

KIC 002834805

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})
002834805-01	OBS	7638.01	25.003257	140.898197	66.6	5.653	8.4	8.1	1.69	6148	1.53	116.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002834805-01	OBS	PC	0.76	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.

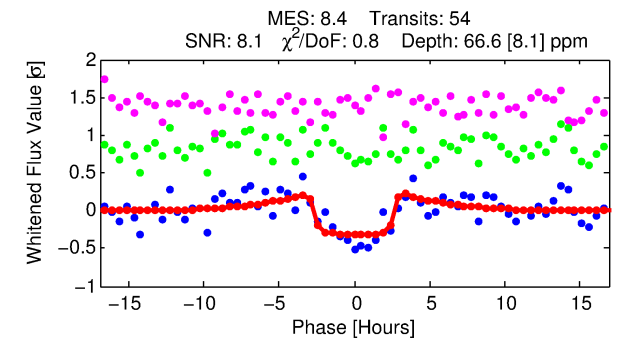
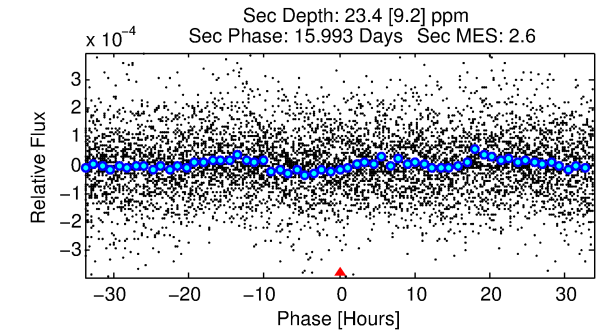
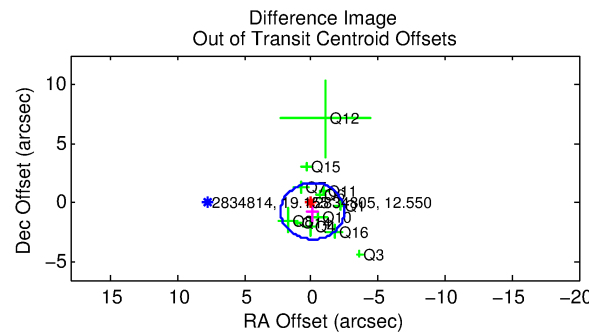
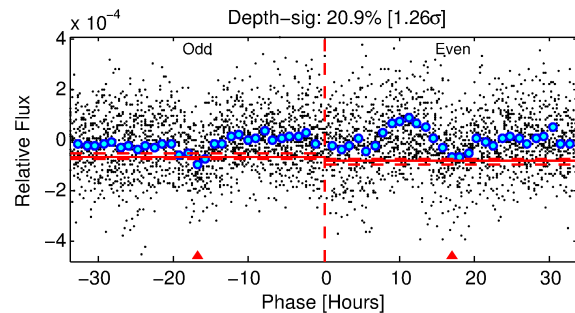
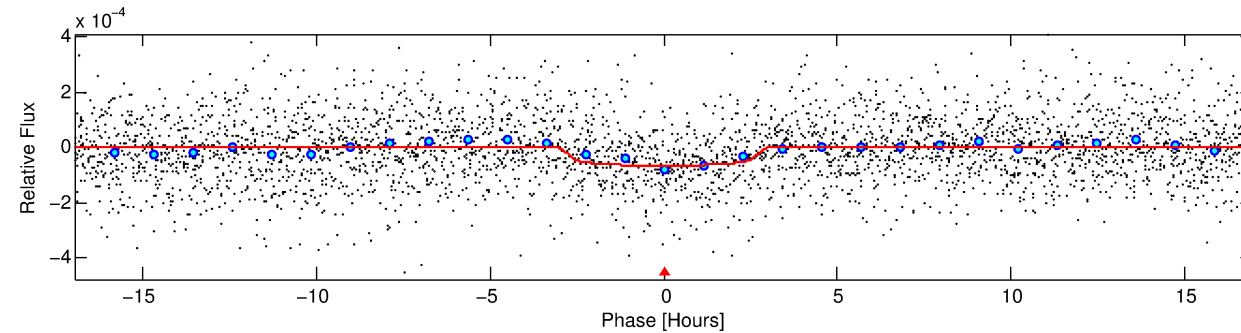
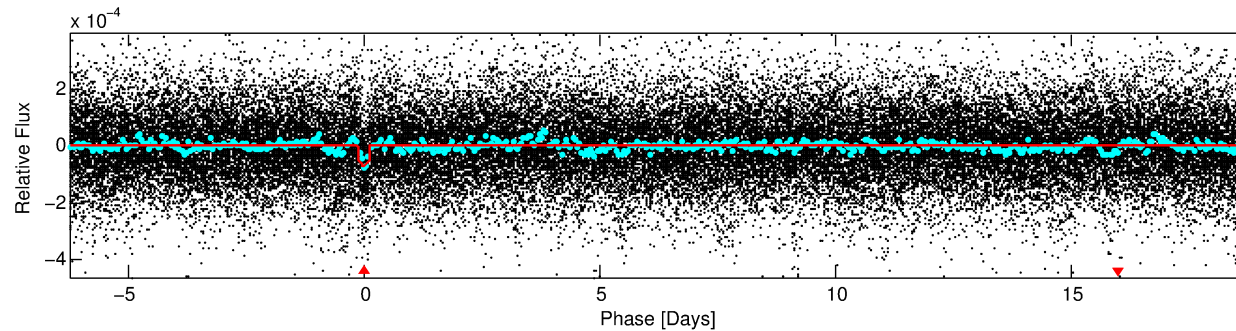
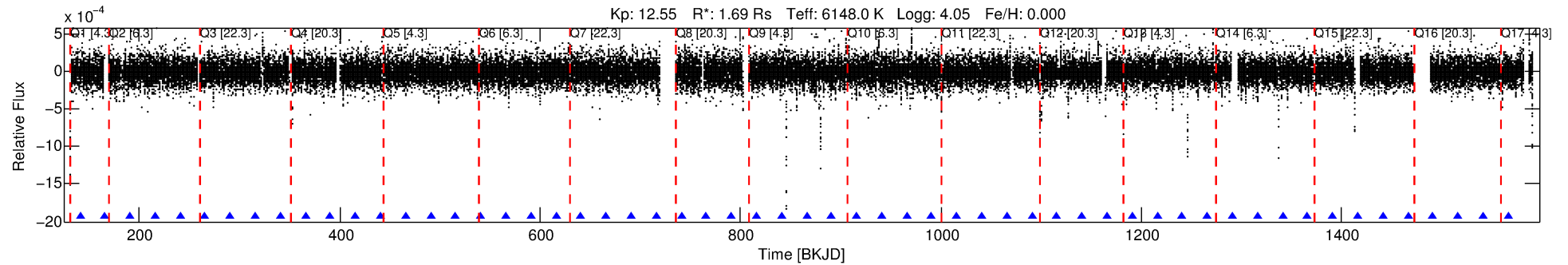
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002834805-01

No Significant Match Found

DV One-Page Summary

KIC: 2834805 Candidate: 1 of 1 Period: 25.003 d



DV Fit Results:

Period = 25.00326 [0.00026] d
Epoch = 140.8982 [0.0087] BKJD
Rp/R* = 0.0083 [0.0030]
a/R* = 19.94 [36.52]
b = 0.82 [0.75]
Seff = 116.48 [48.35]
Teq = 838 [87] K
Rp = 1.53 [0.68] Re
a = 0.1766 [0.0436] AU
Ag = 170.88 [157.02] [1.08 σ]
Teffp = 4683 [980] K [3.91 σ]

