

KIC 006350882

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})
006350882-01	OBS	4410.01	5.043973	136.017558	255.3	2.547	9.9	12.1	0.95	6039	2.24	319.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006350882-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

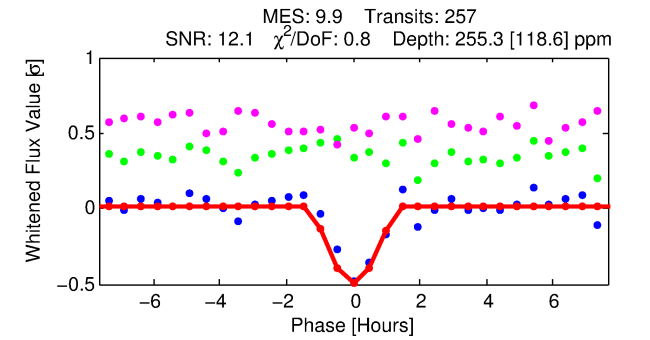
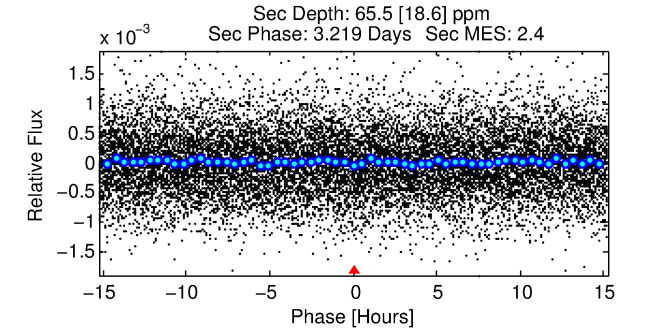
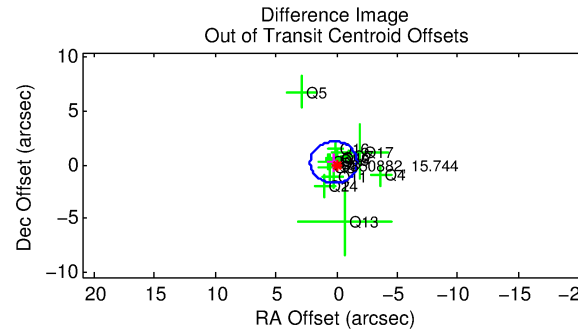
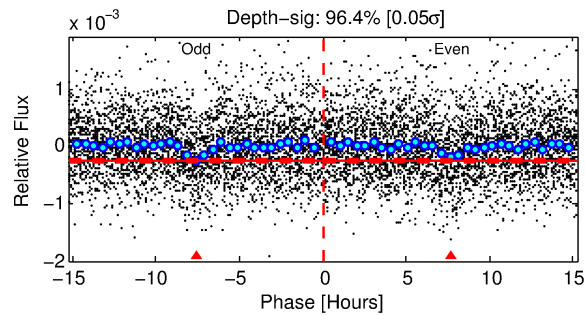
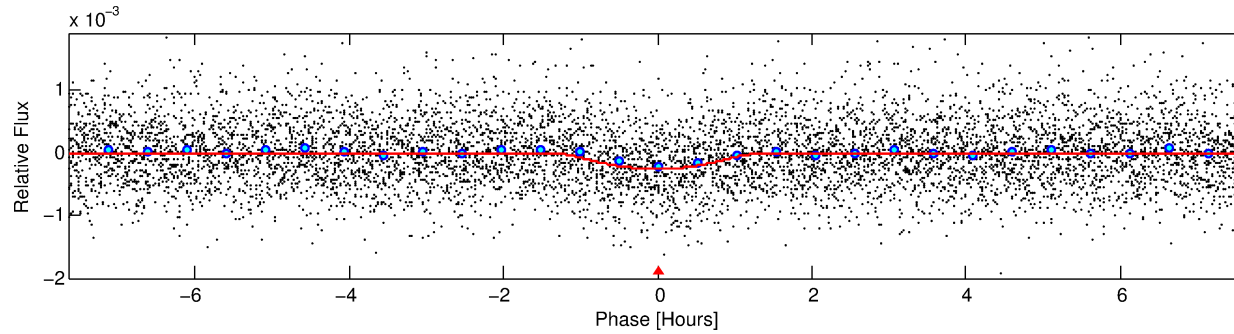
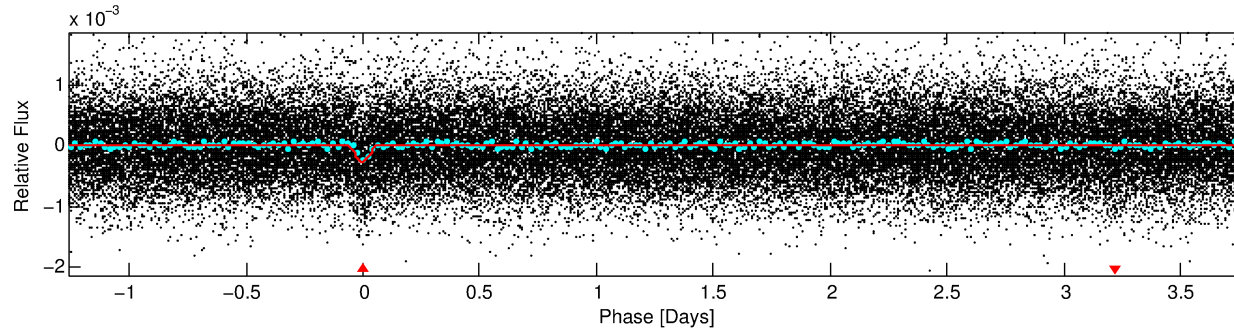
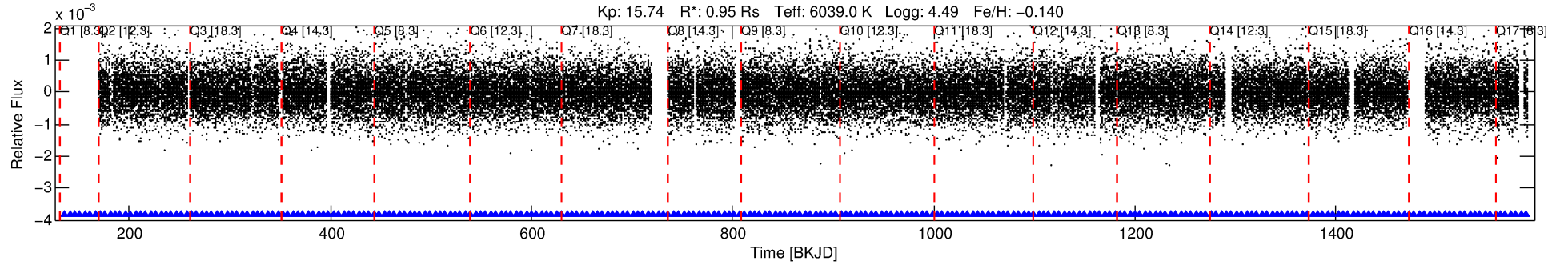
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006350882-01

No Significant Match Found

DV One-Page Summary

KIC: 6350882 Candidate: 1 of 1 Period: 5.044 d
KOI: K04410.01 Corr: 0.815



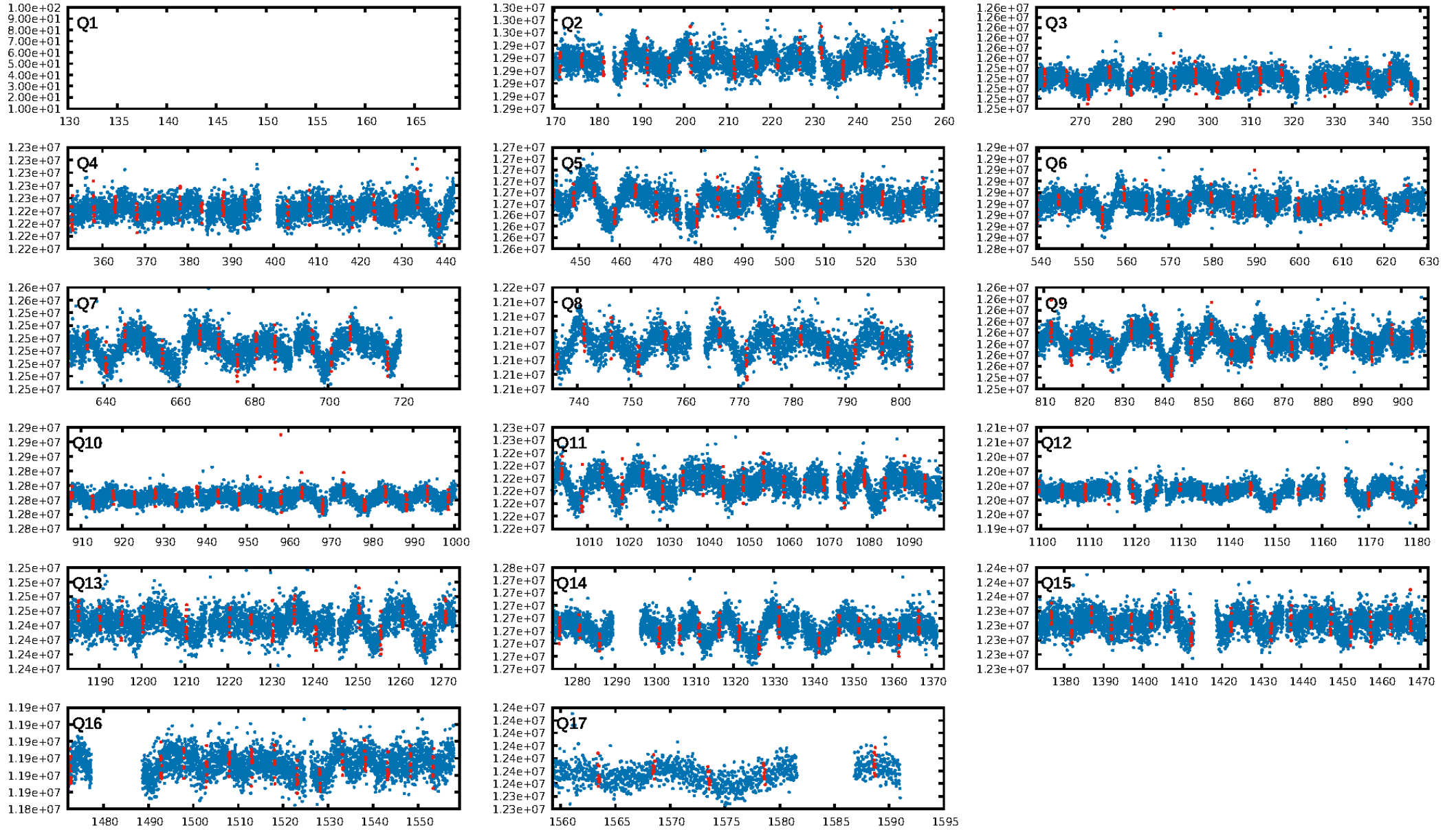
DV Fit Results:

