

KIC 006211812

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})
006211812-01	OBS	2638.01	2.524010	133.860306	243.3	1.210	15.2	16.0	0.87	5420	1.64	496.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006211812-01	OBS	PC	0.97	0	0	0	0	CENT_KIC_POS

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.

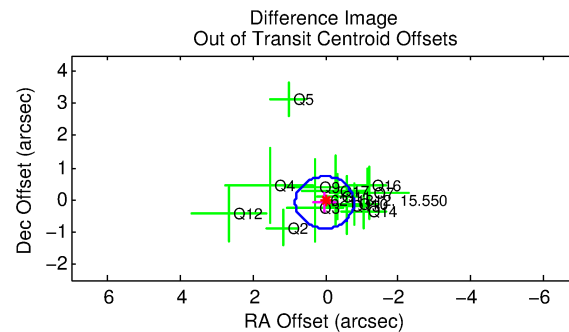
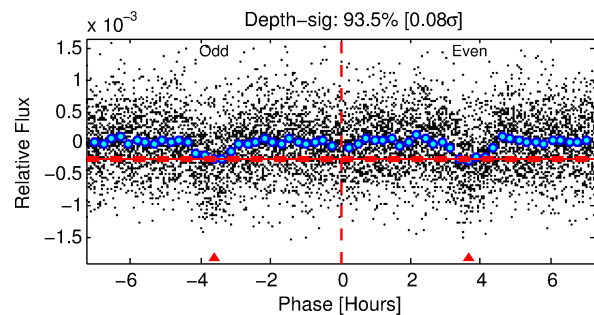
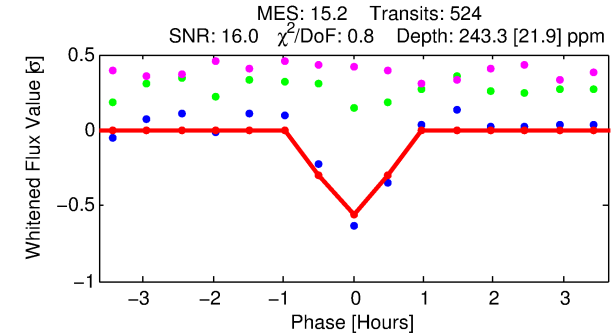
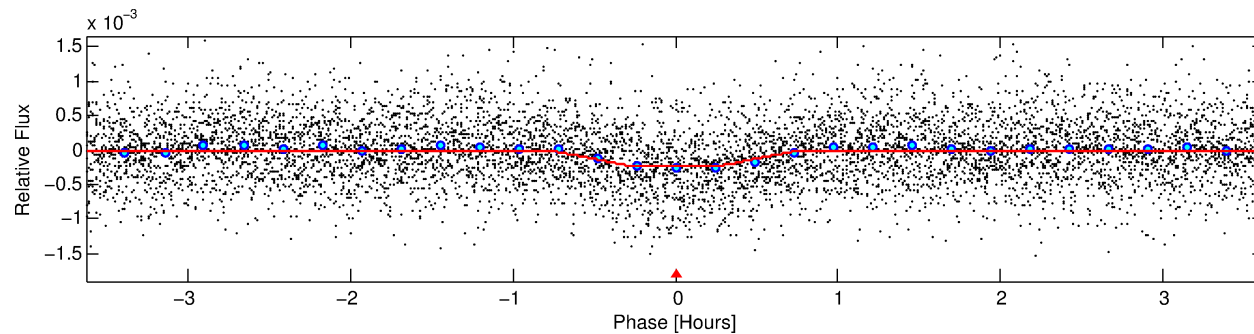
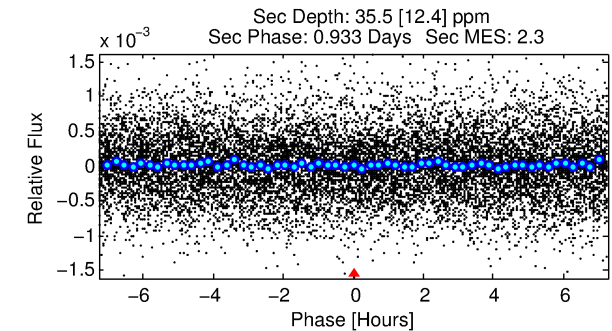
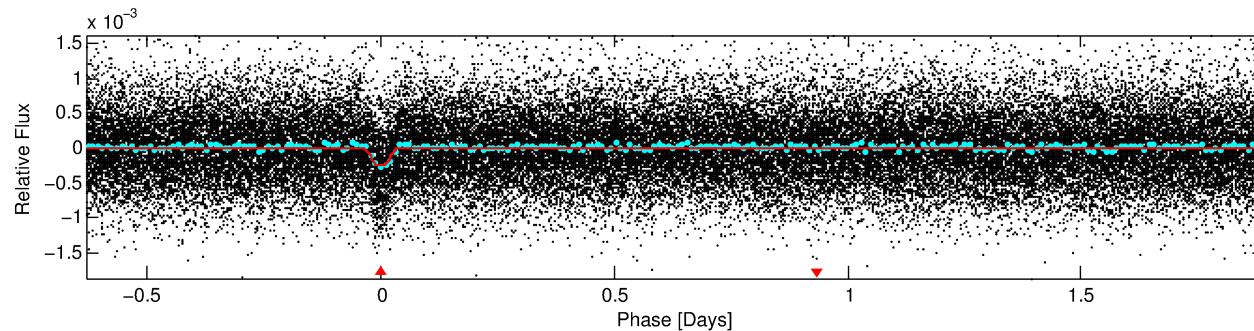
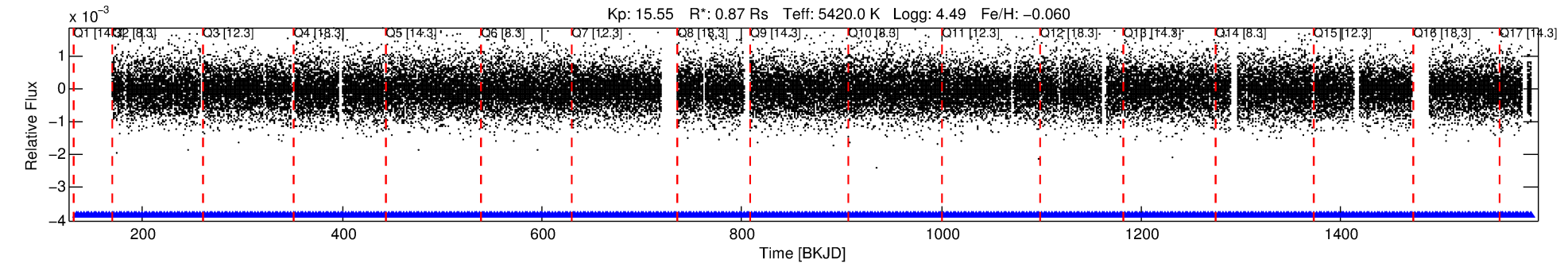
Ephemeris Match Information For 006211812-01

