

KIC 005564247

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})
005564247-01	OBS	1566.01	1.727189	132.561219	304.0	2.107	13.1	14.2	0.72	5394	1.50	578.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005564247-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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 005564247-01

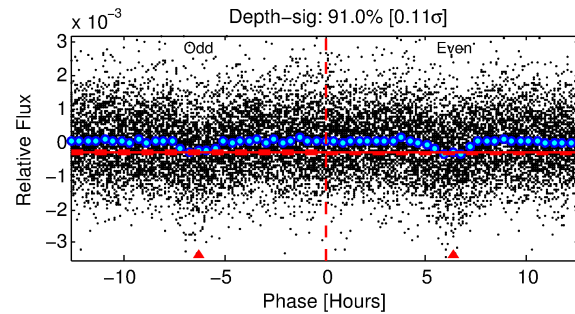
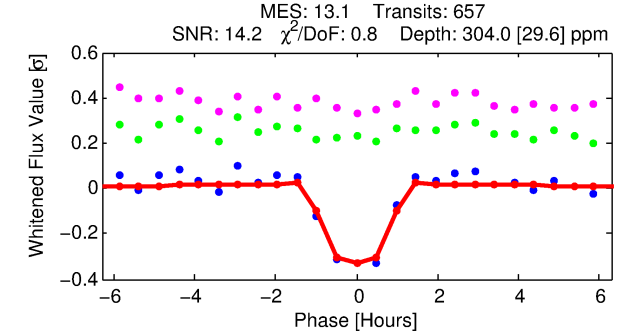
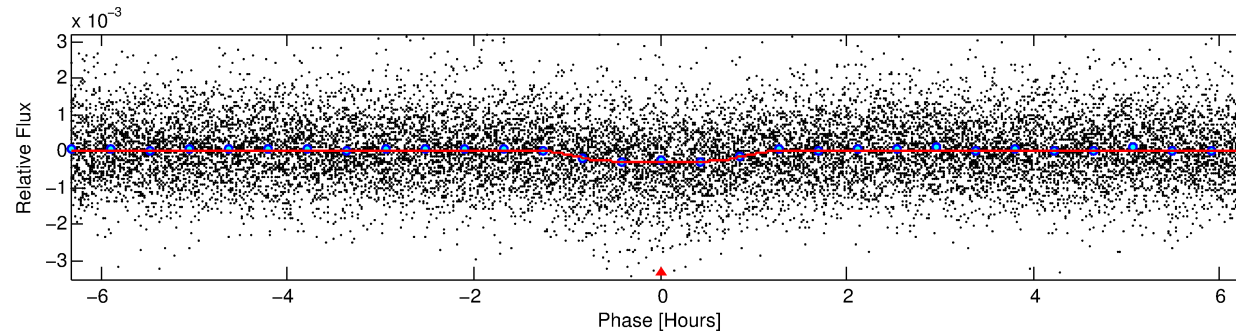
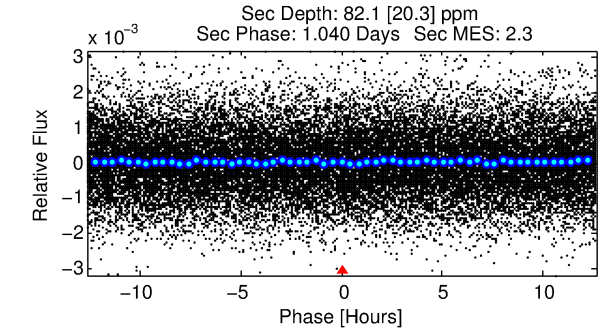
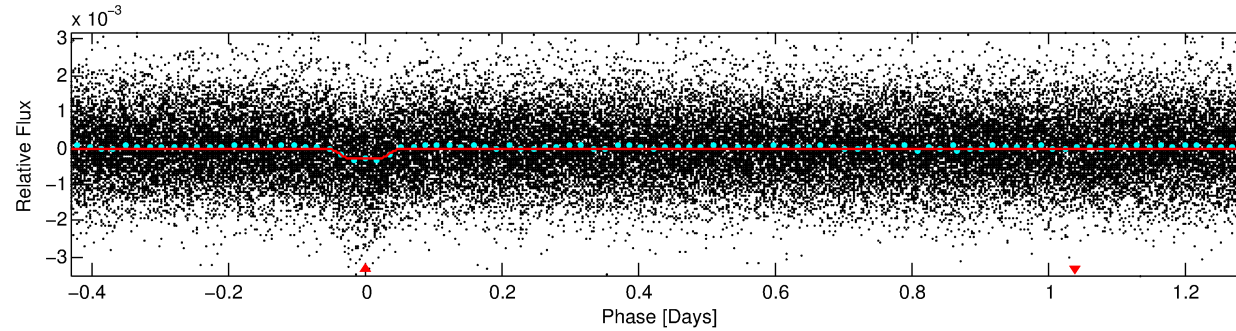
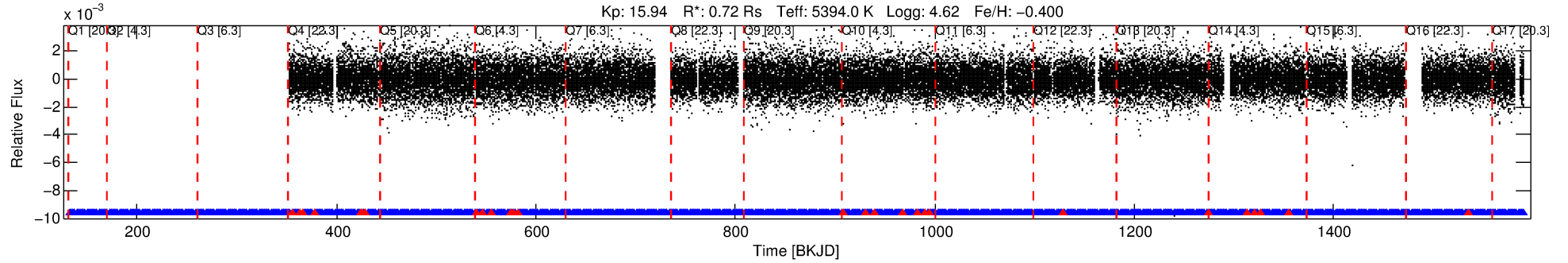
No Significant Match Found

DV One-Page Summary

KIC: 5564247 Candidate: 1 of 1 Period: 1.727 d

KOI: K01566.01 Corr: 0.965

Kp: 15.94 R*: 0.72 Rs Teff: 5394.0 K Logg: 4.62 Fe/H: -0.400



DV Fit Results:

Period = 1.72719 [0.00001] d
Epoch = 132.5612 [0.0021] BKJD
Rp/R* = 0.0191 [0.0087]
a/R* = 3.14 [5.73]
b = 0.90 [0.44]
Seff = 578.50 [139.54]
Teq = 1251 [75] K
Rp = 1.50 [0.73] Re
a = 0.0261 [0.0036] AU
Ag = 13.57 [13.11] [0.96σ]
Teffp = 3711 [887] K [2.77σ]

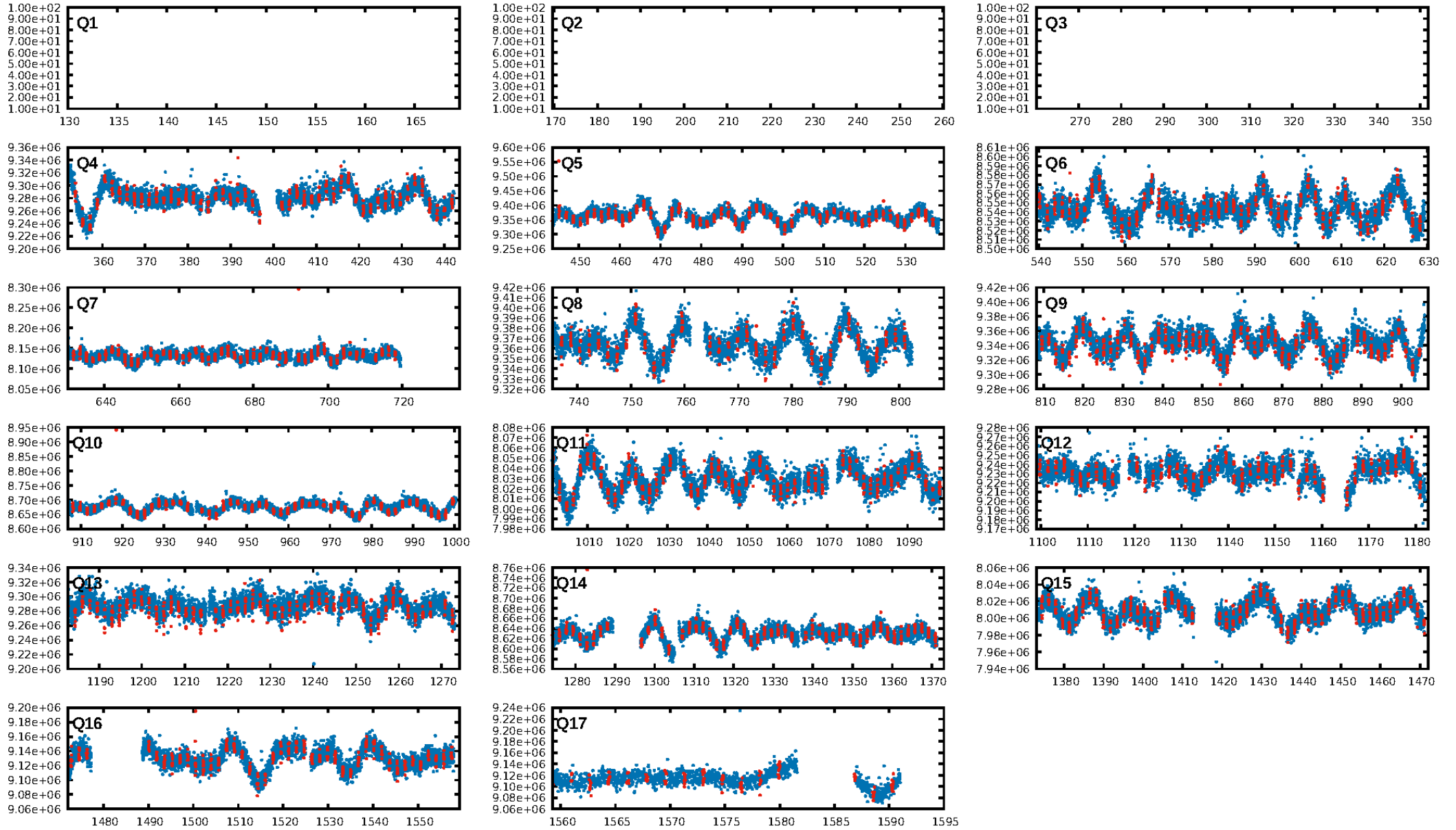
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.94e-37
RollingBand-fgt: 0.96 [614/641]
GhostDiagnostic-chr: -0.6386
Centroid-sig: 0.0%
Centroid-so: 15.645 arcsec [18.77σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [14/14]

