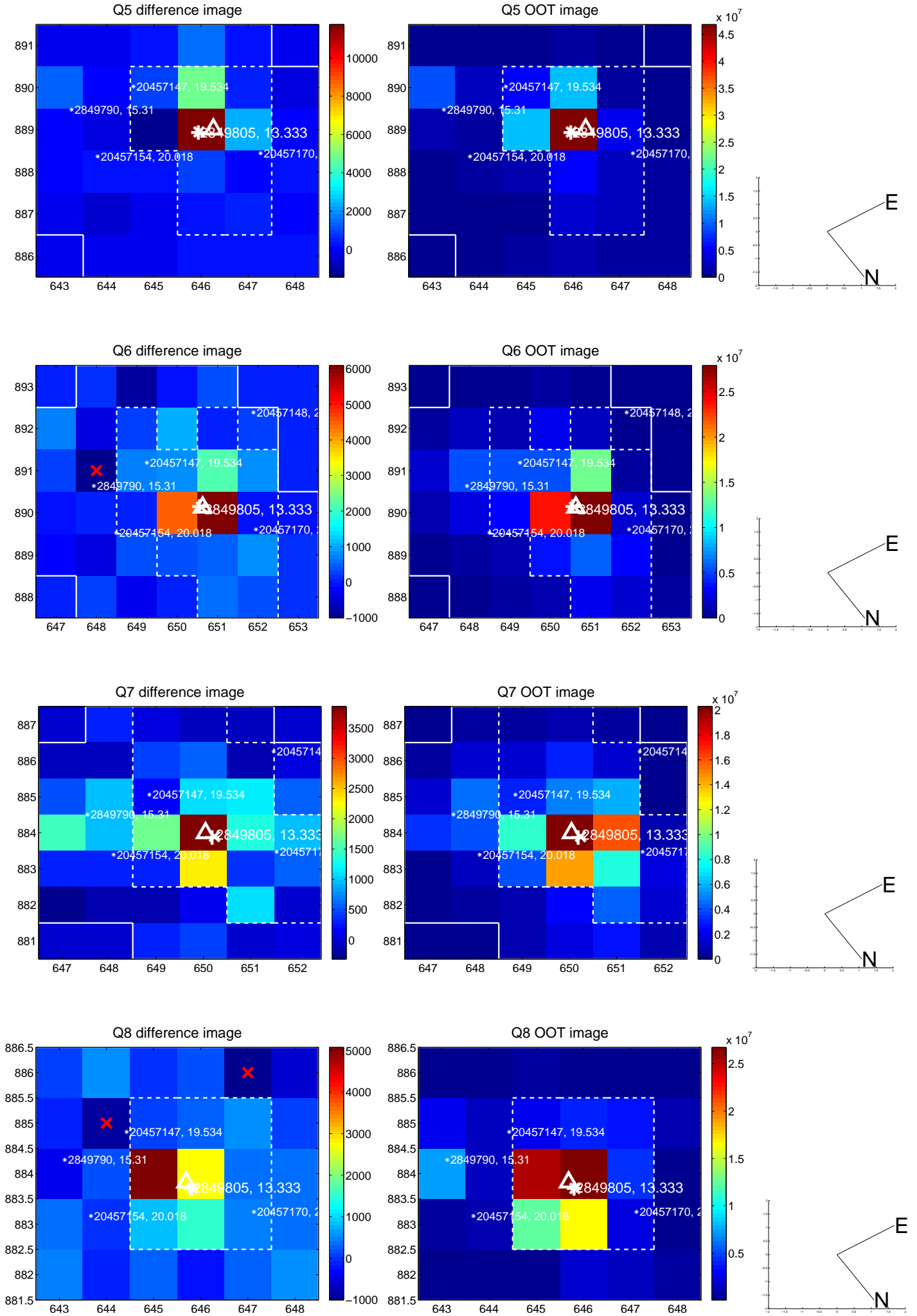


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

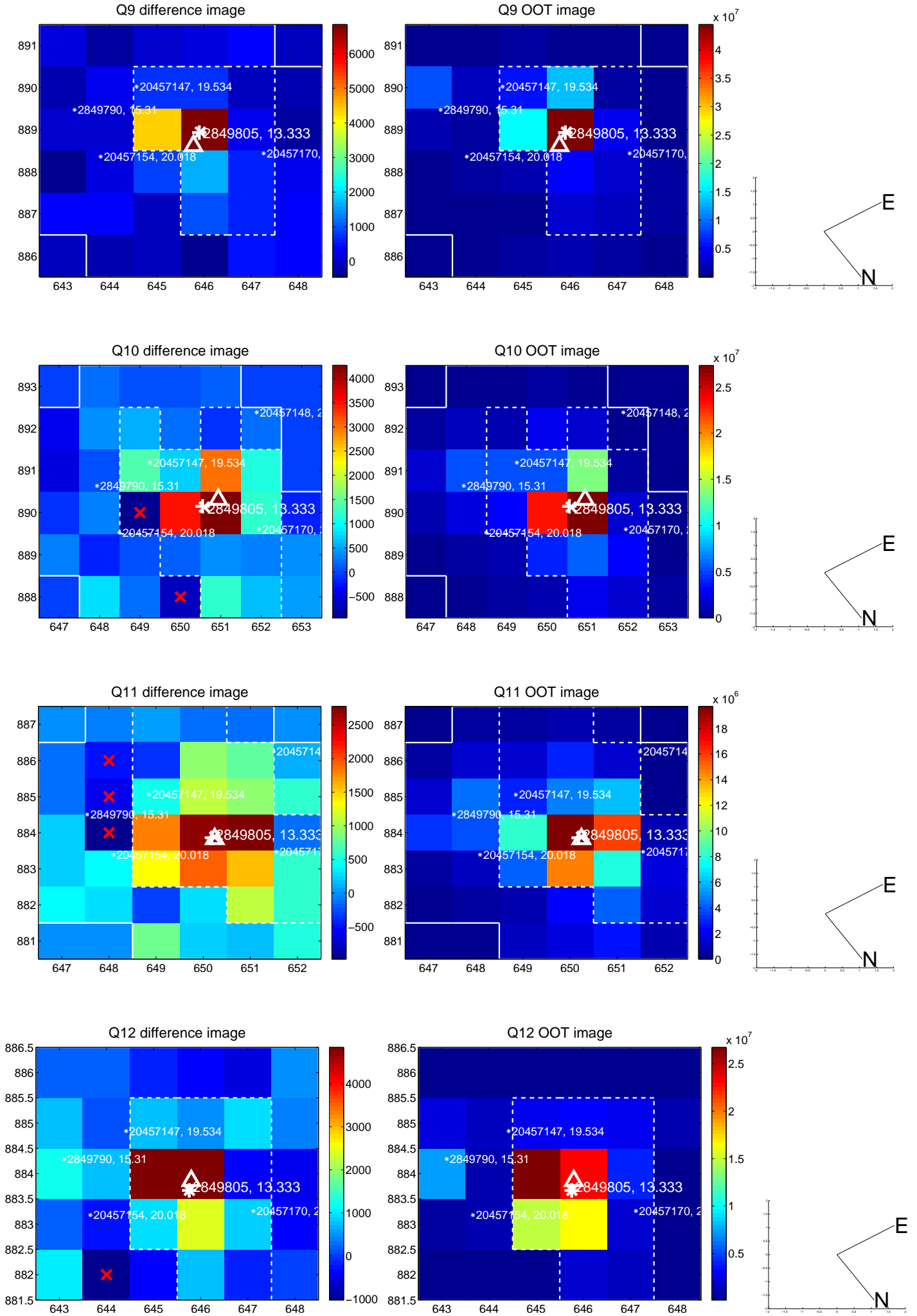
