

KIC 007582602

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})
007582602-01	OBS	No	0.528989	132.032176	32.8	4.277	8.5	3.3	0.69	5523	0.40	3158.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007582602-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

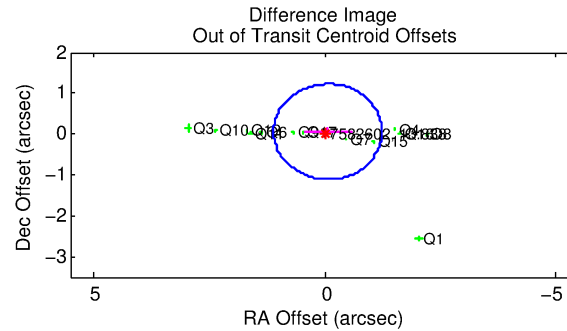
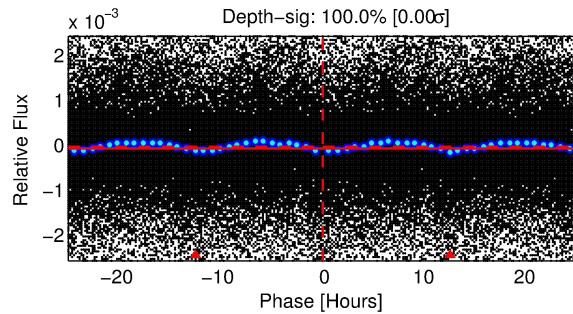
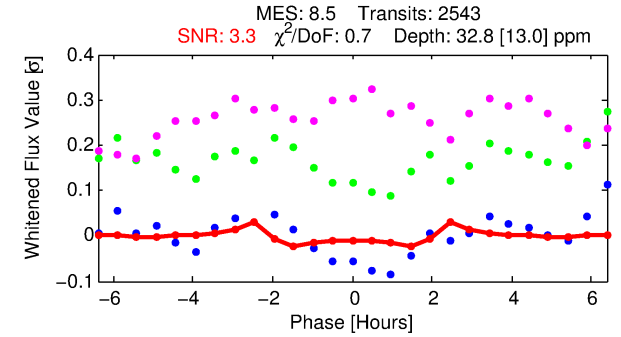
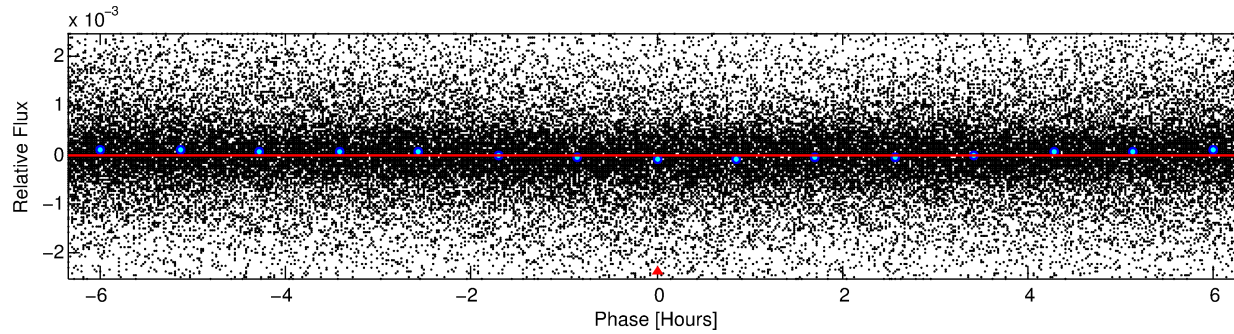
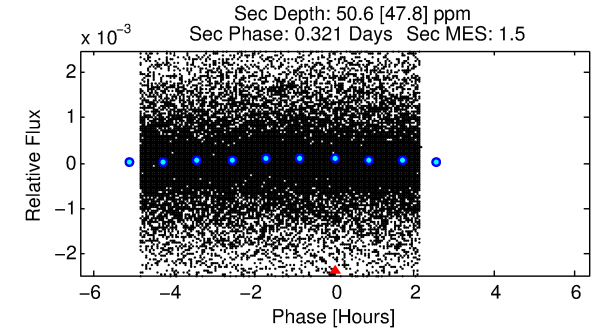
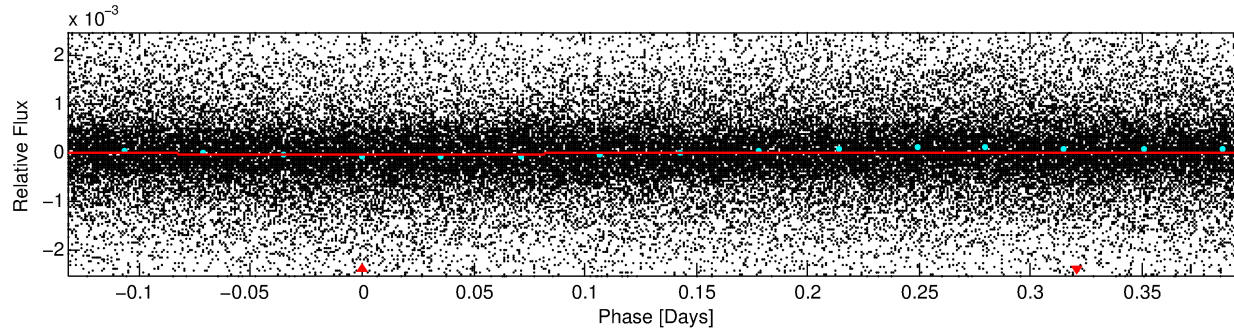
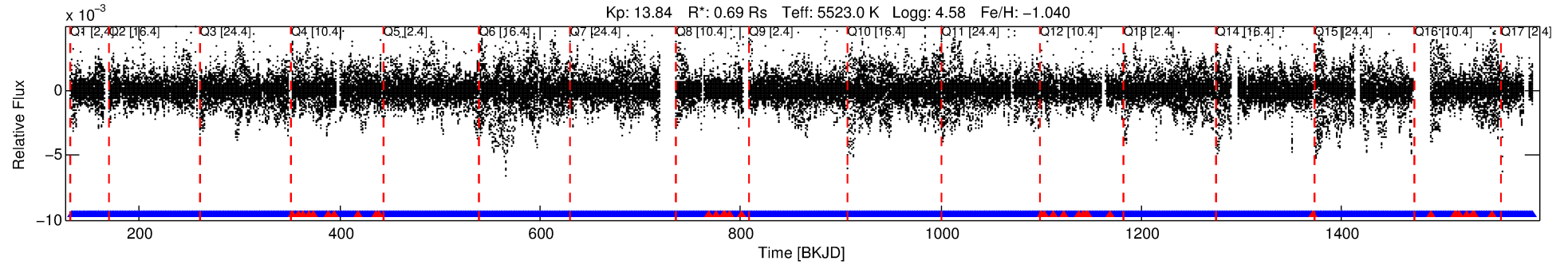
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007582602-01

No Significant Match Found

DV One-Page Summary

KIC: 7582602 Candidate: 1 of 1 Period: 0.529 d



DV Fit Results:

Period = 0.52899 [0.00003] d
Epoch = 132.0322 [0.0041] BKJD
Rp/R* = 0.0054 [0.0055]
a/R* = 1.12 [1.14]
b = 0.50 [7.77]
Seff = 3158.34 [614.08]
Teq = 1912 [93] K
Rp = 0.40 [0.41] Re
a = 0.0111 [0.0010] AU
Ag = 21.19 [47.35] [0.43σ]
Teffp = 6341 [3541] K [1.25σ]

