

KIC 006610064

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})
006610064-01	OBS	4529.01	1.168283	131.849607	52.6	1.705	12.4	12.5	1.03	5427	0.90	1934.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006610064-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—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.

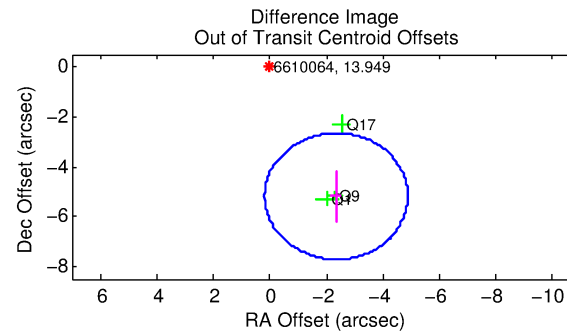
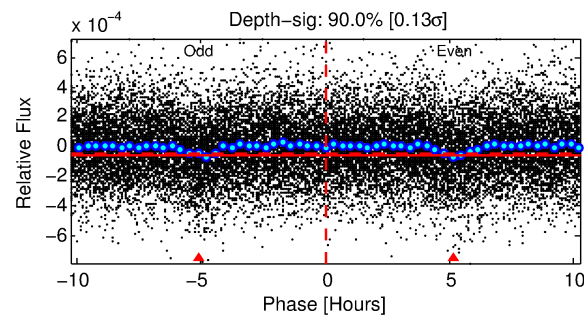
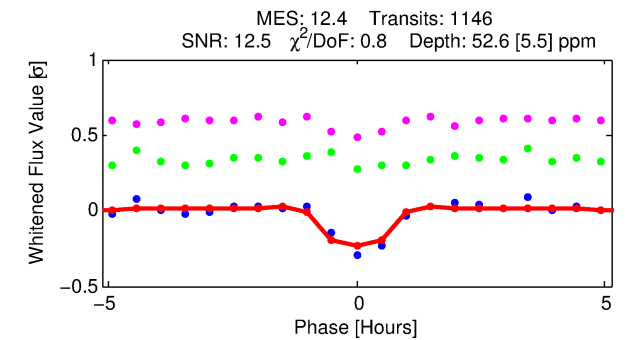
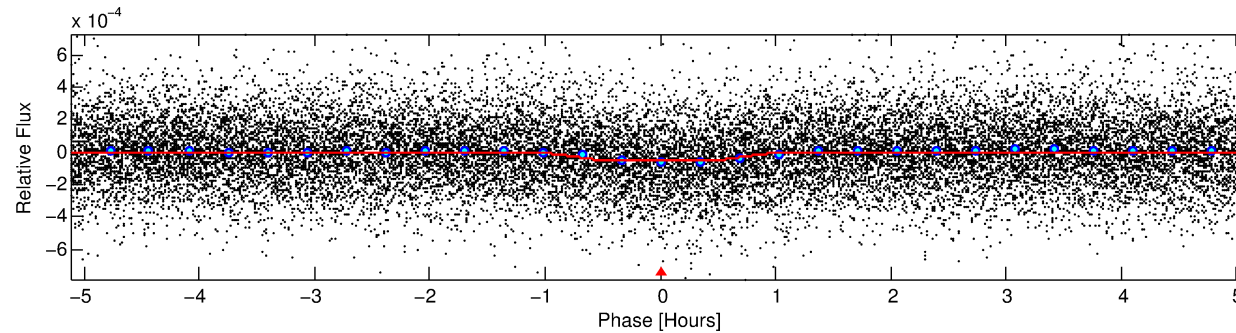
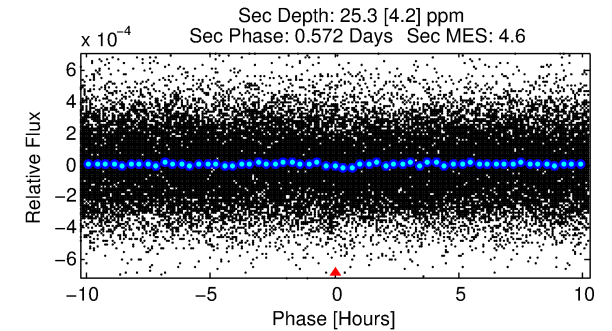
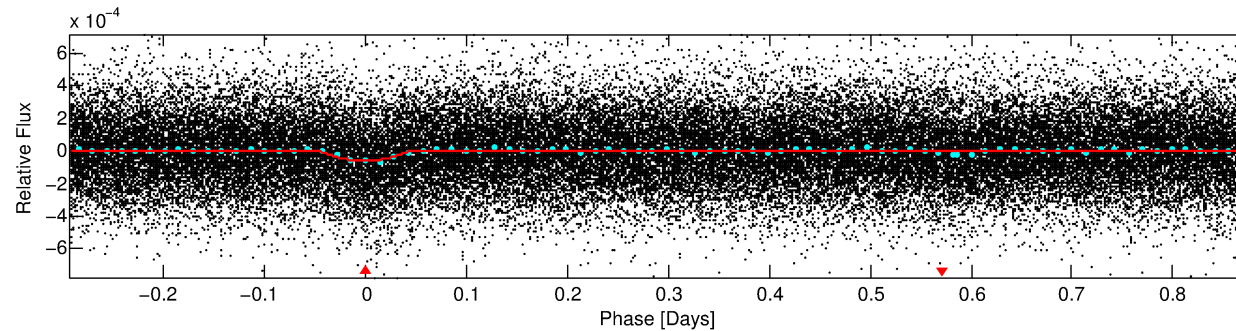
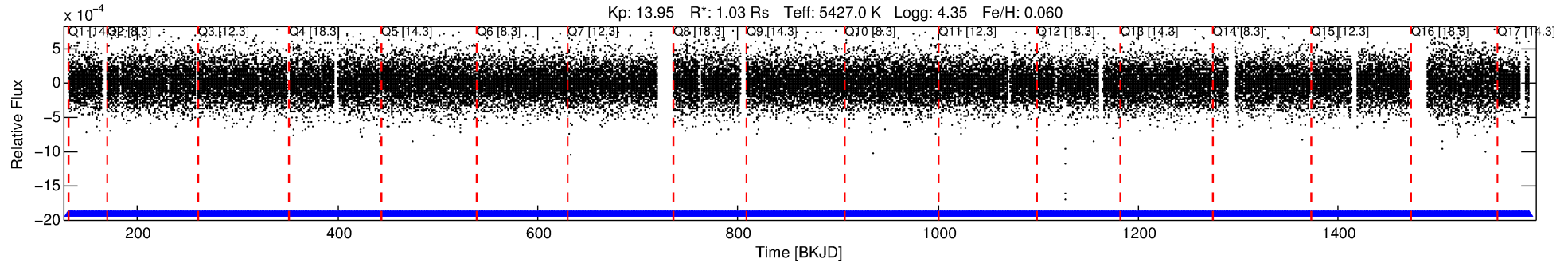
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006610064-01

No Significant Match Found

DV One-Page Summary

KIC: 6610064 Candidate: 1 of 1 Period: 1.168 d
KOI: K04529 Corr: No Ephemeris Match



DV Fit Results:

Period = 1.16828 [0.00001] d
Epoch = 131.8496 [0.0018] BKJD
Rp/R* = 0.0080 [0.0043]
a/R* = 2.54 [5.06]
b = 0.90 [0.50]
Seff = 1934.53 [828.14]
Teq = 1691 [181] K
Rp = 0.90 [0.57] Re
a = 0.0207 [0.0058] AU
Ag = 7.31 [8.47] [0.75σ]
Teff = 4300 [1170] K [2.20σ]

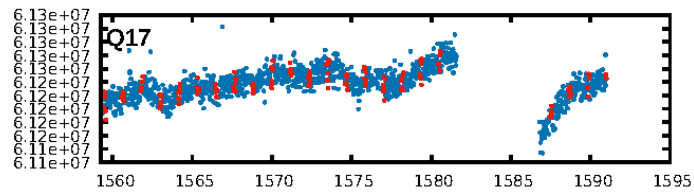
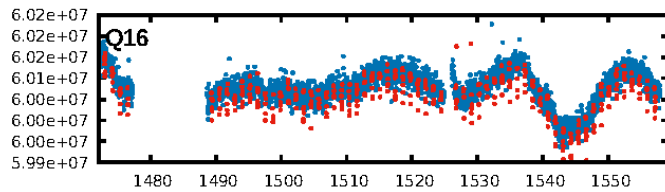
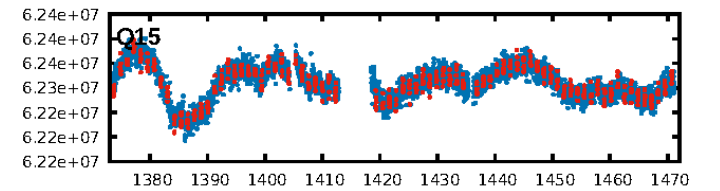
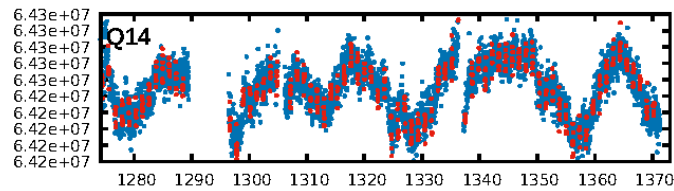
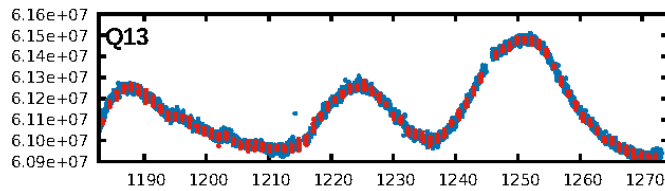
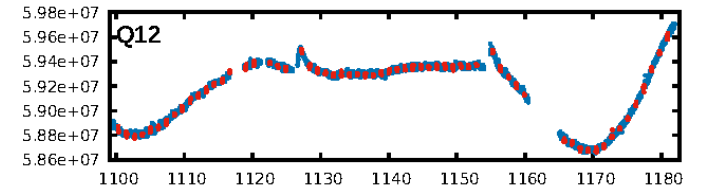
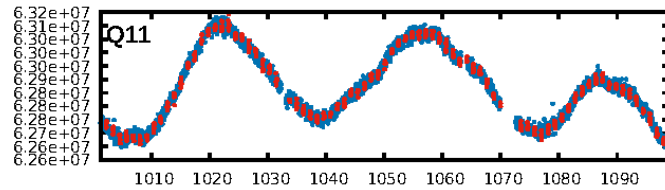
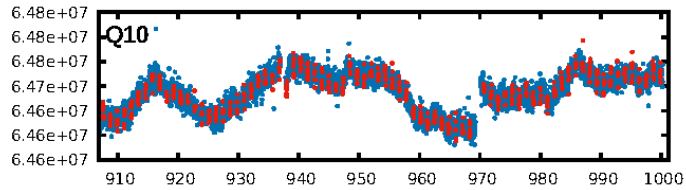
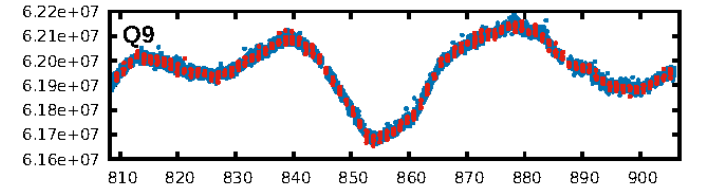
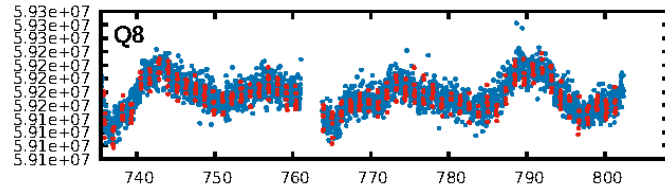
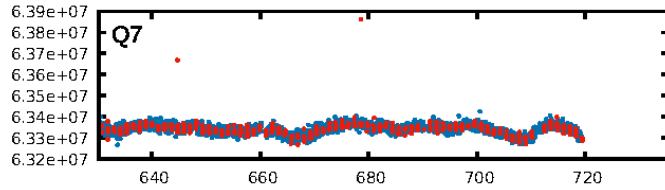
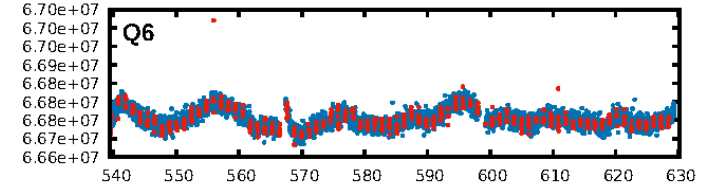
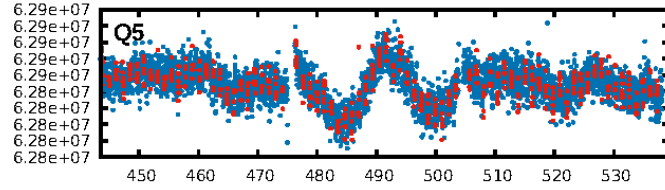
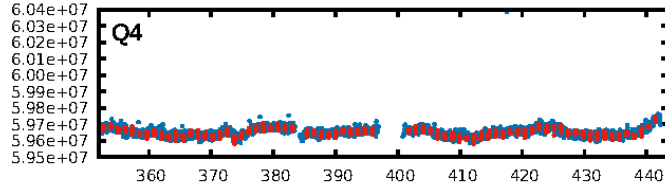
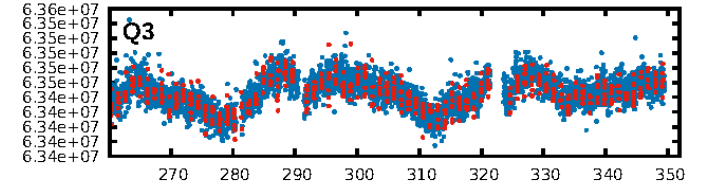
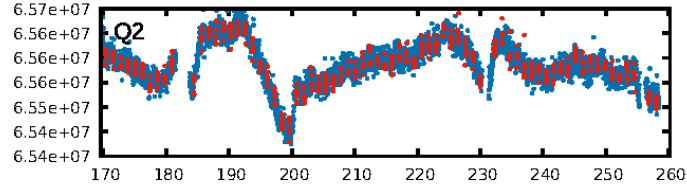
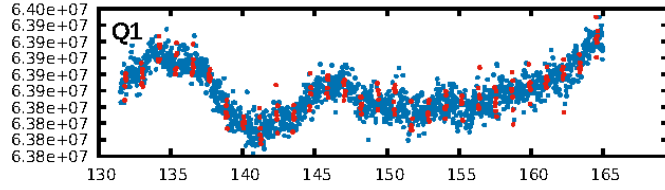
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.14e-33
RollingBand-fgt: 1.00 [1094/1094]
GhostDiagnostic-chr: -0.3864
Centroid-sig: 0.0%
Centroid-so: 18.343 arcsec [23.62σ]
OotOffset-rm: 5.694 arcsec [6.75σ]
KicOffset-rm: 5.749 arcsec [8.06σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [17/17]

