

KIC 005477805

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})
005477805-01	OBS	1607.01	5.006730	134.543259	209.4	2.735	24.8	28.1	1.38	6116	3.55	728.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005477805-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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.

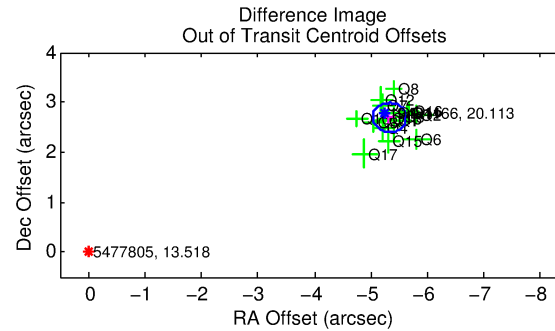
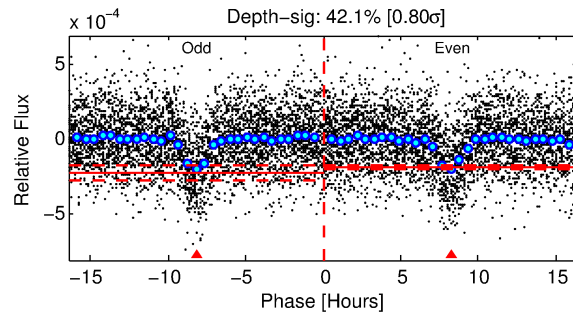
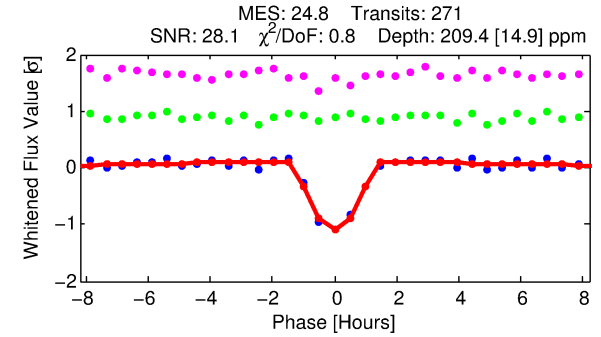
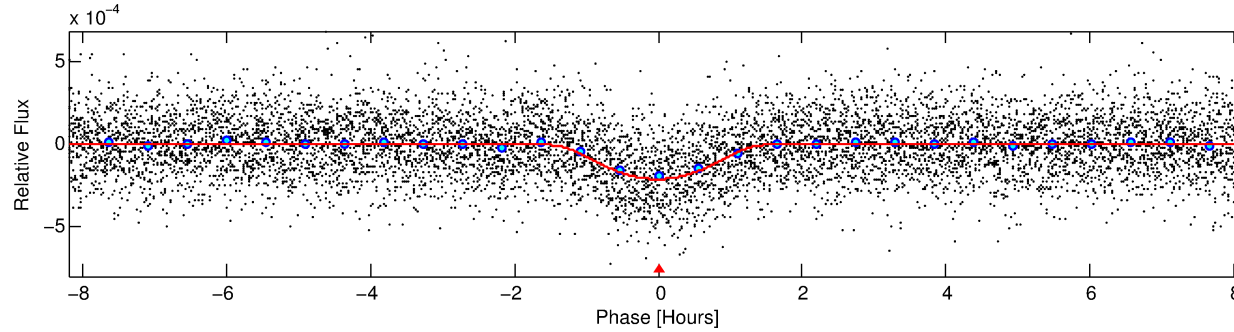
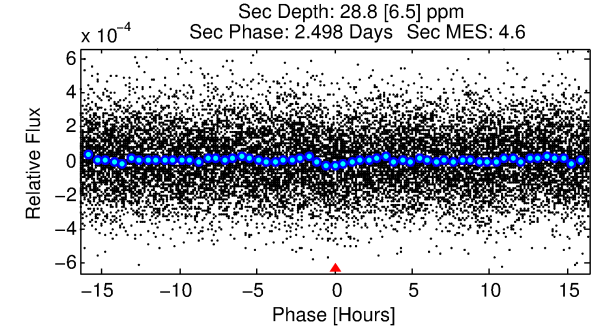
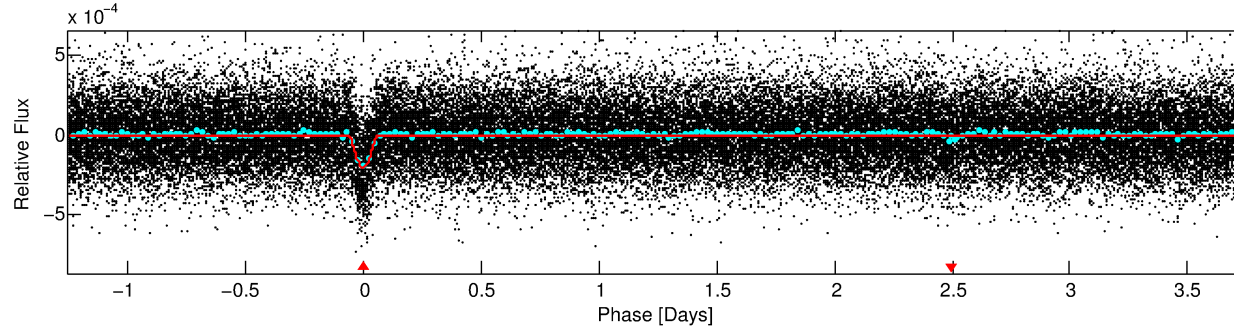
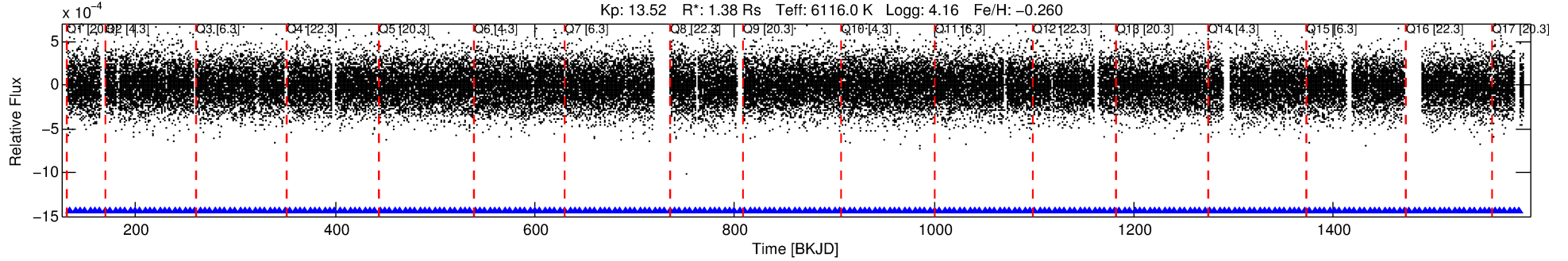
Ephemeris Match Information For 005477805-01

No Significant Match Found

DV One-Page Summary

KIC: 5477805 Candidate: 1 of 1 Period: 5.007 d

KOI: K01607.01 Corr: 0.831



DV Fit Results:

Period = 5.00673 [0.00001] d
Epoch = 134.5433 [0.0020] BKJD
Rp/R* = 0.0235 [0.0219]
a/R* = 3.51 [0.99]
b = 0.99 [0.04]
Seff = 728.74 [347.22]
Teq = 1325 [158] K
Rp = 3.55 [3.49] Re
a = 0.0574 [0.0167] AU
Ag = 4.14 [8.00] [0.39σ]
Teffp = 2922 [1375] K [1.15σ]