Period = 5.04397 [0.00003] d
Epoch = 136.0176 [0.0046] BKJD
Rp/R* = 0.0216 [0.0168]
a/R* = 4.19 [1.85]
b = 0.99 [0.04]
Seff = 319.53 [140.46]
Teq = 1078 [118] K
Rp = 2.24 [1.90] Re
a = 0.0581 [0.0166] AU
Ag = 24.29 [39.72] [0.59 σ]
Teffp = 3700 [1468] K [1.78 σ]

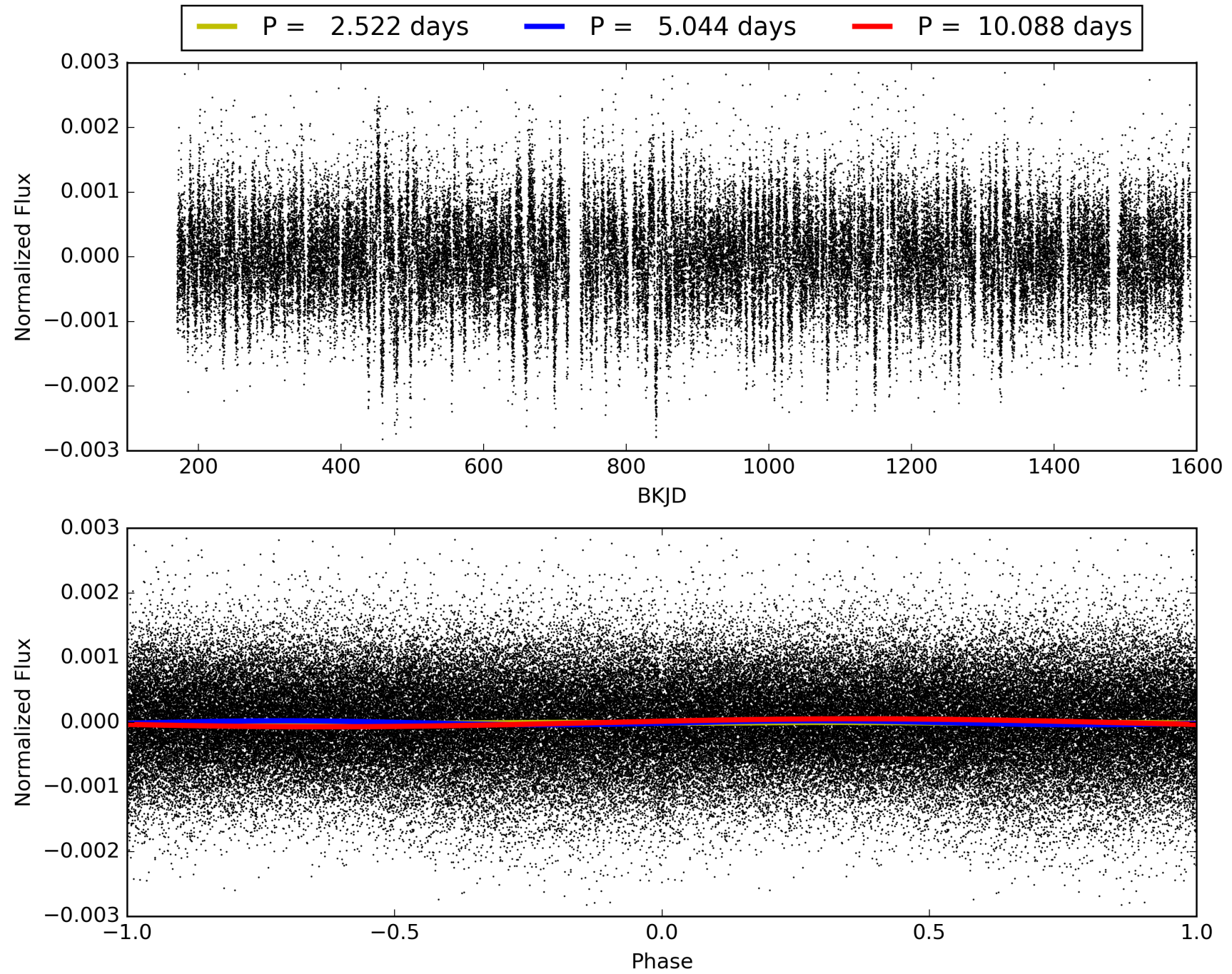
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.19e-23
RollingBand-fgt: 1.00 [252/252]
GhostDiagnostic-chr: -53.83
Centroid-sig: 9.3%
Centroid-so: 1.682 arcsec [1.25 σ]
OotOffset-rm: 0.313 arcsec [0.49 σ]
KicOffset-rm: 0.311 arcsec [0.59 σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.64 [9/14]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 006350882-01, PDC Light Curves

