

KIC 005393984

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})
005393984-01	OBS	No	1.651095	132.443079	113.3	8.724	9.5	7.3	1.26	6623	1.54	3056.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005393984-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

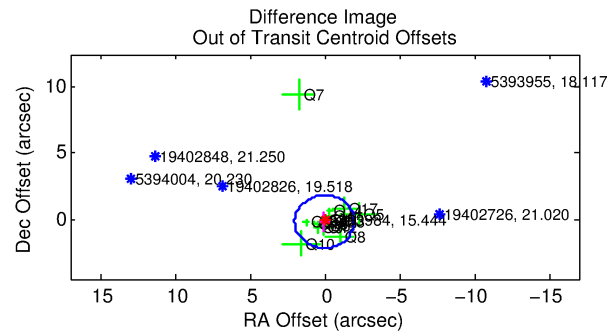
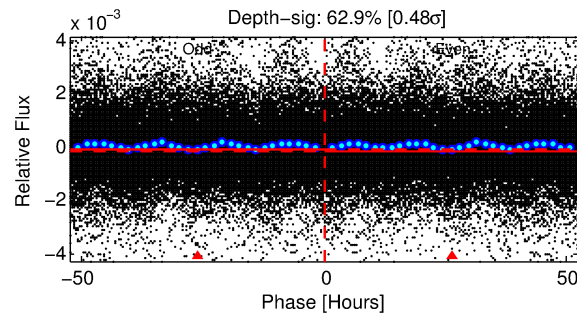
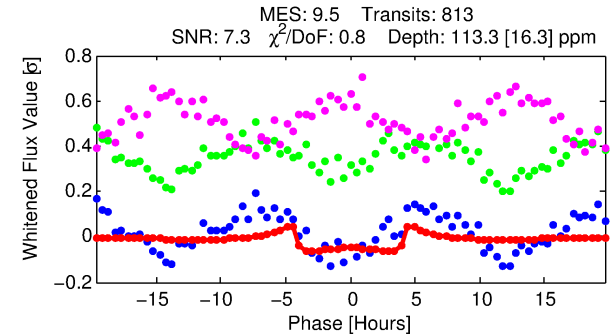
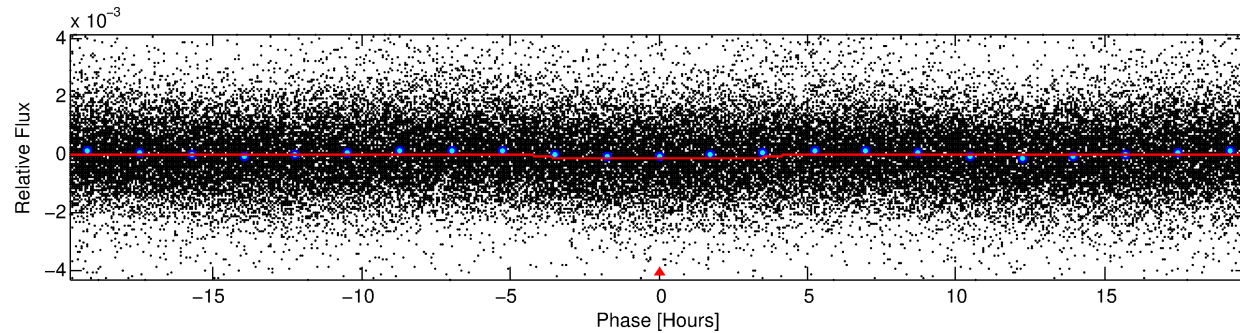
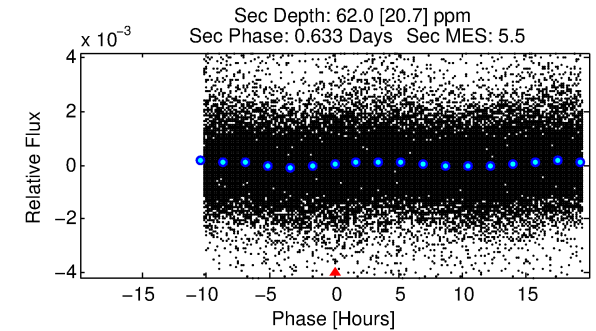
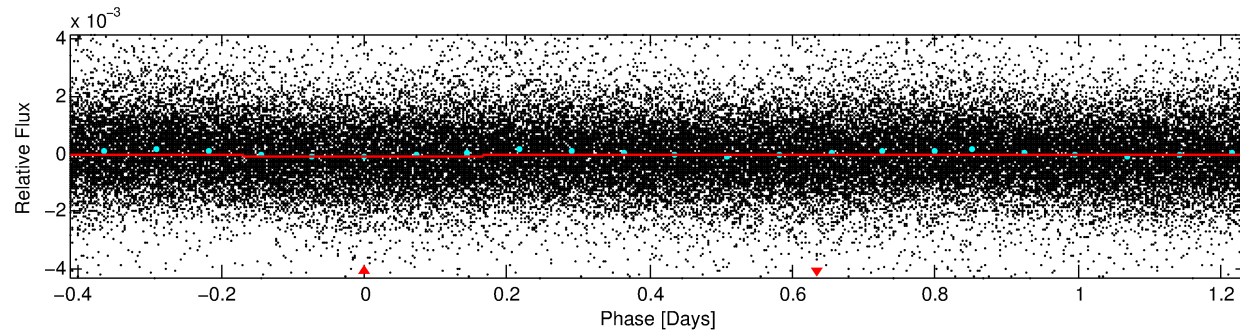
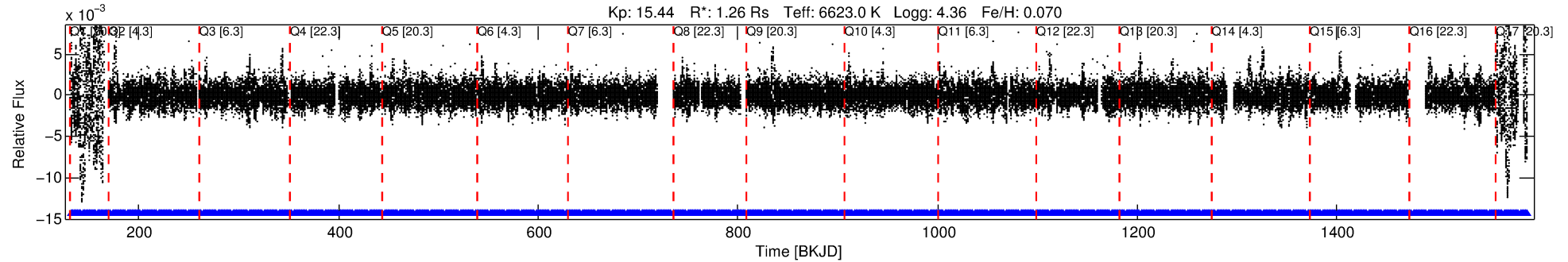
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005393984-01

No Significant Match Found

DV One-Page Summary

KIC: 5393984 Candidate: 1 of 1 Period: 1.651 d



DV Fit Results:

Period = 1.65109 [0.00002] d
Epoch = 132.4431 [0.0054] BKJD
Rp/R* = 0.0112 [0.0021]
a/R* = 1.18 [0.32]
b = 0.87 [0.26]
Seff = 3056.52 [1075.72]
Teff = 1896 [167] K
Rp = 1.54 [0.51] Re
a = 0.0299 [0.0067] AU
Ag = 12.92 [7.61] [1.57 σ]
Teffp = 5557 [724] K [4.93 σ]

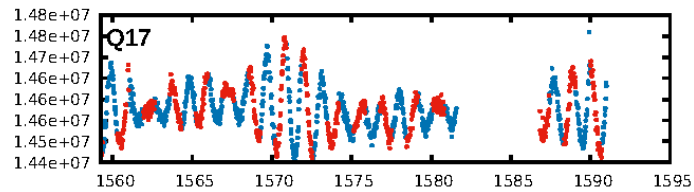
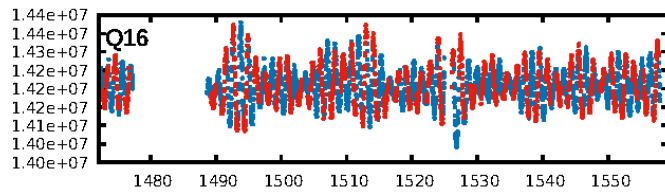
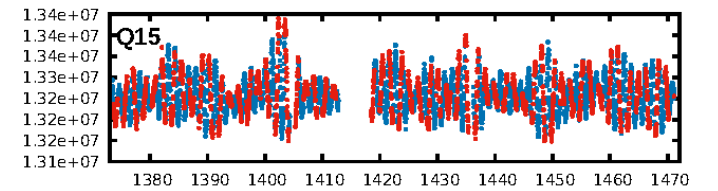
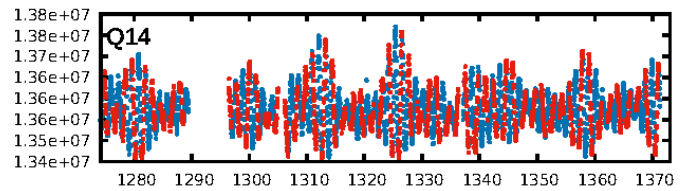
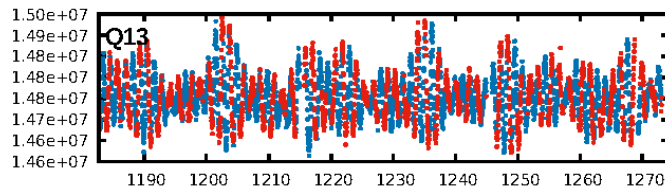
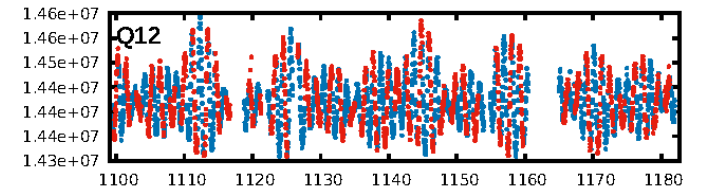
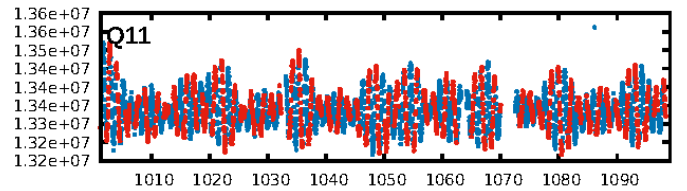
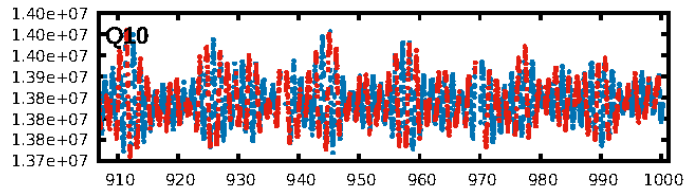
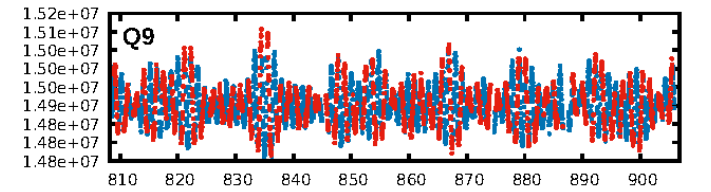
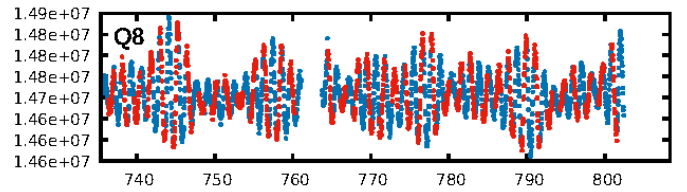
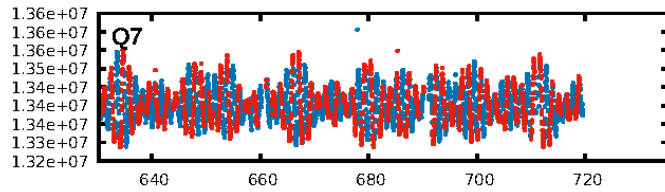
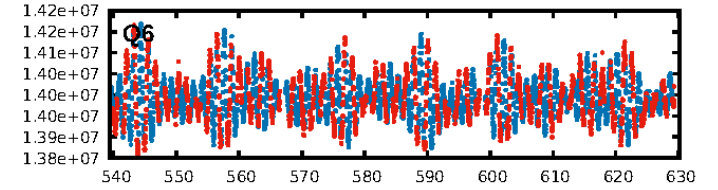
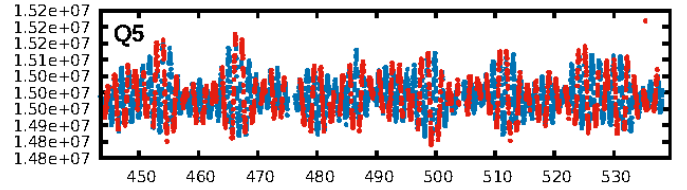
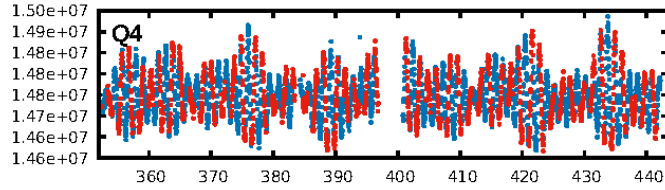
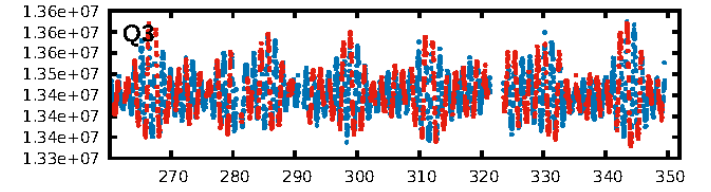
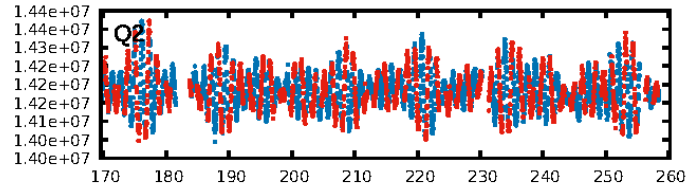
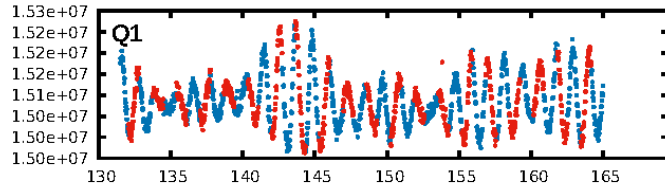
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.47e-13
RollingBand-fgt: 1.00 [777/777]
GhostDiagnostic-chr: 3.39
Centroid-sig: 0.5%
Centroid-so: 1.742 arcsec [2.11 σ]
OotOffset-rm: 0.161 arcsec [0.24 σ]
KicOffset-rm: 0.196 arcsec [0.30 σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 1.00 [17/17]