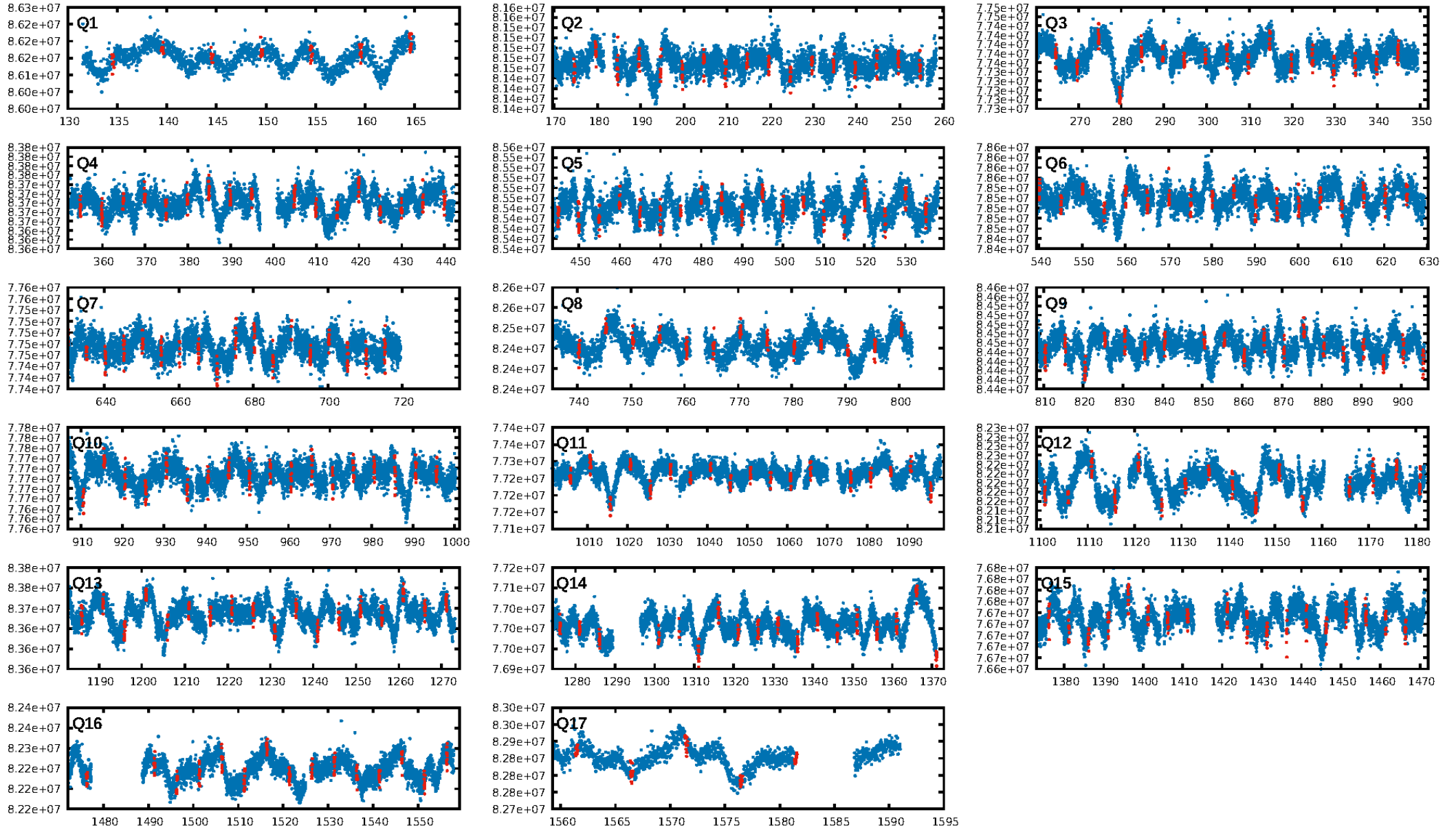
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.07e-133
RollingBand-fgt: 1.00 [259/259]
GhostDiagnostic-chr: 0.849
Centroid-sig: 0.0%
Centroid-so: 6.730 arcsec [14.99σ]
OotOffset-rm: 5.966 arcsec [60.65σ]
KicOffset-rm: 5.943 arcsec [57.62σ]
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]

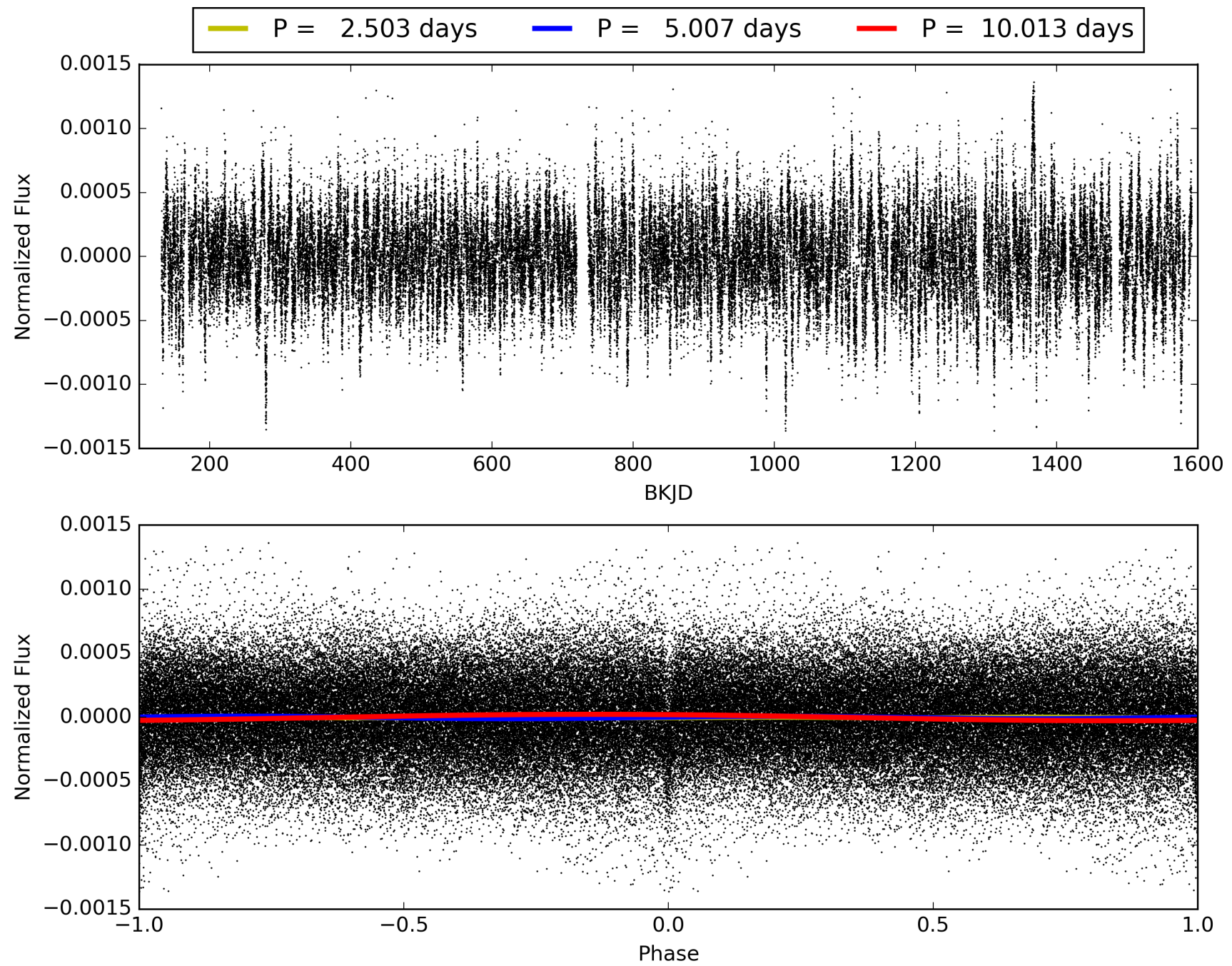
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:12:35 Z