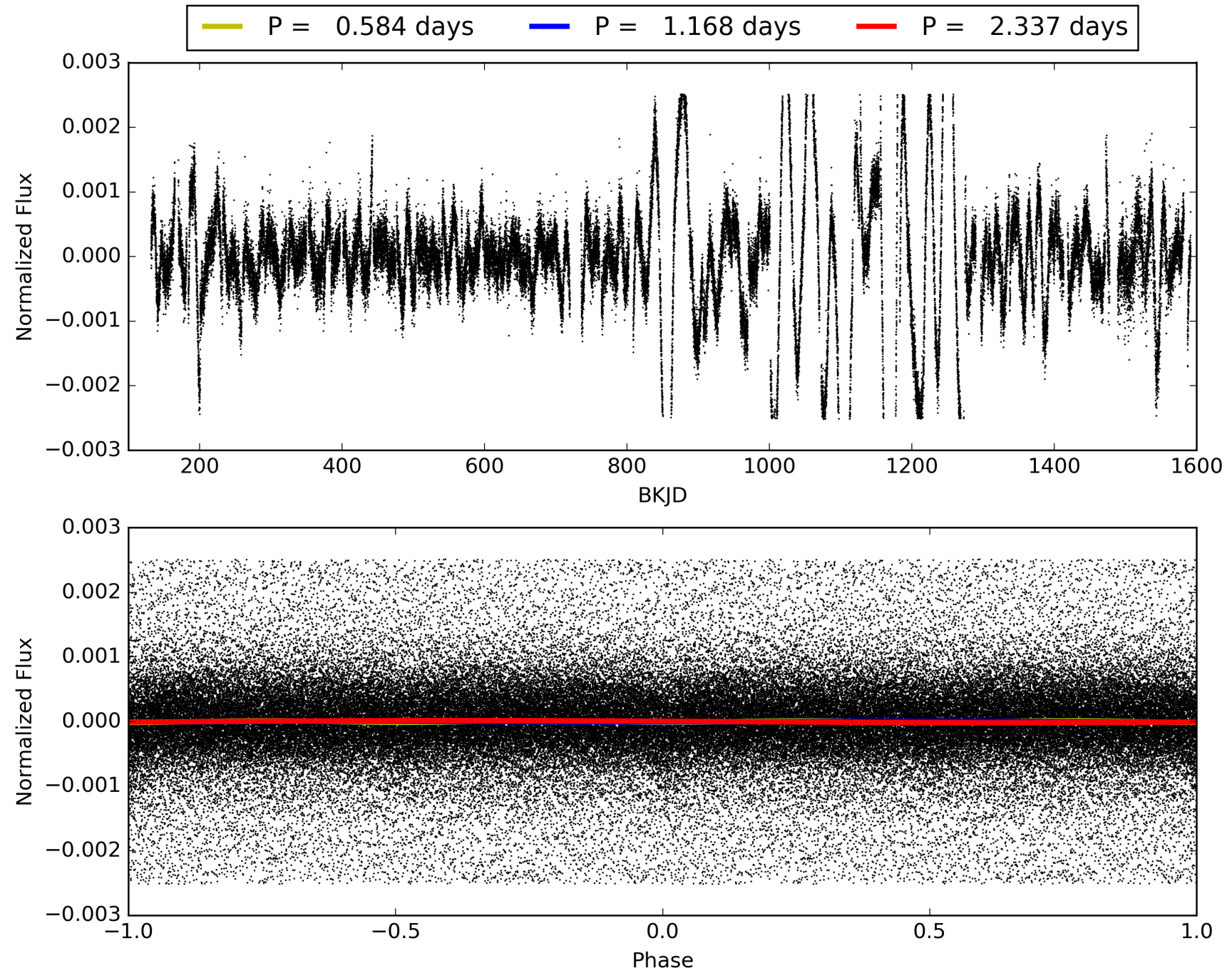
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:11:53 Z