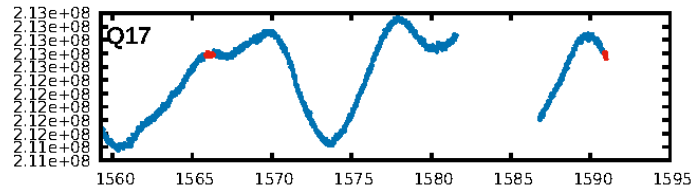
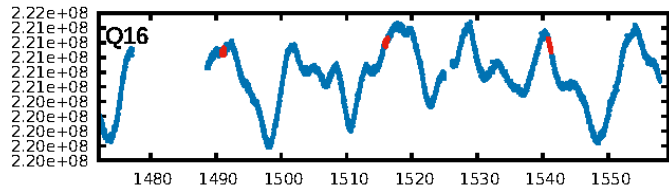
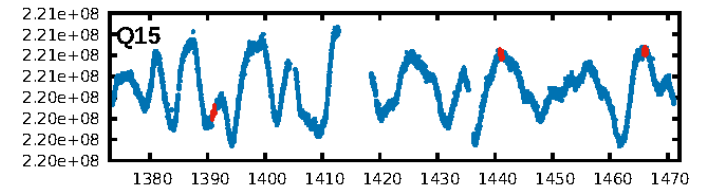
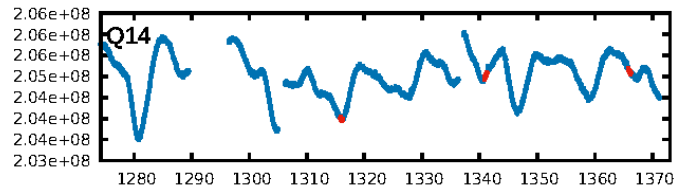
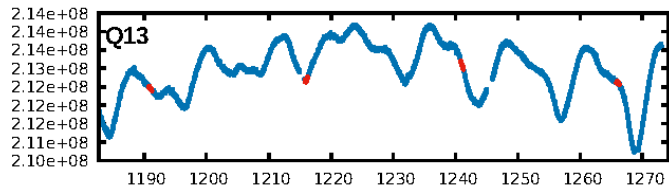
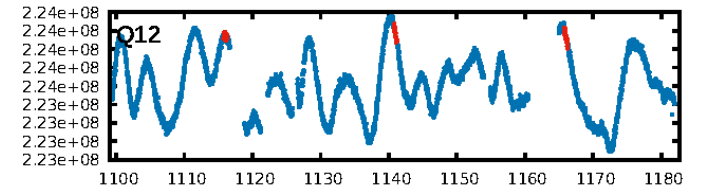
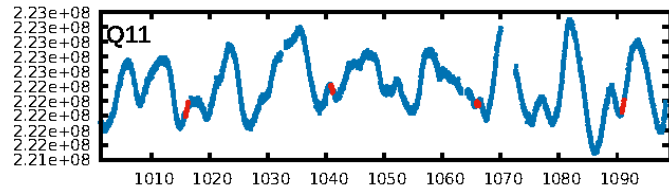
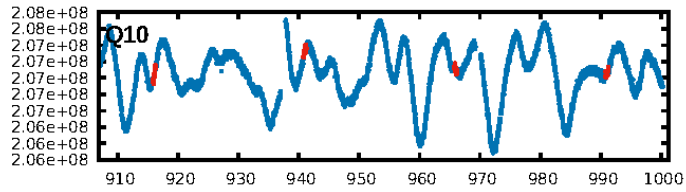
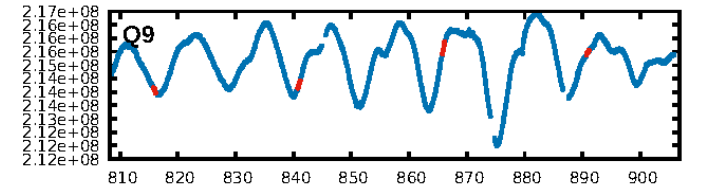
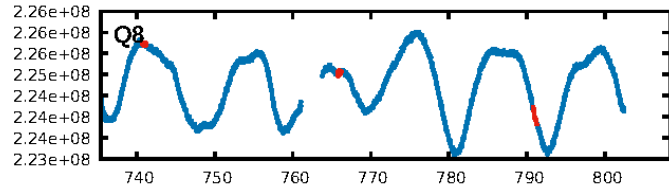
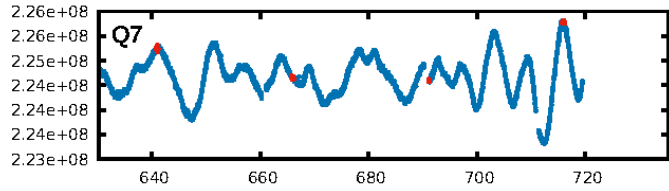
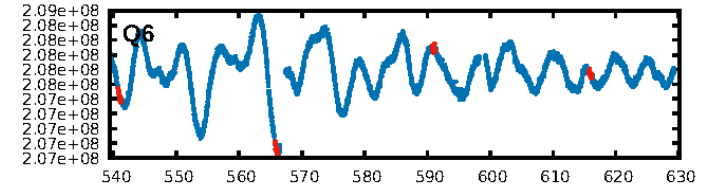
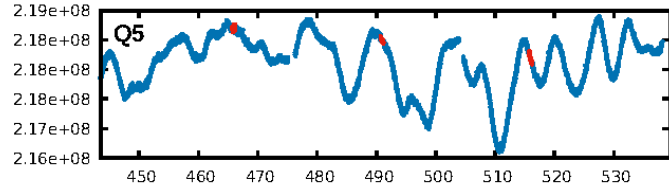
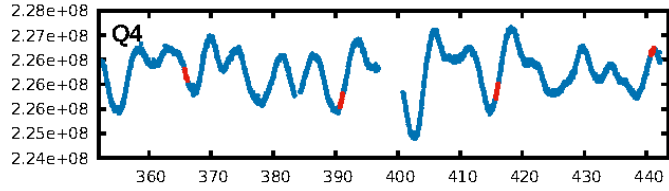
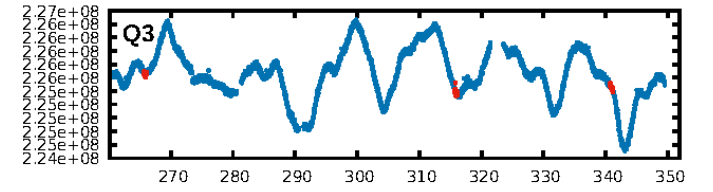
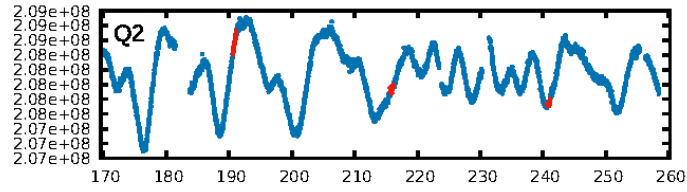
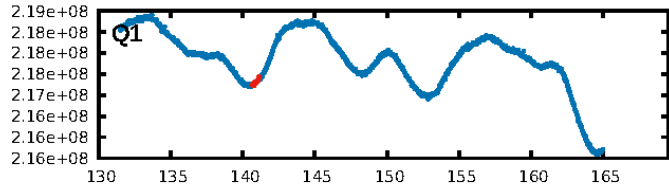
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 88.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.08e-16
RollingBand-fgt: 1.00 [51/51]
GhostDiagnostic-chr: 8.025
Centroid-sig: 56.1%
Centroid-so: 0.809 arcsec [0.62 σ]
OotOffset-rm: 0.675 arcsec [0.85 σ]
KicOffset-rm: 0.552 arcsec [0.66 σ]
OotOffset-st: 3/4/4/1 [12]
KicOffset-st: 3/4/4/1 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

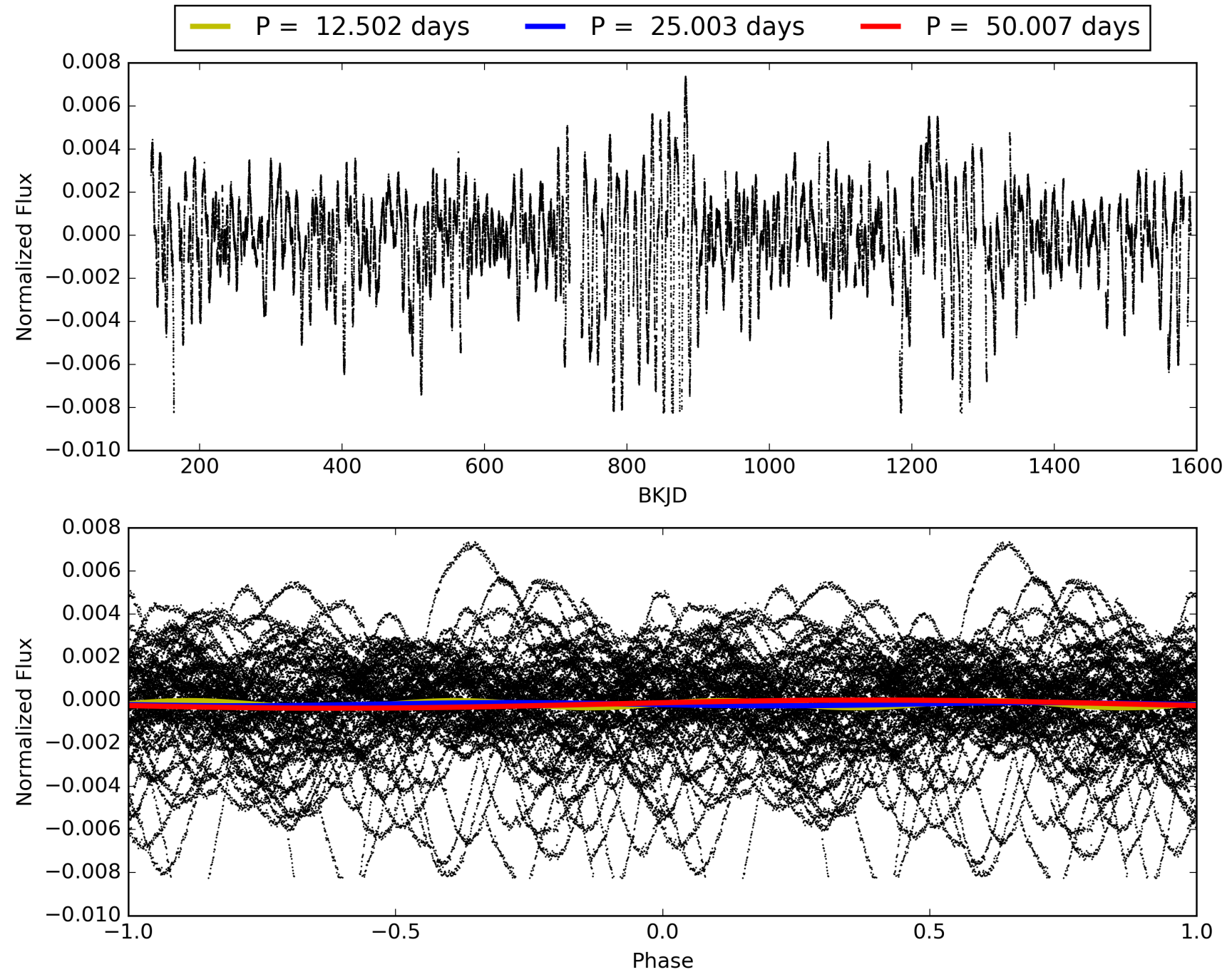
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:14:23 Z