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

TCE 005477805-01, PDC Light Curves

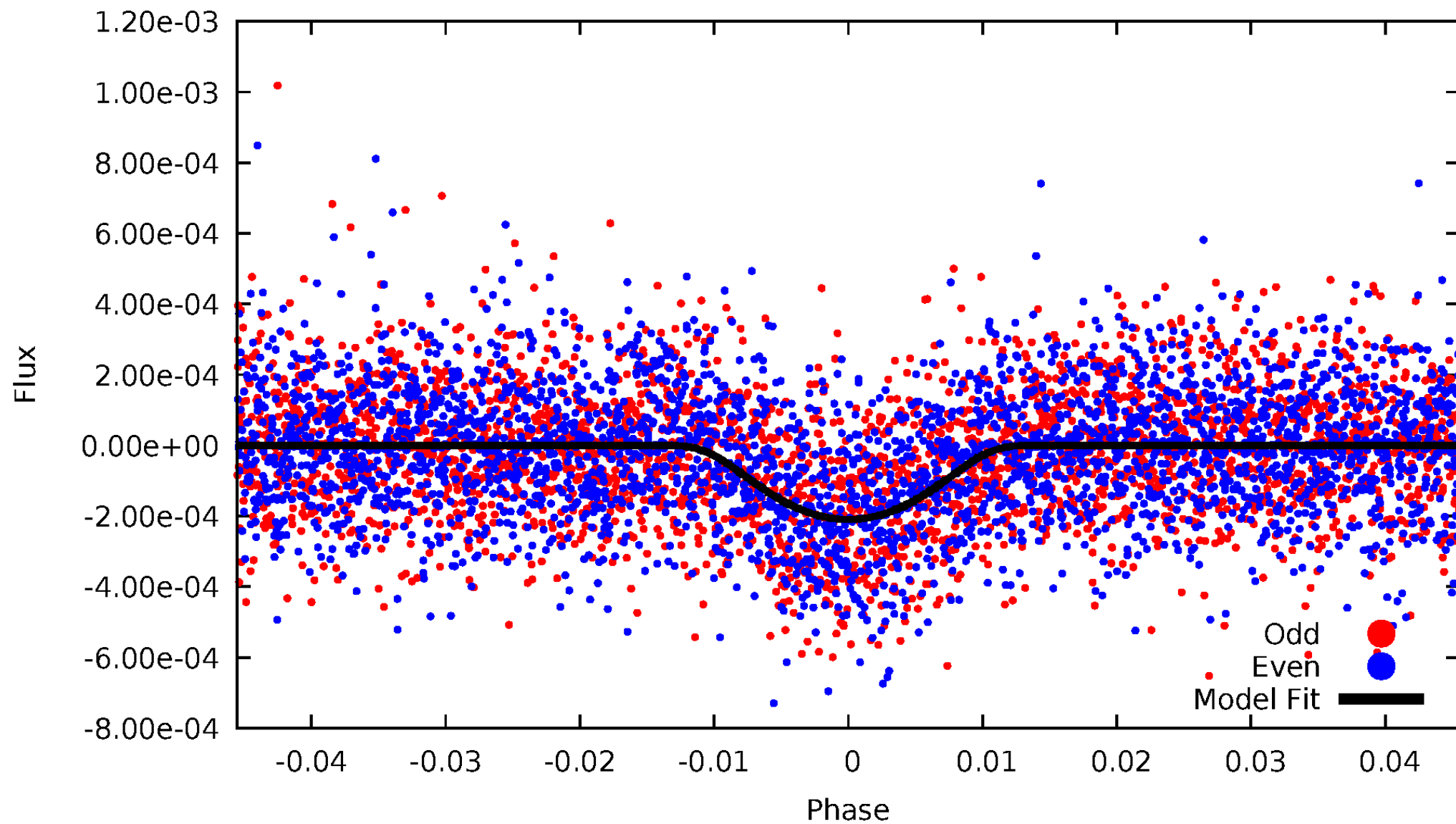


TCE 005477805-01



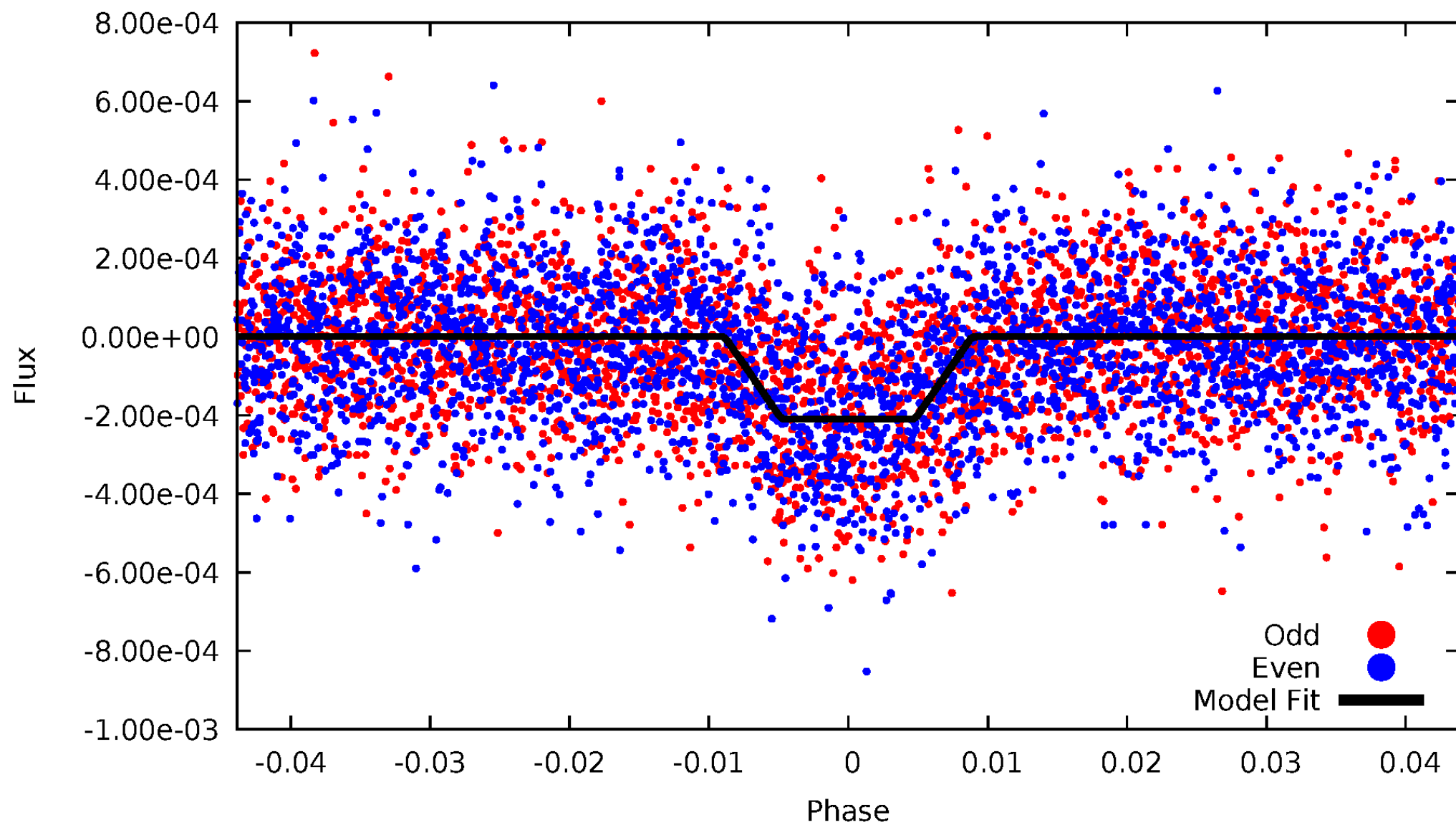
DV Odd/Even

TCE 005477805-01



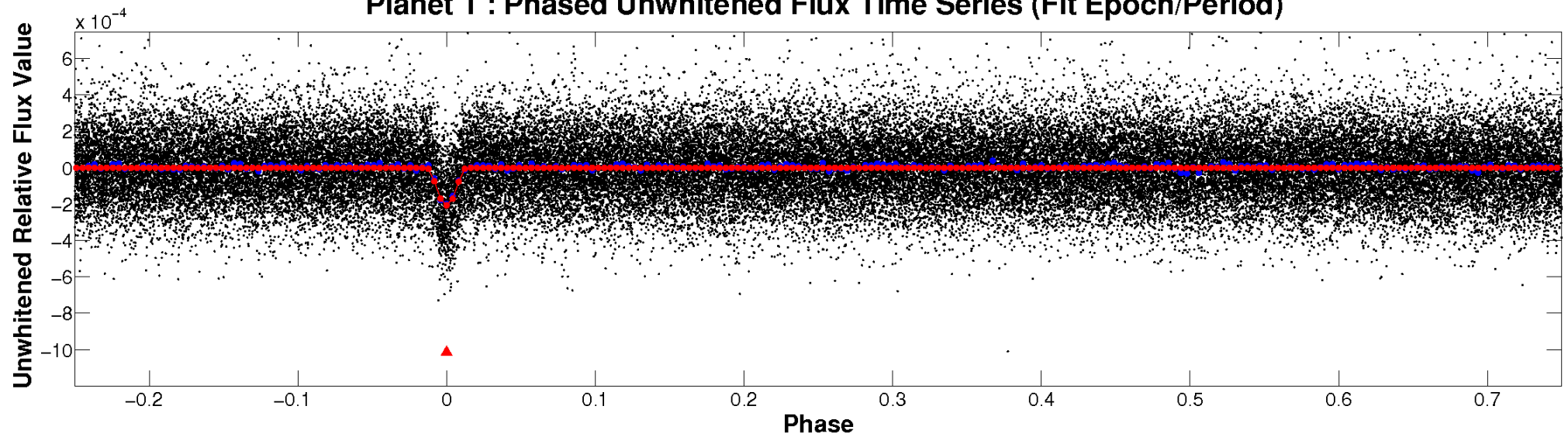
ALT Odd/Even

TCE 005477805-01

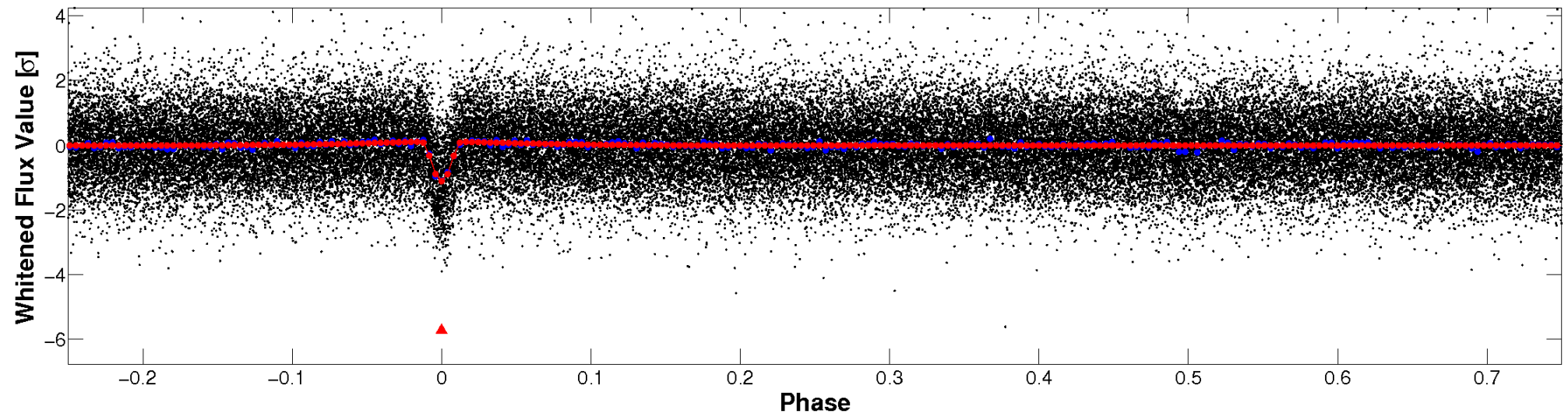