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

TCE 006610064-01, PDC Light Curves

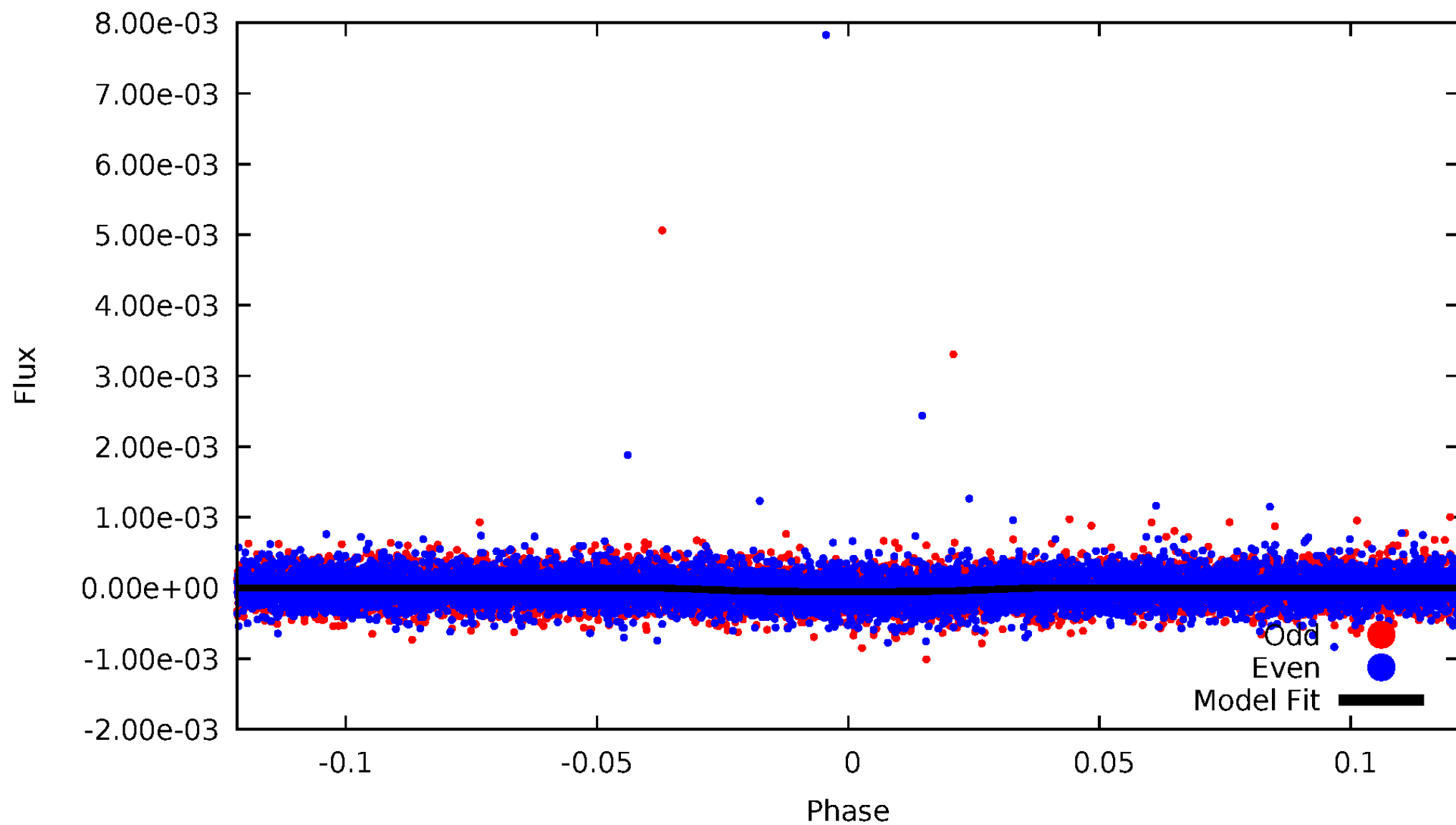


TCE 006610064-01



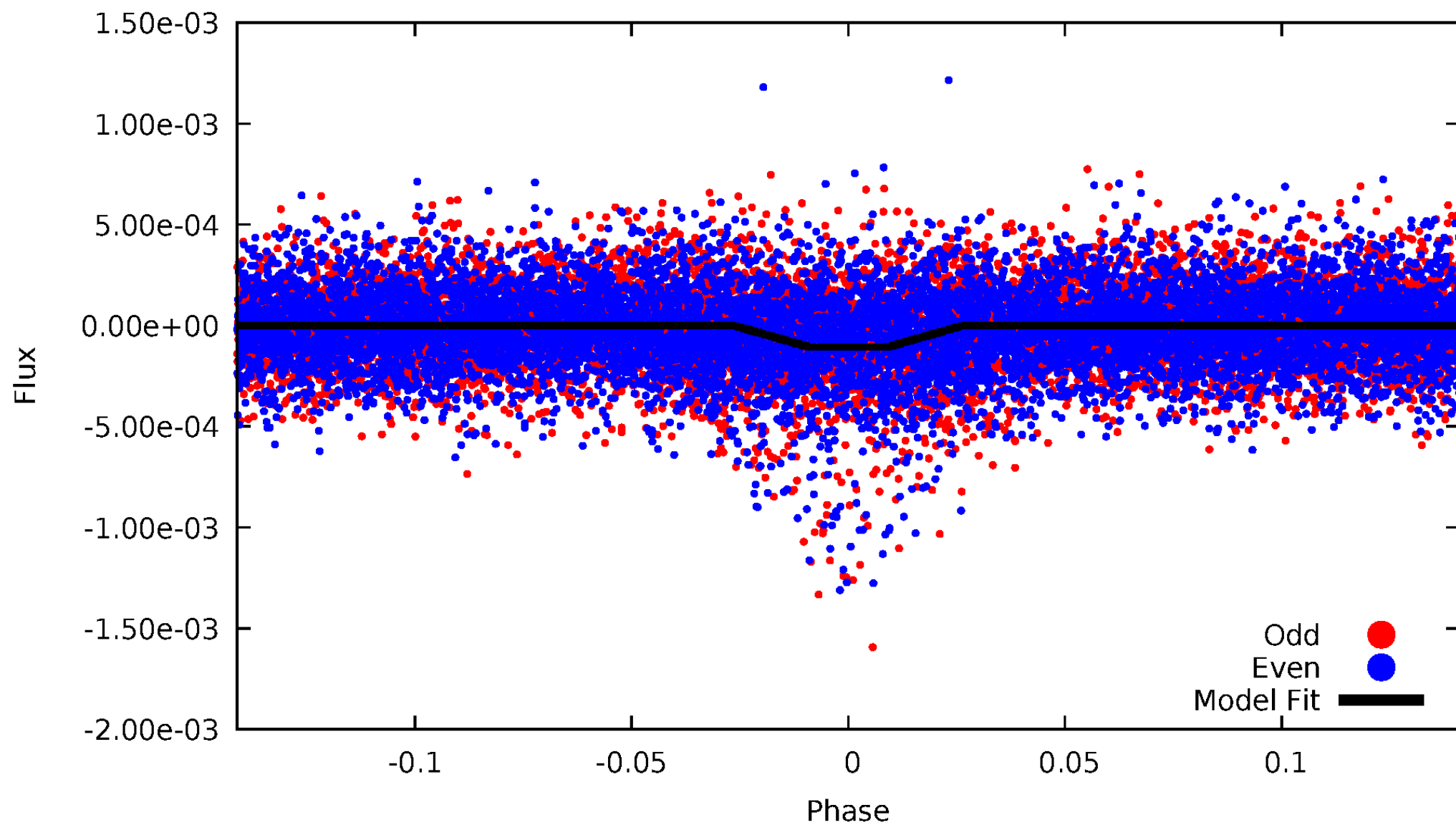
DV Odd/Even

TCE 006610064-01



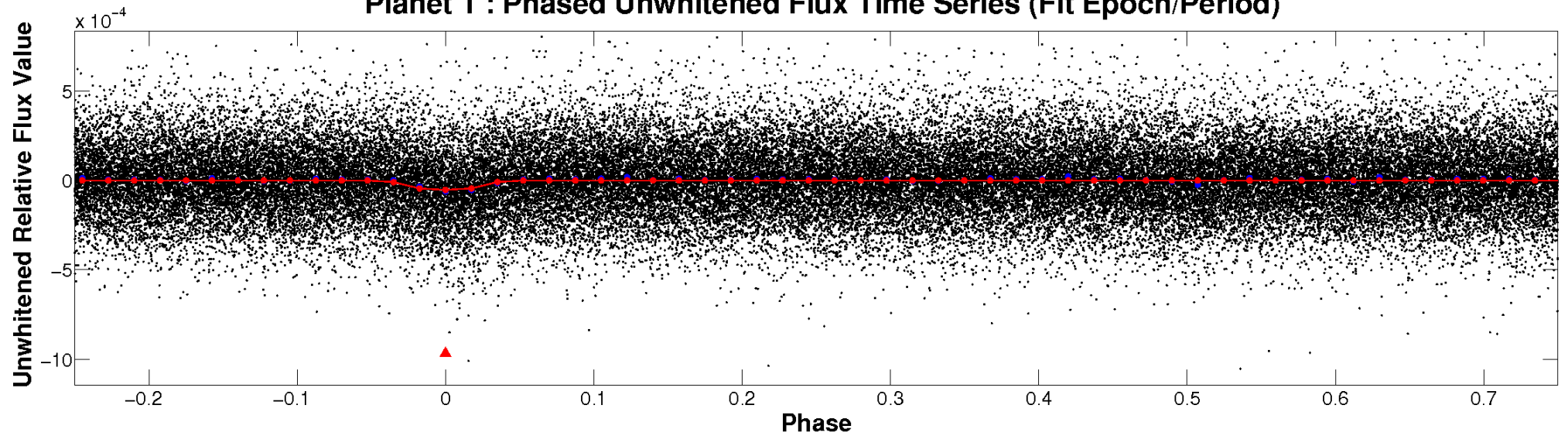
ALT Odd/Even

TCE 006610064-01

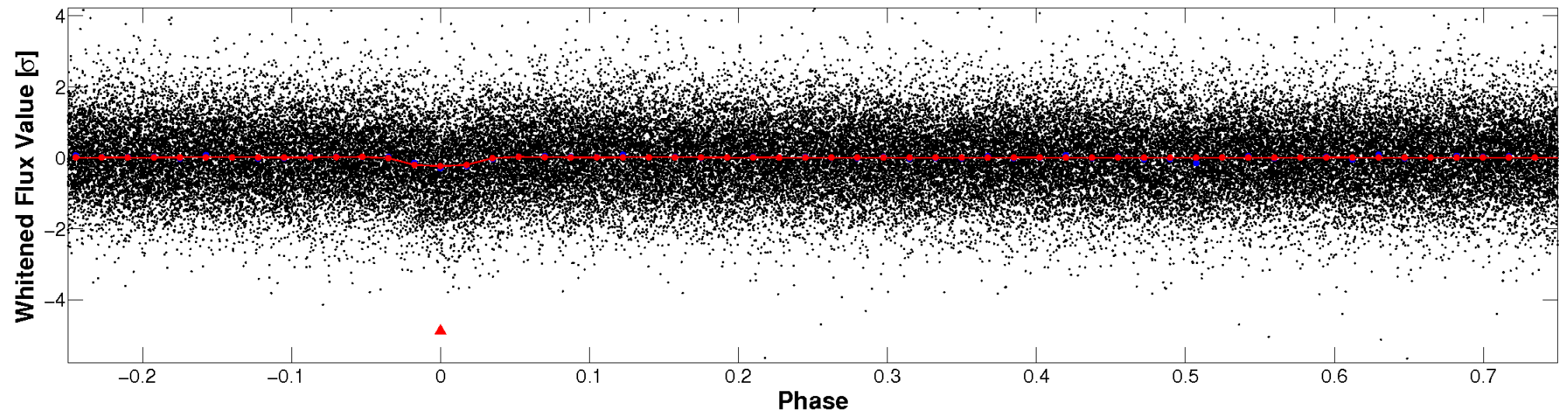


Non-Whitened Vs. Whitened Light Curve

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

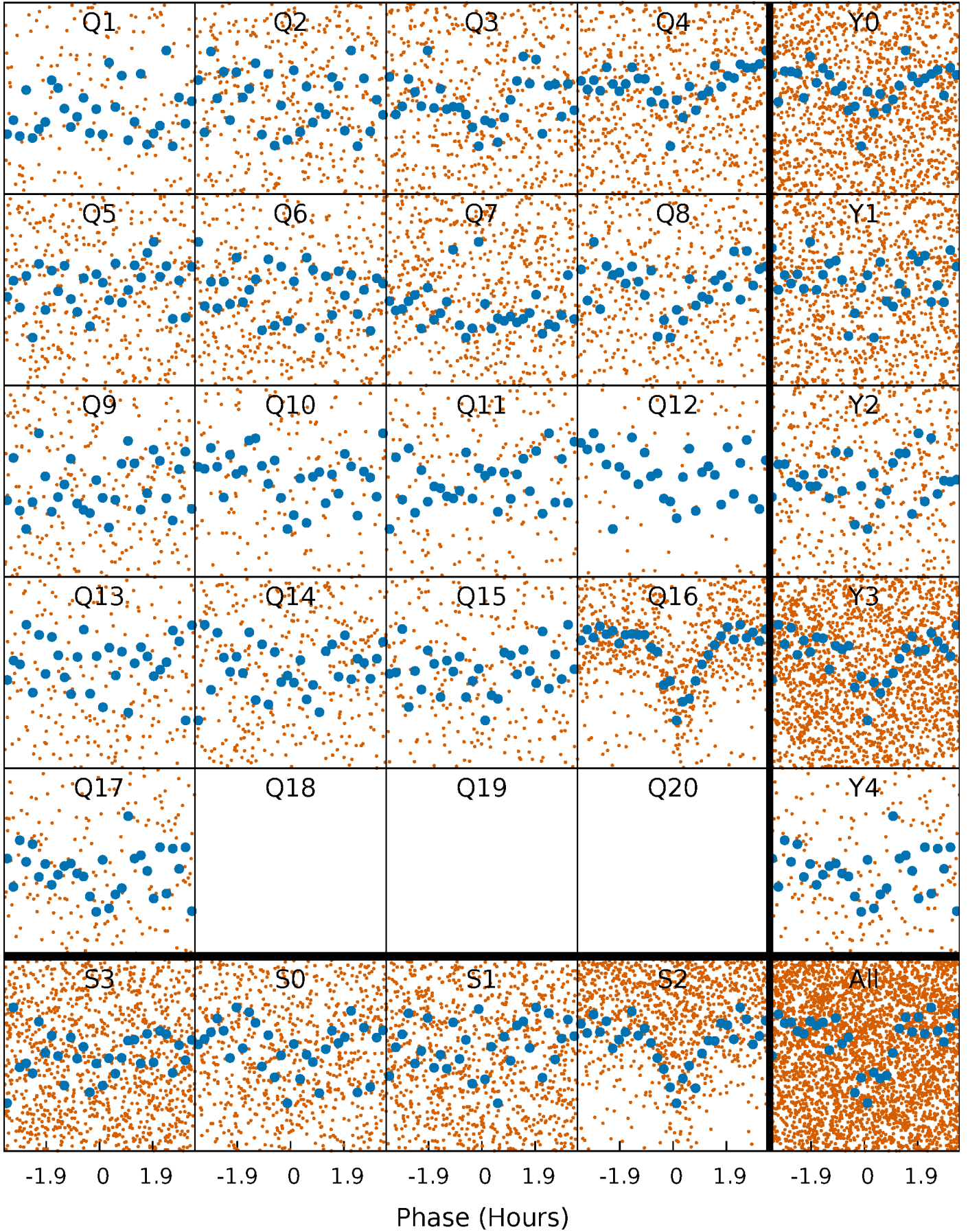


