

KIC 005355882

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})
005355882-01	OBS	No	8.744852	133.477952	31.1	28.280	9.6	10.7	0.64	5308	0.39	57.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005355882-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

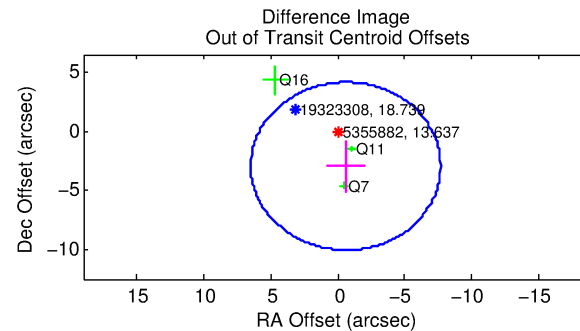
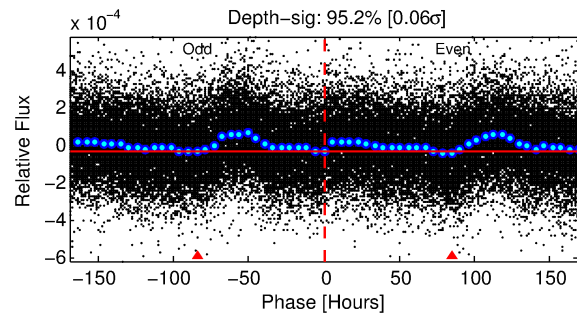
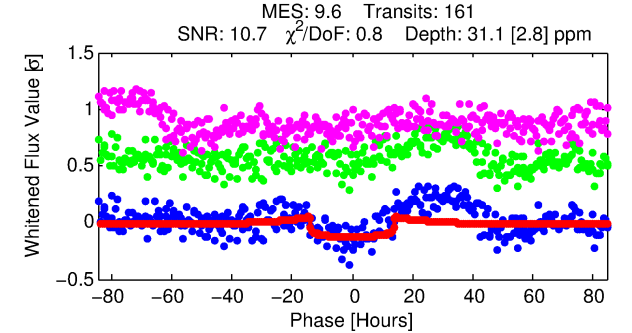
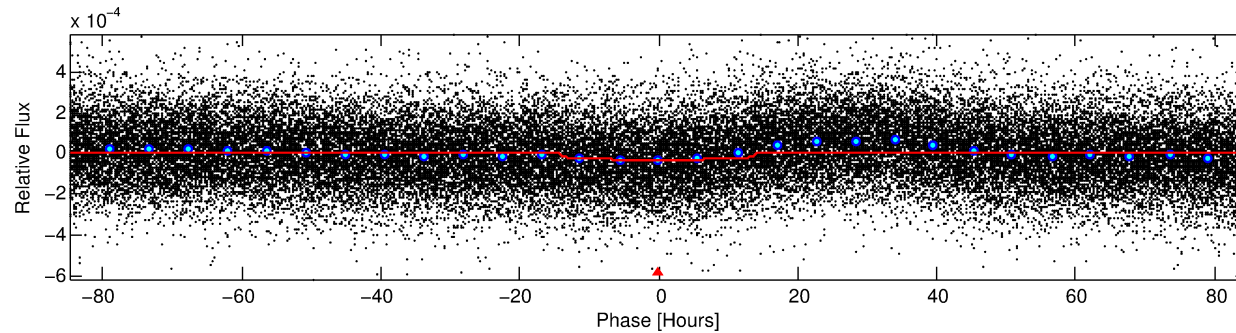
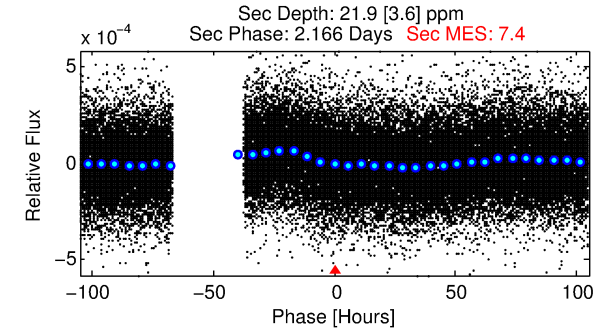
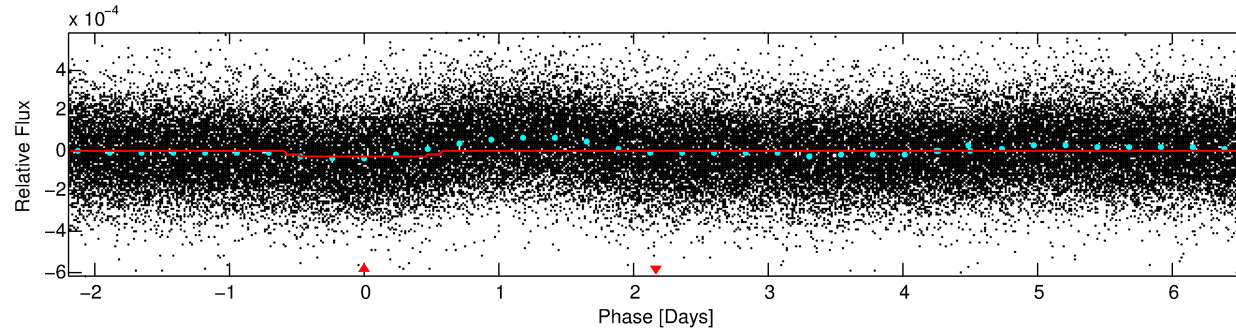
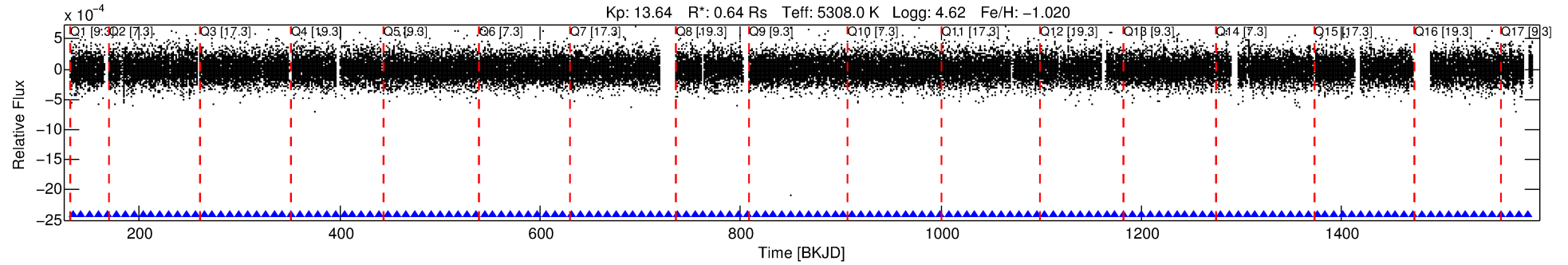
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005355882-01

No Significant Match Found

DV One-Page Summary

KIC: 5355882 Candidate: 1 of 1 Period: 8.745 d



DV Fit Results:

Period = 8.74485 [0.00023] d
Epoch = 133.4780 [0.0204] BKJD
Rp/R* = 0.0055 [0.0011]
a/R* = 1.80 [1.13]
b = 0.75 [0.54]
Seff = 57.95 [9.62]
Teq = 704 [29] K
Rp = 0.39 [0.08] Re
a = 0.0712 [0.0054] AU
Ag = 404.07 [181.73] [2.22σ]
Teffp = 4877 [549] K [7.59σ]

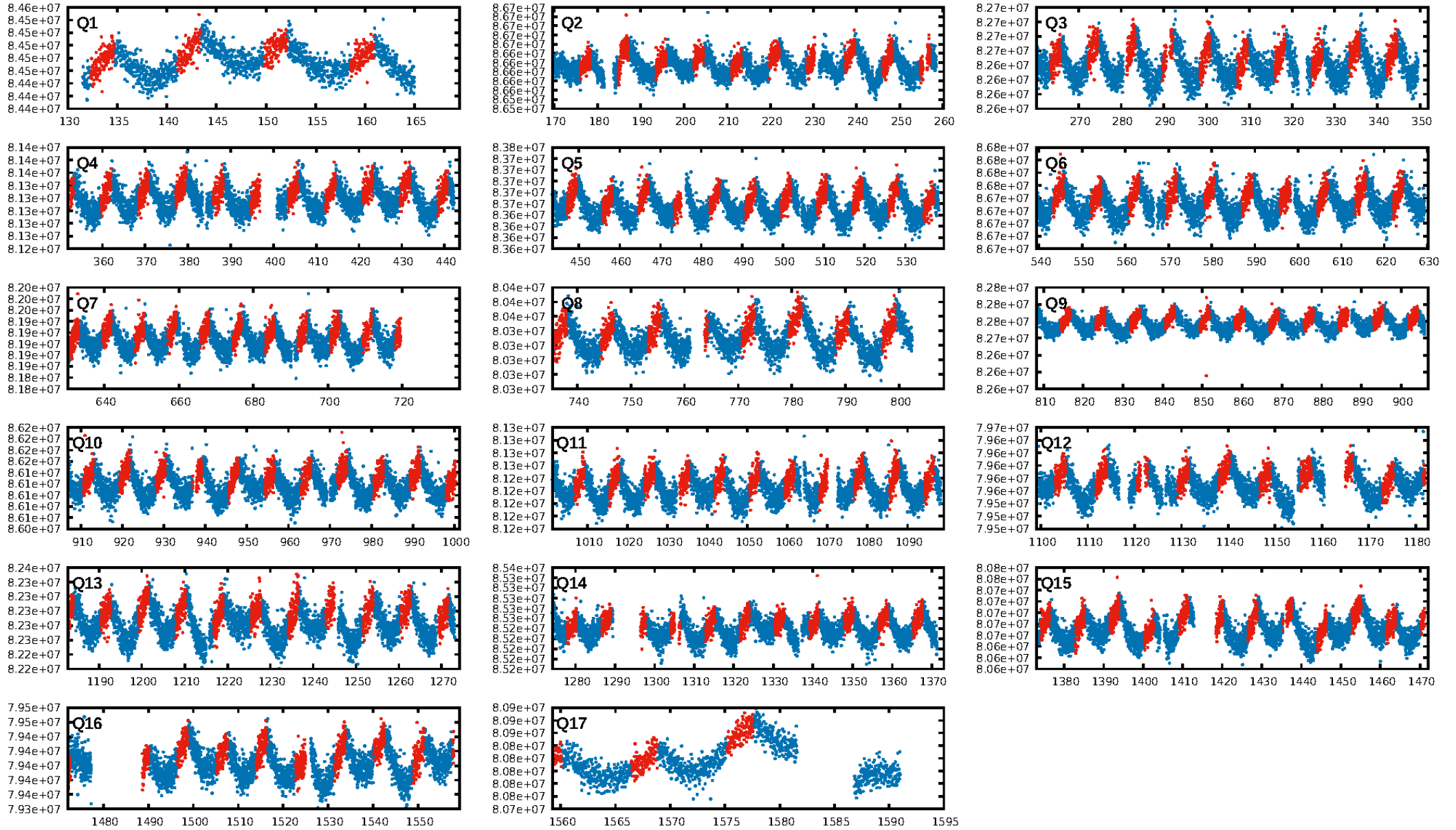
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.37e-22
RollingBand-fgt: 1.00 [154/154]
GhostDiagnostic-chr: 2.382
Centroid-sig: 0.0%
Centroid-so: 1.713 arcsec [2.20σ]
OotOffset-rm: 3.017 arcsec [1.27σ]
KicOffset-rm: 2.991 arcsec [0.98σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [17/17]