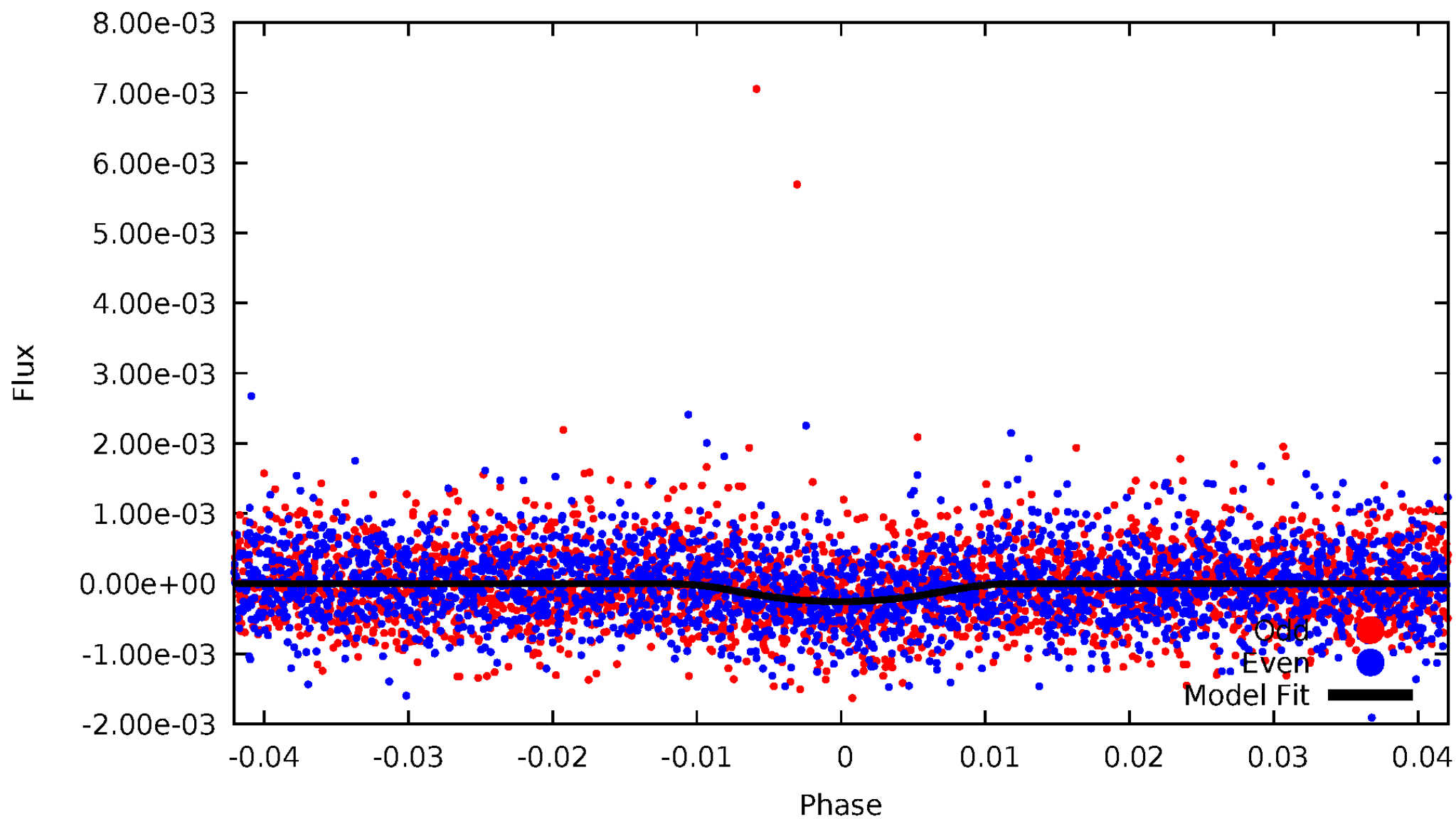


TCE 006350882-01



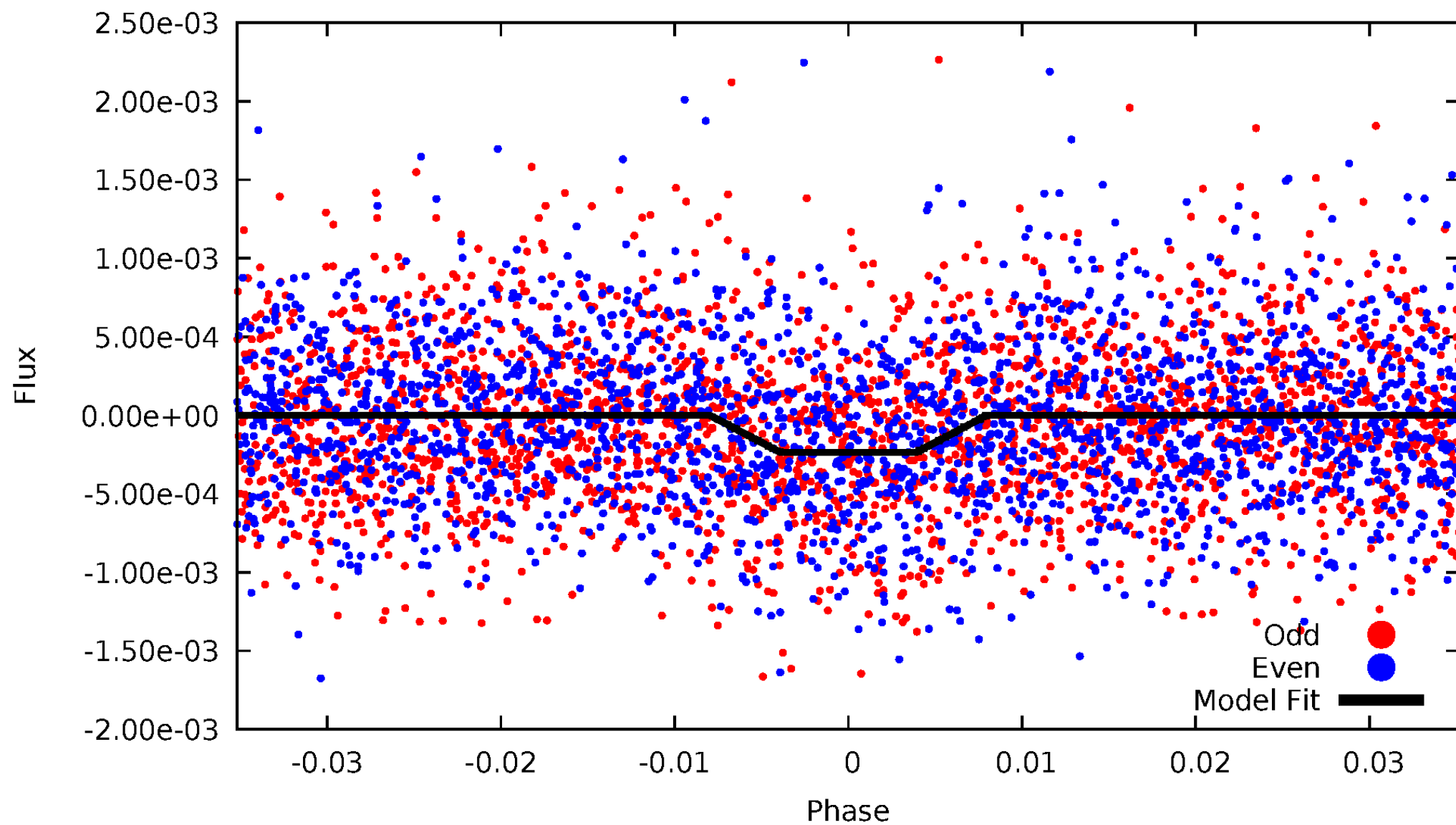
DV Odd/Even

TCE 006350882-01

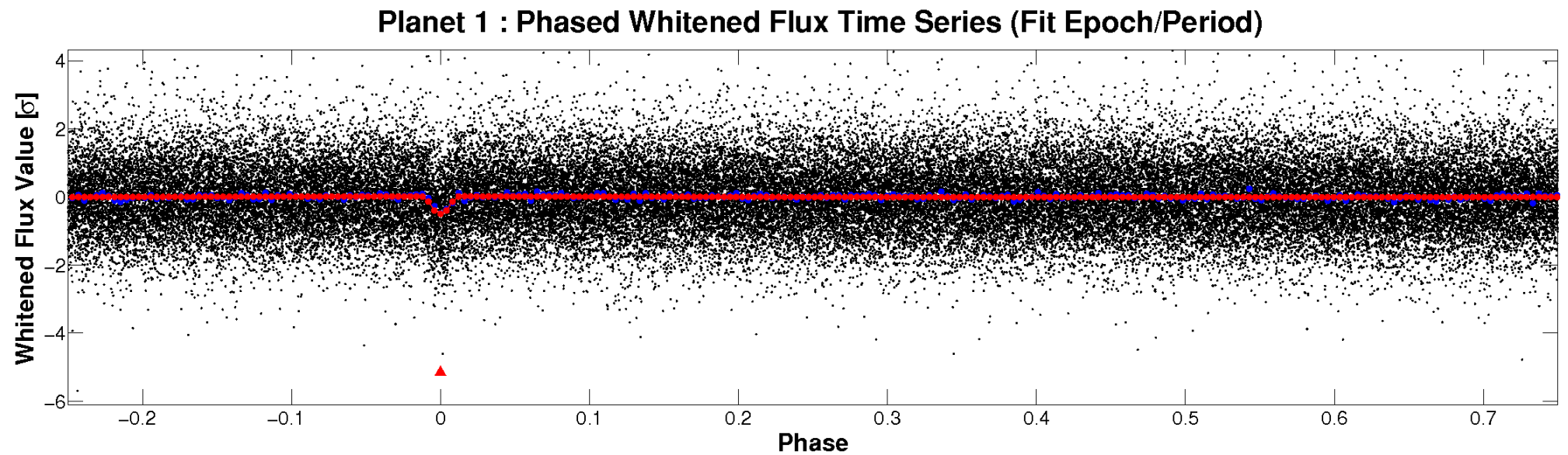
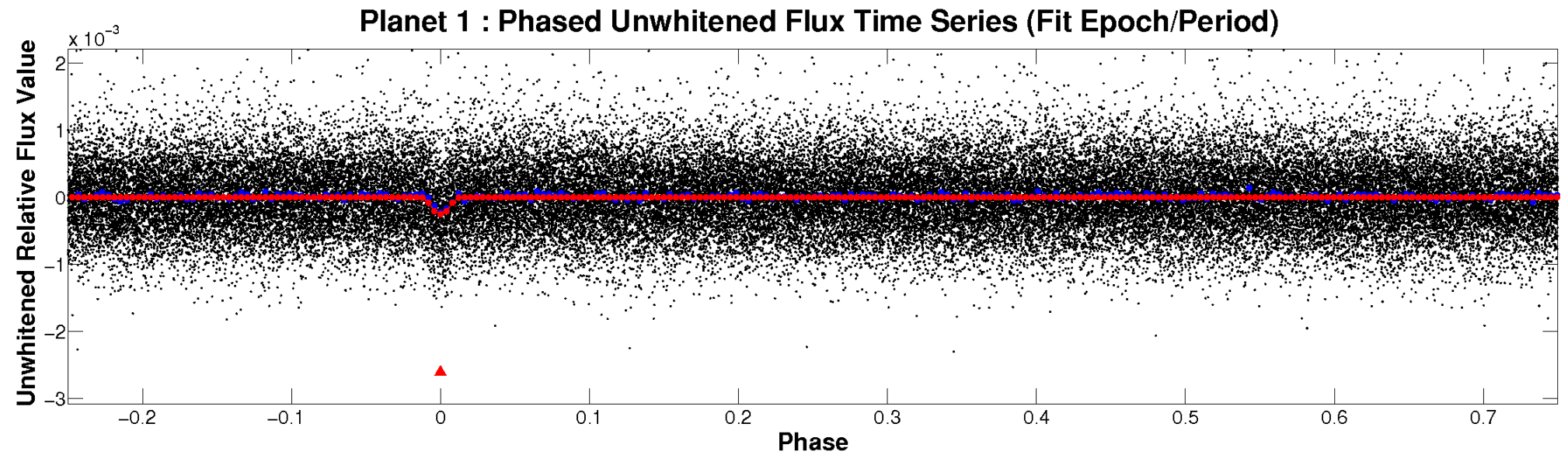