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



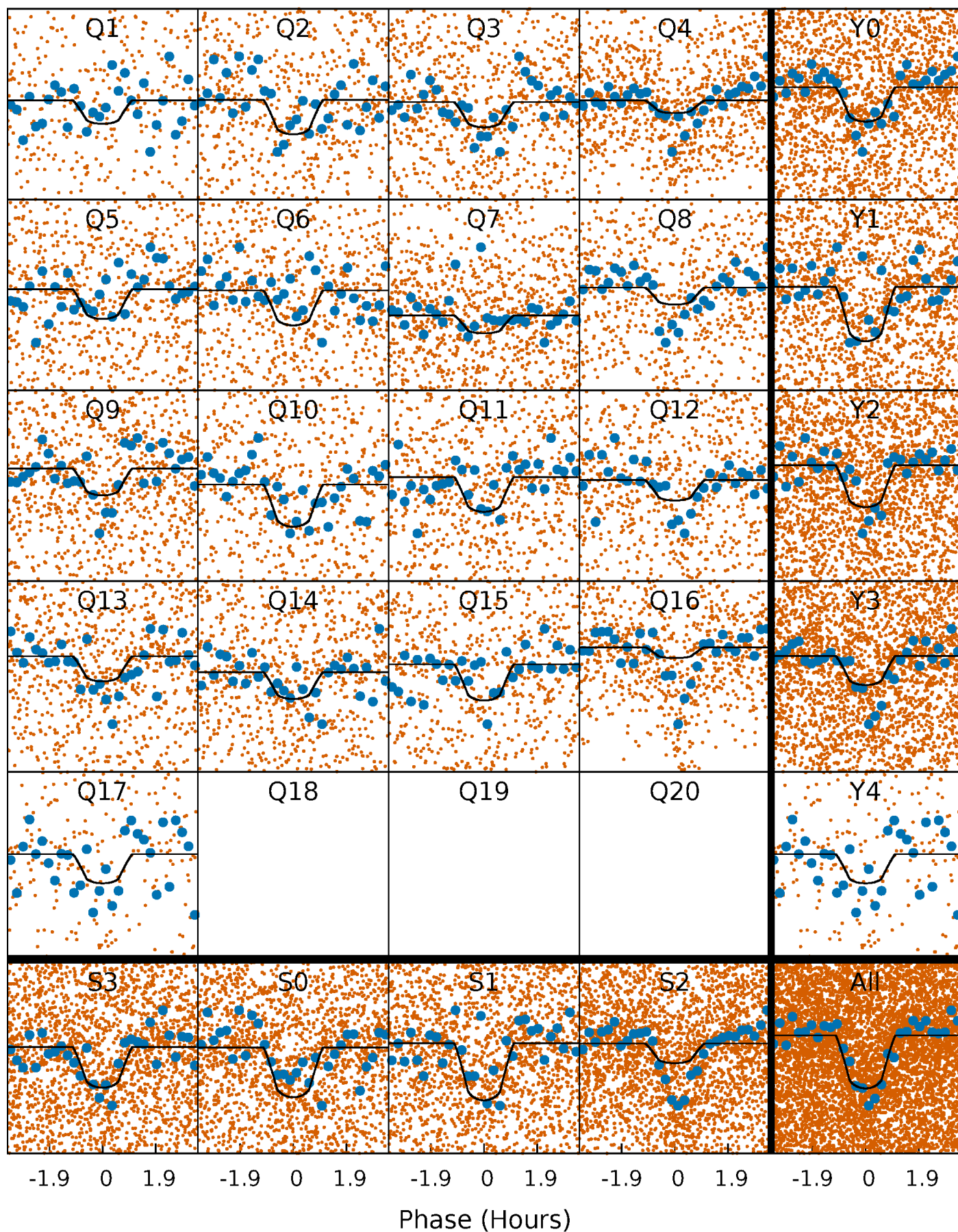
PDC Quarter-Phased Transit Curves

TCE 006610064-01 P= 1.168283 Days $T_0=131.849607$ (BKJD)



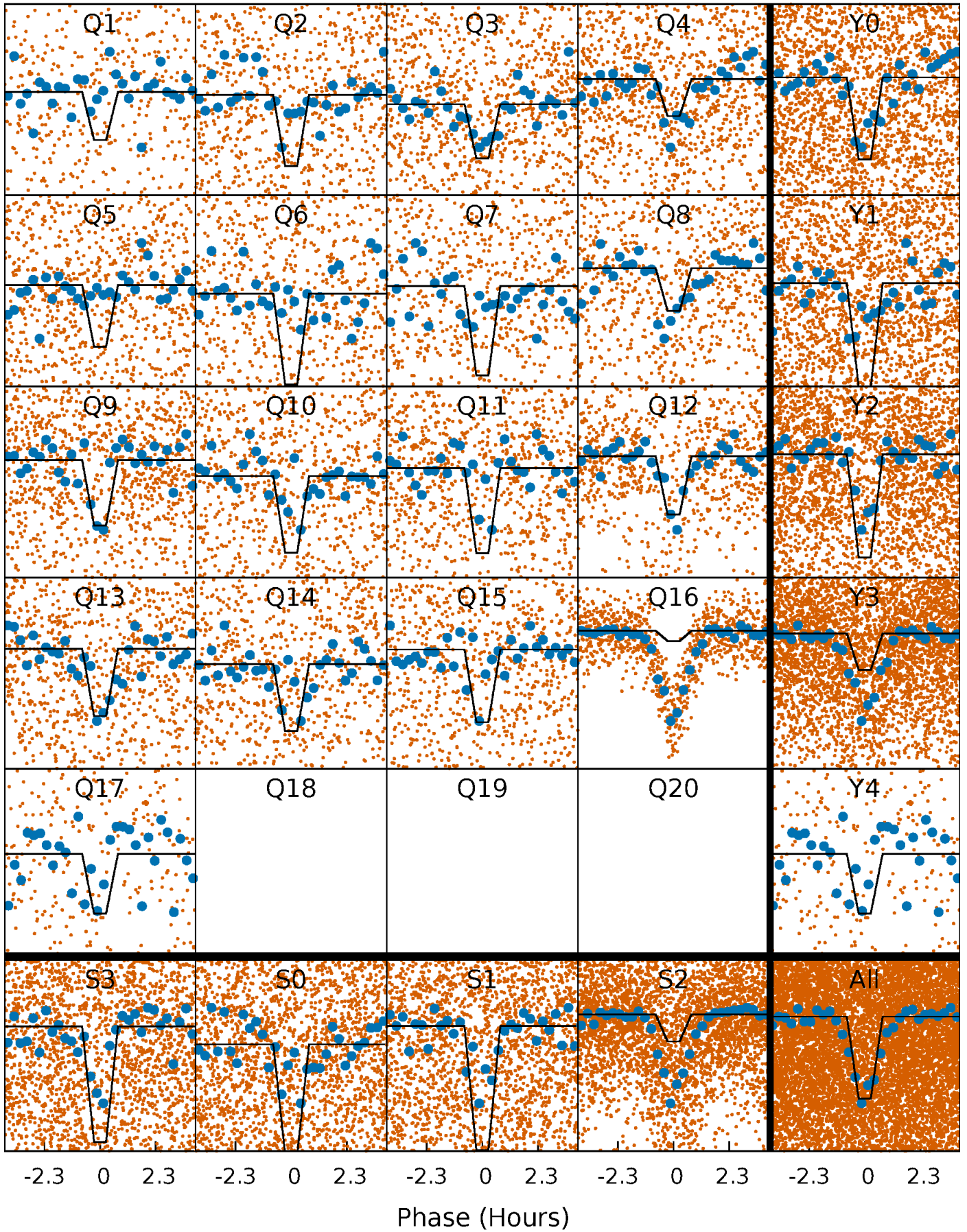
DV Quarter-Phased Transit Curves

TCE 006610064-01 P= 1.168283 Days $T_0=131.849607$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

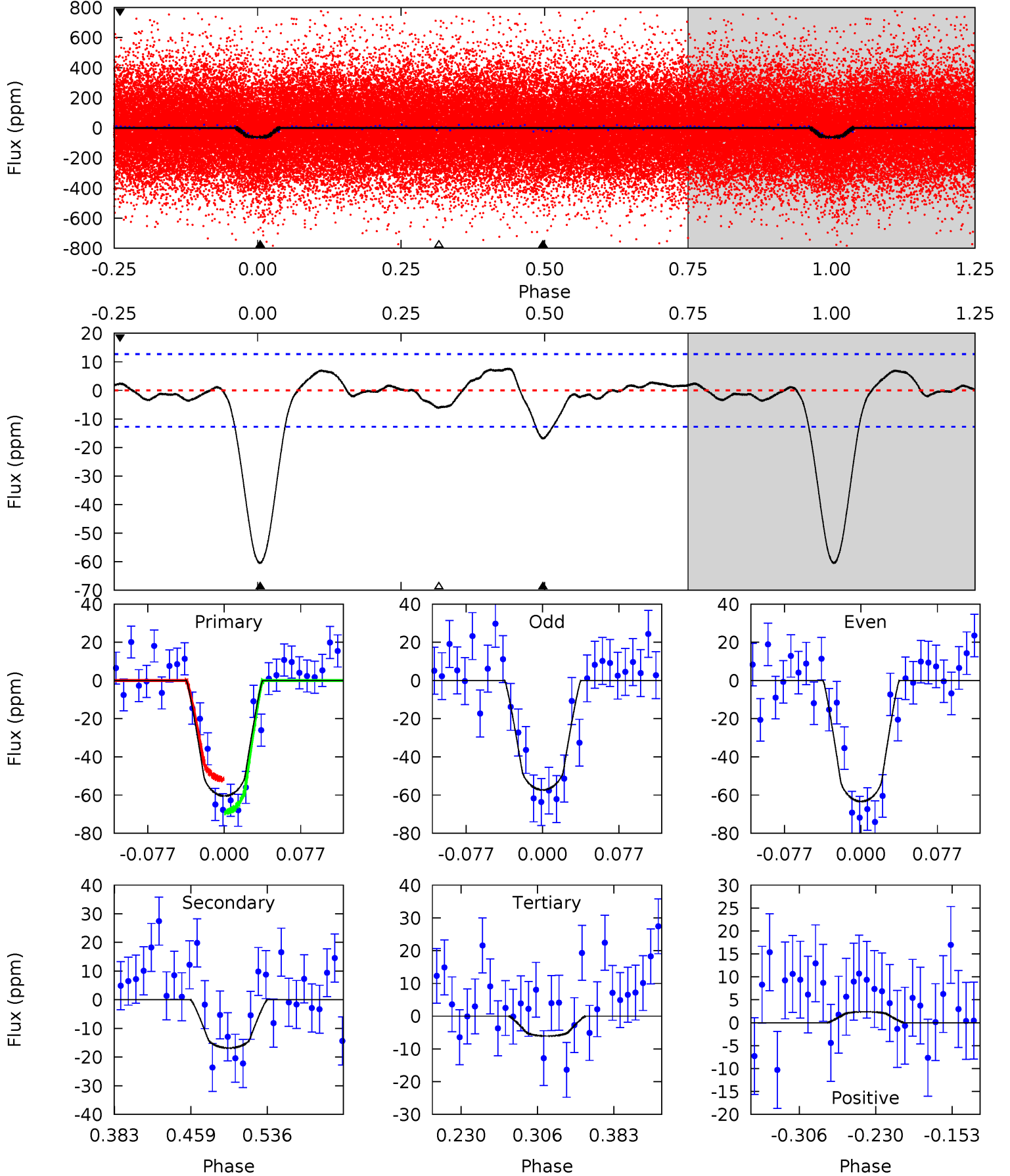
TCE 006610064-01 P= 1.168295 Days $T_0=131.847187$ (BKJD)