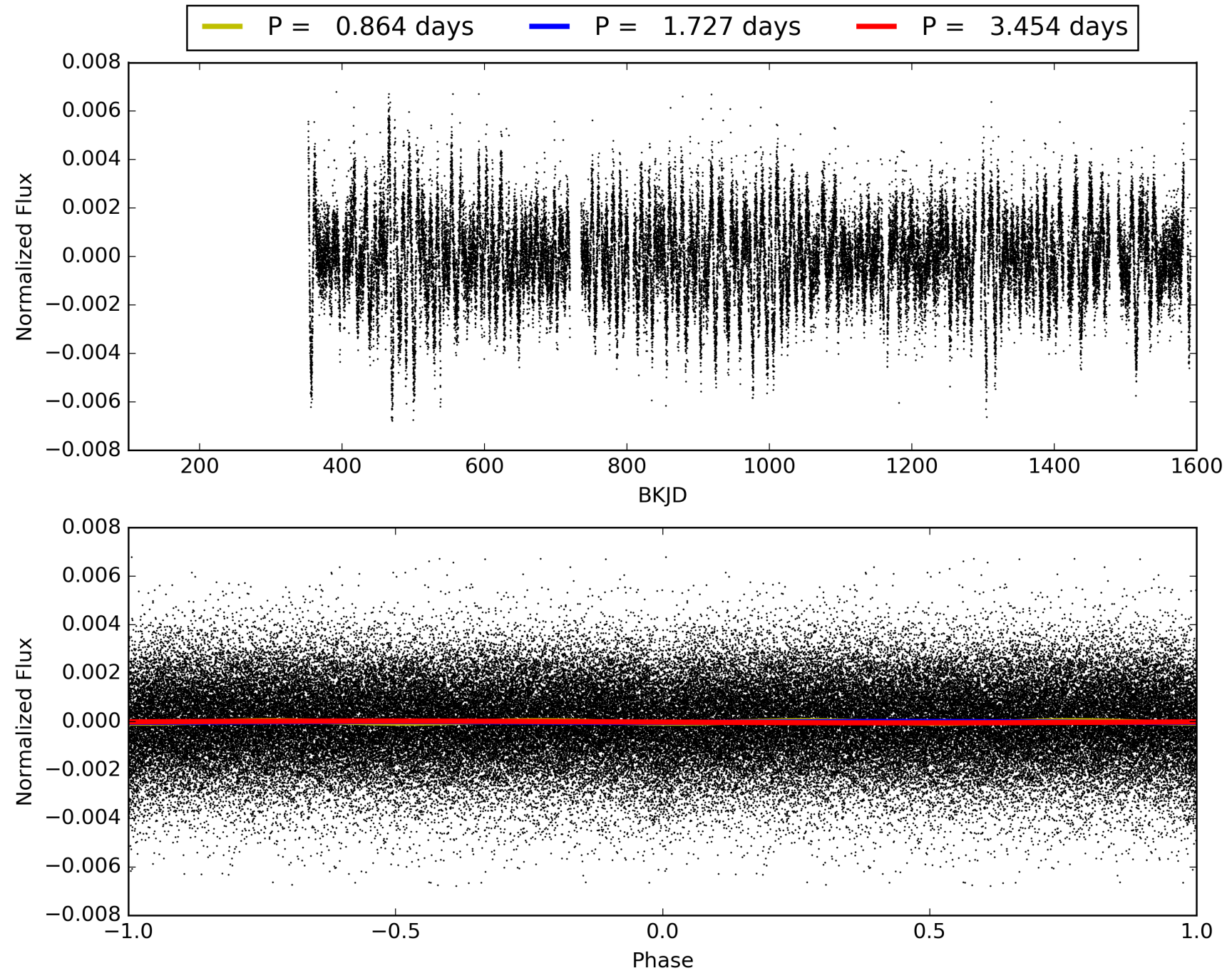
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:47:02 Z