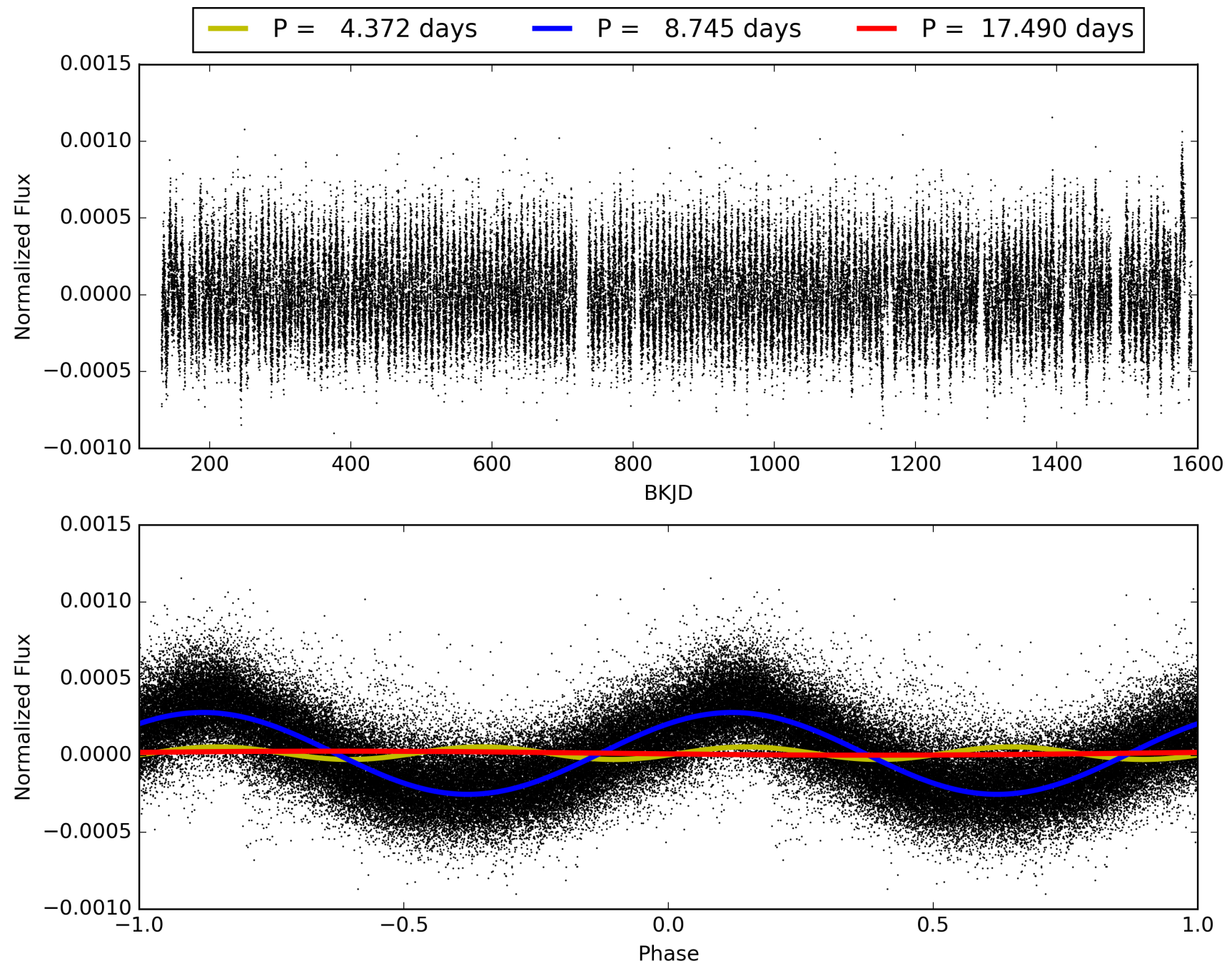
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:56:47 Z

