

KIC 003122985

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})
003122985-01	OBS	1949.01	0.993487	131.607638	1950.3	1.301	338.3	86.9	1.00	5811	4.79	3180.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003122985-01	OBS	FP	0.35	0	1	0	0	MOD_SEC_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 003122985-01

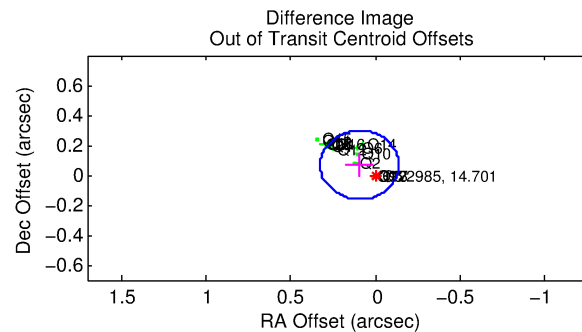
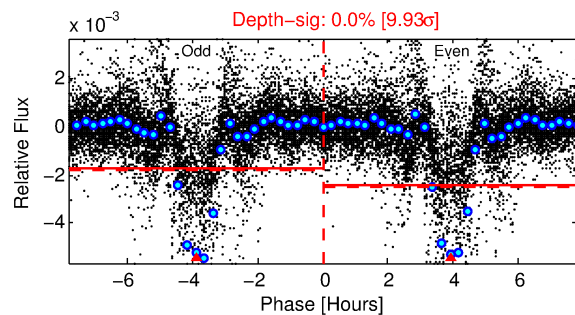
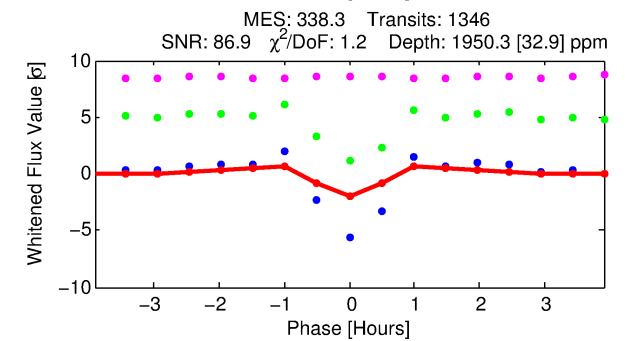
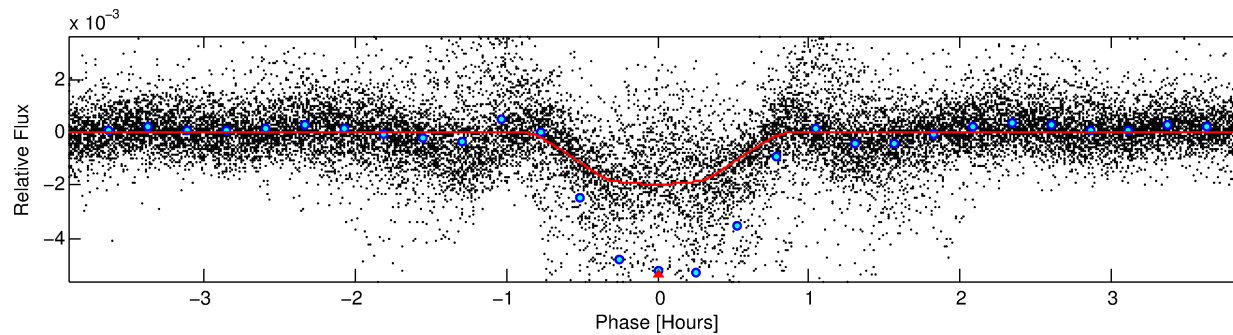
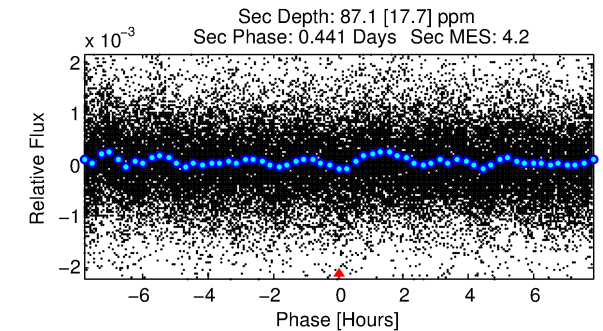
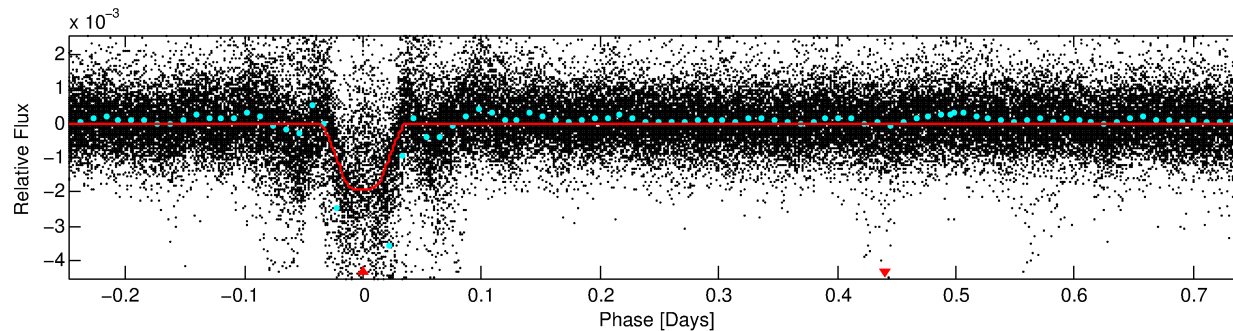
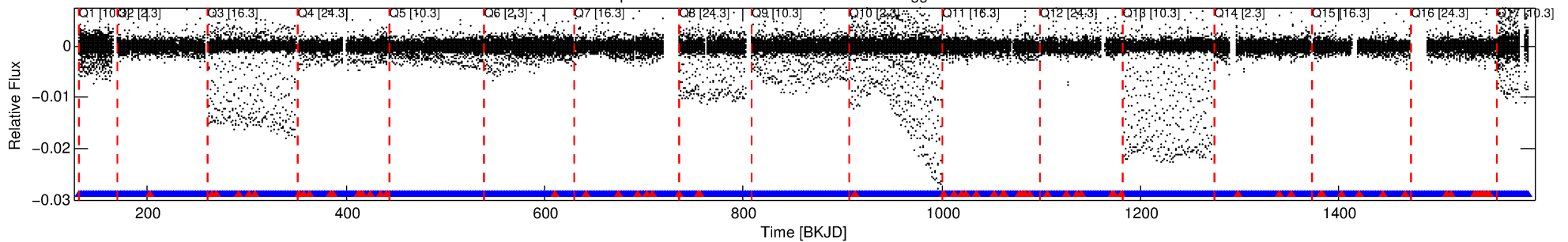
No Significant Match Found

DV One-Page Summary

KIC: 3122985 Candidate: 1 of 1 Period: 0.993 d

KOI: K01949.01 Corr: 0.811

Kp: 14.70 R*: 1.00 Rs Teff: 5811.0 K Logg: 4.33 Fe/H: -0.580



DV Fit Results:

Period = 0.99349 [0.00000] d
Epoch = 131.6076 [0.0002] BKJD
Rp/R* = 0.0440 [0.0043]
a/R* = 4.41 [1.93]
b = 0.74 [0.29]
Seff = 3180.06 [1387.18]
Teq = 1915 [209] K
Rp = 4.79 [1.69] Re
a = 0.0179 [0.0051] AU
Ag = 0.67 [0.34] [-0.98σ]
Teffp = 2677 [205] K [2.61σ]

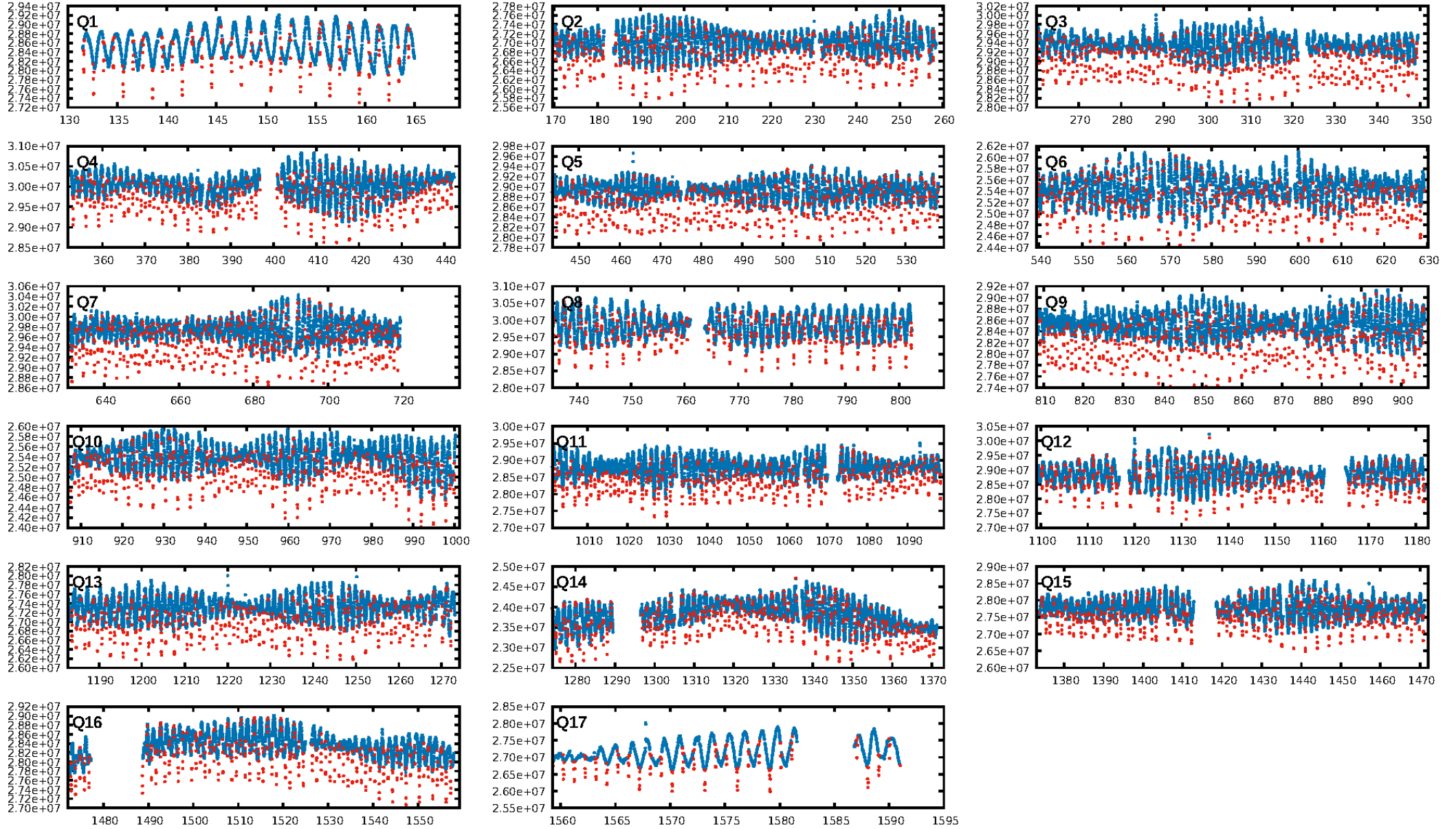
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.95 [1217/1284]
GhostDiagnostic-chr: 1.65
Centroid-sig: 0.0%
Centroid-so: 0.625 arcsec [11.12σ]
OotOffset-rm: 0.117 arcsec [1.52σ]
KicOffset-rm: 0.037 arcsec [0.51σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