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

TCE 005564247-01, PDC Light Curves

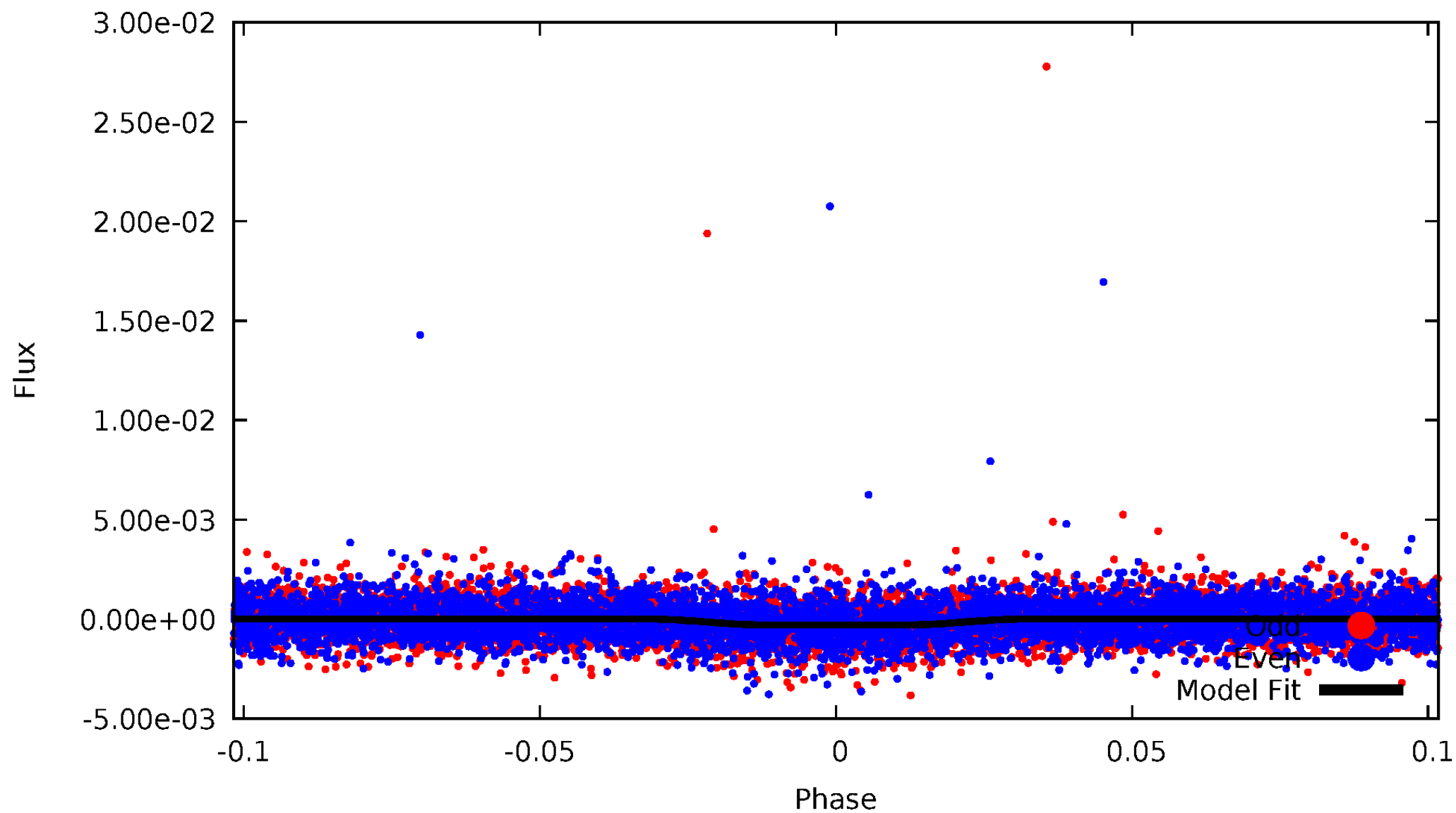


TCE 005564247-01



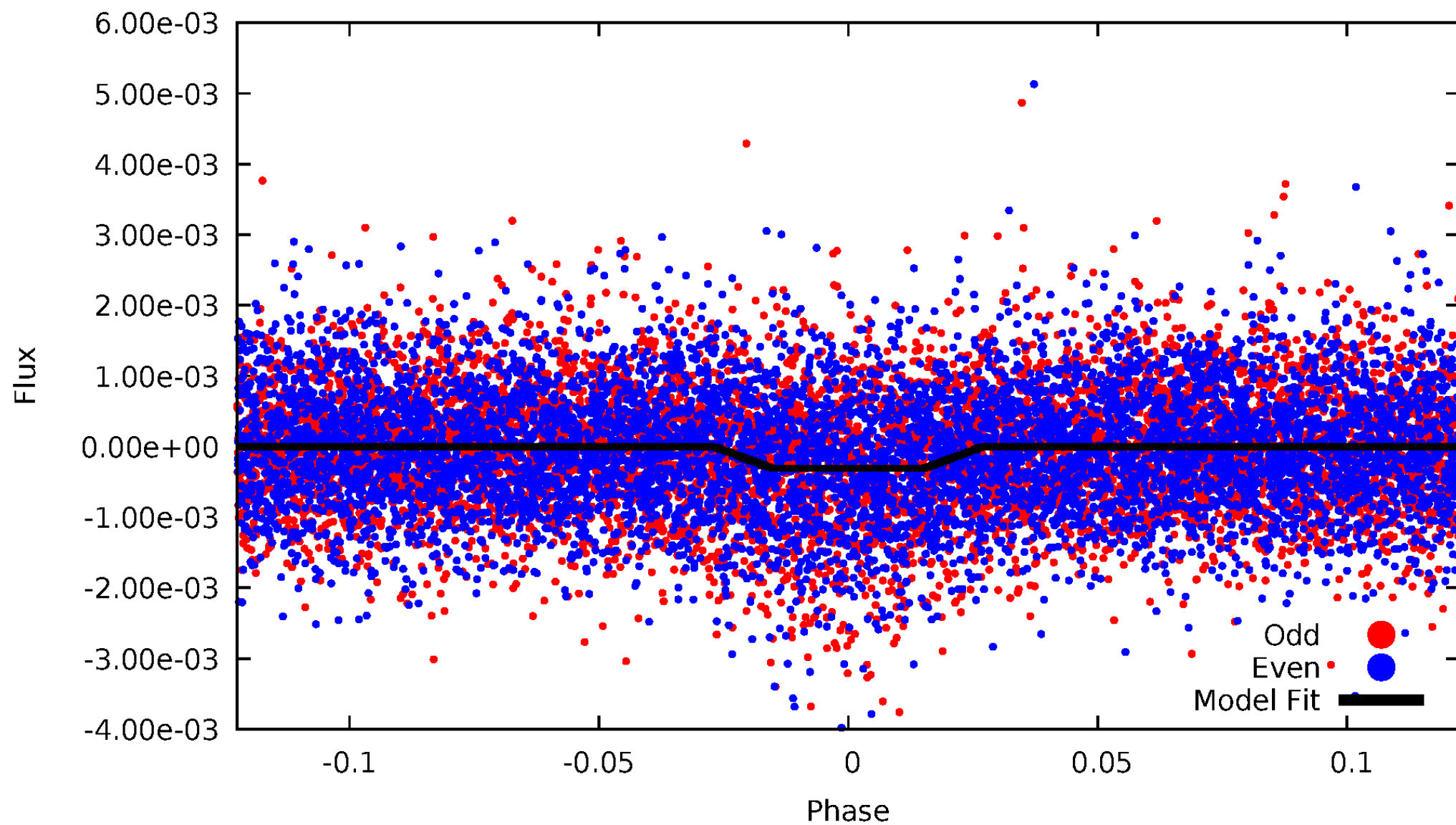
DV Odd/Even

TCE 005564247-01



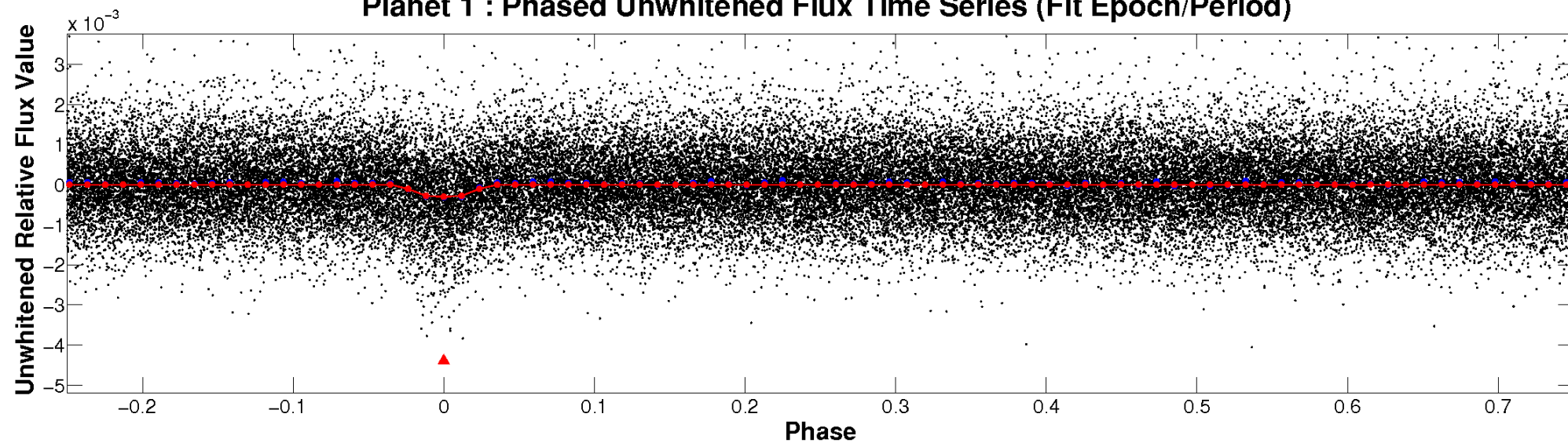
ALT Odd/Even

TCE 005564247-01

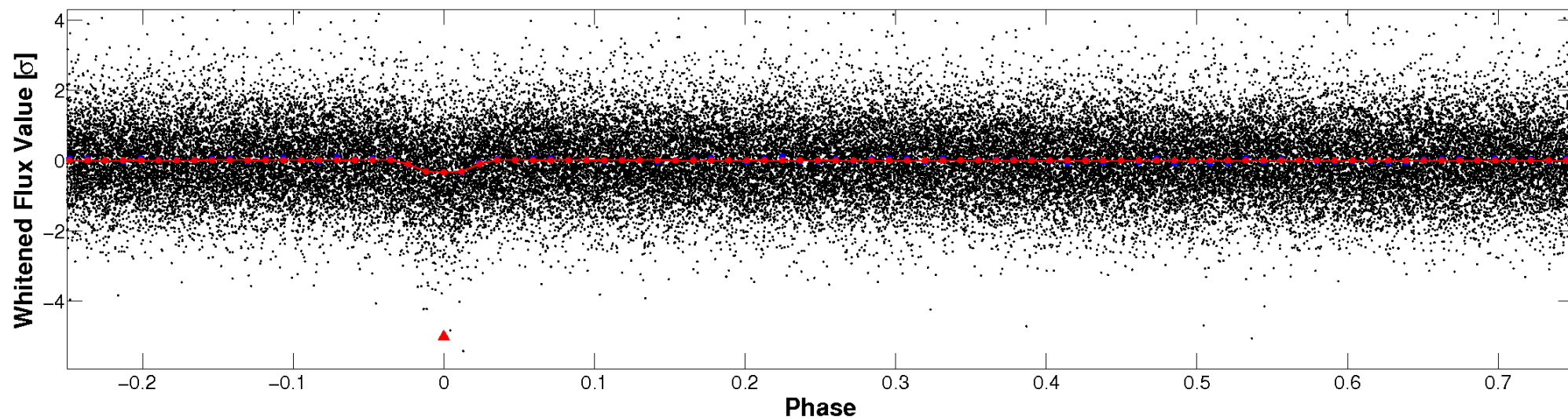


Non-Whitened Vs. Whitened Light Curve

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

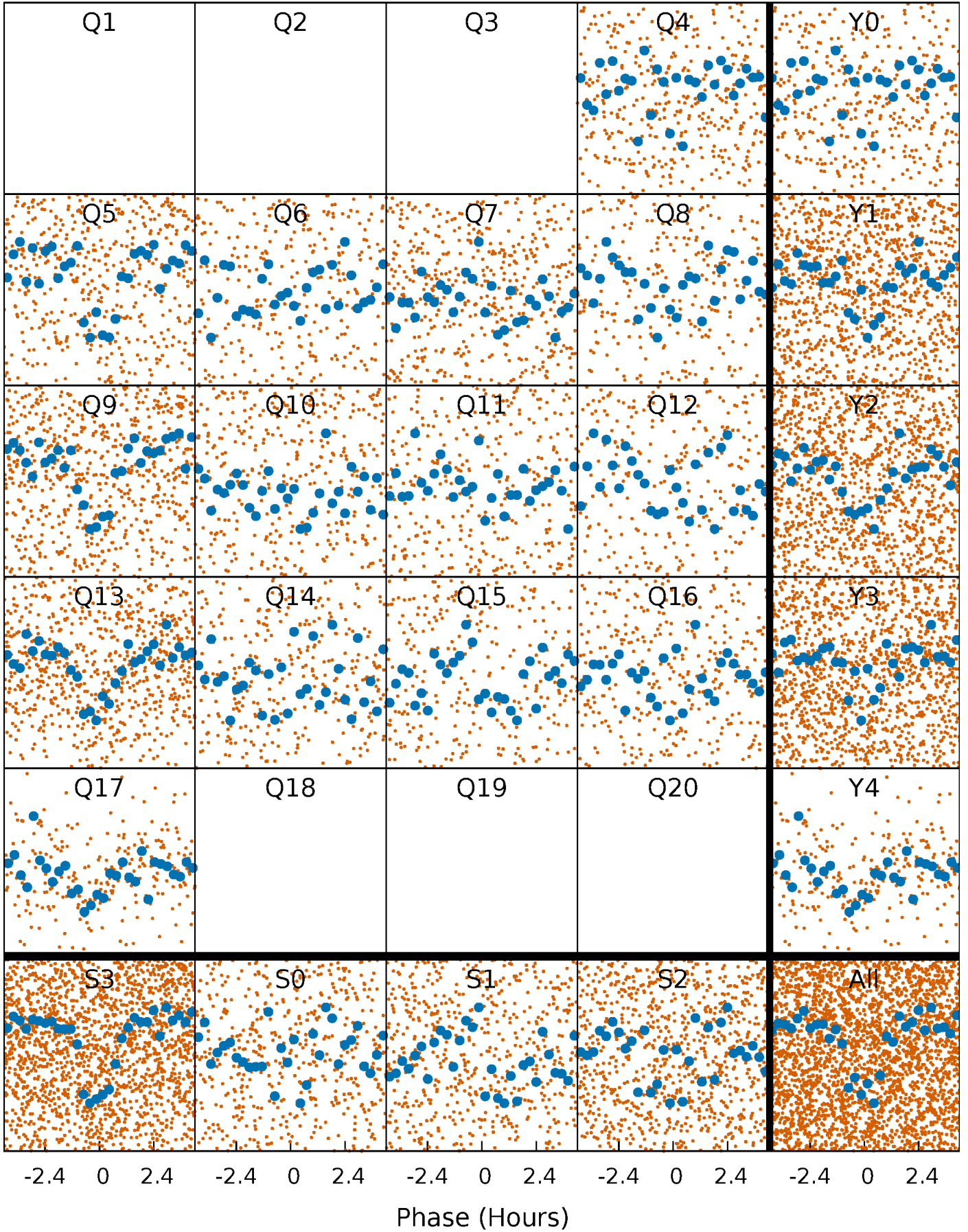