ALT Odd/Even

TCE 006350882-01

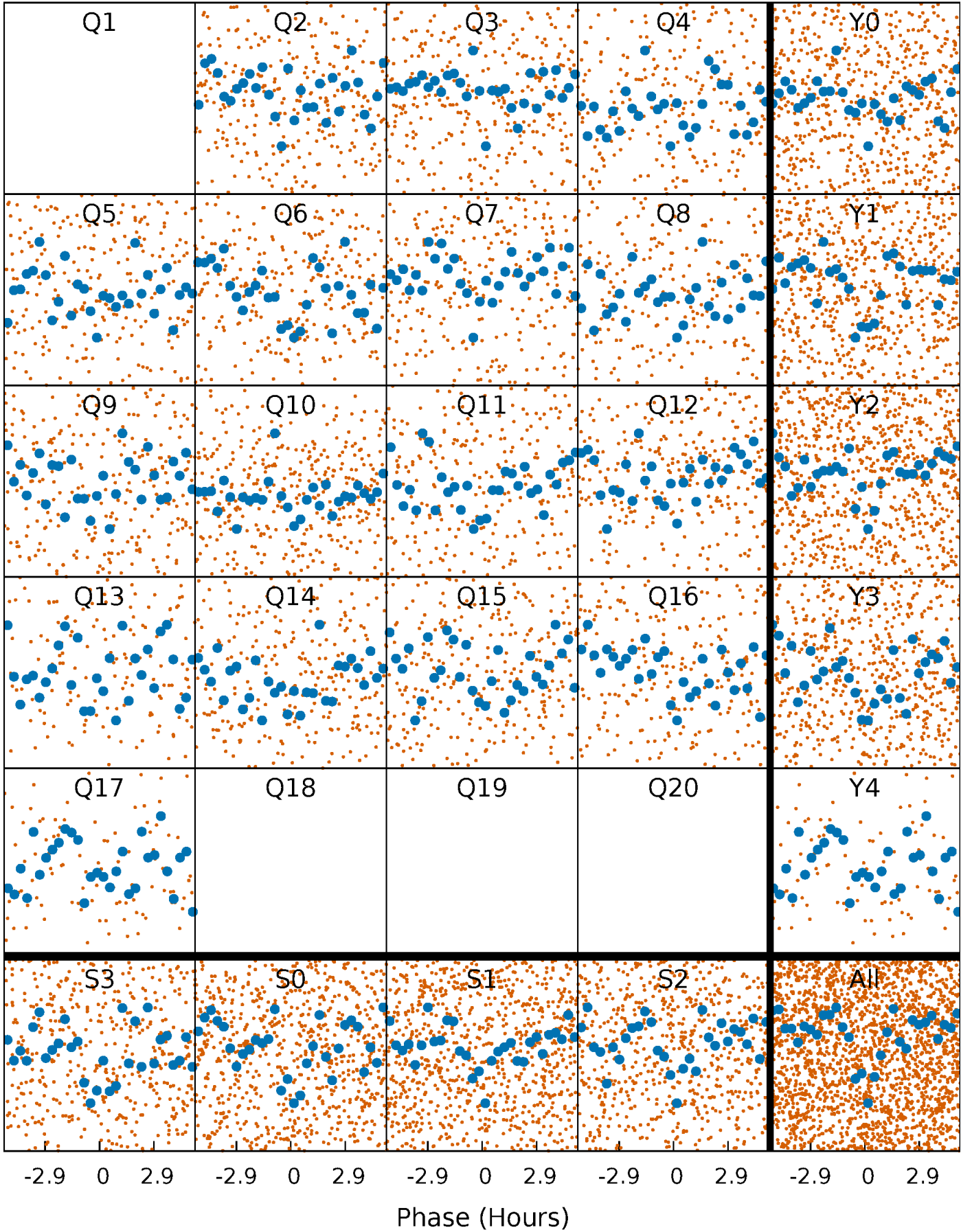


Non-Whitened Vs. Whitened Light Curve



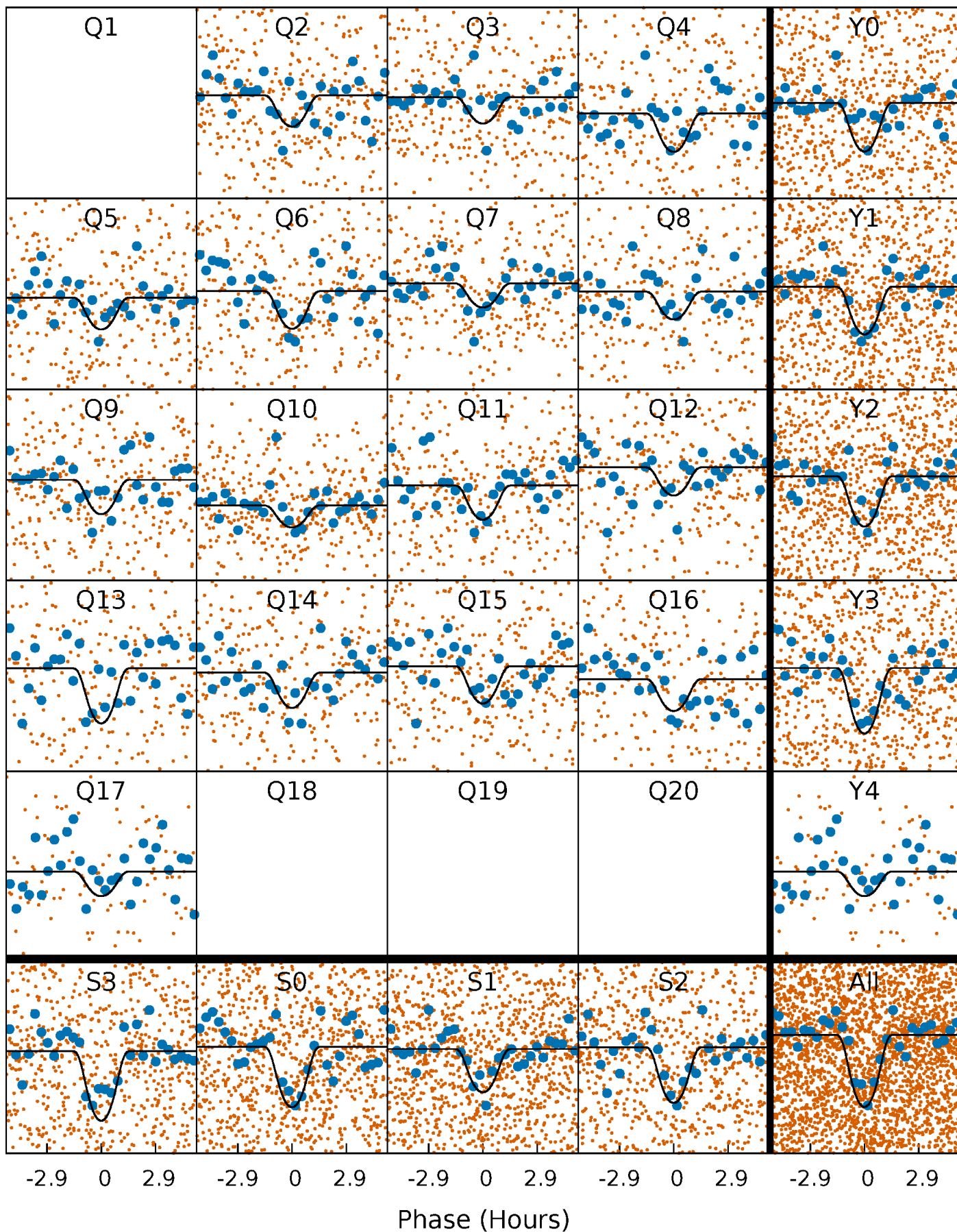
PDC Quarter-Phased Transit Curves

TCE 006350882-01 P= 5.043973 Days $T_0=136.017558$ (BKJD)



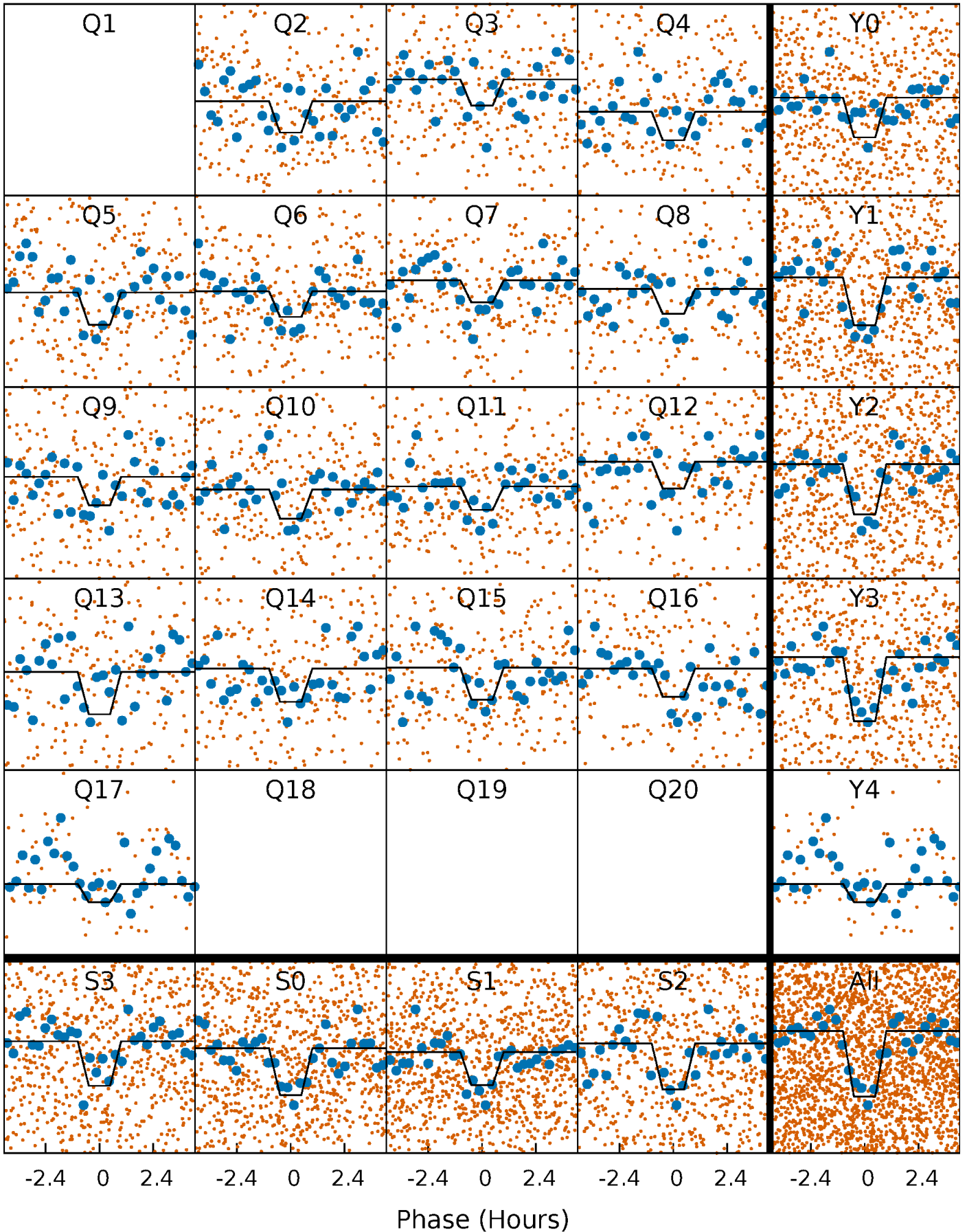
DV Quarter-Phased Transit Curves

TCE 006350882-01 P= 5.043973 Days $T_0=136.017558$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

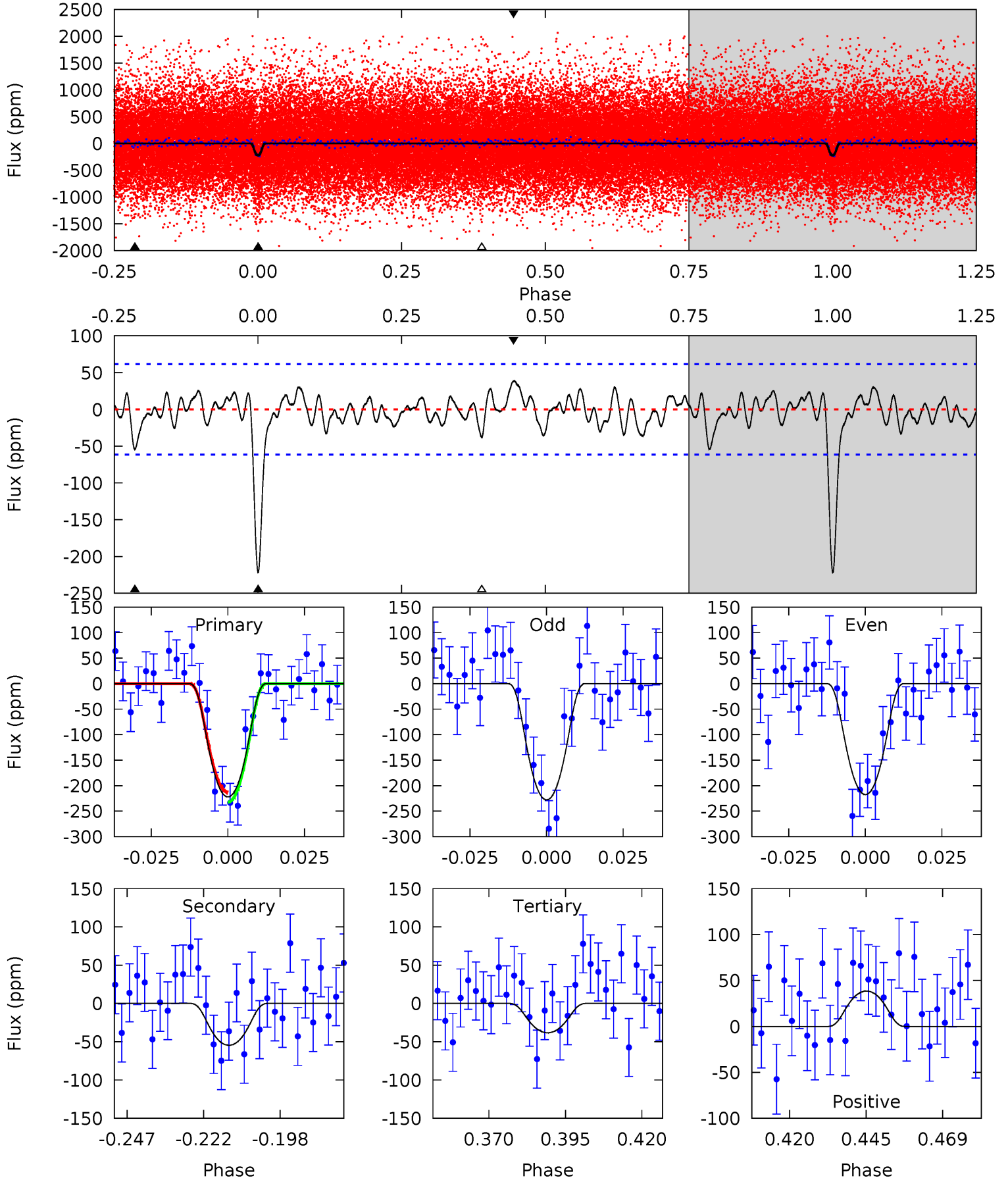
TCE 006350882-01 P= 5.043962 Days $T_0=136.019945$ (BKJD)