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

TCE 005355882-01, PDC Light Curves

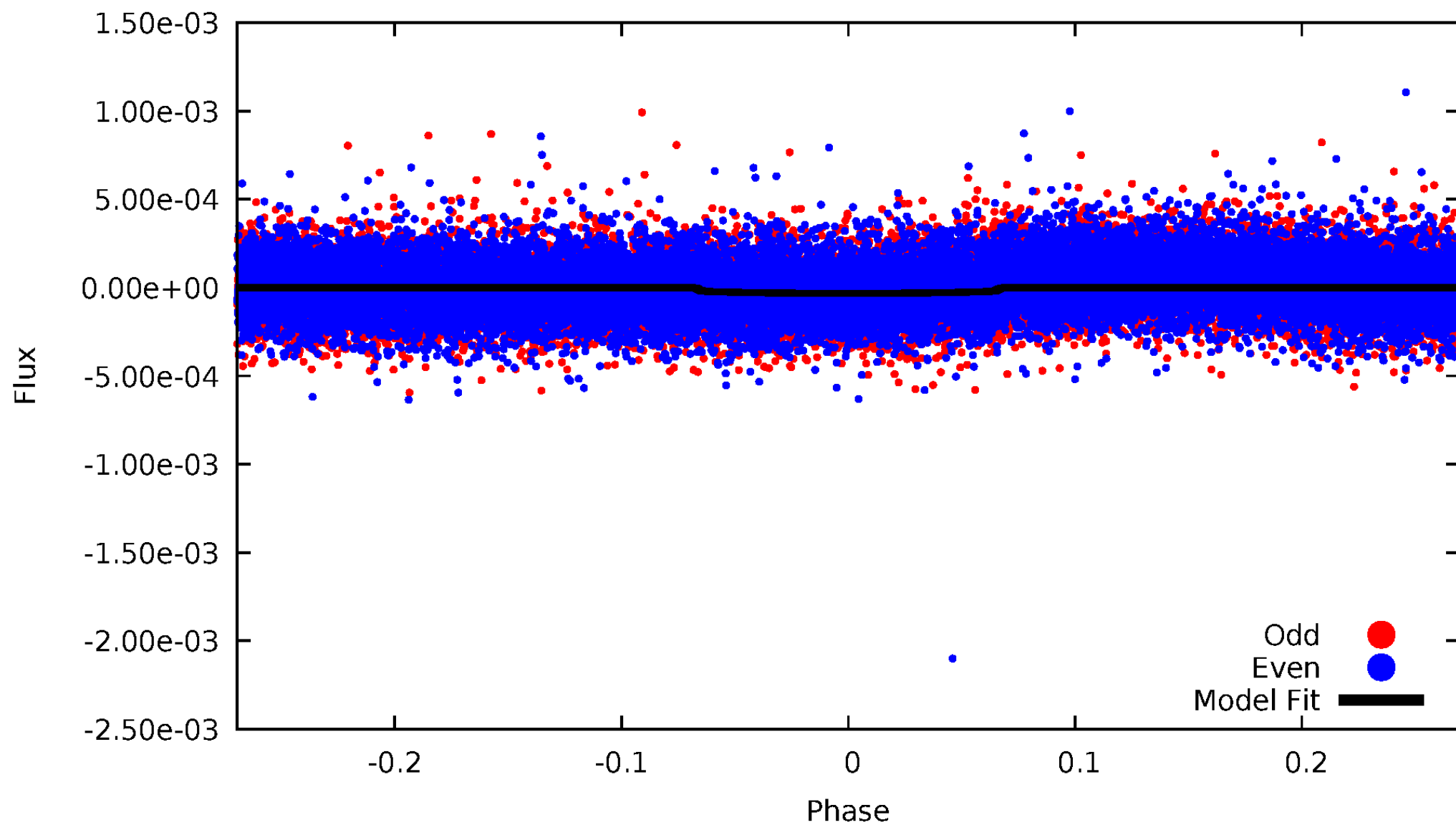


TCE 005355882-01



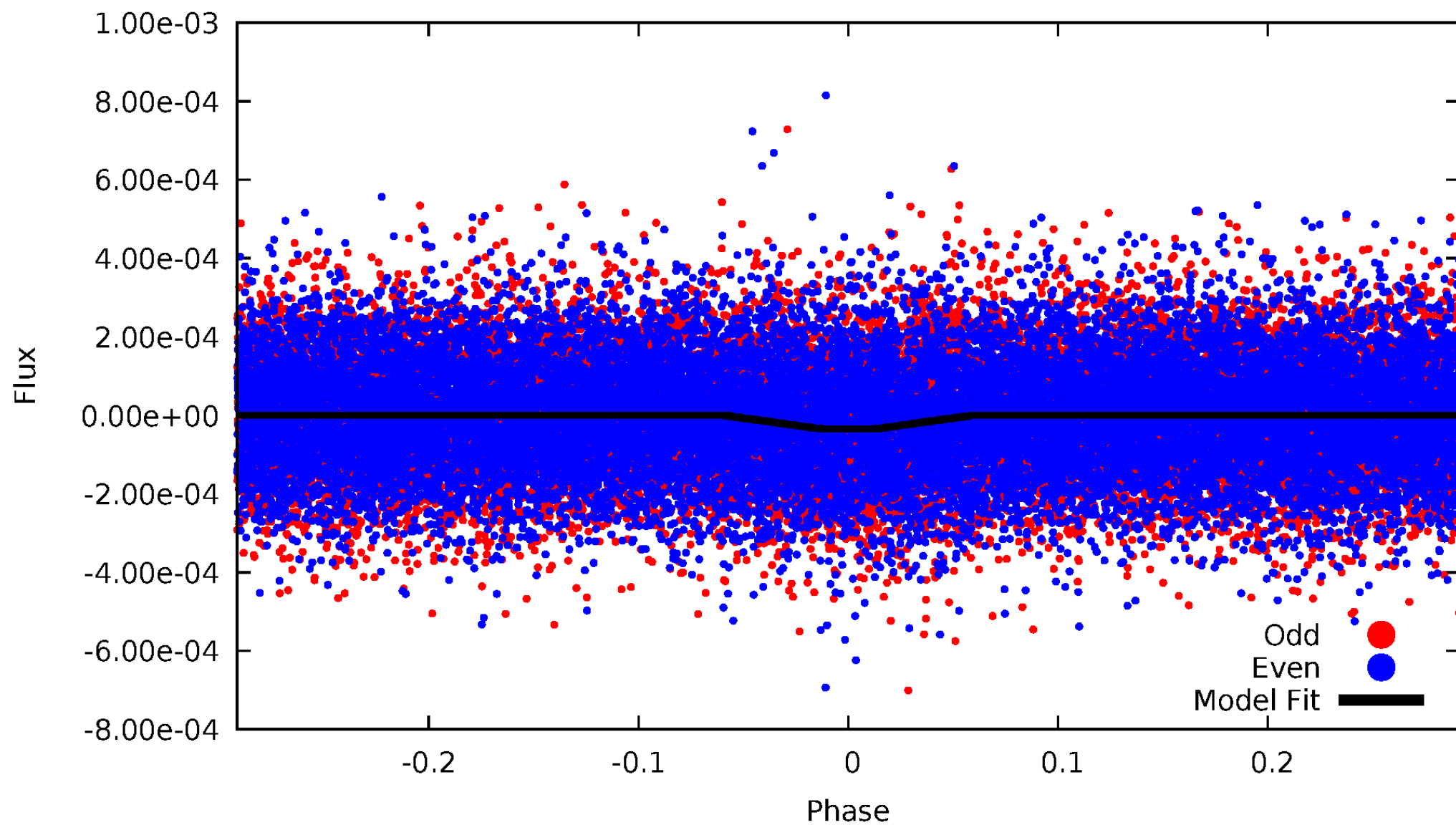
DV Odd/Even

TCE 005355882-01



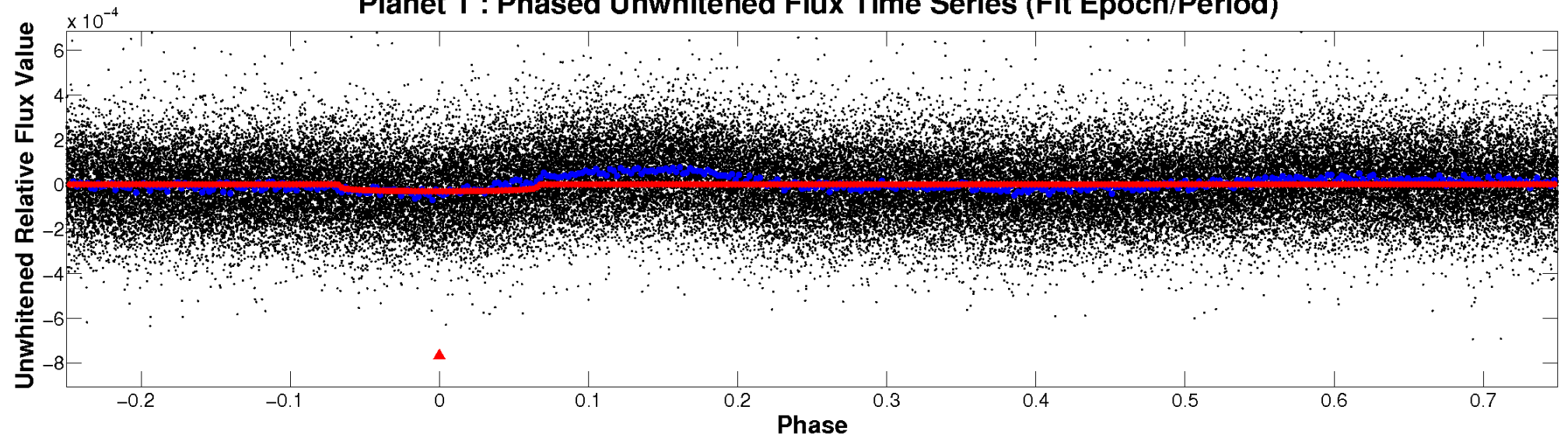
ALT Odd/Even

TCE 005355882-01

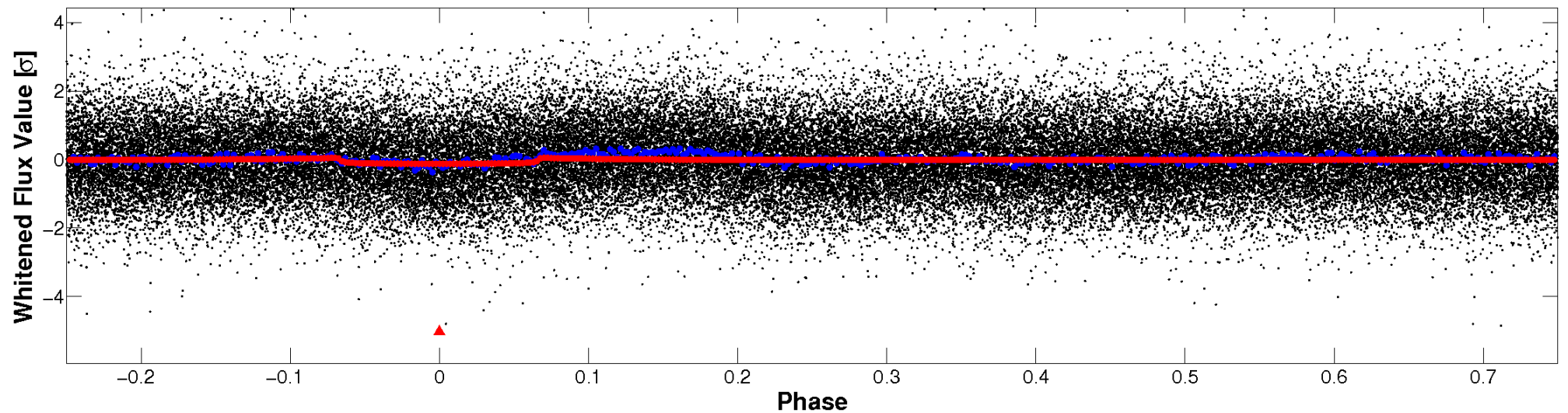


Non-Whitened Vs. Whitened Light Curve

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

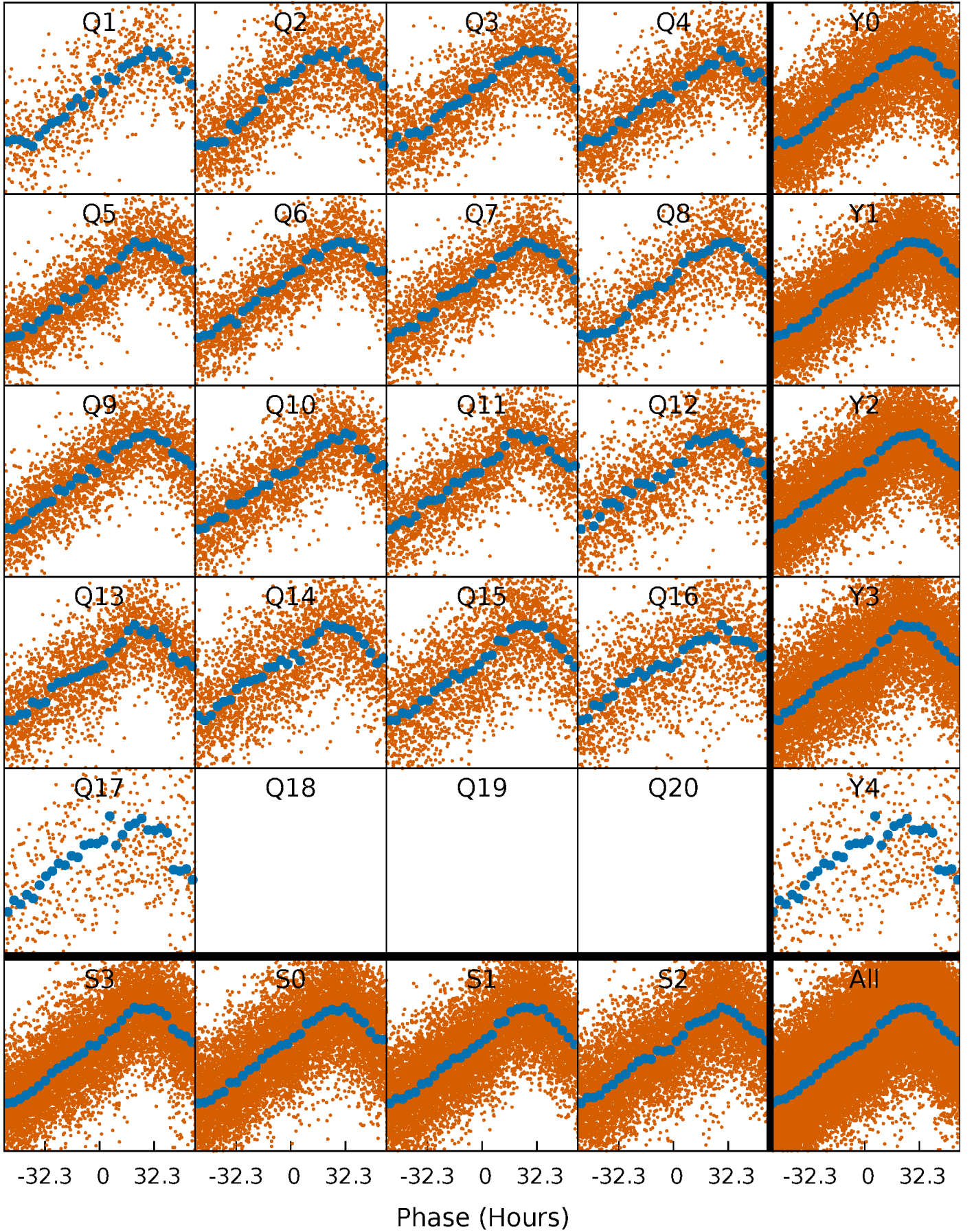