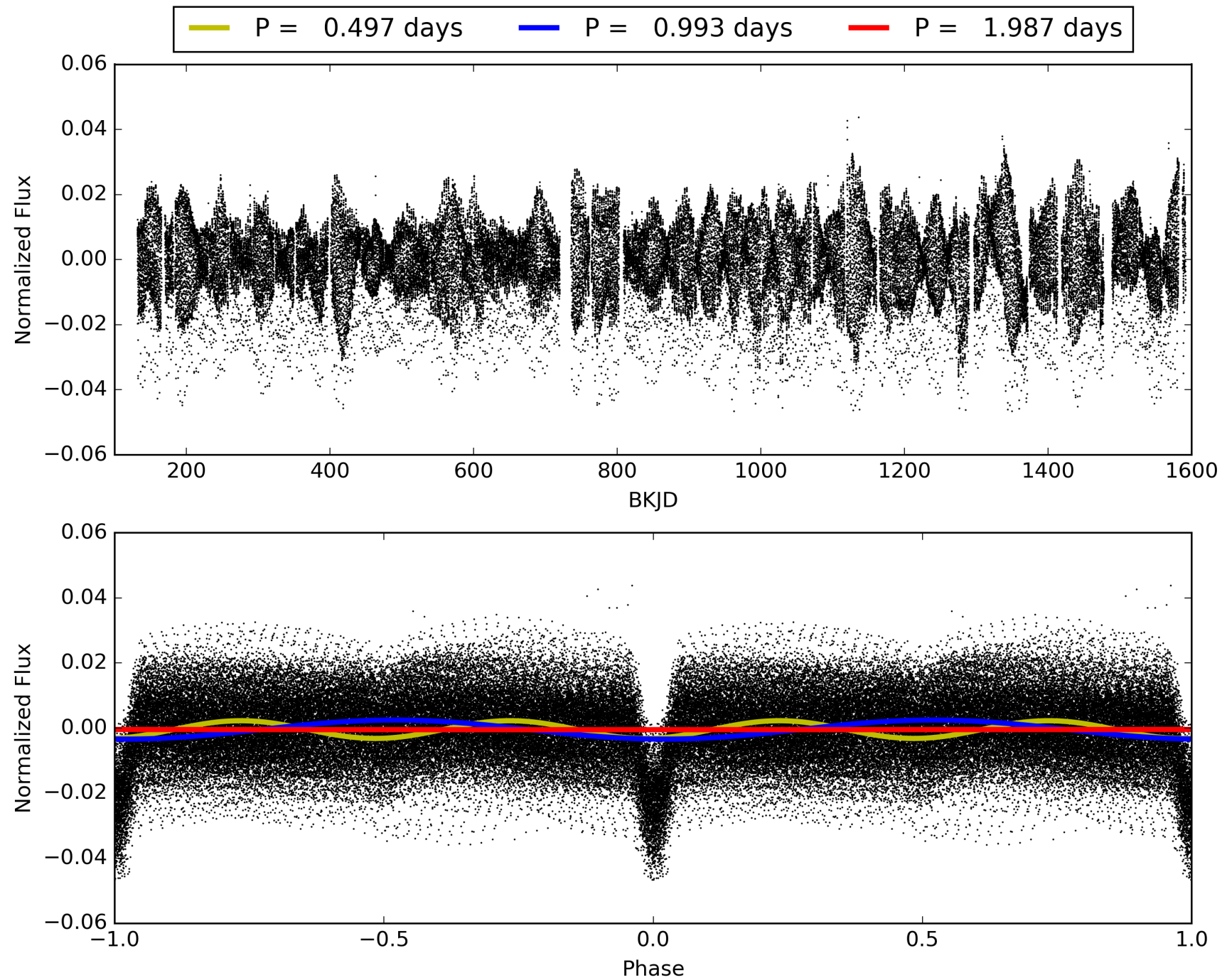
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:13:34 Z