DV Model-Shift Uniqueness Test

006350882-01, P = 5.043973 Days, E = 136.017558 Days

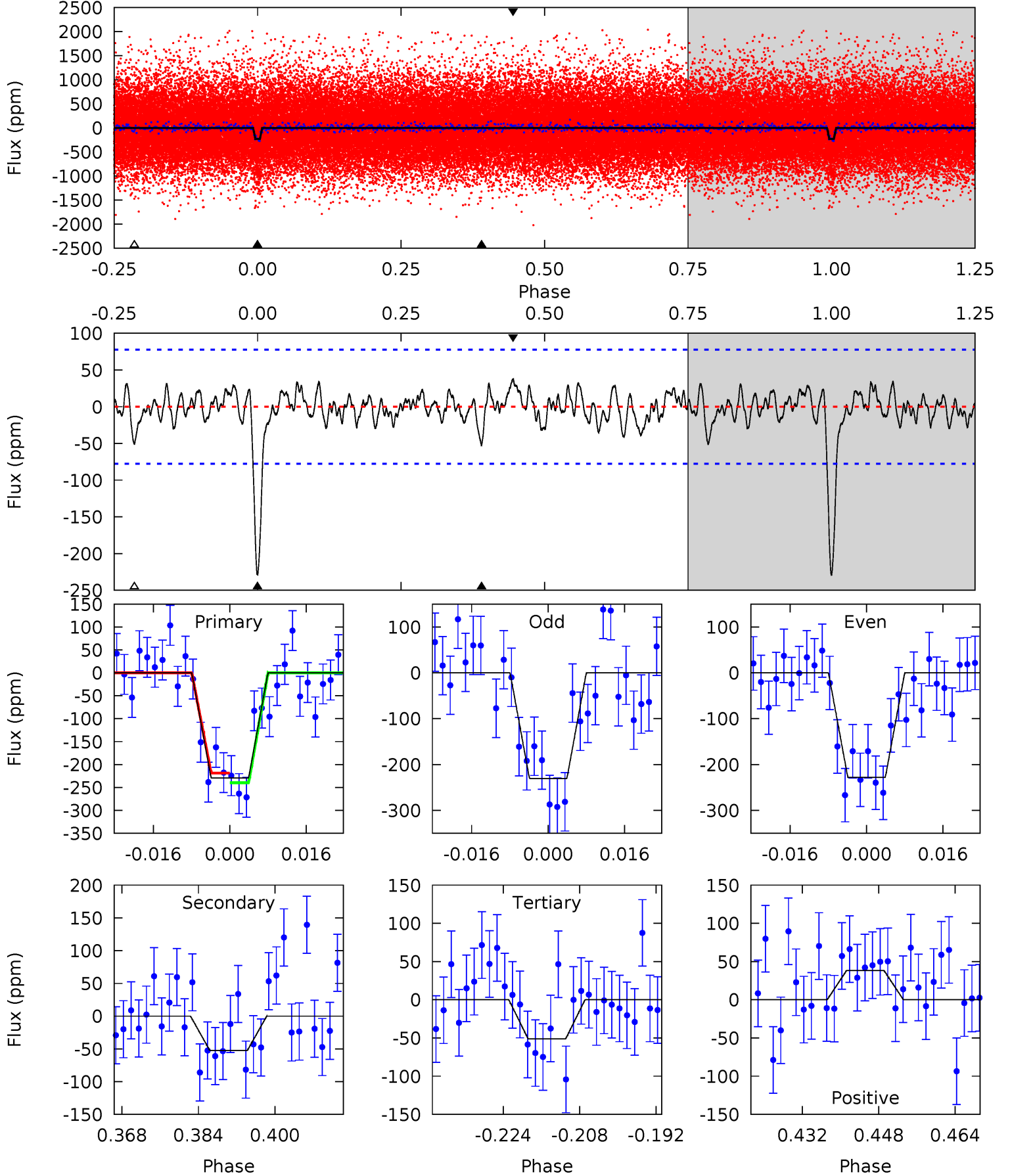
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	4.31	3.02	3.04	4.85	2.25	1.22	14.5	14.5	1.29	1.27	0.41	0.86	0.15	0.78



Alt Model-Shift Uniqueness Test

006350882-01, P = 5.043962 Days, E = 136.019945 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	3.34	3.25	2.43	4.94	2.41	1.02	11.3	12.1	0.08	0.91	0.07	0.98	0.14	0.66



Stellar Parameters For KIC 006350882

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6039^{+189}_{-210}	$4.493^{+0.054}_{-0.229}$	$-0.140^{+0.250}_{-0.300}$	$0.951^{+0.320}_{-0.107}$	$1.027^{+0.141}_{-0.141}$	$1.685^{+0.378}_{-0.935}$
	+3%/-3%	+1%/-5%	+179%/-214%	+34%/-11%	+14%/-14%	+22%/-55%
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 006350882-01 / KOI 4410.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-55 ± 13	$2.48^{+1.81}_{-1.52}$	1538^{+115}_{-80}	3795^{+1621}_{-608}	15^{+91}_{-10}
Alt.	-53 ± 16	$2.06^{+1.63}_{-1.27}$	1543^{+128}_{-82}	4035^{+1975}_{-768}	22^{+129}_{-16}

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

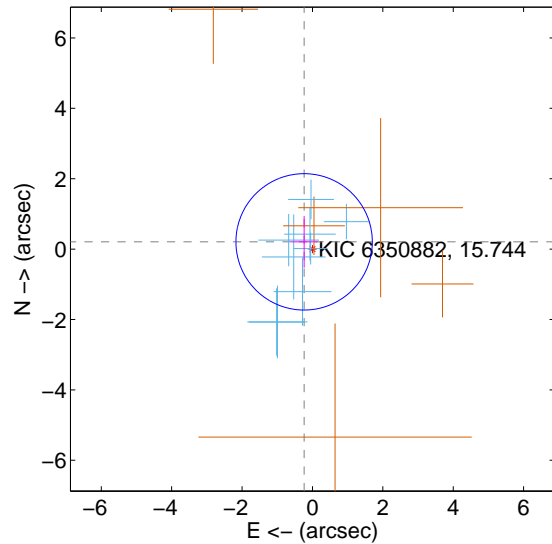
Supplemental centroid analysis for 006350882-01. Kepler magnitude: 15.74. Transit SNR 12.05

There are 9 quarters with good PRF difference image offsets

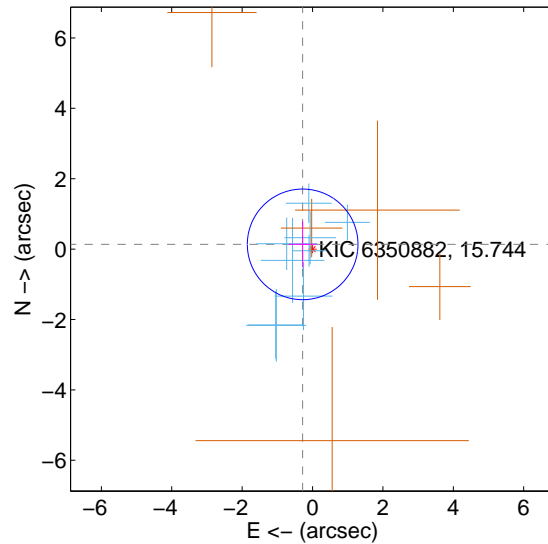
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.313 ± 0.646	0.49	0.236 ± 0.385	0.206 ± 0.735
PRF-fit source offset from KIC position	0.311 ± 0.524	0.59	0.280 ± 0.392	0.134 ± 0.651
photometric centroid source offset	1.68 ± 1.35	1.25	-1.34 ± 1.36	1.01 ± 1.33

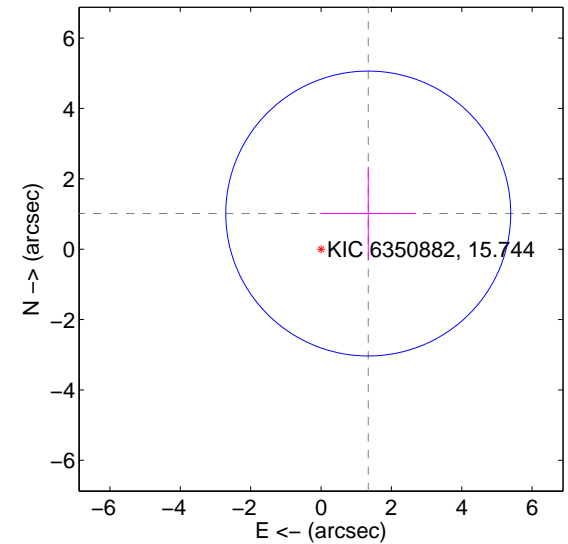
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

