

KIC 002985767

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})
002985767-01	OBS	2032.01	14.079654	139.962106	162.5	1.460	22.4	26.0	1.55	5821	2.40	178.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002985767-01	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.

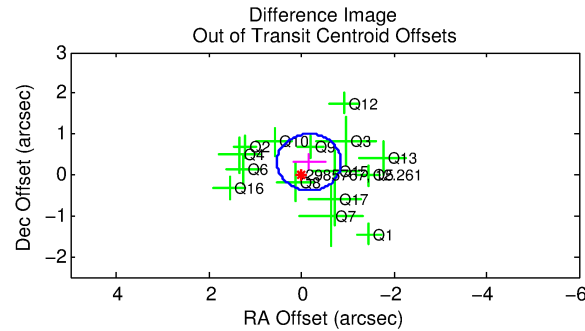
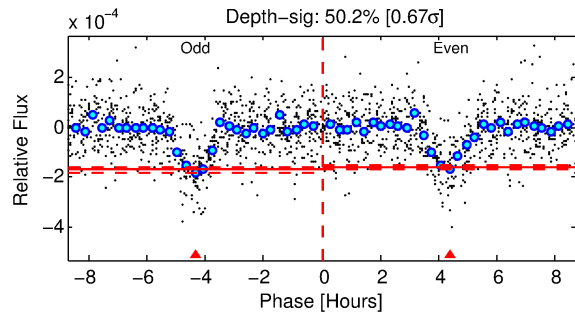
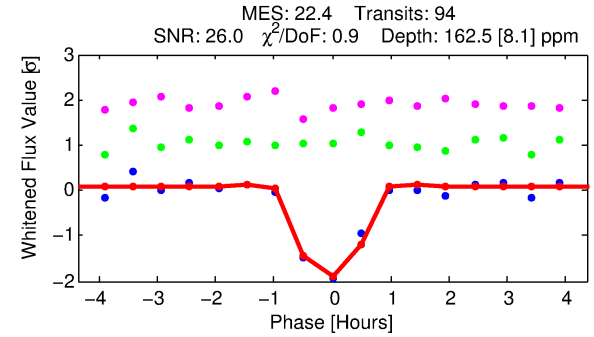
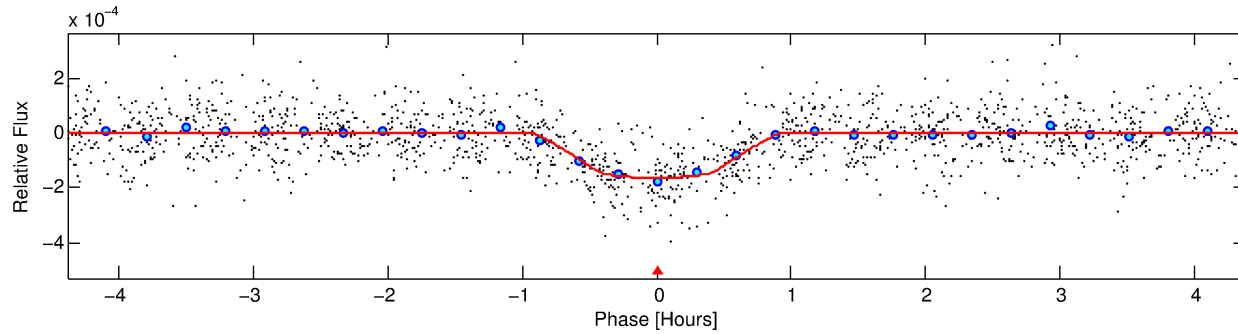
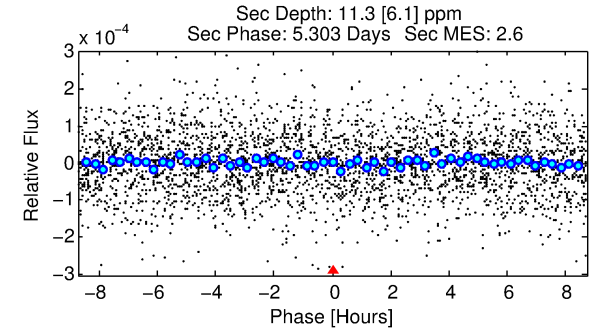
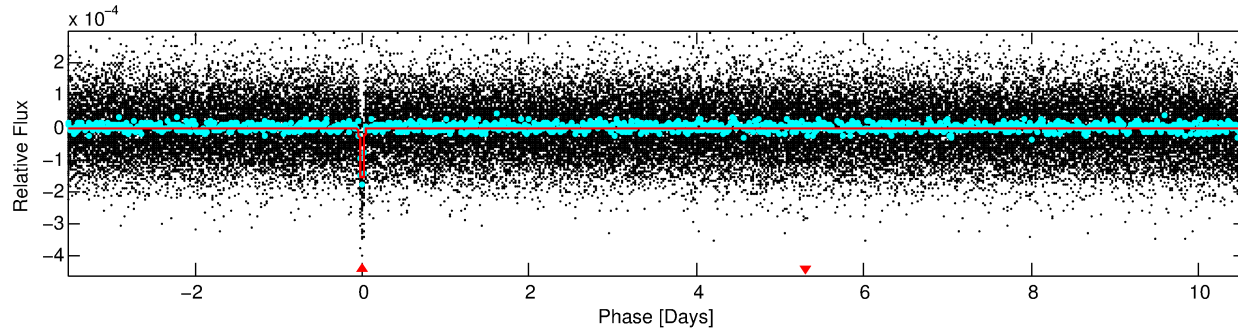
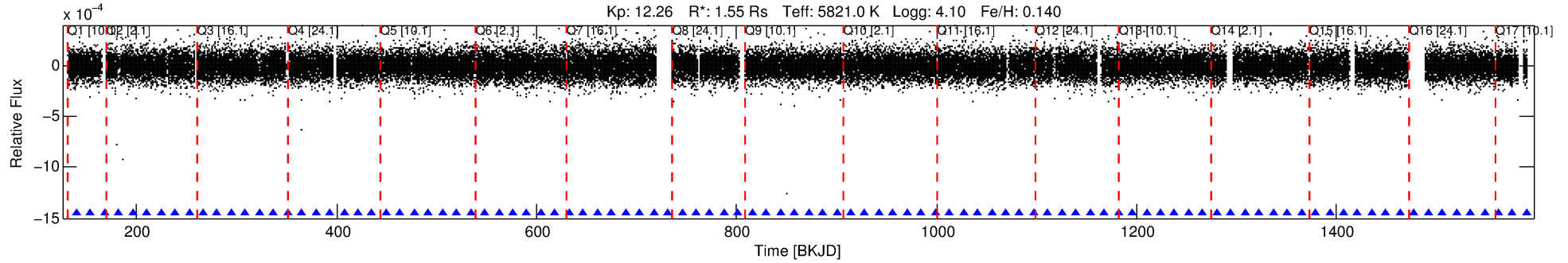
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002985767-01

No Significant Match Found

DV One-Page Summary

KIC: 2985767 Candidate: 1 of 1 Period: 14.080 d
KOI: K02032.01 Corr: 0.955



DV Fit Results:

Period = 14.07965 [0.00003] d
Epoch = 139.9621 [0.0016] BKJD
Rp/R* = 0.0142 [0.0043]
a/R* = 31.62 [46.52]
b = 0.92 [0.25]
Seff = 178.27 [68.72]
Teff = 932 [90] K
Rp = 2.40 [0.96] Re
a = 0.1175 [0.0286] AU
Ag = 14.81 [13.31] [1.04σ]
Teffp = 2826 [576] K [3.25σ]

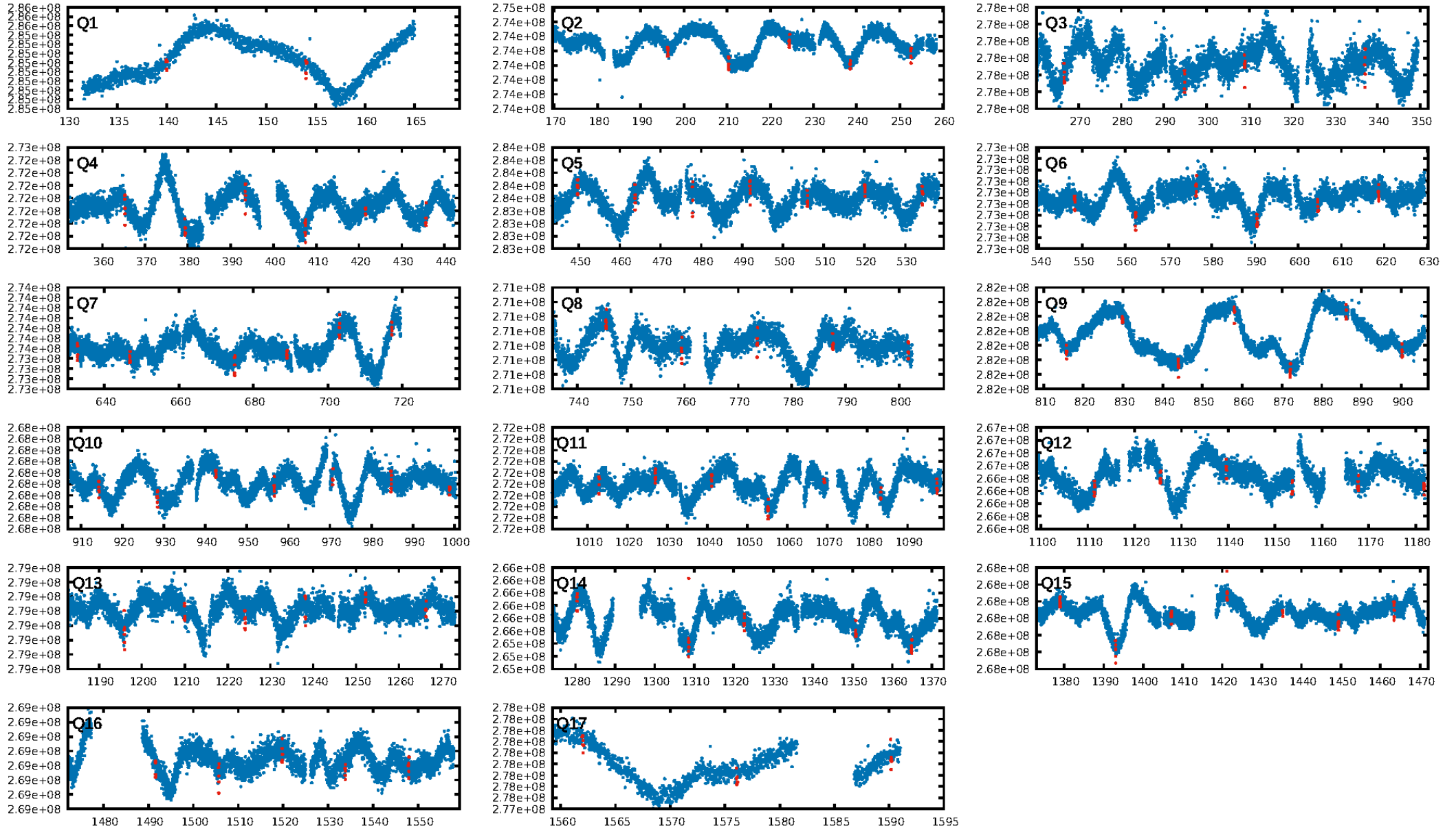
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.33e-106
RollingBand-fgt: 1.00 [89/89]
GhostDiagnostic-chr: 2.843
Centroid-sig: 7.2%
Centroid-so: 0.834 arcsec [1.79σ]
OotOffset-rm: 0.349 arcsec [1.51σ]
OotOffset-st: 3/3/4/5 [15]
KicOffset-rm: 0.317 arcsec [1.04σ]
KicOffset-st: 3/3/4/5 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [17/17]