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

TCE 003122985-01, PDC Light Curves

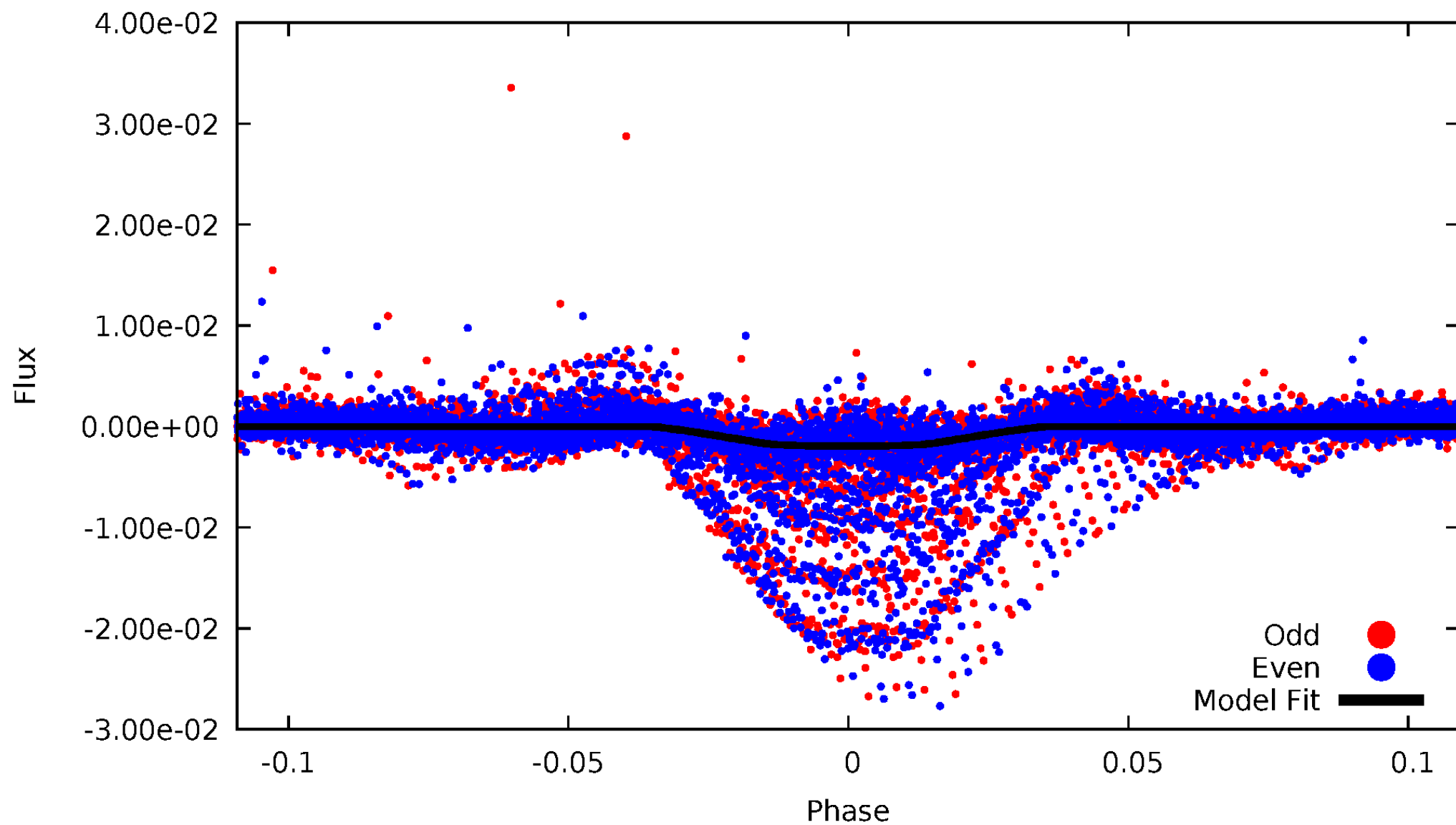


TCE 003122985-01



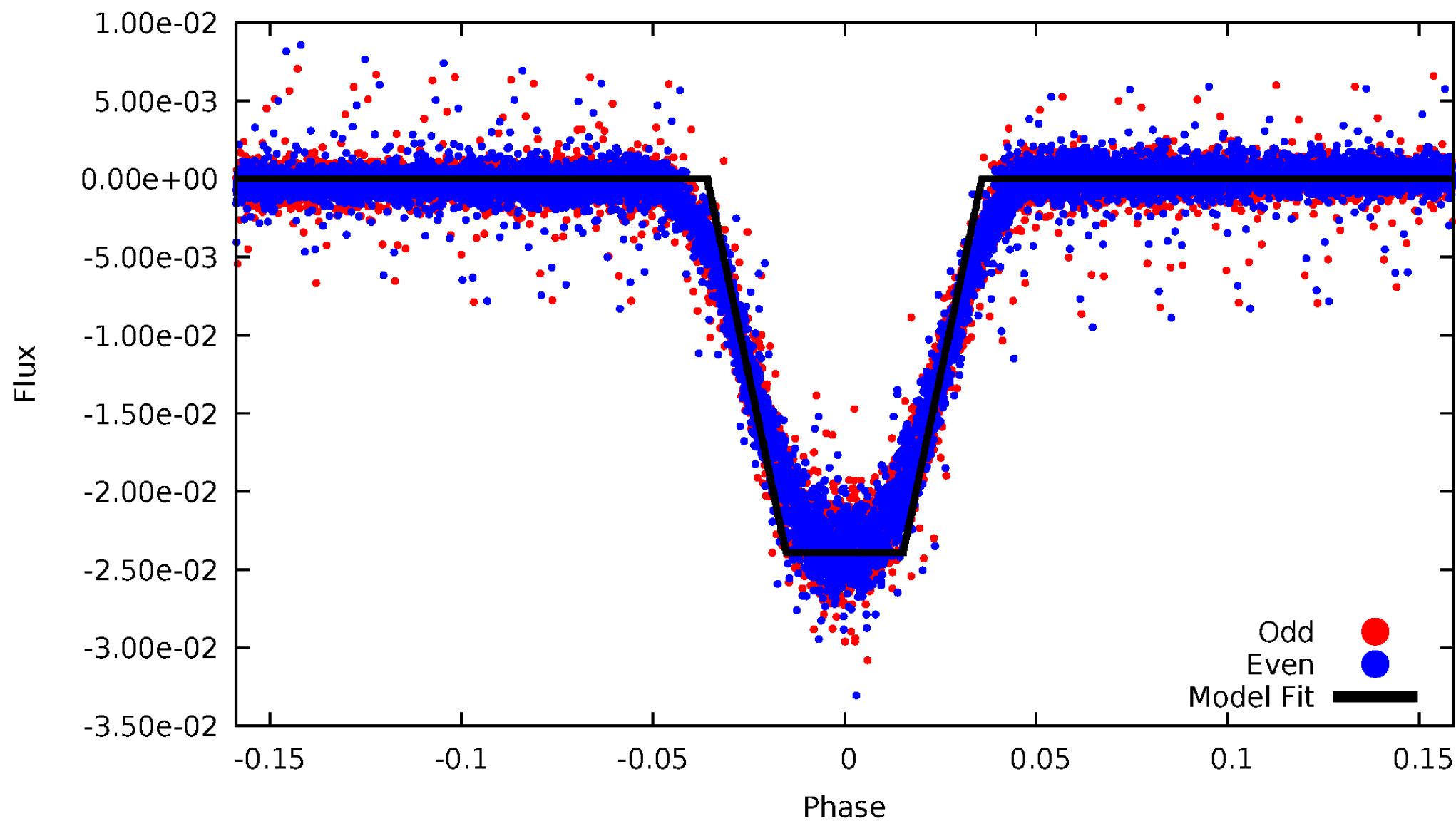
DV Odd/Even

TCE 003122985-01



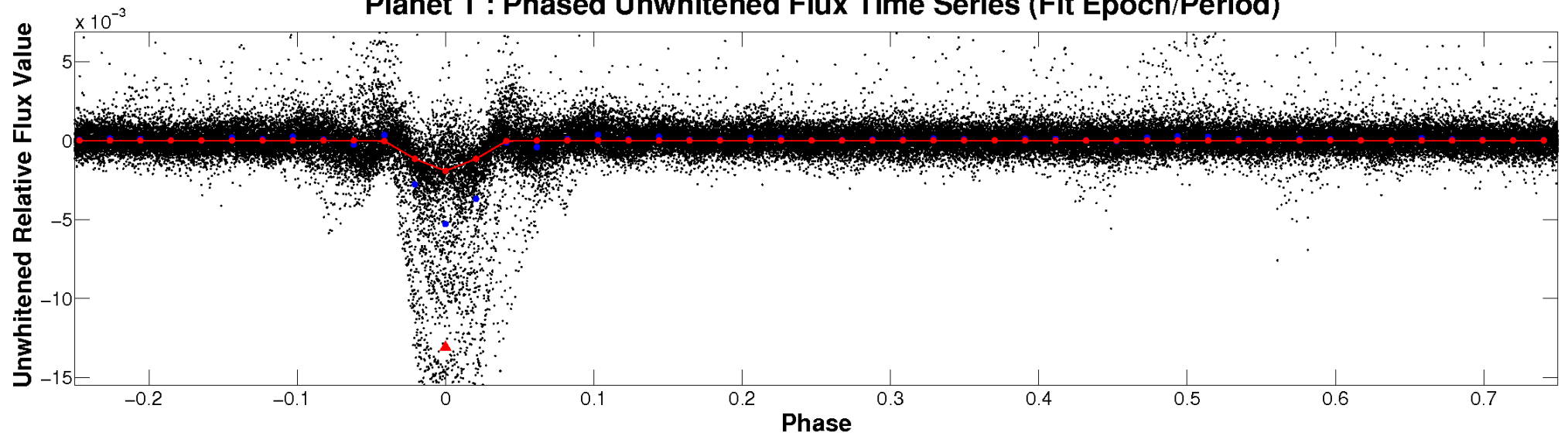
ALT Odd/Even

TCE 003122985-01

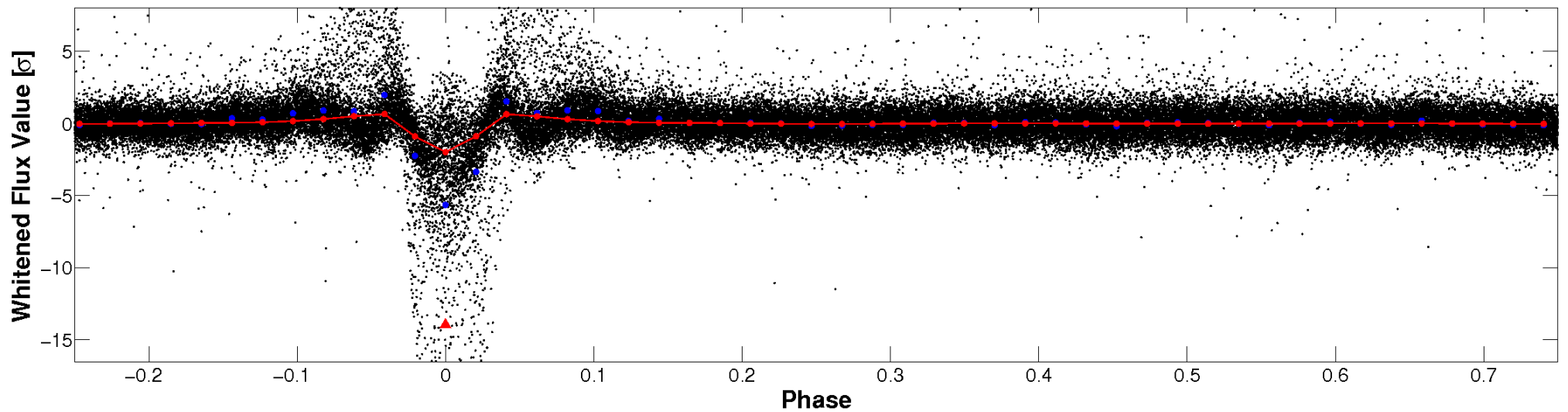


Non-Whitened Vs. Whitened Light Curve

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

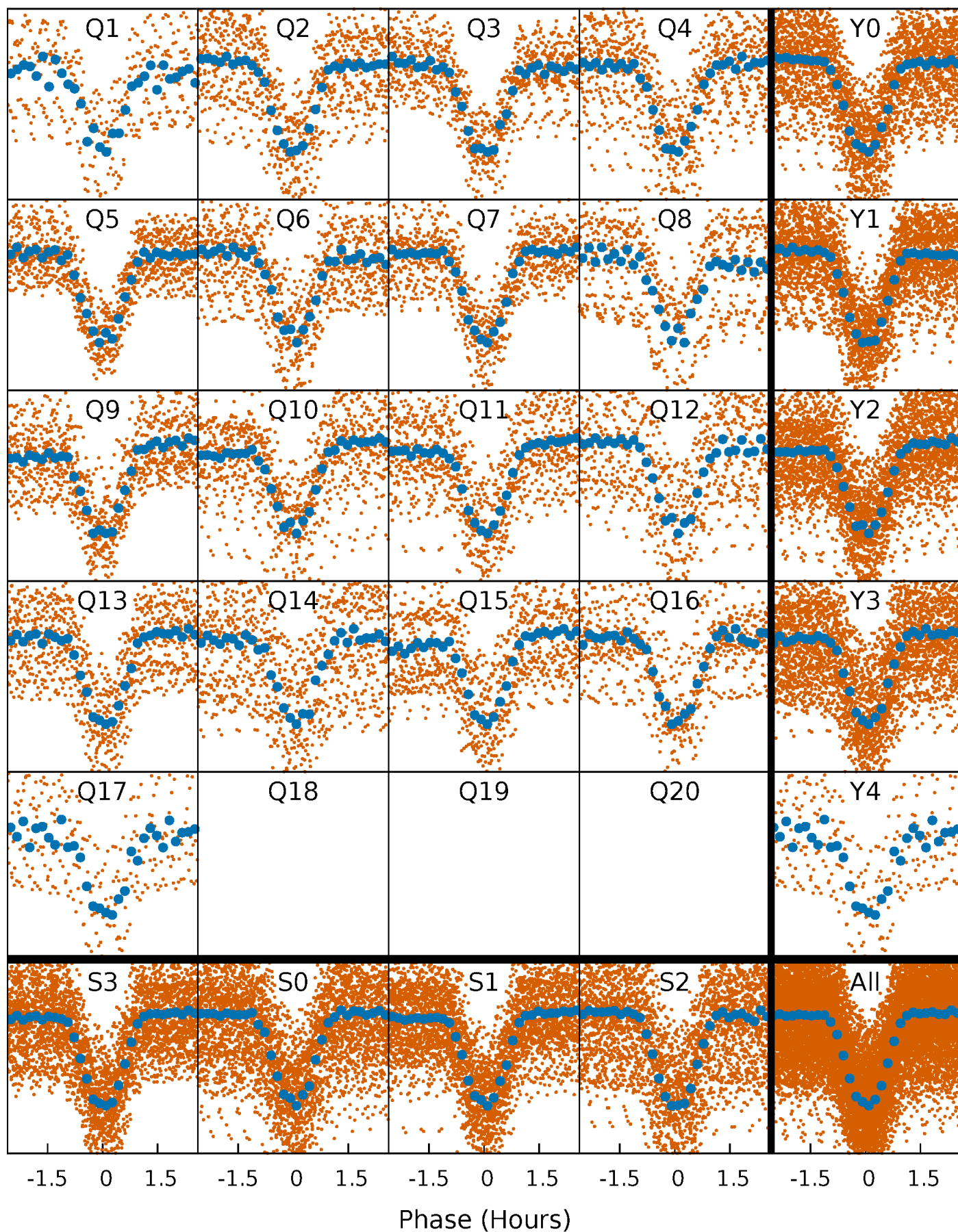