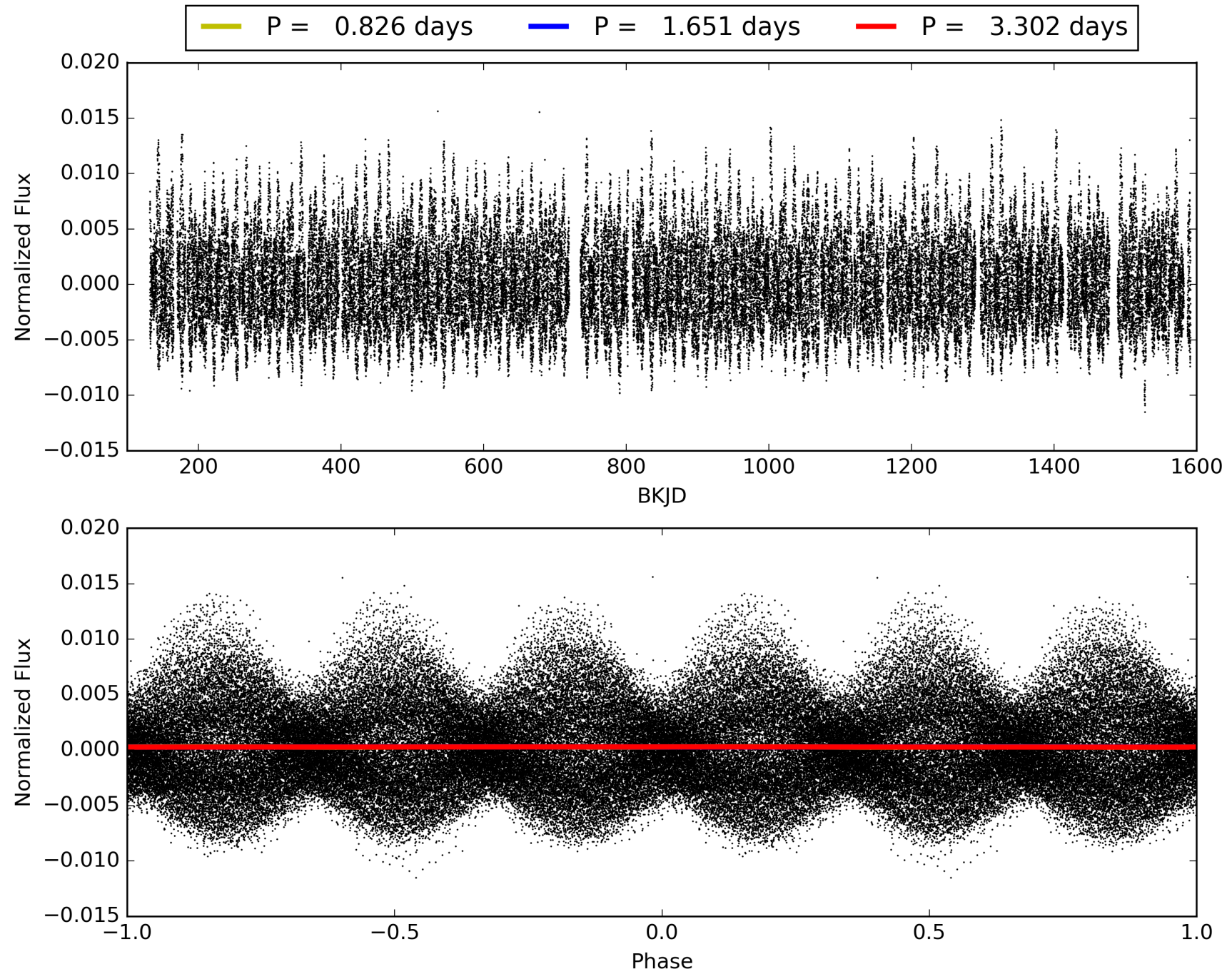
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:45:52 Z