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

TCE 002834805-01, PDC Light Curves

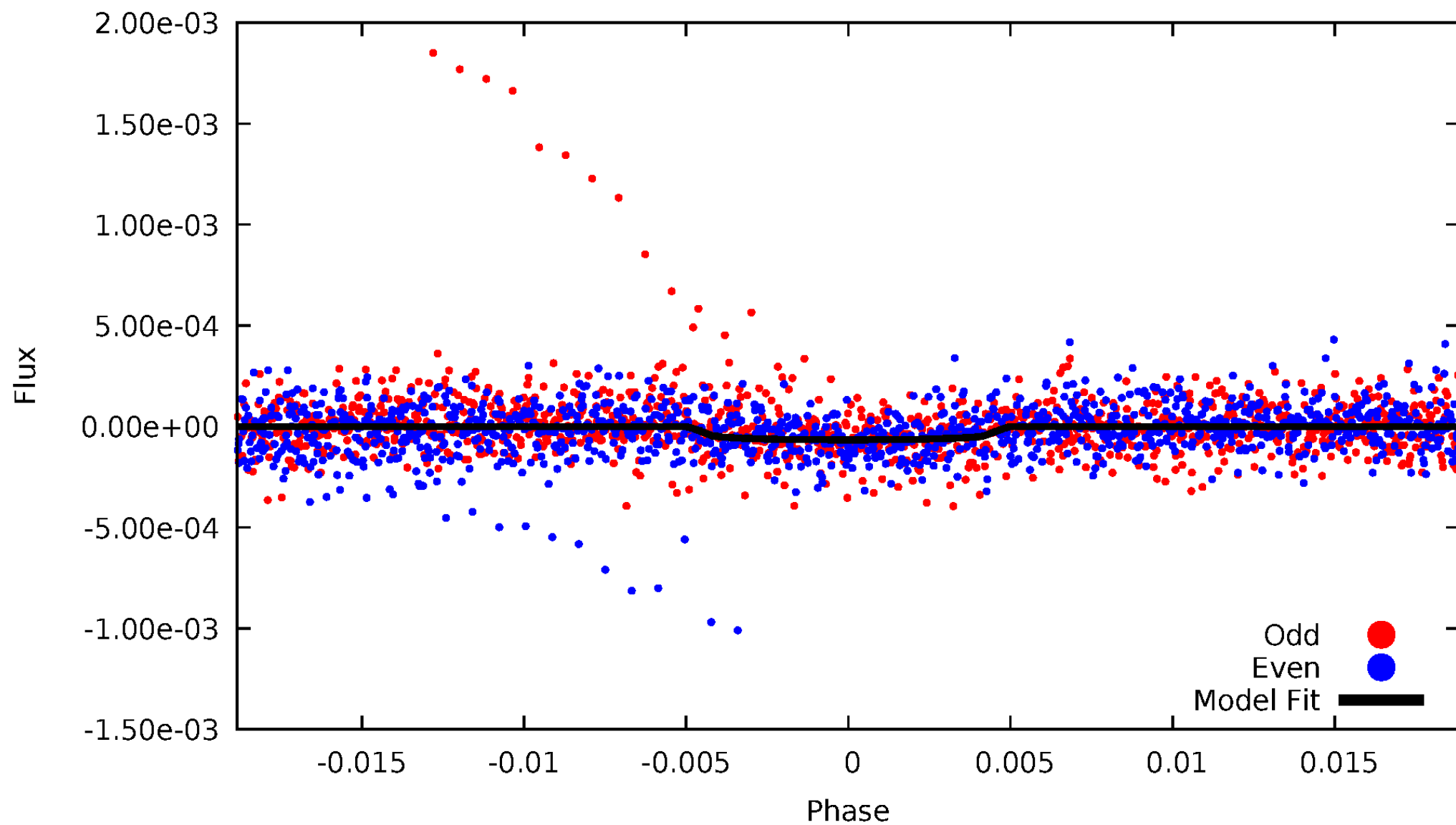


TCE 002834805-01



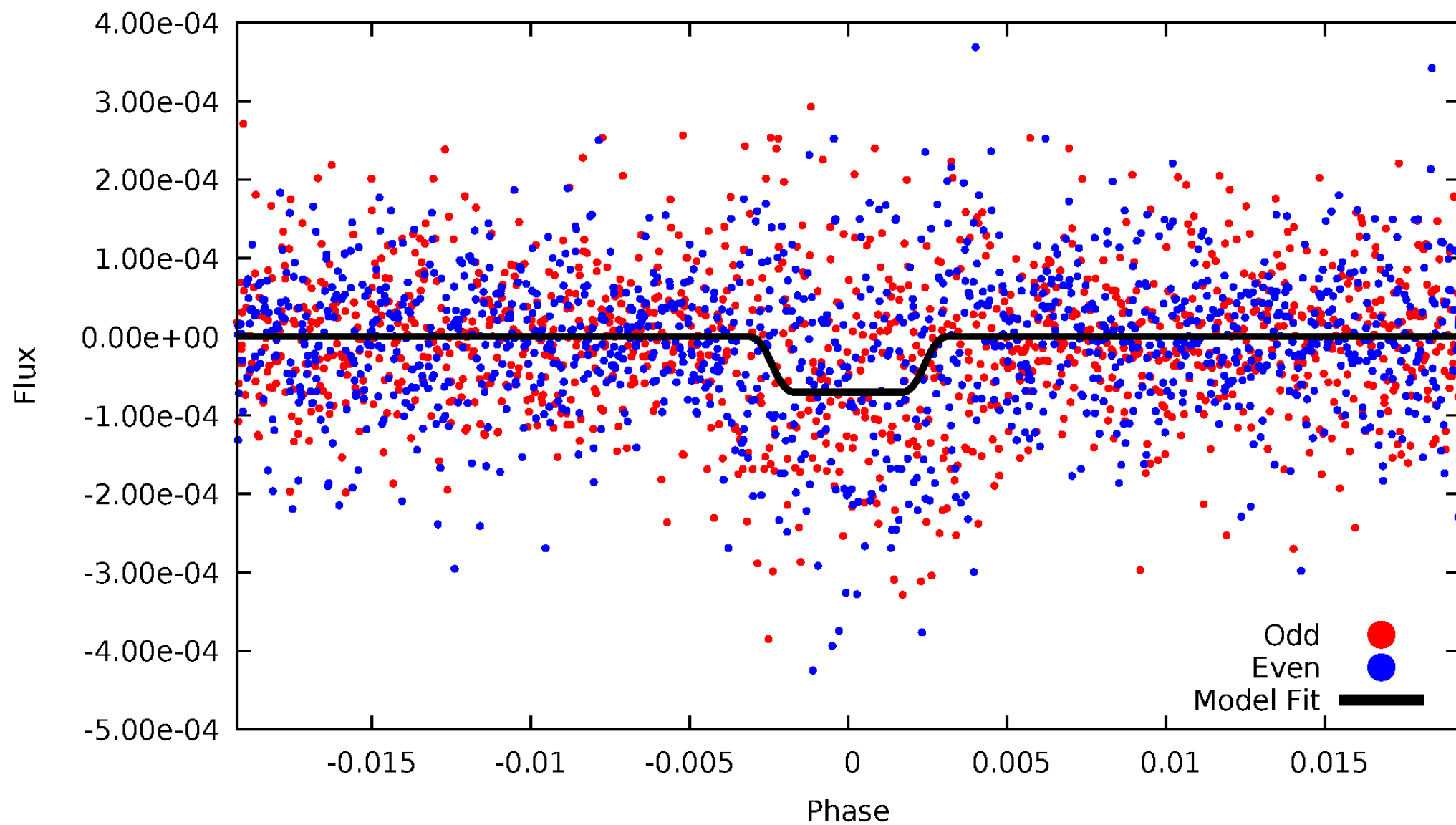
DV Odd/Even

TCE 002834805-01



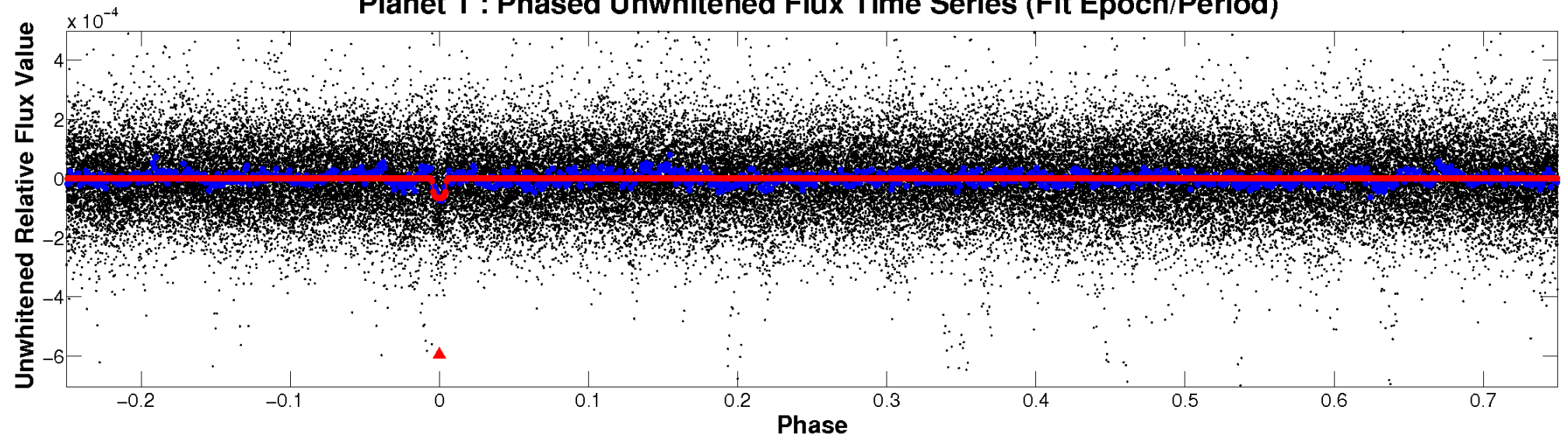
ALT Odd/Even

TCE 002834805-01

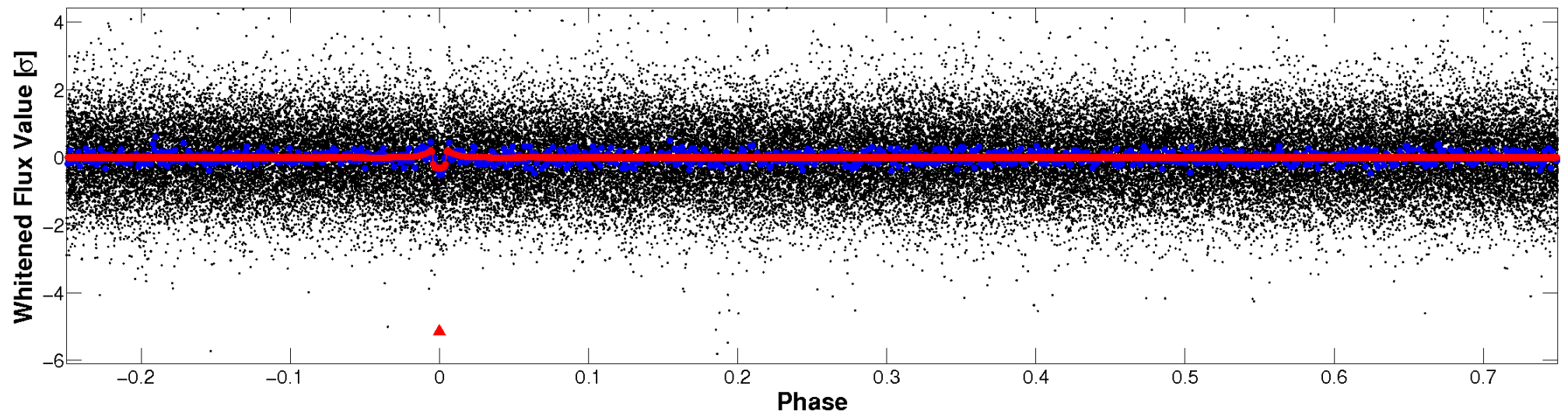


Non-Whitened Vs. Whitened Light Curve

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

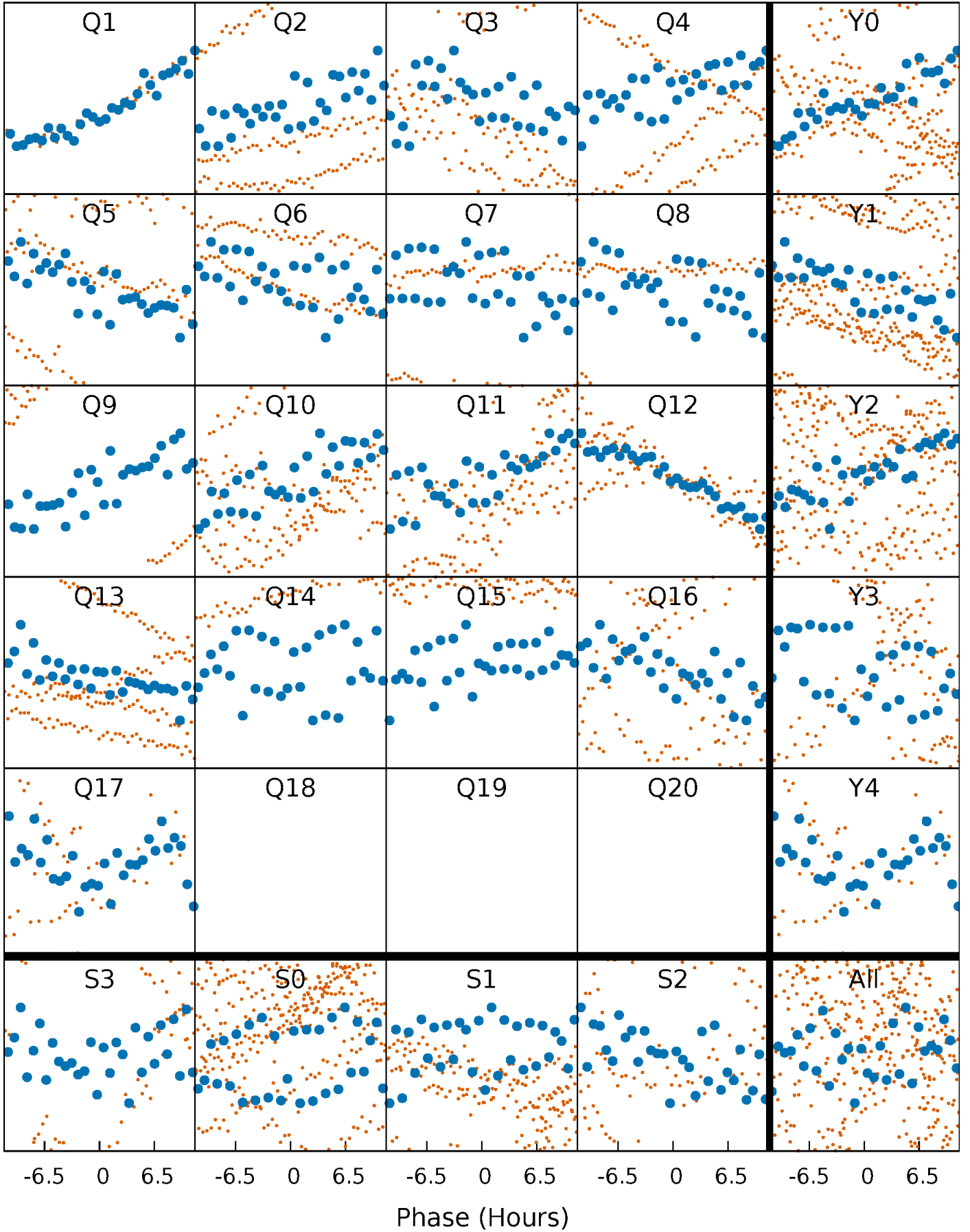