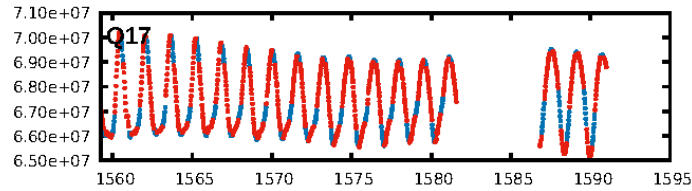
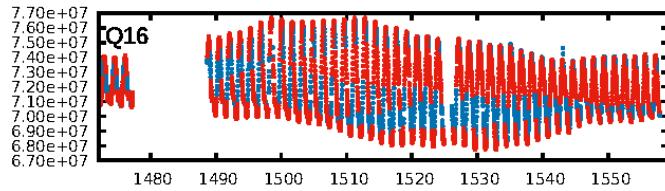
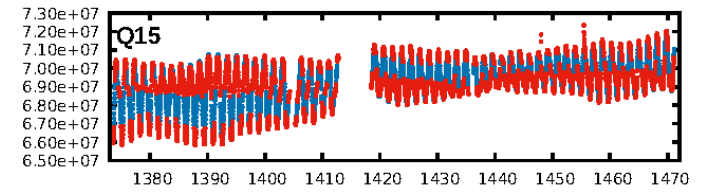
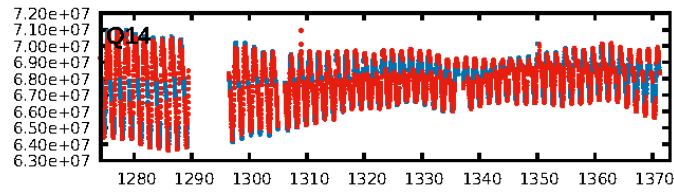
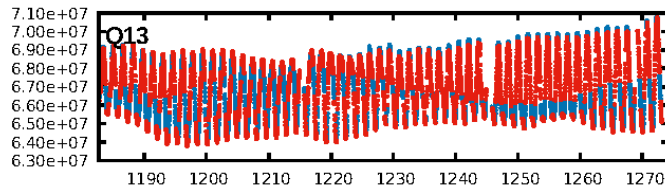
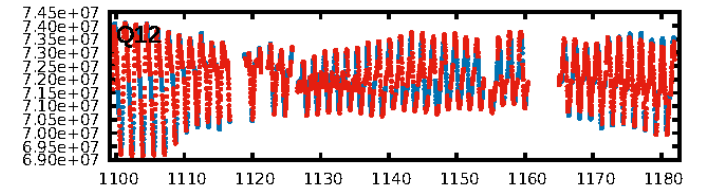
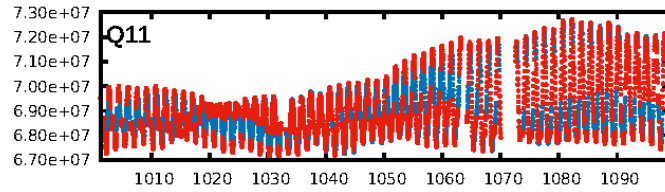
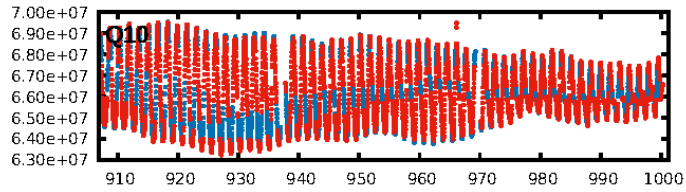
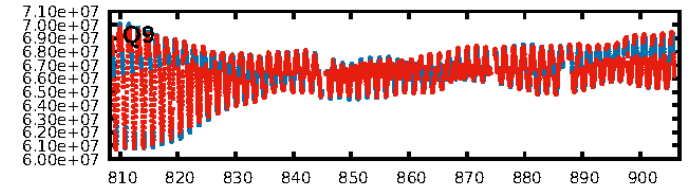
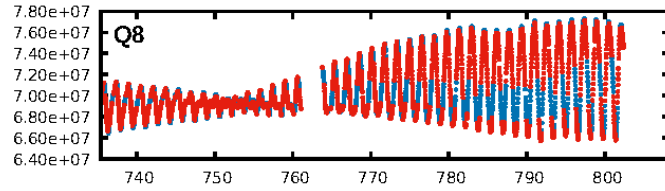
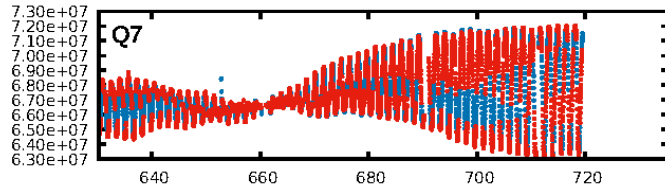
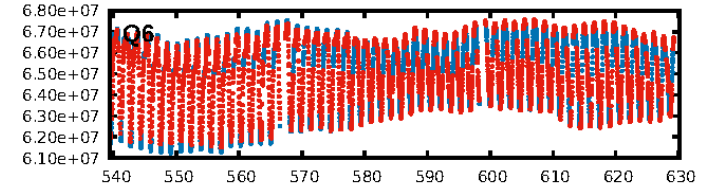
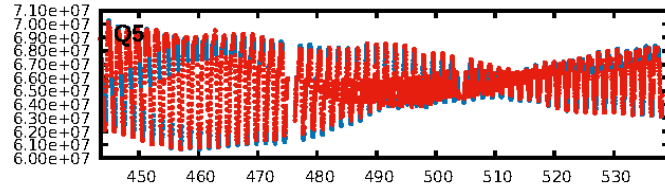
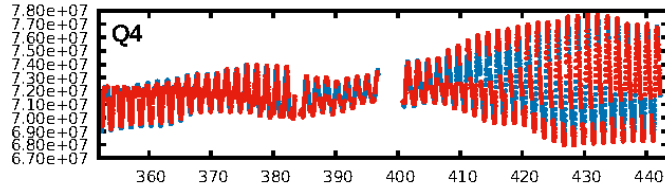
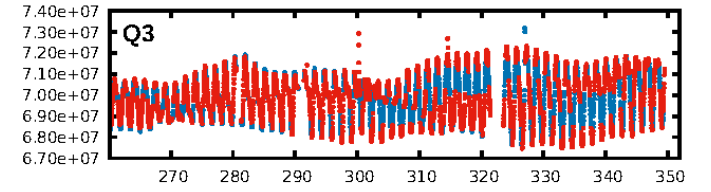
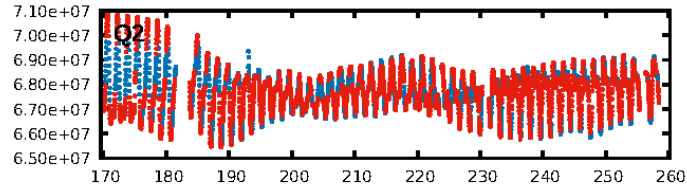
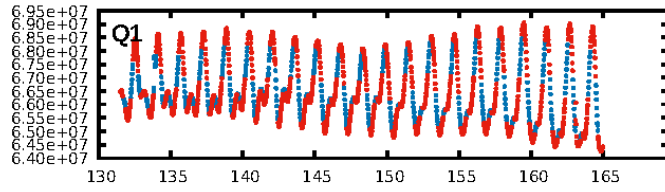
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [2392/2427]
GhostDiagnostic-chr: 0.3539
Centroid-sig: 0.7%
Centroid-so: 1.057 arcsec [1.37σ]
OotOffset-rm: 0.086 arcsec [0.22σ]
OotOffset-st: 2/4/4/3 [13]
KicOffset-rm: 0.286 arcsec [0.67σ]
KicOffset-st: 2/4/4/3 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [17/17]

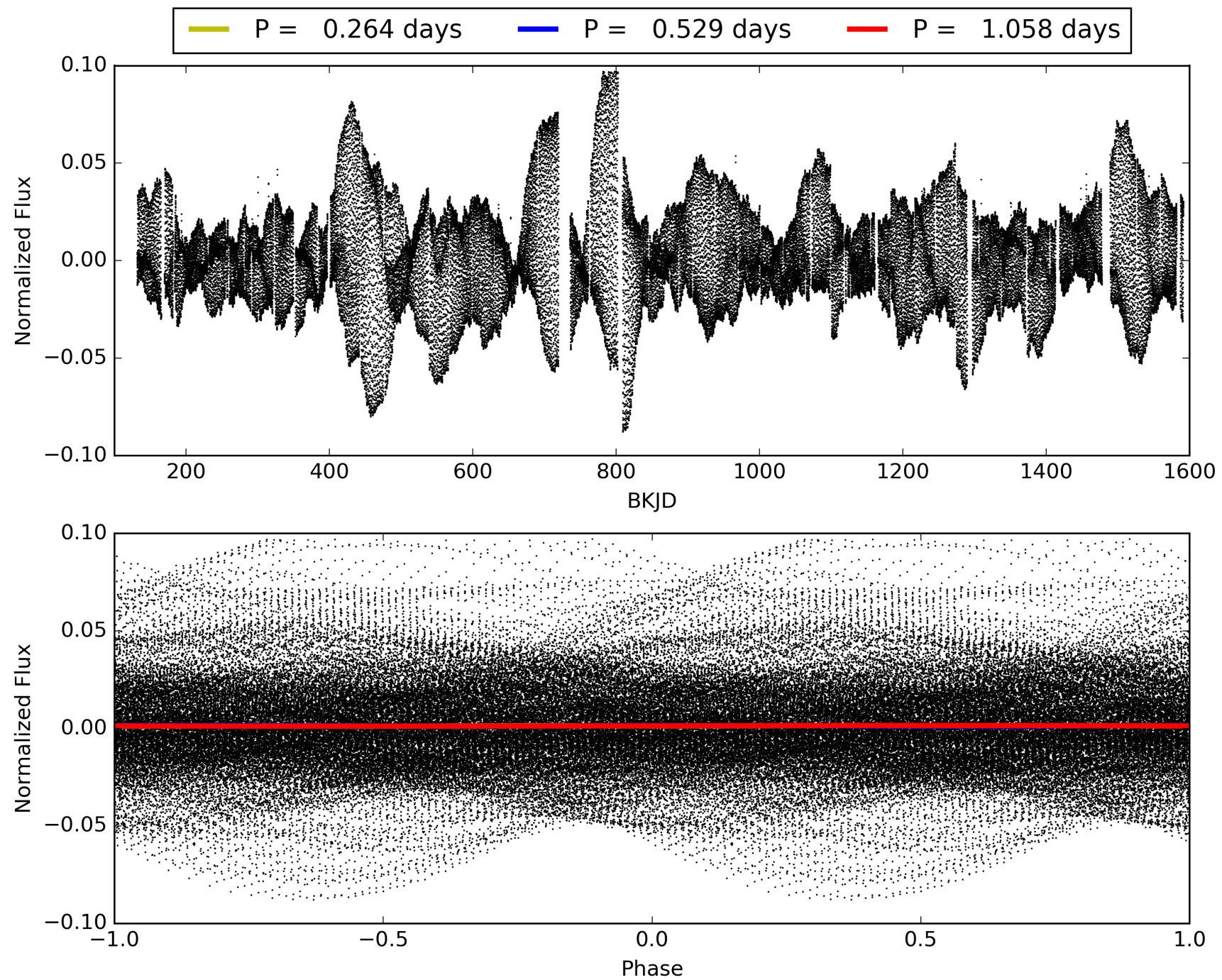
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:39:45 Z