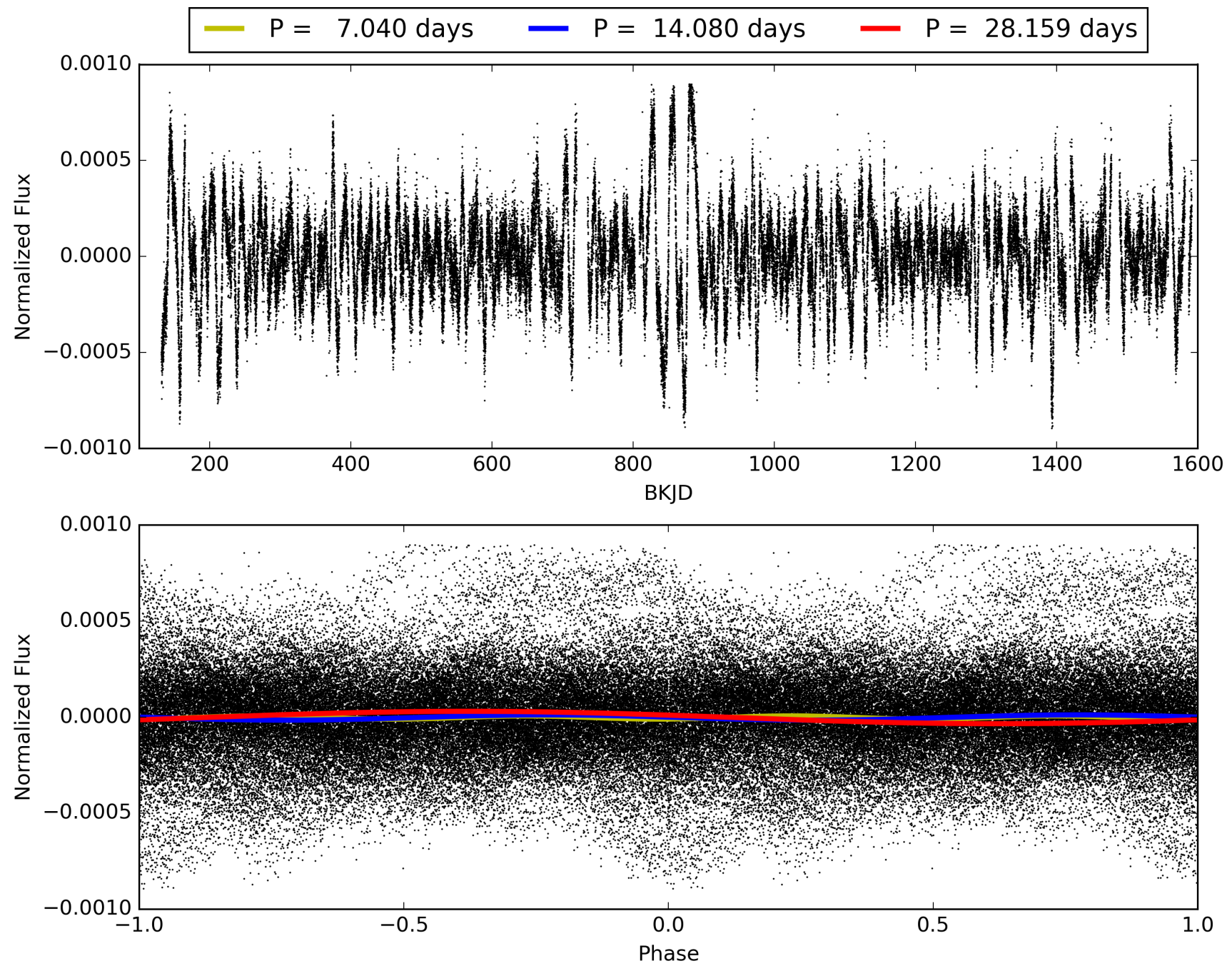
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:54:50 Z