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



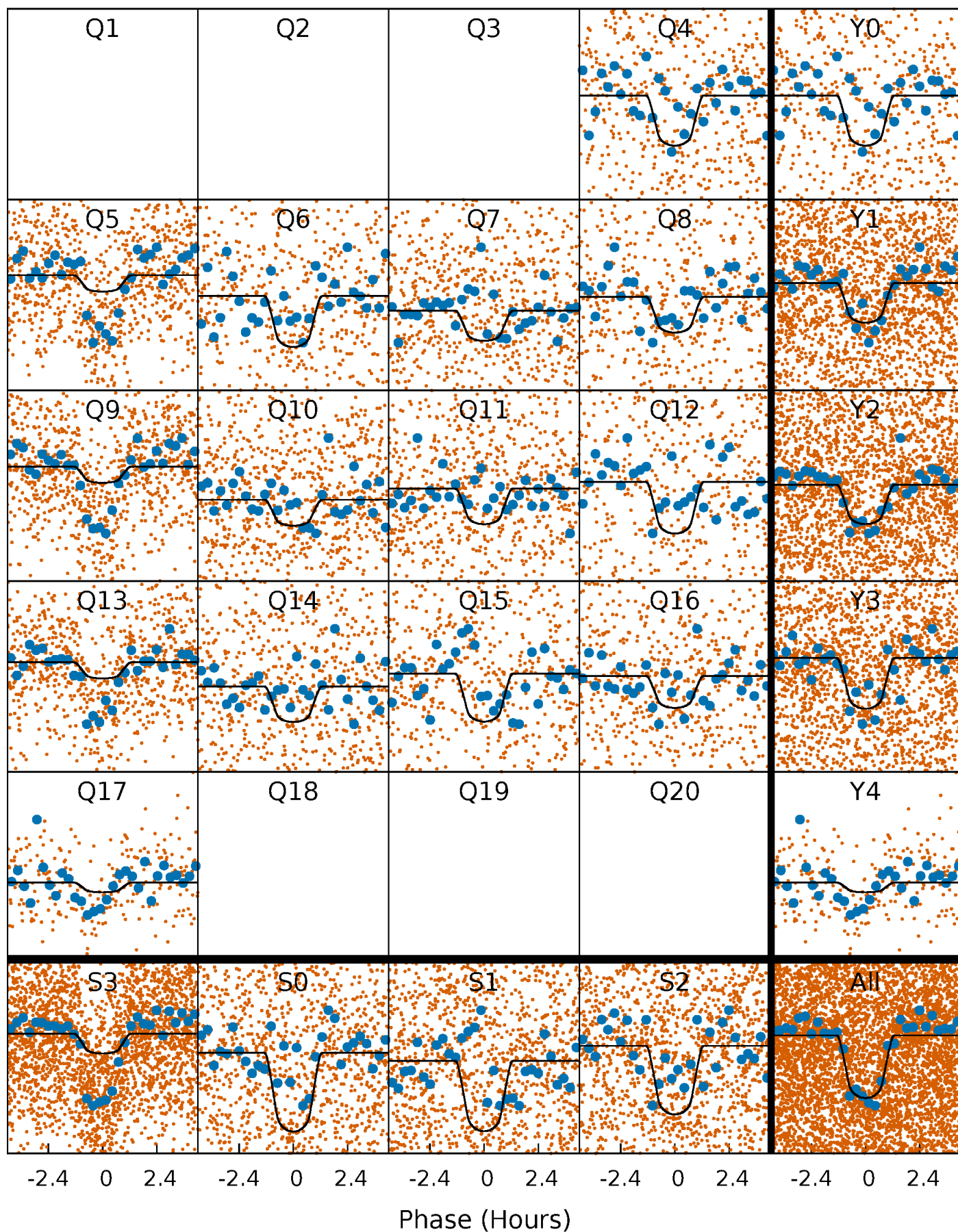
PDC Quarter-Phased Transit Curves

TCE 005564247-01 P= 1.727189 Days $T_0=132.561219$ (BKJD)



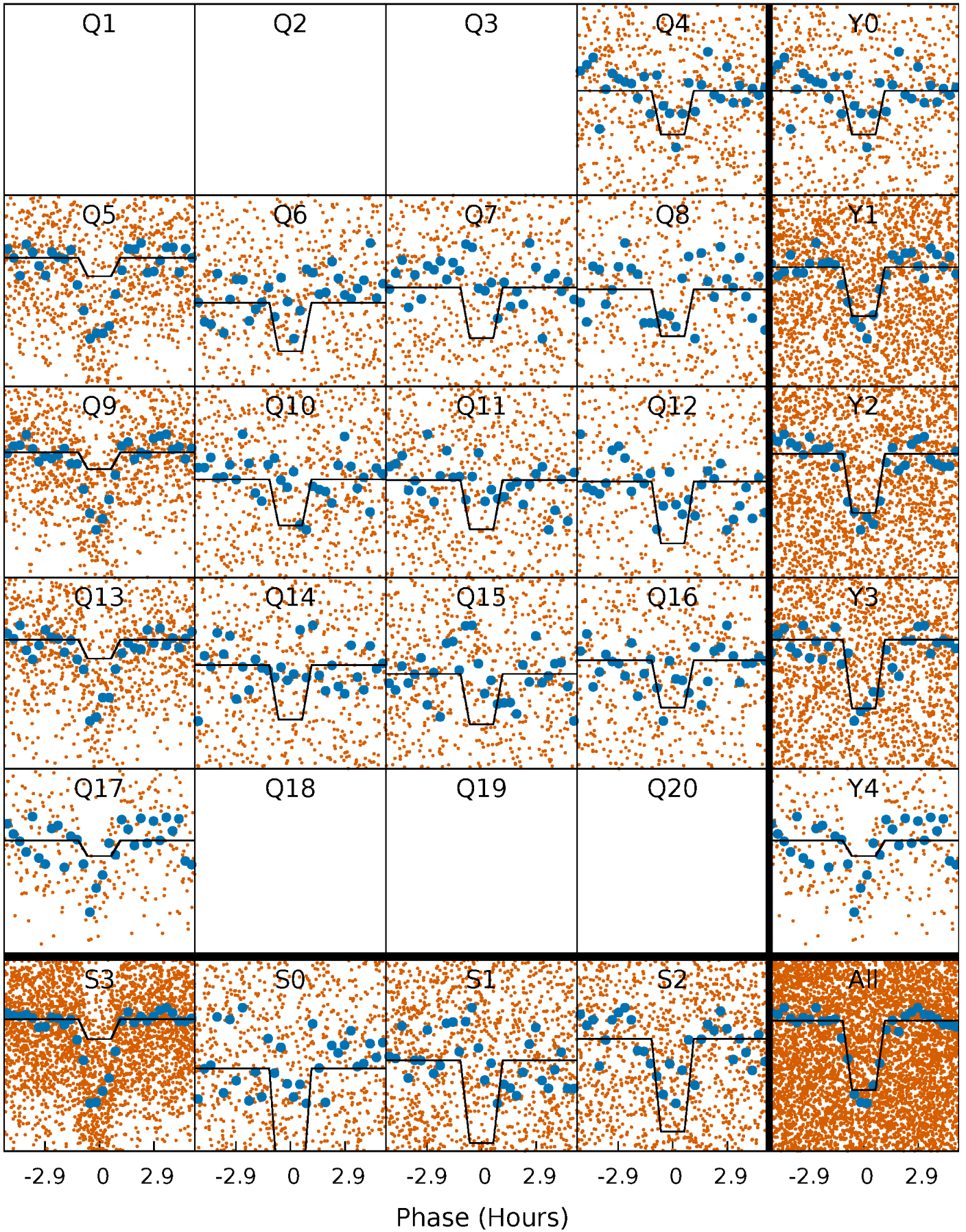
DV Quarter-Phased Transit Curves

TCE 005564247-01 P= 1.727189 Days $T_0=132.561219$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

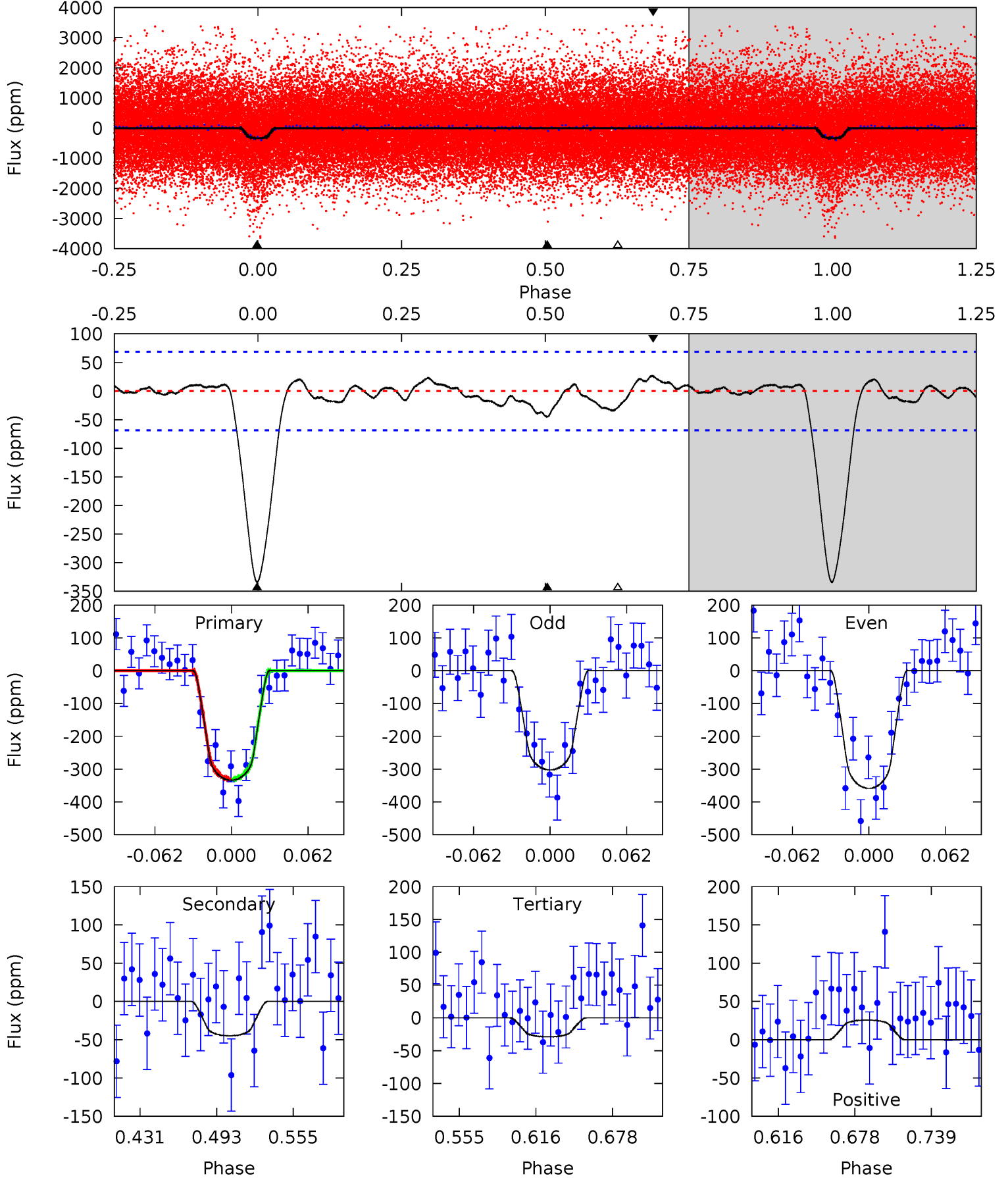
TCE 005564247-01 P= 1.727168 Days $T_0=132.569016$ (BKJD)