DV Model-Shift Uniqueness Test

006610064-01, P = 1.168283 Days, E = 130.681324 Days

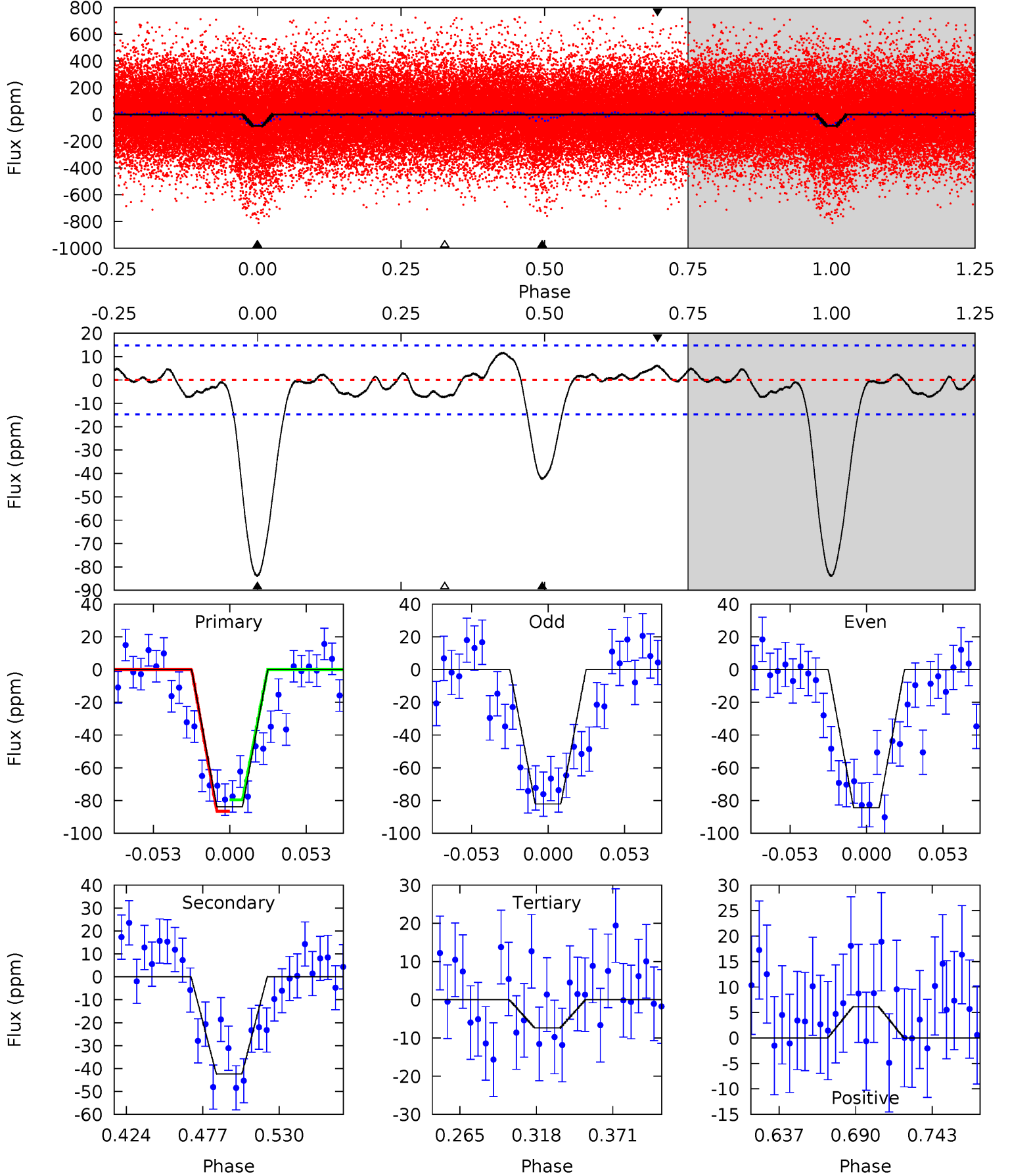
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	6.12	2.21	0.86	4.62	1.77	1.12	19.7	21.1	3.91	5.26	1.10	0.99	0.11	3.11



Alt Model-Shift Uniqueness Test

006610064-01, P = 1.168295 Days, E = 130.678892 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.6	13.5	2.34	1.95	4.70	1.93	1.31	24.3	24.7	11.1	11.5	0.36	1.51	0.12	1.11



Stellar Parameters For KIC 006610064

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5427^{+160}_{-144}	$4.347^{+0.184}_{-0.225}$	$0.060^{+0.250}_{-0.250}$	$1.031^{+0.346}_{-0.213}$	$0.861^{+0.108}_{-0.072}$	$1.108^{+1.031}_{-0.615}$
	+3%/-3%	+4%/-5%	+417%/-417%	+34%/-21%	+13%/-8%	+93%/-56%
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 006610064-01 / KOI 4529.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-17 ± 3	$0.95^{+0.51}_{-0.46}$	2373^{+217}_{-170}	4037^{+1241}_{-608}	$4.398^{+12.370}_{-2.619}$
Alt.	-42 ± 3	$1.18^{+0.54}_{-0.47}$	2372^{+221}_{-165}	4475^{+1015}_{-584}	$7.352^{+12.495}_{-3.958}$

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 $A_{obs} \gg 1.0$

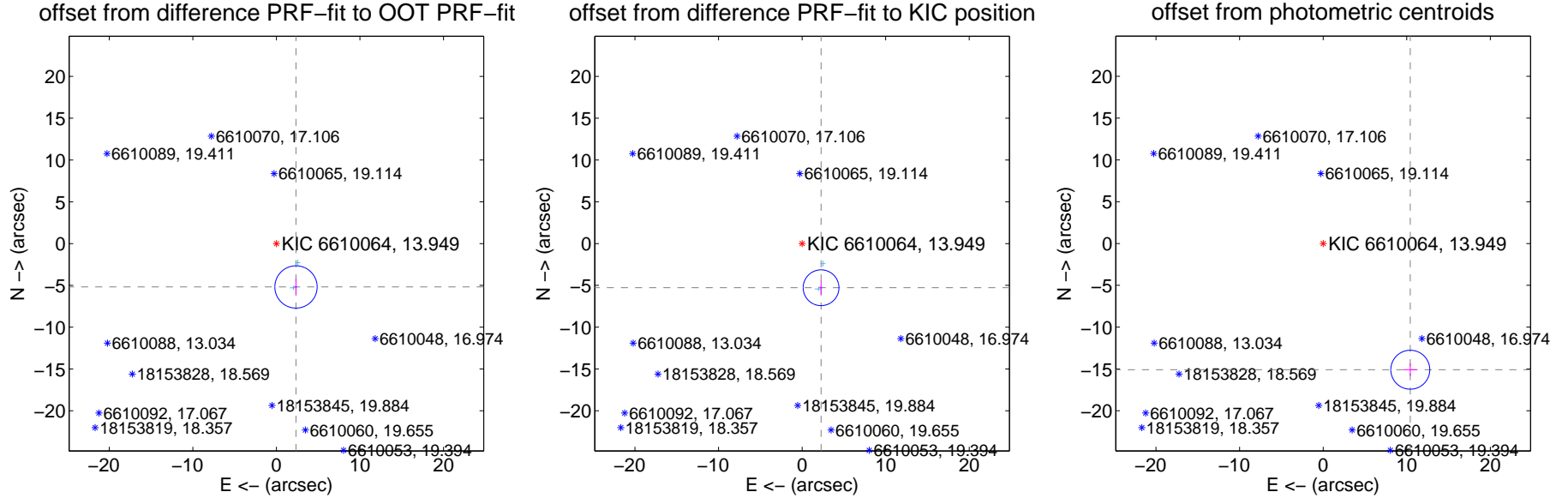
DV Centroid Data

Supplemental centroid analysis for 006610064-01. Kepler magnitude: 13.95. Transit SNR 12.54

There are 3 quarters with good PRF difference image offsets

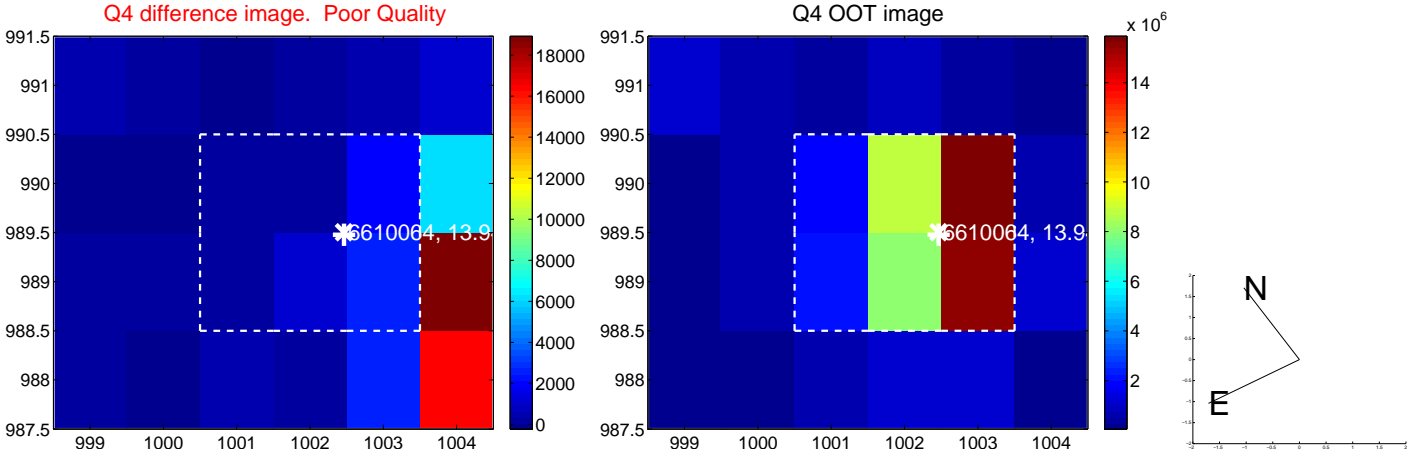
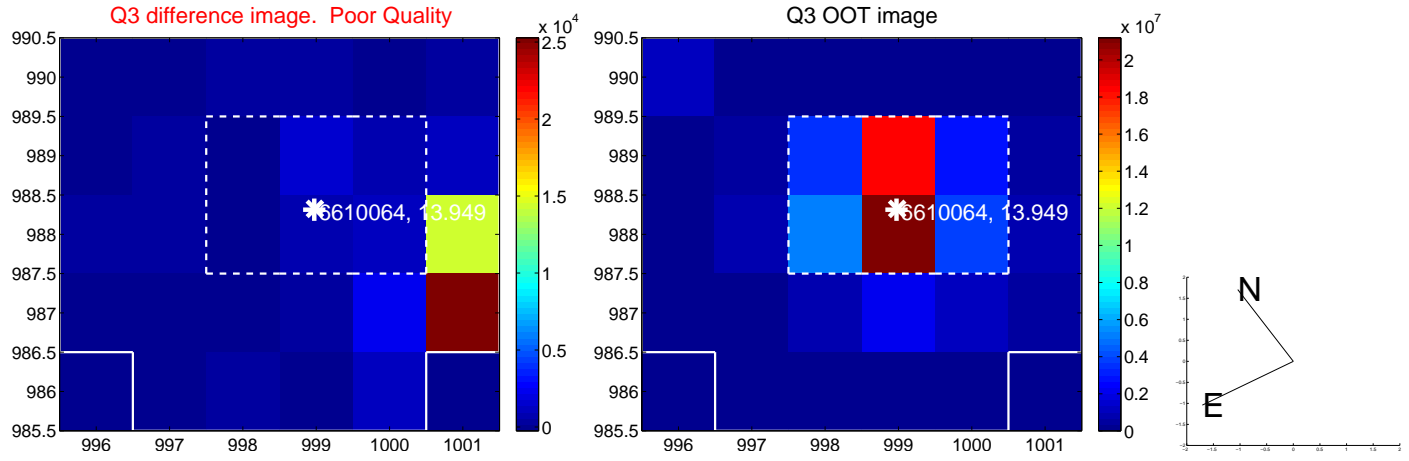
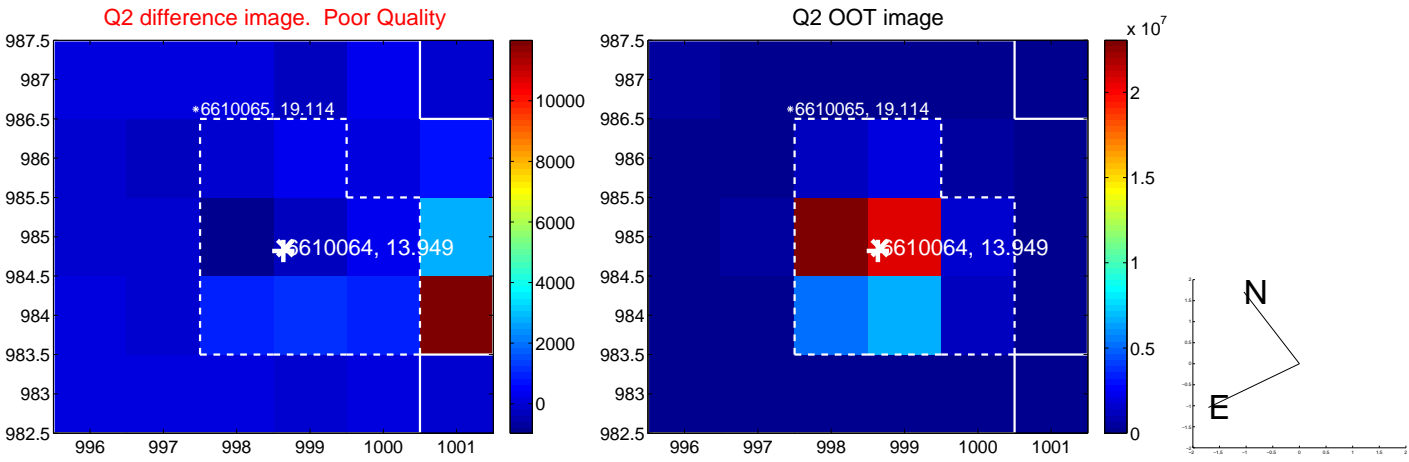
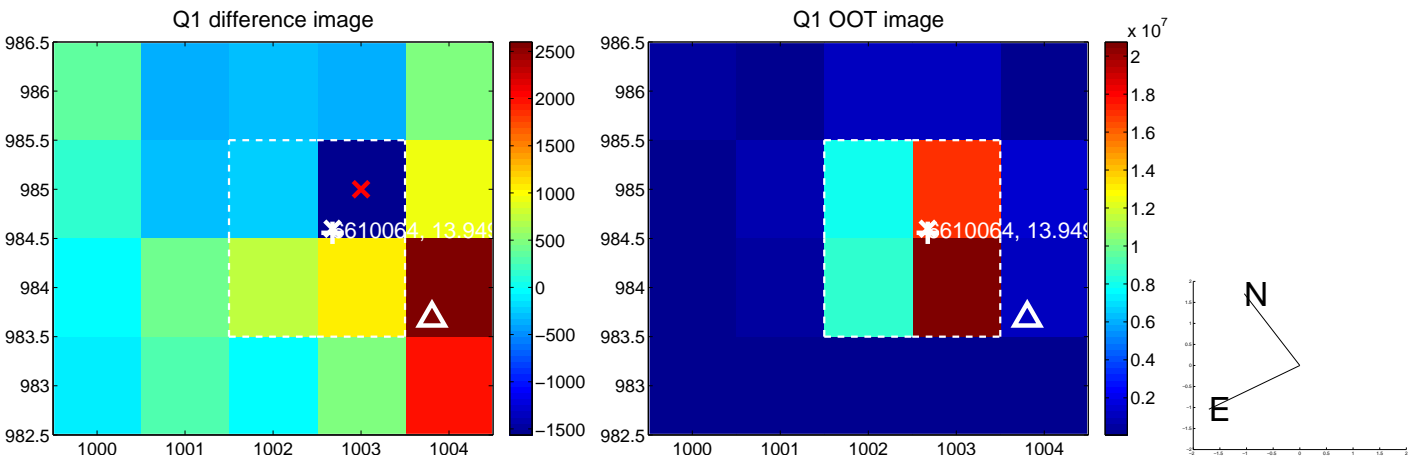
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.694 ± 0.844	6.75	-2.346 ± 0.161	-5.188 ± 0.987
PRF-fit source offset from KIC position	5.749 ± 0.713	8.06	-2.270 ± 0.172	-5.282 ± 0.836
photometric centroid source offset	18.34 ± 0.78	23.62	-10.42 ± 0.81	-15.09 ± 0.76