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



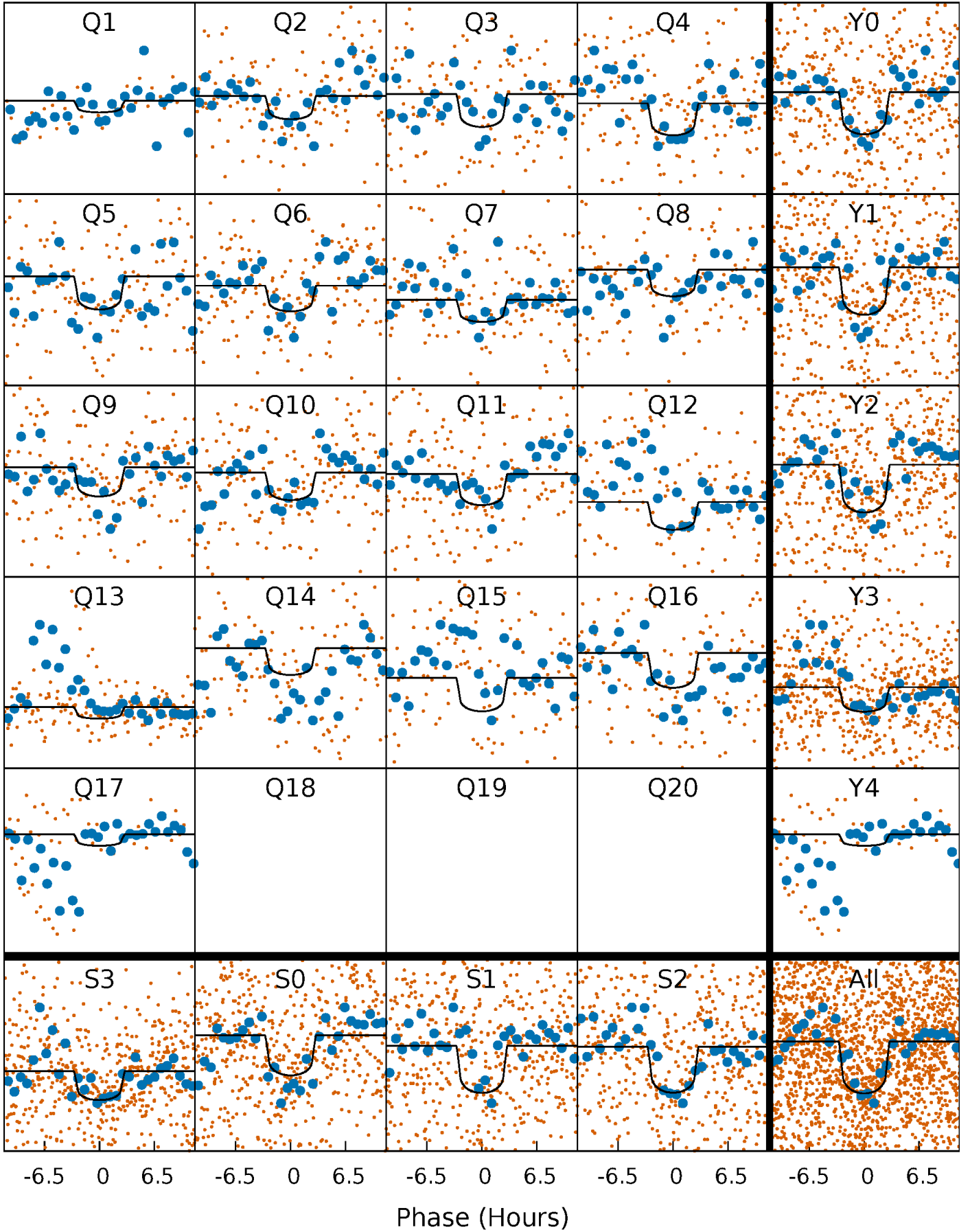
PDC Quarter-Phased Transit Curves

TCE 002834805-01 P= 25.003257 Days $T_0=140.898197$ (BKJD)



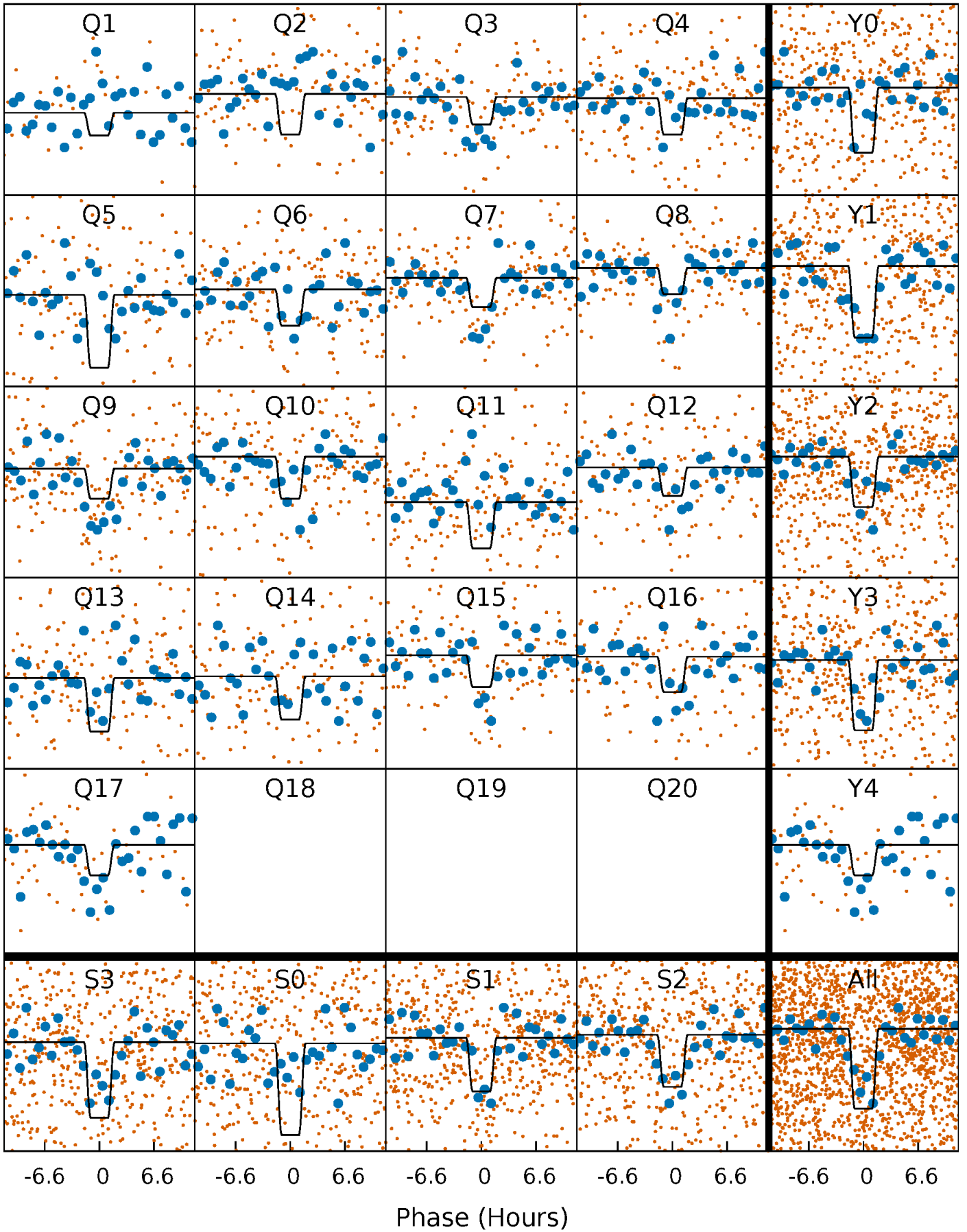
DV Quarter-Phased Transit Curves

TCE 002834805-01 P= 25.003257 Days $T_0=140.898197$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

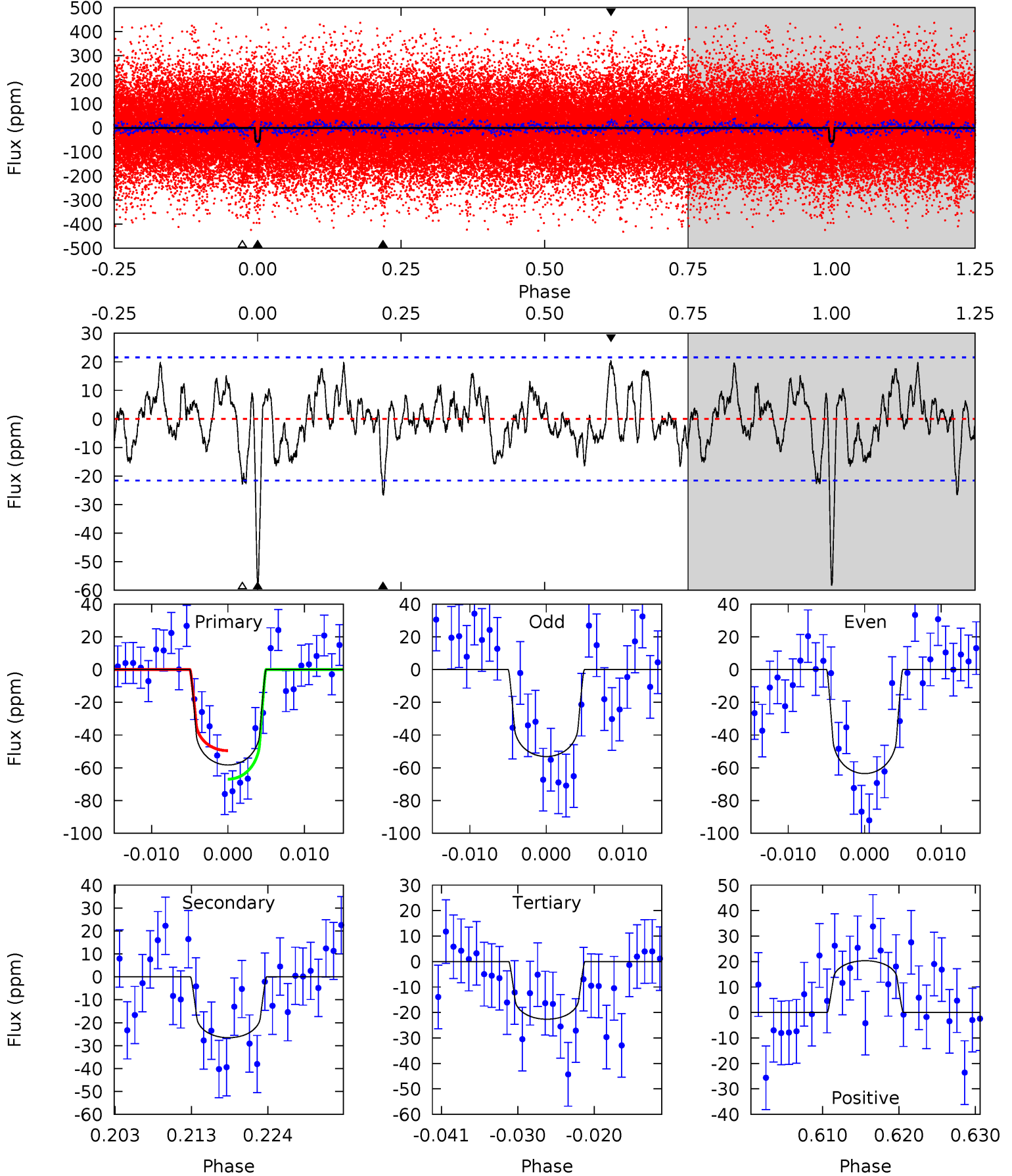
TCE 002834805-01 P= 25.004165 Days $T_0=140.861885$ (BKJD)