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

TCE 007582602-01, PDC Light Curves

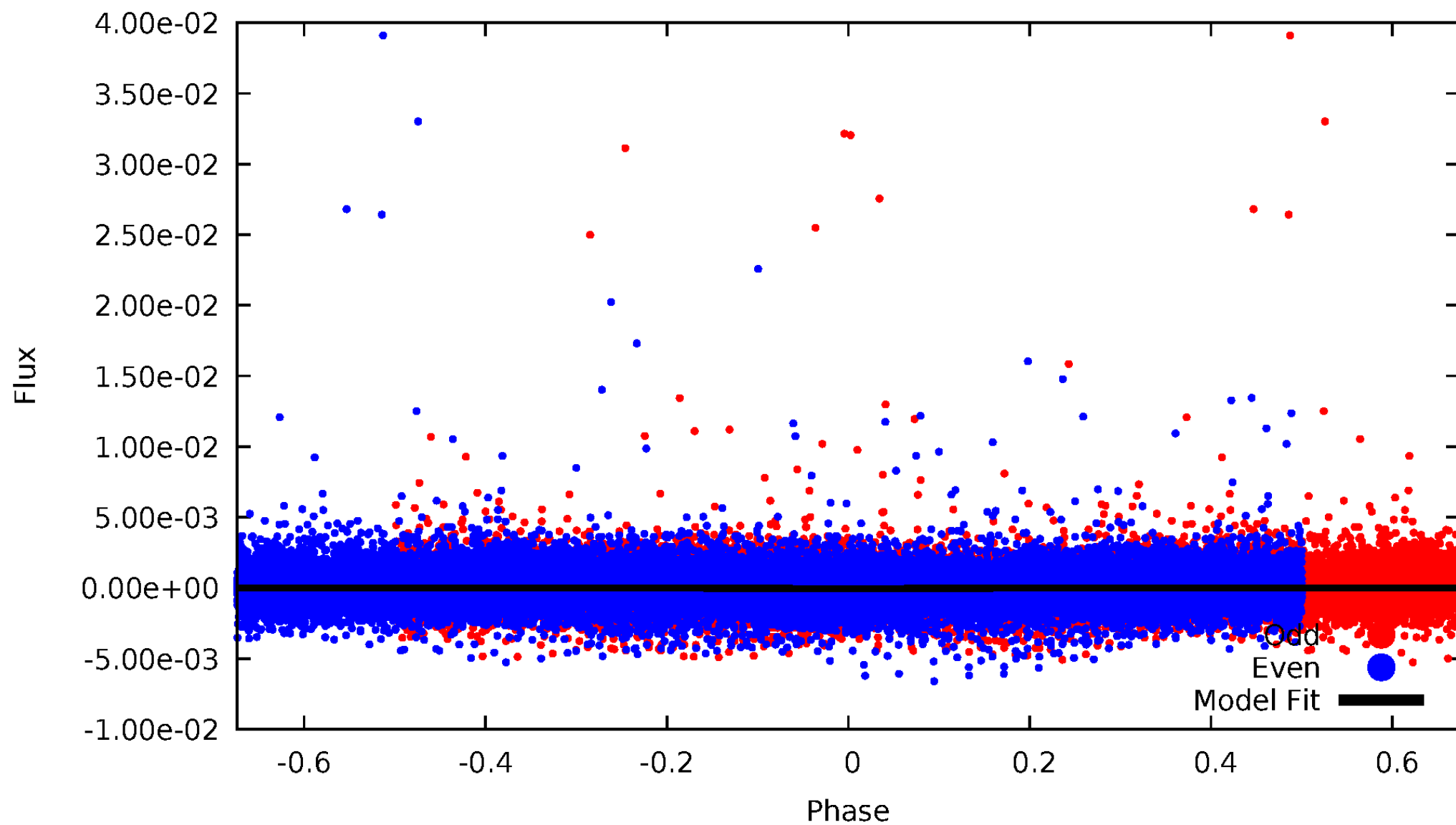


TCE 007582602-01



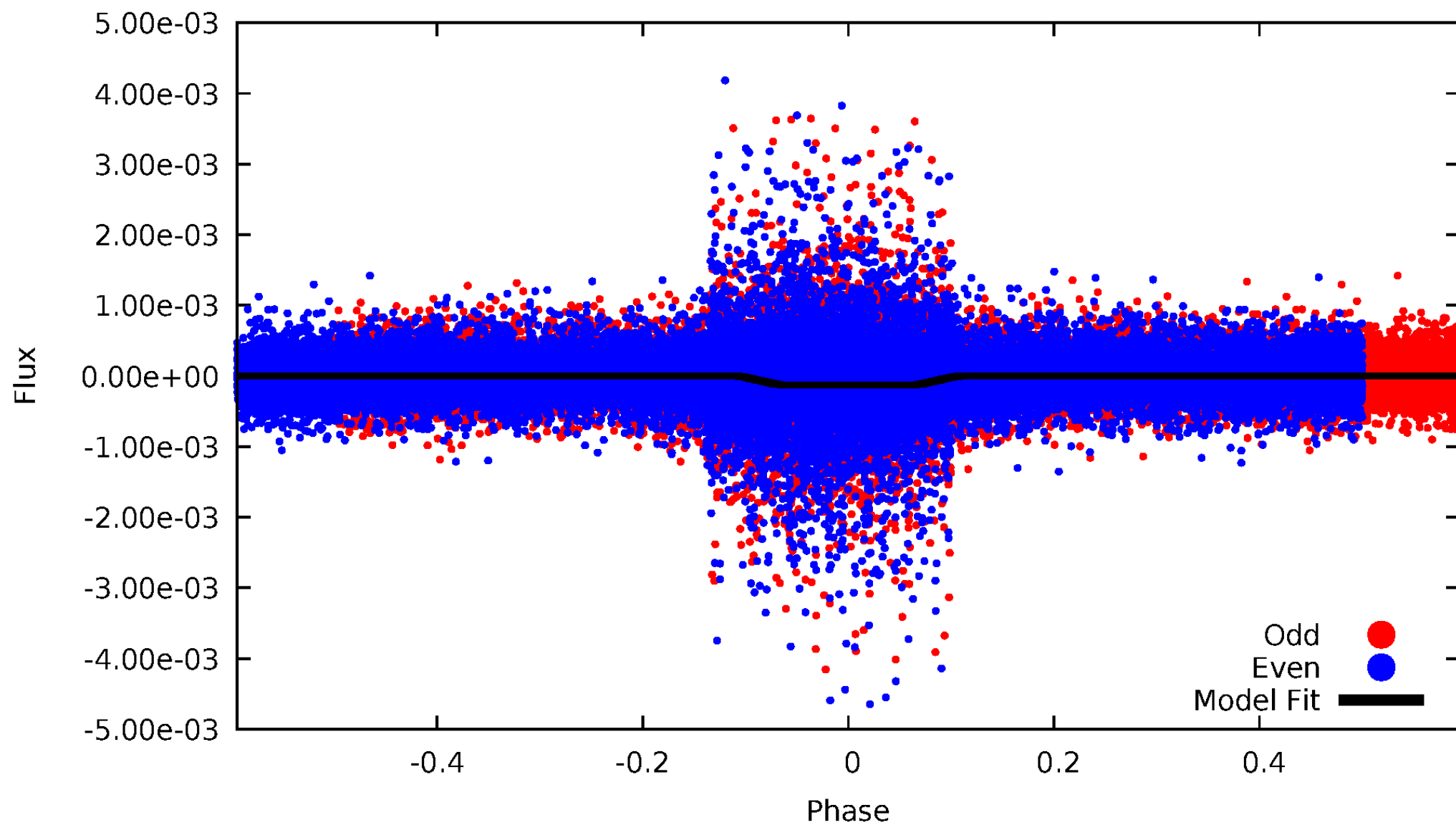
DV Odd/Even

TCE 007582602-01



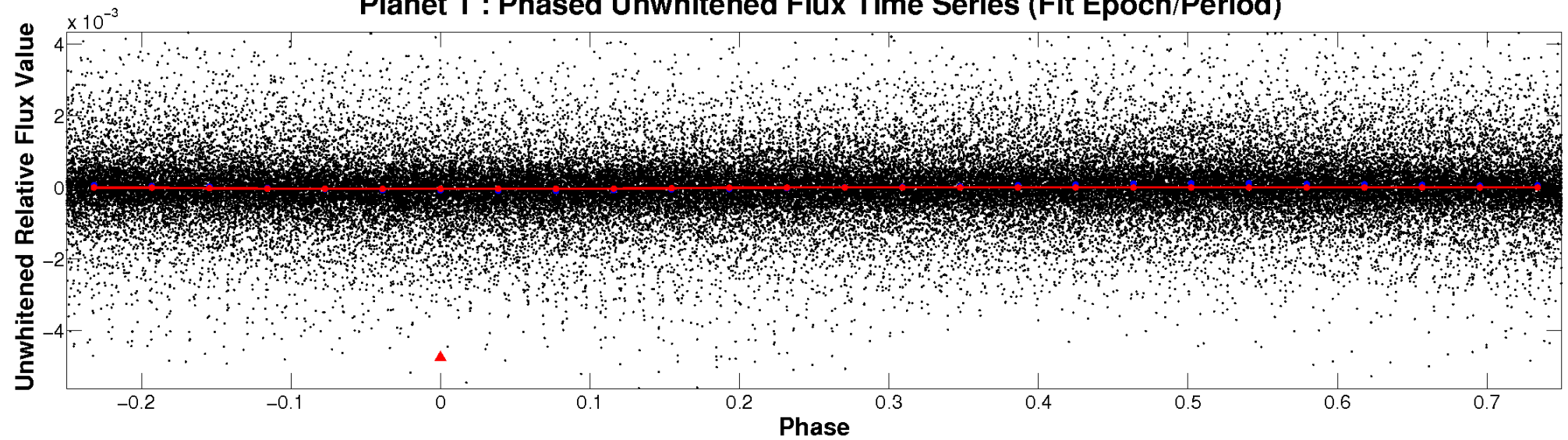
ALT Odd/Even

TCE 007582602-01

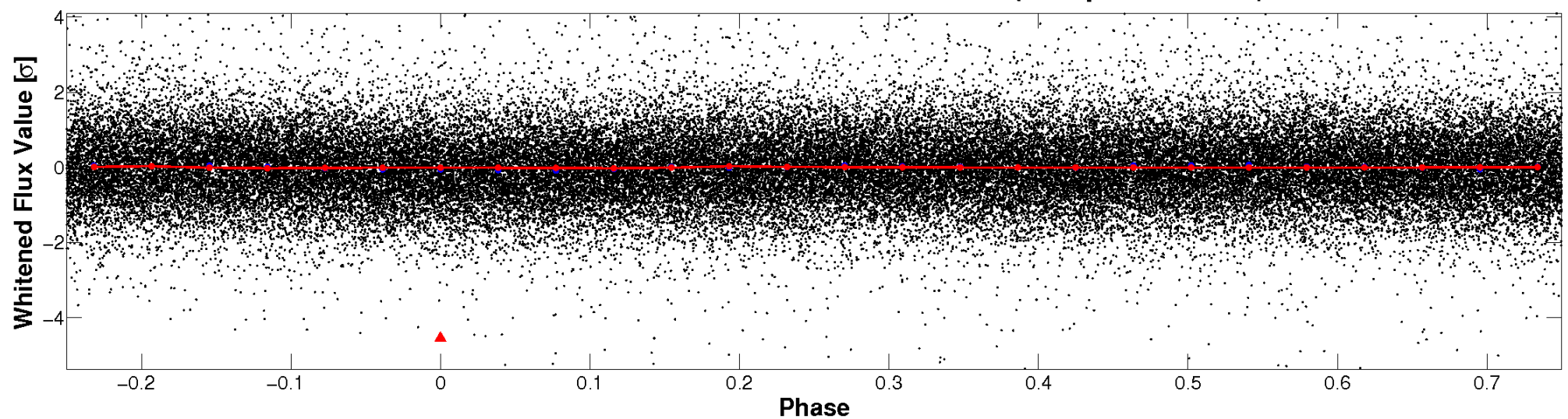


Non-Whitened Vs. Whitened Light Curve

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