DV Model-Shift Uniqueness Test

005564247-01, P = 1.727189 Days, E = 132.561219 Days

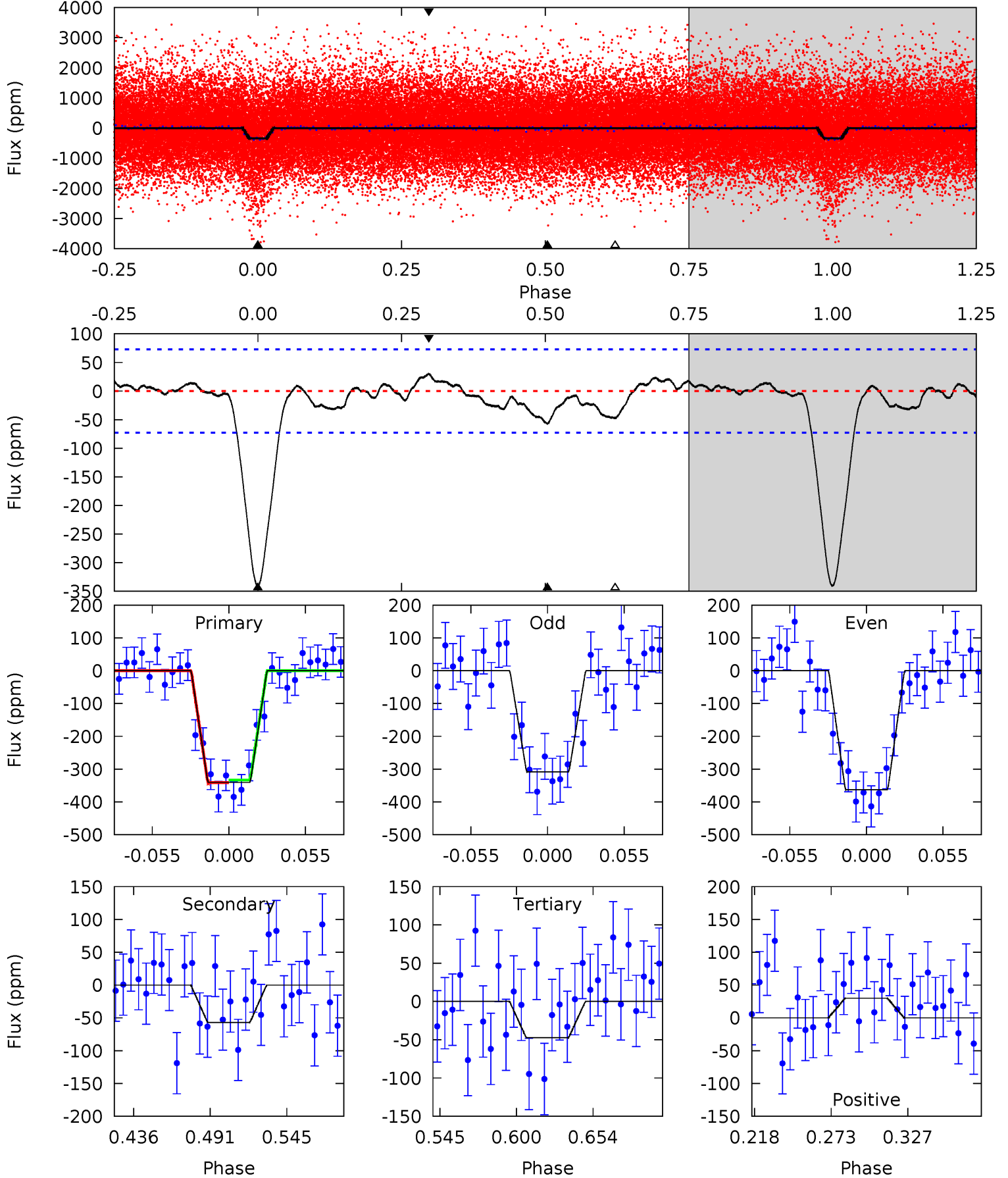
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.7	3.05	1.96	1.75	4.67	1.87	0.93	20.8	21.0	1.09	1.30	1.92	1.19	0.07	0.01



Alt Model-Shift Uniqueness Test

005564247-01, P = 1.727168 Days, E = 132.569016 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.9	3.66	3.05	1.93	4.69	1.92	1.13	18.9	20.0	0.61	1.73	1.76	1.39	0.08	0.25



Stellar Parameters For KIC 005564247

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5394^{+187}_{-187}	$4.622^{+0.035}_{-0.105}$	$-0.400^{+0.300}_{-0.300}$	$0.720^{+0.123}_{-0.057}$	$0.805^{+0.076}_{-0.093}$	$3.039^{+0.544}_{-1.024}$
	+3%/-3%	+1%/-2%	+75%/-75%	+17%/-8%	+9%/-12%	+18%/-34%
Source	KIC0	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 005564247-01 / KOI 1566.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-45 ± 15	$1.57^{+0.69}_{-0.68}$	1776^{+84}_{-81}	3576^{+789}_{-486}	$6.650^{+14.104}_{-3.811}$
Alt.	-57 ± 16	$1.44^{+0.69}_{-0.65}$	1768^{+90}_{-72}	3784^{+1081}_{-499}	$9.646^{+24.892}_{-5.425}$

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 $A_{obs} \gg 1.0$

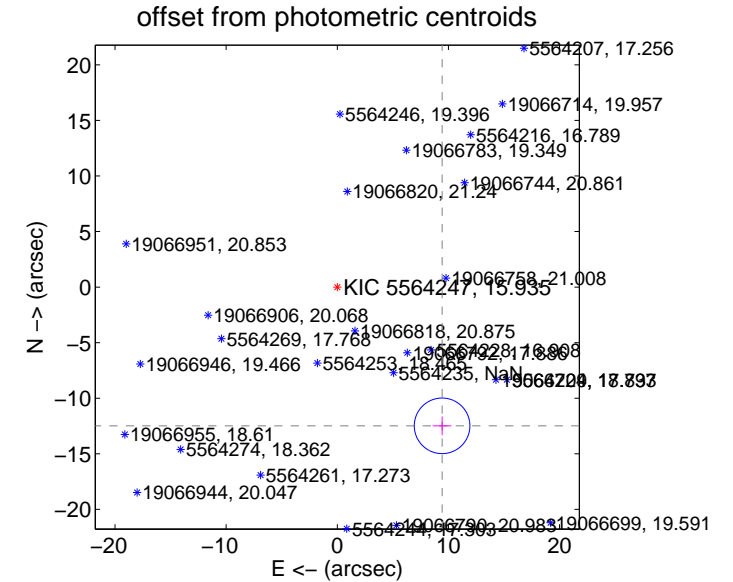
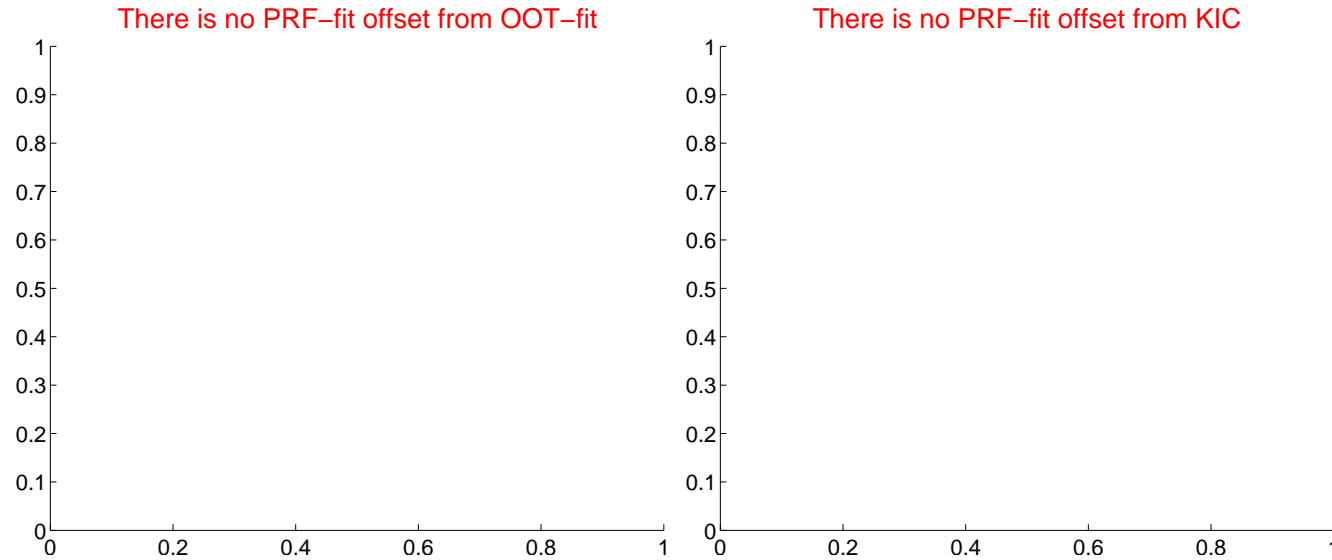
DV Centroid Data

Supplemental centroid analysis for 005564247-01. Kepler magnitude: 15.94. Transit SNR 14.20

There are 0 quarters with good PRF difference image offsets

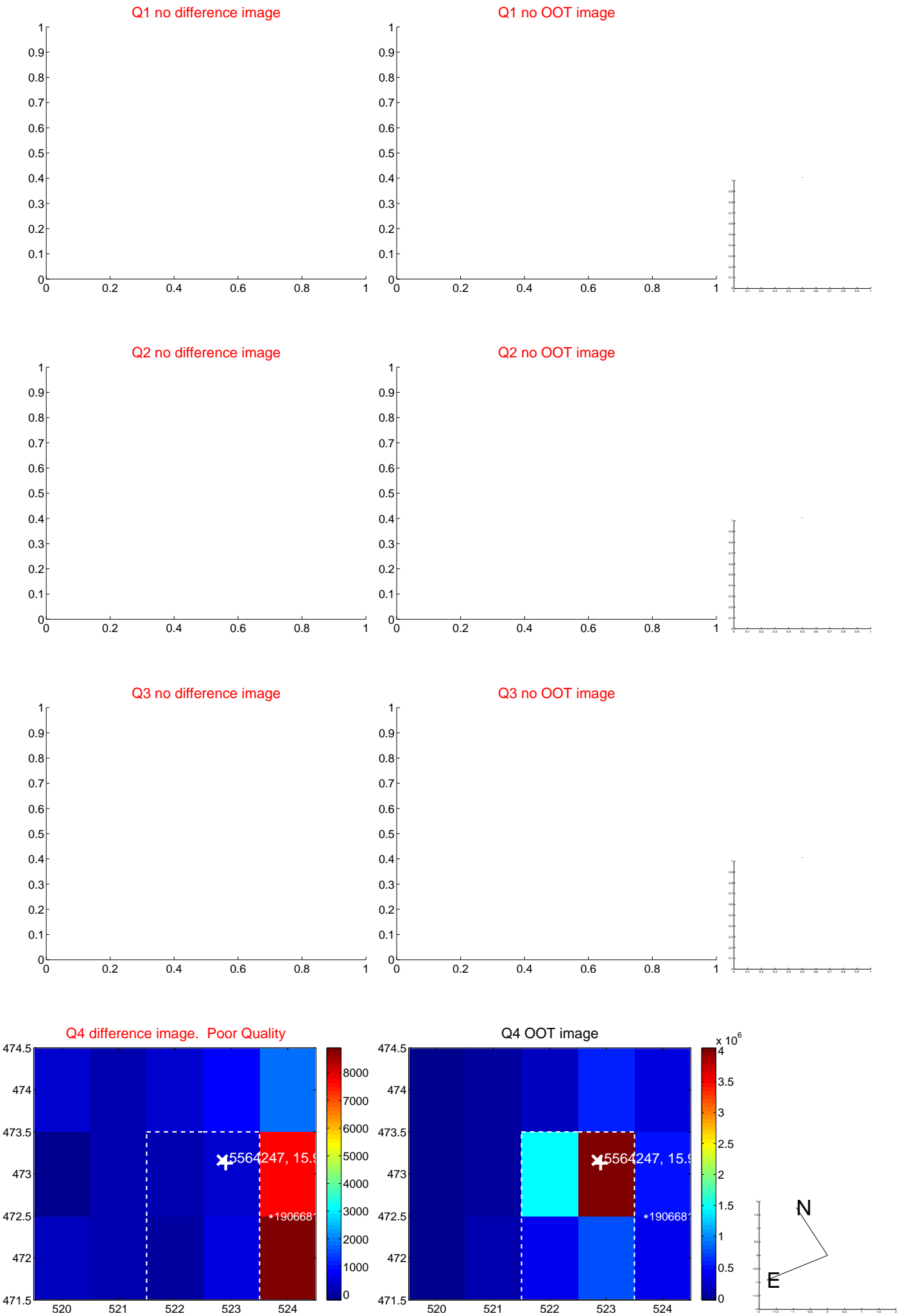
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	15.64 ± 0.83	18.77	-9.43 ± 0.83	-12.48 ± 0.84