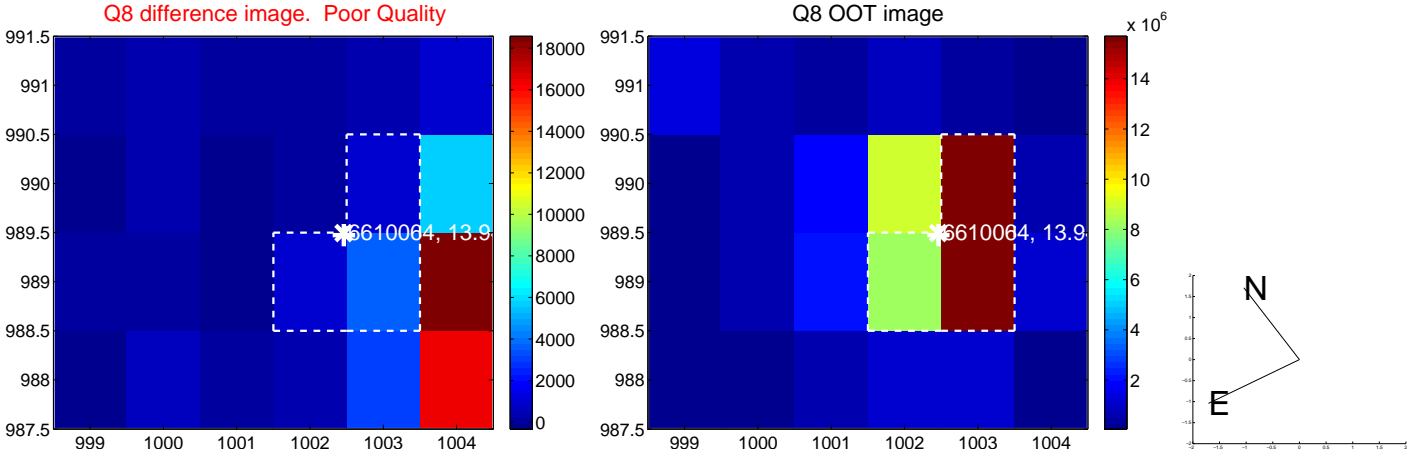
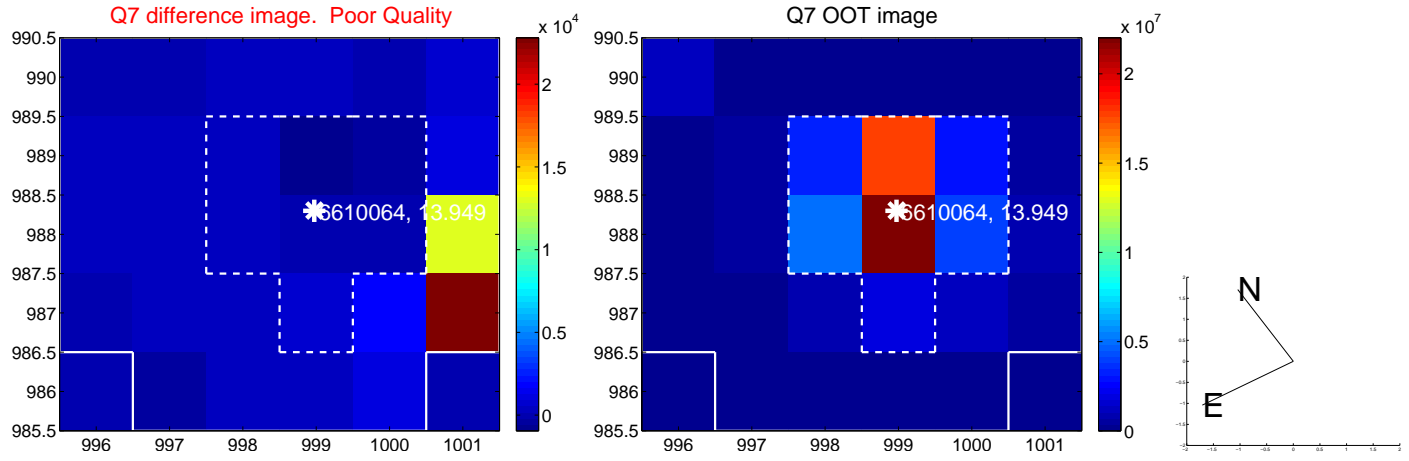
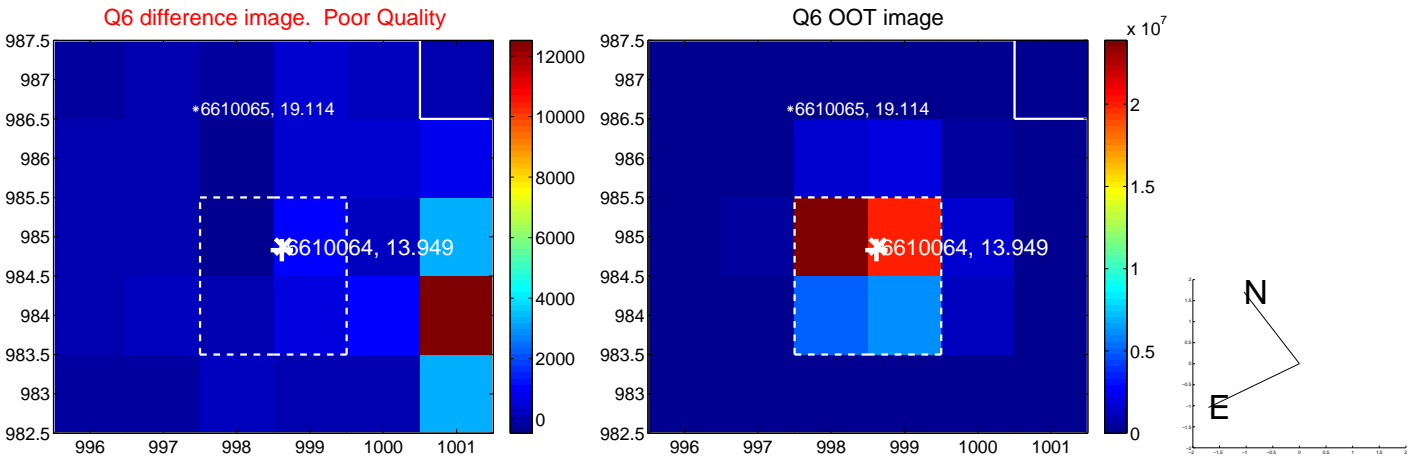
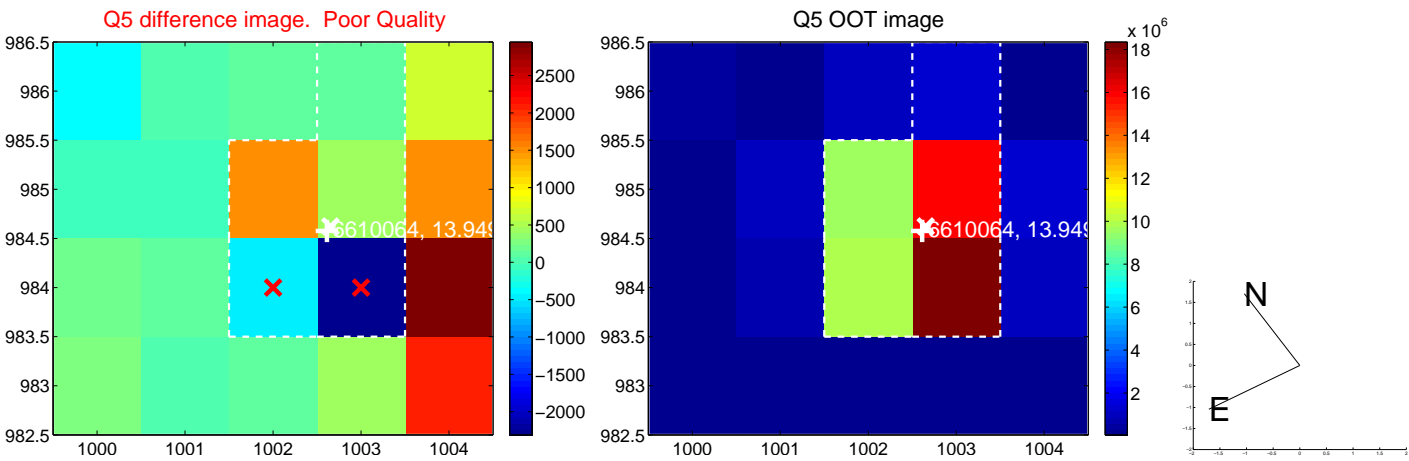