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



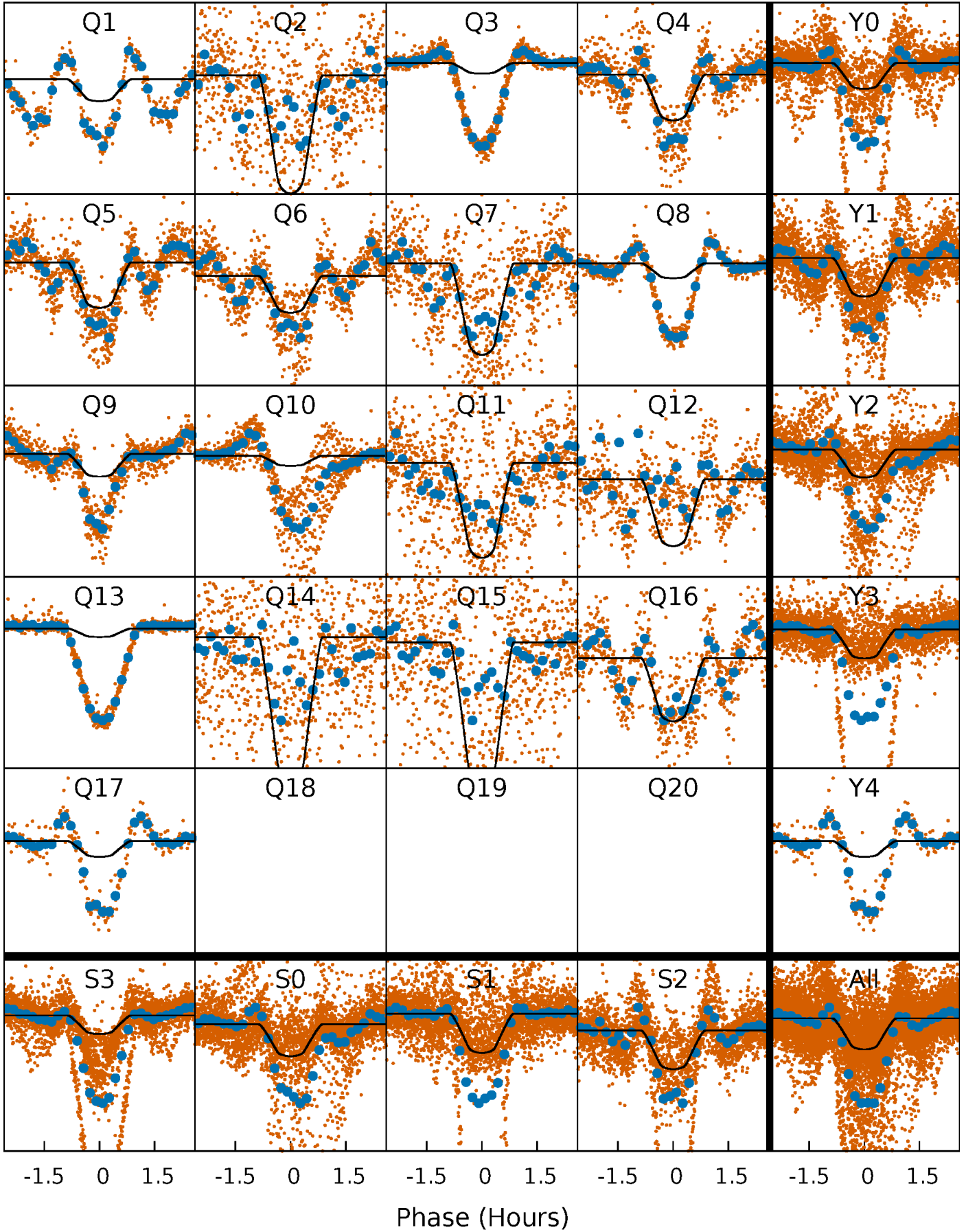
PDC Quarter-Phased Transit Curves

TCE 003122985-01 P= 0.993487 Days $T_0=131.607638$ (BKJD)



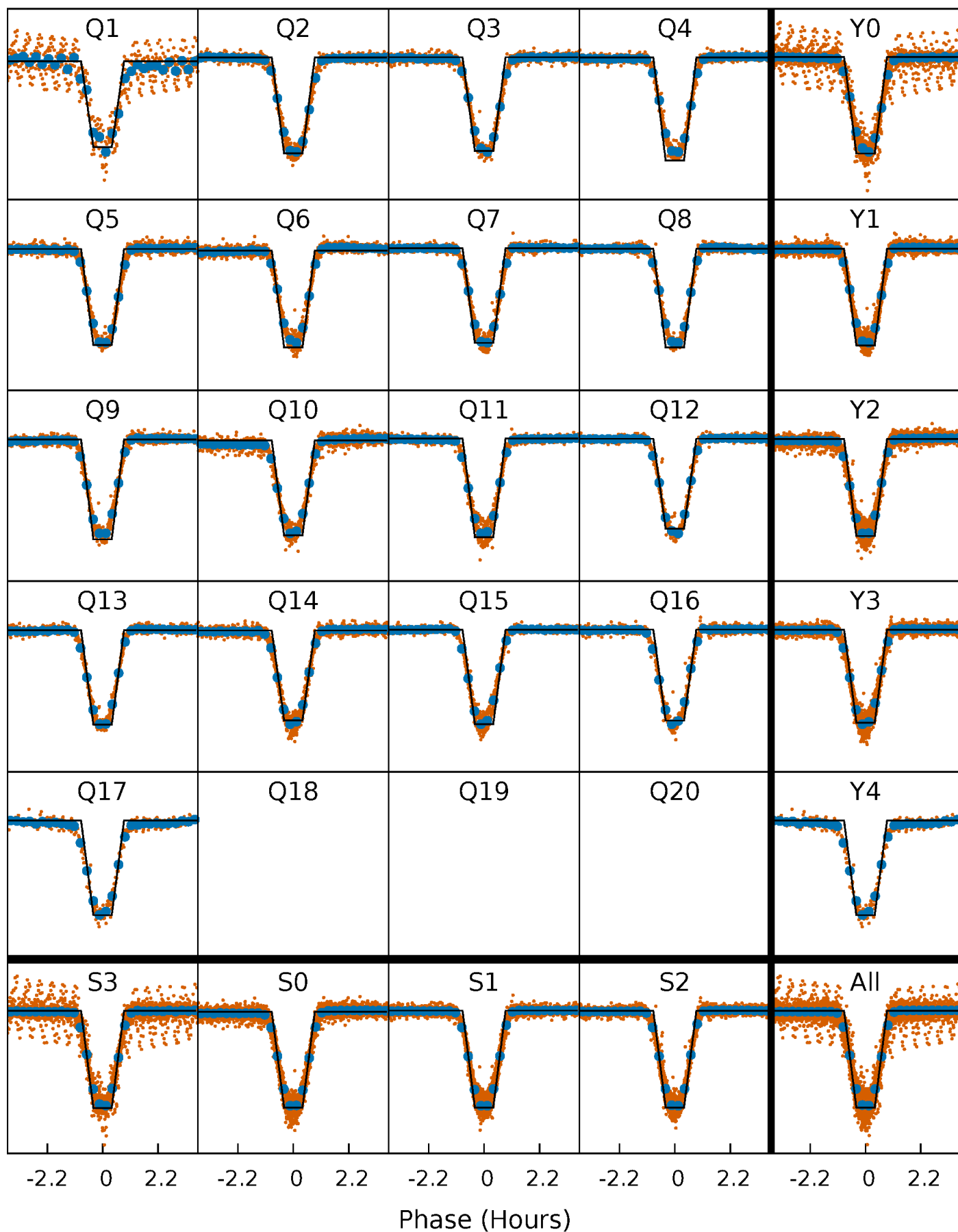
DV Quarter-Phased Transit Curves

TCE 003122985-01 P= 0.993487 Days $T_0=131.607638$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

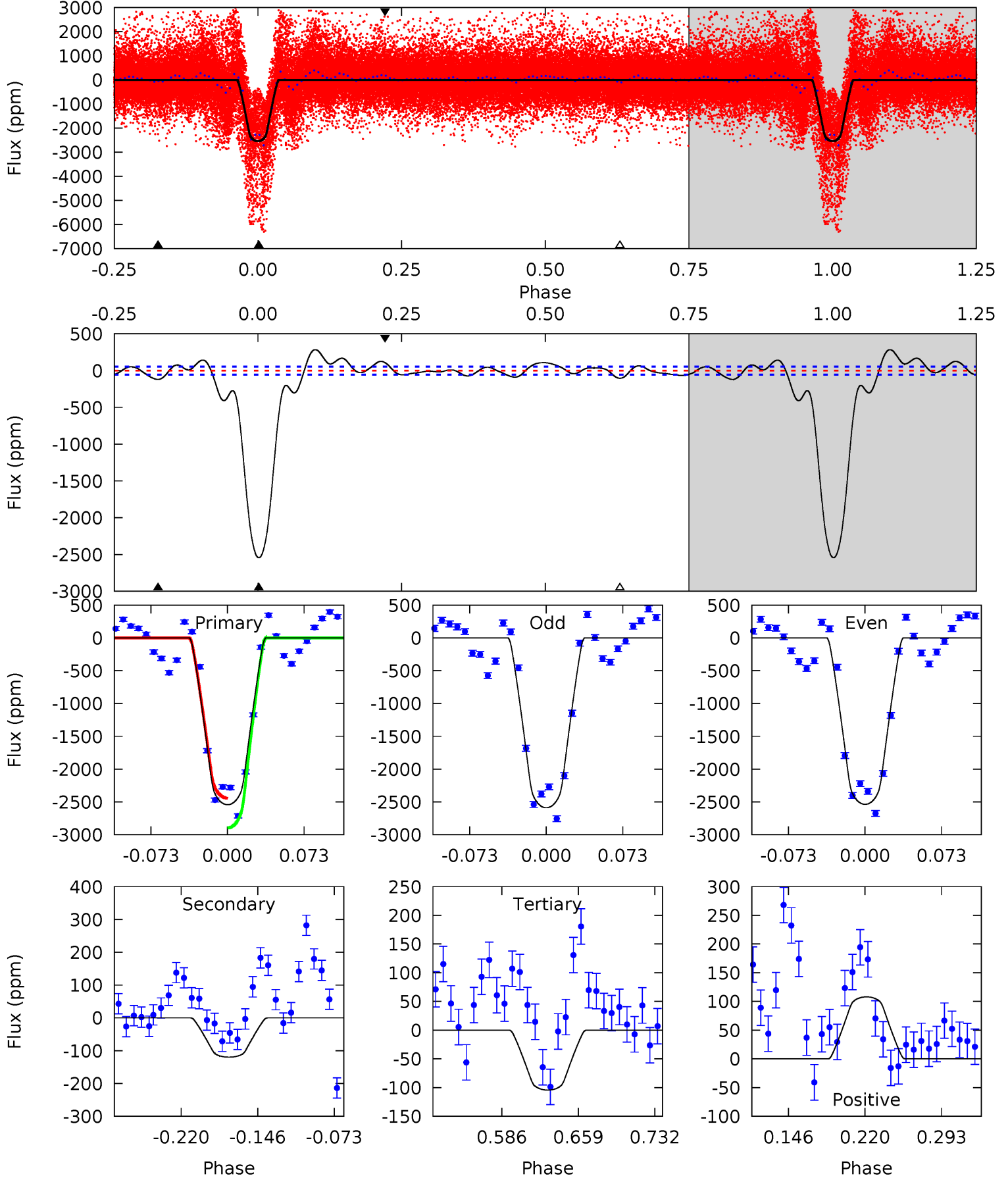
TCE 003122985-01 P= 0.993492 Days $T_0=131.605220$ (BKJD)