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



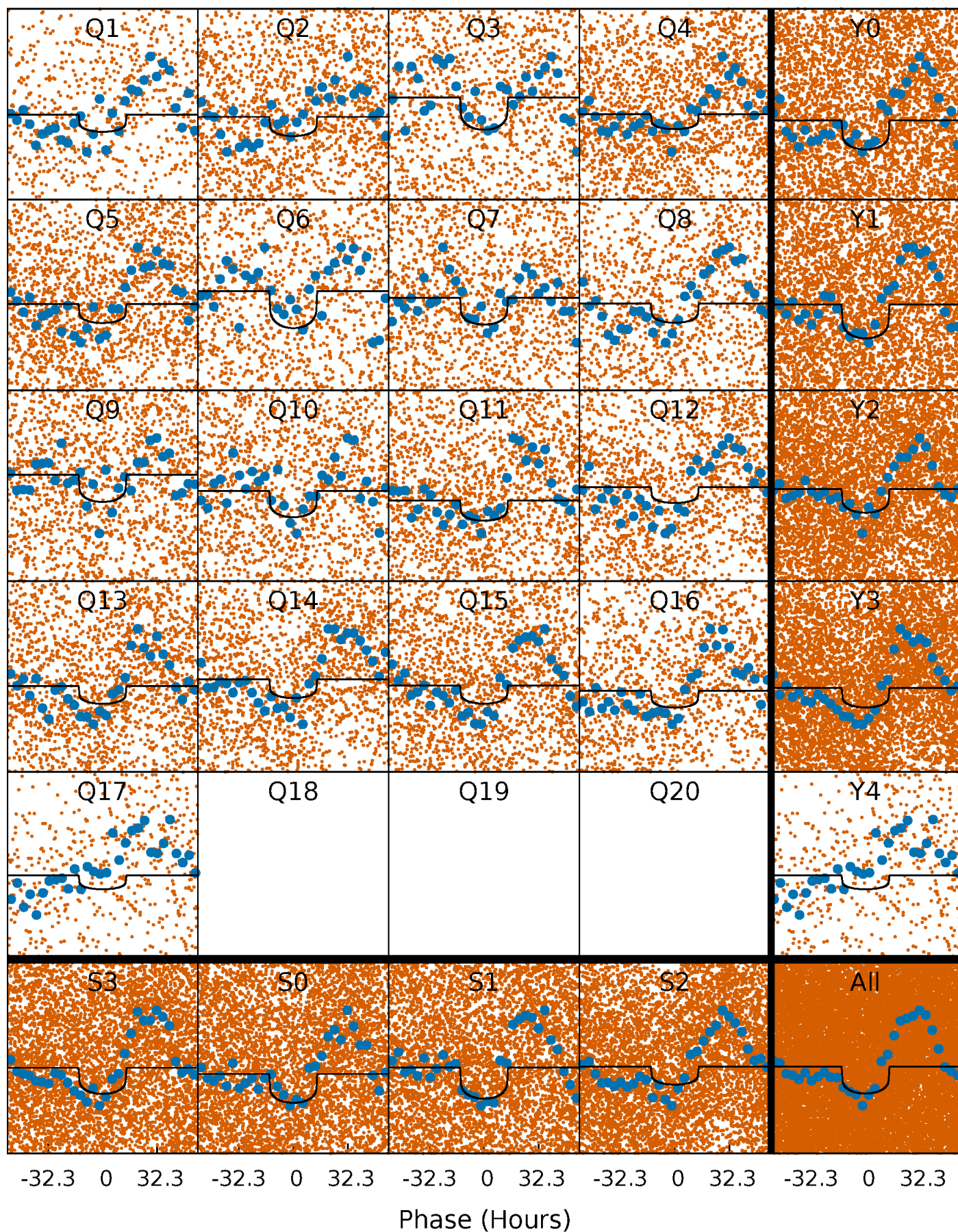
PDC Quarter-Phased Transit Curves

TCE 005355882-01 P= 8.744852 Days $T_0=133.477952$ (BKJD)



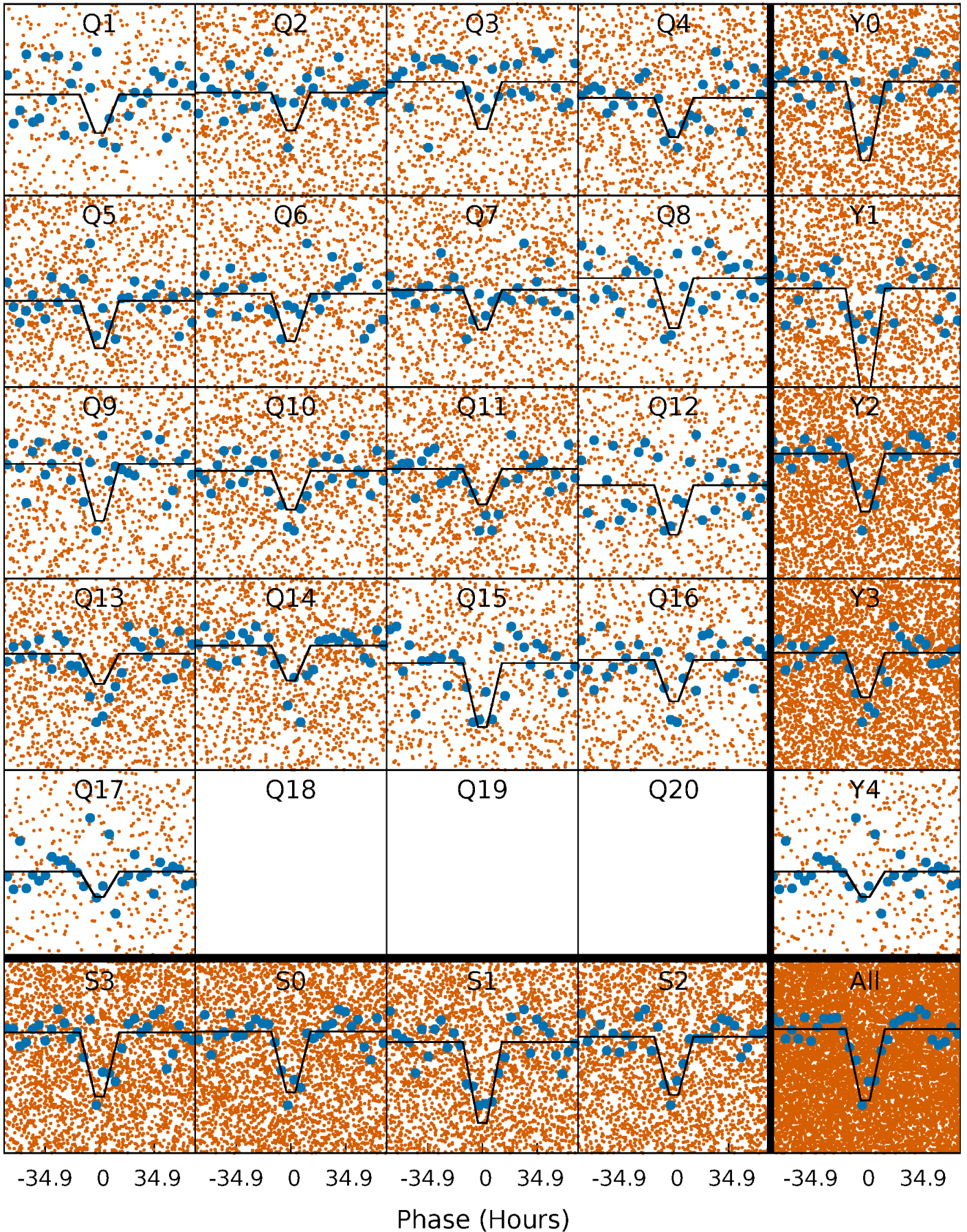
DV Quarter-Phased Transit Curves

TCE 005355882-01 P= 8.744852 Days $T_0=133.477952$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

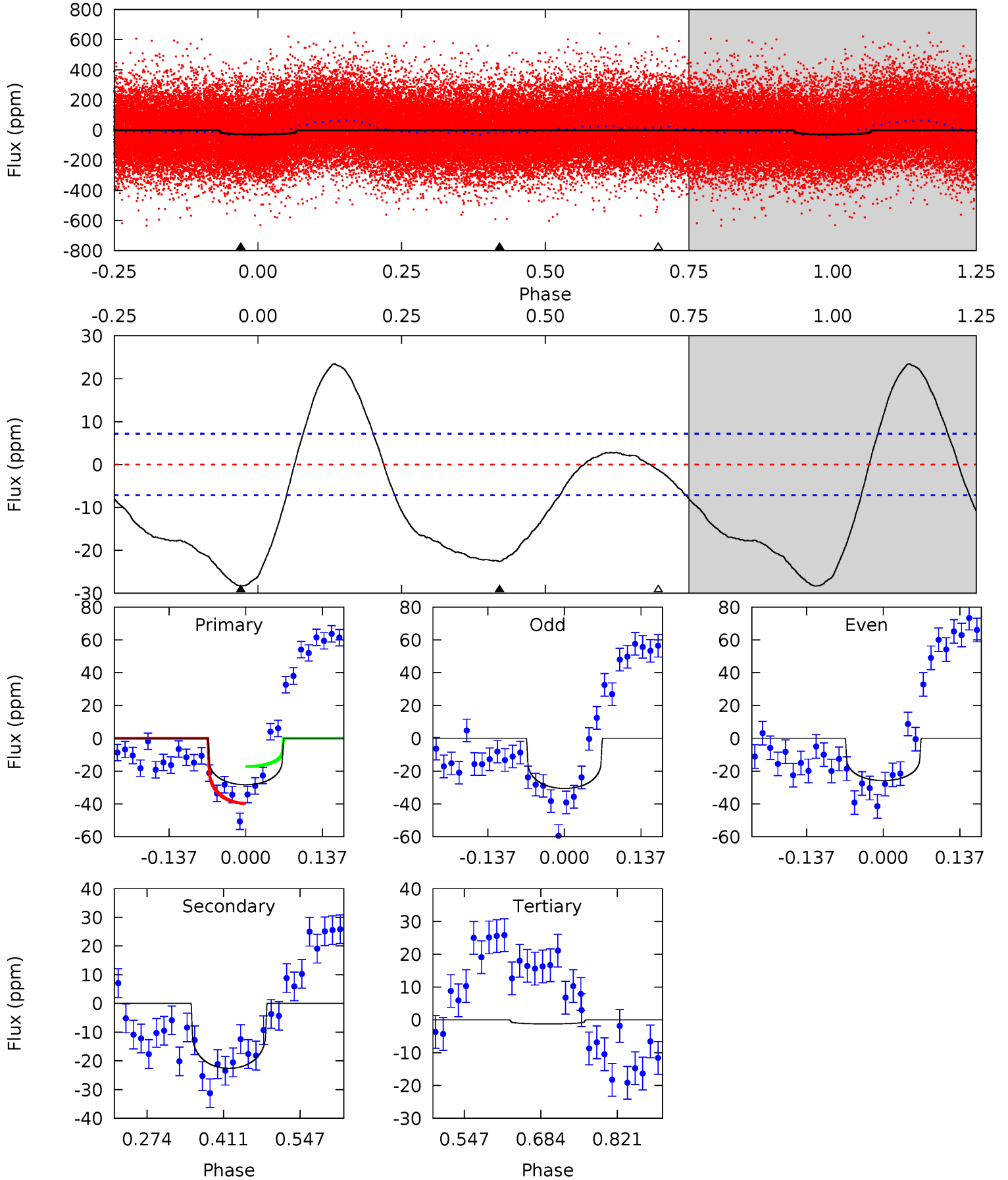
TCE 005355882-01 P= 8.744585 Days $T_0=133.522233$ (BKJD)