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



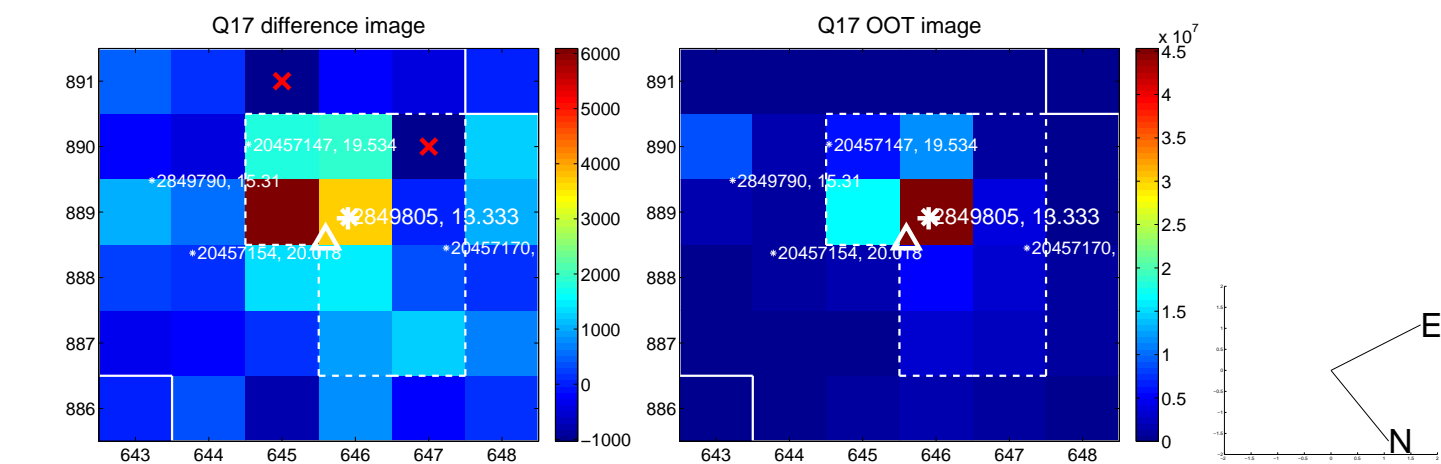