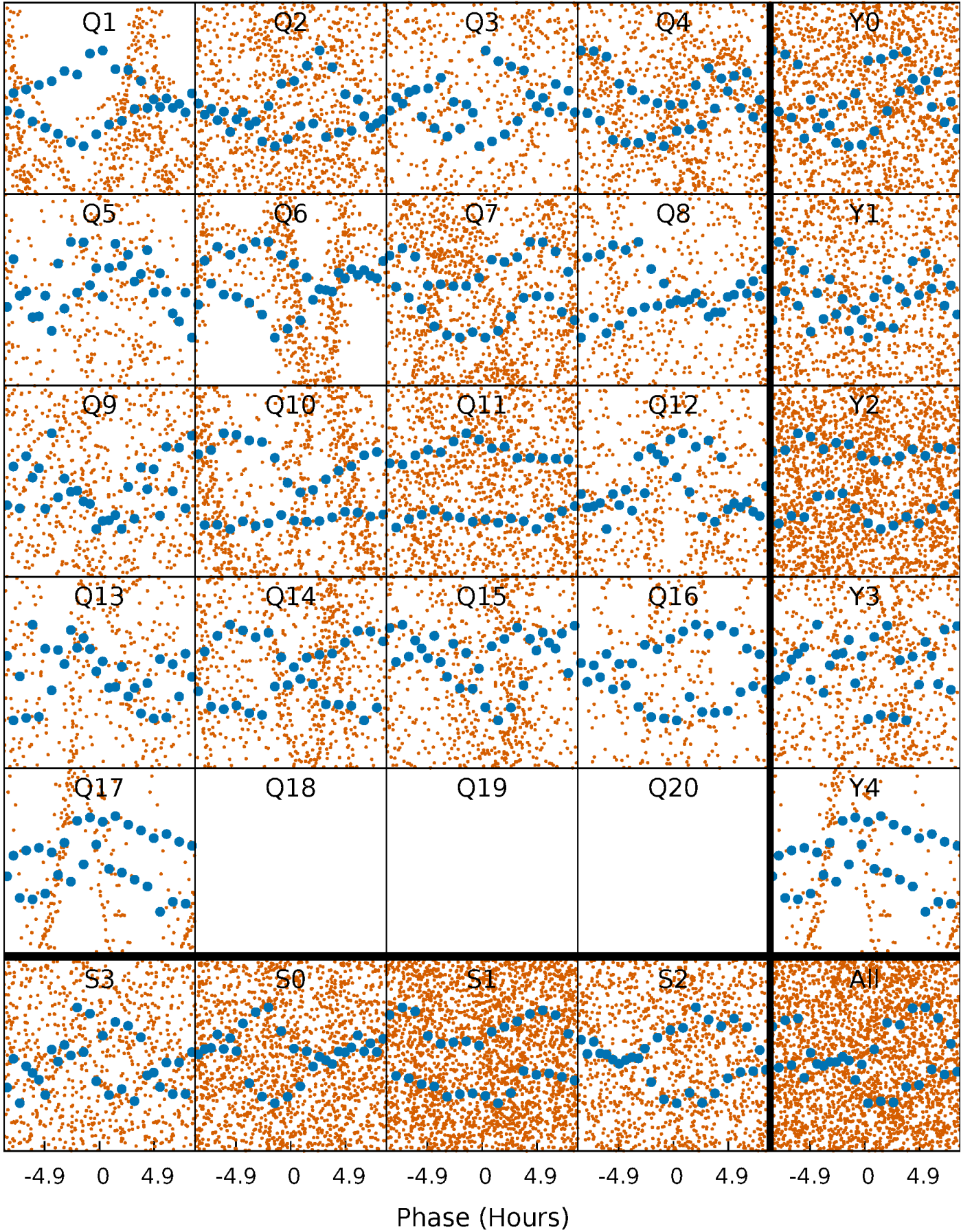


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



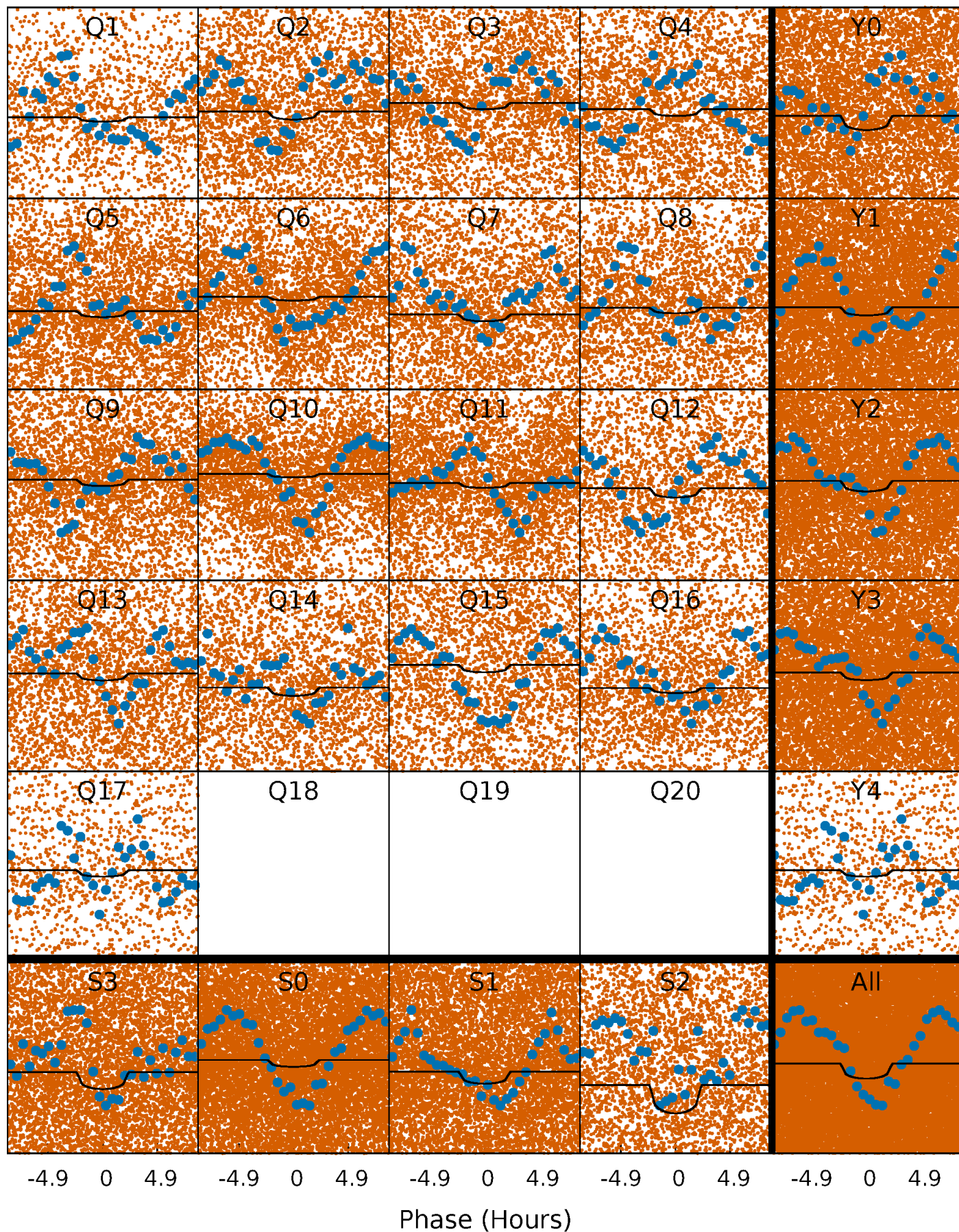
PDC Quarter-Phased Transit Curves

TCE 007582602-01 P= 0.528989 Days $T_0=132.032176$ (BKJD)



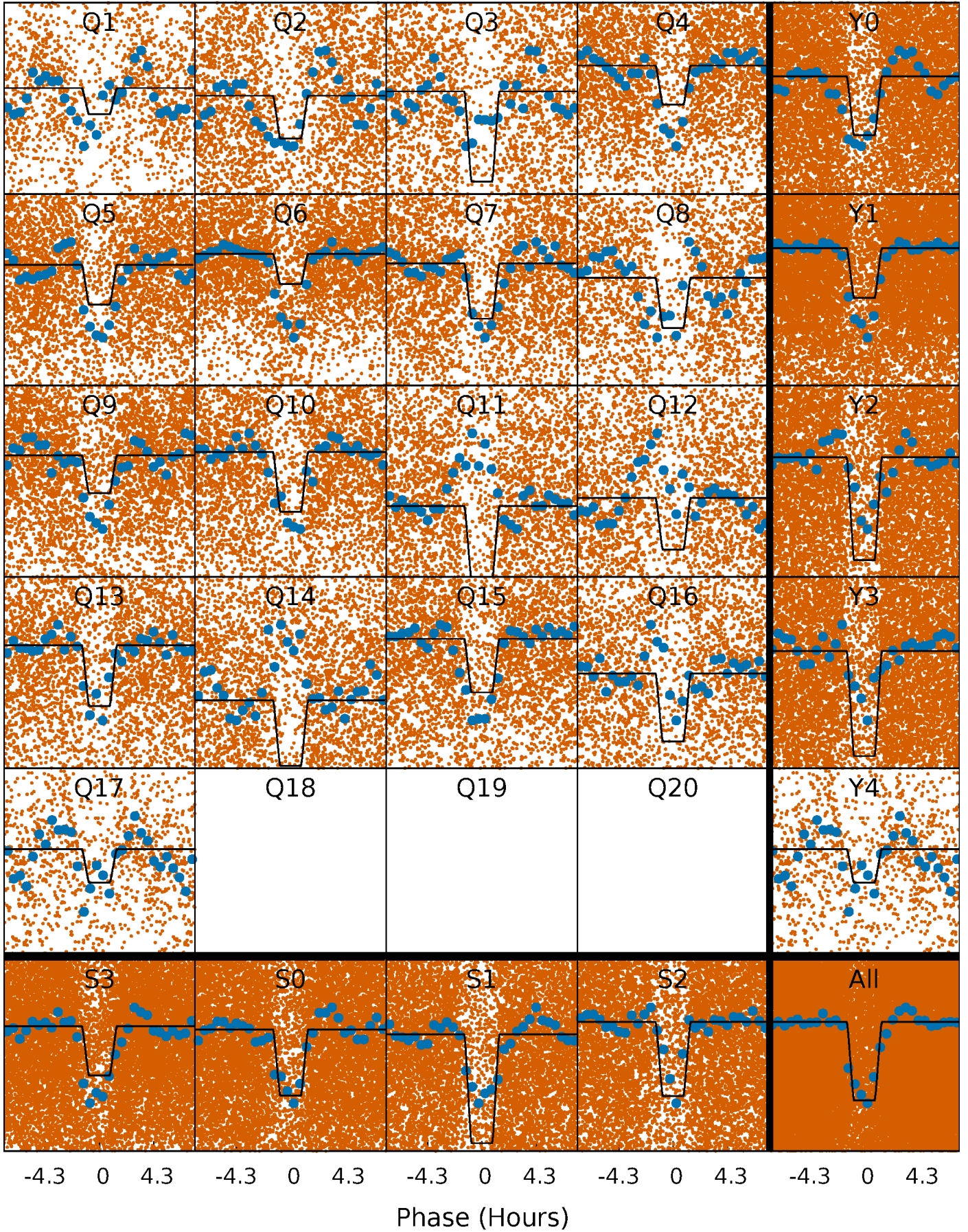
DV Quarter-Phased Transit Curves

TCE 007582602-01 P= 0.528989 Days $T_0=132.032176$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