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

TCE 005393984-01, PDC Light Curves

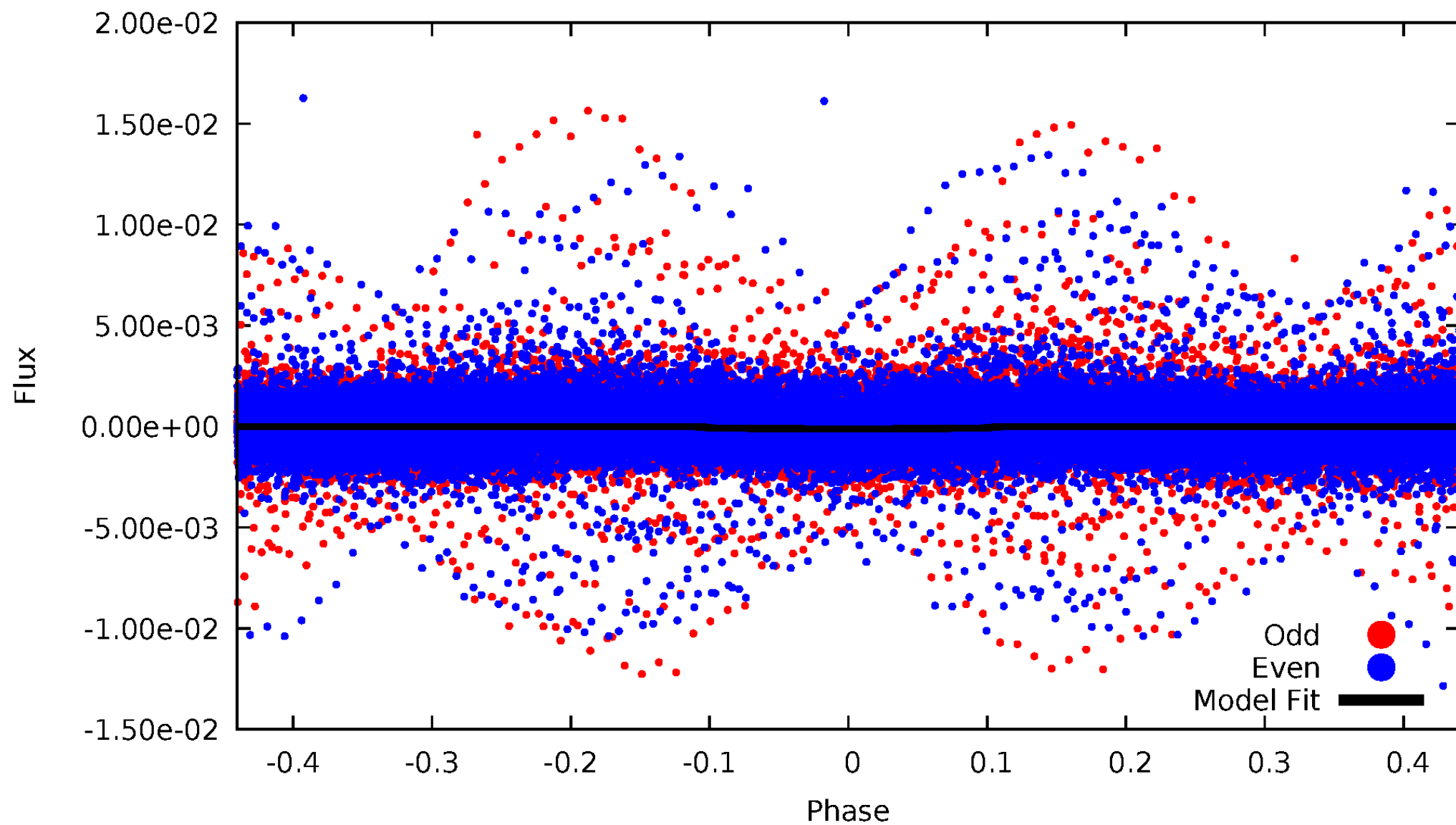


TCE 005393984-01



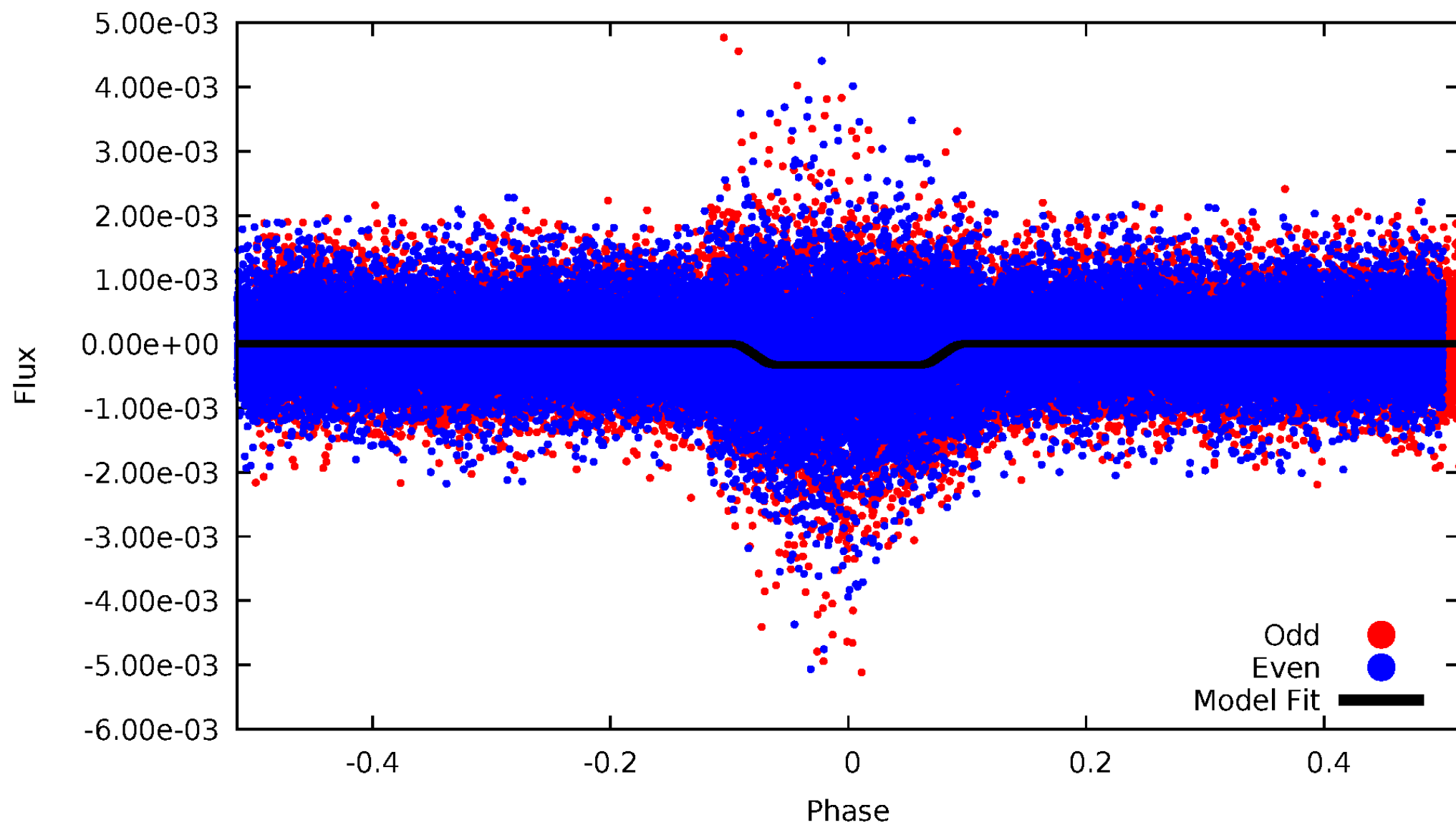
DV Odd/Even

TCE 005393984-01



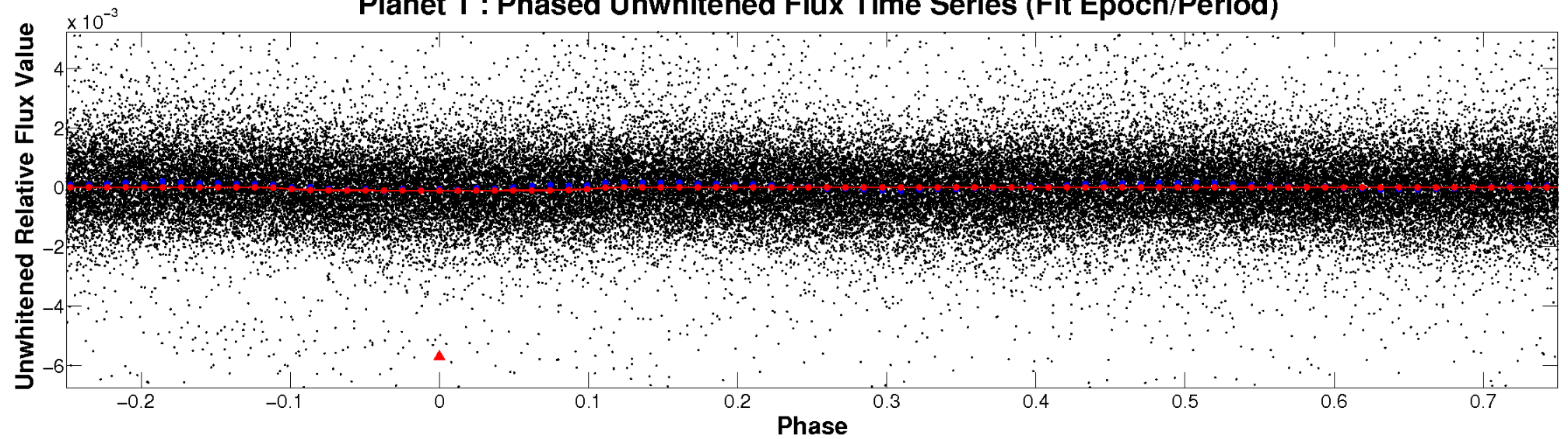
ALT Odd/Even

TCE 005393984-01

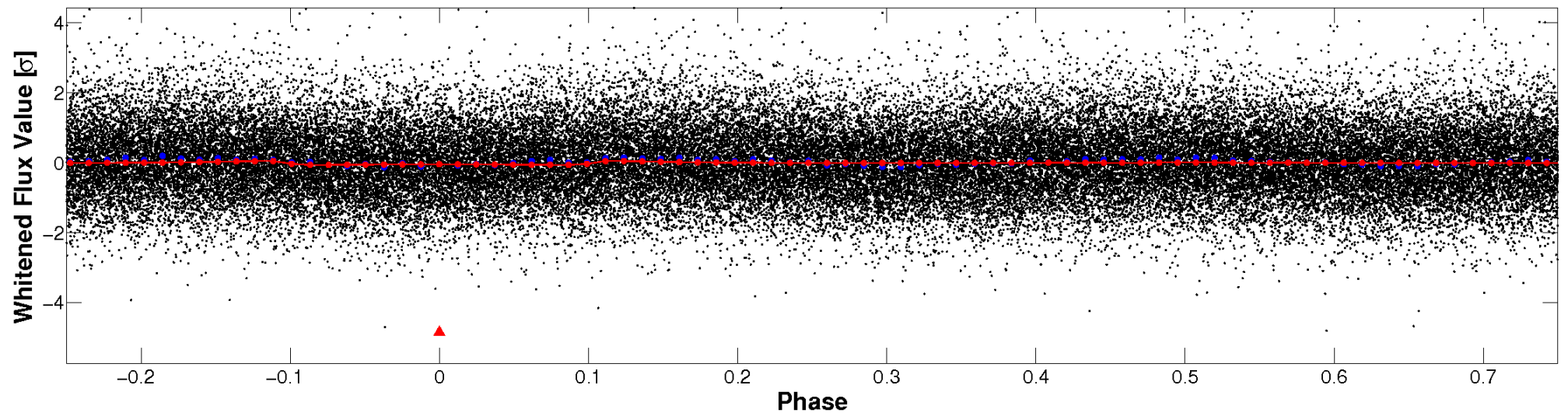


Non-Whitened Vs. Whitened Light Curve

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

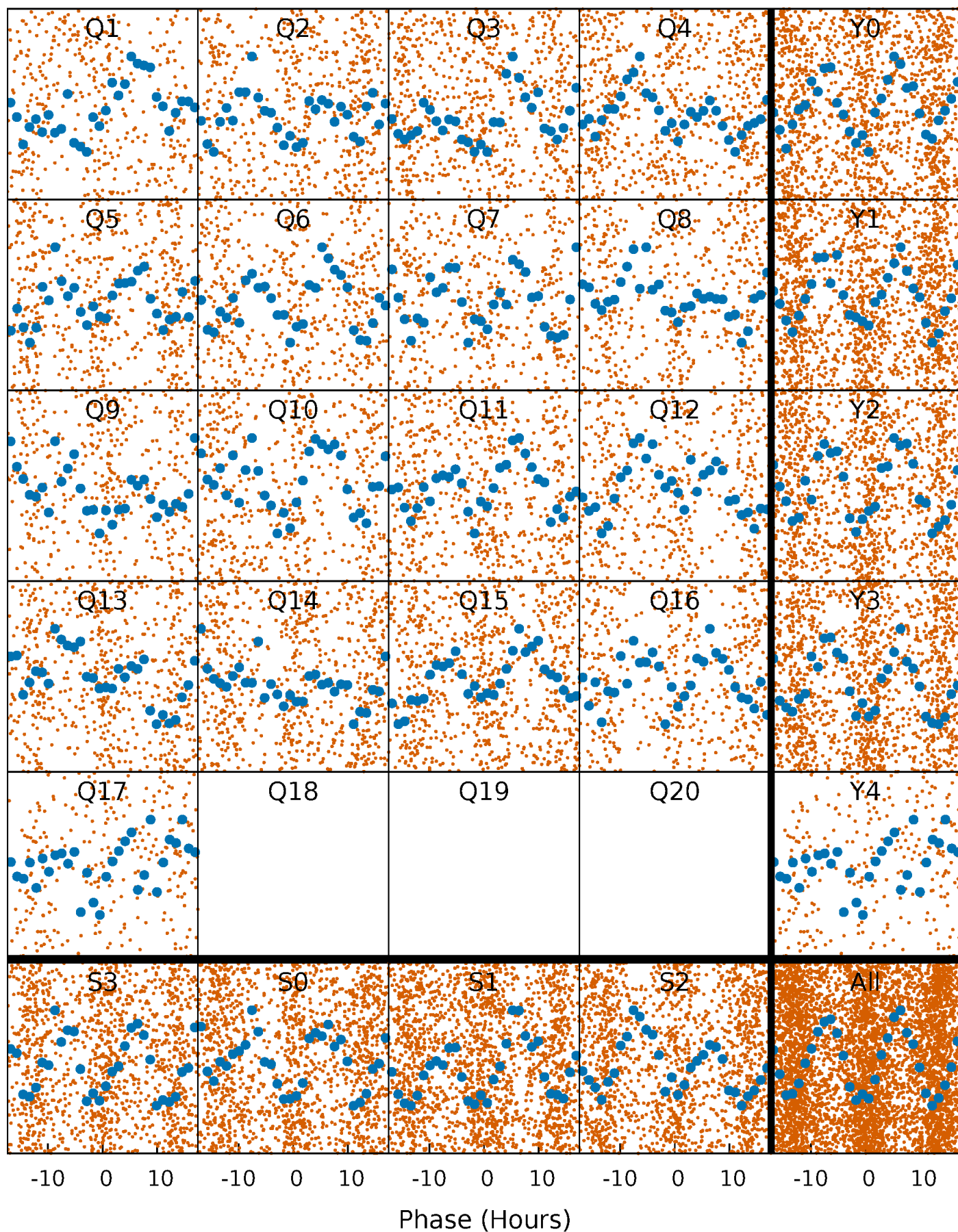