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



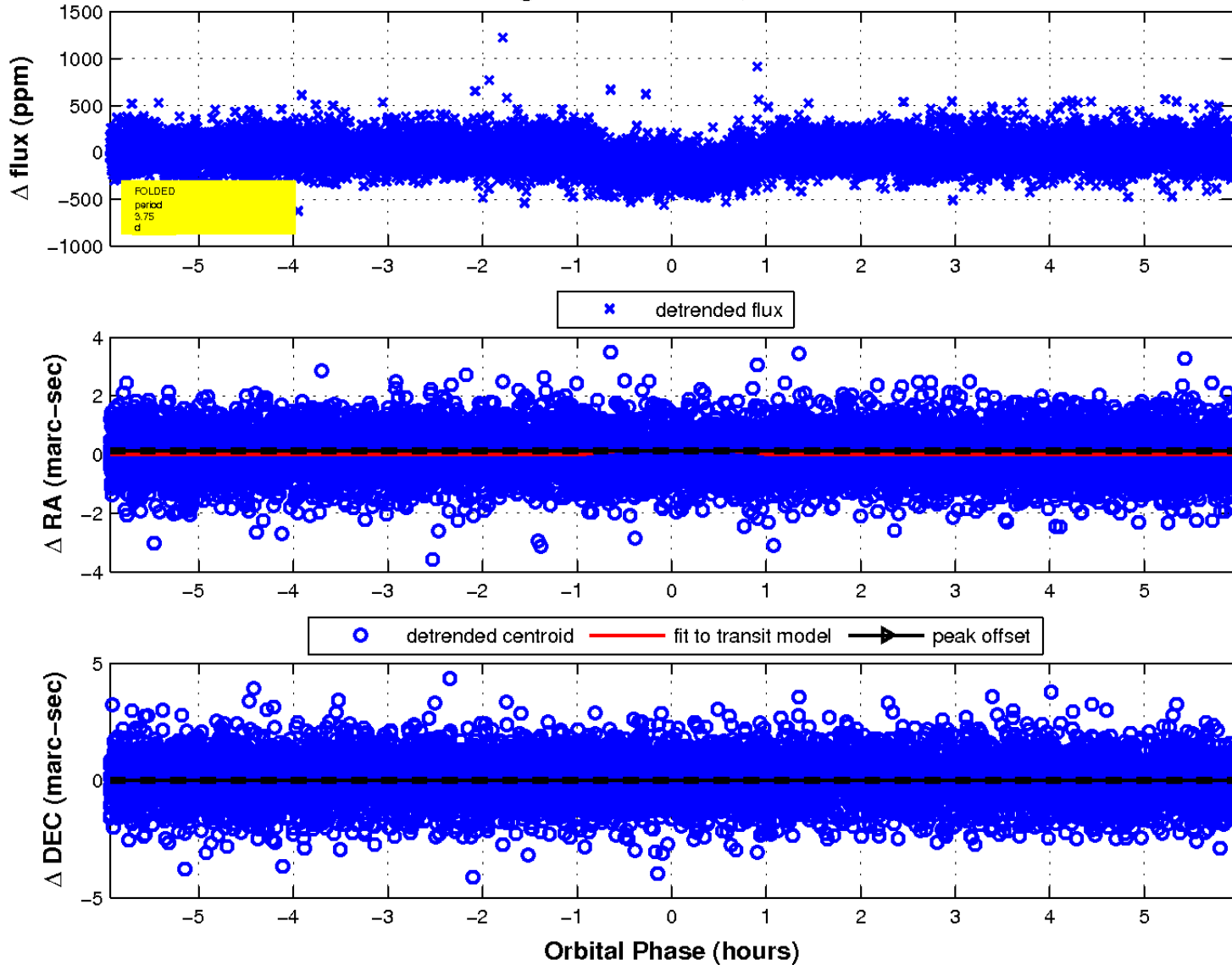
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