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

TCE 002985767-01, PDC Light Curves

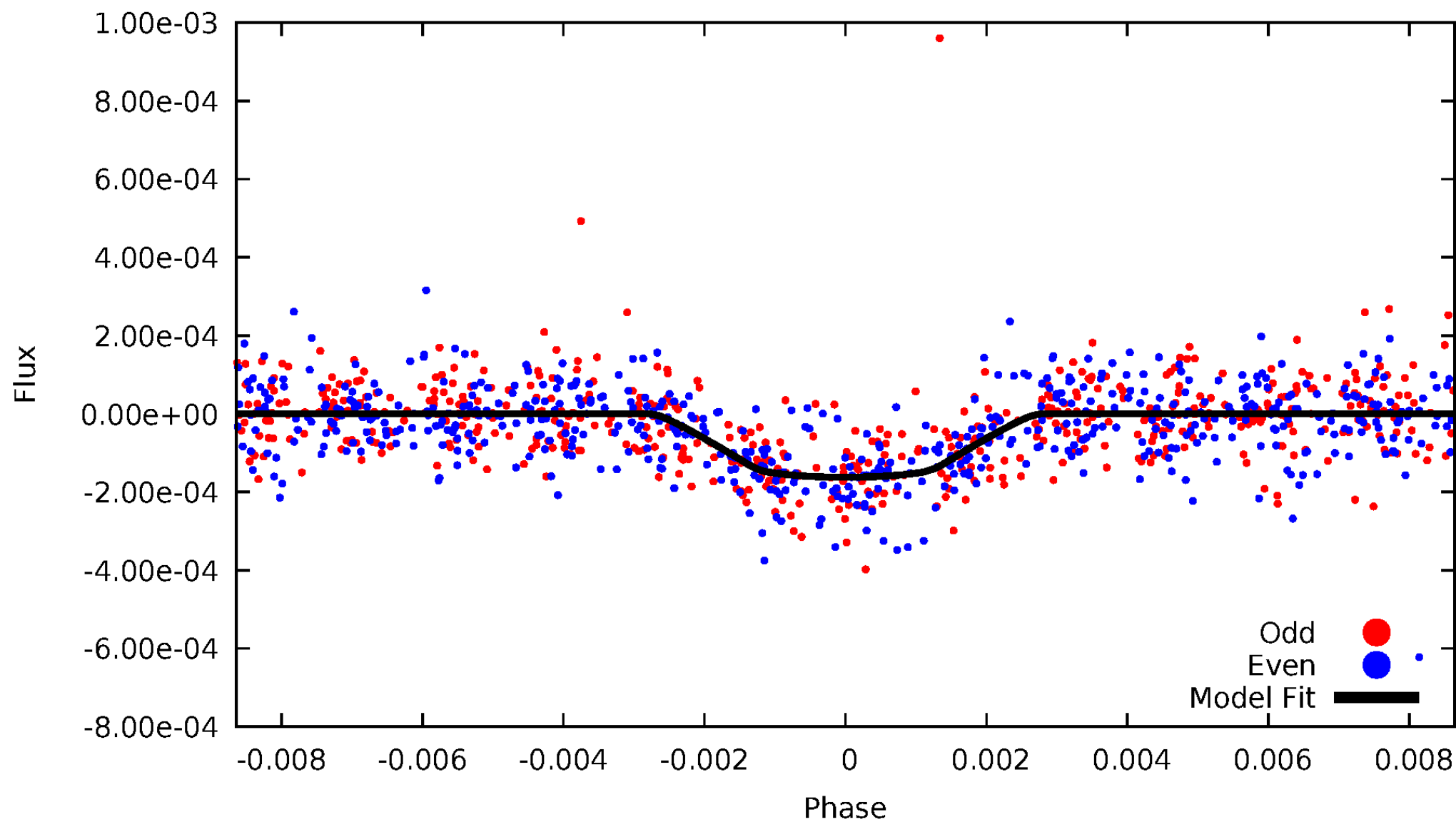


TCE 002985767-01



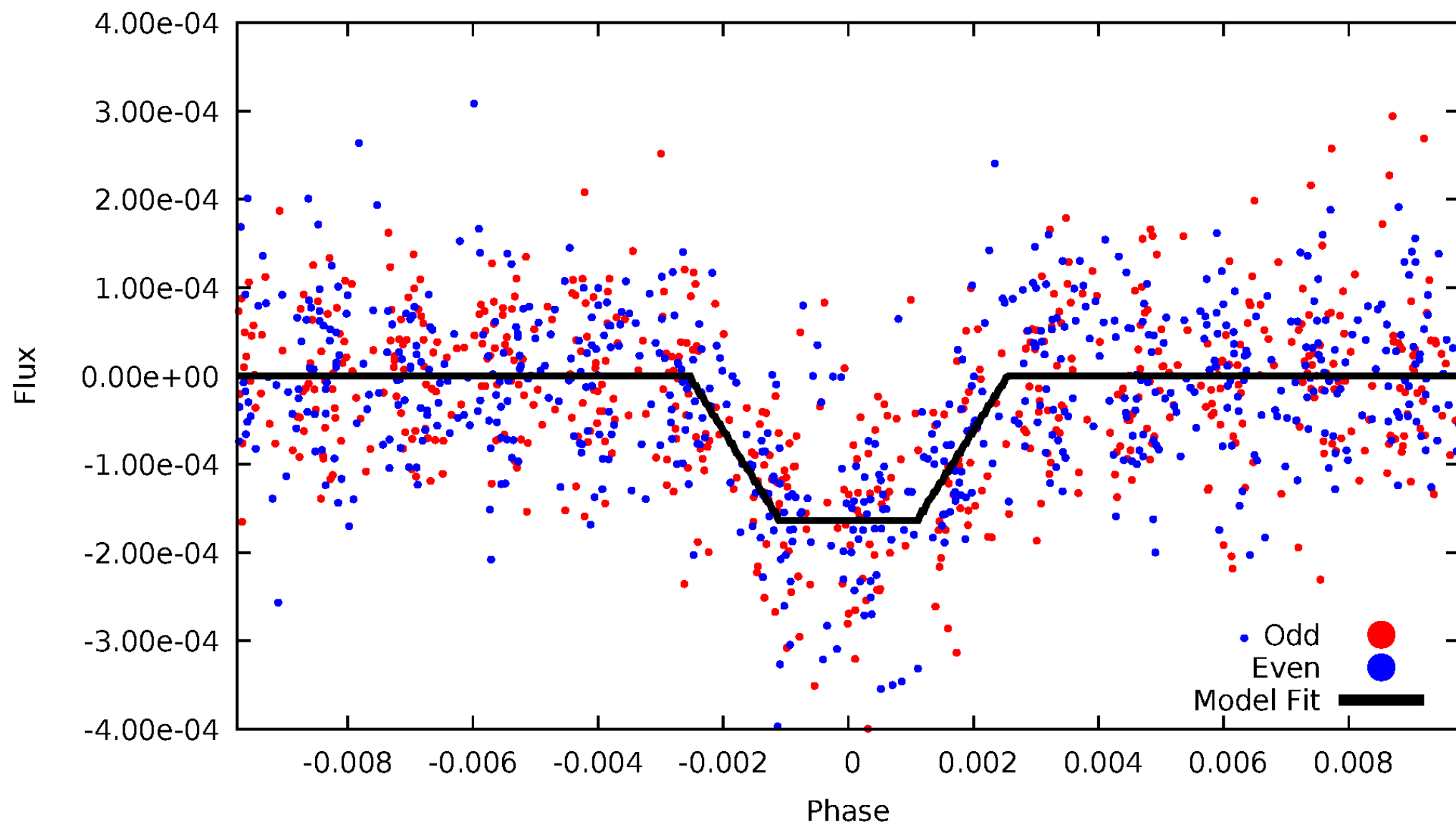
DV Odd/Even

TCE 002985767-01

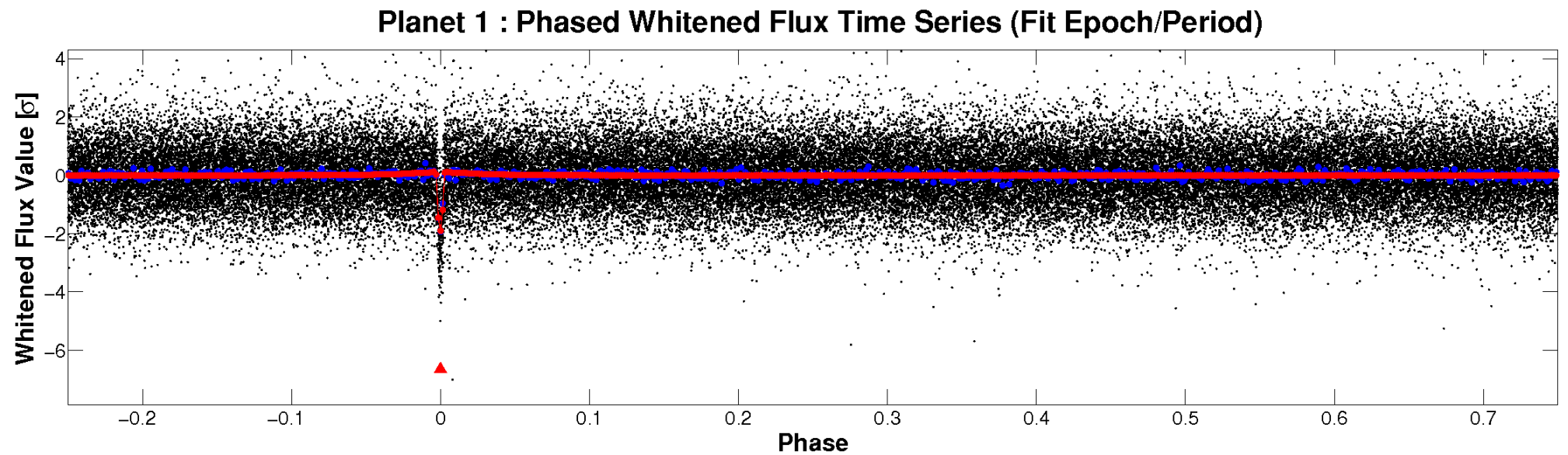
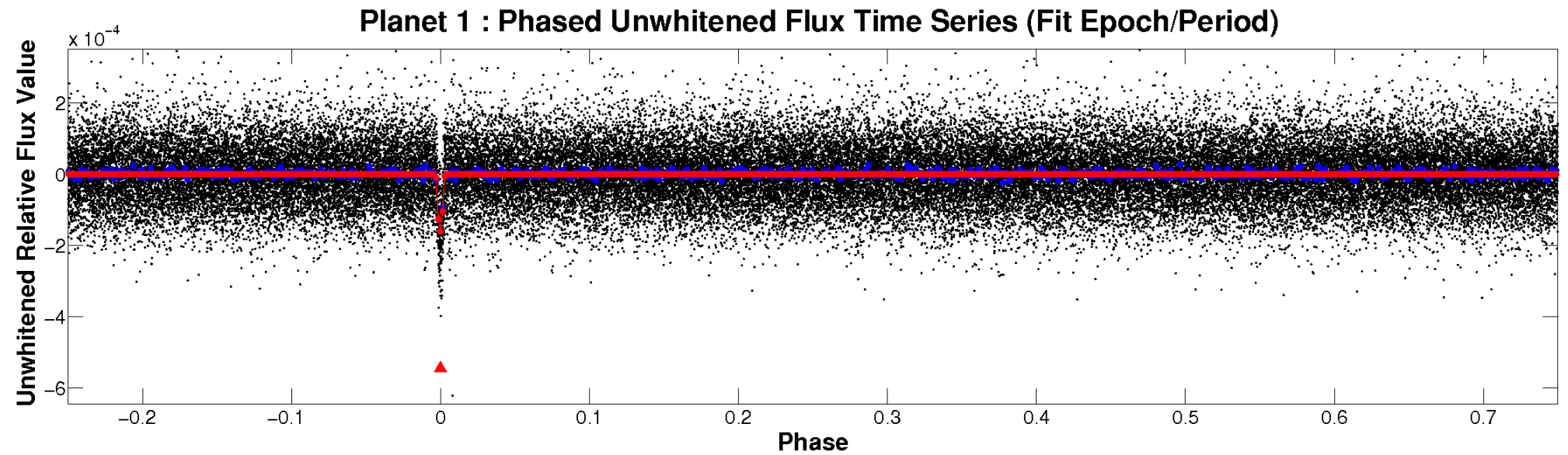


ALT Odd/Even

TCE 002985767-01

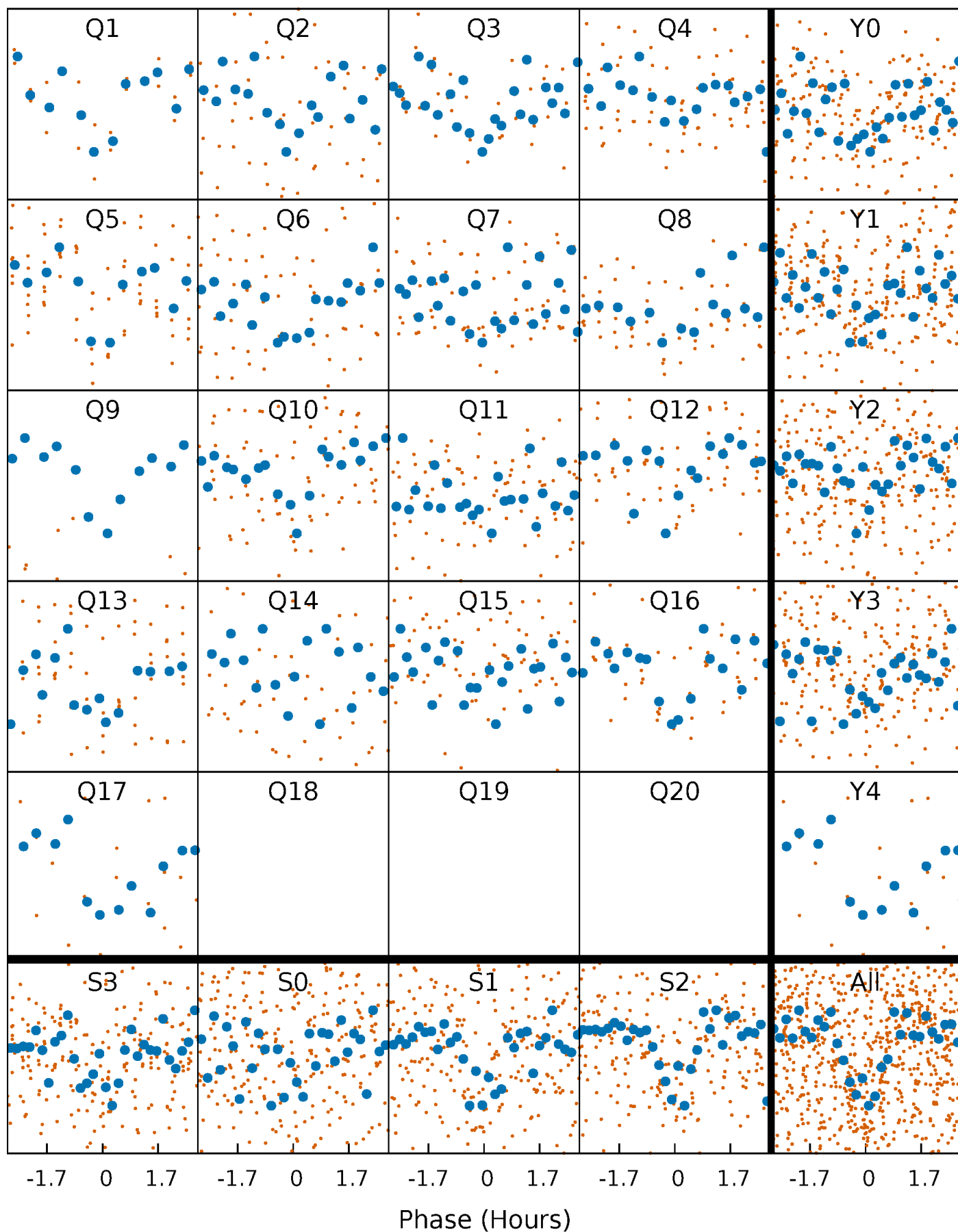


Non-Whitened Vs. Whitened Light Curve



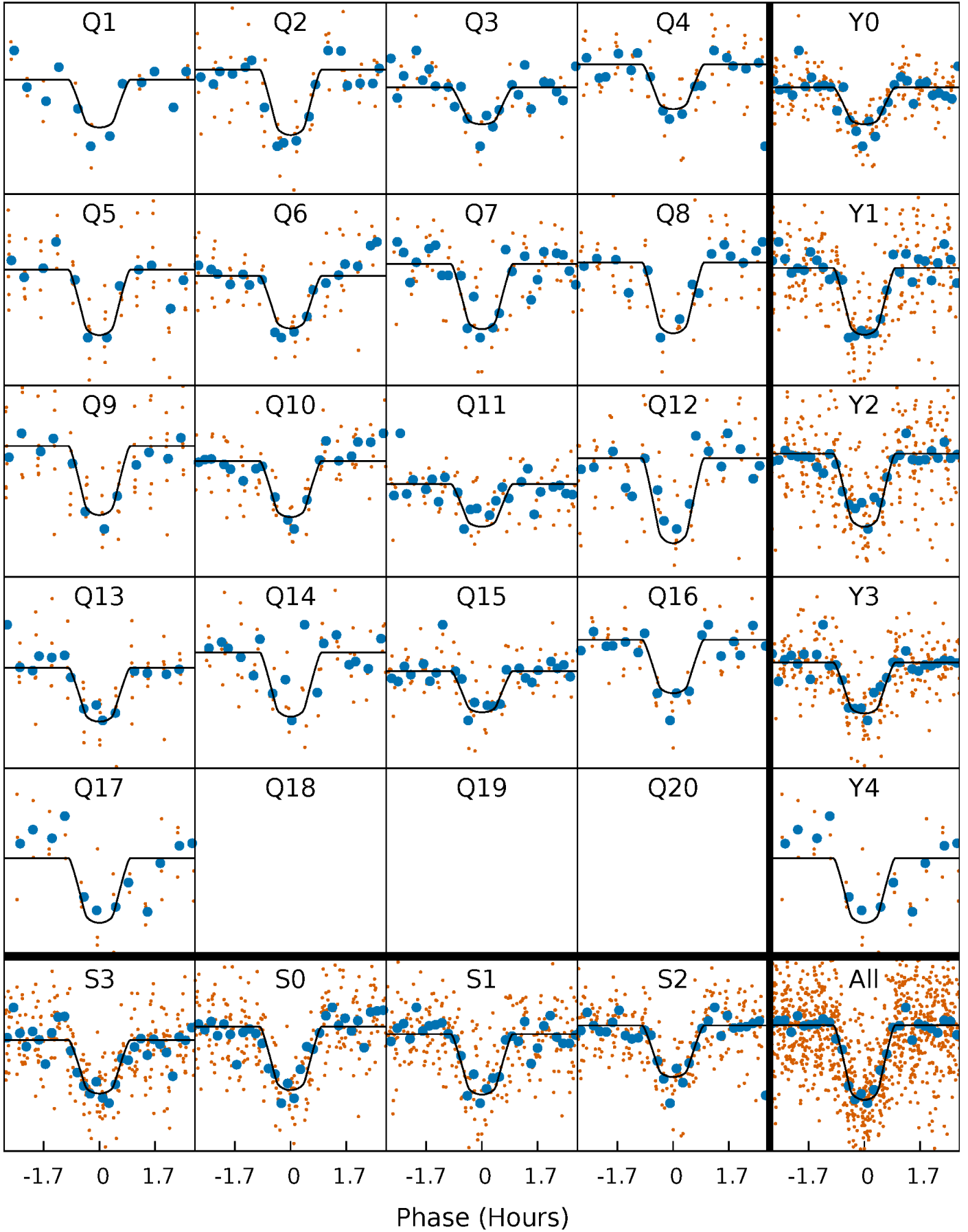
PDC Quarter-Phased Transit Curves

TCE 002985767-01 P= 14.079654 Days $T_0=139.962106$ (BKJD)