DV Model-Shift Uniqueness Test

002834805-01, $P = 25.003257$ Days, $E = 115.894940$ Days

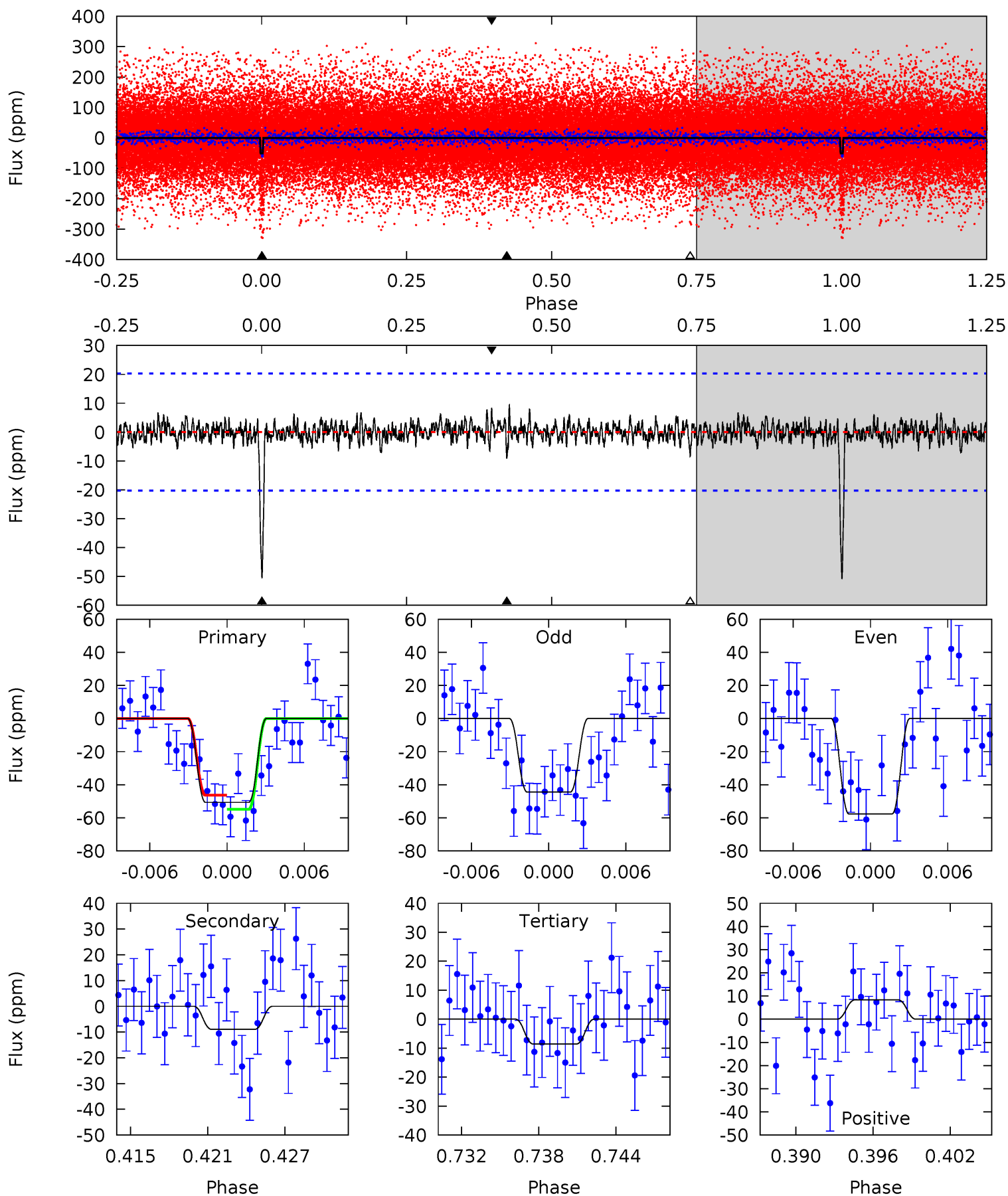
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	6.19	5.27	4.73	5.02	2.57	1.83	8.30	8.84	0.91	1.45	1.22	0.88	0.26	2.03



Alt Model-Shift Uniqueness Test

002834805-01, P = 25.004165 Days, E = 115.857720 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	2.26	2.16	2.10	5.12	2.74	0.60	10.6	10.7	0.10	0.16	1.66	0.88	0.16	1.08



Stellar Parameters For KIC 002834805

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6148^{+167}_{-186}	$4.055^{+0.234}_{-0.126}$	$0.000^{+0.250}_{-0.300}$	$1.685^{+0.385}_{-0.428}$	$1.176^{+0.189}_{-0.172}$	$0.346^{+0.477}_{-0.129}$
	+3%/-3%	+6%/-3%	+inf%/-inf%	+23%/-25%	+16%/-15%	+138%/-37%
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 002834805-01 / KOI 7638.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-27 ± 4	$1.49^{+0.60}_{-0.55}$	1155^{+75}_{-84}	4957^{+1019}_{-639}	208^{+332}_{-104}
Alt.	-9 ± 4	$1.51^{+0.58}_{-0.59}$	1158^{+74}_{-80}	3973^{+831}_{-541}	67^{+126}_{-39}

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 $A_{obs} \gg 1.0$

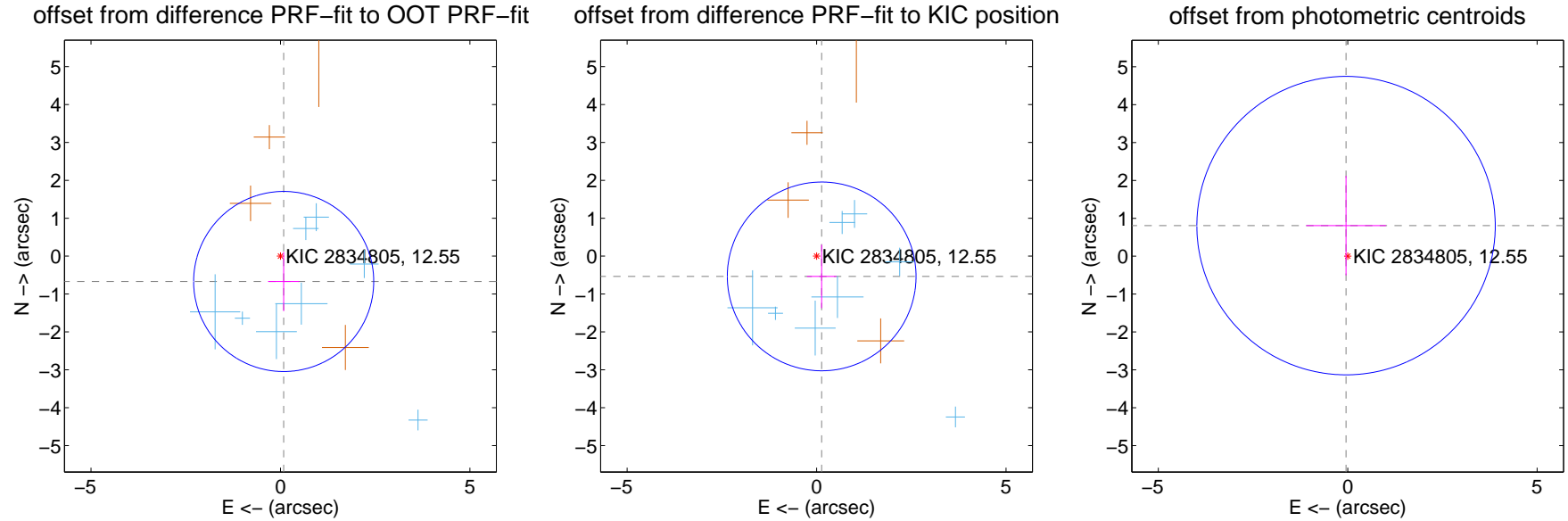
DV Centroid Data

Supplemental centroid analysis for 002834805-01. Kepler magnitude: 12.55. Transit SNR 8.13