DV Model-Shift Uniqueness Test

005355882-01, P = 8.744852 Days, E = 124.733100 Days

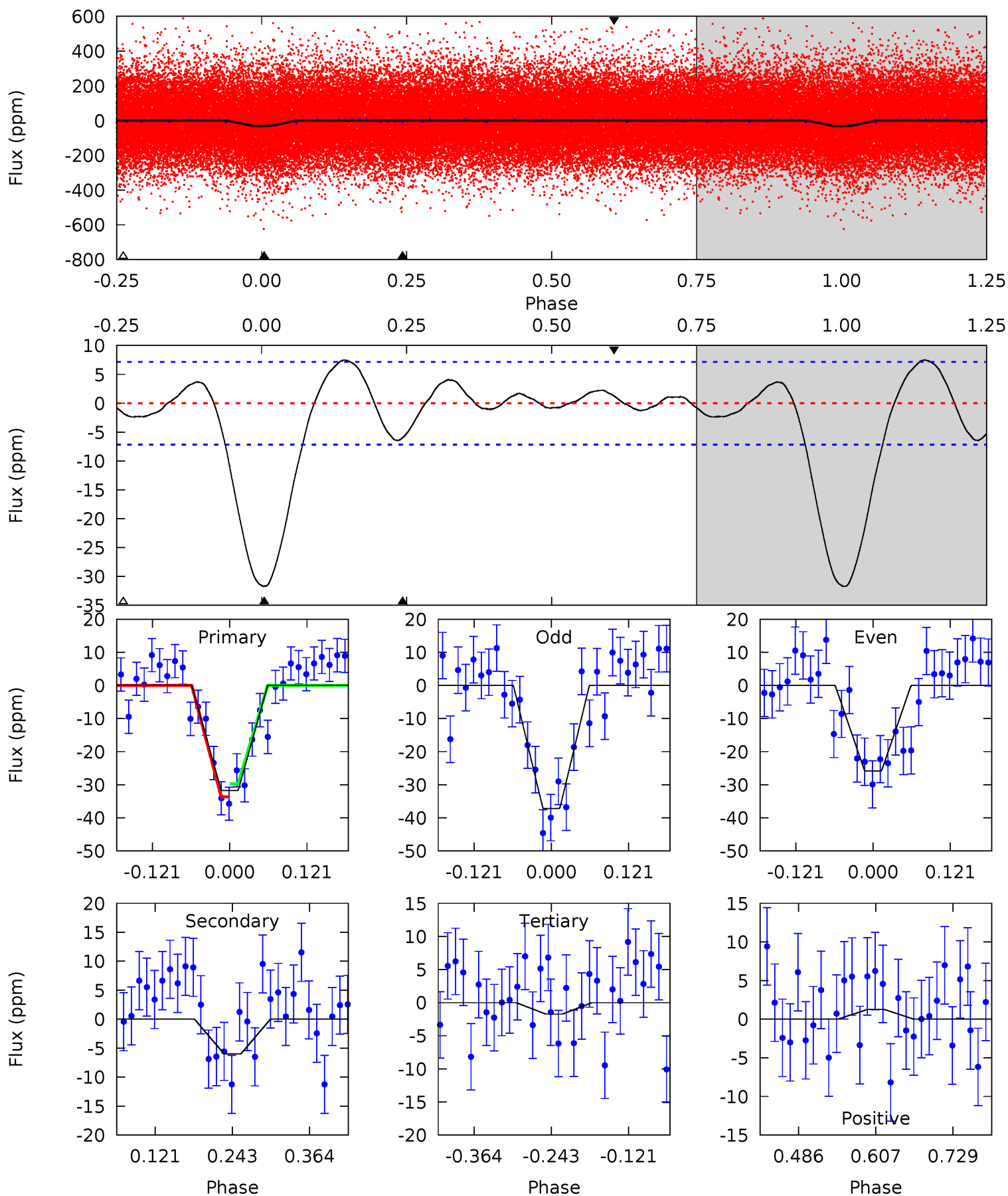
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.8	14.2	0.77	0	4.50	1.49	7.30	17.0	17.8	13.4	14.2	1.50	1.04	0.45	7.02



Alt Model-Shift Uniqueness Test

005355882-01, P = 8.744585 Days, E = 124.777648 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	3.78	1.09	0.80	4.52	1.55	0.84	19.0	19.2	2.69	2.98	3.59	1.42	0.19	1.23



Stellar Parameters For KIC 005355882

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5308^{+158}_{-158}	$4.621^{+0.066}_{-0.044}$	$-1.020^{+0.300}_{-0.300}$	$0.643^{+0.054}_{-0.049}$	$0.631^{+0.059}_{-0.023}$	$3.336^{+0.858}_{-0.570}$
	+3%/-3%	+1%/-1%	+29%/-29%	+8%/-8%	+9%/-4%	+26%/-17%
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 005355882-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-23 ± 2	$0.39^{+0.08}_{-0.09}$	980^{+36}_{-36}	4939^{+593}_{-370}	415^{+274}_{-129}
Alt.	-6 ± 2	$0.42^{+0.07}_{-0.08}$	979^{+36}_{-38}	3747^{+361}_{-285}	94^{+59}_{-35}

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

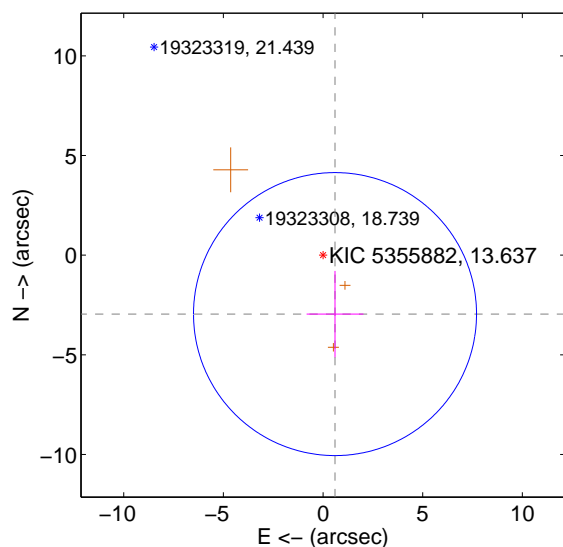
Supplemental centroid analysis for 005355882-01. Kepler magnitude: 13.64. Transit SNR 10.71

There are 0 quarters with good PRF difference image offsets

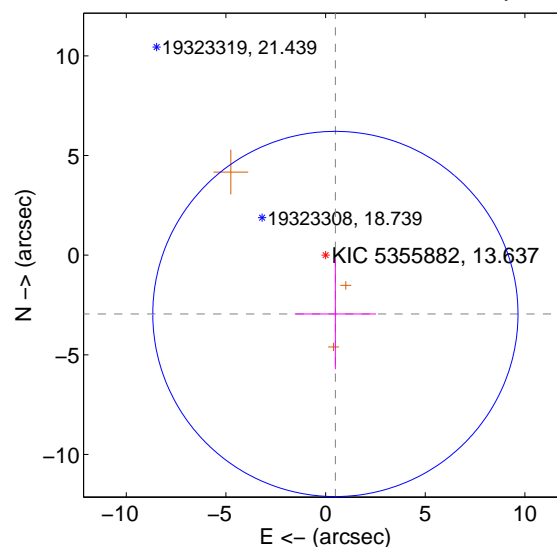
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.017 ± 2.367	1.27	-0.601 ± 1.425	-2.957 ± 2.167
PRF-fit source offset from KIC position	2.991 ± 3.054	0.98	-0.492 ± 2.040	-2.950 ± 2.769
photometric centroid source offset	1.71 ± 0.78	2.20	-0.42 ± 0.81	1.66 ± 0.78

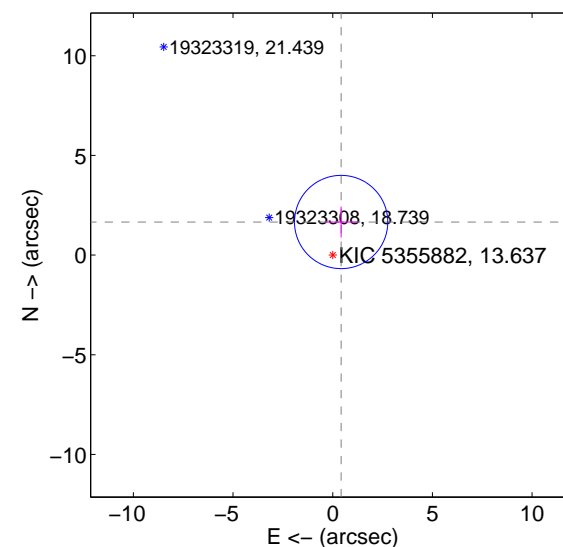
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