No Significant Match Found

DV One-Page Summary

KIC: 6211812 Candidate: 1 of 1 Period: 2.524 d

KOI: K02638.01 Corr: 0.954



DV Fit Results:

Period = 2.52401 [0.00001] d
Epoch = 133.8603 [0.0014] BKJD
Rp/R* = 0.0172 [0.0098]
a/R* = 7.71 [18.71]
b = 0.90 [0.56]
Seff = 496.72 [144.16]
Teff = 1204 [87] K
Rp = 1.64 [0.99] Re
a = 0.0344 [0.0061] AU
Ag = 8.60 [10.47] [0.73σ]
Teffp = 3188 [953] K [2.07σ]

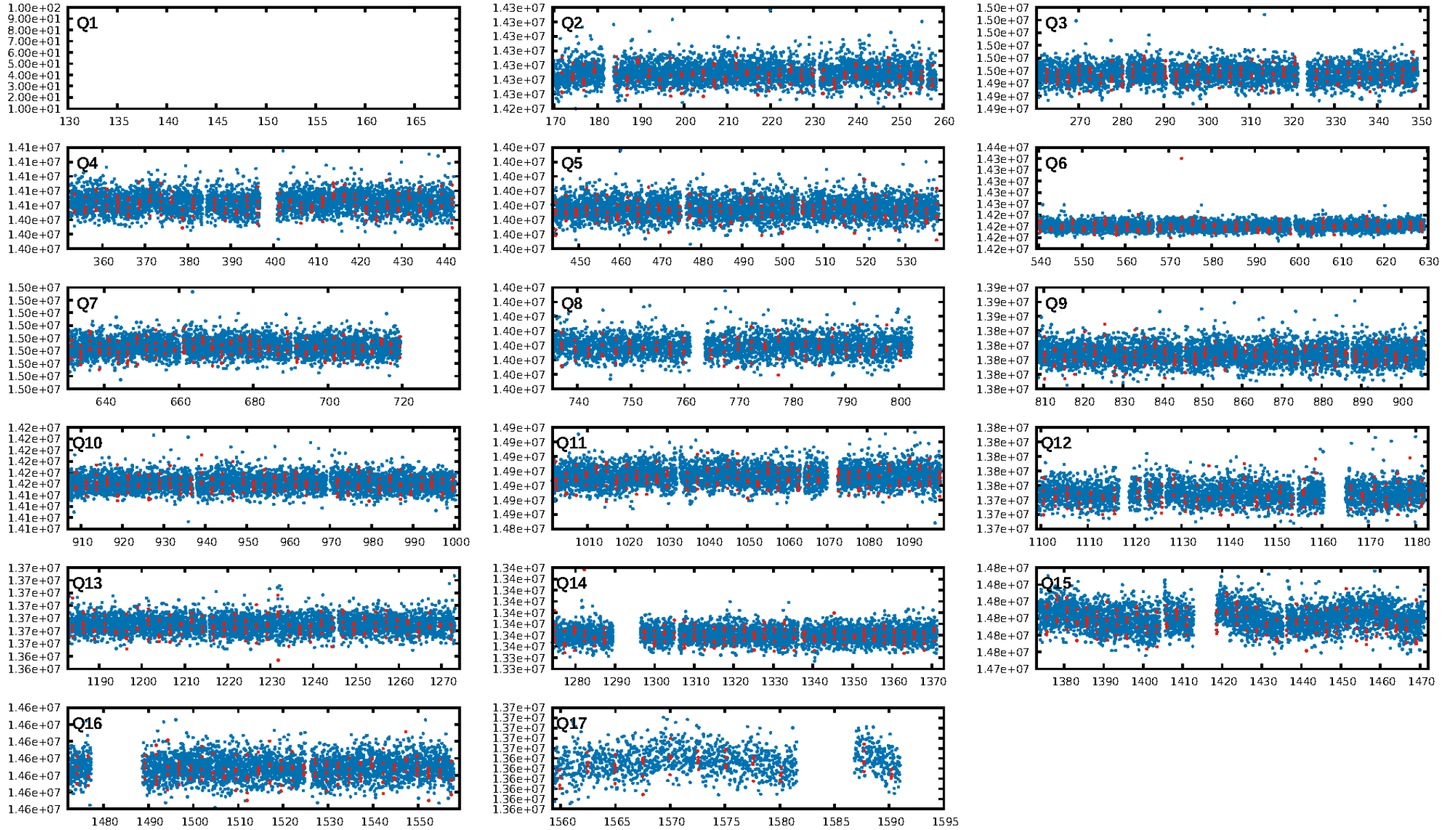
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.75e-49
RollingBand-fgt: 1.00 [513/513]
GhostDiagnostic-chr: -4.762
Centroid-sig: 2.2%
Centroid-so: 0.992 arcsec [1.25σ]
OotOffset-rm: 0.086 arcsec [0.32σ]
KicOffset-rm: 0.427 arcsec [1.60σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [16/16]