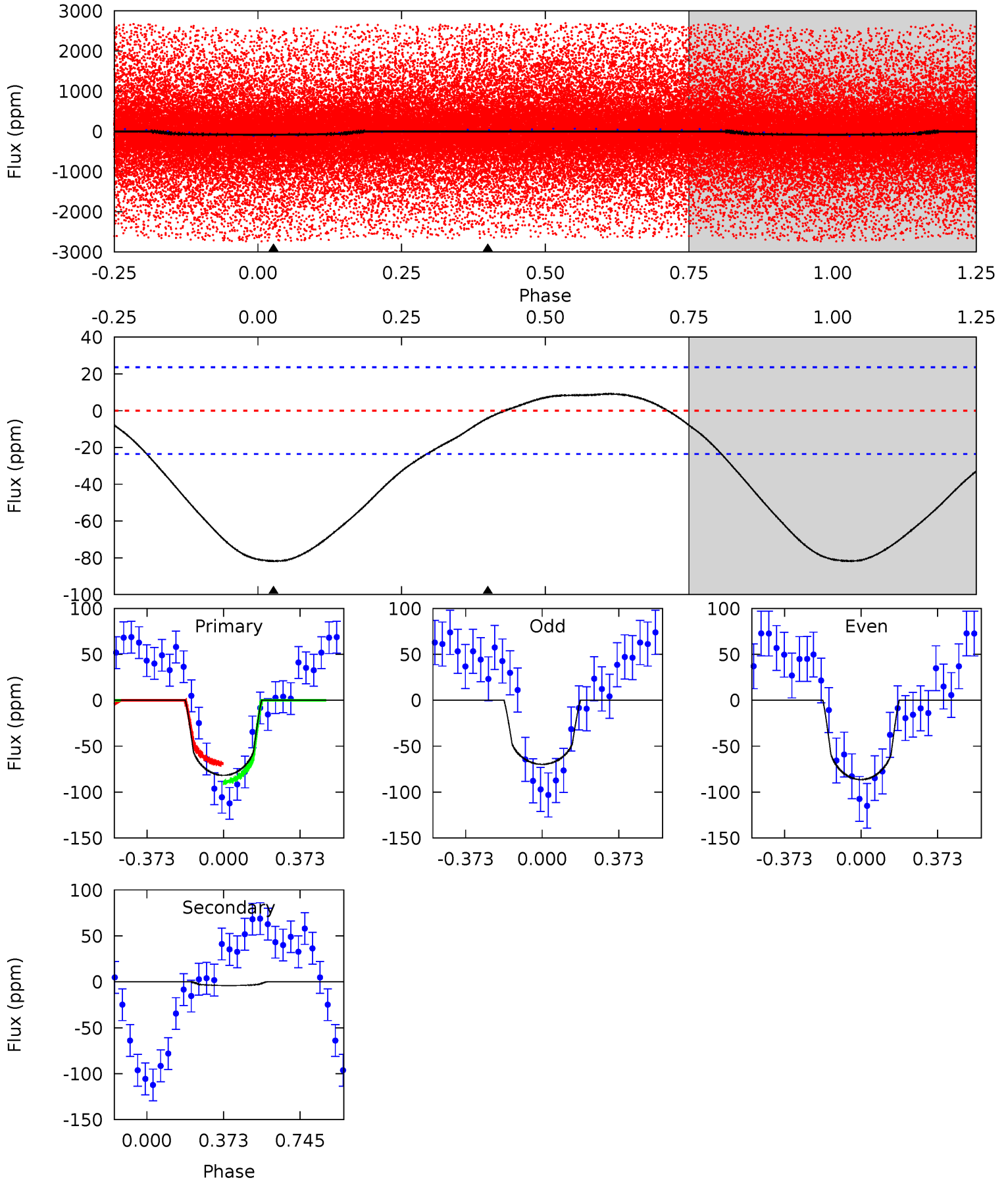
TCE 007582602-01 P= 0.529020 Days $T_0=132.012388$ (BKJD)



DV Model-Shift Uniqueness Test

007582602-01, P = 0.528989 Days, E = 131.503187 Days

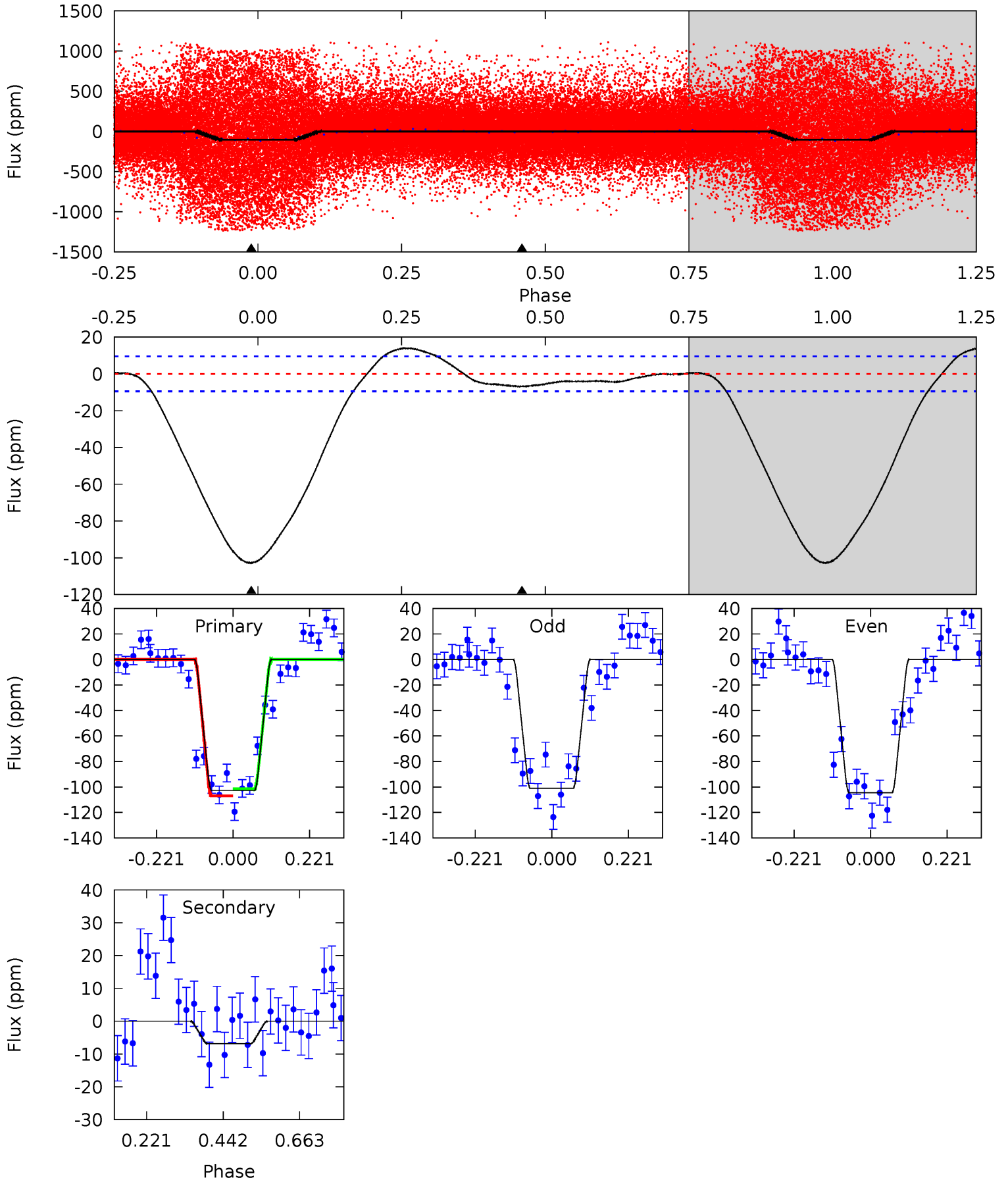
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	0.73	0	0	4.28	0.89	0.98	14.8	14.8	0.73	0.73	1.53	1.26	0.10	1.89



Alt Model-Shift Uniqueness Test

007582602-01, P = 0.529020 Days, E = 131.483368 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
47.5	3.17	0	0	4.40	1.22	2.14	47.5	47.5	3.17	3.17	0.81	1.16	0.12	1.28



Stellar Parameters For KIC 007582602

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5523^{+181}_{-148}	$4.584^{+0.082}_{-0.067}$	$-1.040^{+0.300}_{-0.300}$	$0.685^{+0.071}_{-0.058}$	$0.656^{+0.068}_{-0.024}$	$2.874^{+0.875}_{-0.612}$
	+3%/-3%	+2%/-1%	+29%/-29%	+10%/-8%	+10%/-4%	+30%/-21%
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 007582602-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 6	$0.50^{+0.35}_{-0.30}$	2655^{+108}_{-99}	3122^{+1525}_{-6282}	$0.815^{+4.934}_{-1.066}$
Alt.	-7 ± 2	$0.84^{+0.39}_{-0.42}$	2660^{+114}_{-105}	2976^{+989}_{-5020}	$0.684^{+1.929}_{-0.402}$

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 $A_{obs} \gg 1.0$

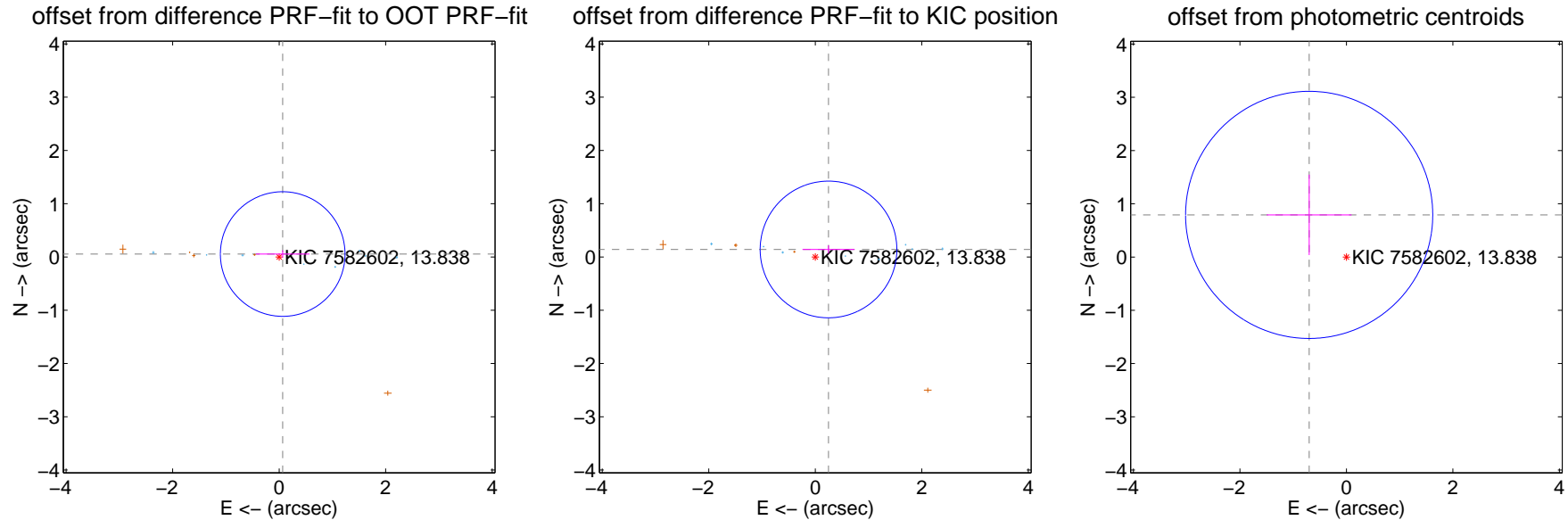
DV Centroid Data

Supplemental centroid analysis for 007582602-01. Kepler magnitude: 13.84. Transit SNR 3.35