DV Model-Shift Uniqueness Test

003122985-01, P = 0.993487 Days, E = 130.614151 Days

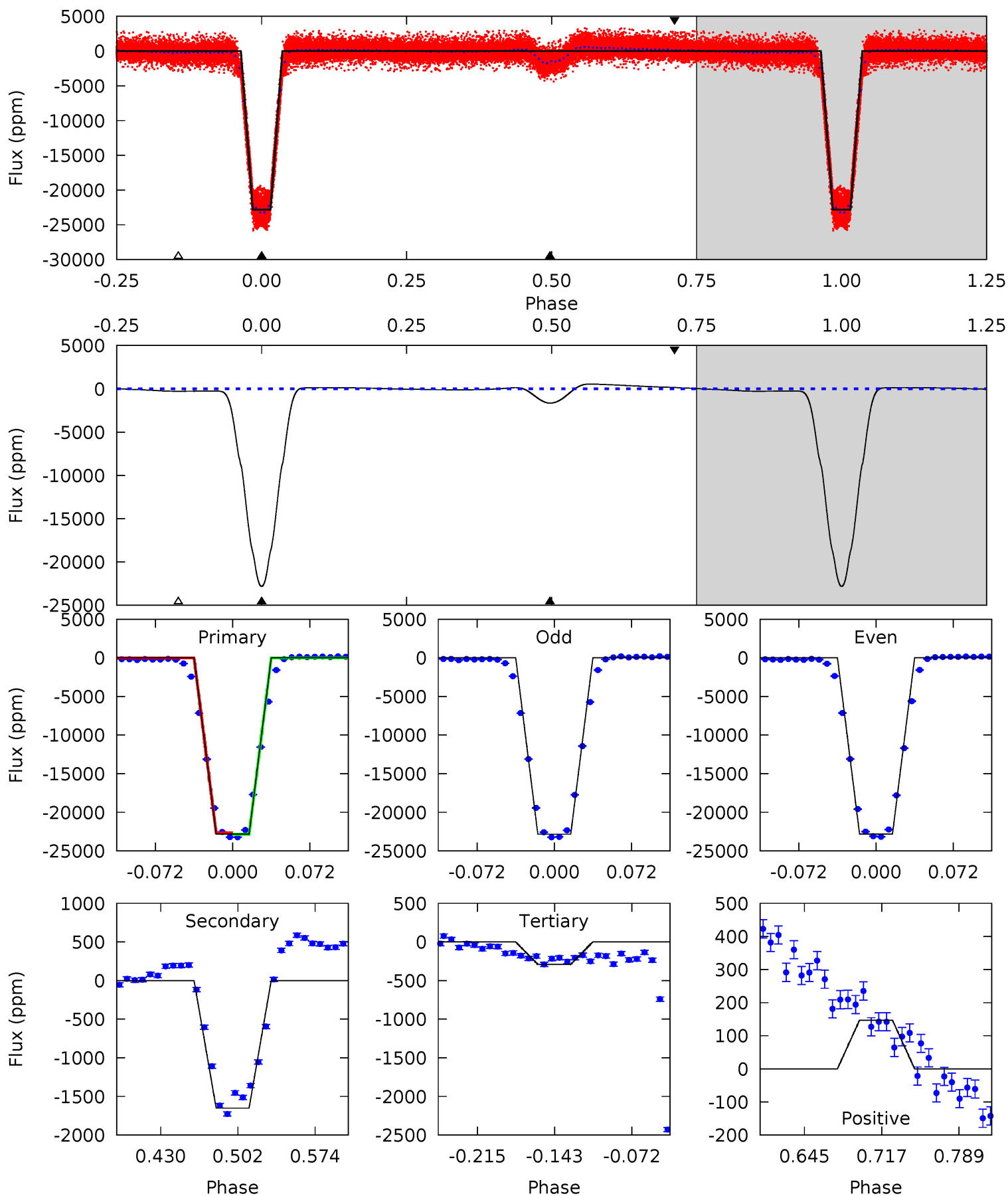
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
217.8	10.3	8.95	9.26	4.63	1.79	6.74	208.9	208.6	1.31	1.01	2.21	2.07	0.10	0



Alt Model-Shift Uniqueness Test

003122985-01, P = 0.993492 Days, E = 130.611728 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2087	151.0	26.6	13.4	4.63	1.80	19.1	2061	2074	124.4	137.6	1.51	1.00	0.02	8.95



Stellar Parameters For KIC 003122985

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5811^{+174}_{-174}	$4.328^{+0.230}_{-0.230}$	$-0.580^{+0.300}_{-0.300}$	$0.998^{+0.339}_{-0.226}$	$0.772^{+0.111}_{-0.051}$	$1.095^{+1.325}_{-0.599}$
	+3%/-3%	+5%/-5%	+52%/-52%	+34%/-23%	+14%/-7%	+121%/-55%
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 003122985-01 / KOI 1949.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-120 ± 12	$4.78^{+0.98}_{-0.77}$	2667^{+243}_{-204}	3202^{+176}_{-183}	$0.923^{+0.431}_{-0.294}$
Alt.	-1651 ± 11	$16.87^{+3.27}_{-2.44}$	2674^{+231}_{-220}	3278^{+100}_{-106}	$1.025^{+0.387}_{-0.286}$

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 $A_{\text{obs}} \gg 1.0$

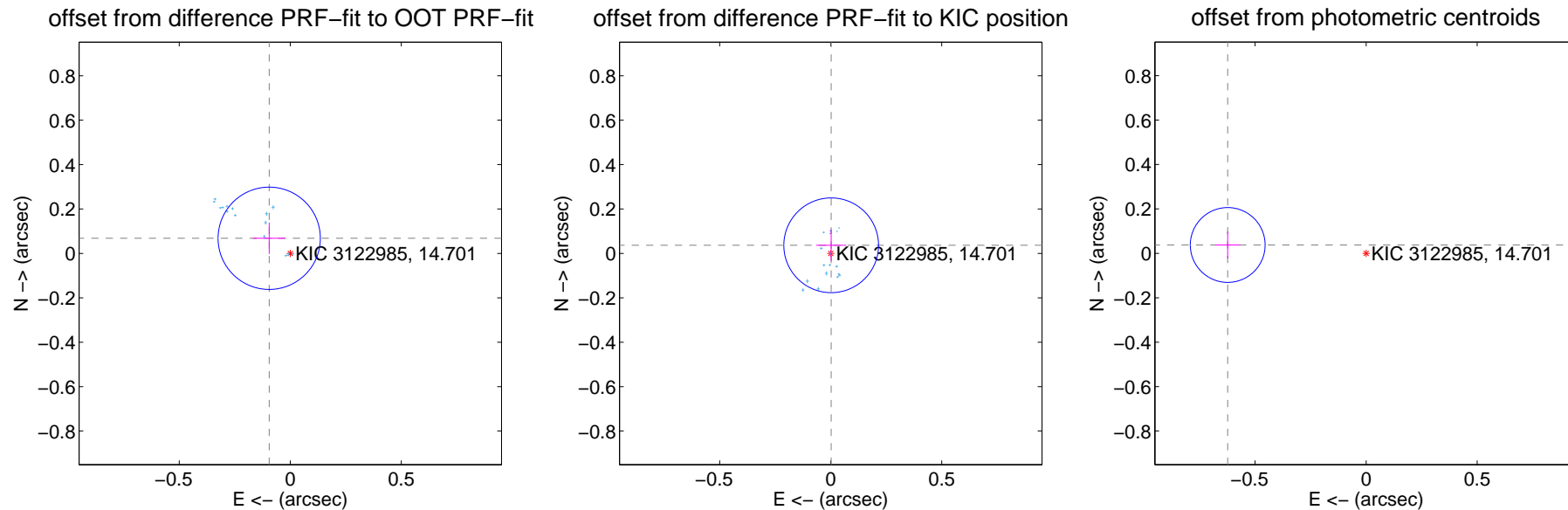
DV Centroid Data

Supplemental centroid analysis for 003122985-01. Kepler magnitude: 14.70. Transit SNR 86.88

There are 17 quarters with good PRF difference image offsets

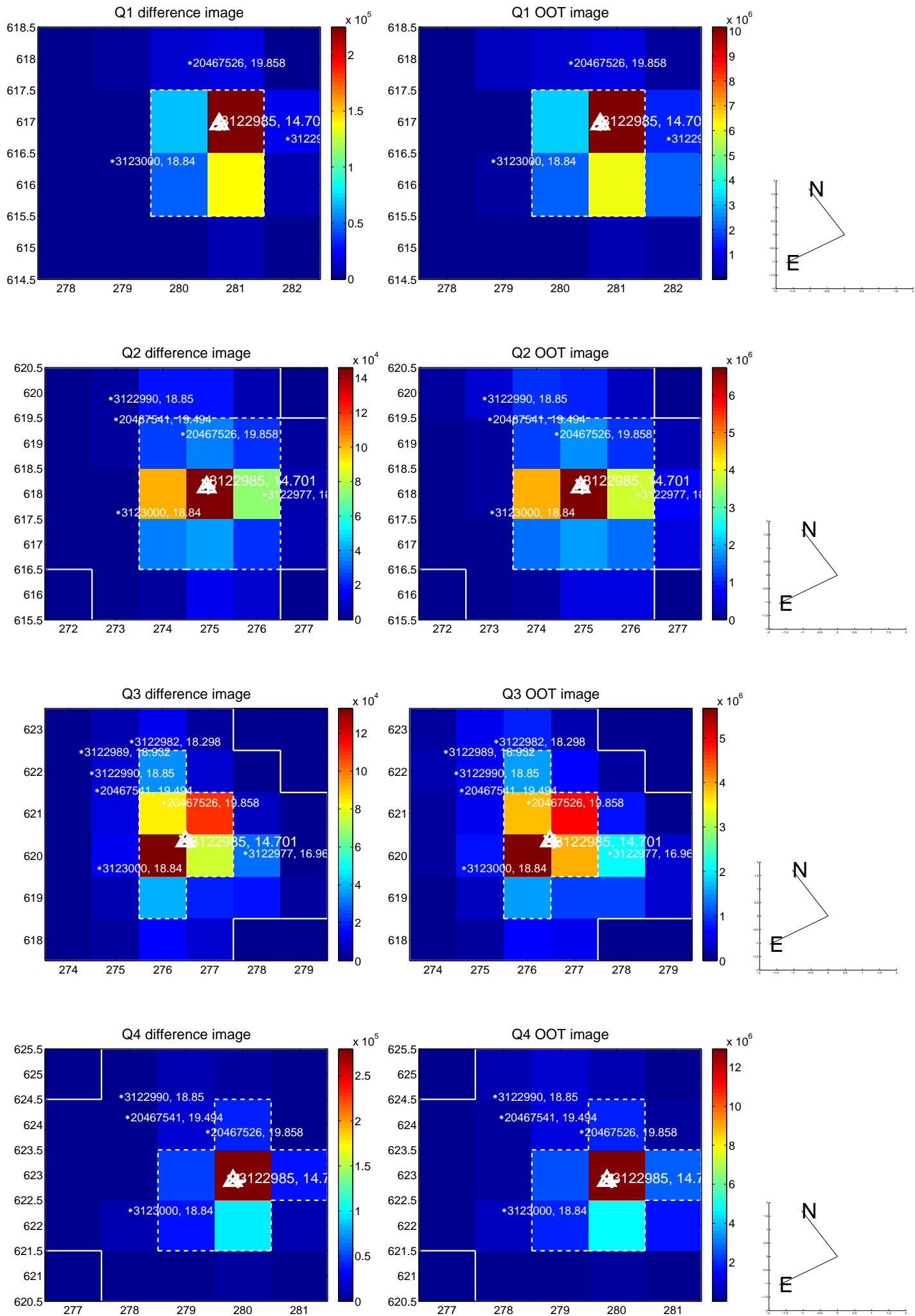
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.117 ± 0.077	1.52	0.095 ± 0.074	0.068 ± 0.071
PRF-fit source offset from KIC position	0.037 ± 0.071	0.51	-0.002 ± 0.067	0.037 ± 0.071
photometric centroid source offset	0.62 ± 0.06	11.12	0.62 ± 0.06	0.04 ± 0.06