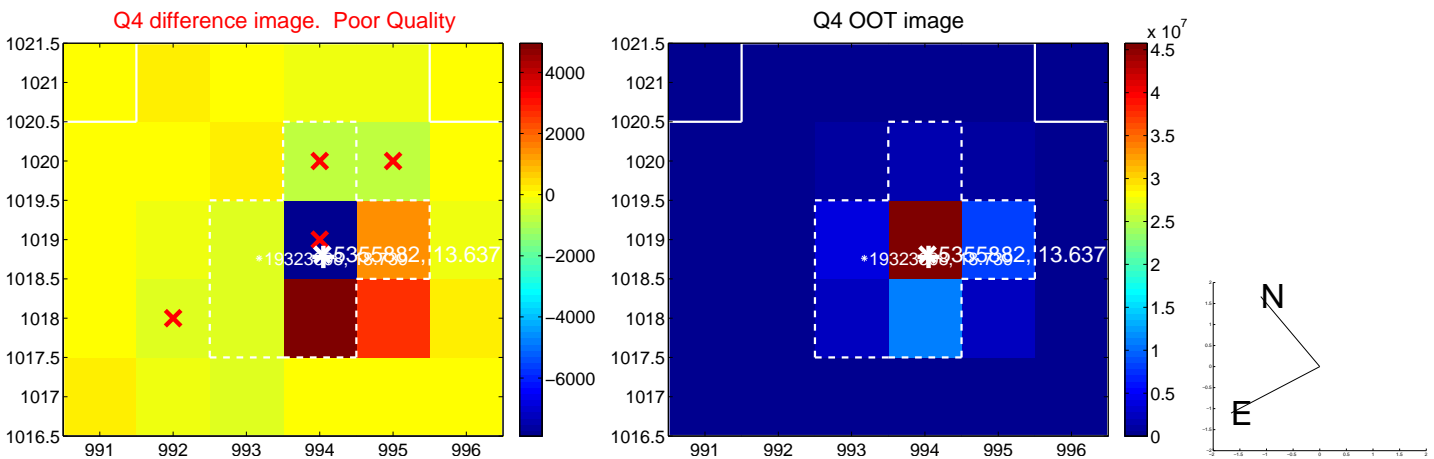
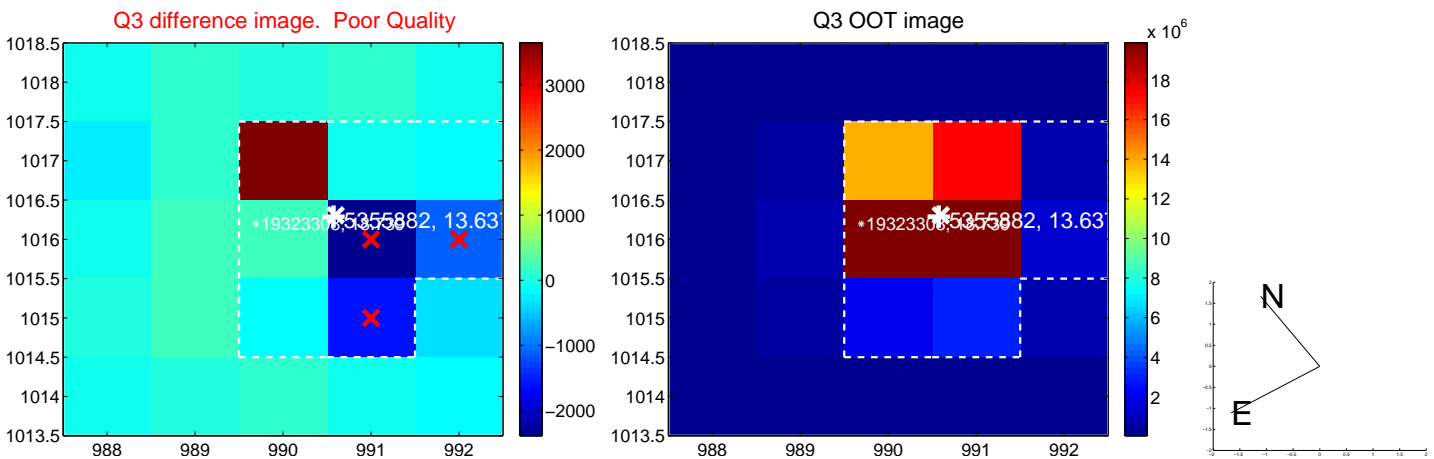
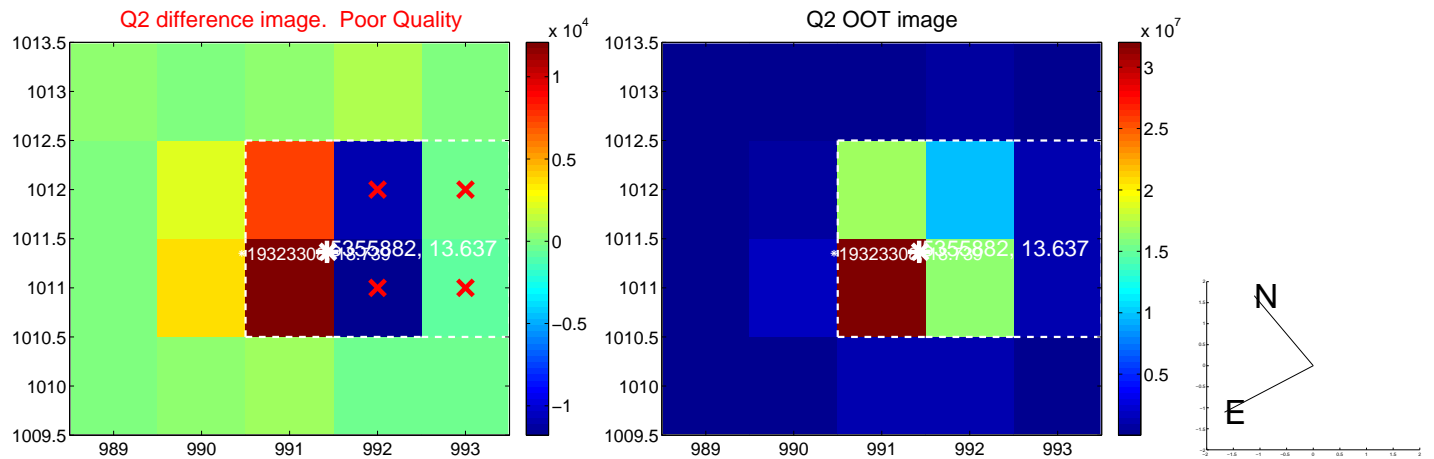
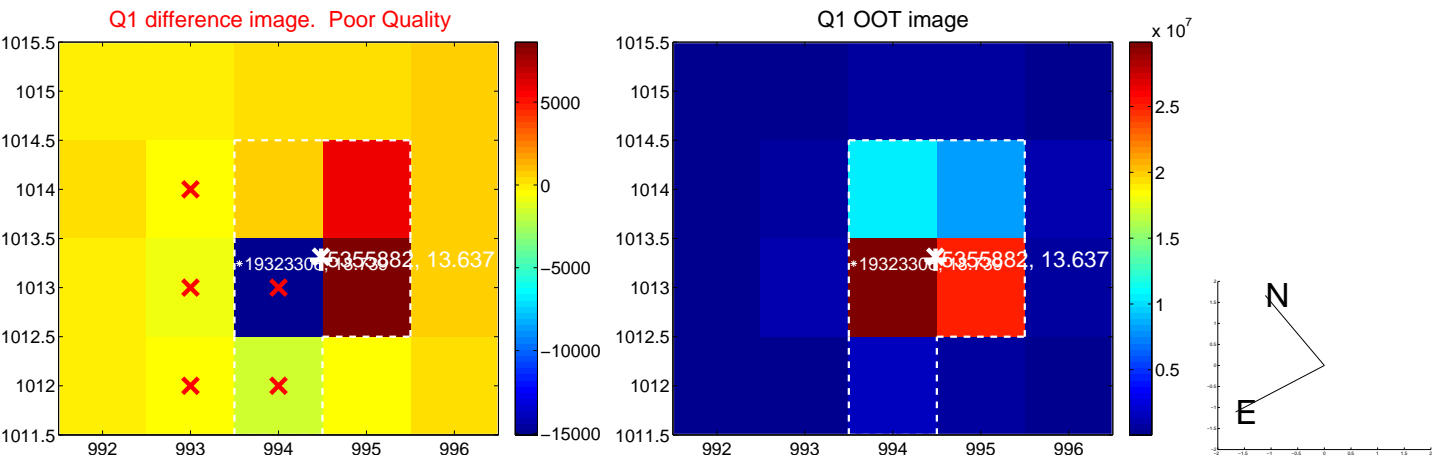