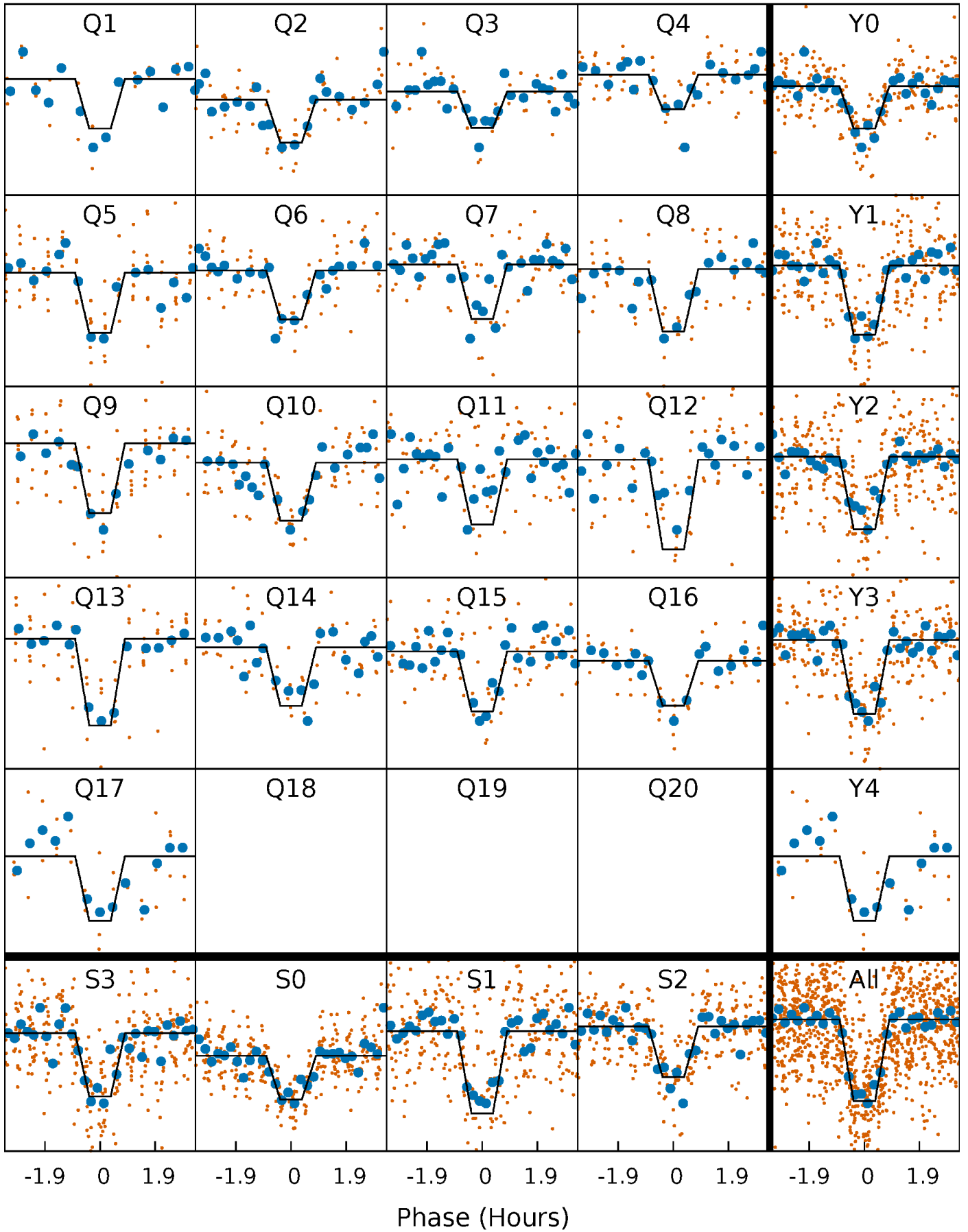
DV Quarter-Phased Transit Curves

TCE 002985767-01 P= 14.079654 Days $T_0=139.962106$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

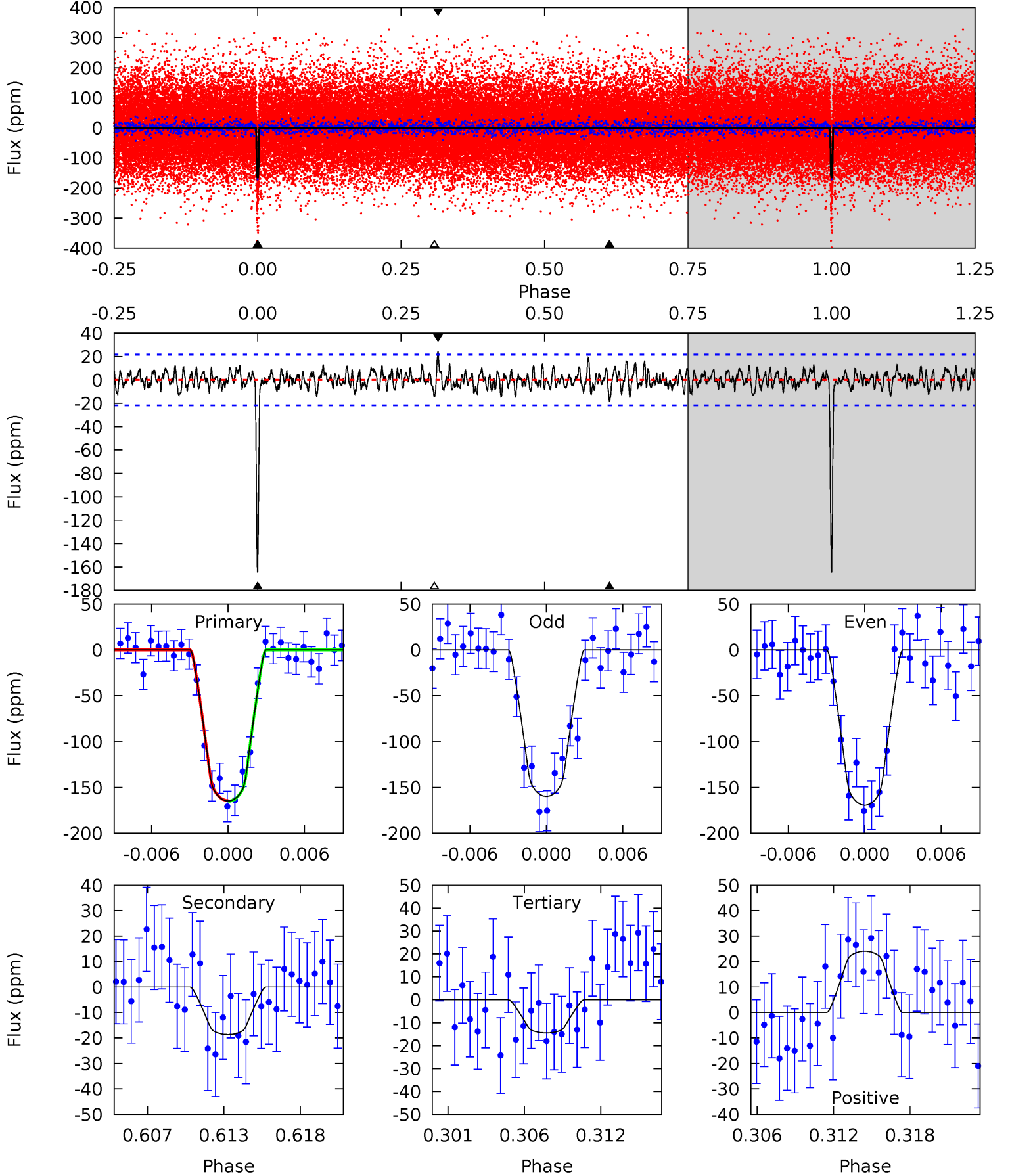
TCE 002985767-01 P= 14.079632 Days $T_0=139.962892$ (BKJD)