There are 8 quarters with good PRF difference image offsets

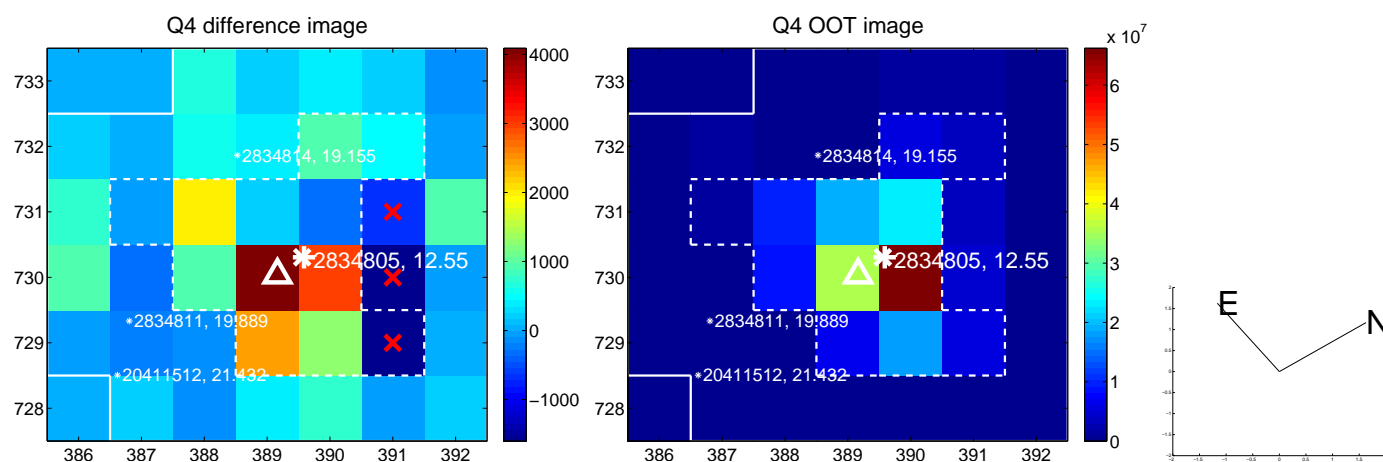
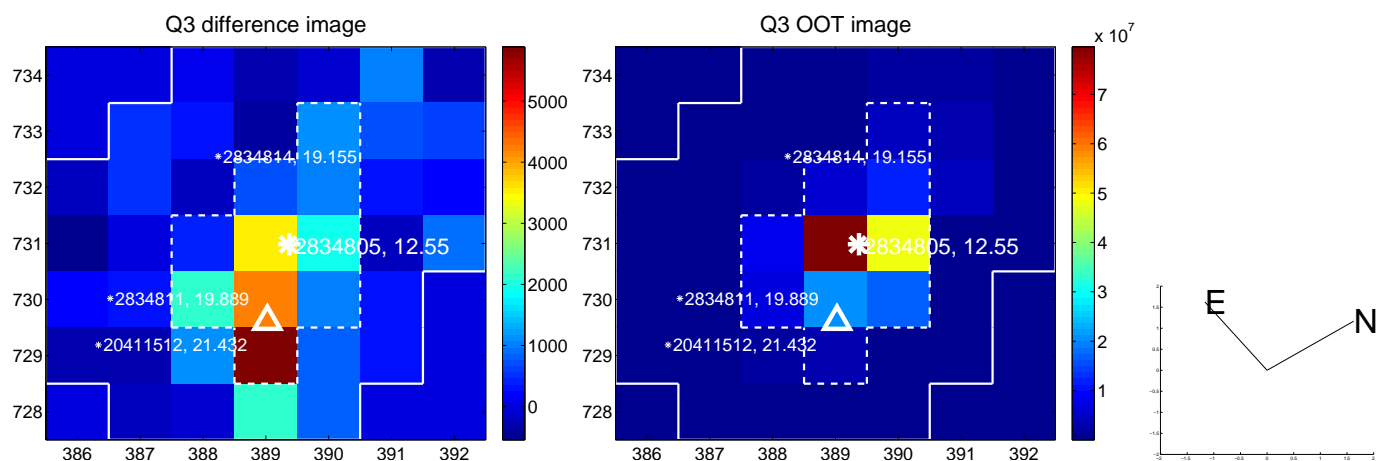
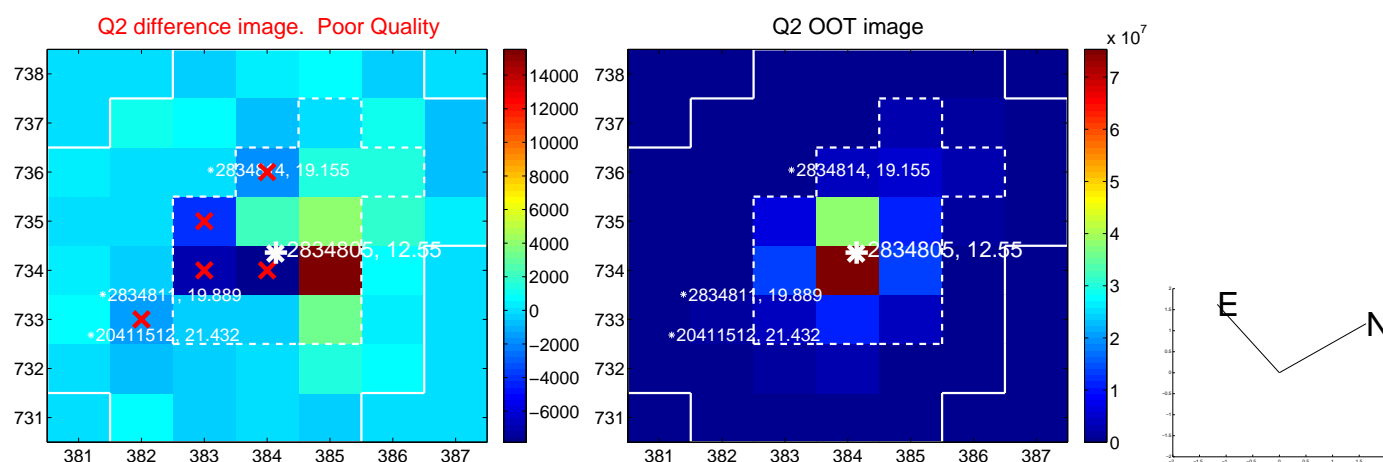
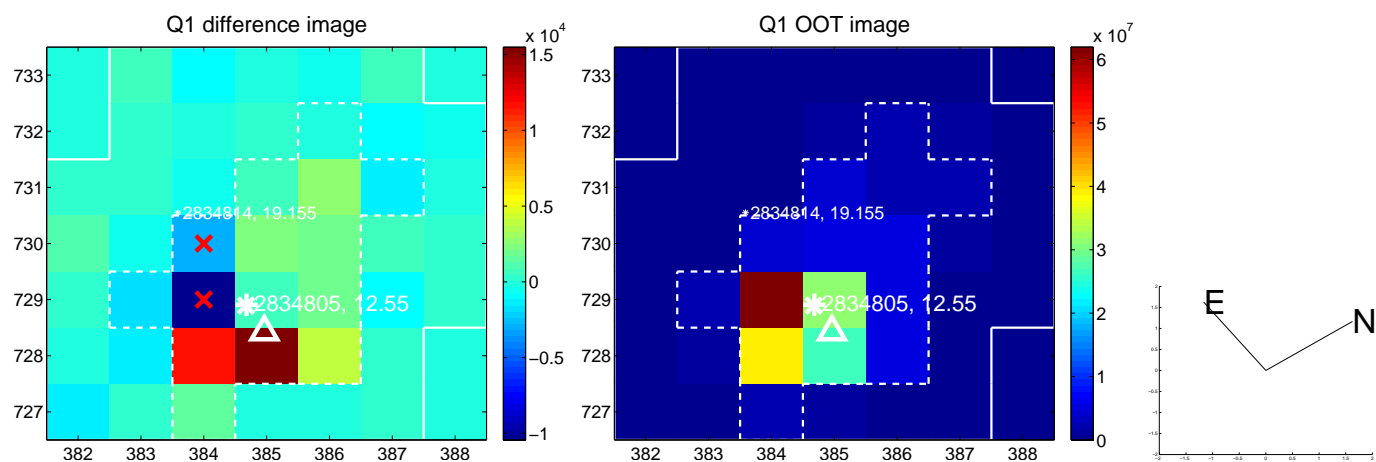
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.675 ± 0.792	0.85	-0.085 ± 0.409	-0.669 ± 0.782
PRF-fit source offset from KIC position	0.552 ± 0.830	0.66	-0.135 ± 0.391	-0.535 ± 0.836
photometric centroid source offset	0.81 ± 1.31	0.62	0.04 ± 1.05	0.81 ± 1.31