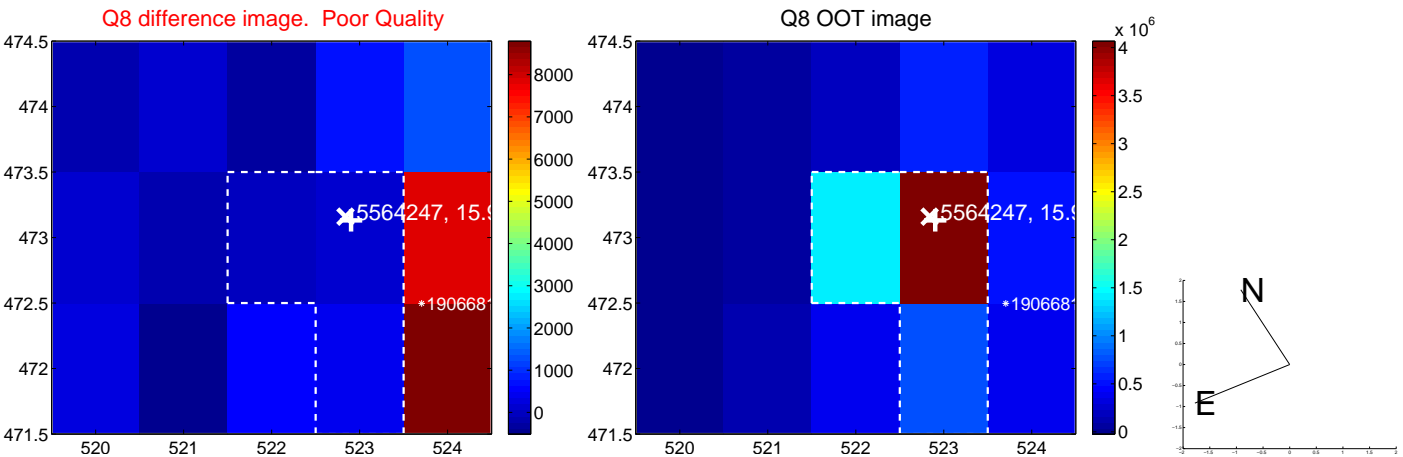
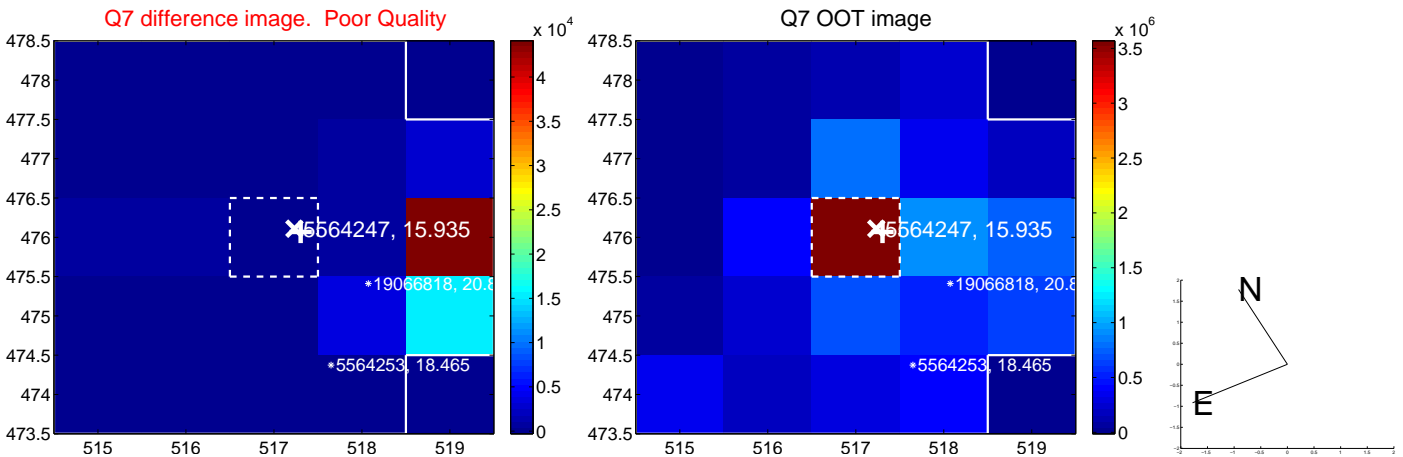
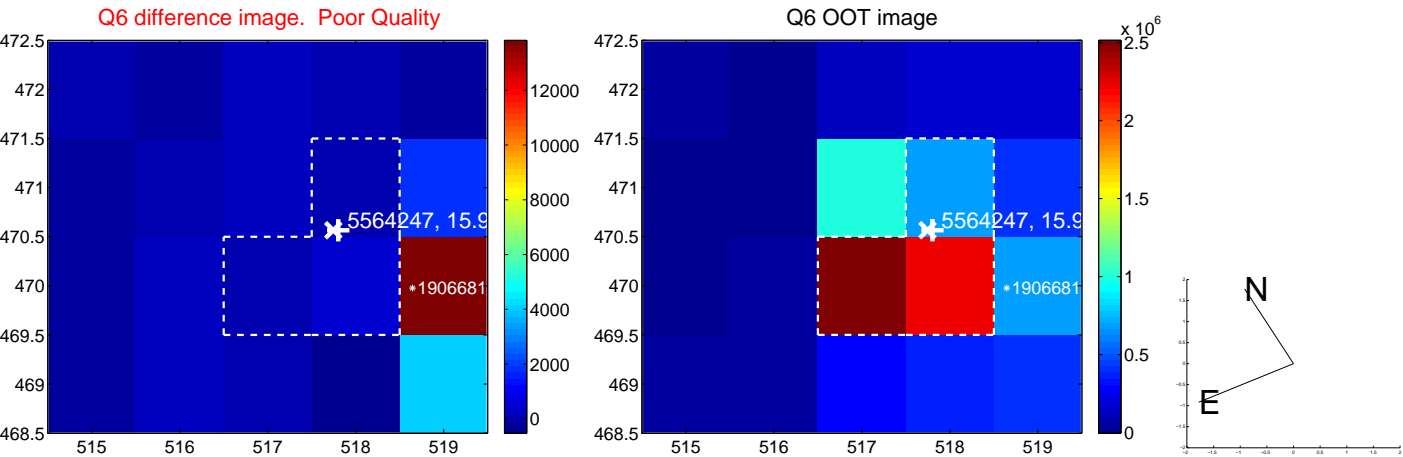
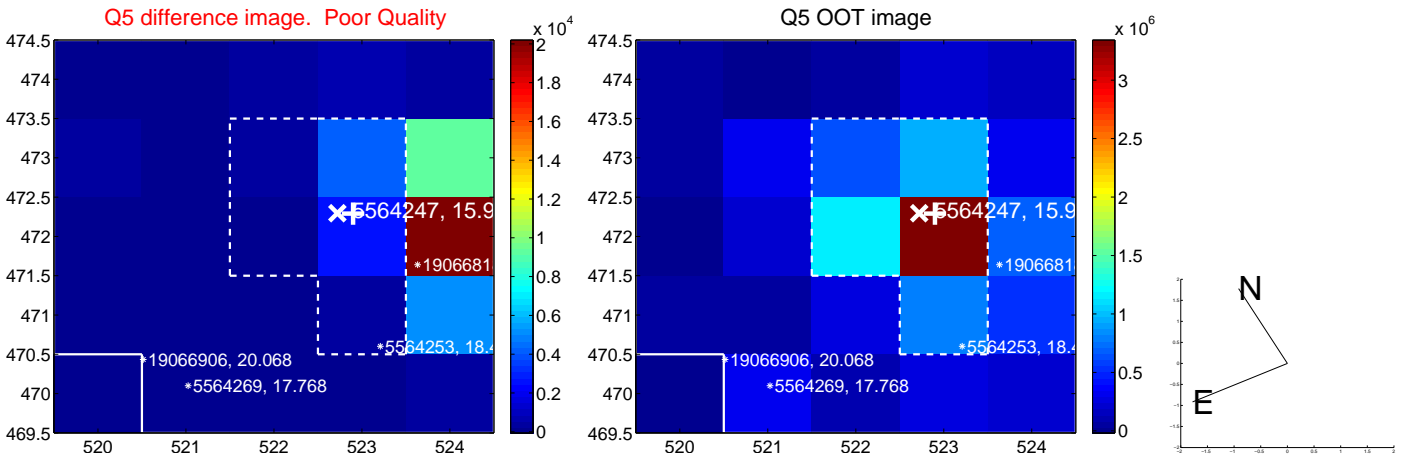