There are 8 quarters with good PRF difference image offsets

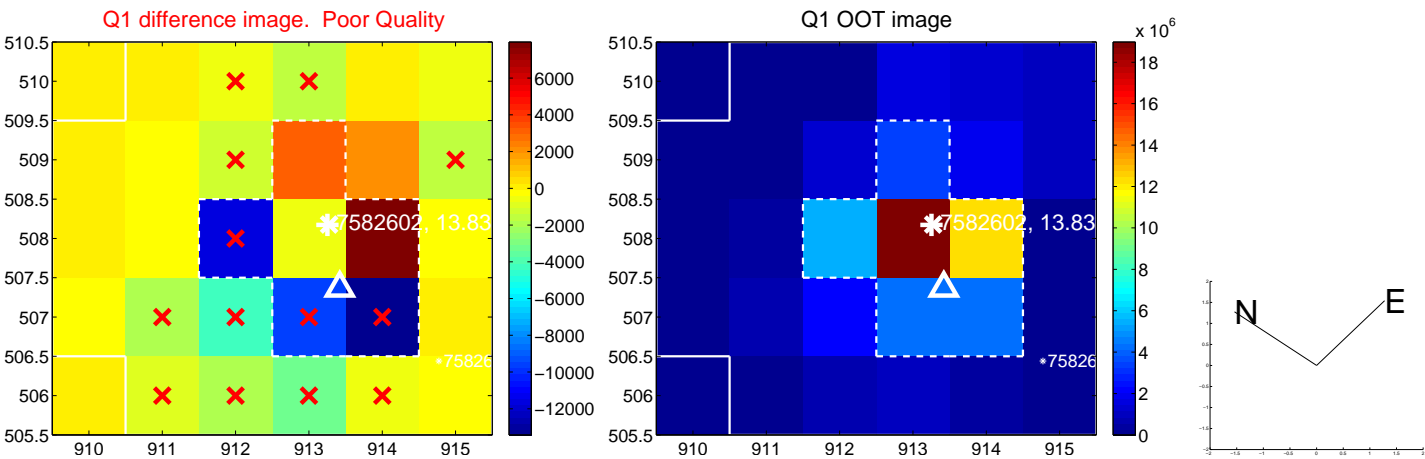
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.086 ± 0.390	0.22	-0.067 ± 0.502	0.055 ± 0.071
PRF-fit source offset from KIC position	0.286 ± 0.428	0.67	-0.248 ± 0.490	0.141 ± 0.076
photometric centroid source offset	1.06 ± 0.77	1.37	0.70 ± 0.80	0.79 ± 0.75

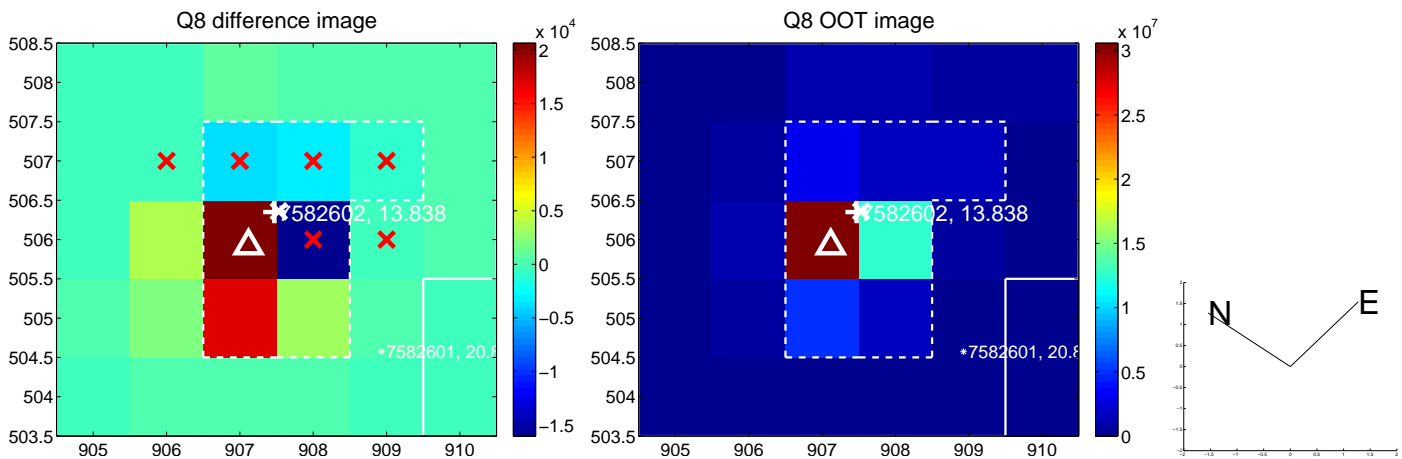
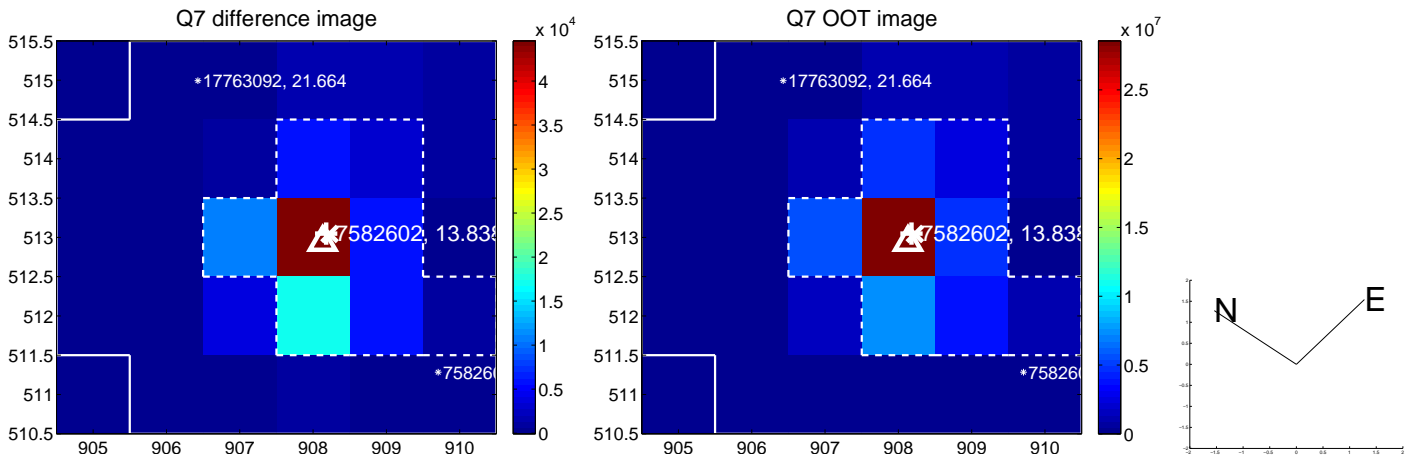
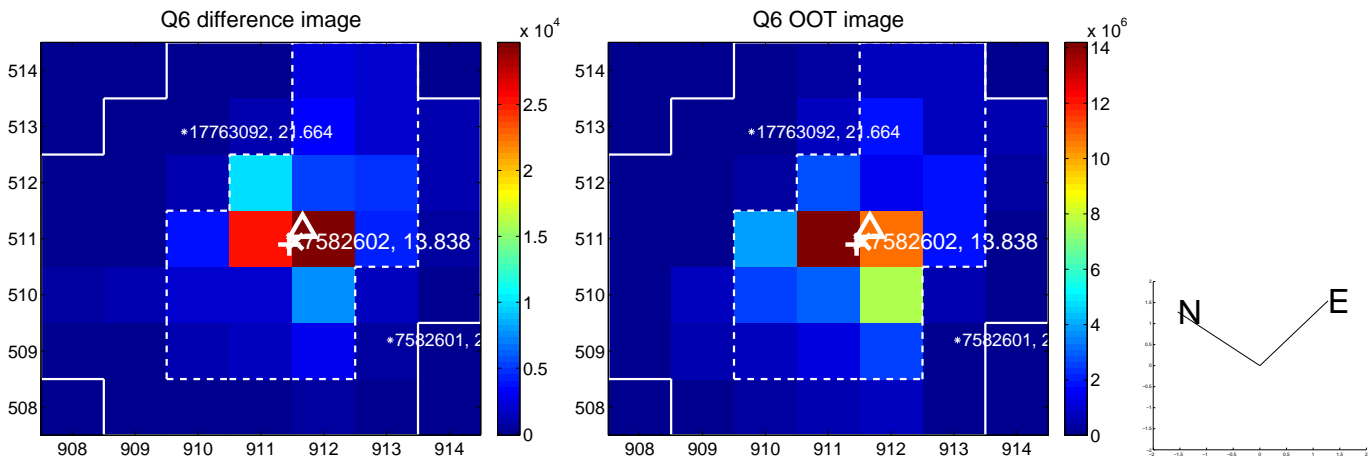
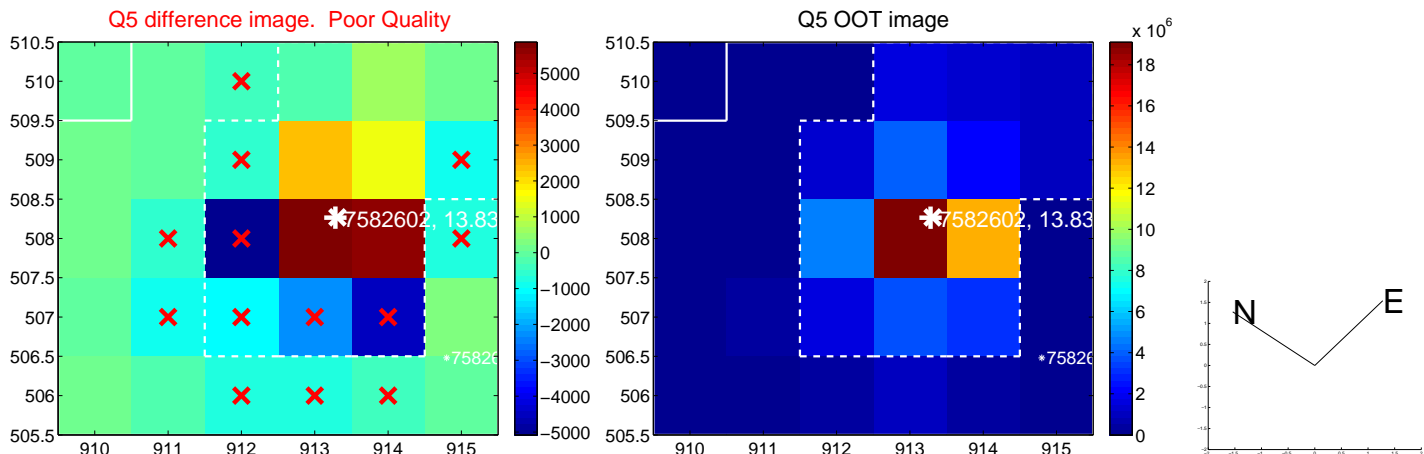