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

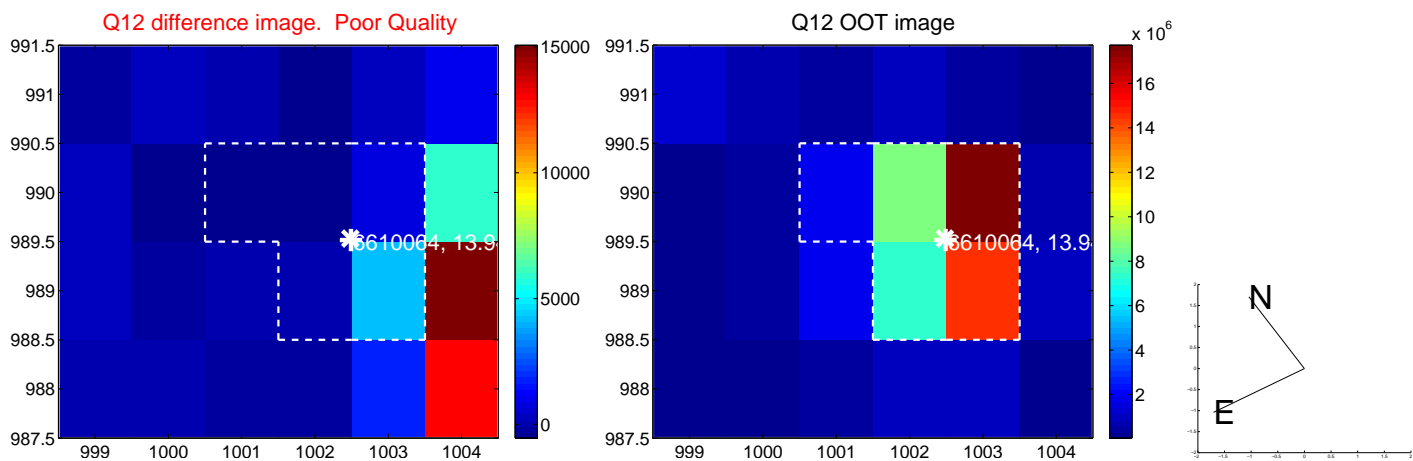
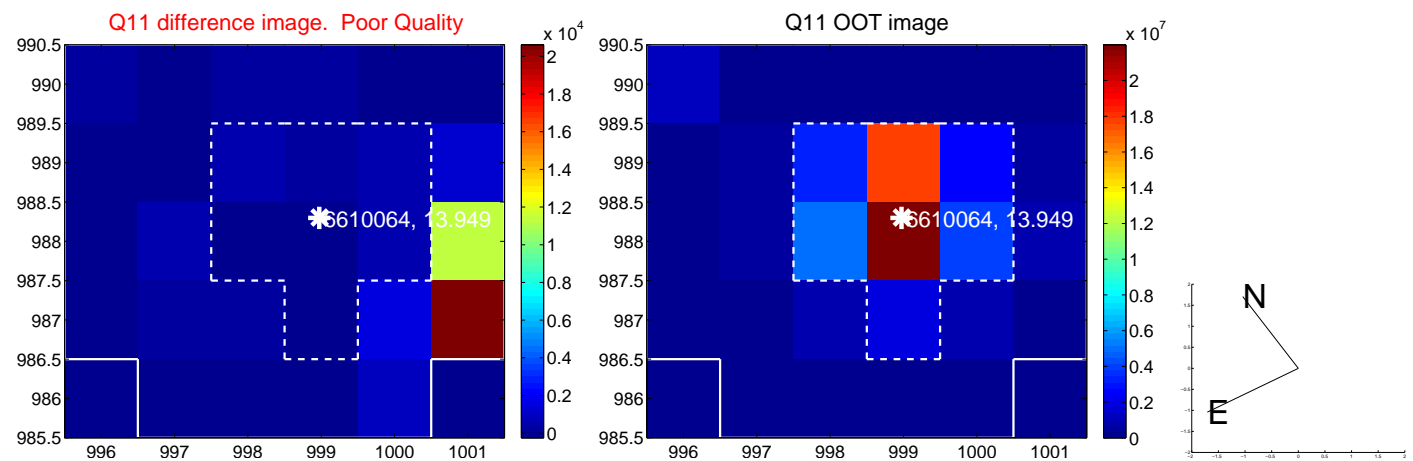
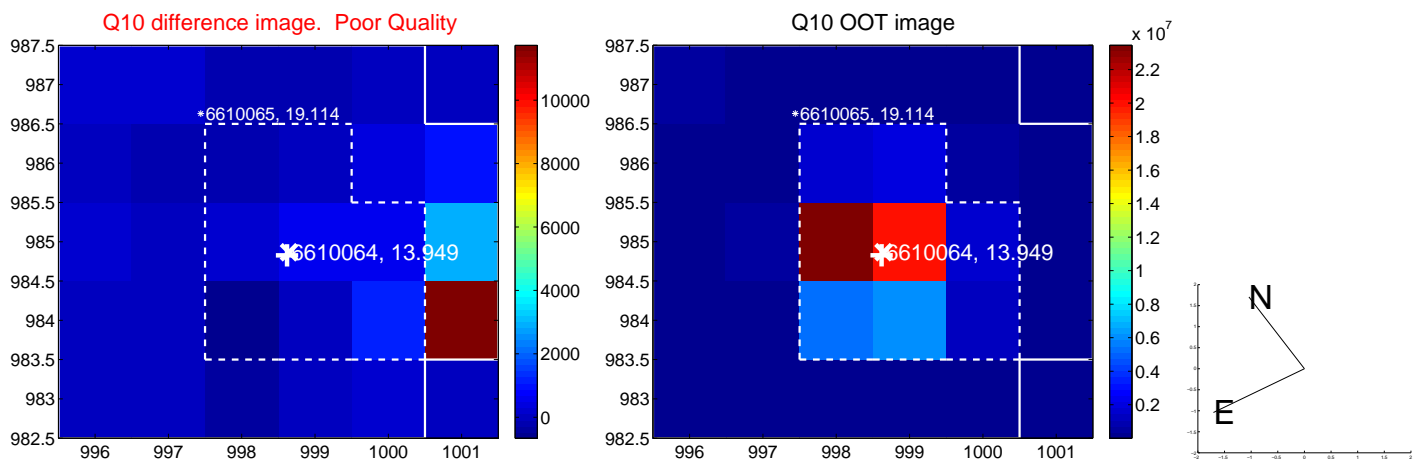
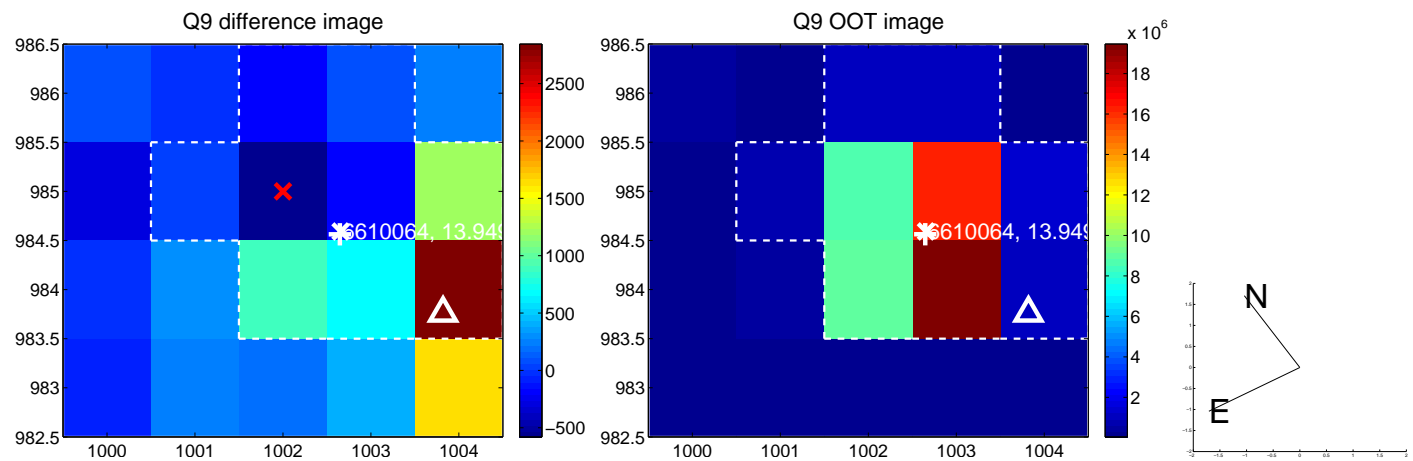
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