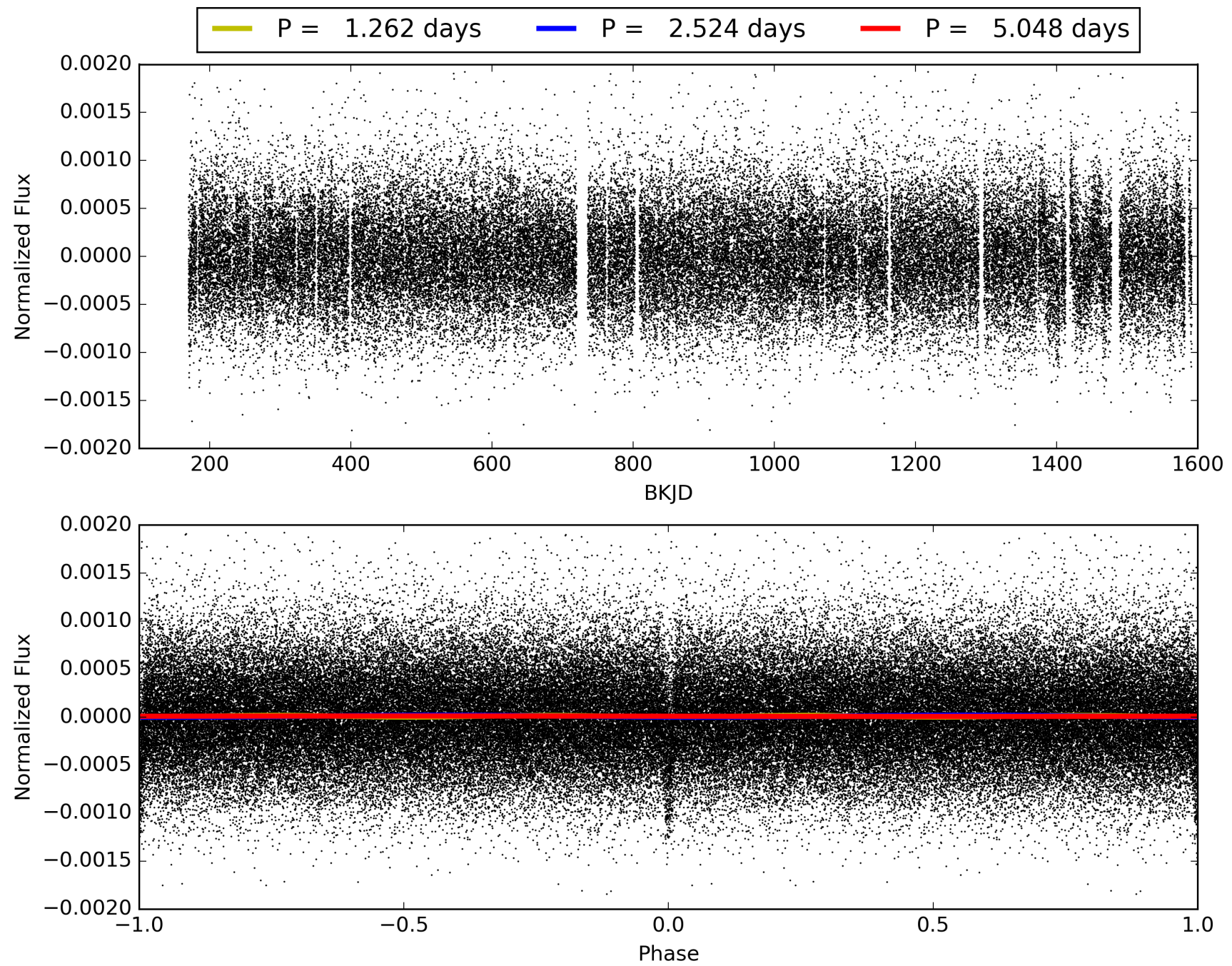
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:47:46 Z