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

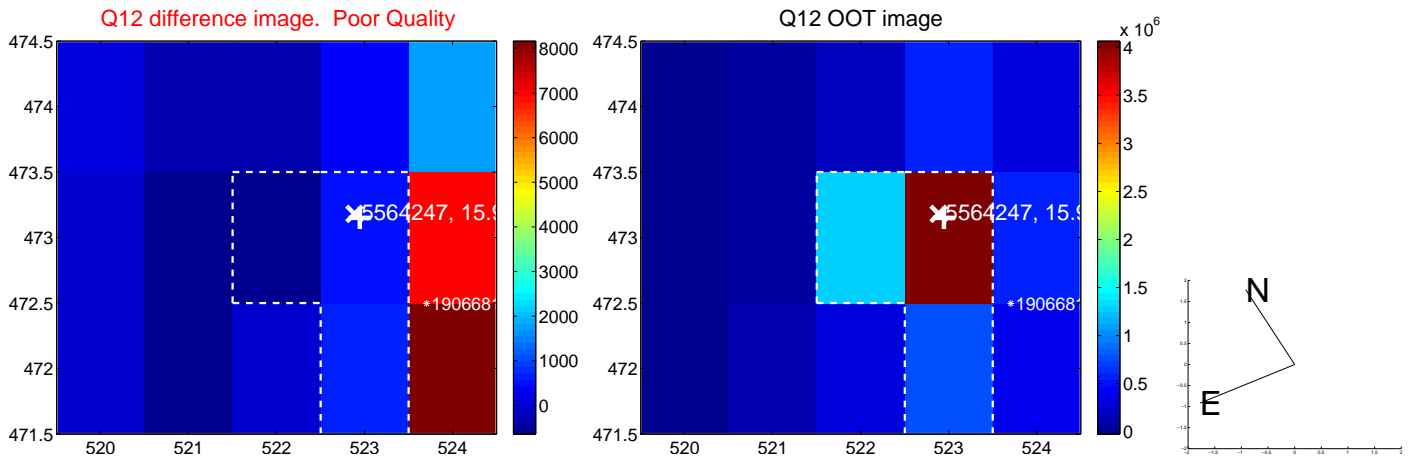
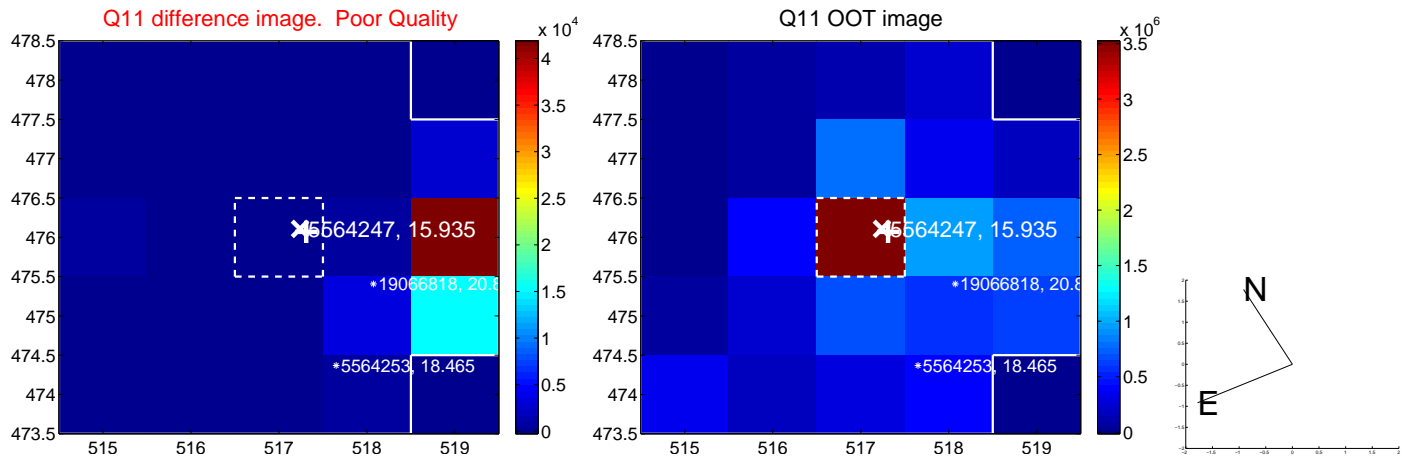
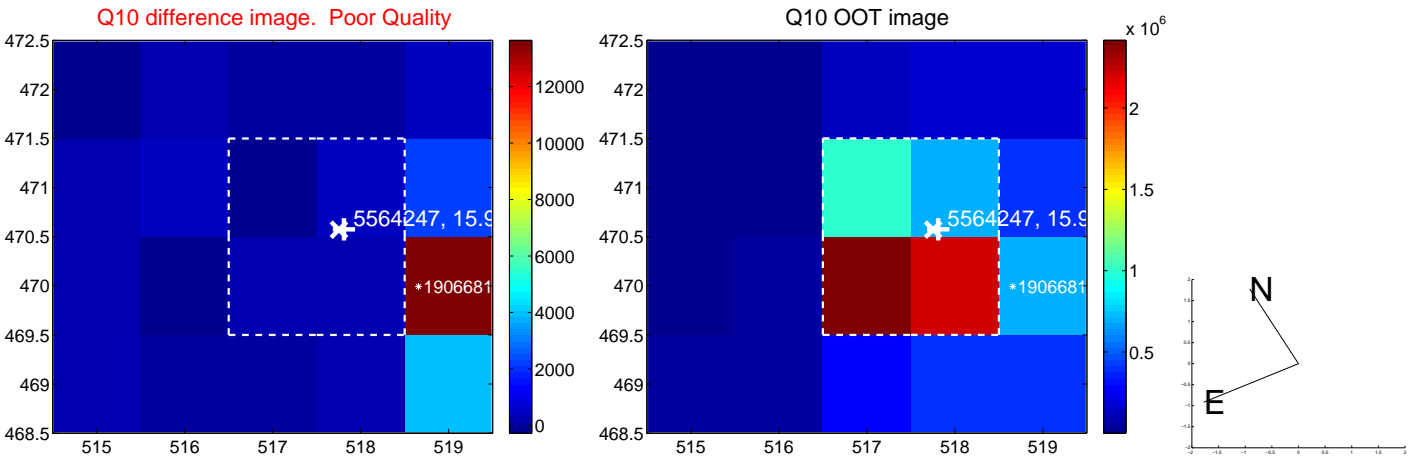
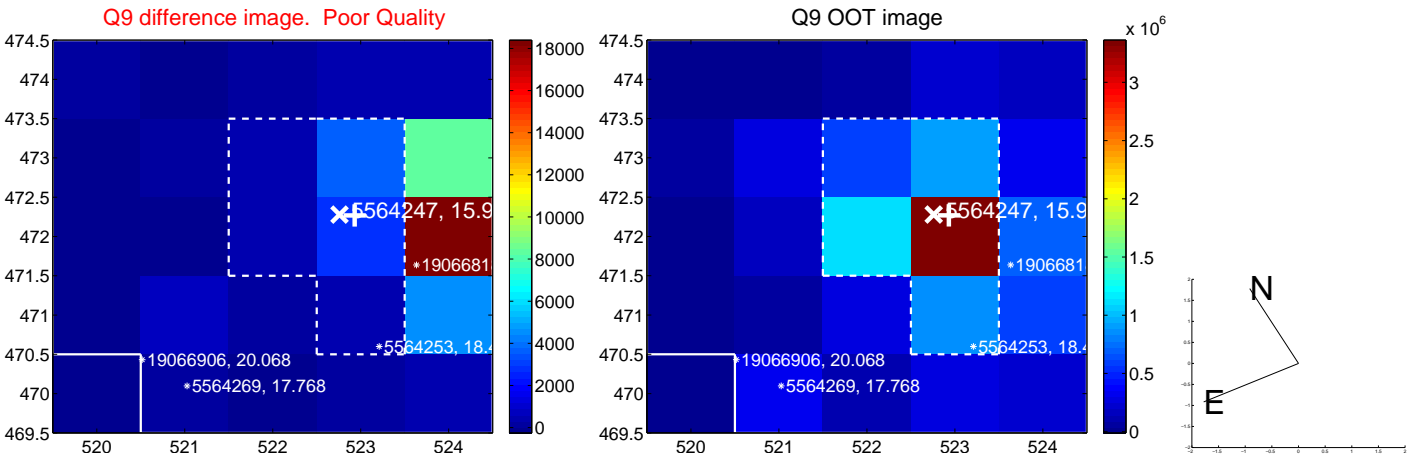
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