Non-Whitened Vs. Whitened Light Curve

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

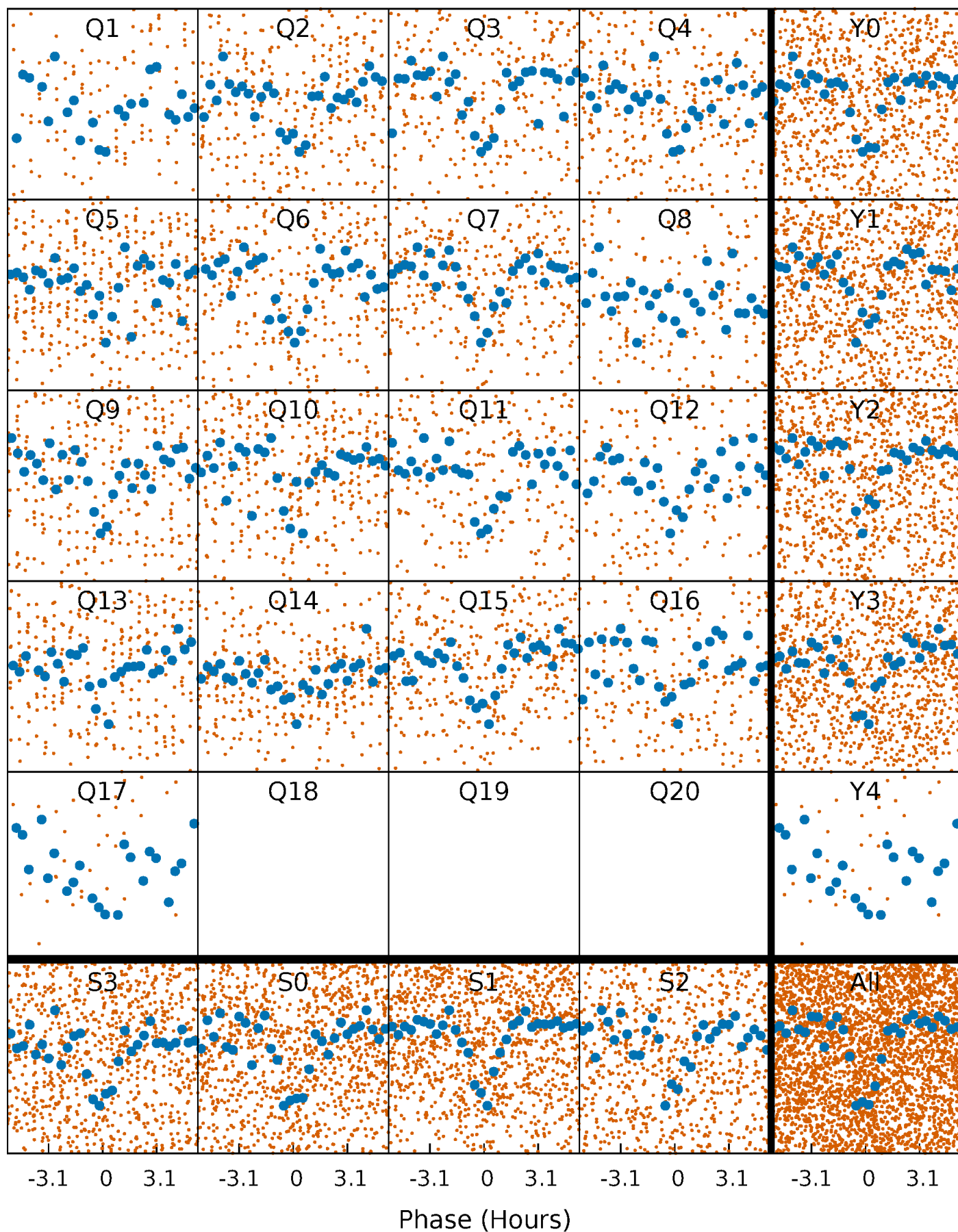


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



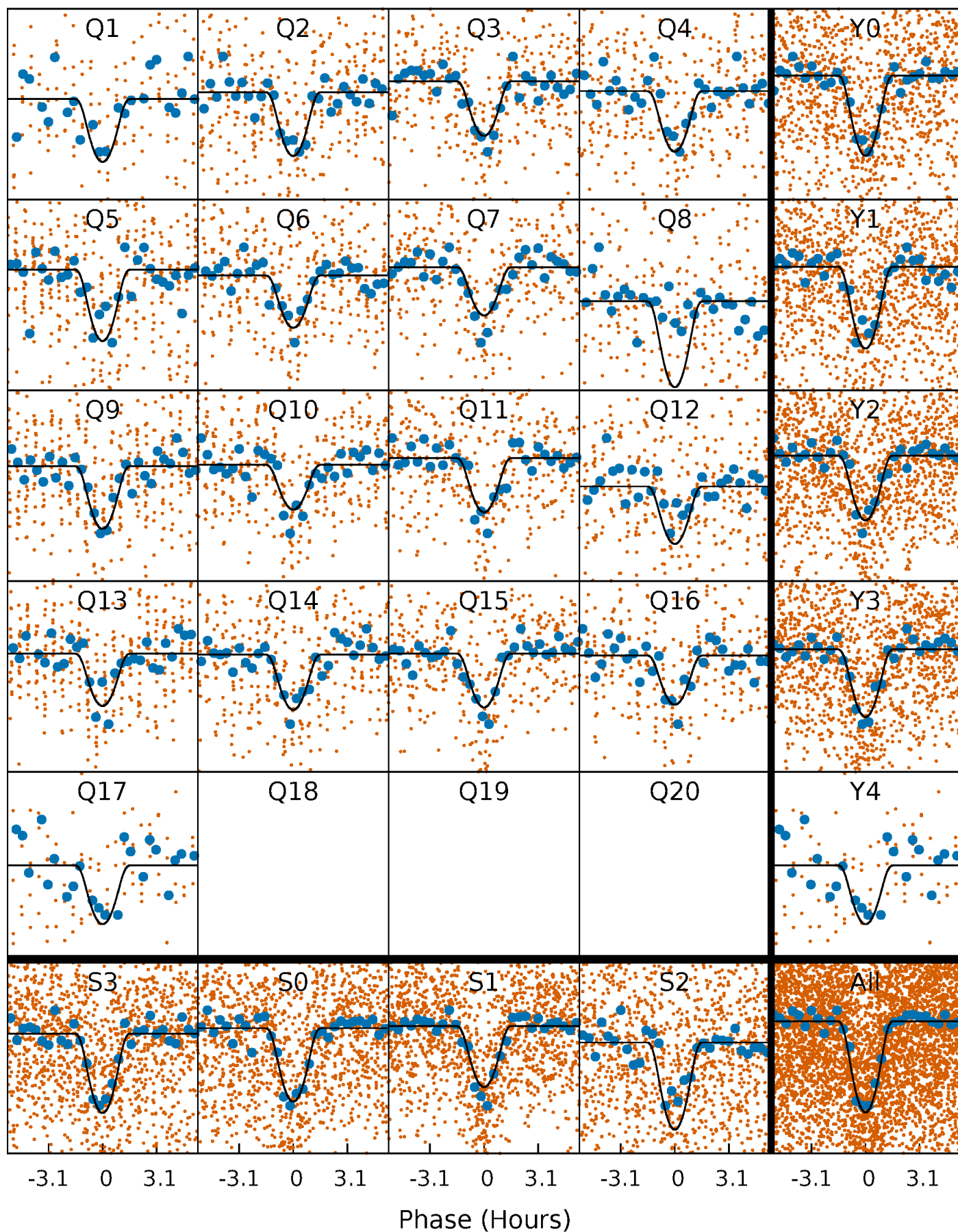
PDC Quarter-Phased Transit Curves

TCE 005477805-01 P= 5.006730 Days $T_0=134.543259$ (BKJD)