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

TCE 006211812-01, PDC Light Curves

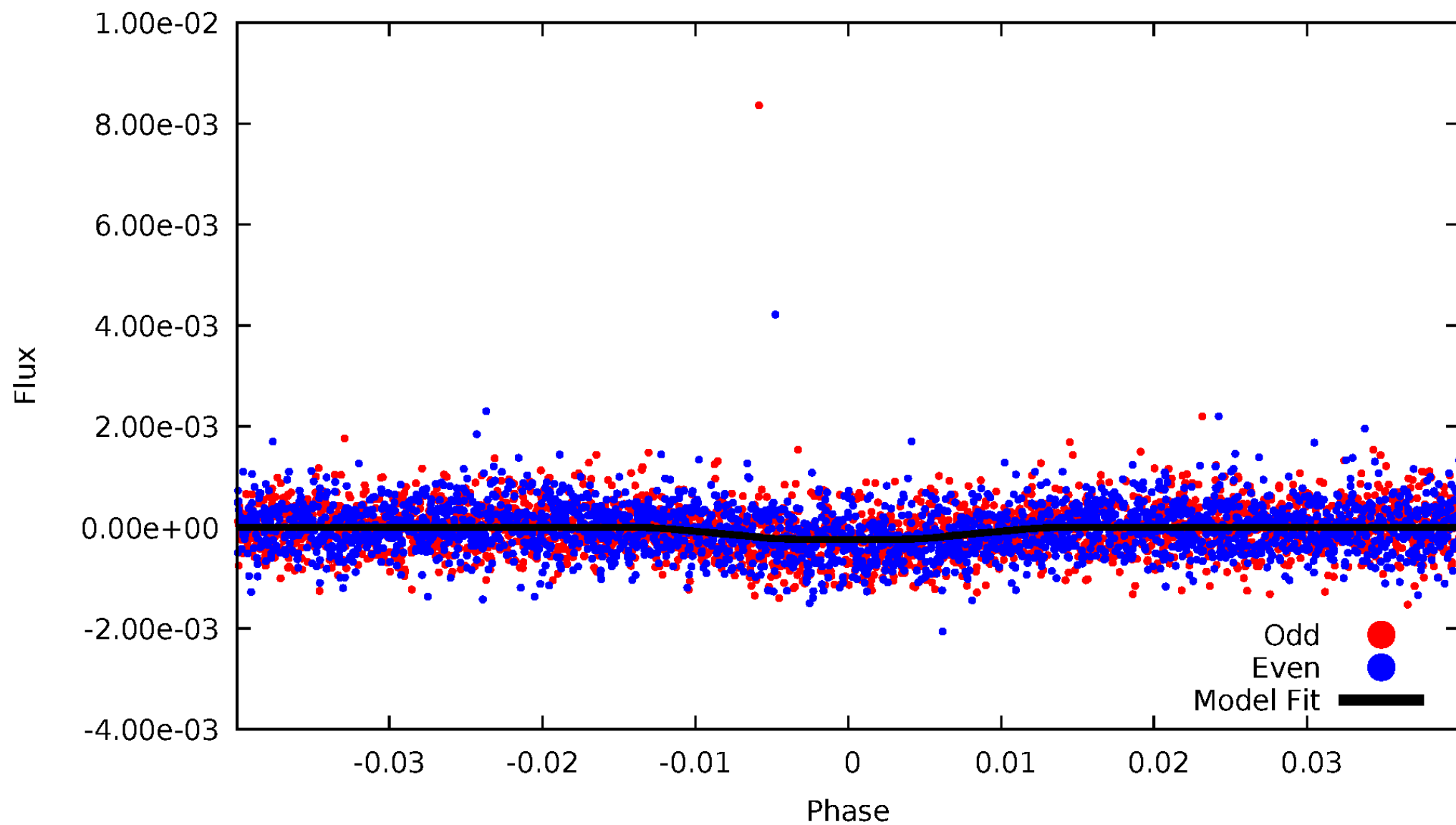