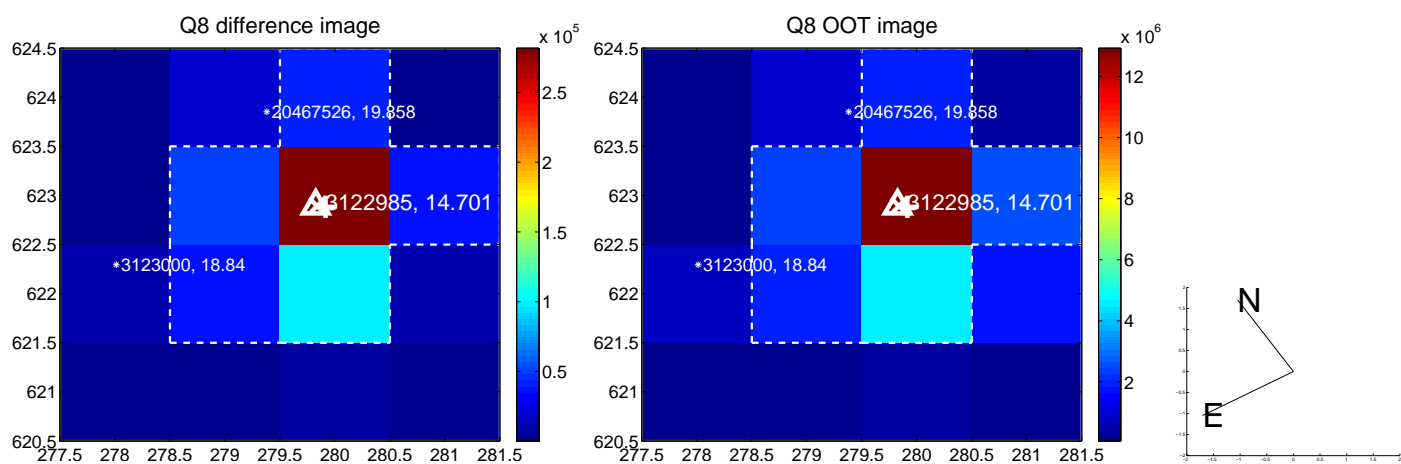
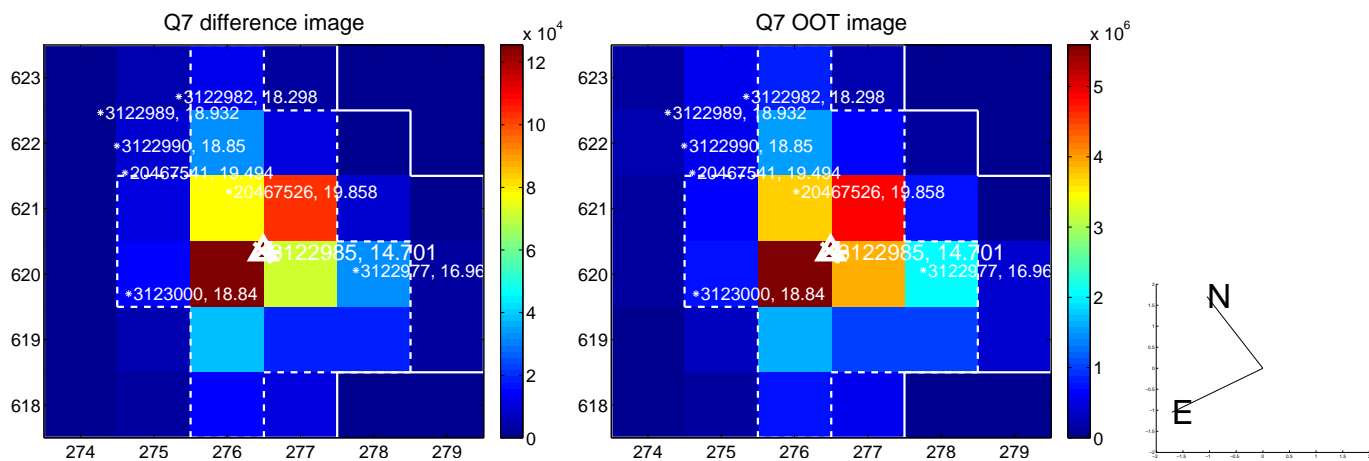
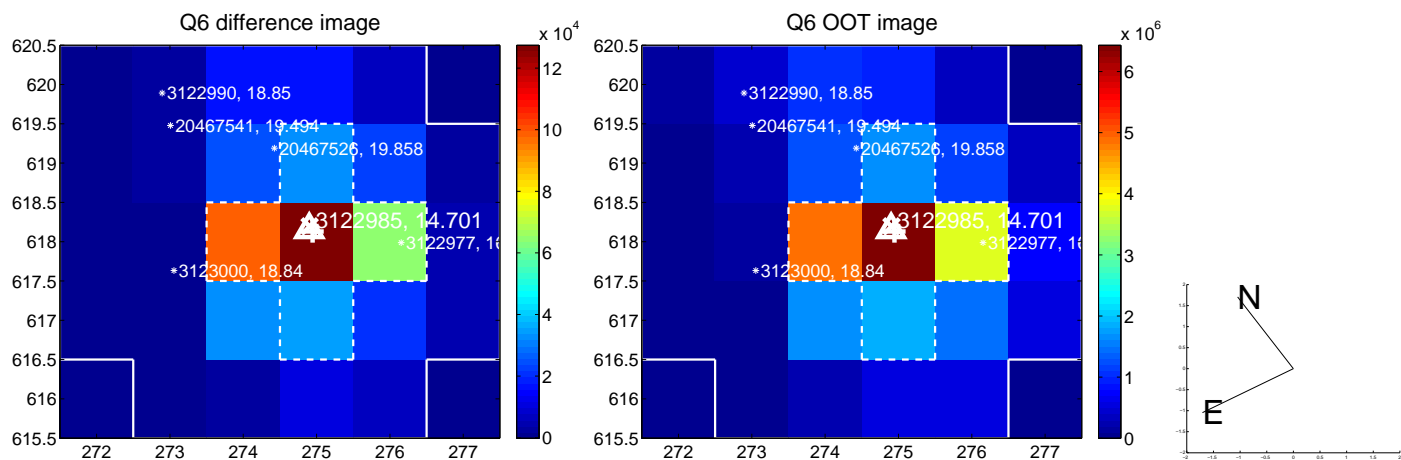
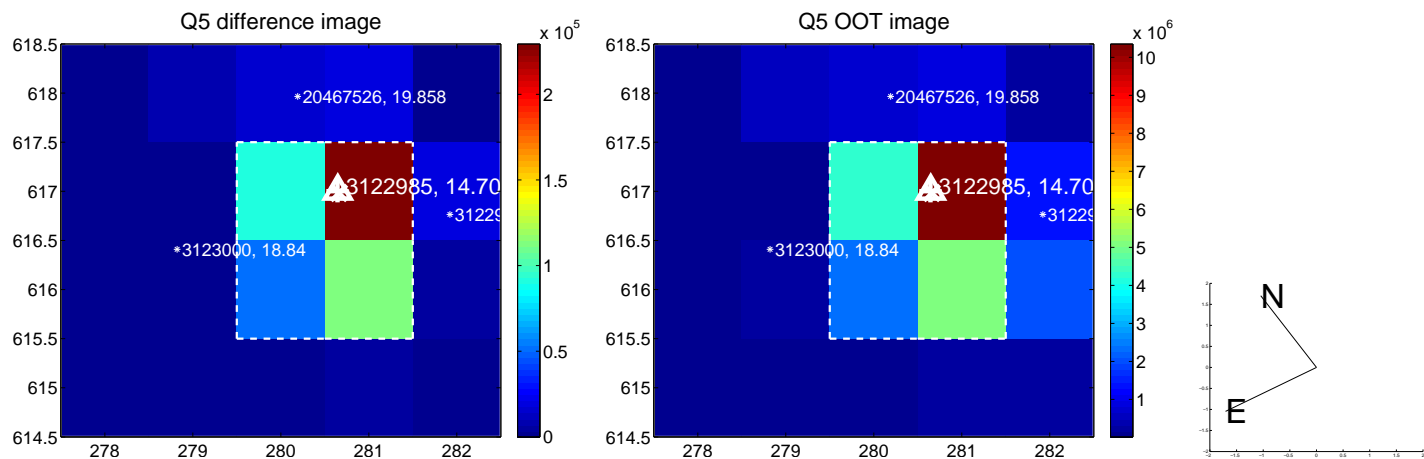