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



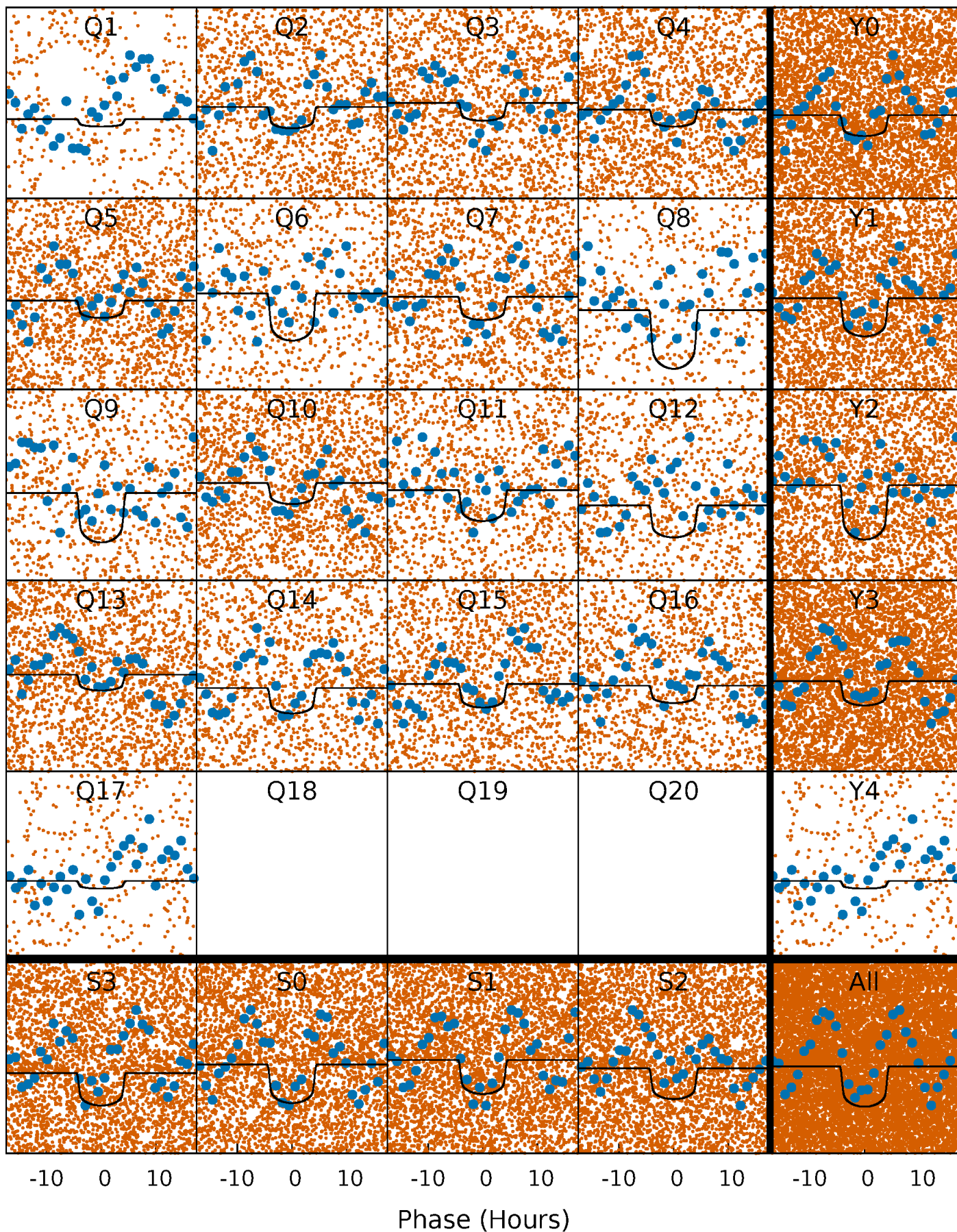
PDC Quarter-Phased Transit Curves

TCE 005393984-01 P= 1.651095 Days $T_0=132.443079$ (BKJD)



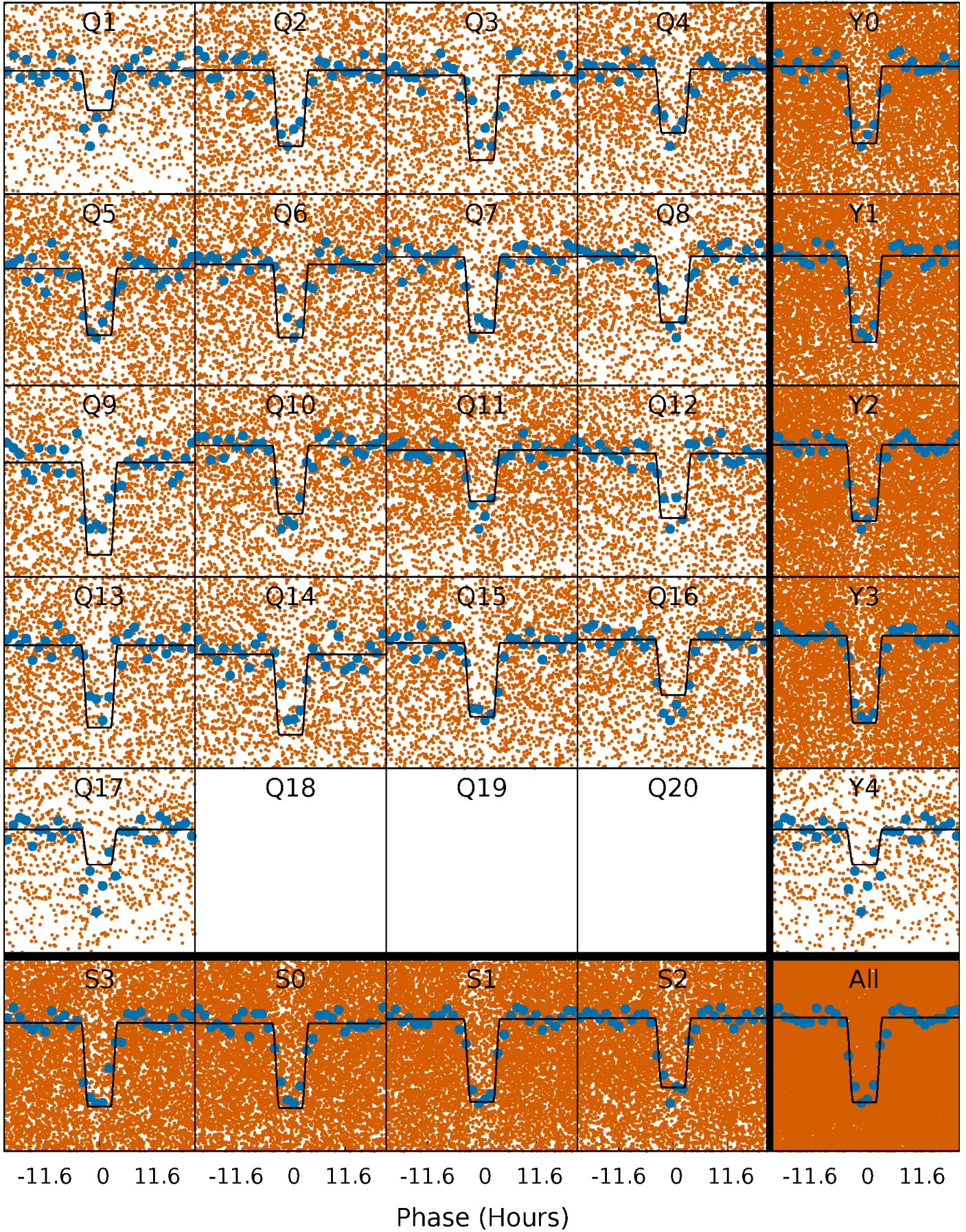
DV Quarter-Phased Transit Curves

TCE 005393984-01 P= 1.651095 Days $T_0=132.443079$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

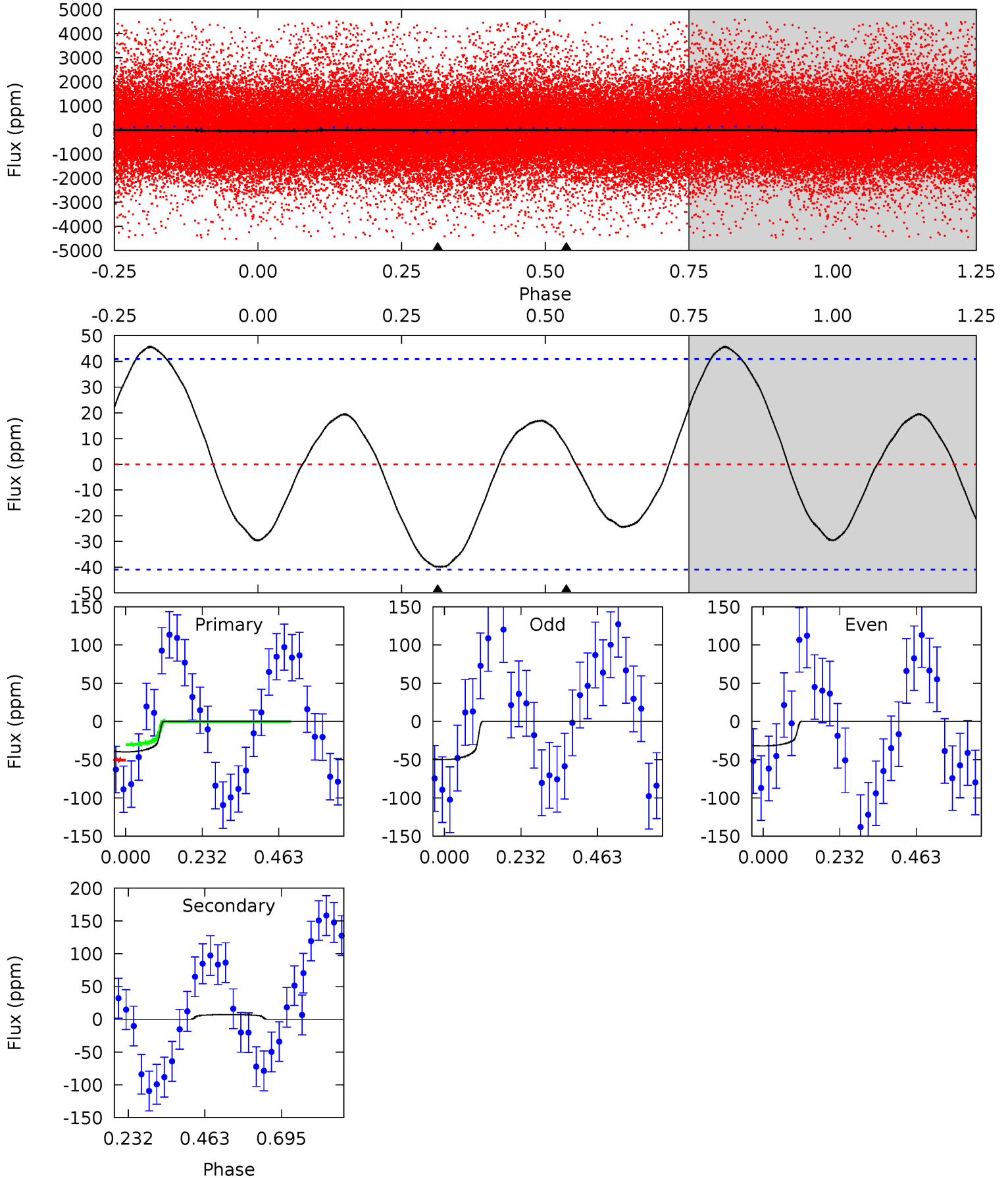
TCE 005393984-01 P= 1.651163 Days $T_0=132.376596$ (BKJD)