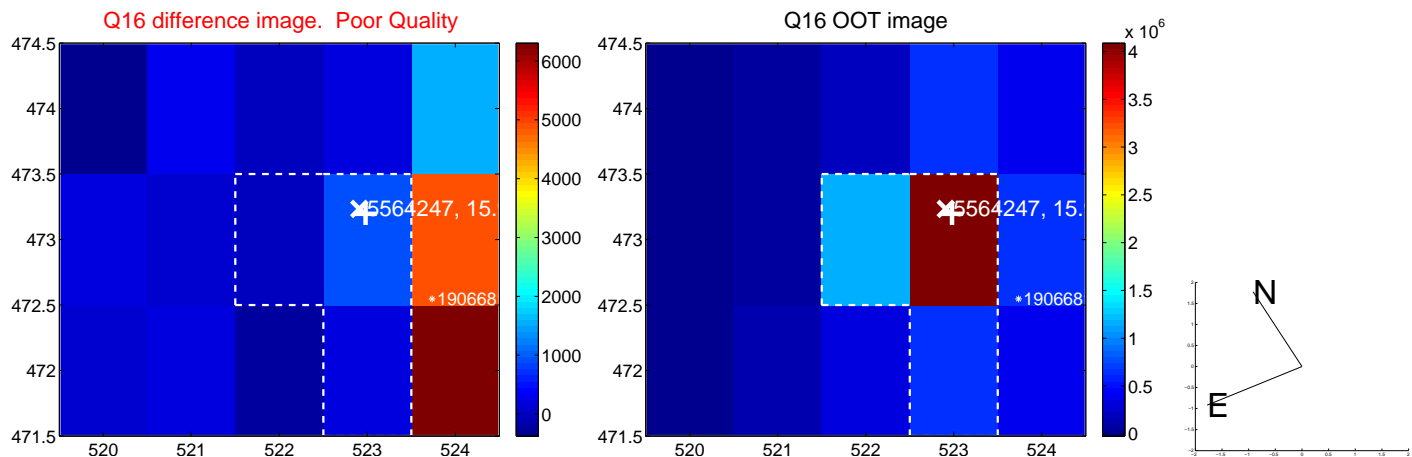
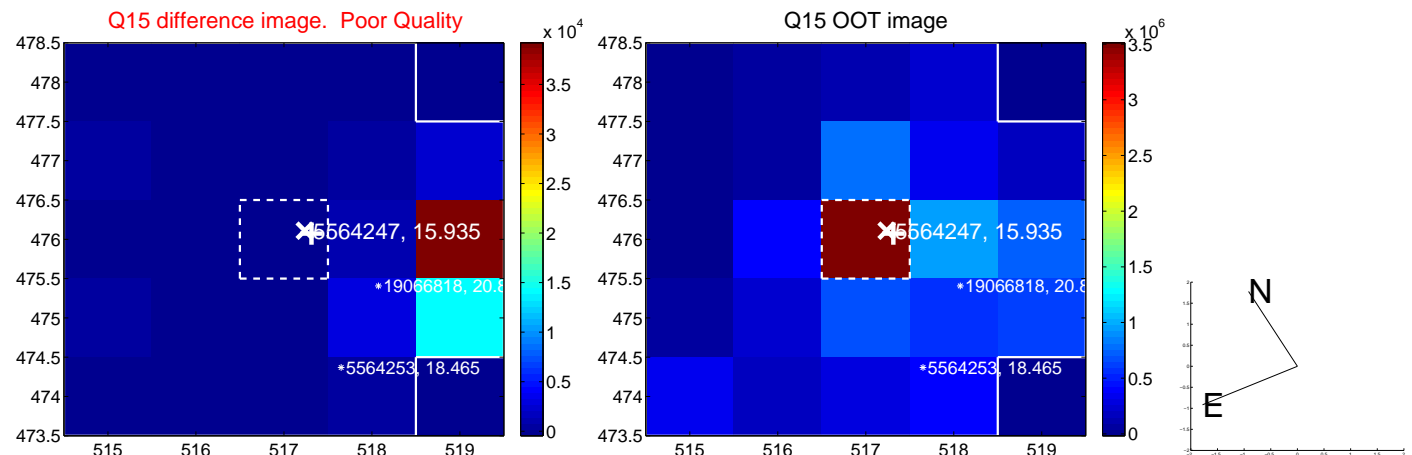
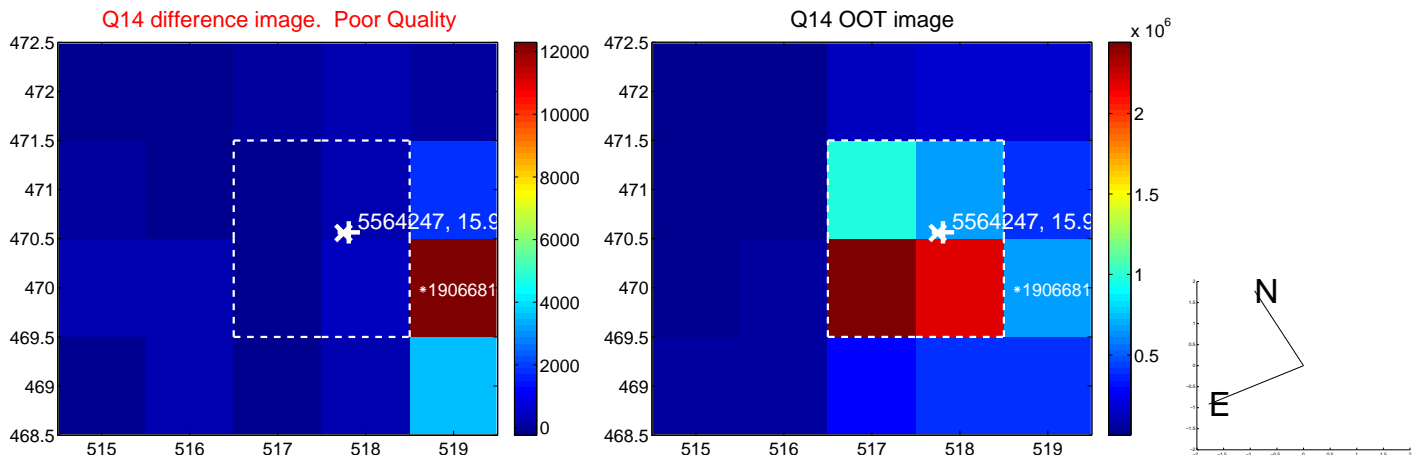
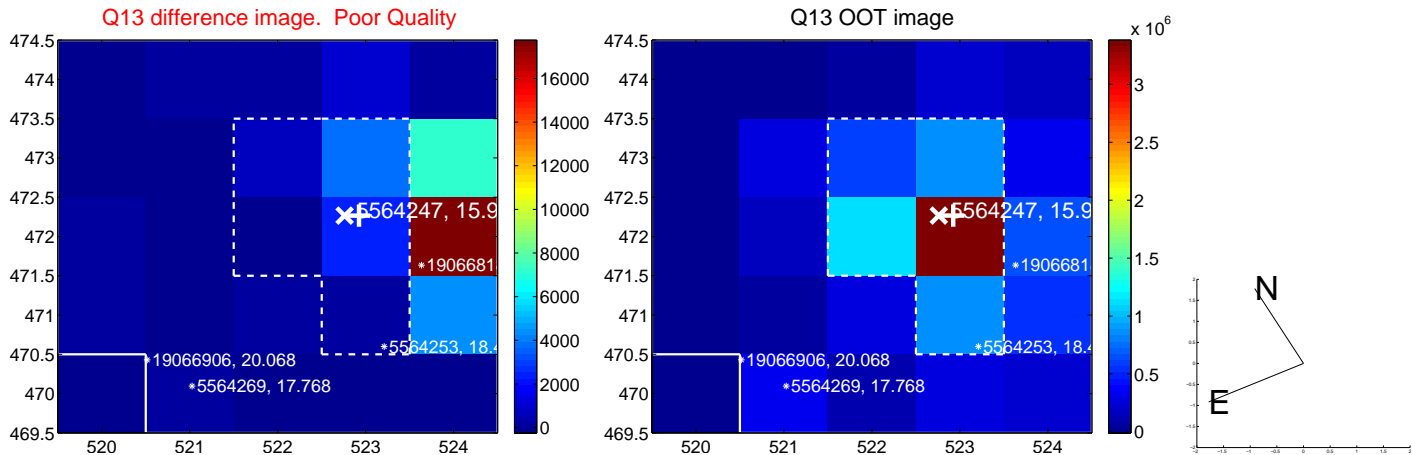
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



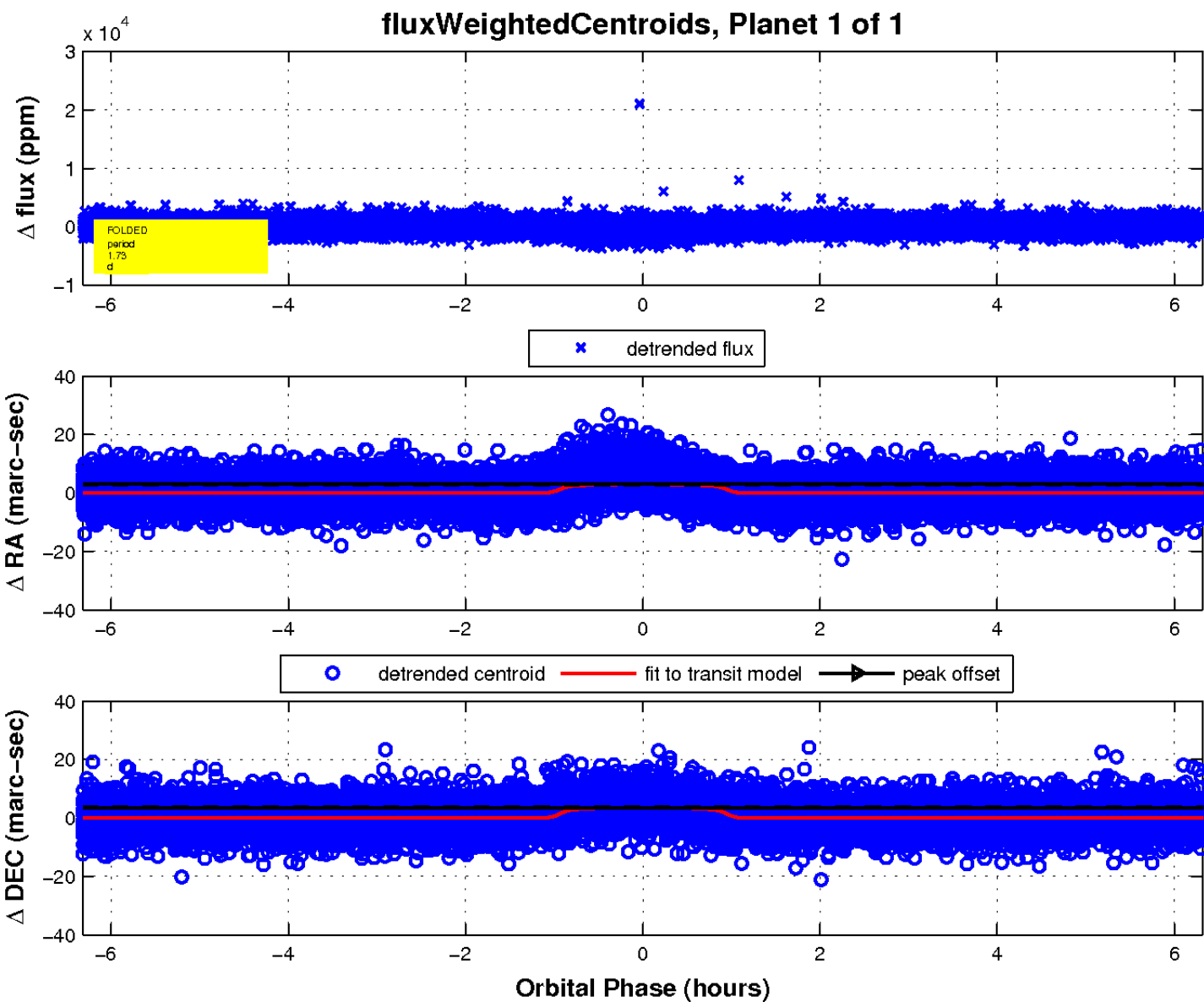
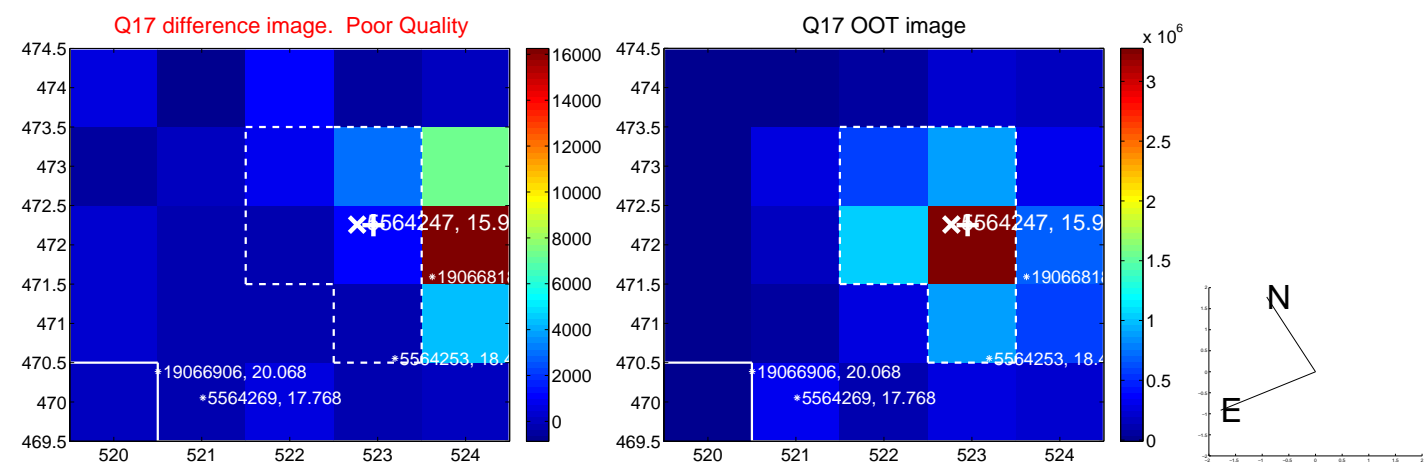
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