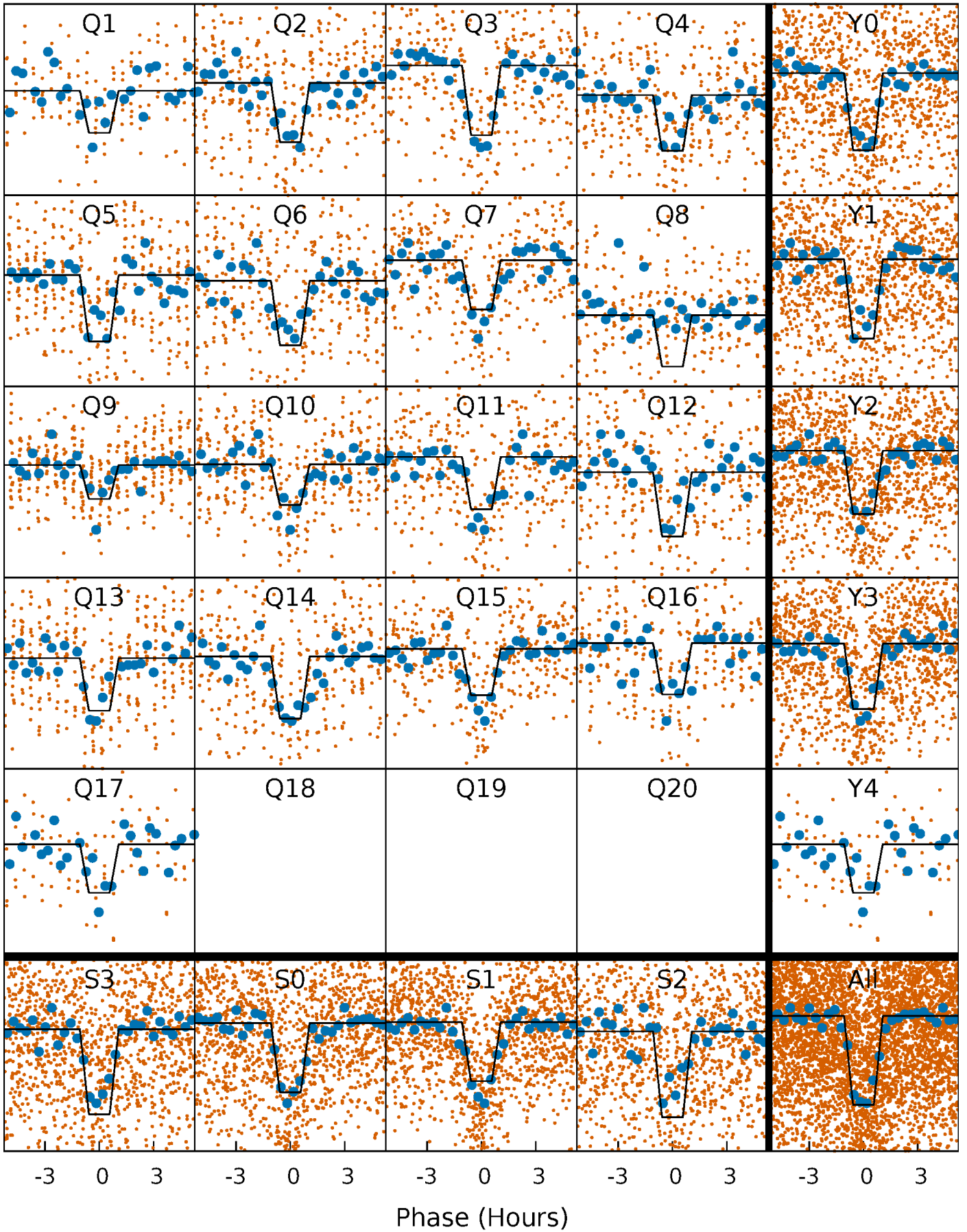
DV Quarter-Phased Transit Curves

TCE 005477805-01 P= 5.006730 Days $T_0=134.543259$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

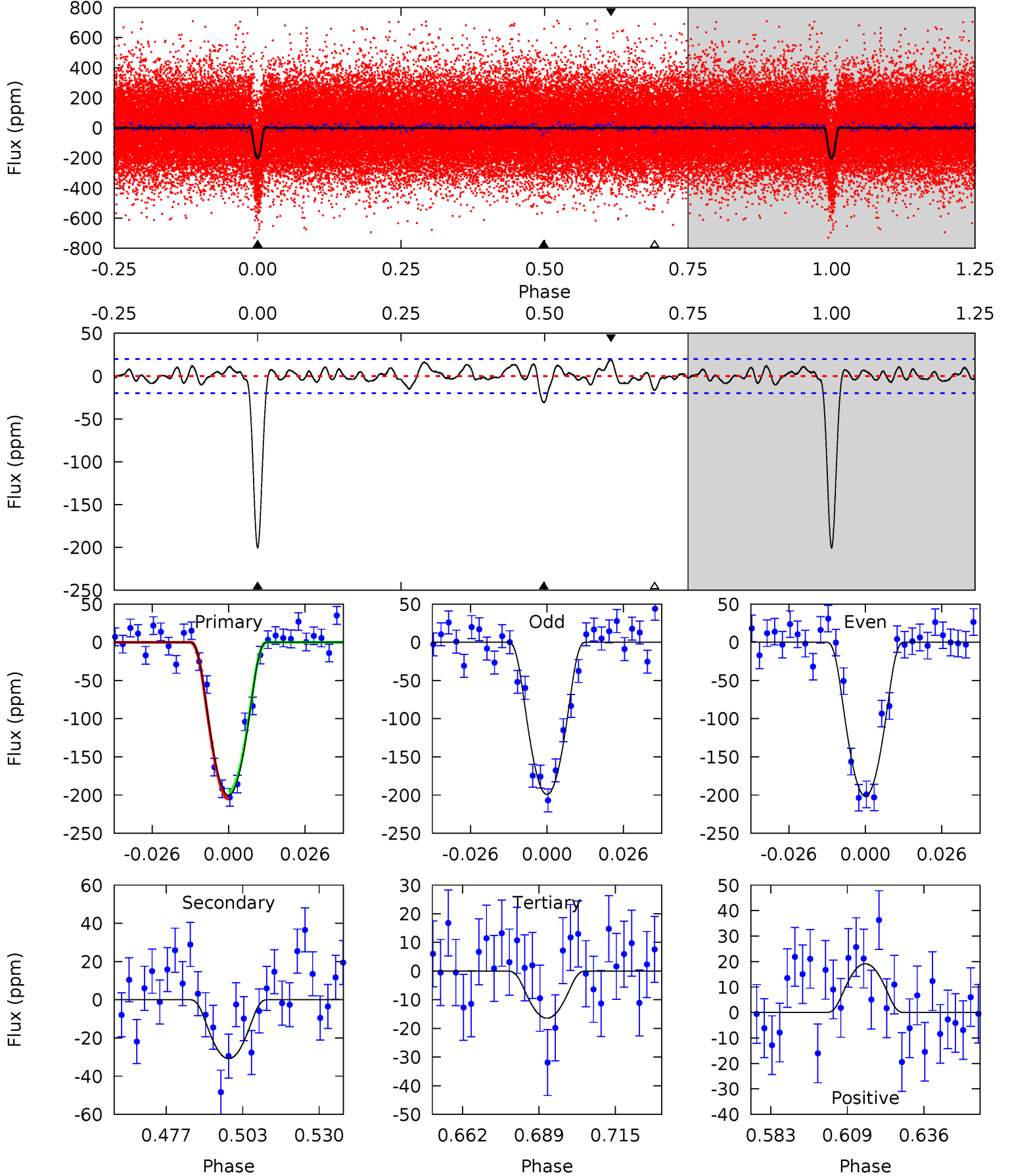
TCE 005477805-01 P= 5.006726 Days $T_0=134.543523$ (BKJD)



DV Model-Shift Uniqueness Test

005477805-01, P = 5.006730 Days, E = 129.536529 Days

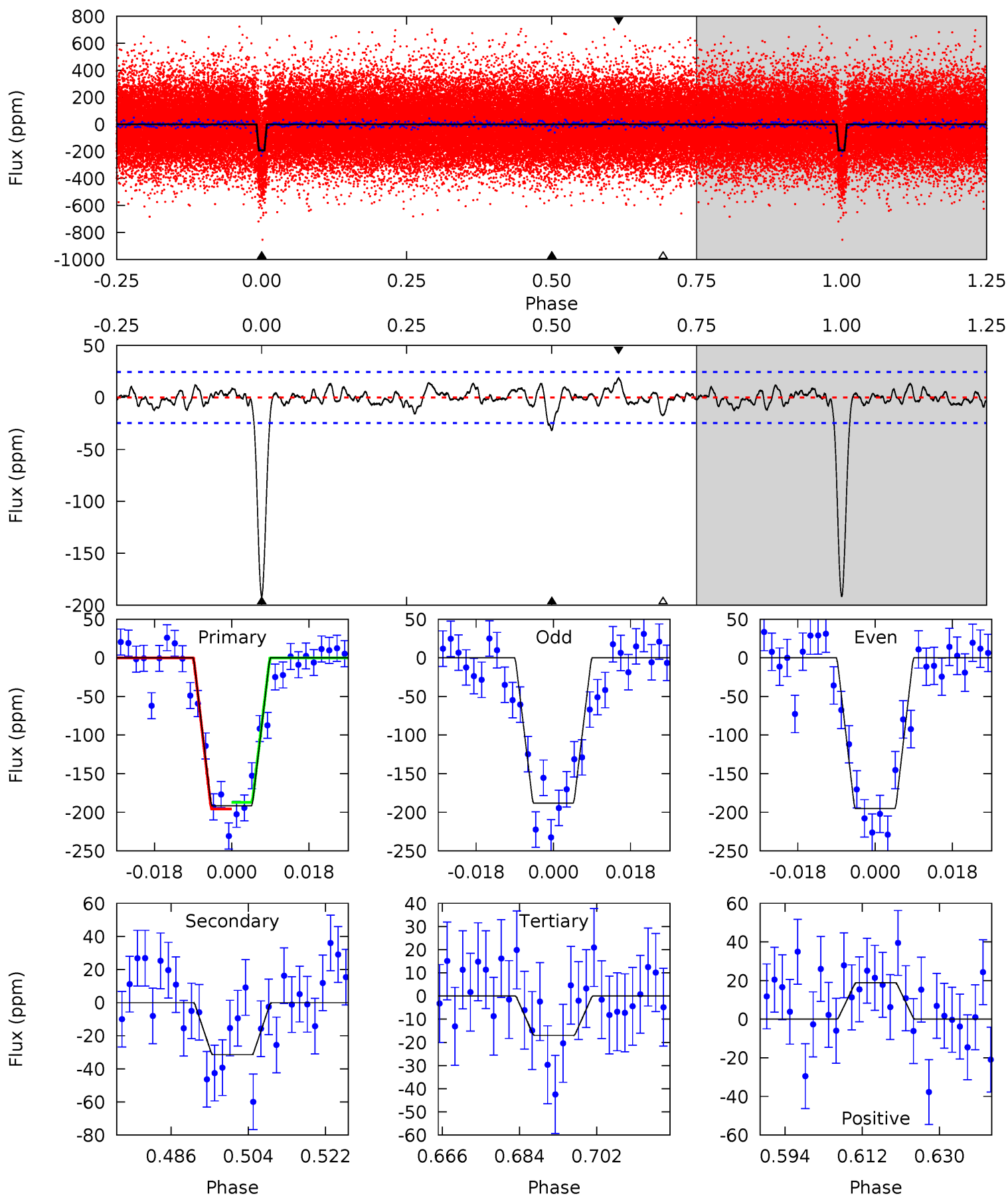
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.5	7.47	3.99	4.64	4.84	2.22	1.51	44.5	43.9	3.48	2.83	0.25	0.96	0.09	1.15