DV Model-Shift Uniqueness Test

005393984-01, P = 1.651095 Days, E = 130.791984 Days

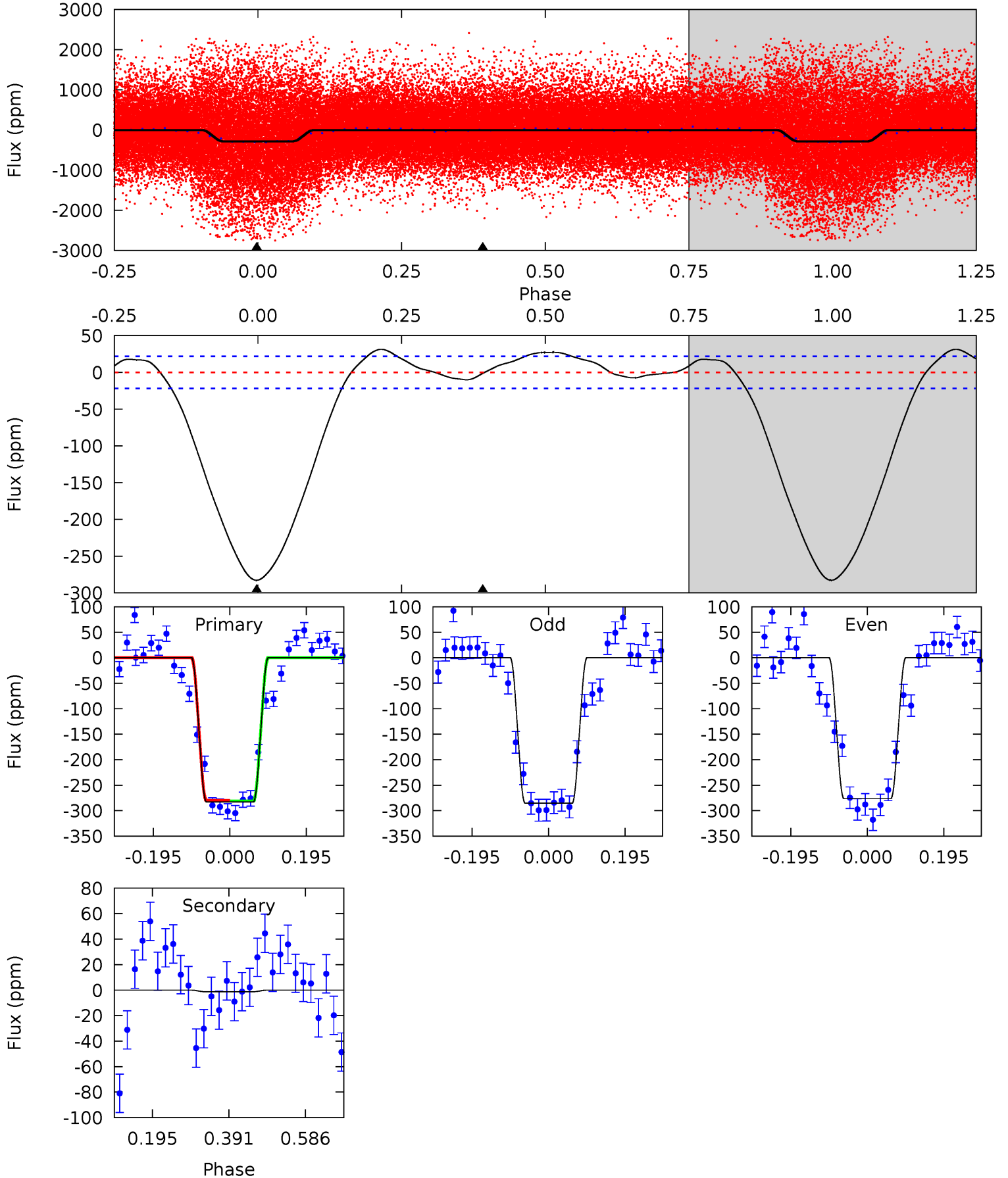
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.27	-0.77	0	0	4.39	1.20	2.93	4.27	4.27	-0.77	-0.77	0.96	0.56	0.53	1.11



Alt Model-Shift Uniqueness Test

005393984-01, P = 1.651163 Days, E = 130.725433 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
57.3	0.26	0	0	4.42	1.29	1.78	57.3	57.3	0.26	0.26	0.93	1.13	0.10	0



Stellar Parameters For KIC 005393984

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6623^{+187}_{-258}	$4.355^{+0.060}_{-0.168}$	$0.070^{+0.200}_{-0.400}$	$1.261^{+0.344}_{-0.159}$	$1.317^{+0.150}_{-0.224}$	$0.924^{+0.282}_{-0.425}$
	+3%/-4%	+1%/-4%	+286%/-571%	+27%/-13%	+11%/-17%	+31%/-46%
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 005393984-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	7 ± 9	$1.58^{+0.37}_{-0.32}$	2691^{+169}_{-153}	-3752^{+6335}_{-623}	$-1.264^{+1.671}_{-2.135}$
Alt.	-1 ± 5	$2.55^{+0.44}_{-0.36}$	2689^{+162}_{-138}	-2758^{+5498}_{-461}	$0.086^{+0.411}_{-0.376}$

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 $A_{obs} \gg 1.0$

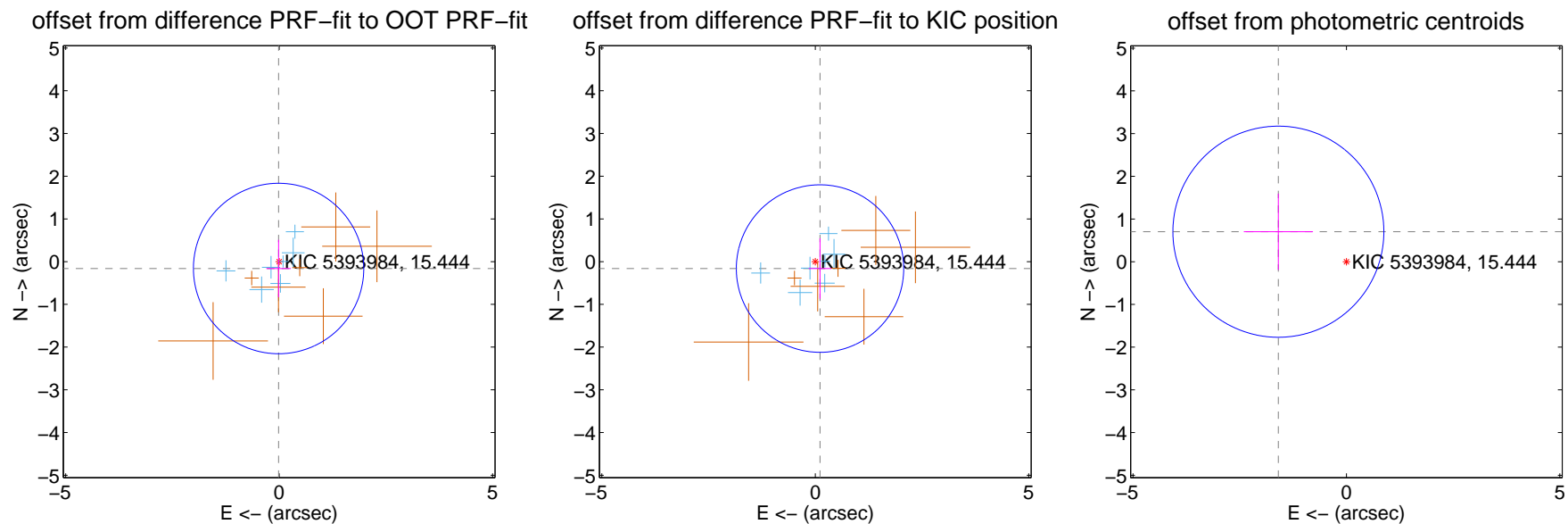
DV Centroid Data

Supplemental centroid analysis for 005393984-01. Kepler magnitude: 15.44. Transit SNR 7.33

There are 7 quarters with good PRF difference image offsets

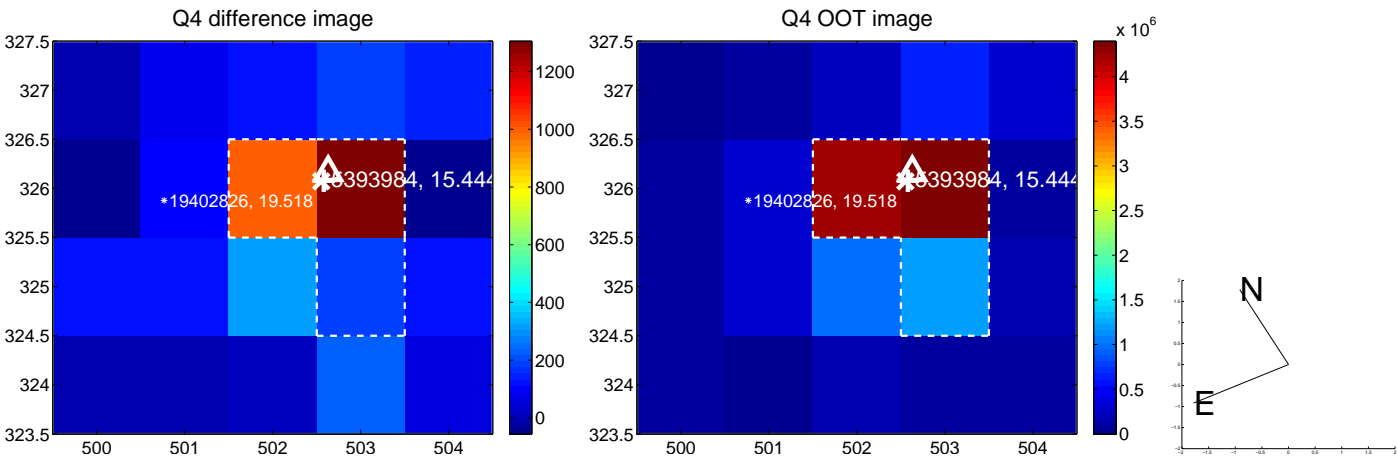
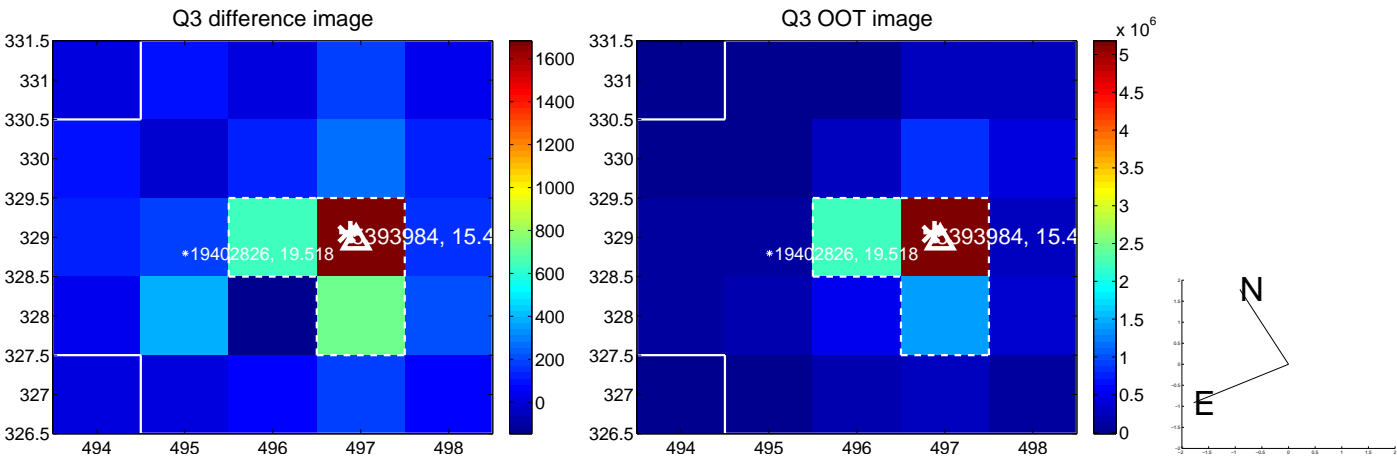
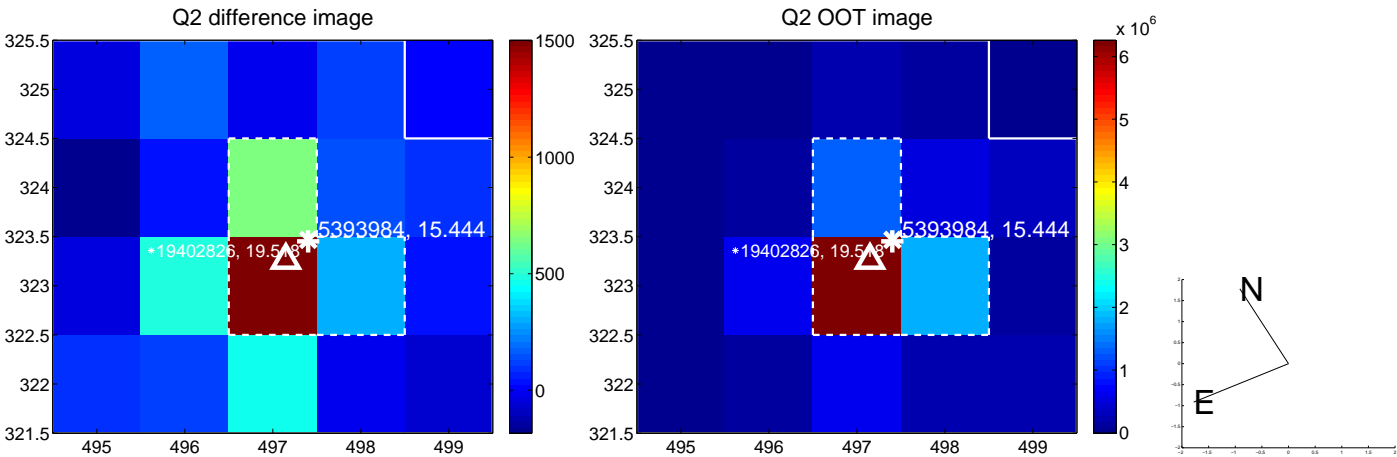
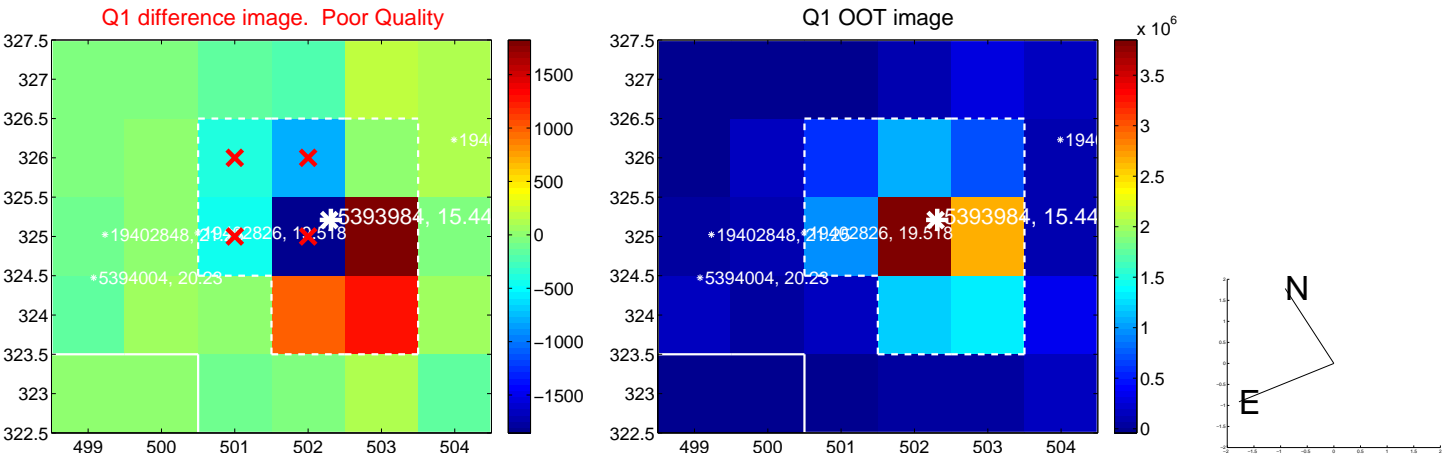
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.161 ± 0.665	0.24	0.013 ± 0.286	-0.161 ± 0.672
PRF-fit source offset from KIC position	0.196 ± 0.653	0.30	-0.111 ± 0.263	-0.162 ± 0.707
photometric centroid source offset	1.74 ± 0.82	2.11	1.59 ± 0.81	0.70 ± 0.89