DV Model-Shift Uniqueness Test

002985767-01, $P = 14.079654$ Days, $E = 125.882452$ Days

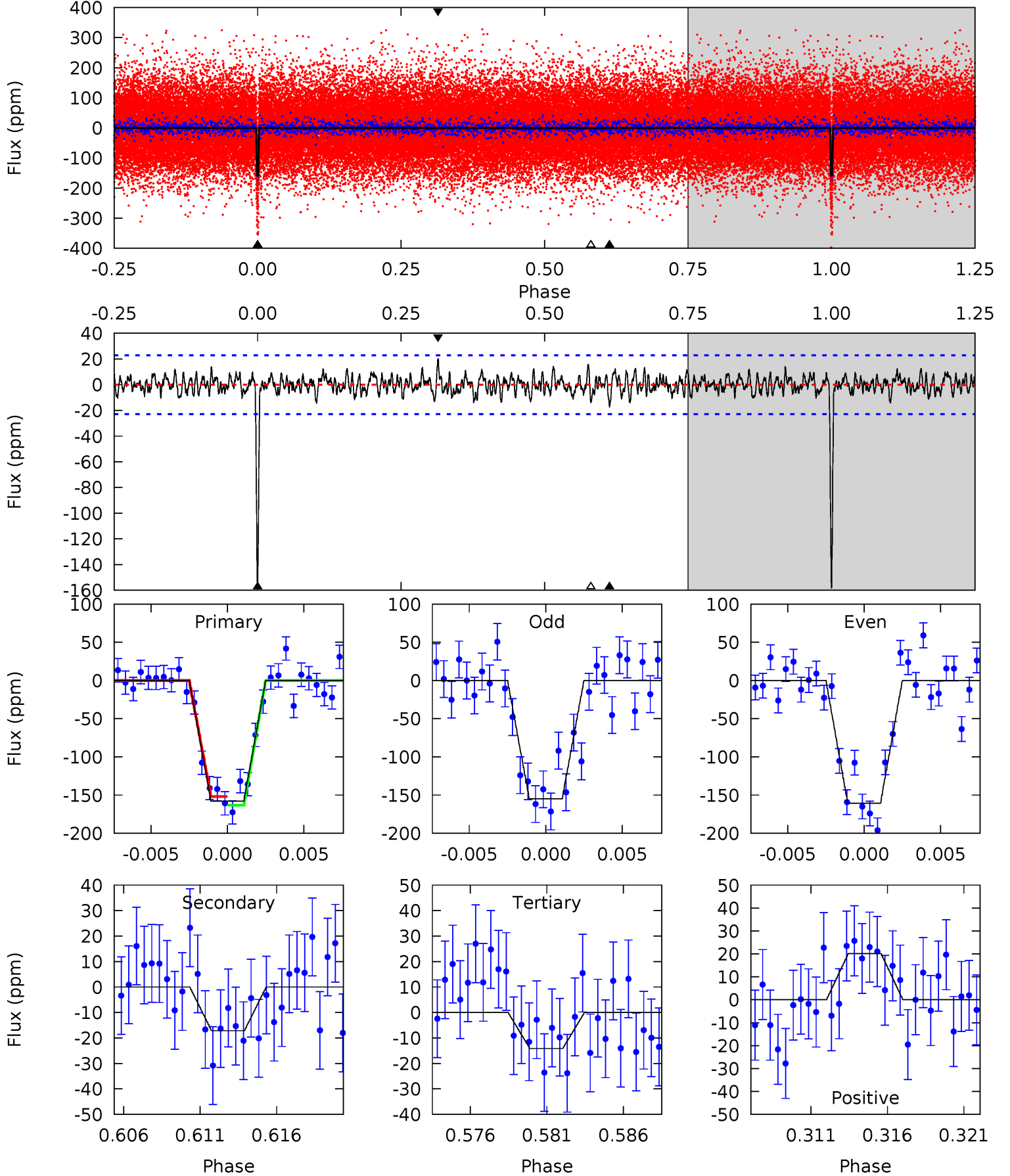
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.0	4.42	3.42	5.69	5.13	2.77	1.36	35.6	33.3	1.00	-1.27	1.14	0.97	0.13	0.08



Alt Model-Shift Uniqueness Test

002985767-01, $P = 14.079632$ Days, $E = 125.883260$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.6	3.87	3.19	4.53	5.15	2.80	1.22	32.4	31.1	0.68	-0.67	0.64	1.02	0.11	1.26



Stellar Parameters For KIC 002985767

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5821^{+78}_{-78}	$4.097^{+0.221}_{-0.102}$	$0.140^{+0.150}_{-0.150}$	$1.547^{+0.270}_{-0.406}$	$1.092^{+0.114}_{-0.083}$	$0.415^{+0.563}_{-0.126}$
	+1%/-1%	+5%/-2%	+107%/-107%	+17%/-26%	+10%/-8%	+135%/-30%
Source	SPE90	FLK73	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 002985767-01 / KOI 2032.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 4	$2.35^{+0.77}_{-0.75}$	1290^{+64}_{-80}	3626^{+473}_{-317}	26^{+30}_{-11}
Alt.	-17 ± 4	$2.11^{+0.83}_{-0.76}$	1290^{+60}_{-87}	3686^{+629}_{-347}	29^{+42}_{-15}

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 $A_{obs} \gg 1.0$

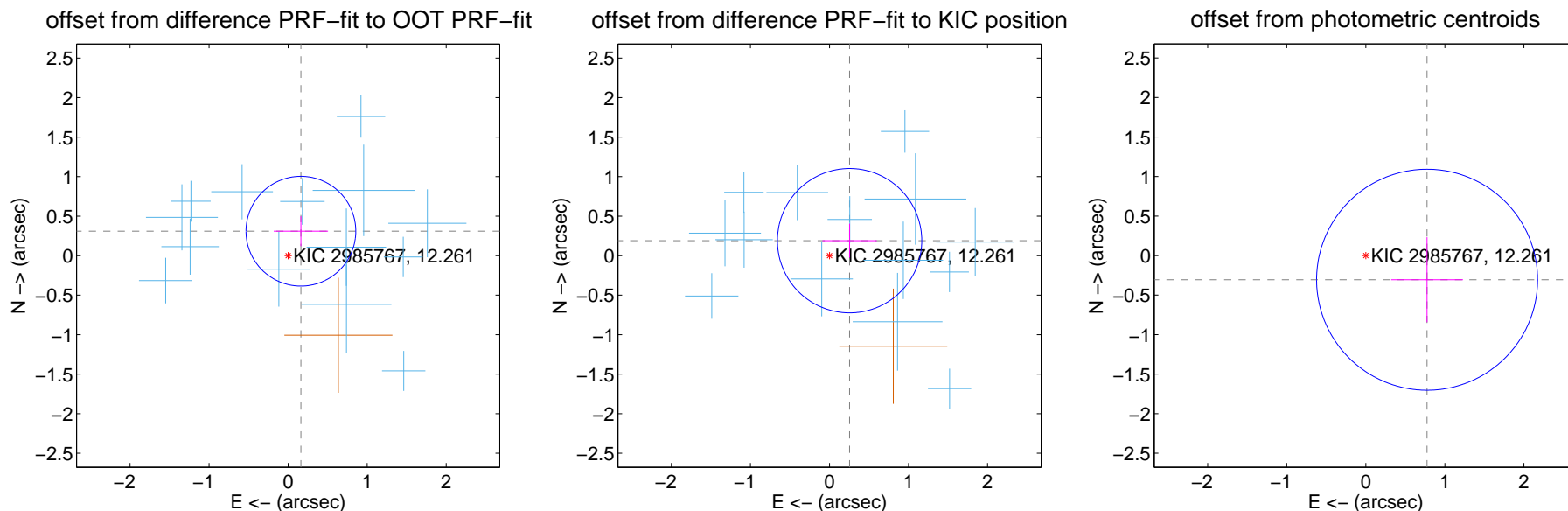
DV Centroid Data

Supplemental centroid analysis for 002985767-01. Kepler magnitude: 12.26. Transit SNR 25.96

There are 14 quarters with good PRF difference image offsets

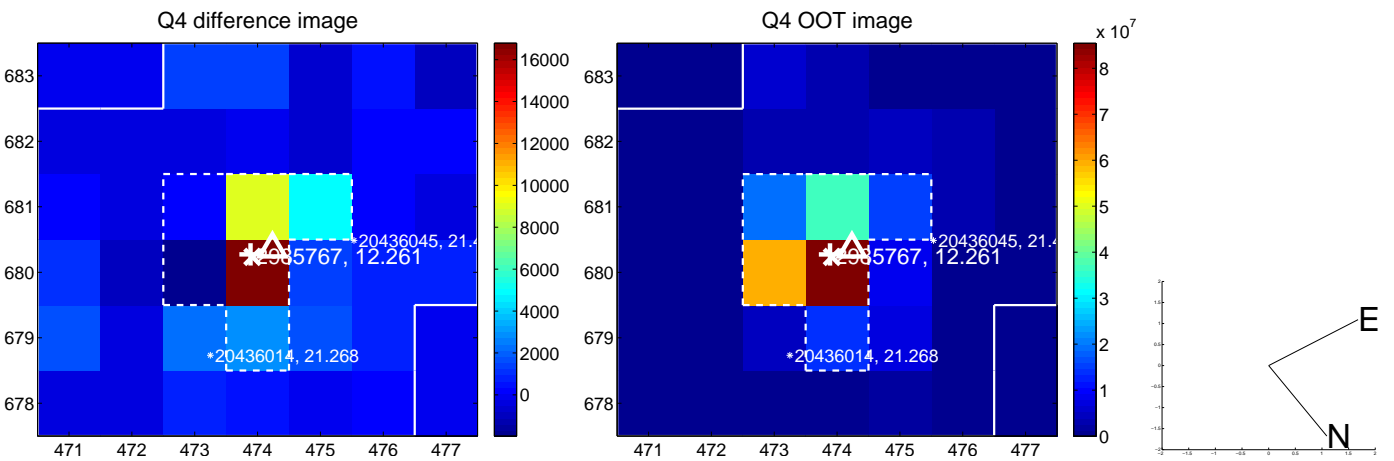
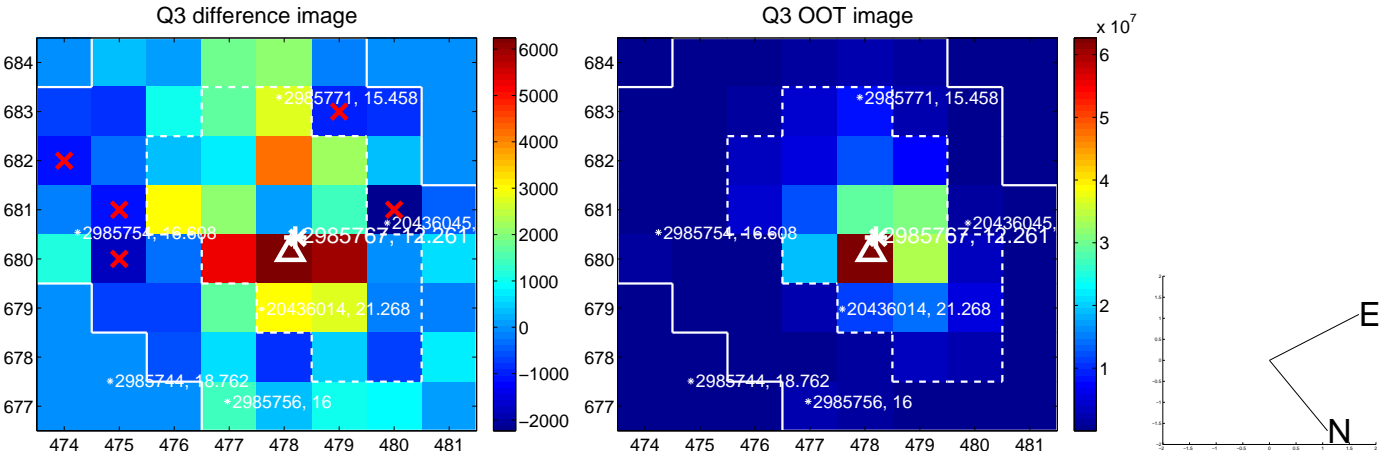
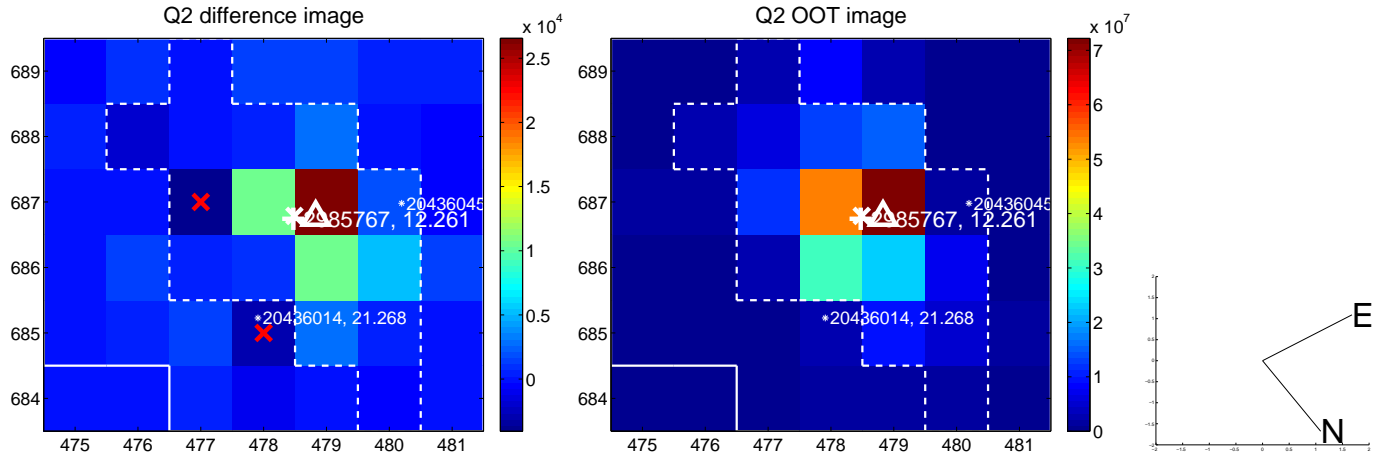
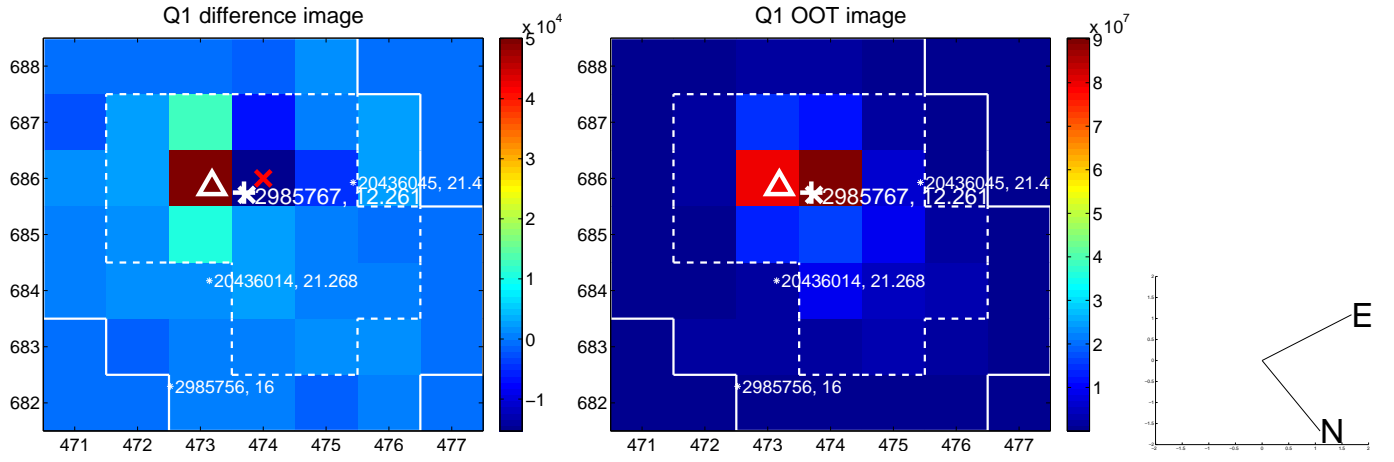
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.349 ± 0.232	1.51	-0.162 ± 0.343	0.309 ± 0.190
PRF-fit source offset from KIC position	0.317 ± 0.305	1.04	-0.255 ± 0.344	0.189 ± 0.216
photometric centroid source offset	0.83 ± 0.47	1.79	-0.78 ± 0.45	-0.31 ± 0.54