Alt Model-Shift Uniqueness Test

005477805-01, P = 5.006726 Days, E = 129.536797 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.3	6.28	3.40	3.76	4.91	2.37	1.18	34.9	34.5	2.88	2.51	0.70	0.99	0.09	0.86



Stellar Parameters For KIC 005477805

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6116^{+191}_{-212}	$4.158^{+0.264}_{-0.176}$	$-0.260^{+0.300}_{-0.300}$	$1.383^{+0.394}_{-0.433}$	$1.005^{+0.166}_{-0.125}$	$0.535^{+0.869}_{-0.256}$
	+3%/-3%	+6%/-4%	+115%/-115%	+28%/-31%	+17%/-12%	+162%/-48%
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 005477805-01 / KOI 1607.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-31 ± 4	$3.93^{+3.34}_{-2.51}$	1844^{+139}_{-156}	3278^{+1449}_{-585}	$3.683^{+24.975}_{-2.628}$
Alt.	-31 ± 5	$3.14^{+3.10}_{-1.97}$	1848^{+150}_{-161}	3532^{+1611}_{-692}	$5.664^{+34.756}_{-4.281}$

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

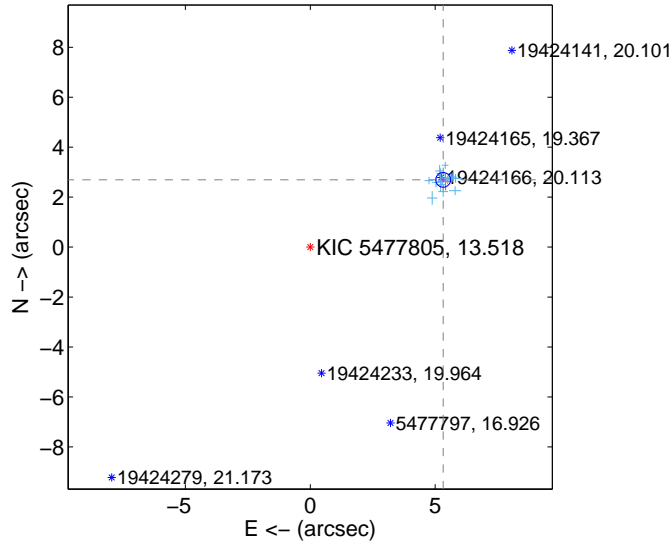
Supplemental centroid analysis for 005477805-01. Kepler magnitude: 13.52. Transit SNR 28.05

There are 16 quarters with good PRF difference image offsets

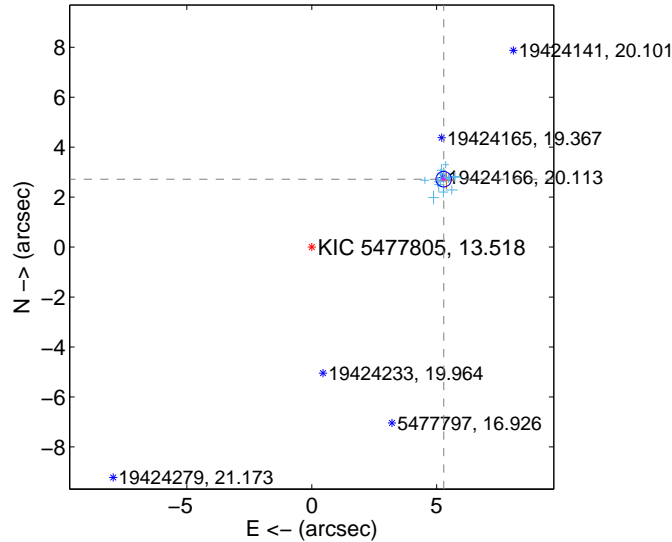
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.966 ± 0.098	60.65	-5.323 ± 0.096	2.694 ± 0.098
PRF-fit source offset from KIC position	5.943 ± 0.103	57.62	-5.285 ± 0.096	2.719 ± 0.102
photometric centroid source offset	6.73 ± 0.45	14.99	-6.20 ± 0.46	2.63 ± 0.40

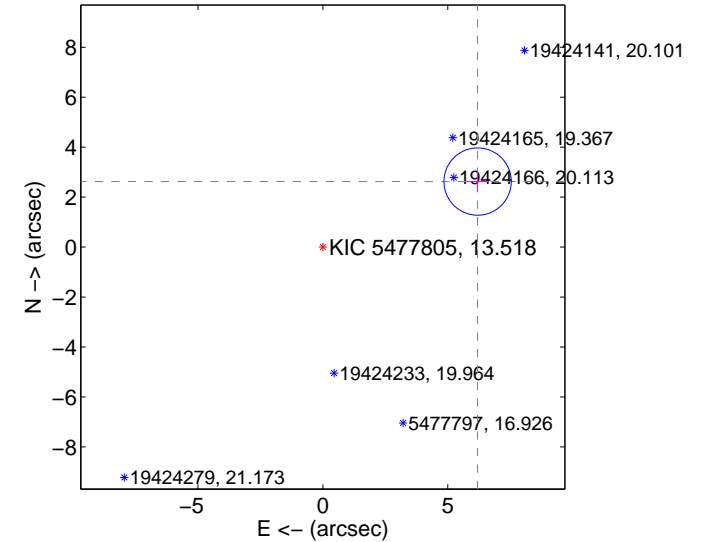
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