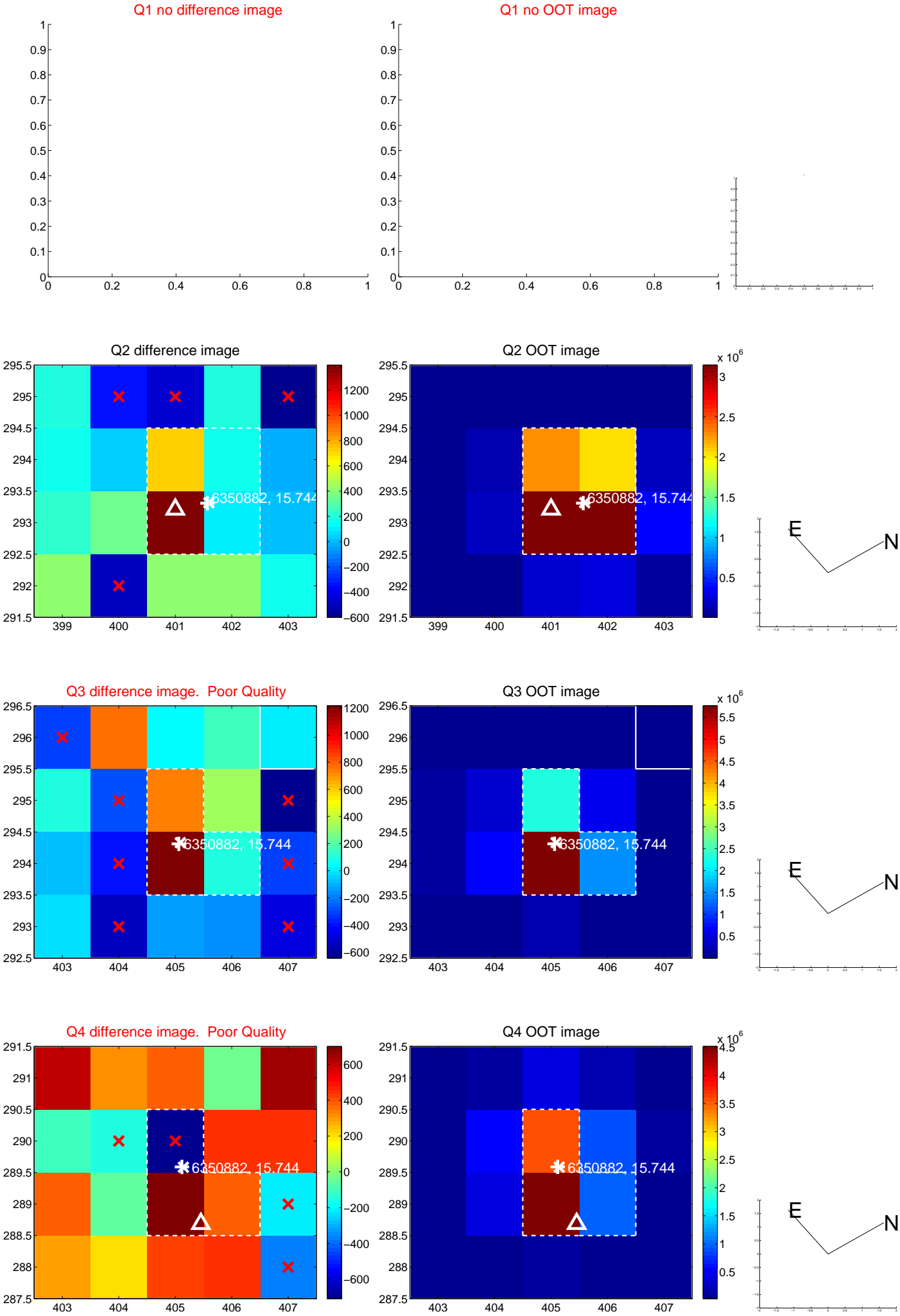


offset from photometric centroids

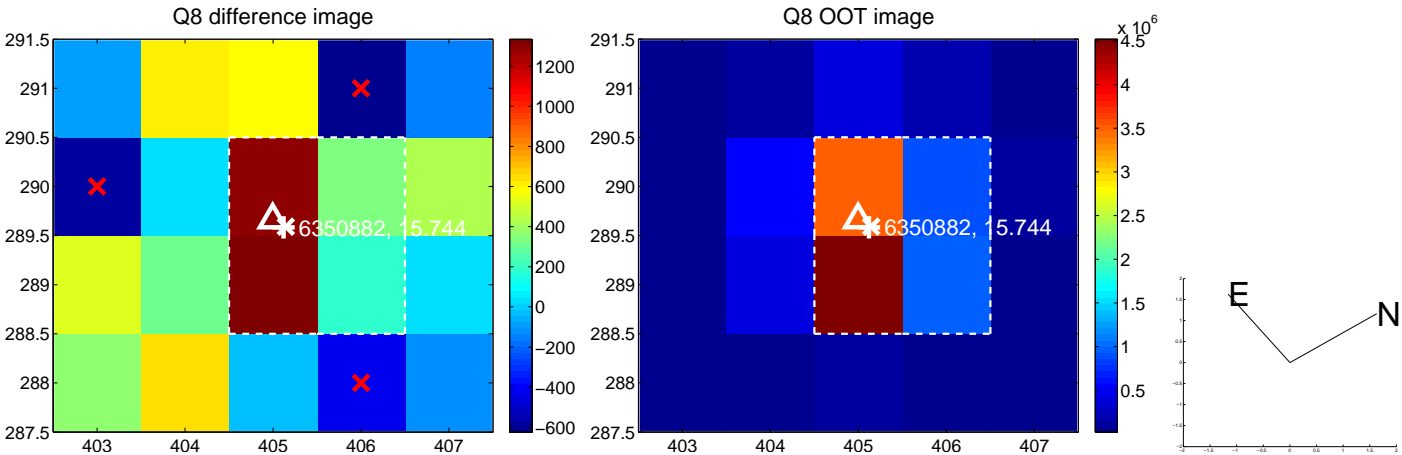
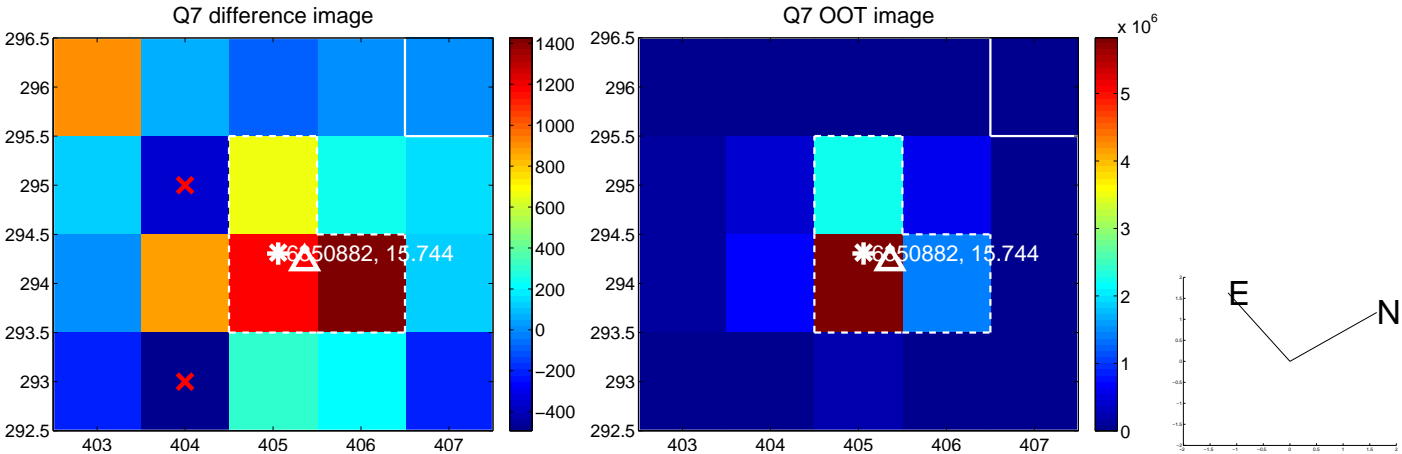
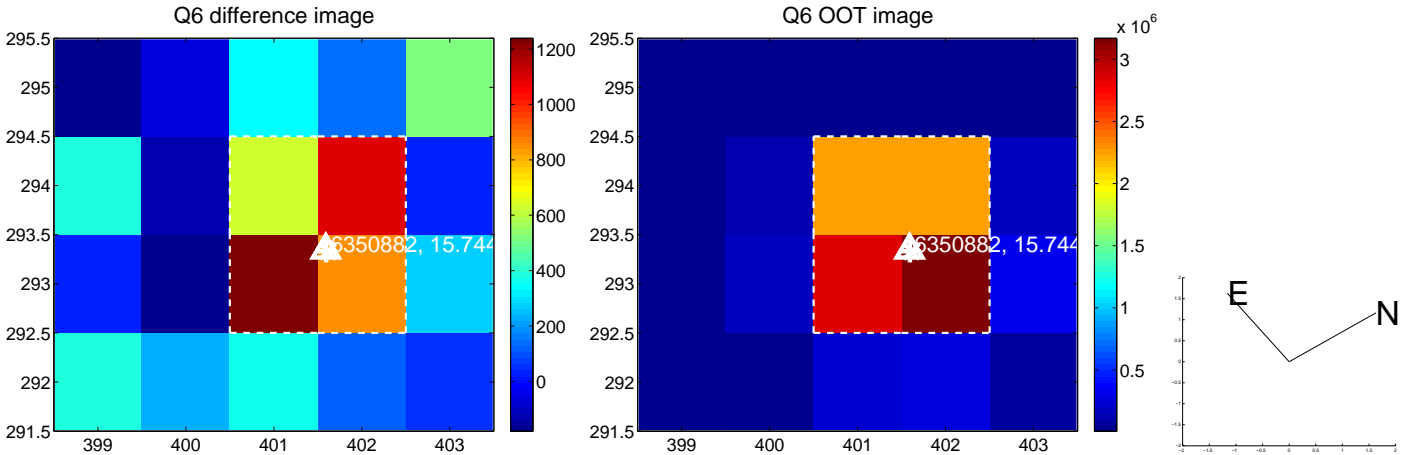
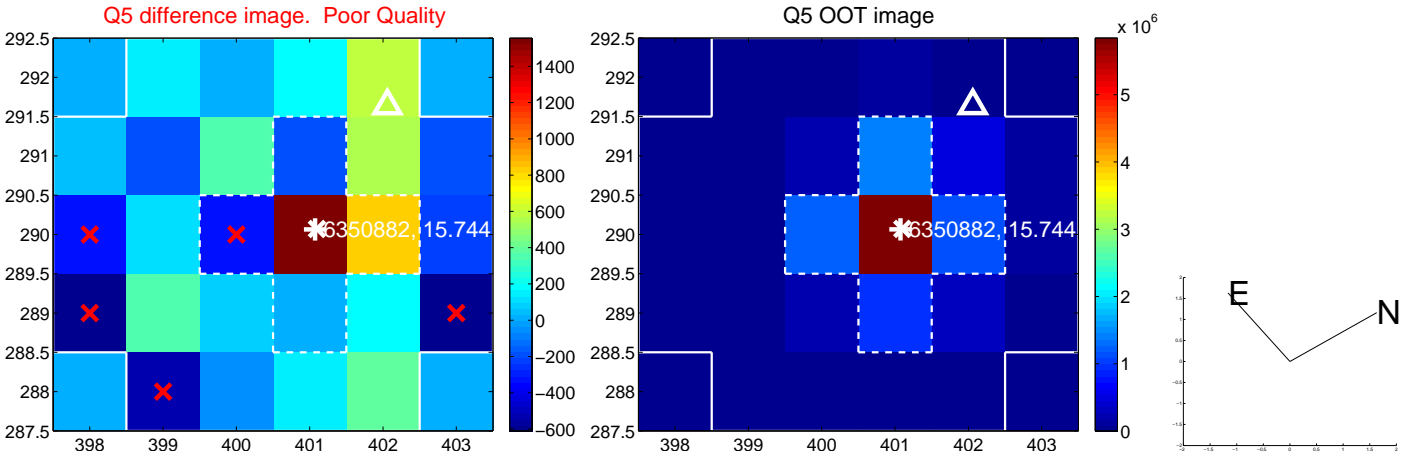