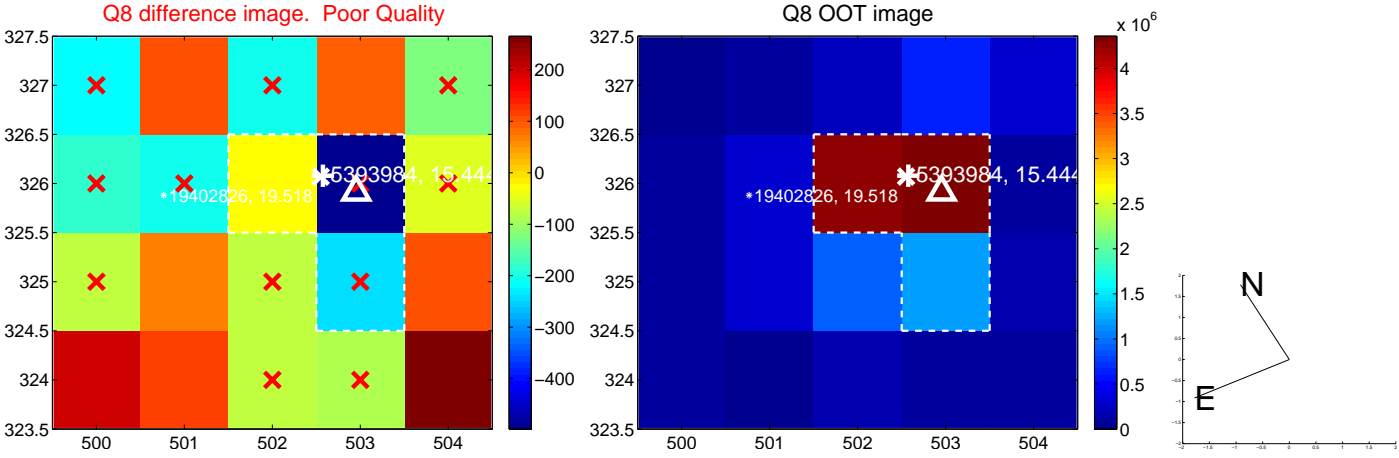
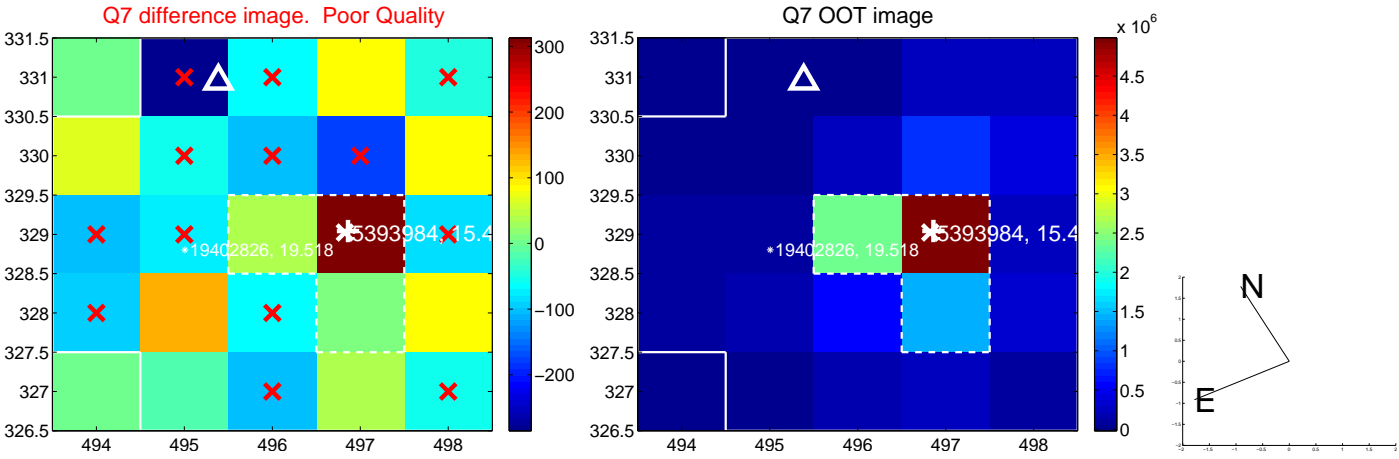
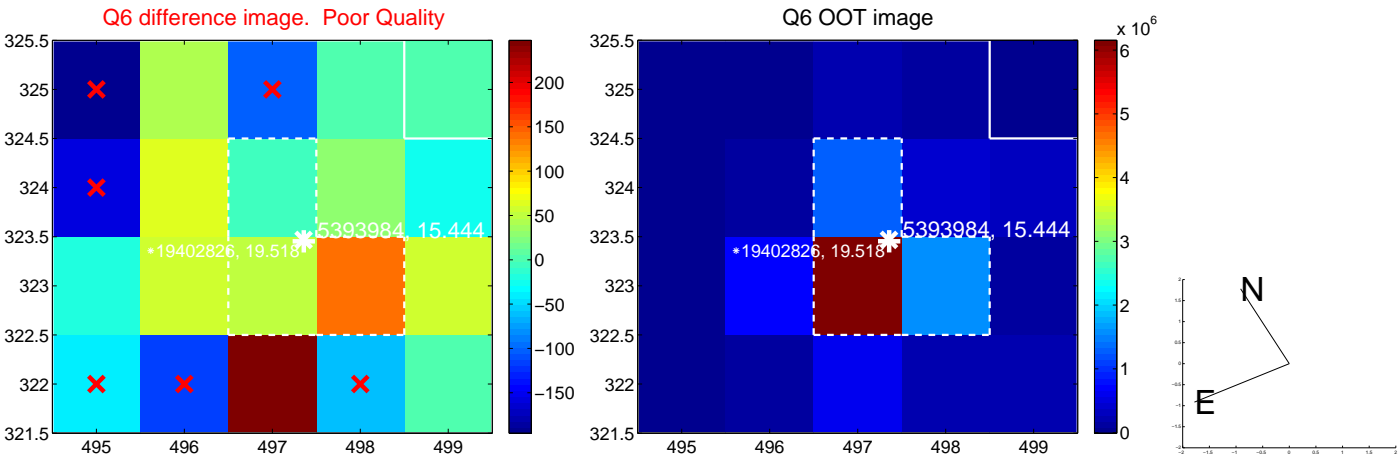
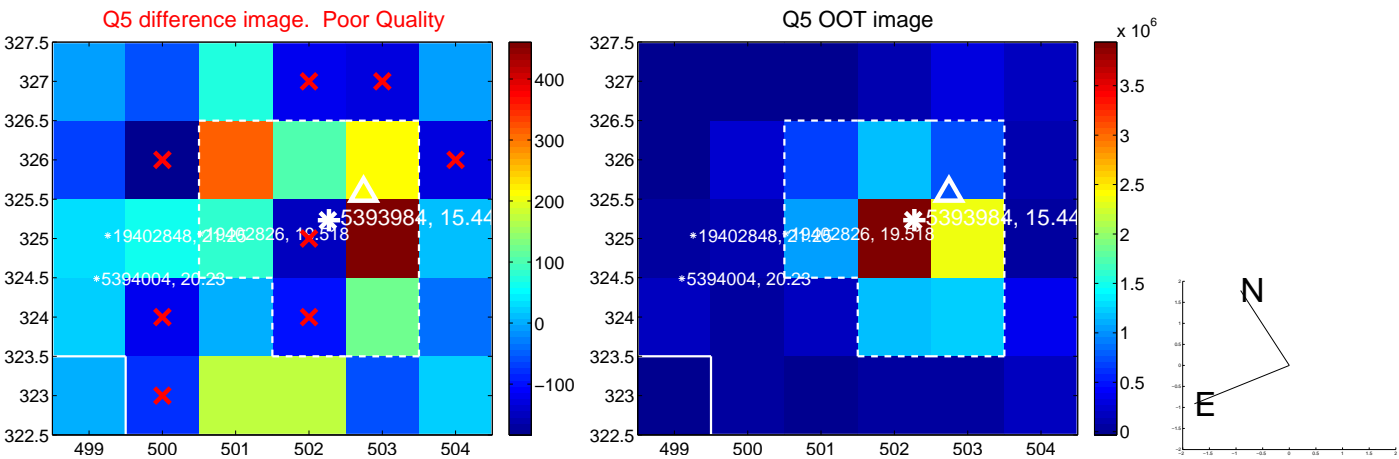