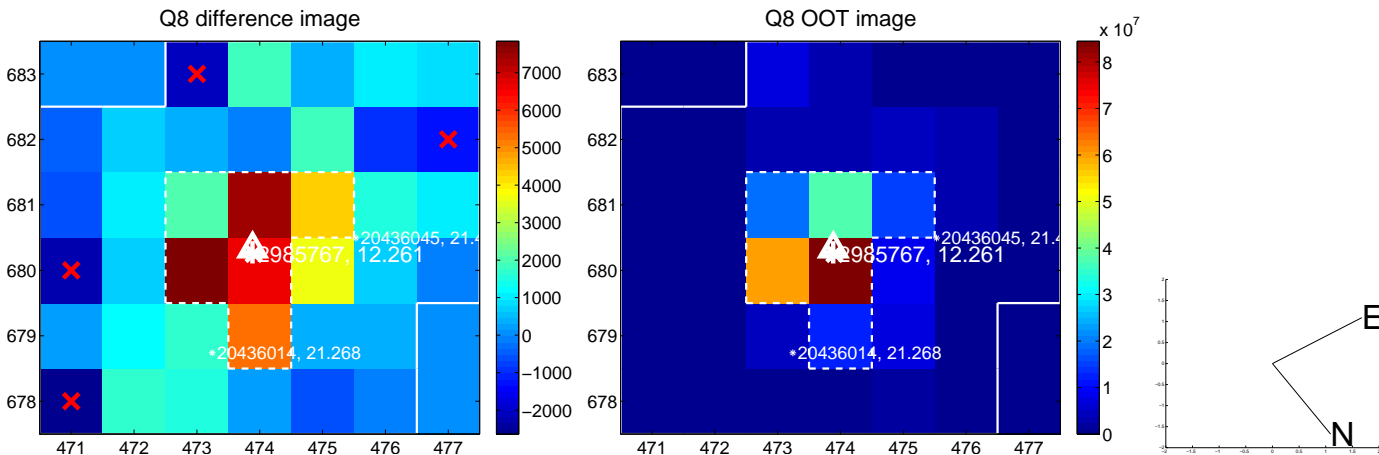
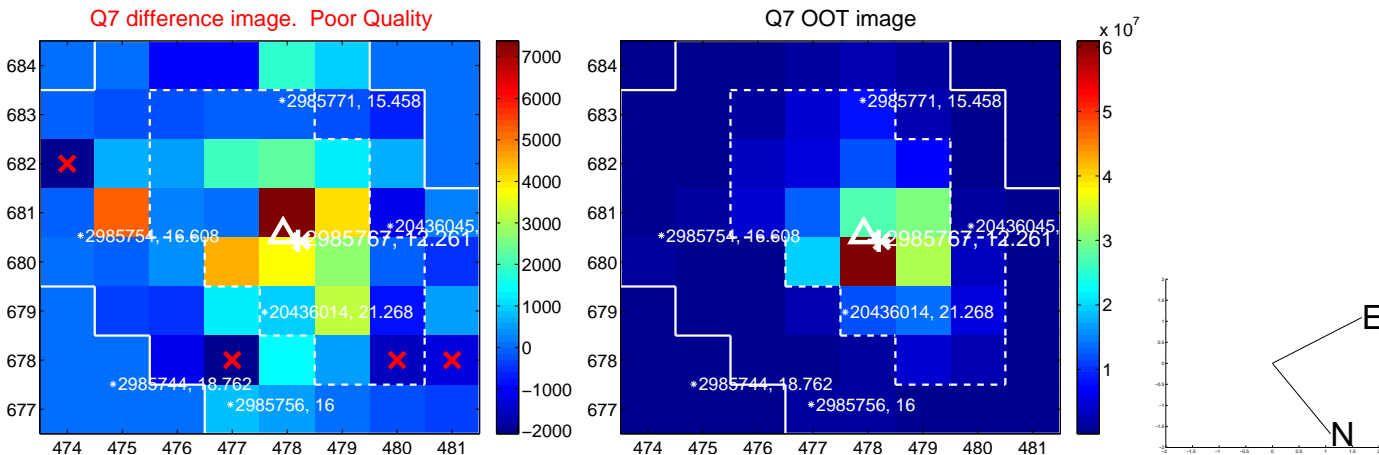
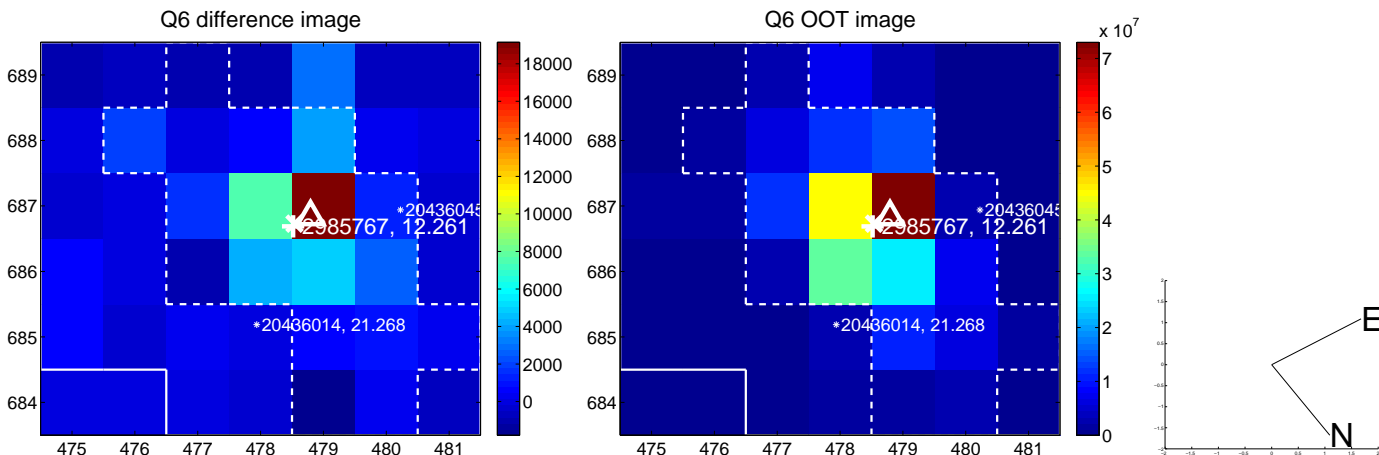
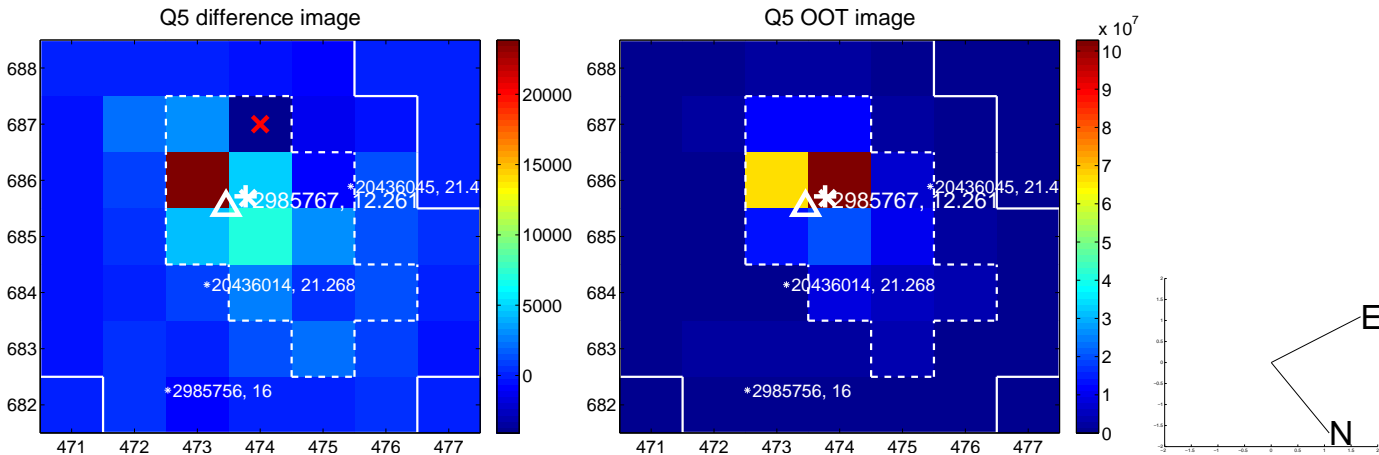