offset from photometric centroids

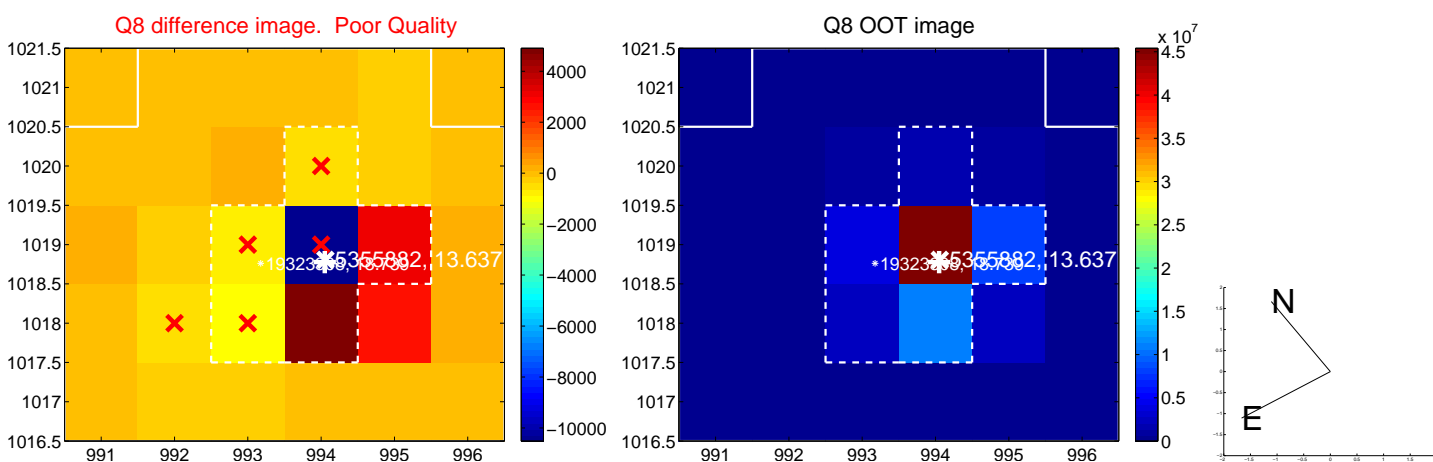
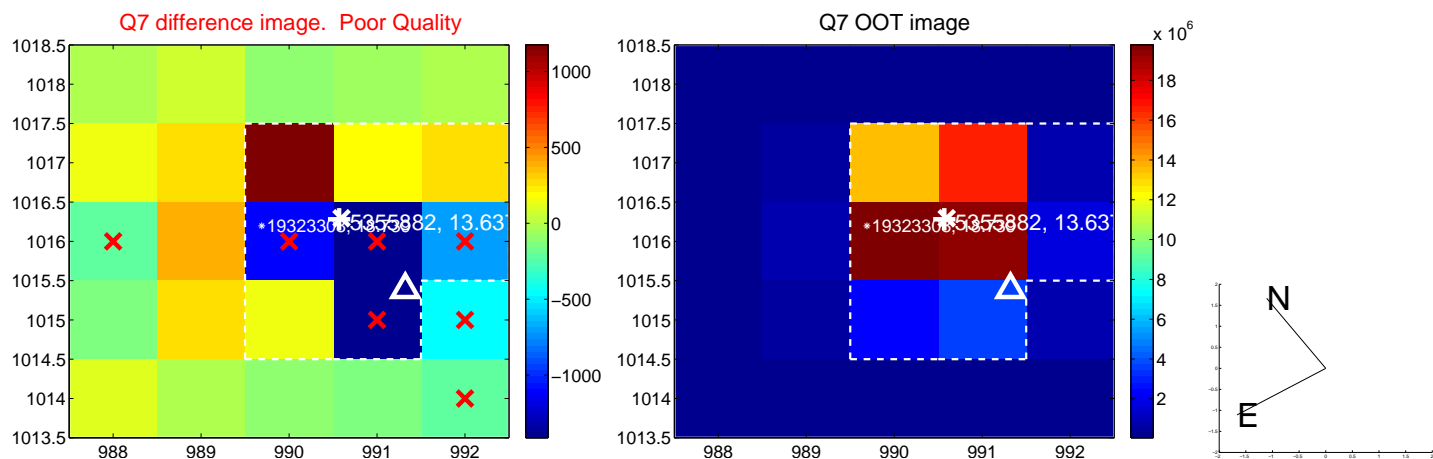
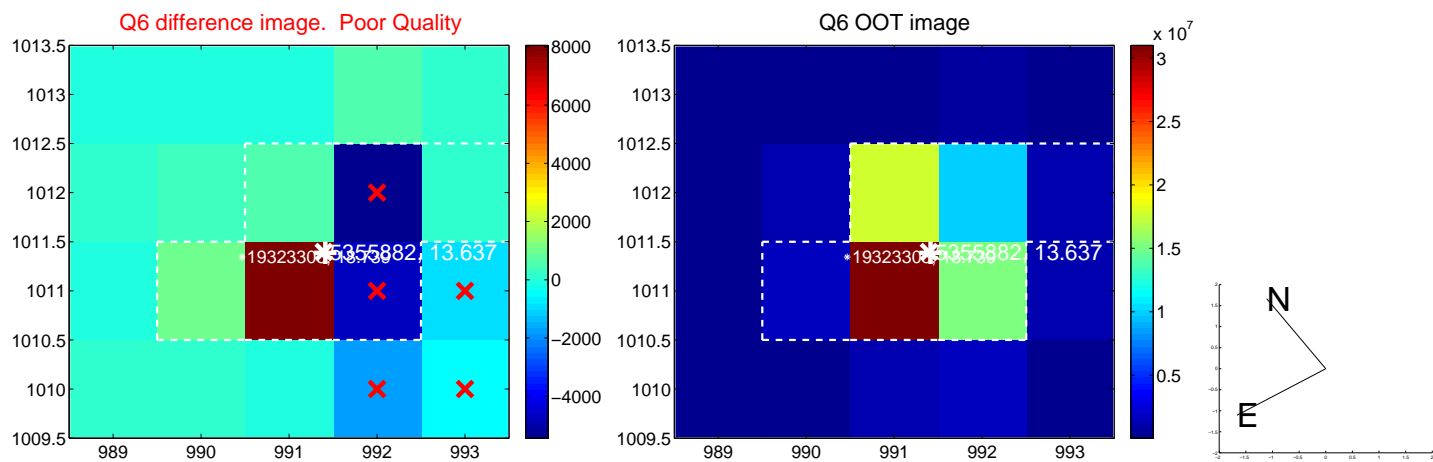
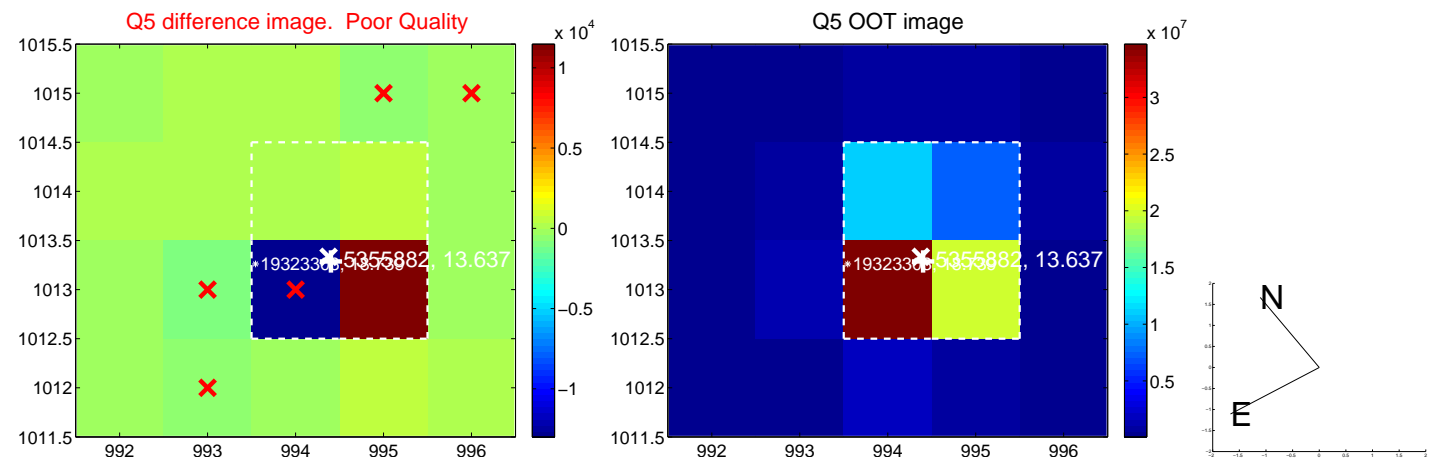


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

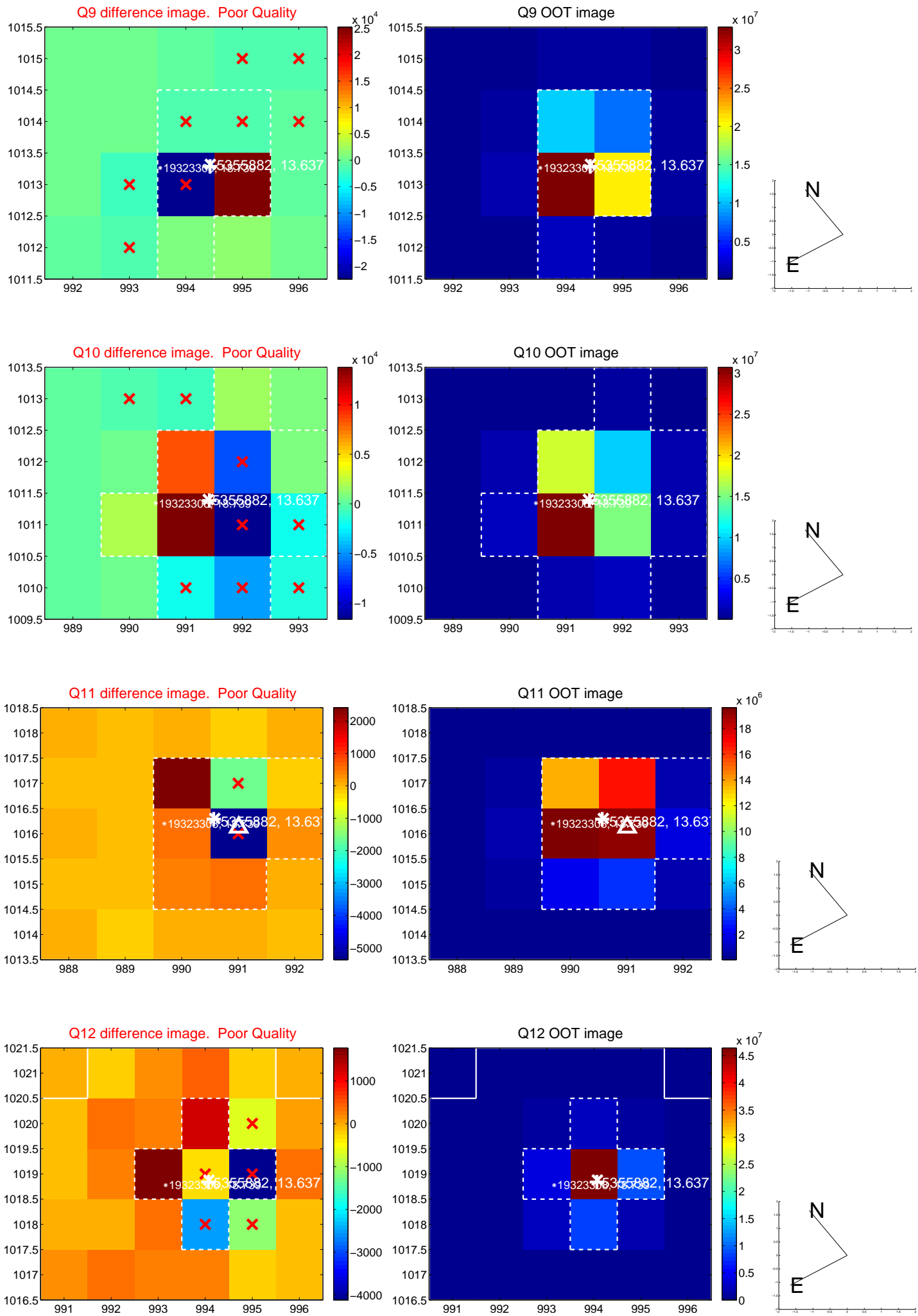
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