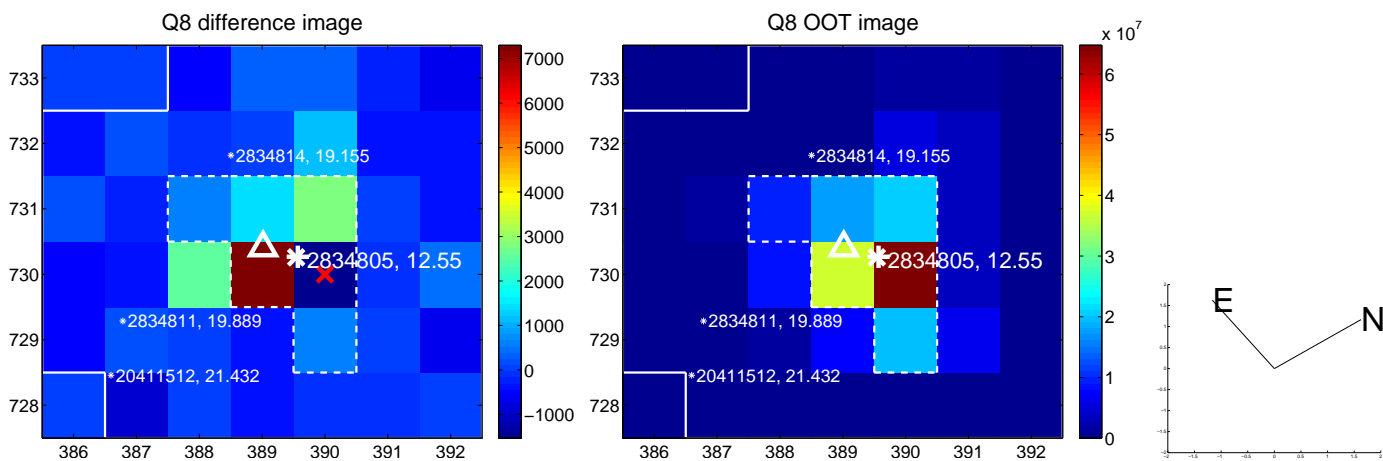
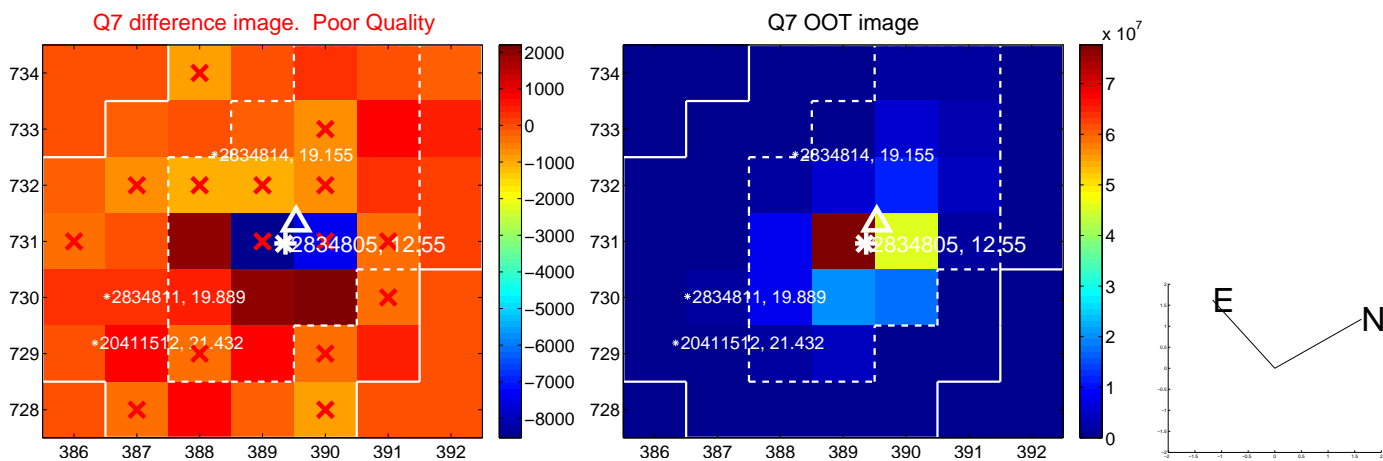
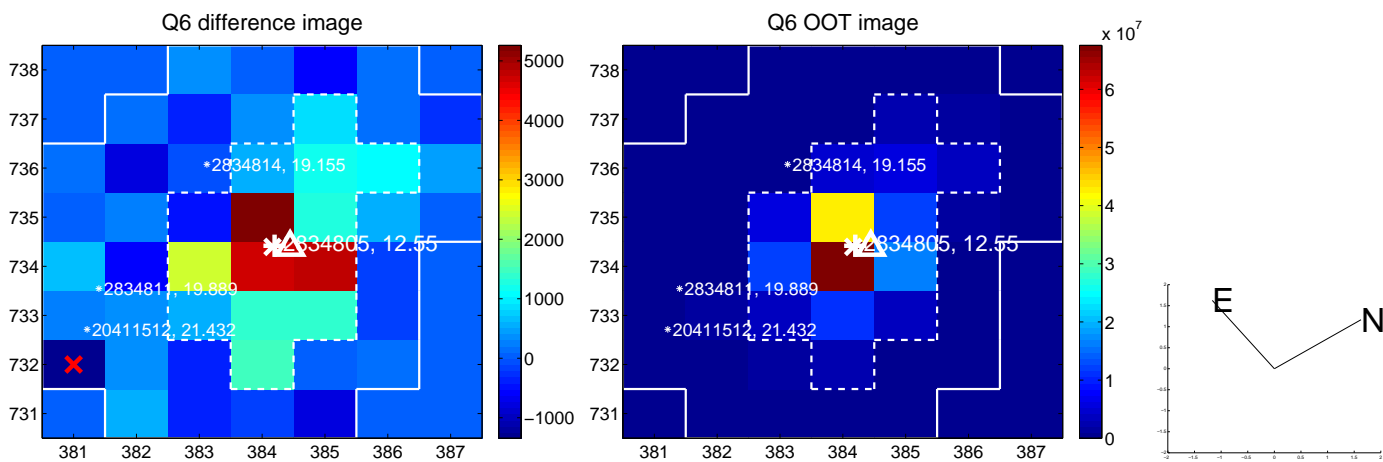
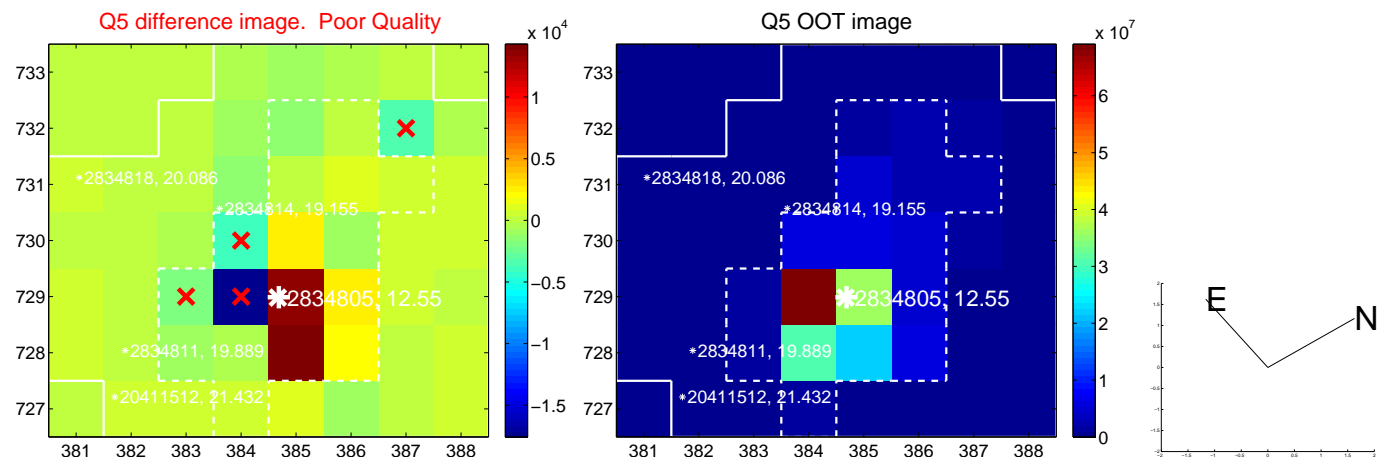


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

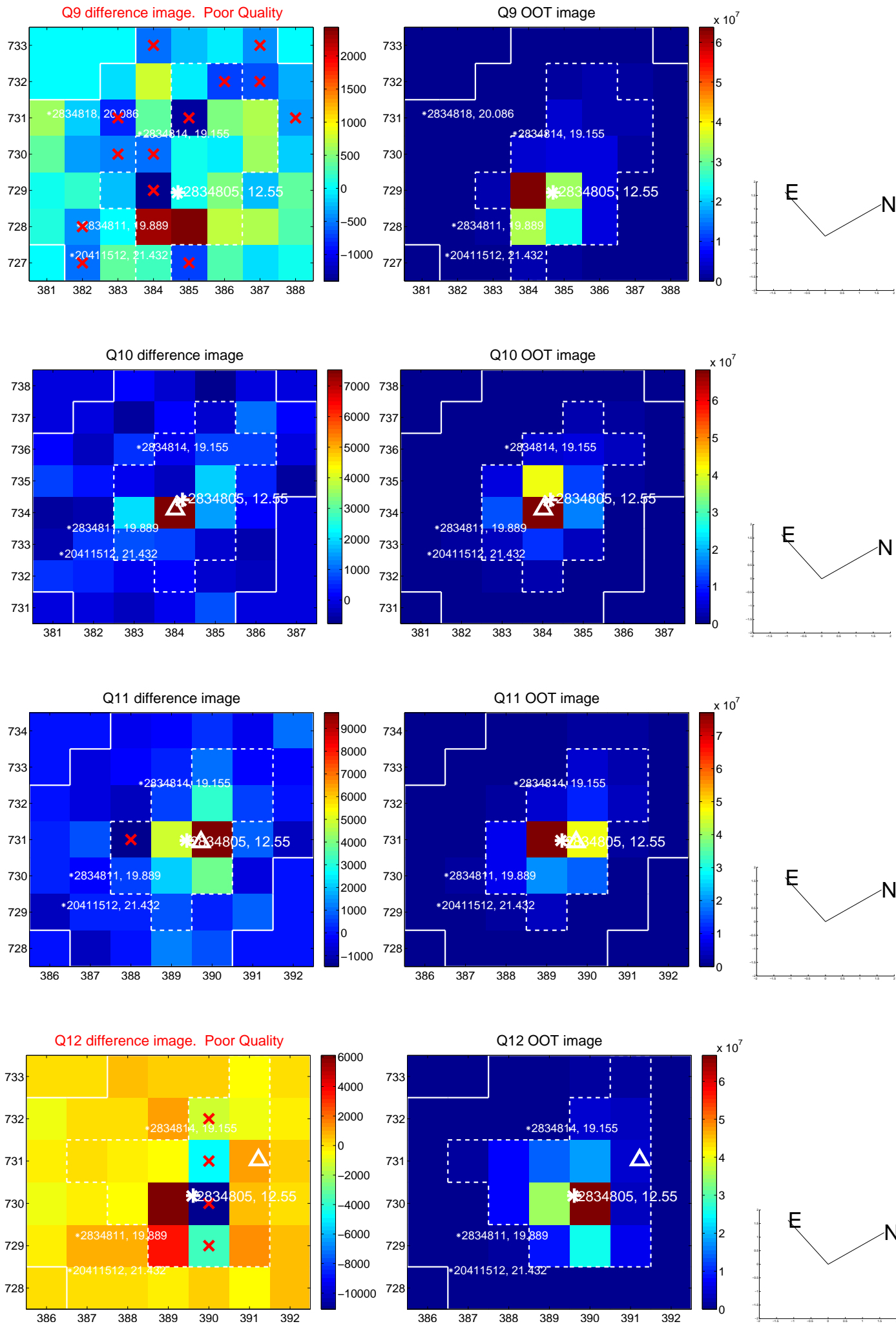
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