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

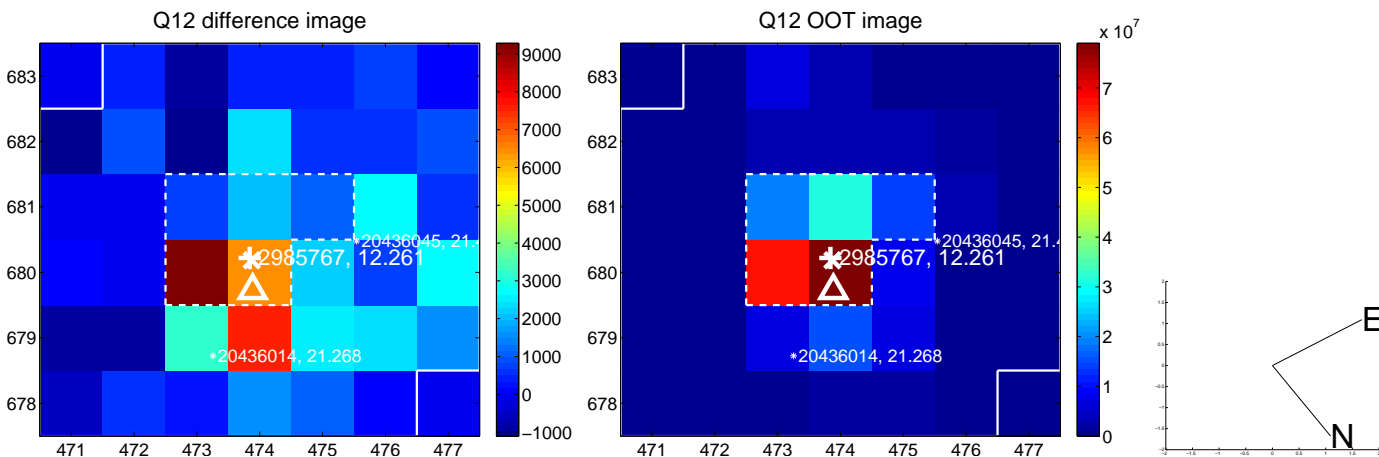
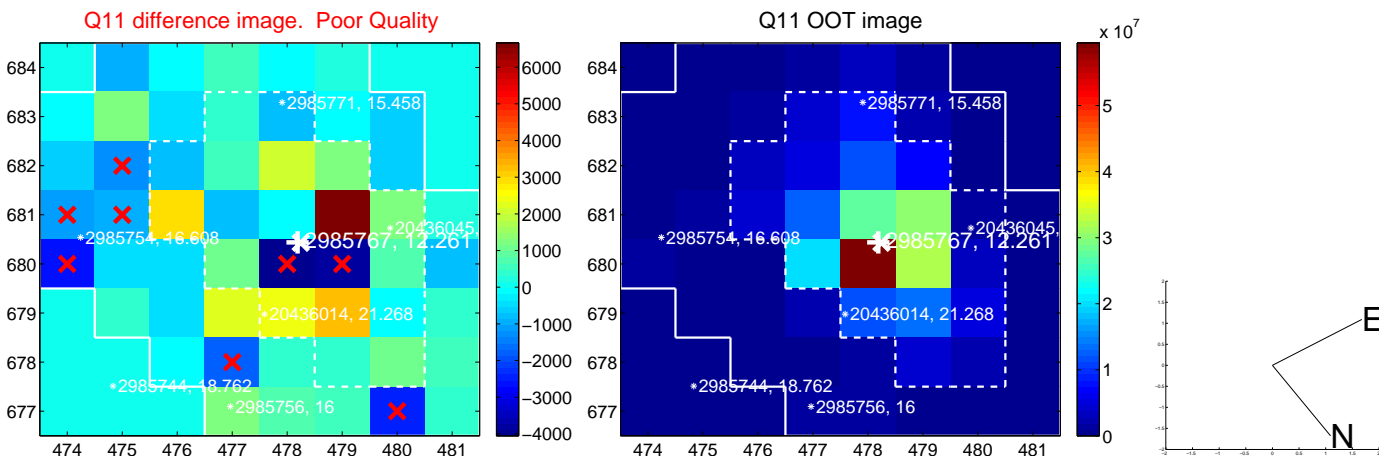
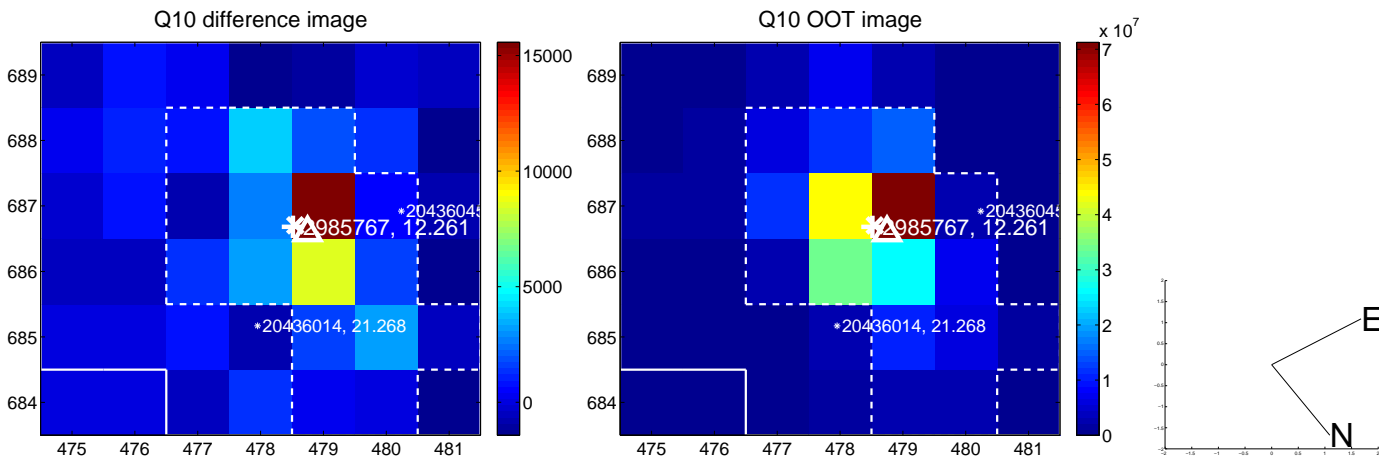
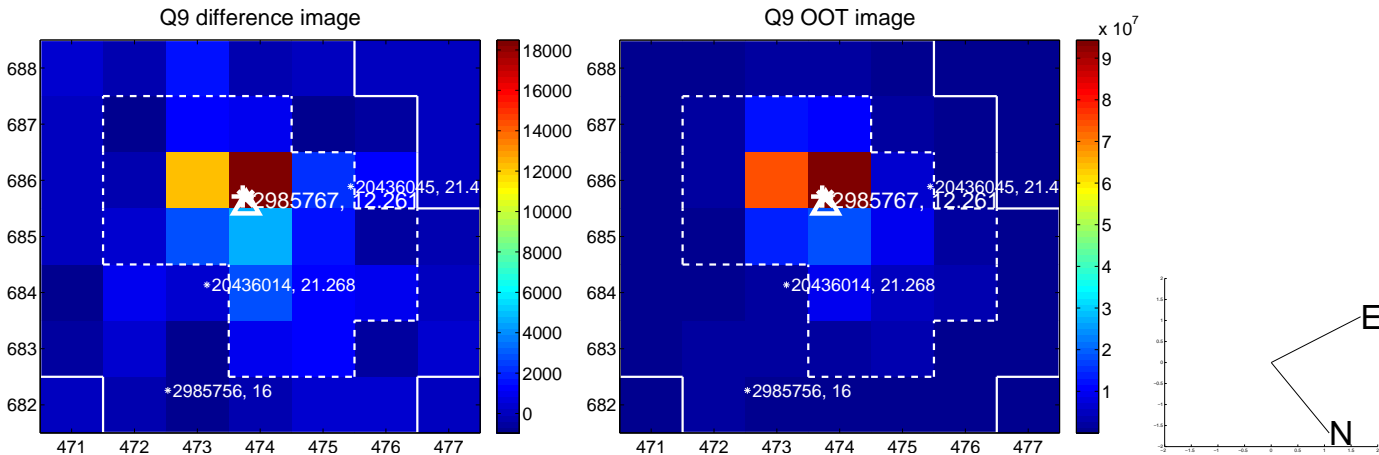
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