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

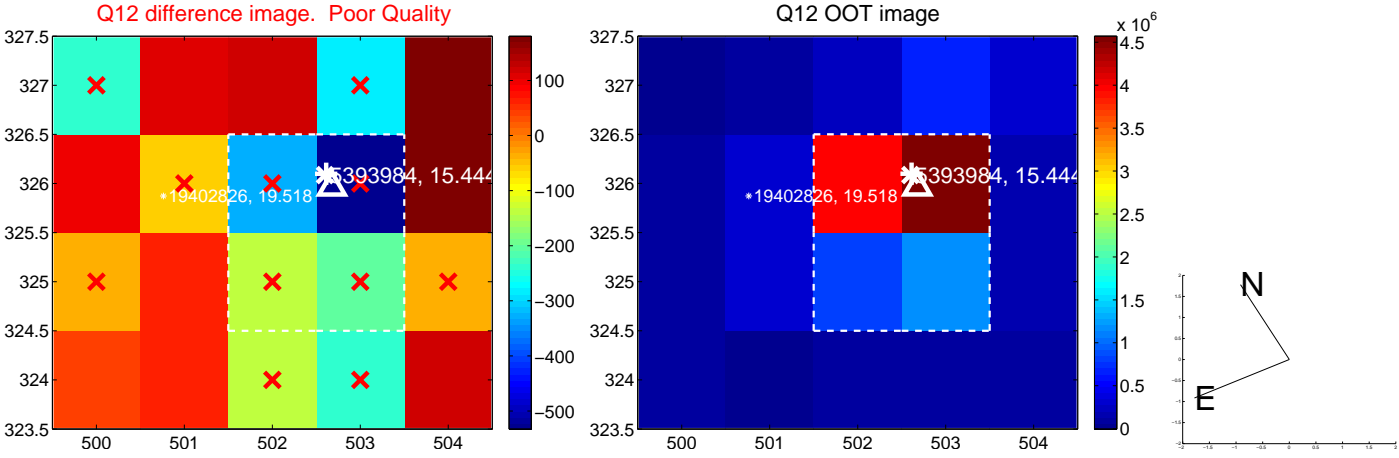
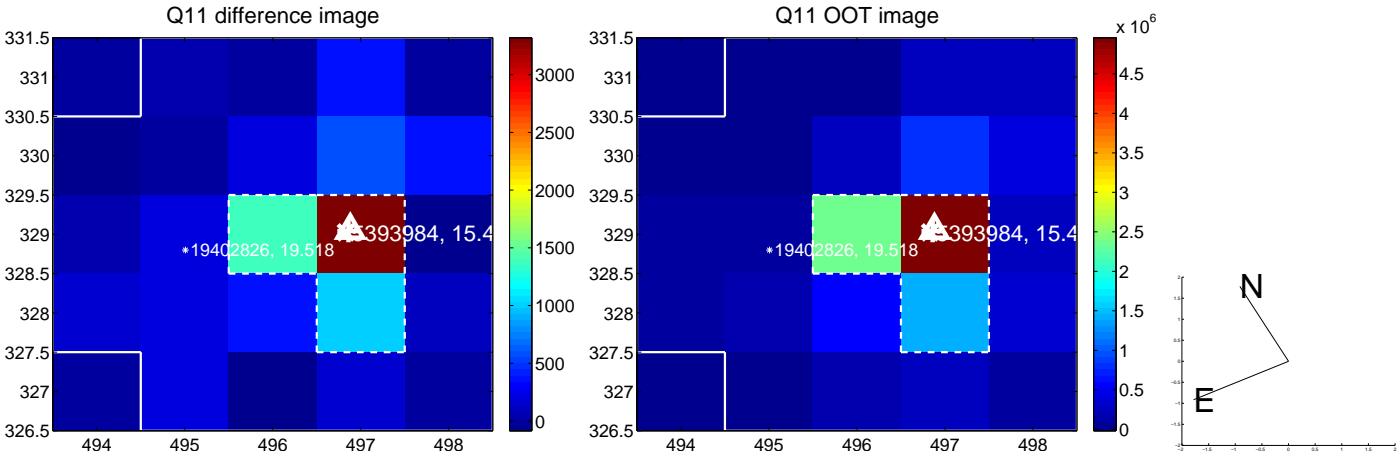
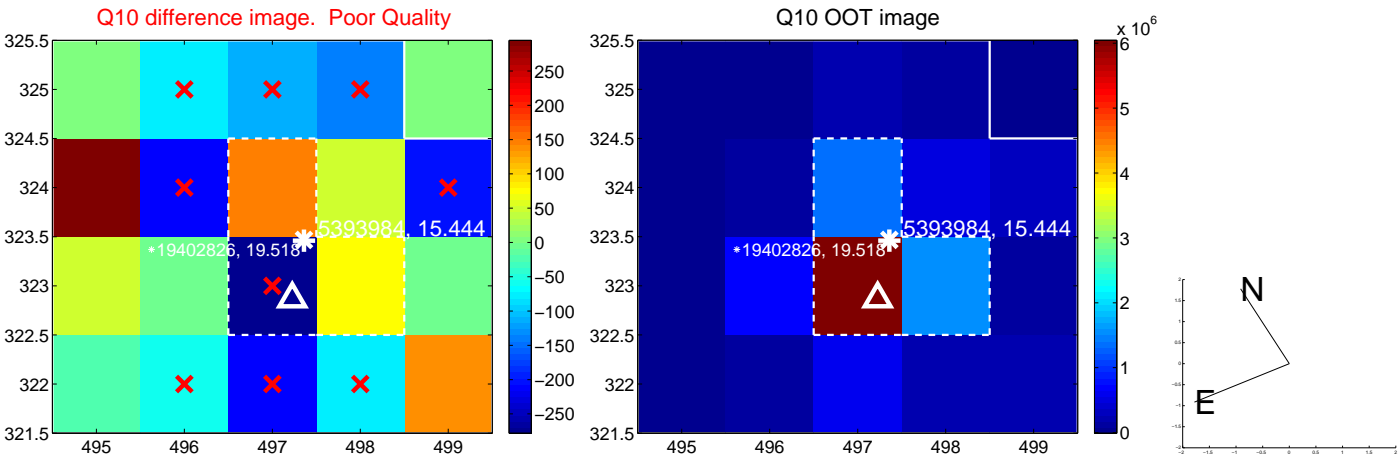
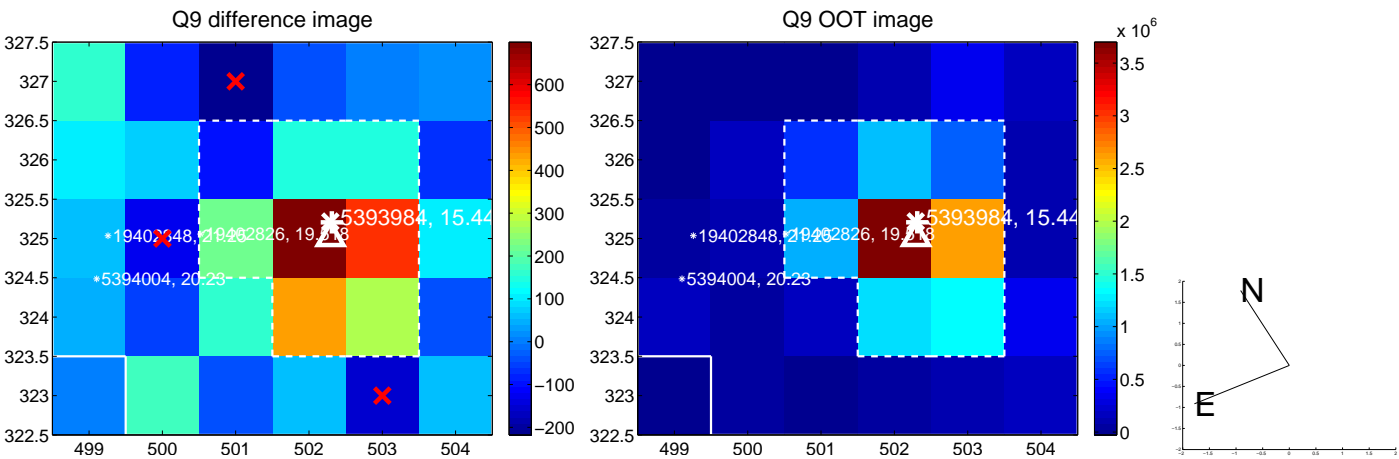
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