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

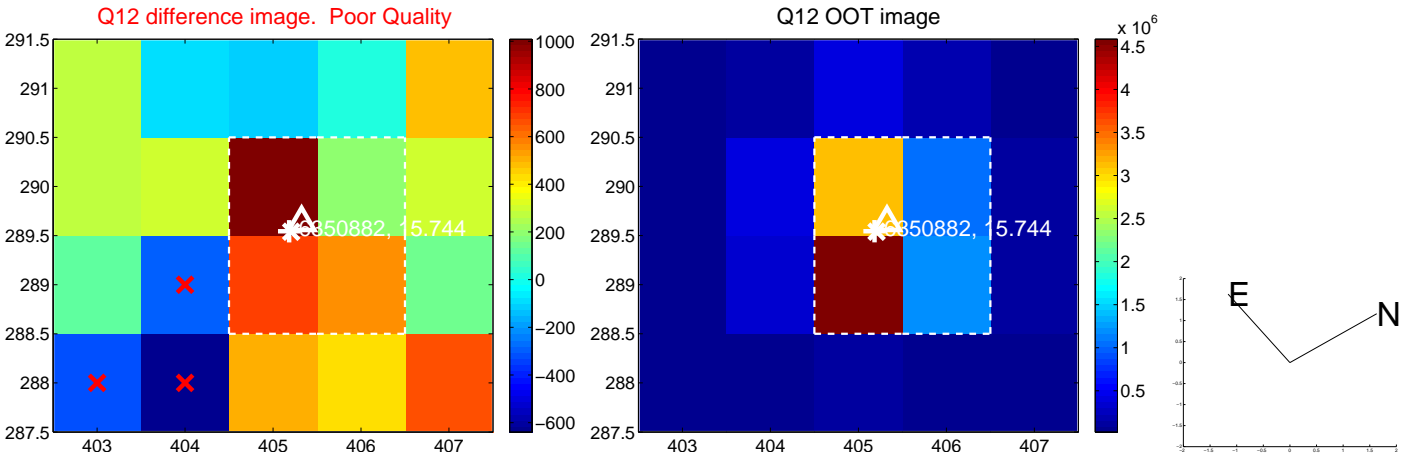
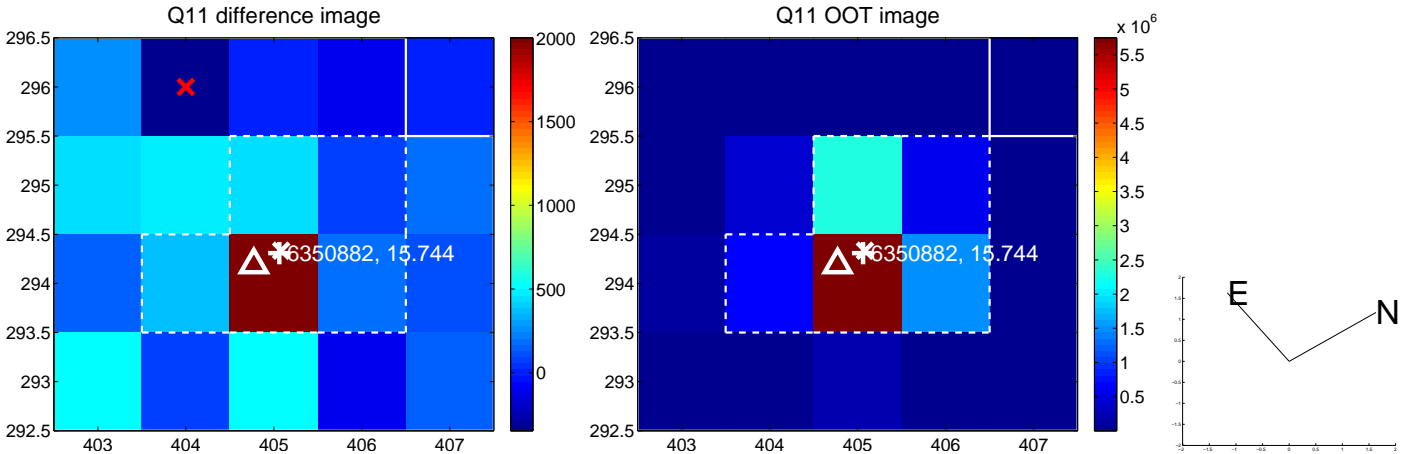
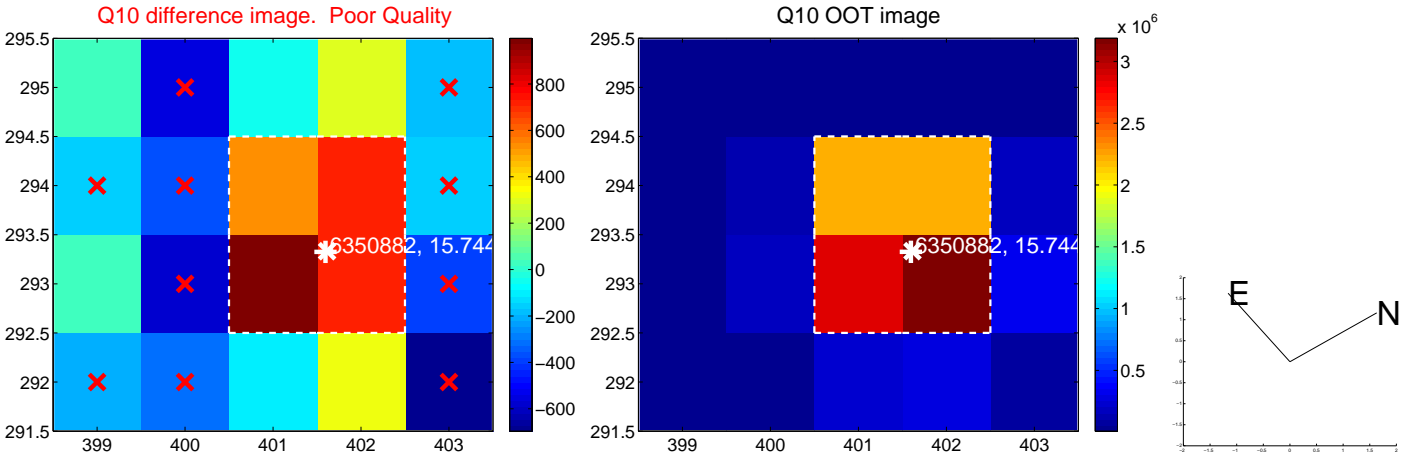
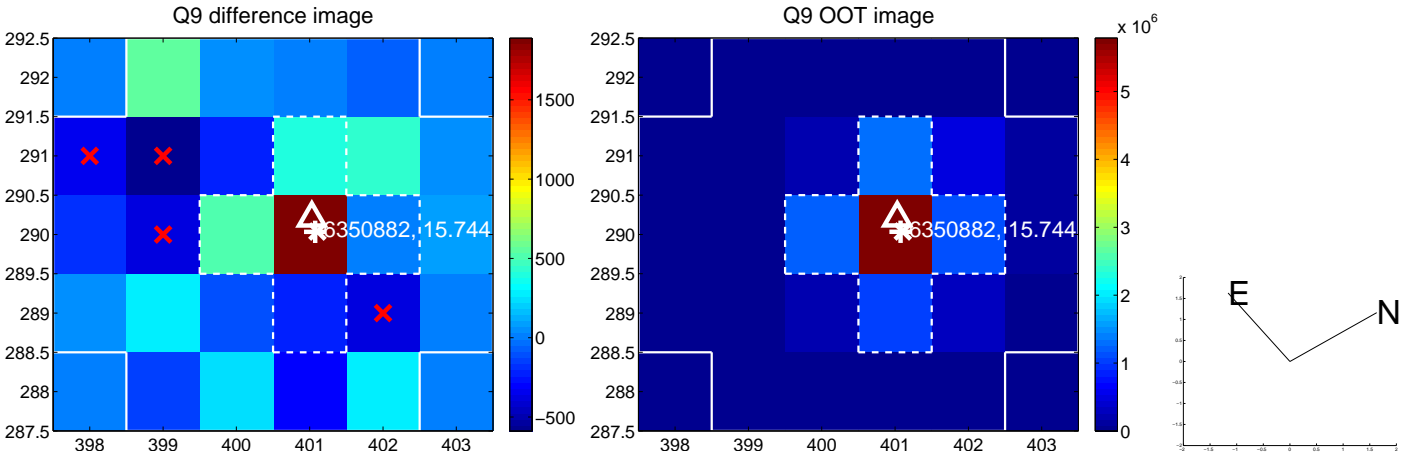
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