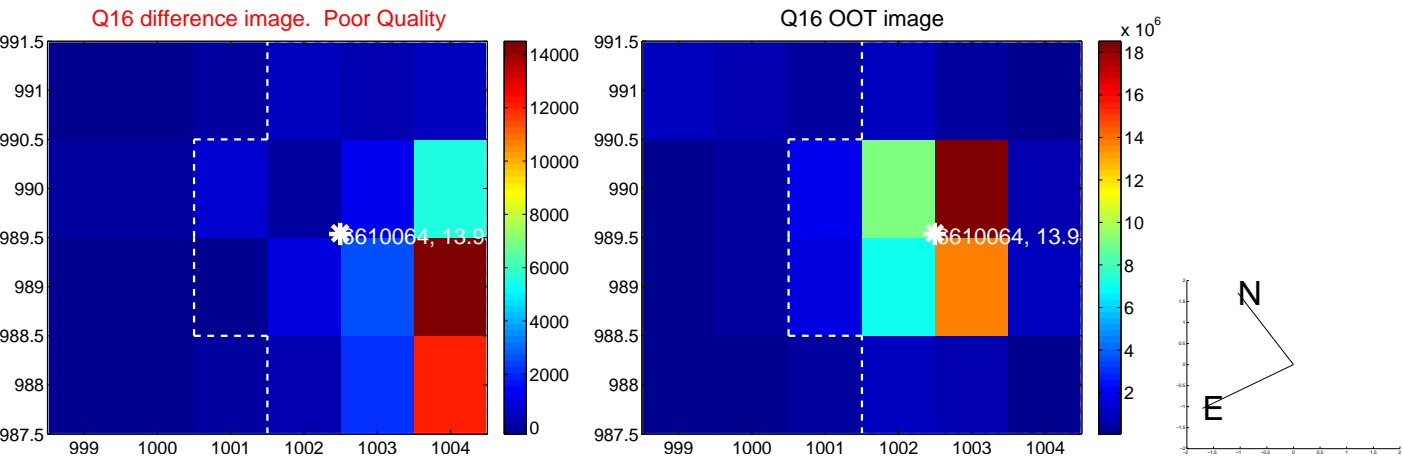
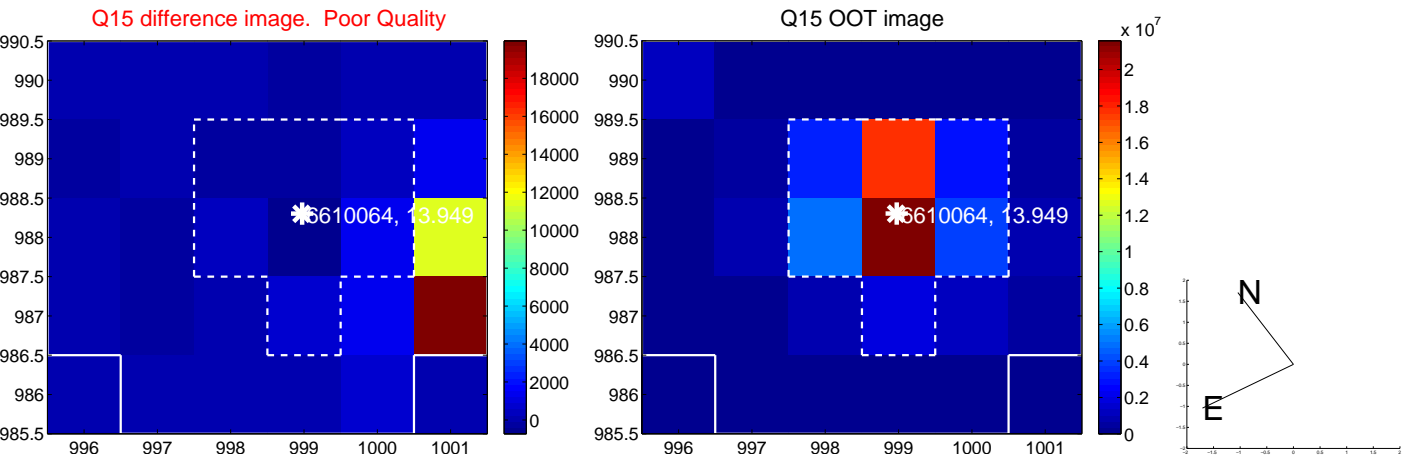
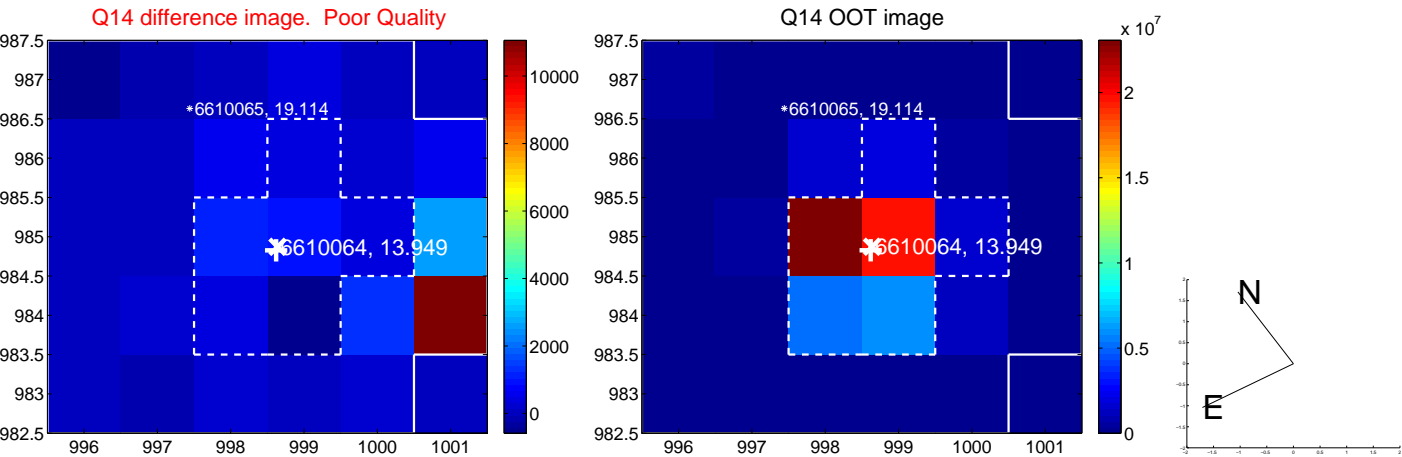
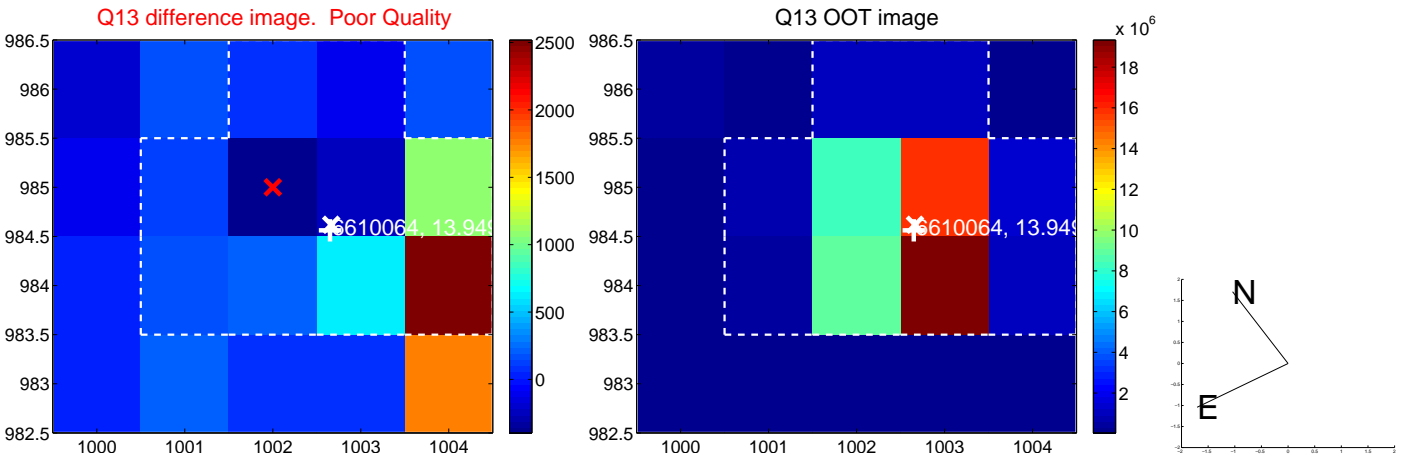
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



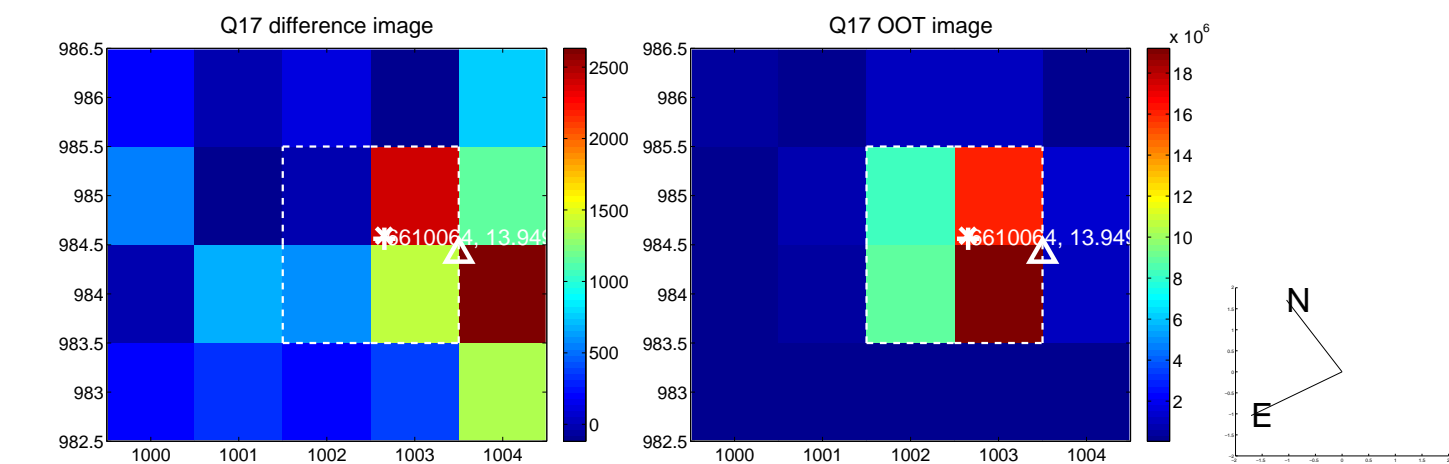
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



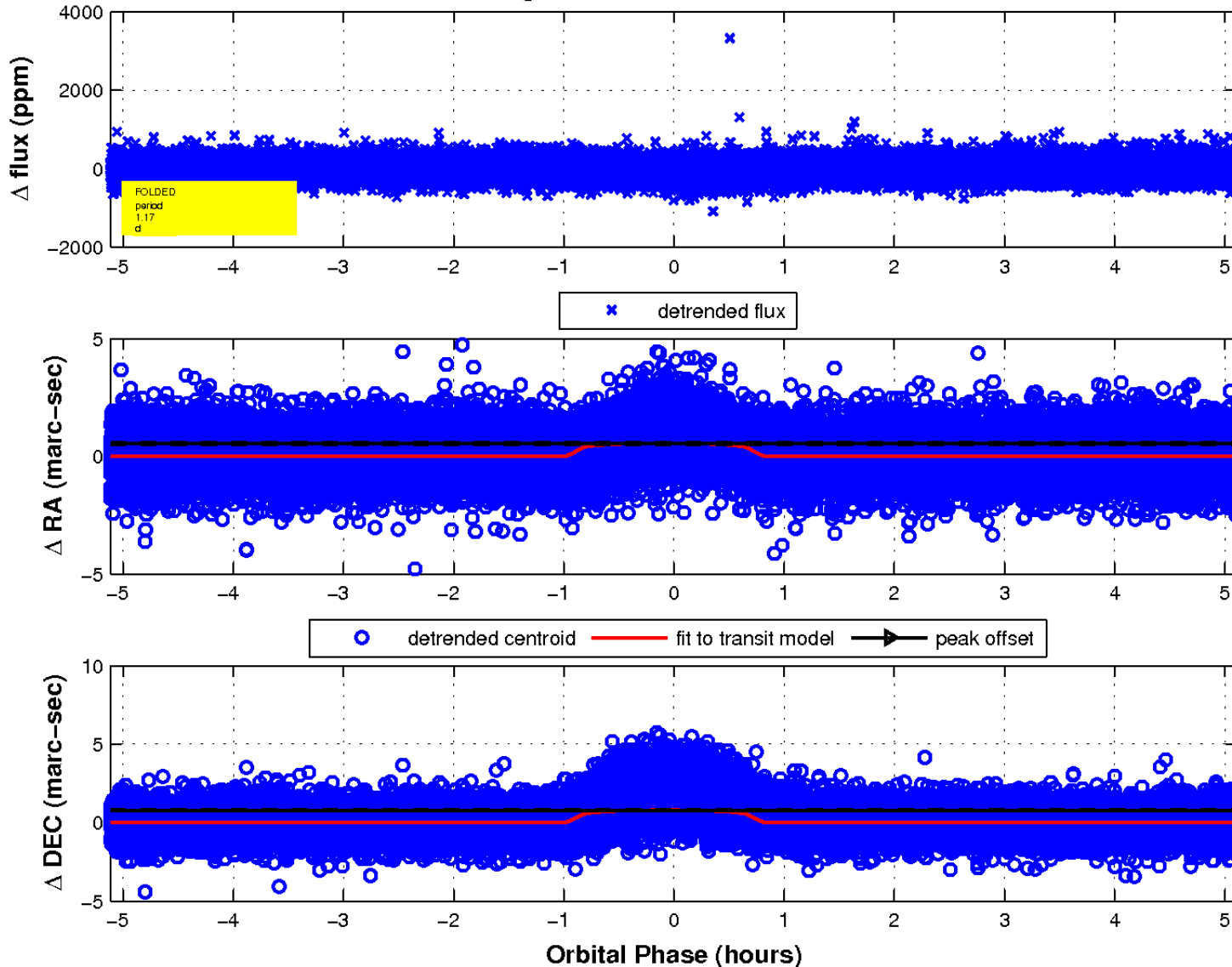
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