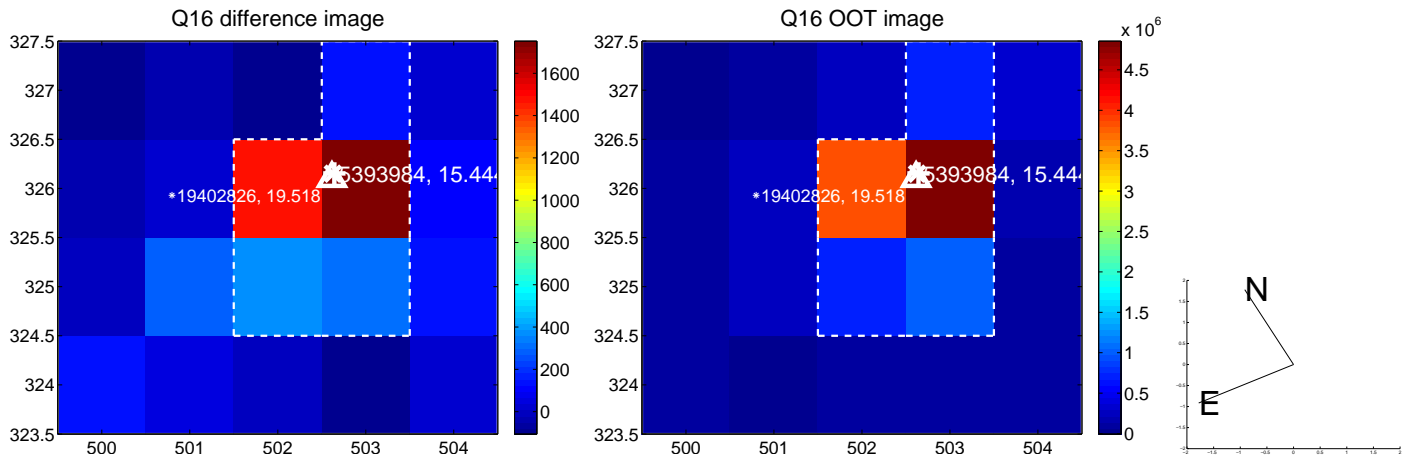
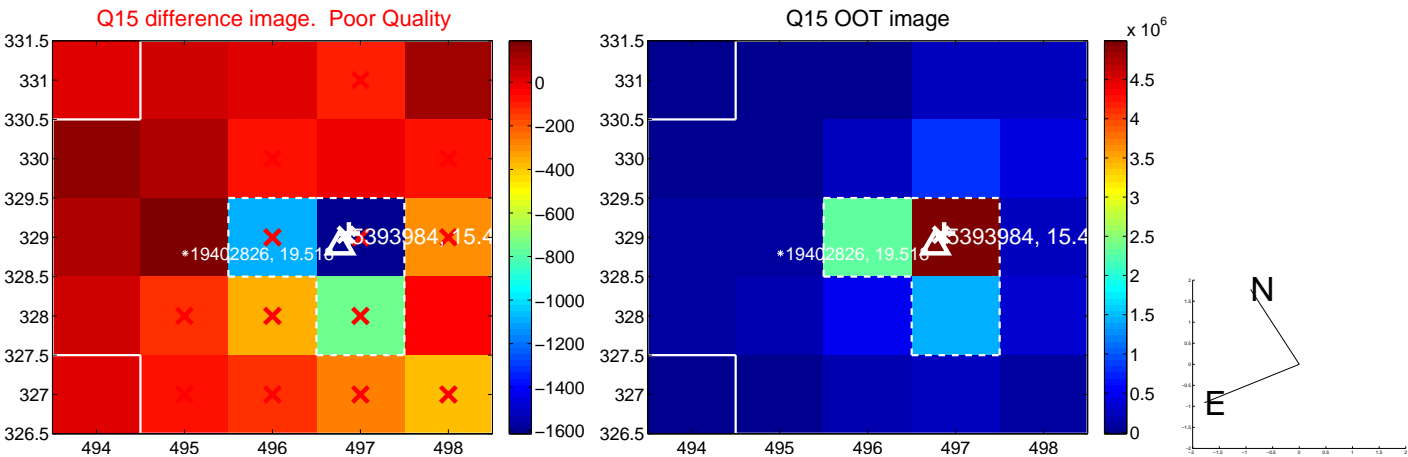
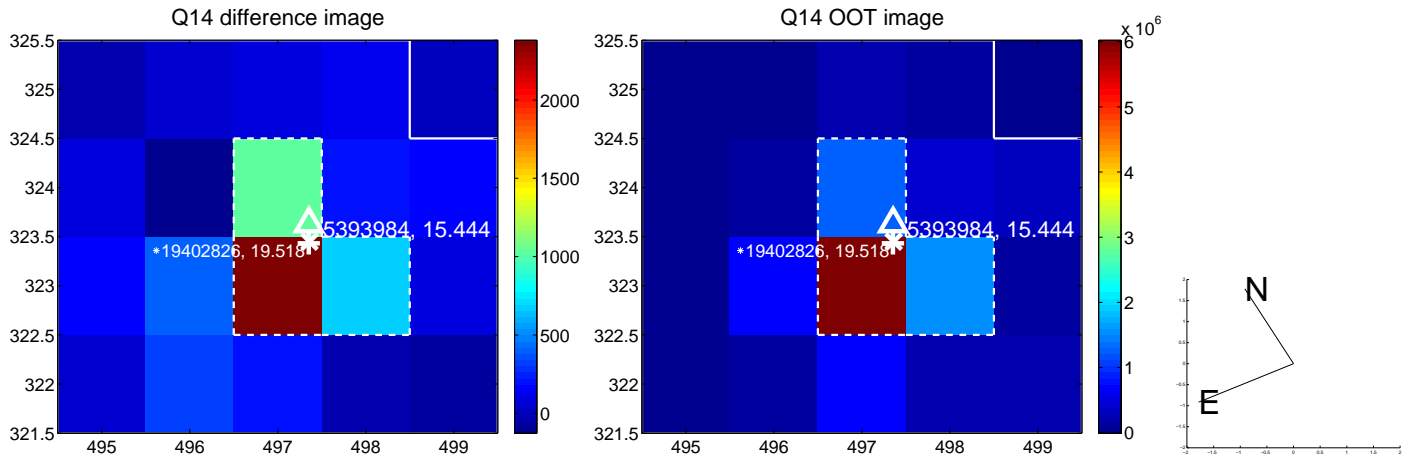
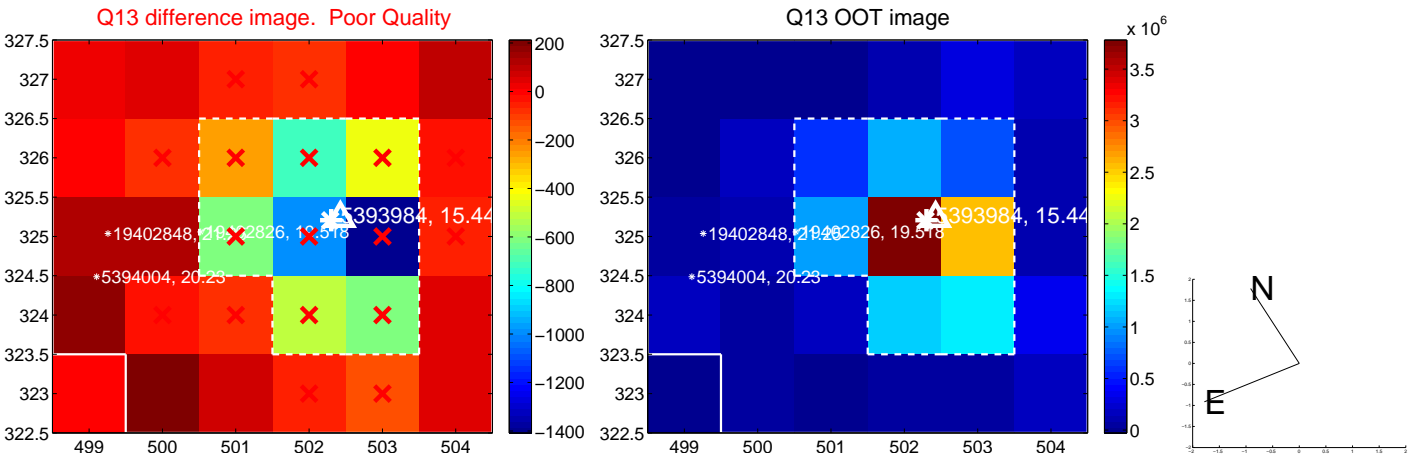
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



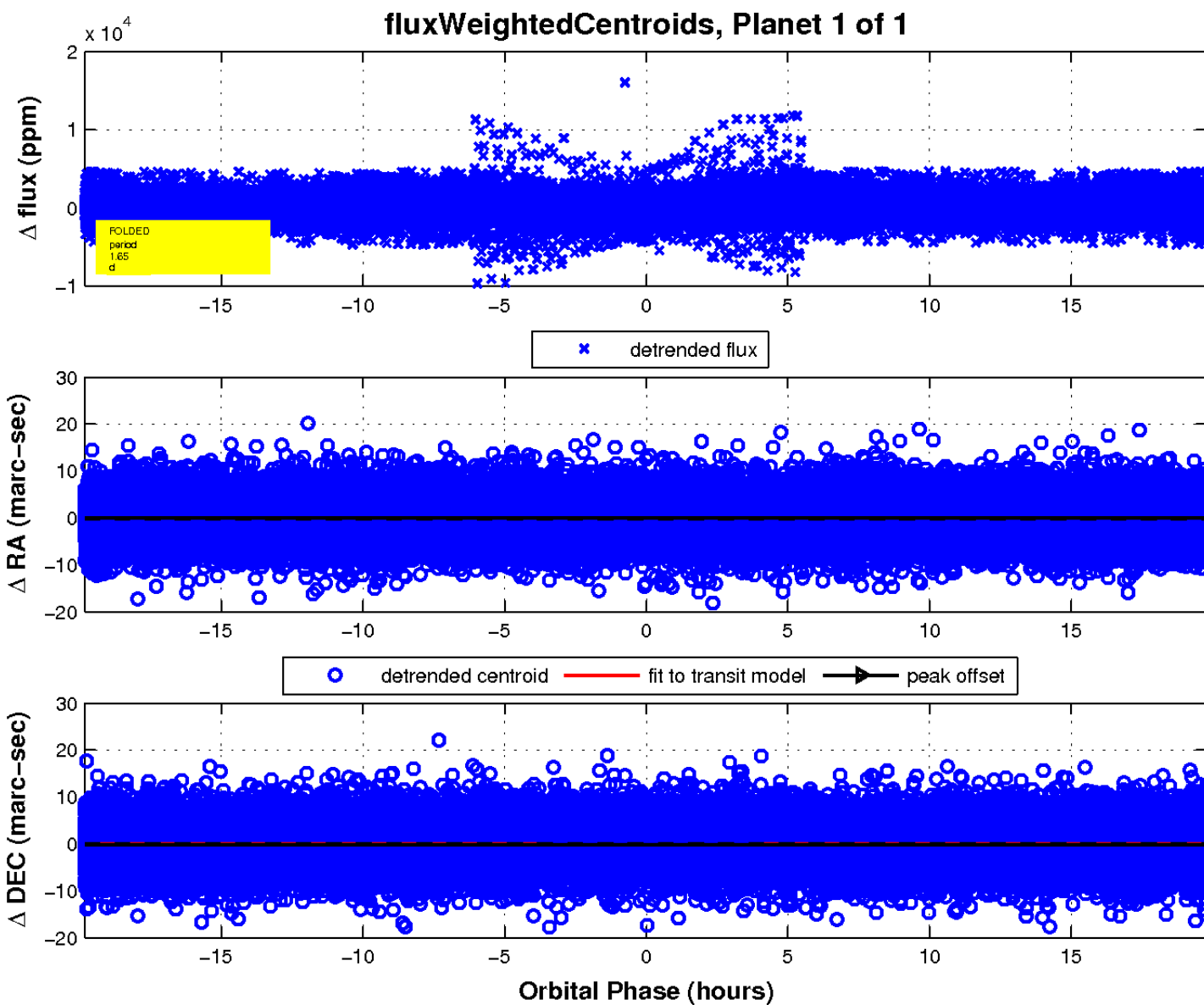
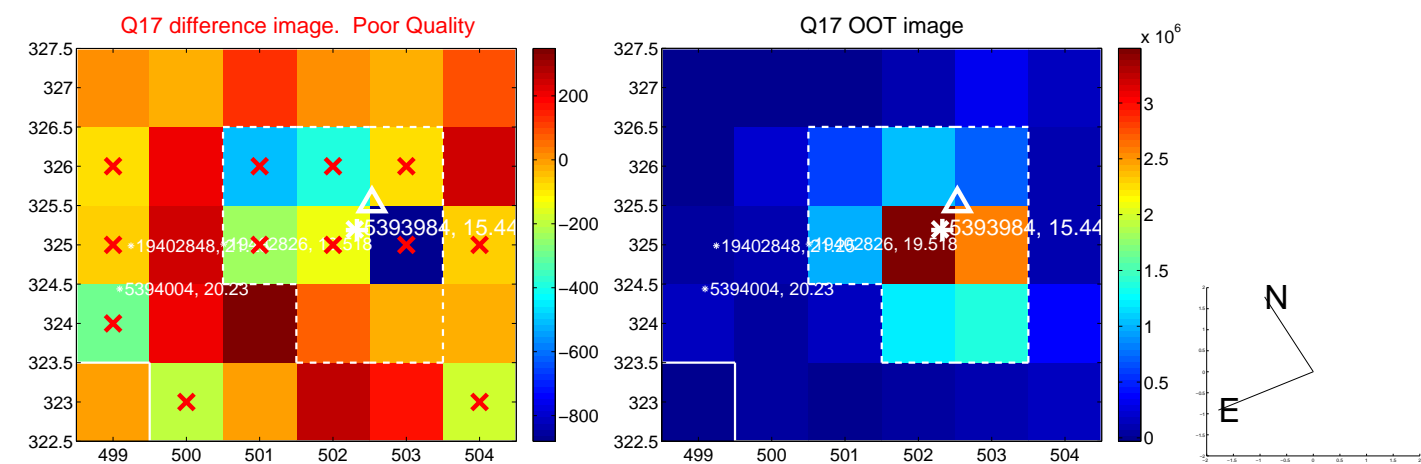
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