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

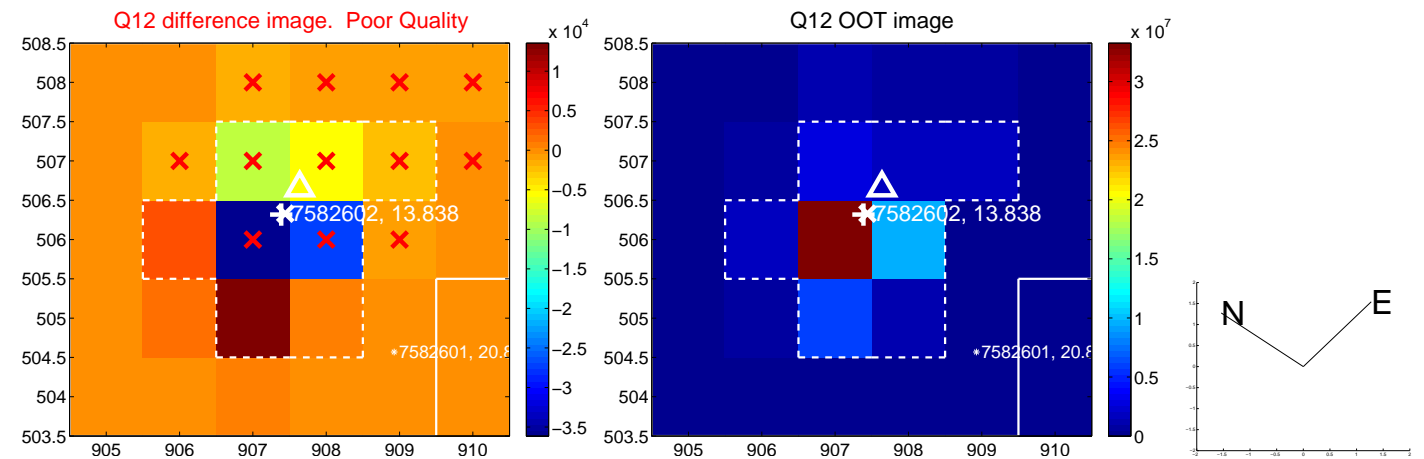
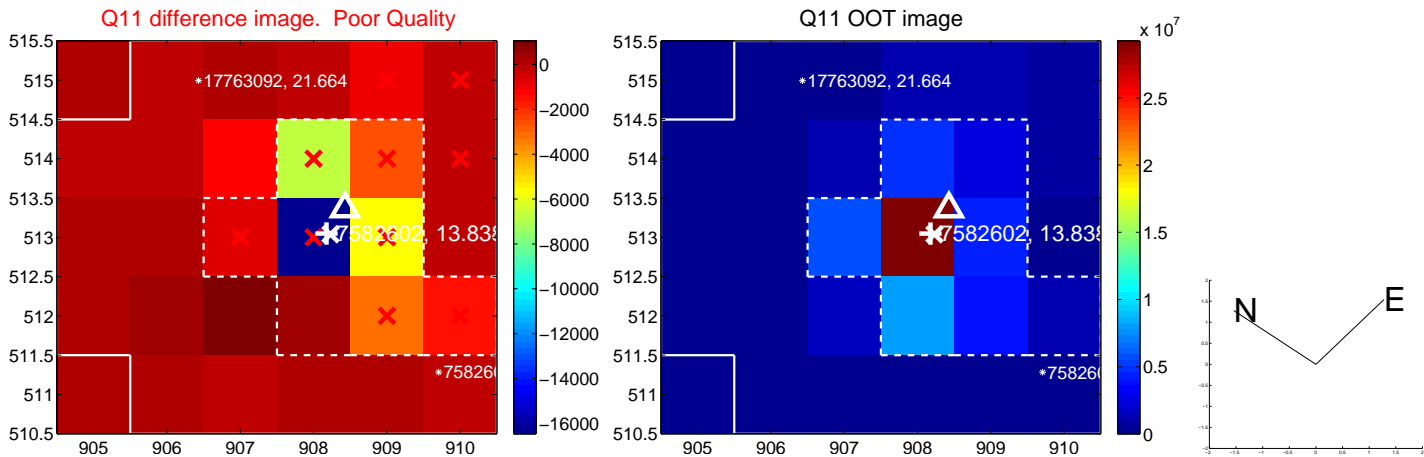
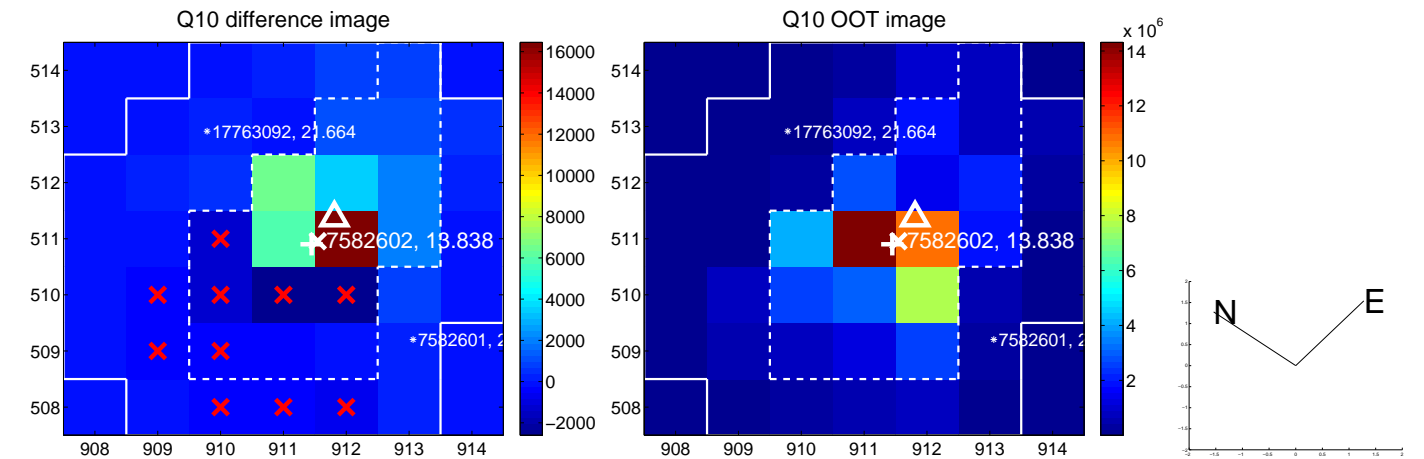
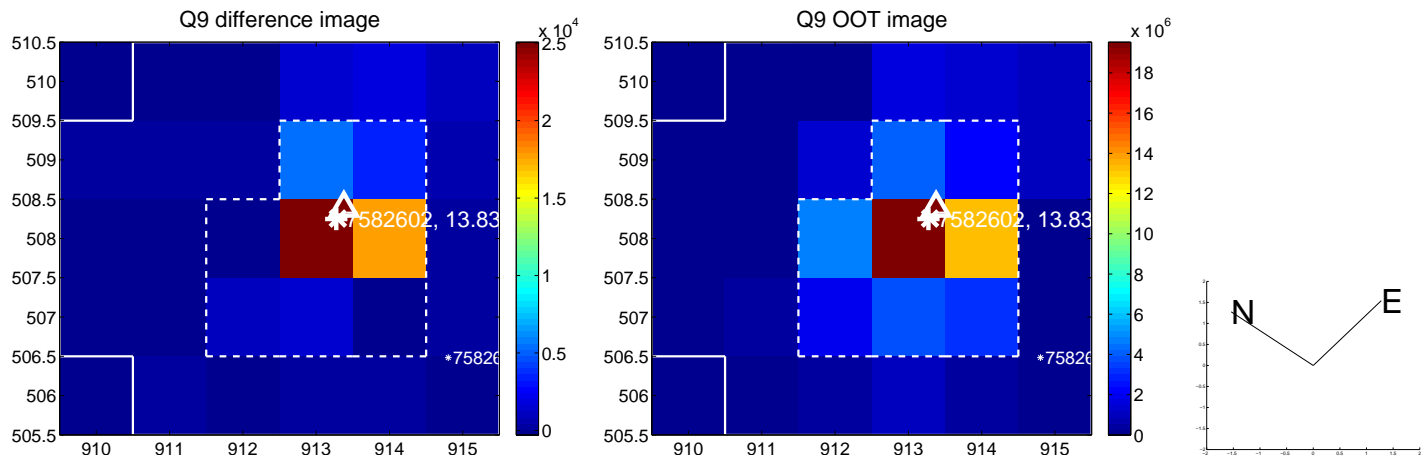
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