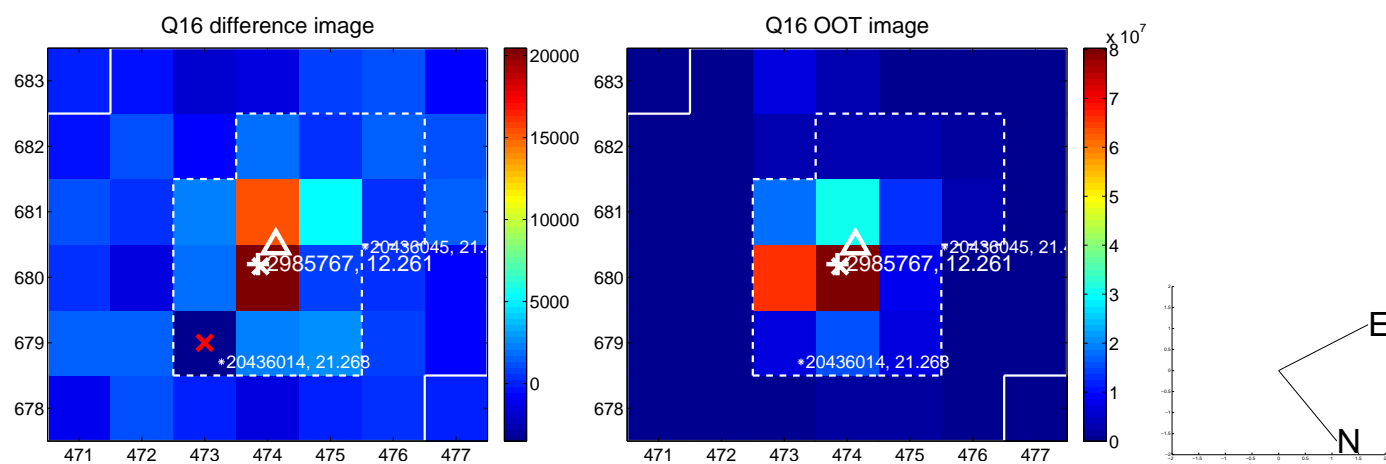
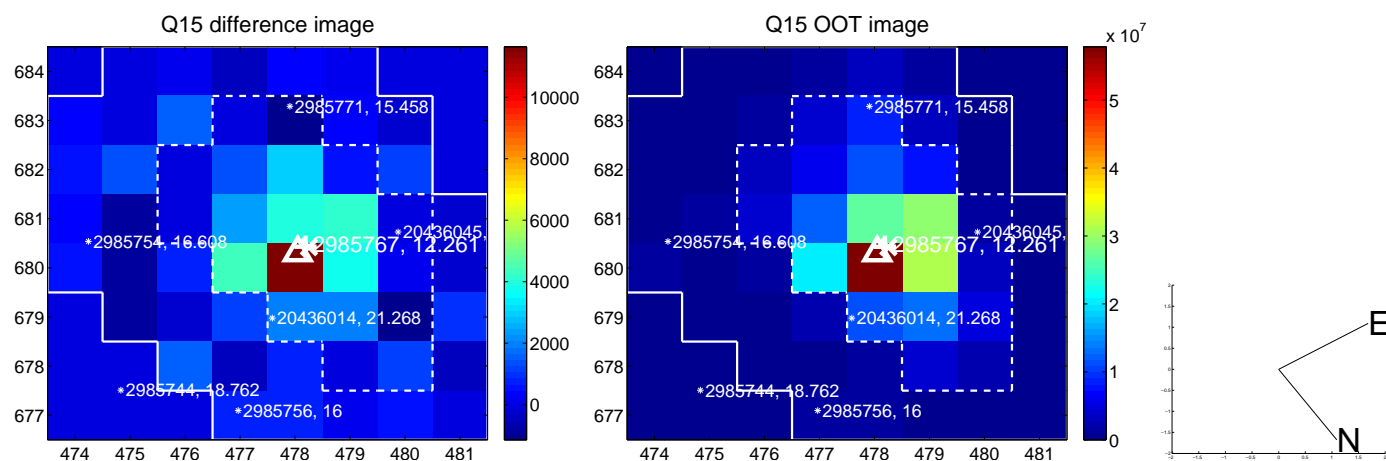
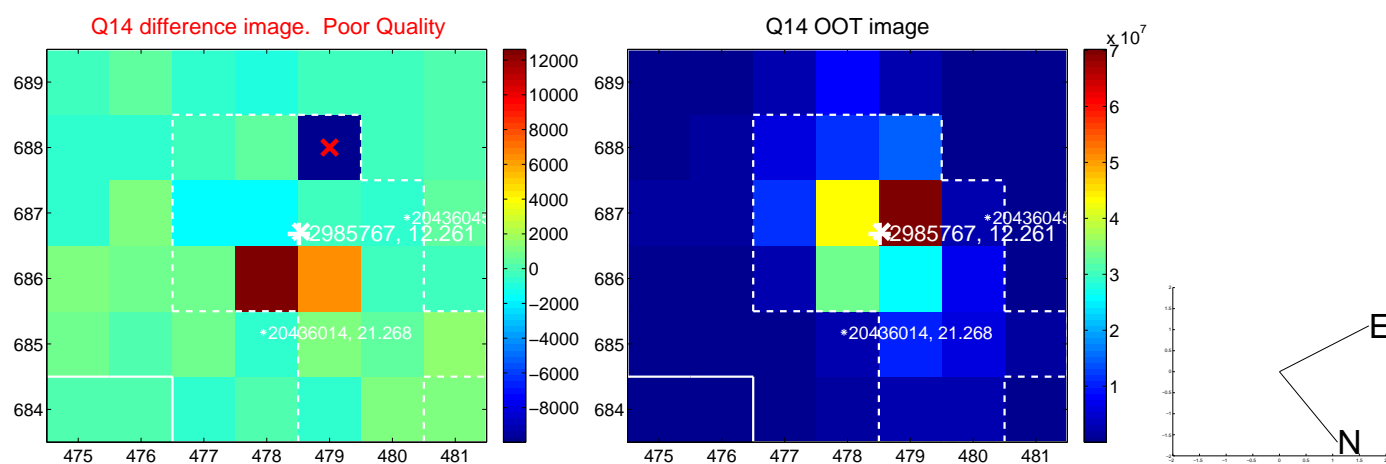
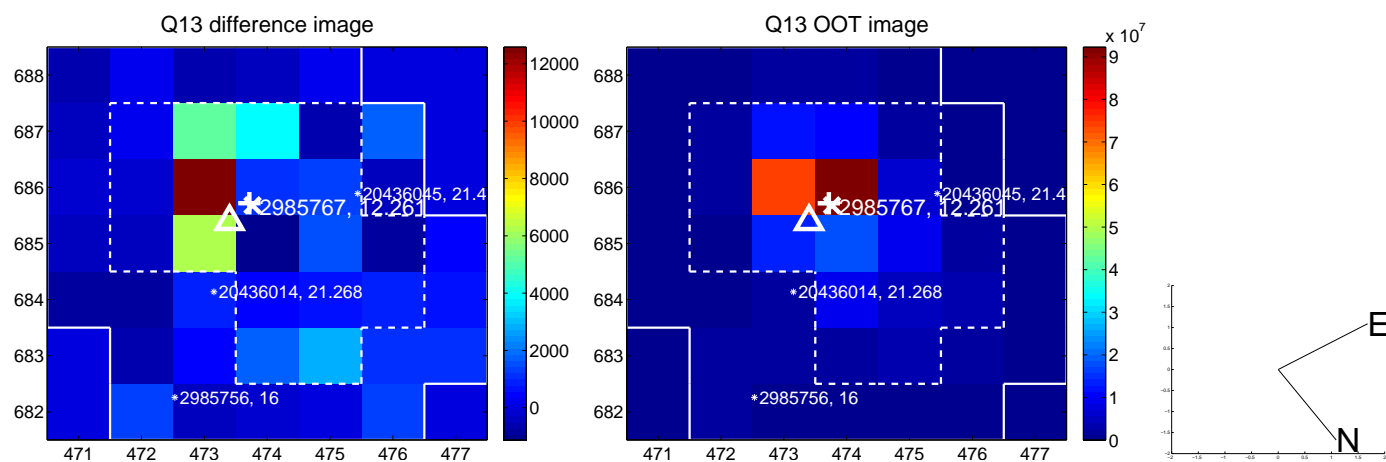
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



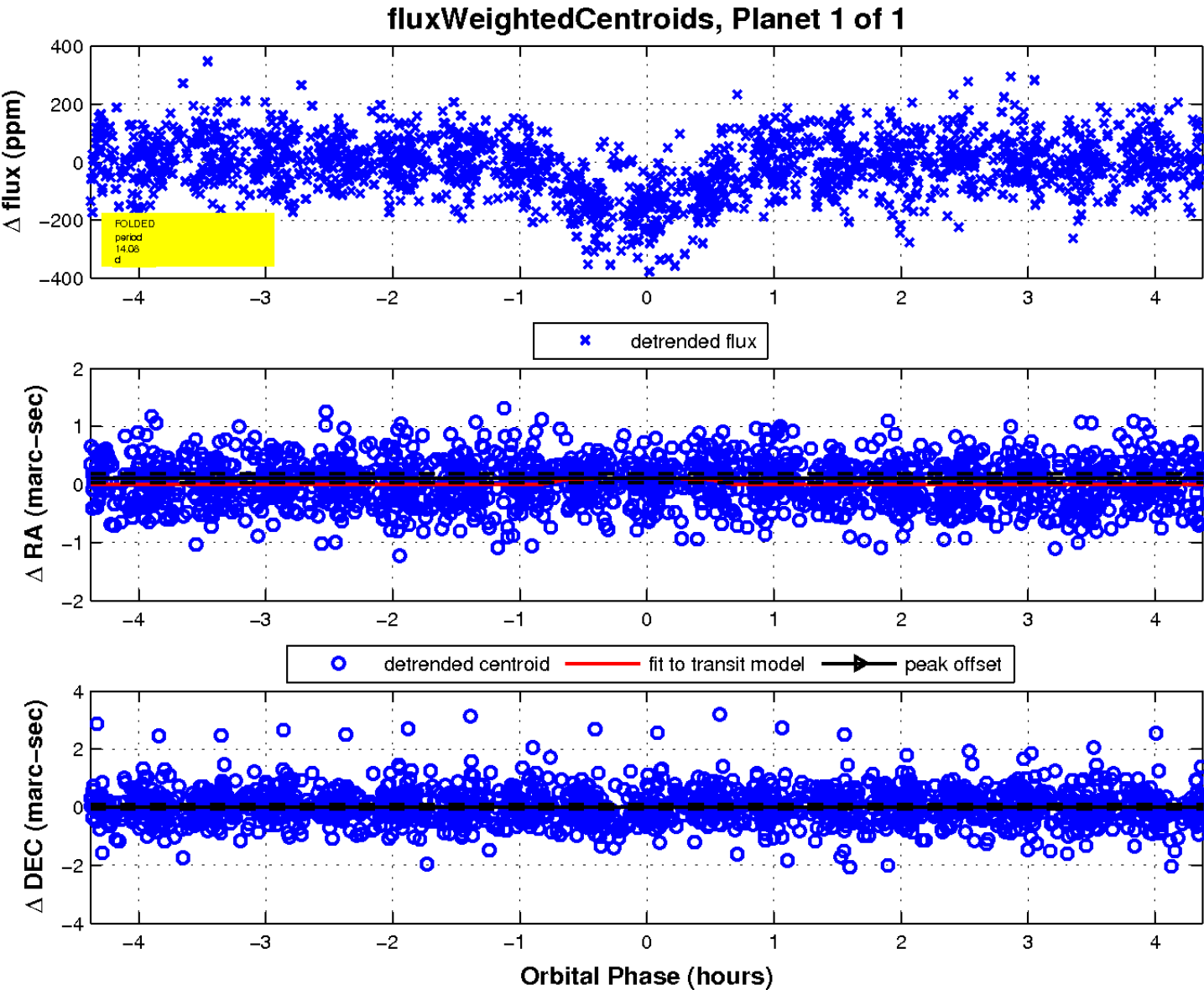
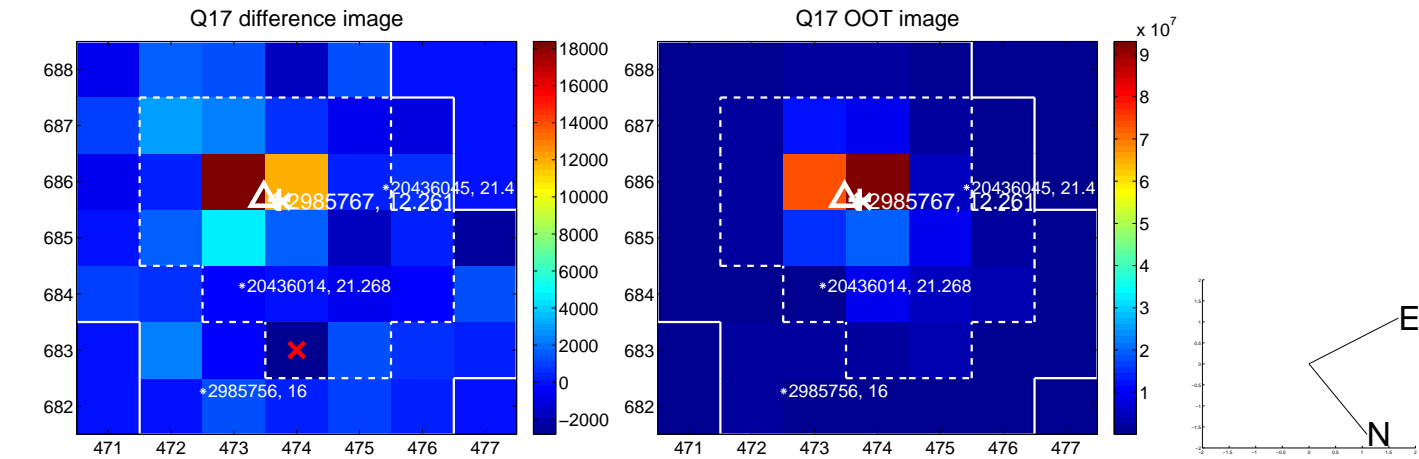
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white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