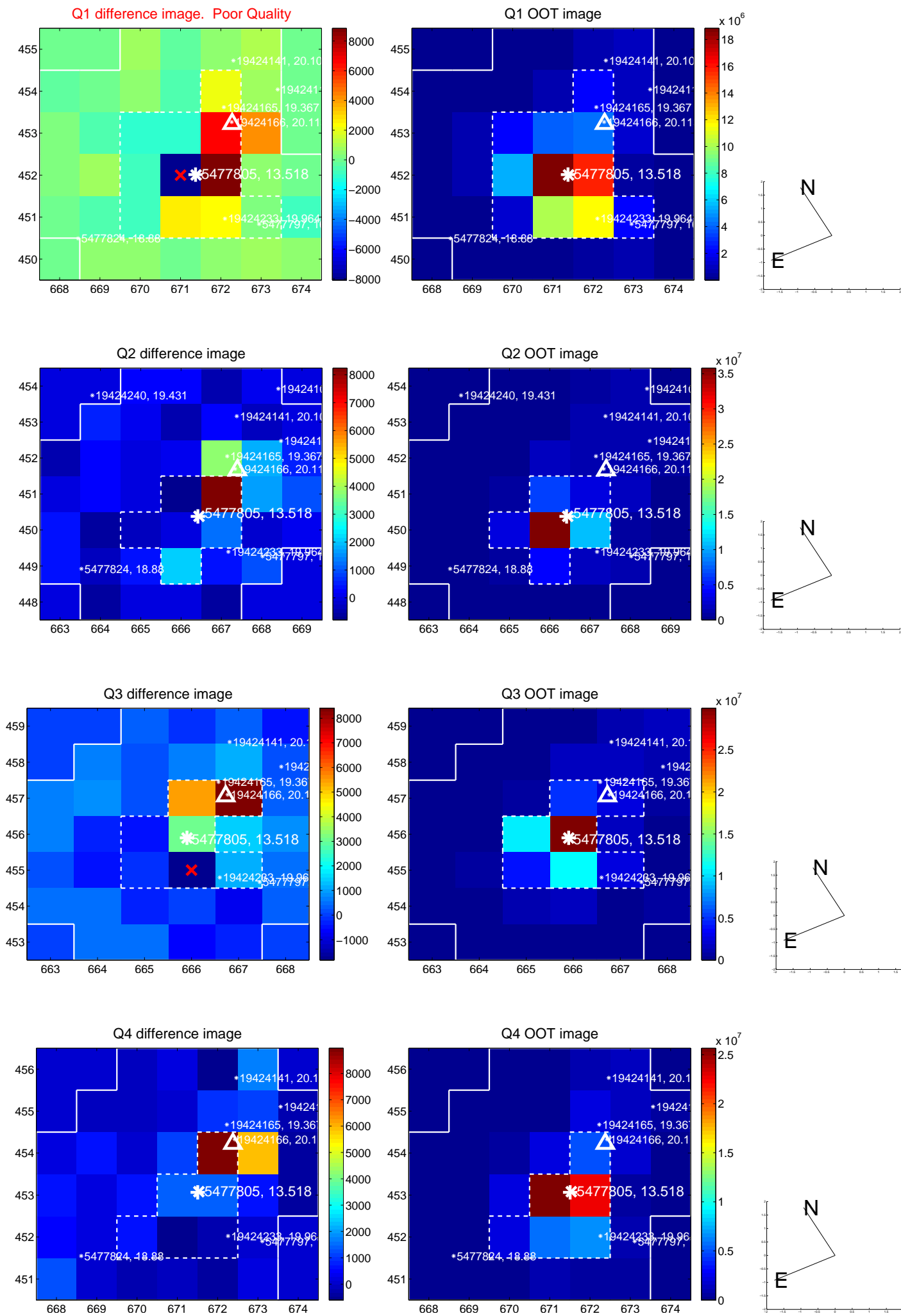


offset from photometric centroids

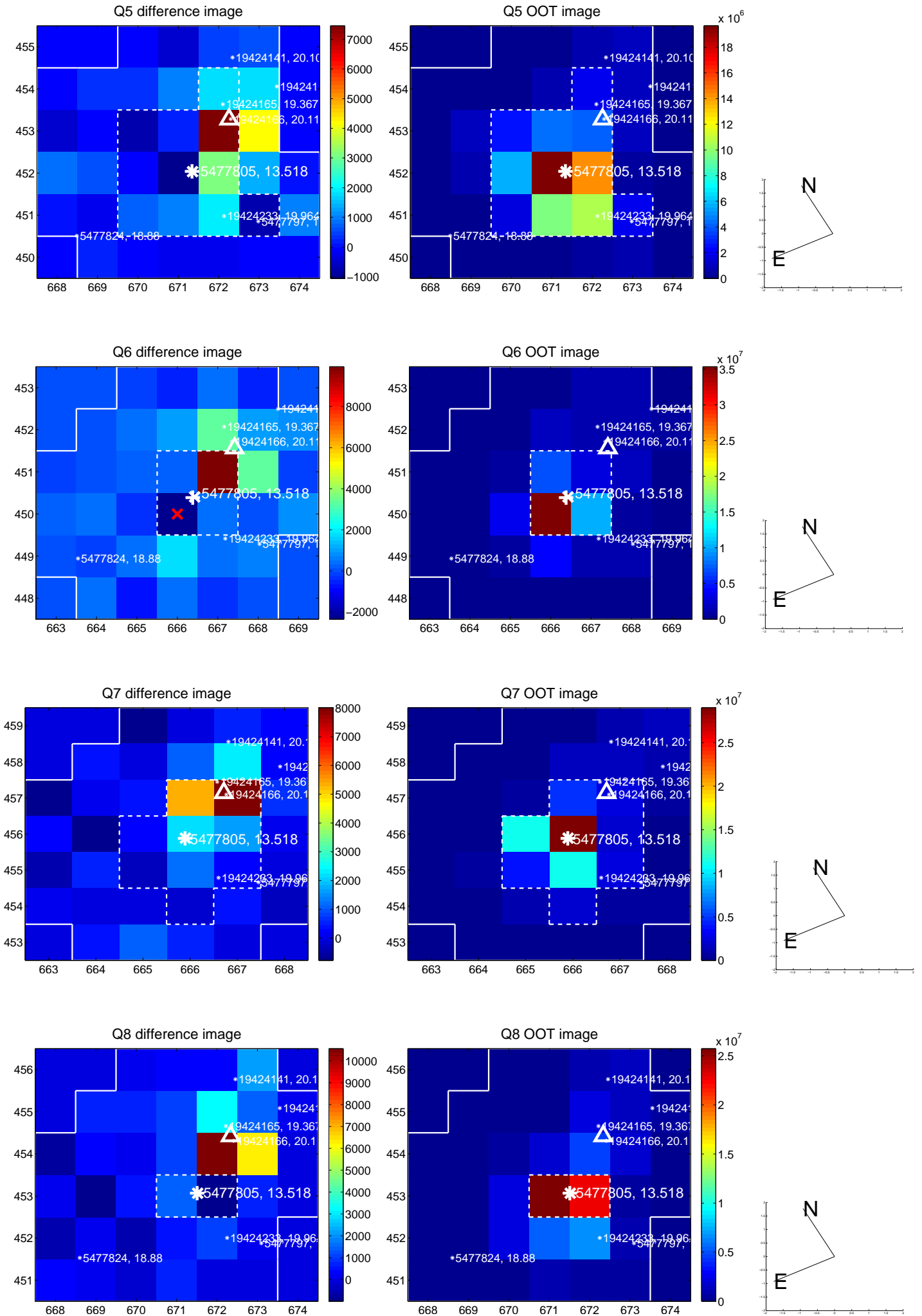


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

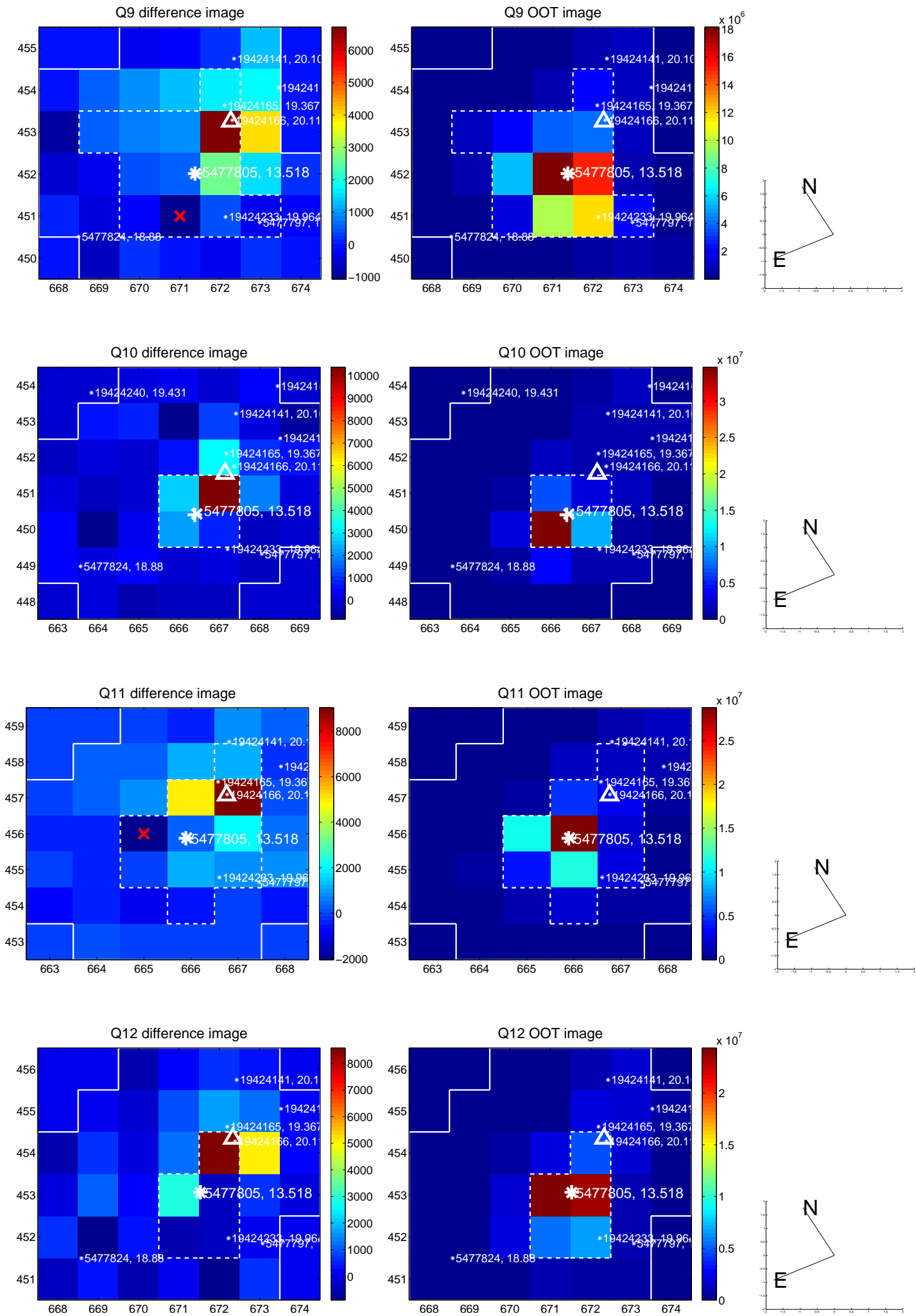
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