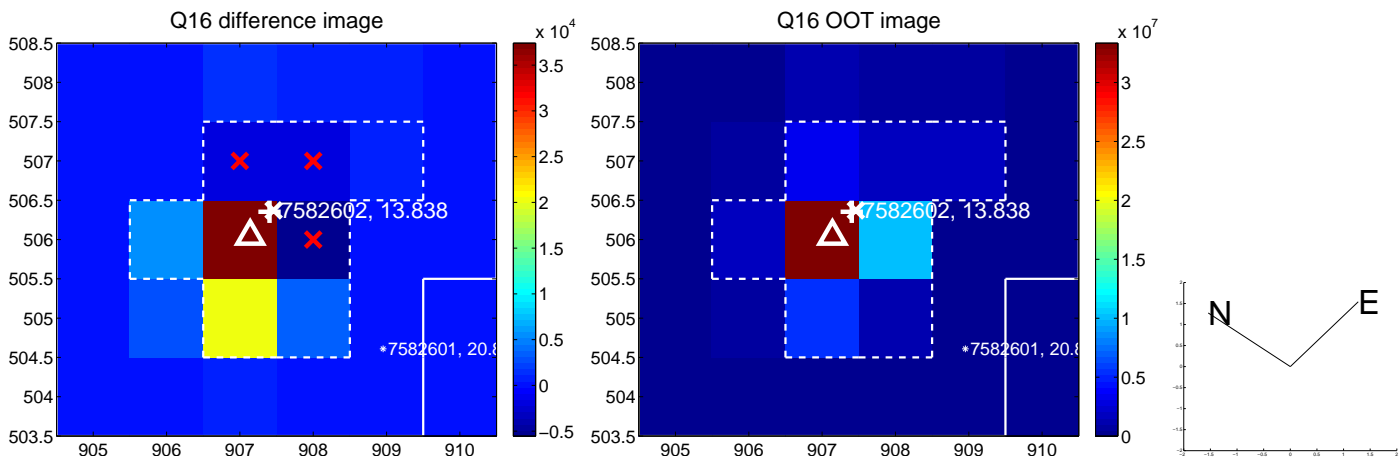
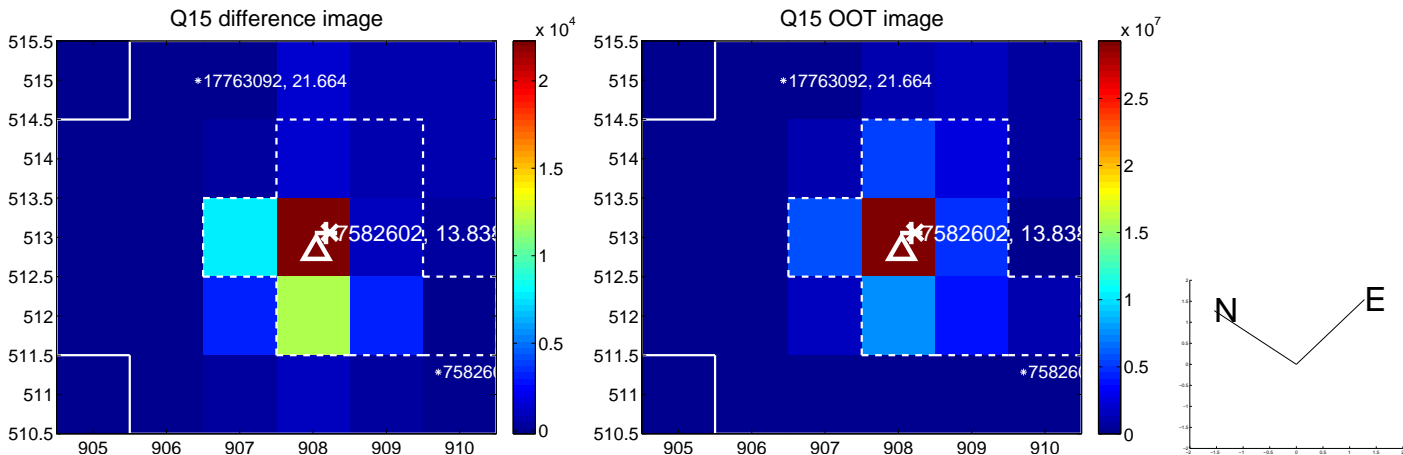
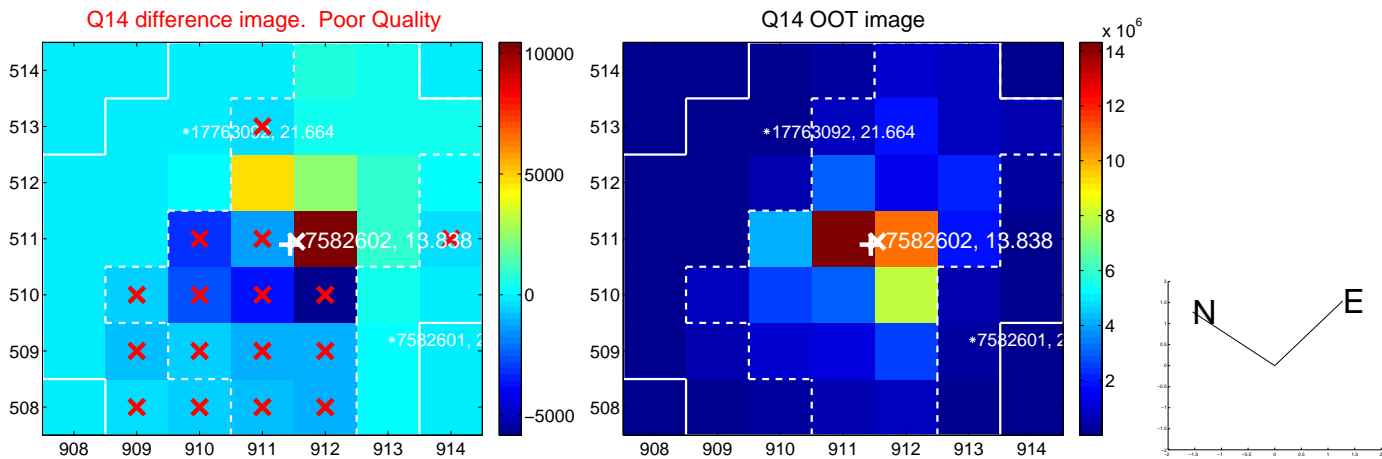
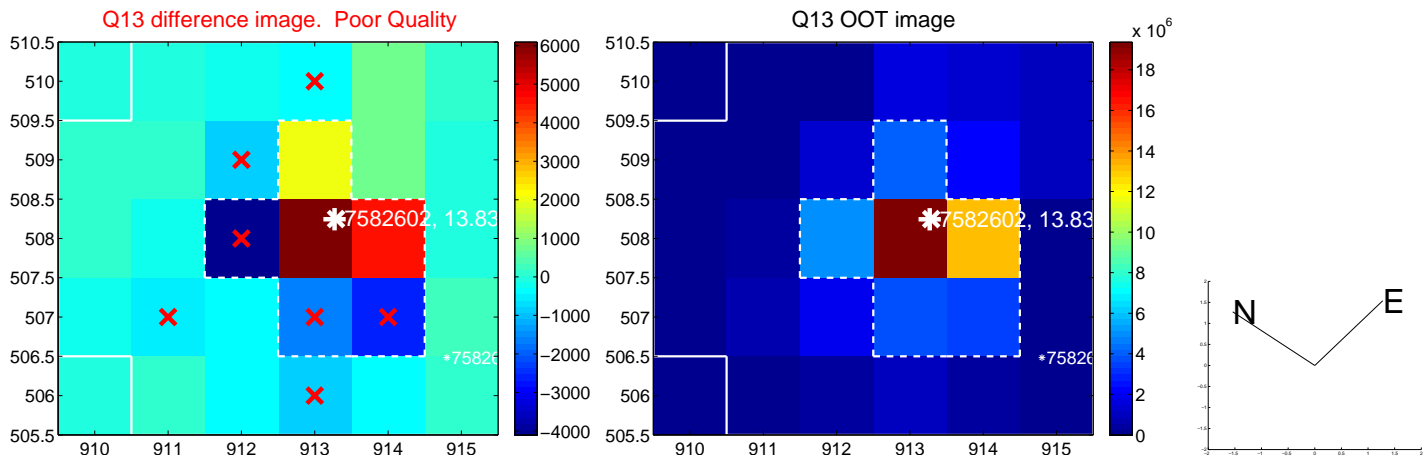
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



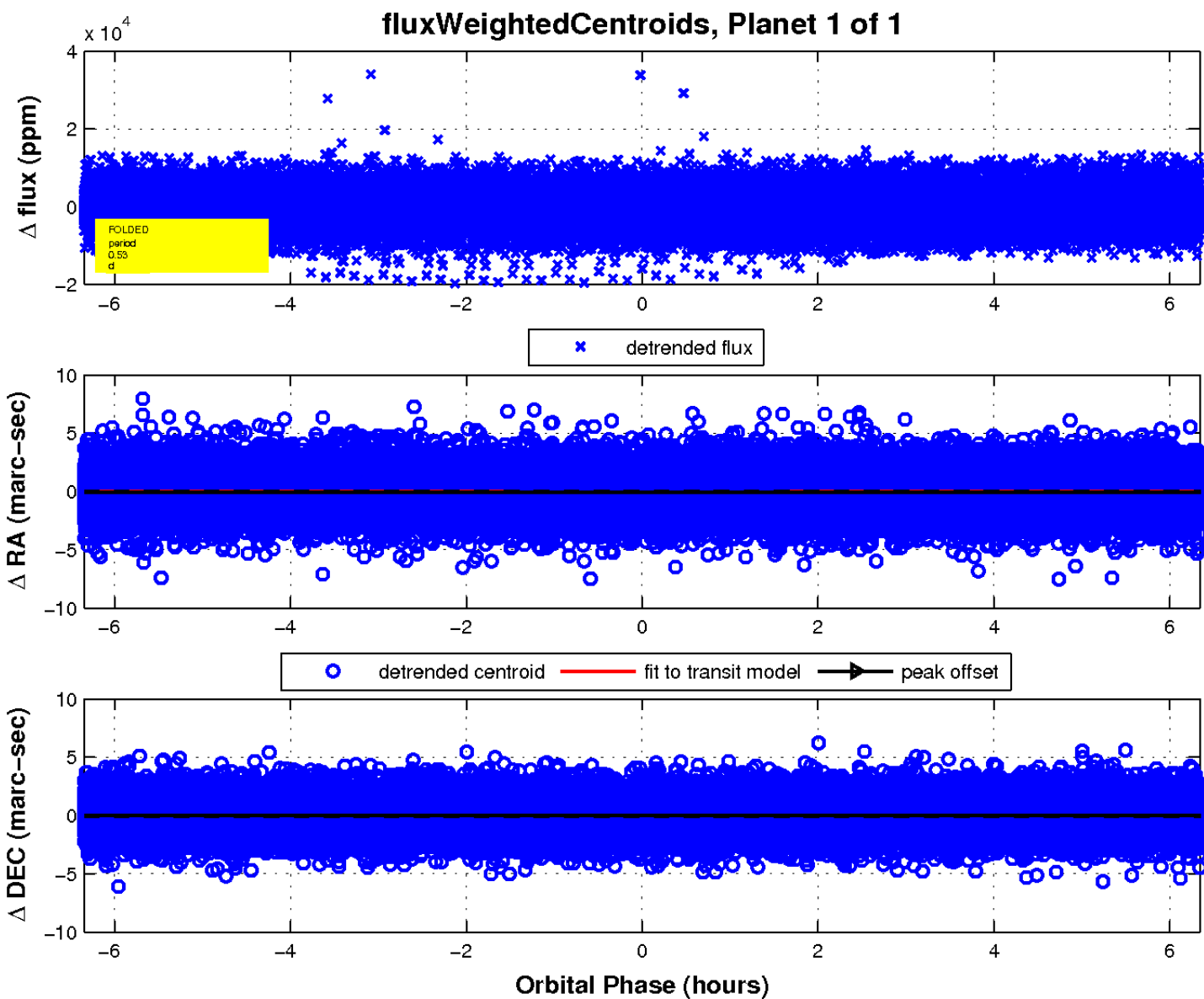
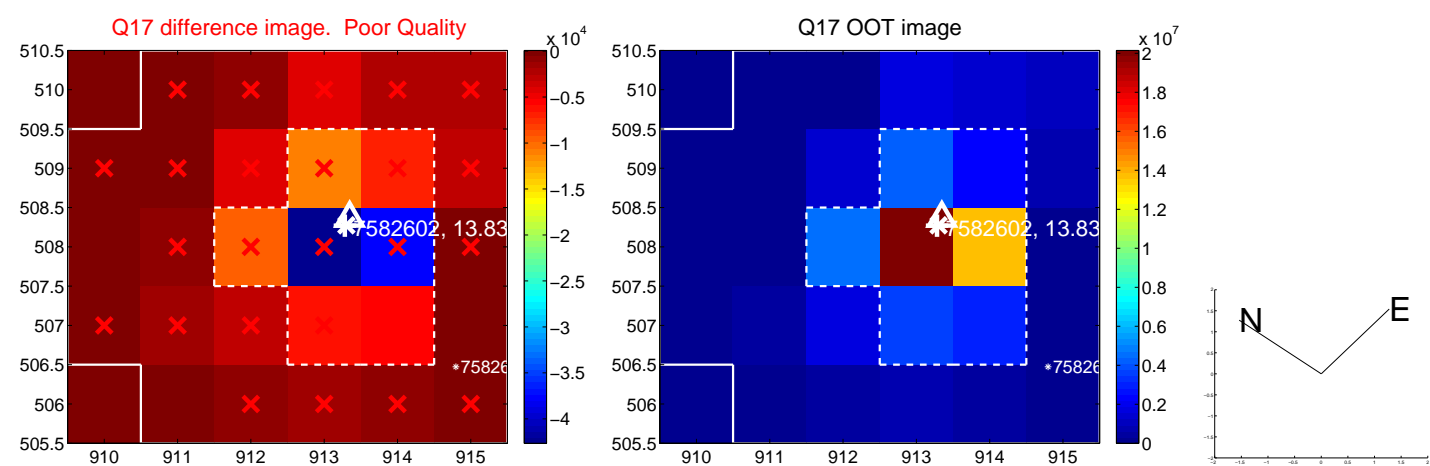
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