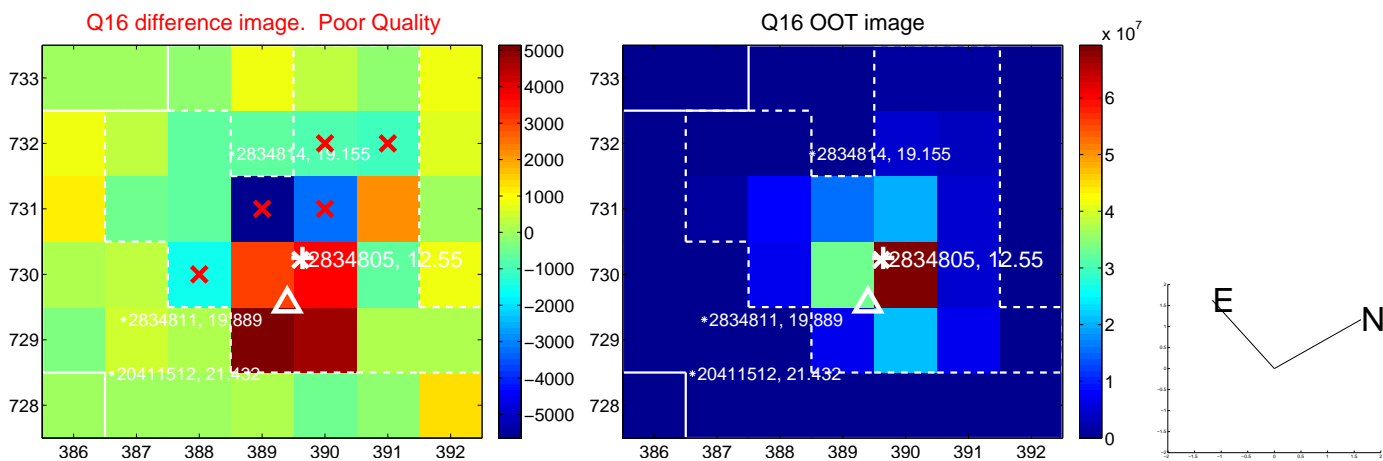
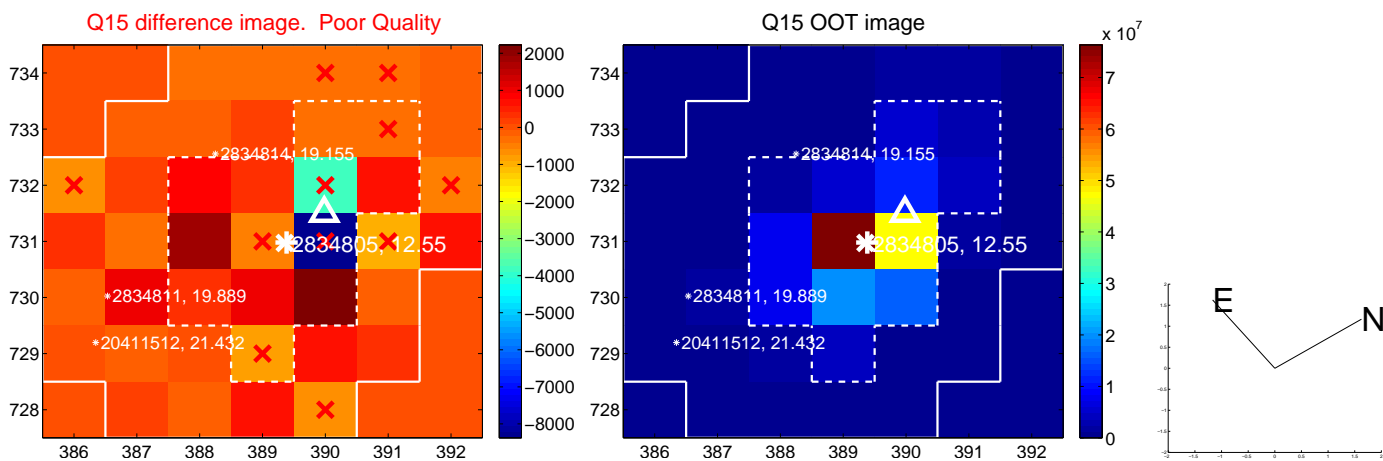
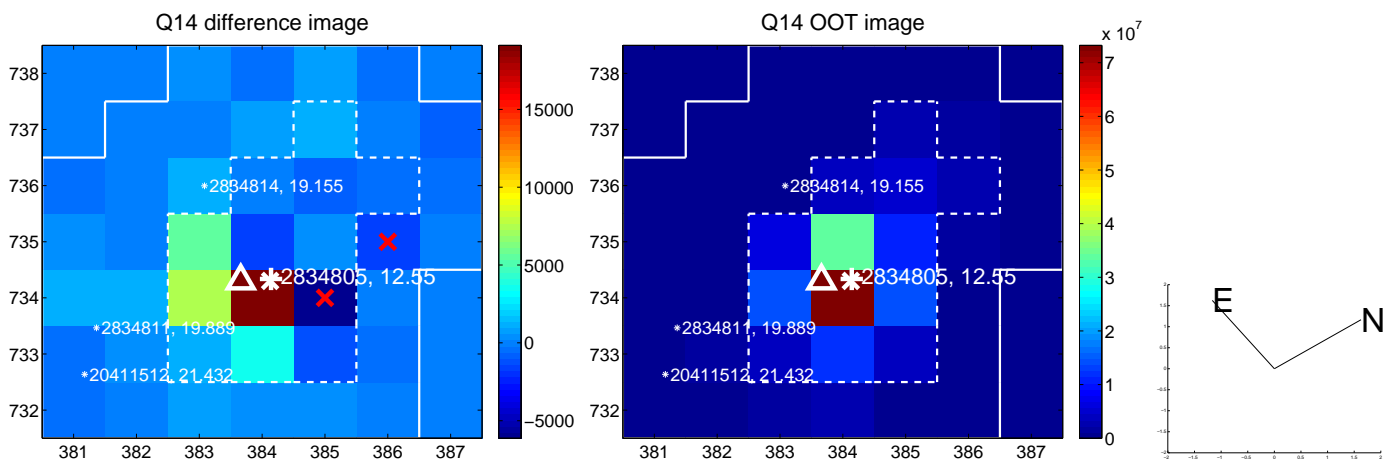
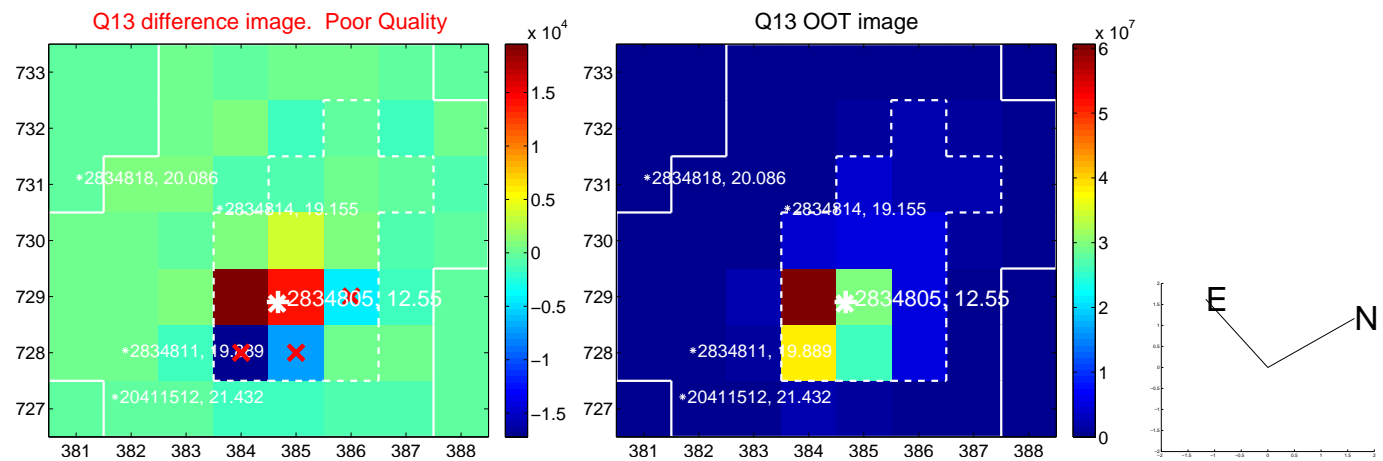
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



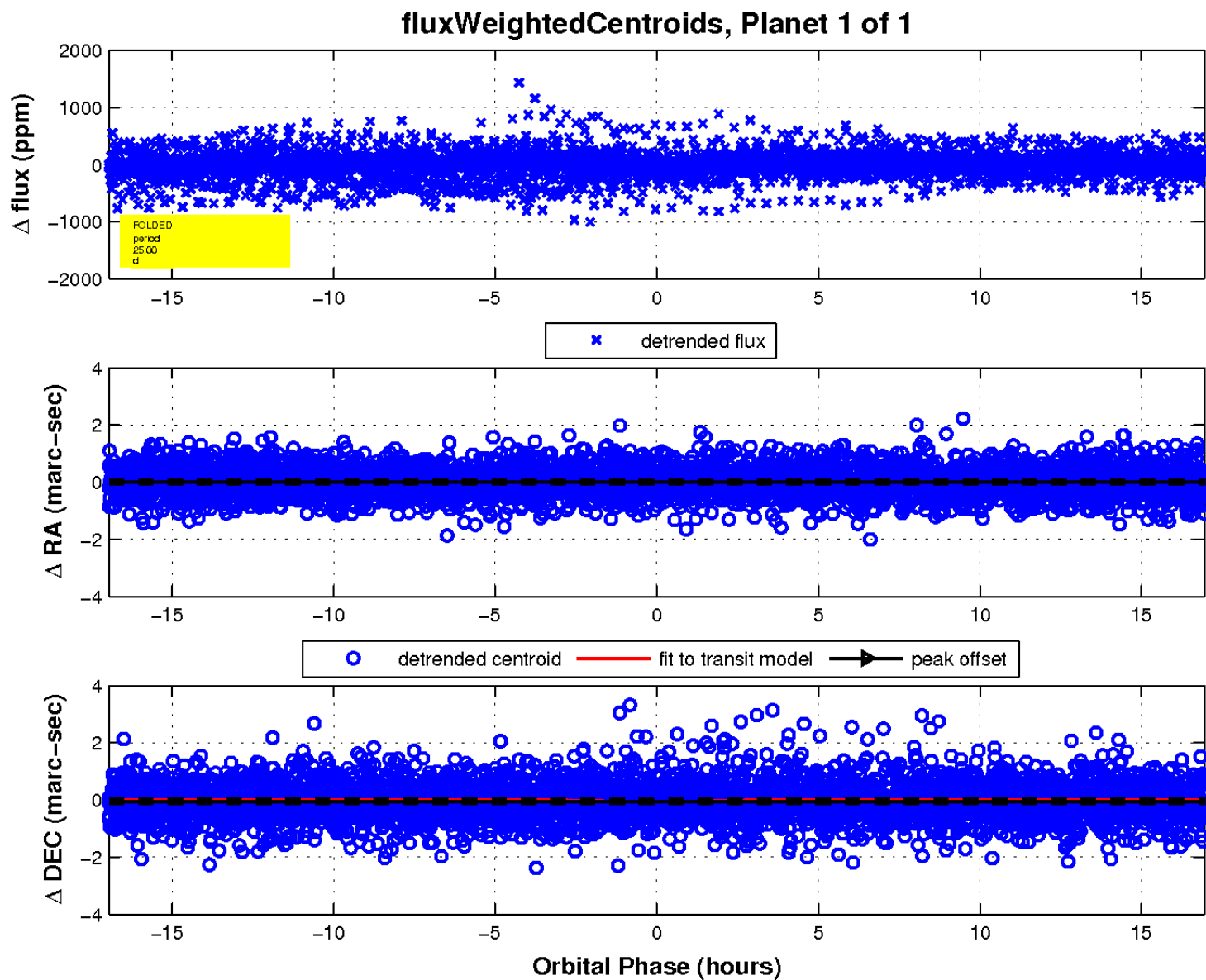
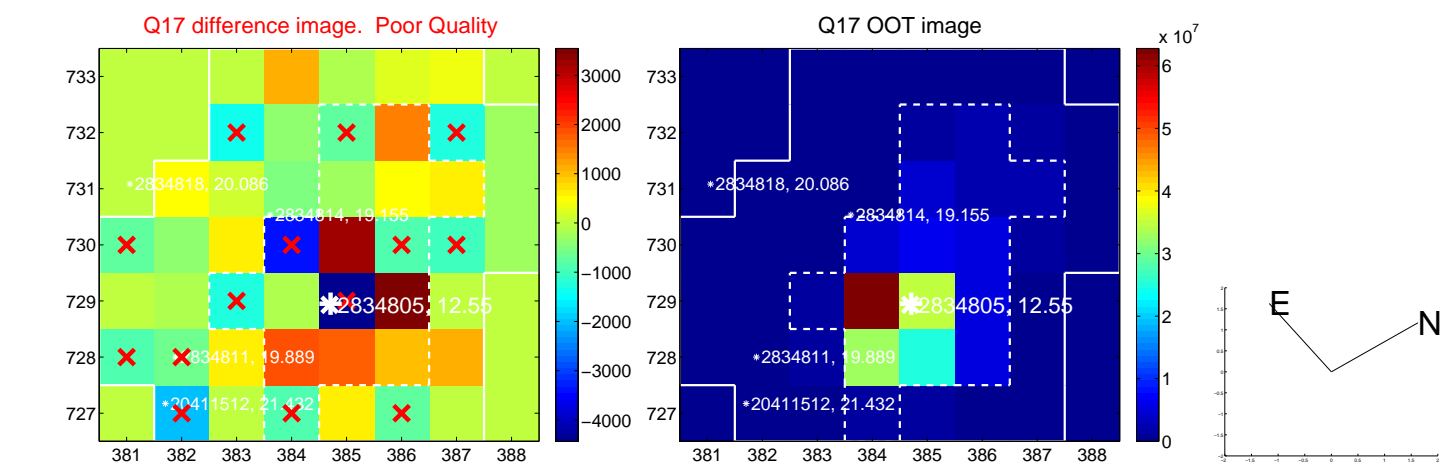
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