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

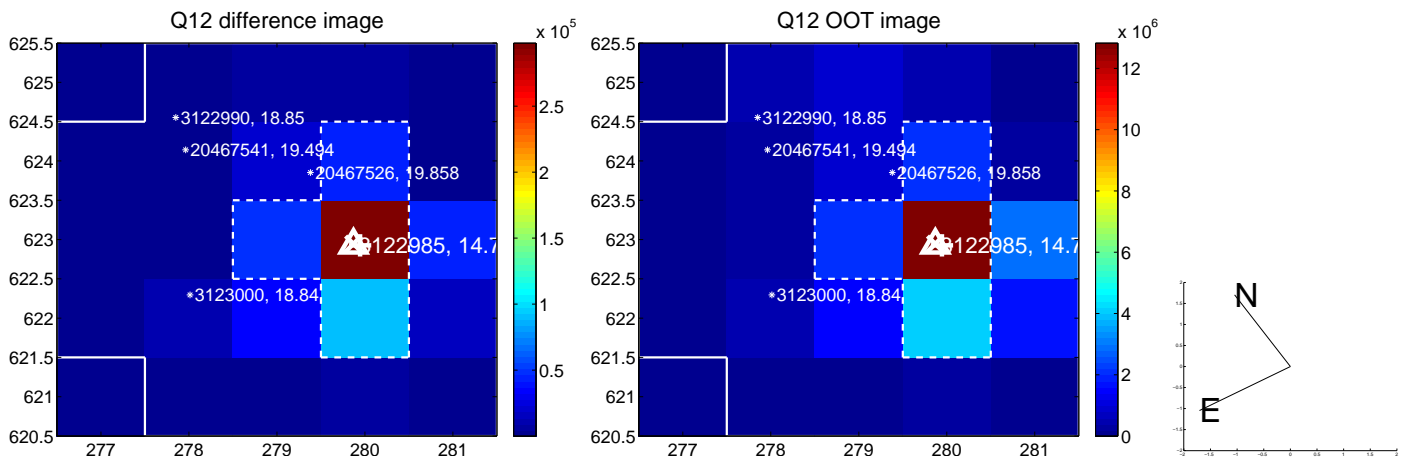
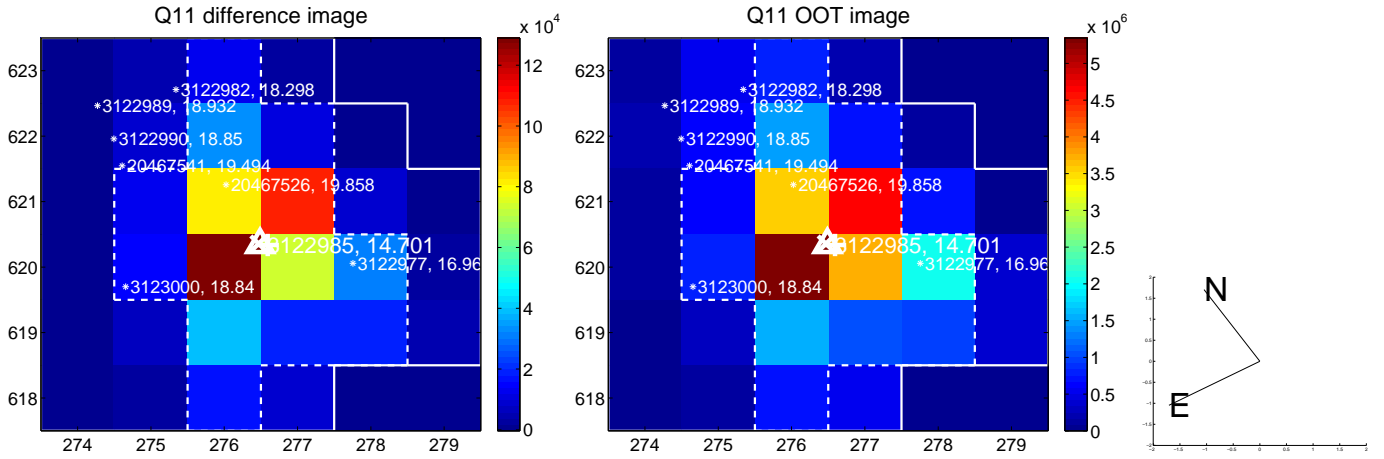
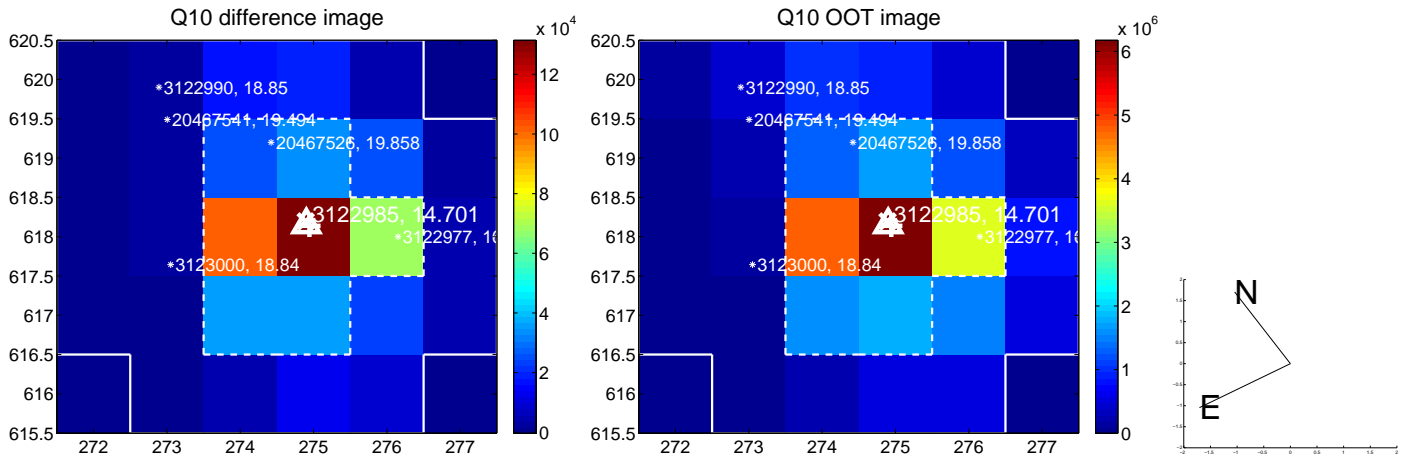
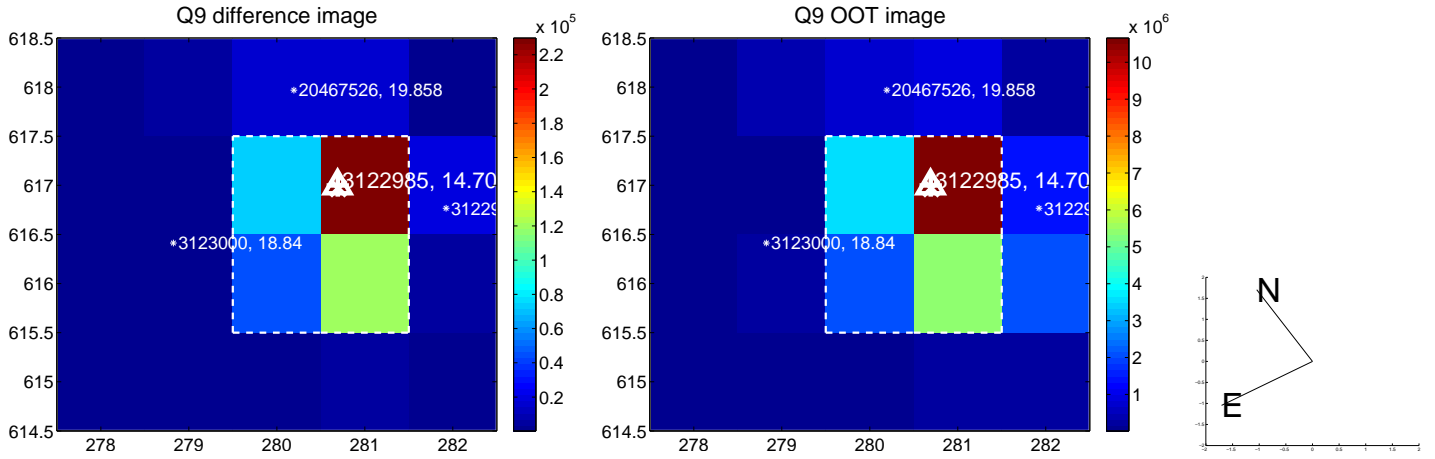
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