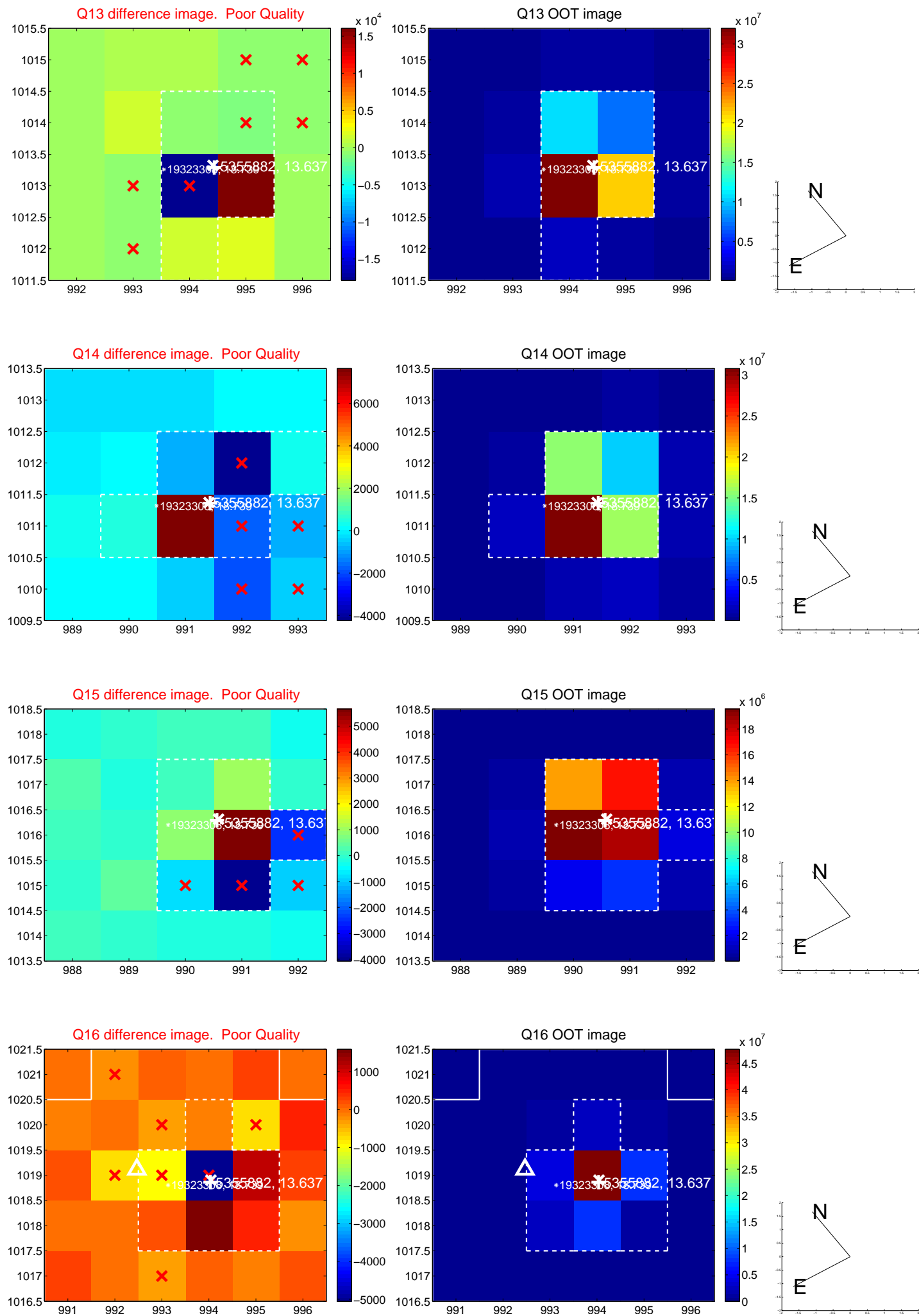
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



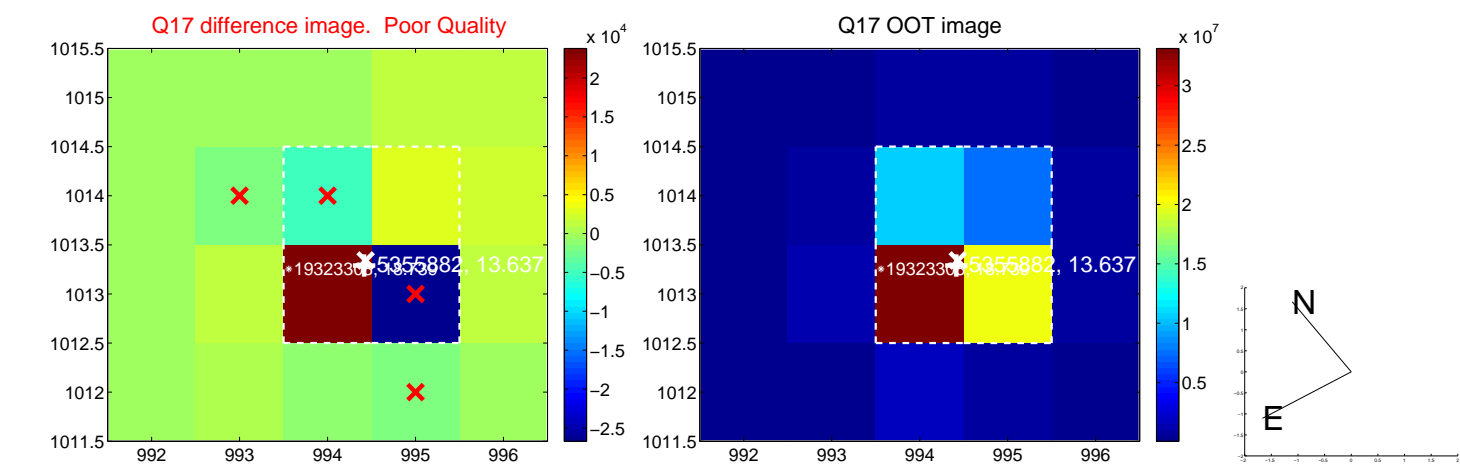
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



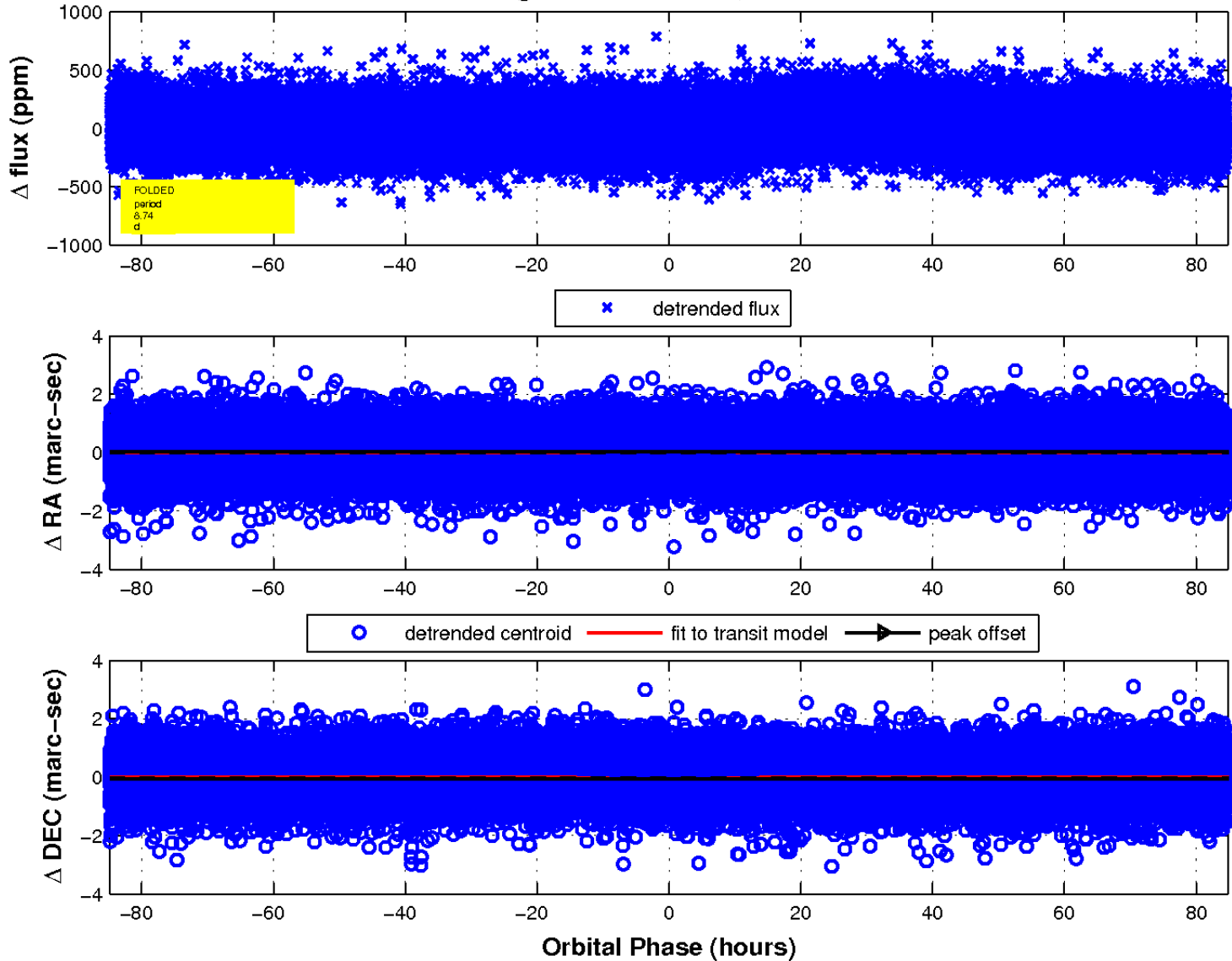
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