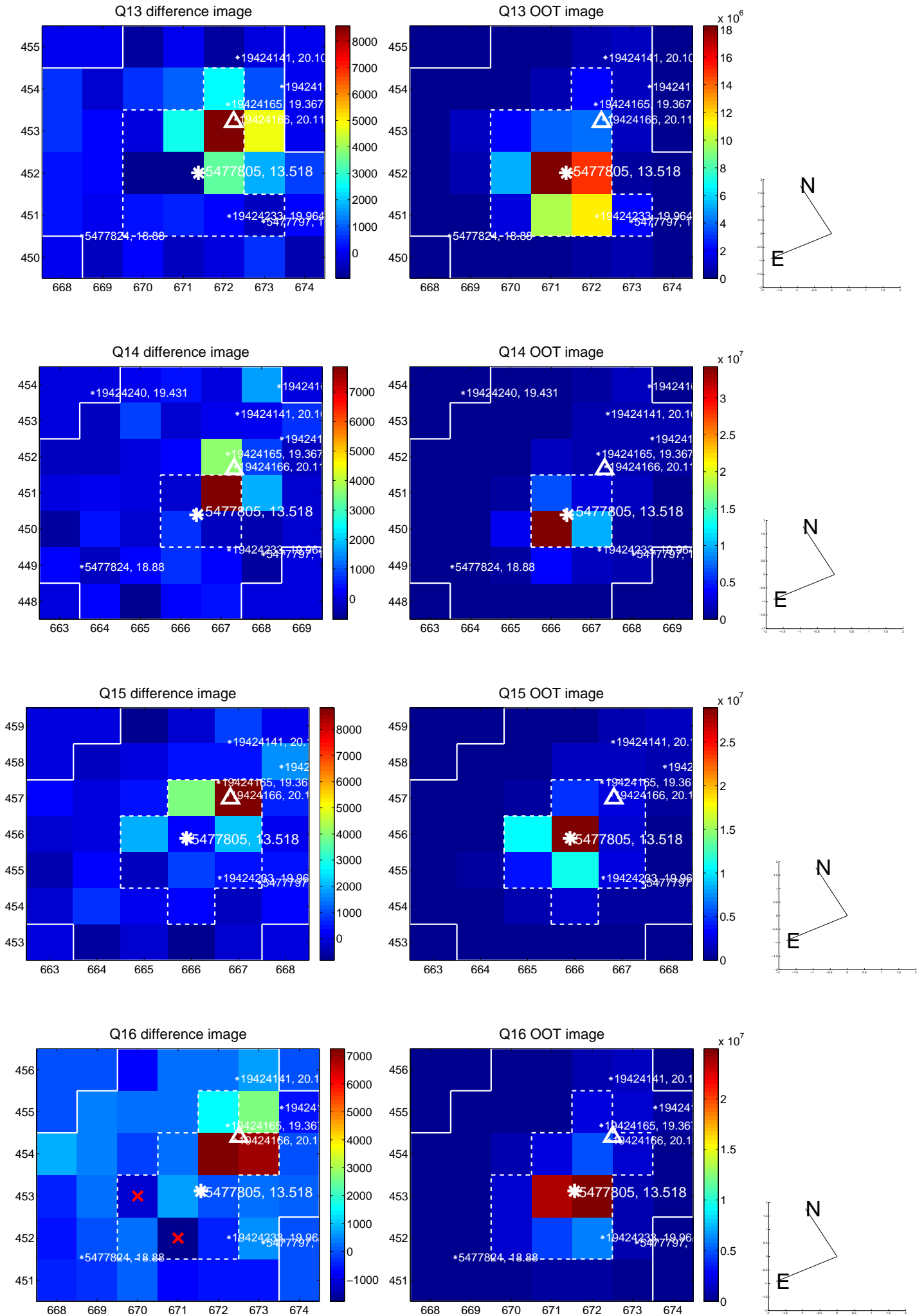
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



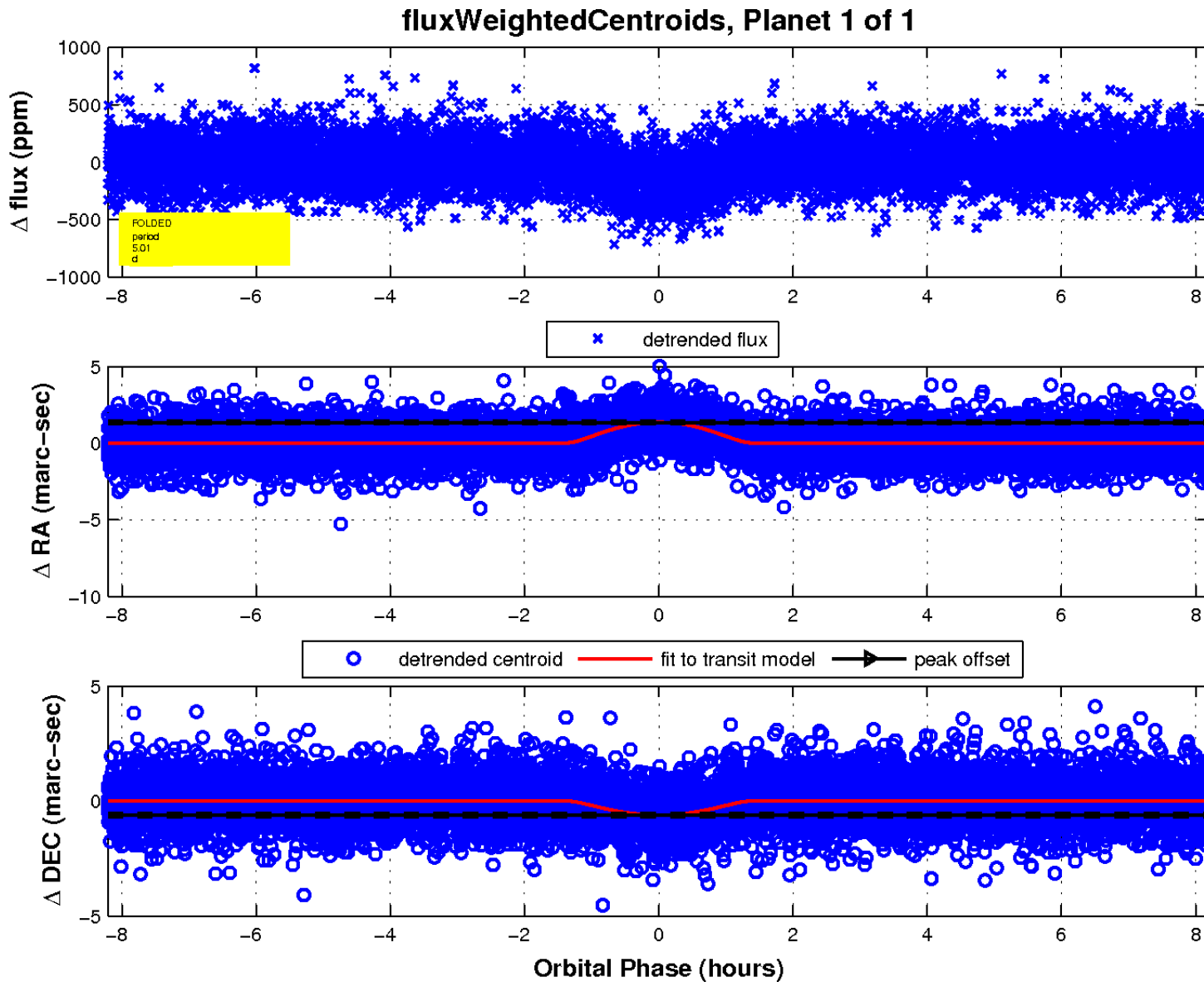
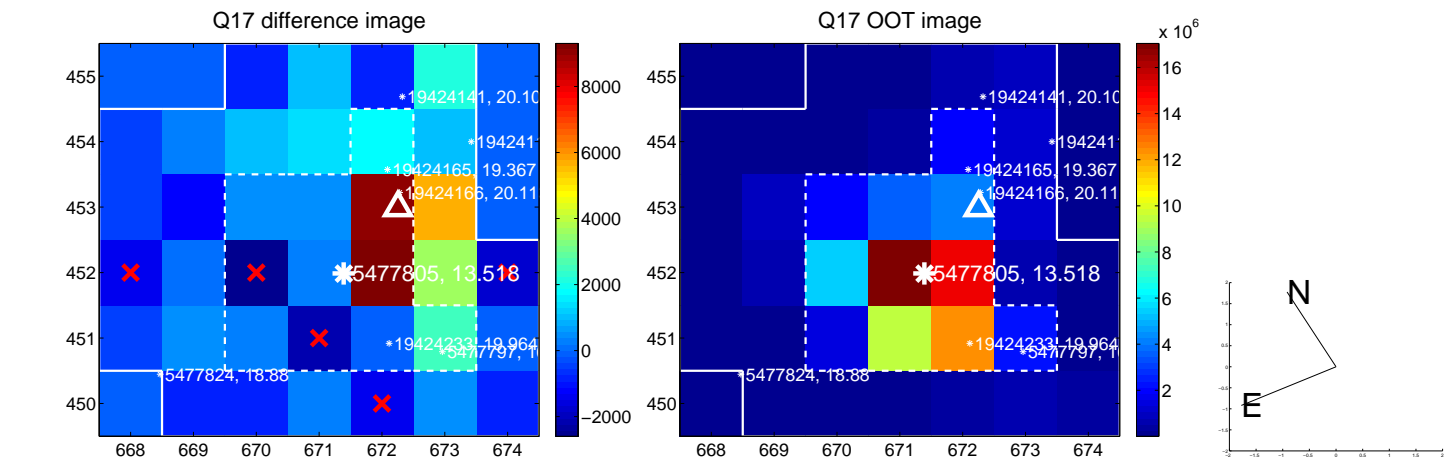
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