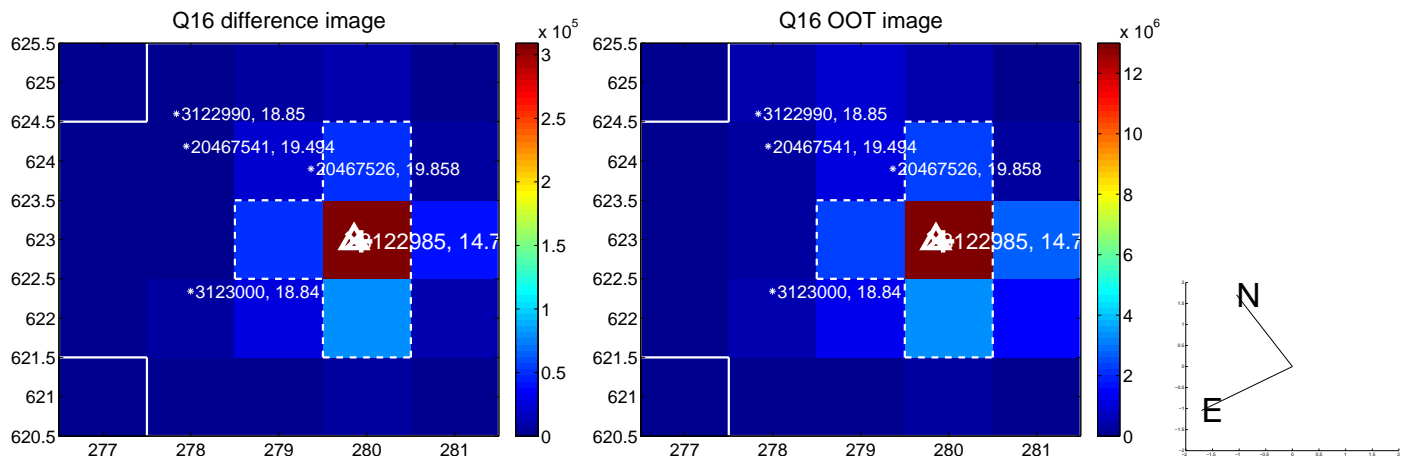
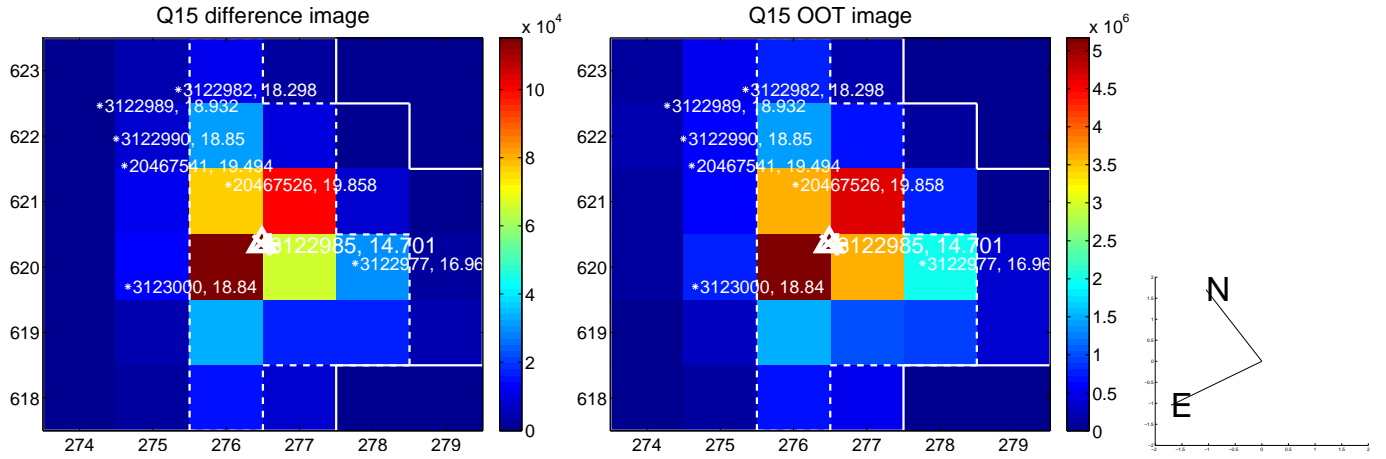
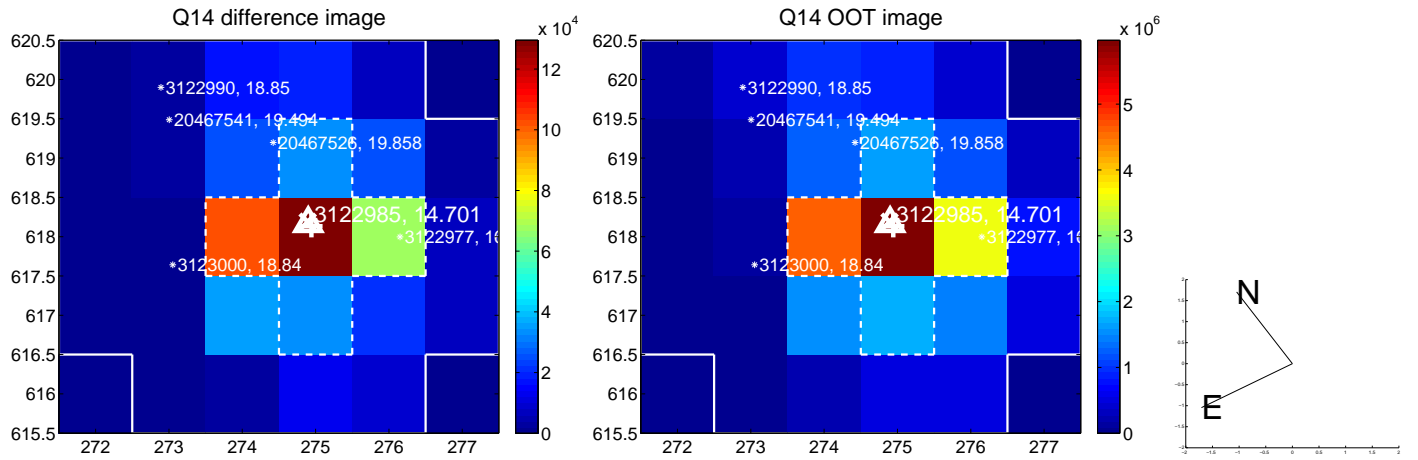
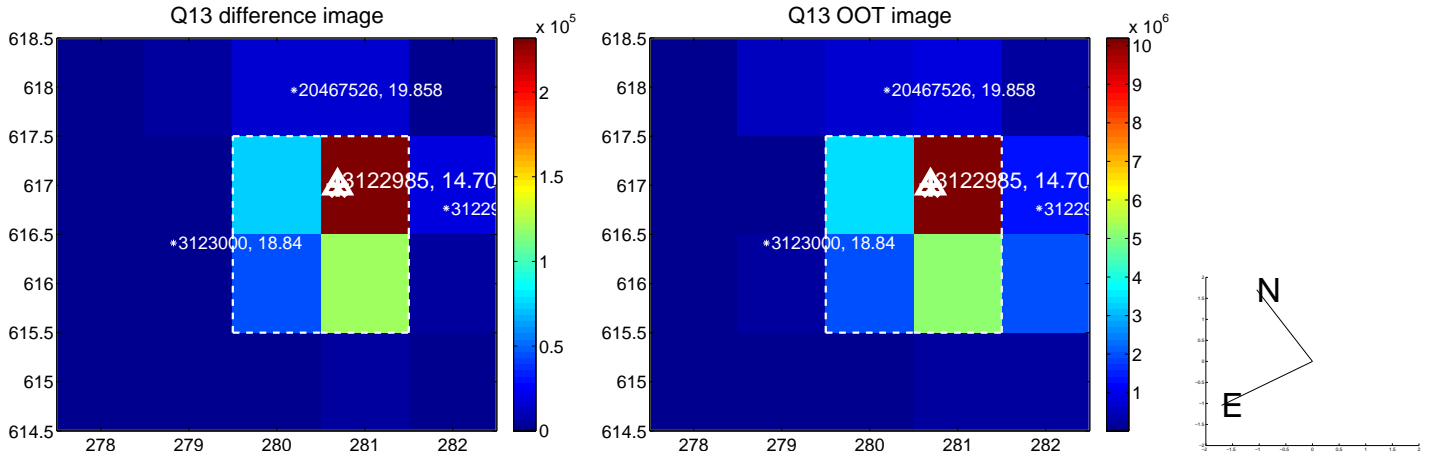
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



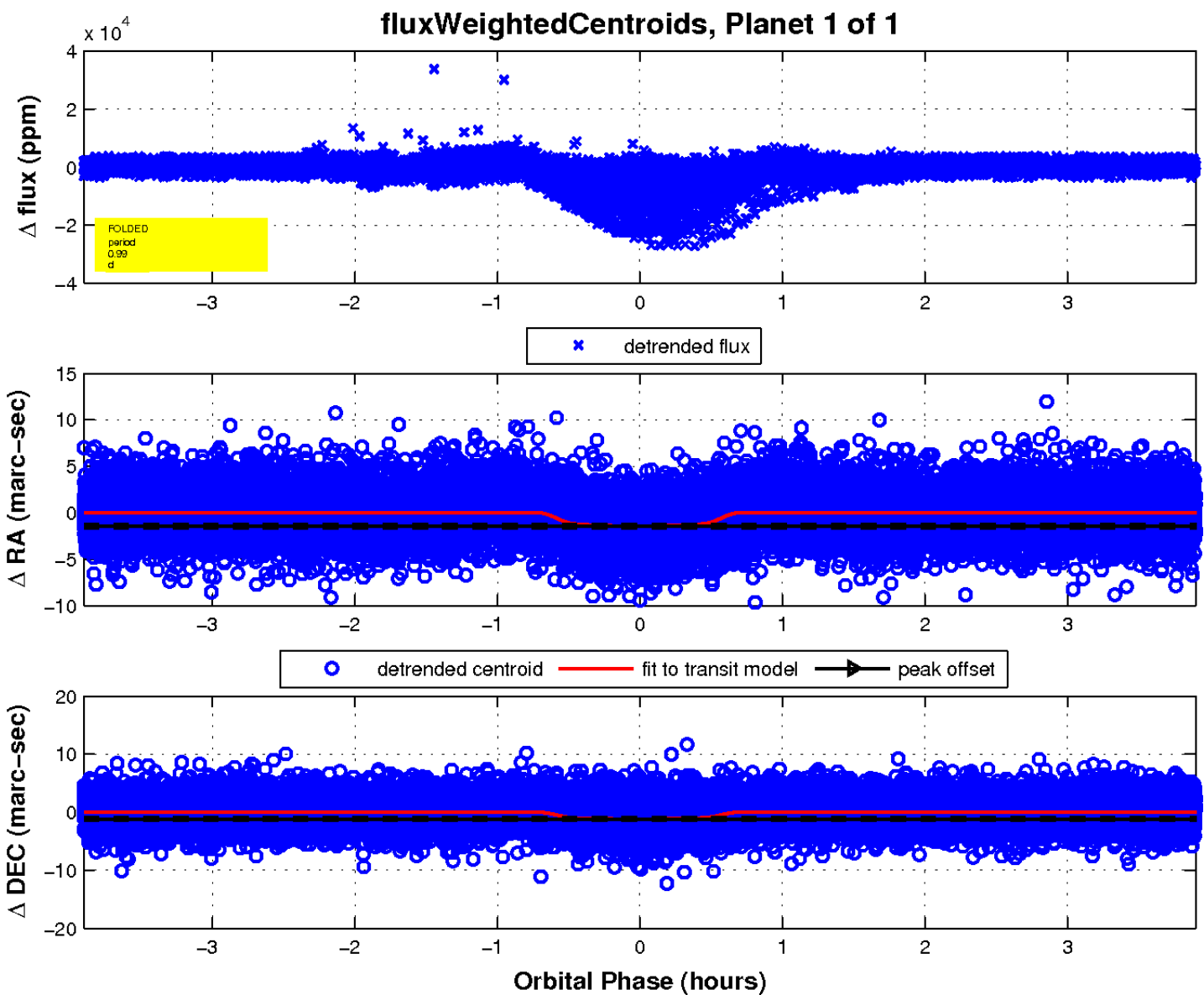
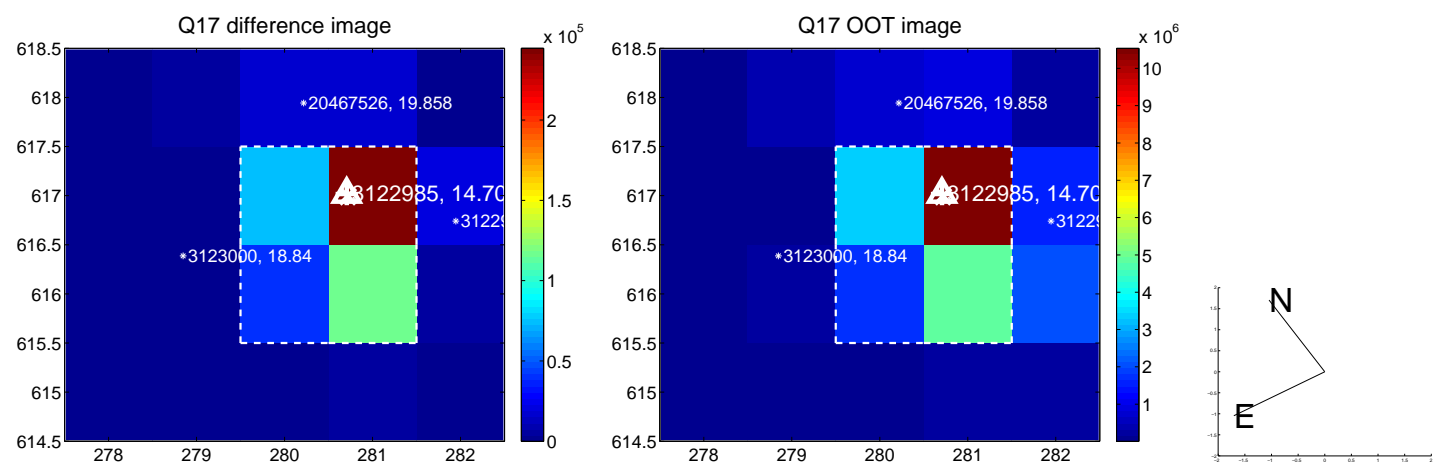
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