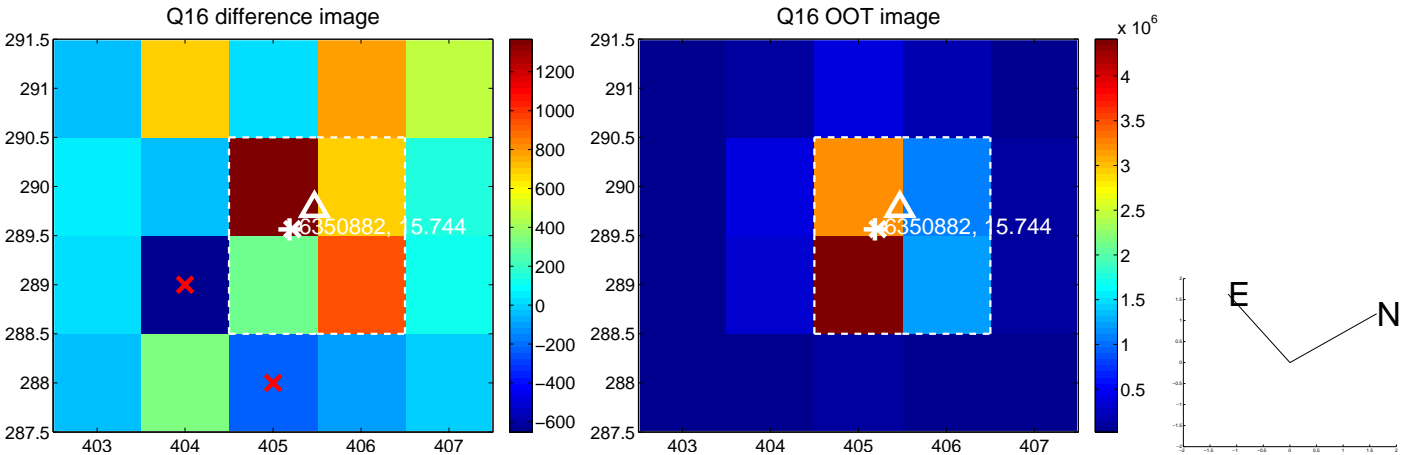
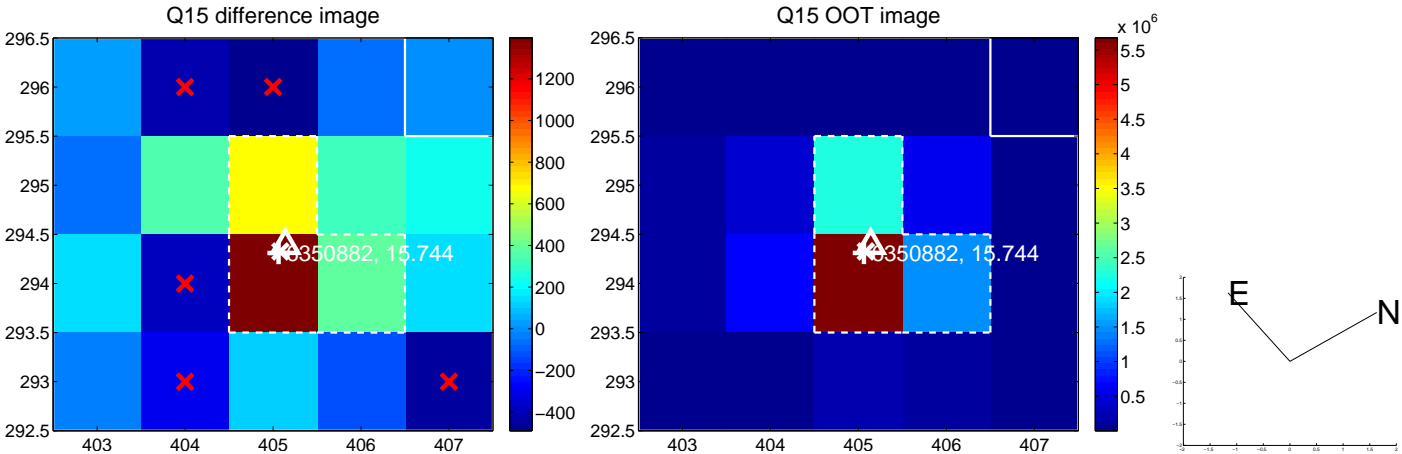
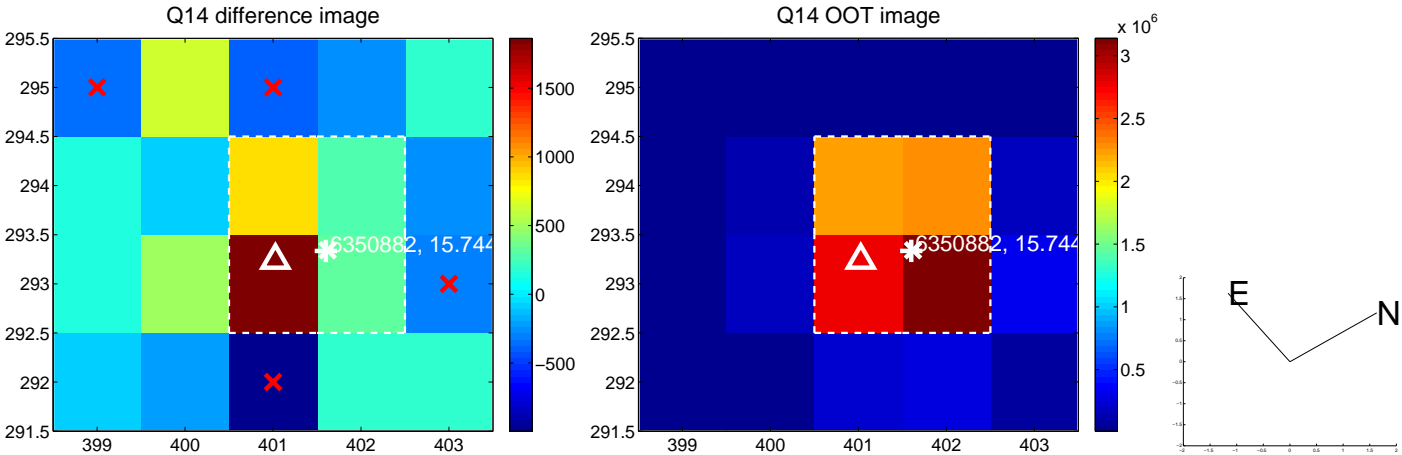
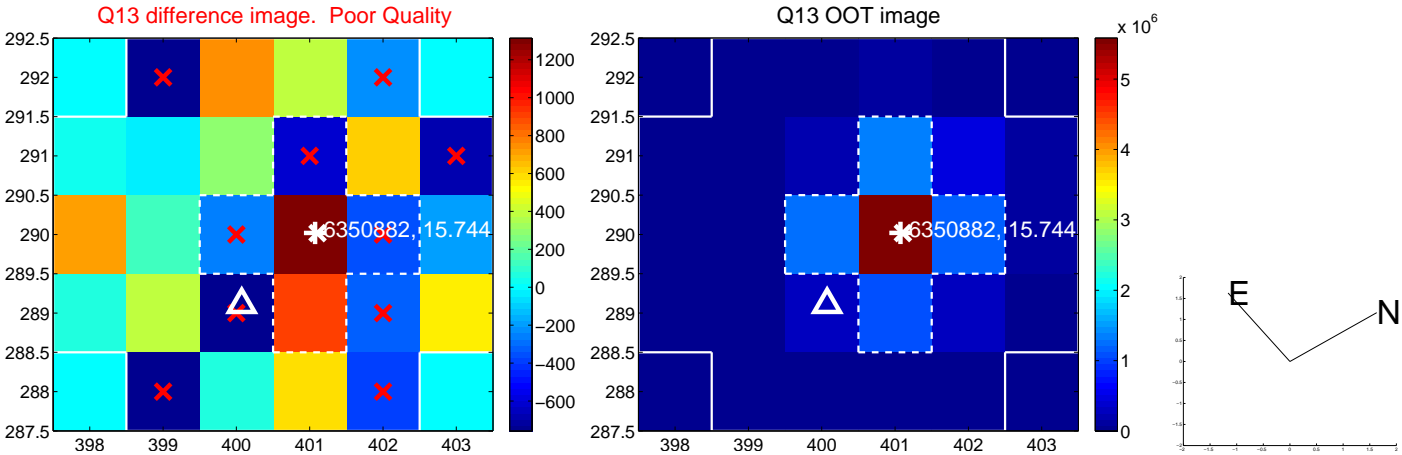
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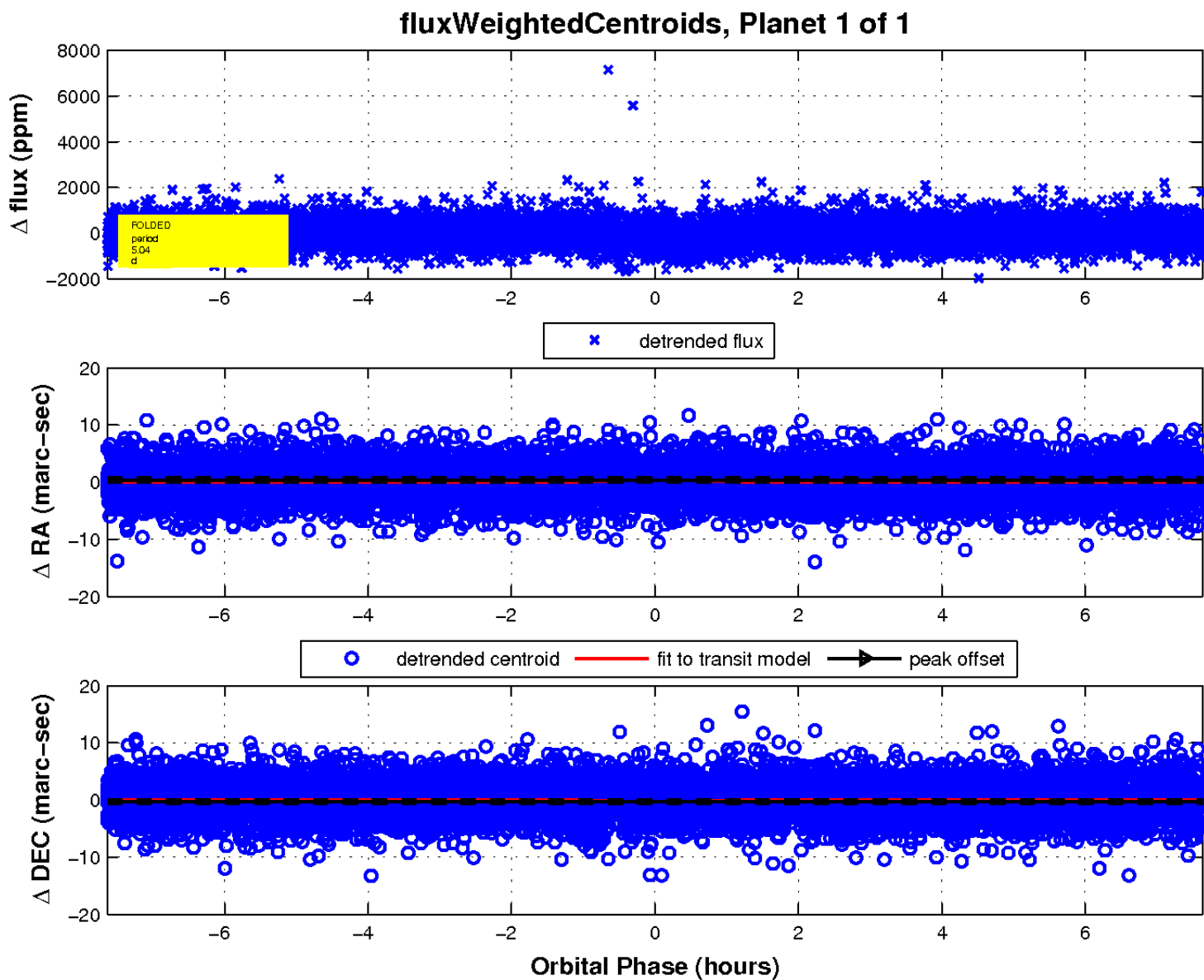
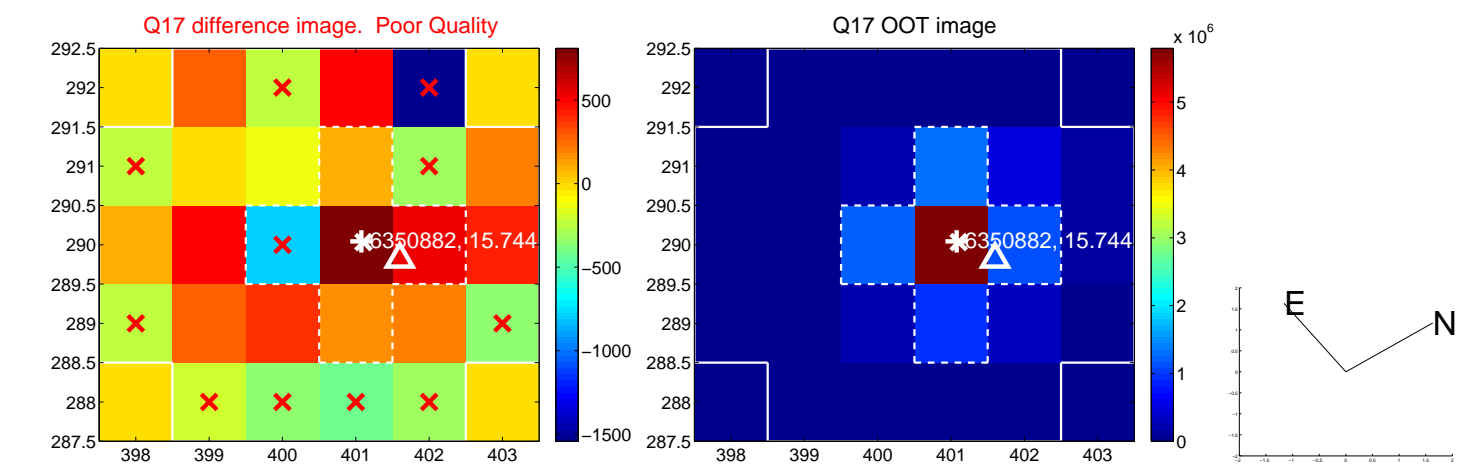
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UKIRT Image

Declination