TCE 006211812-01



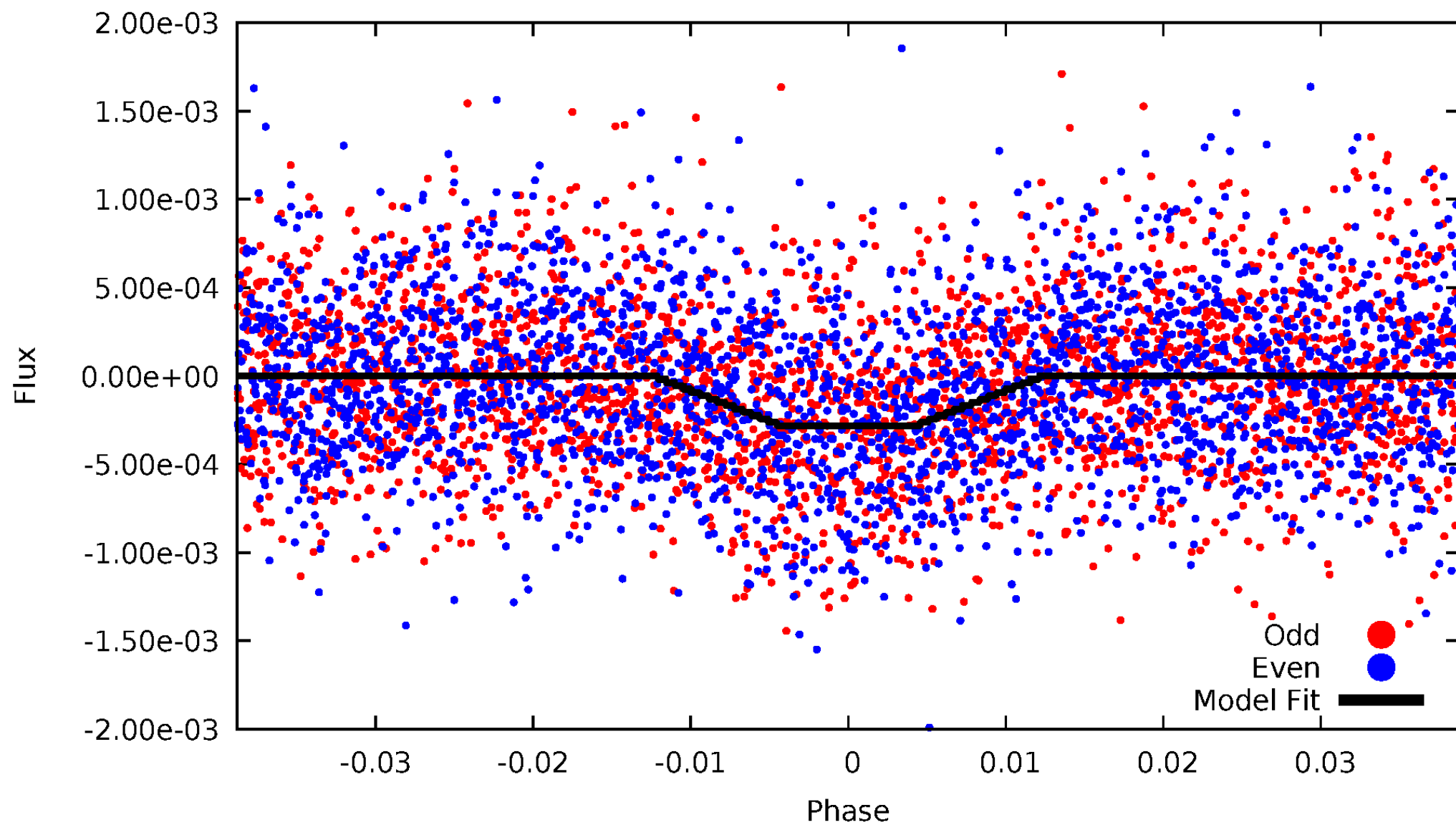
DV Odd/Even

TCE 006211812-01



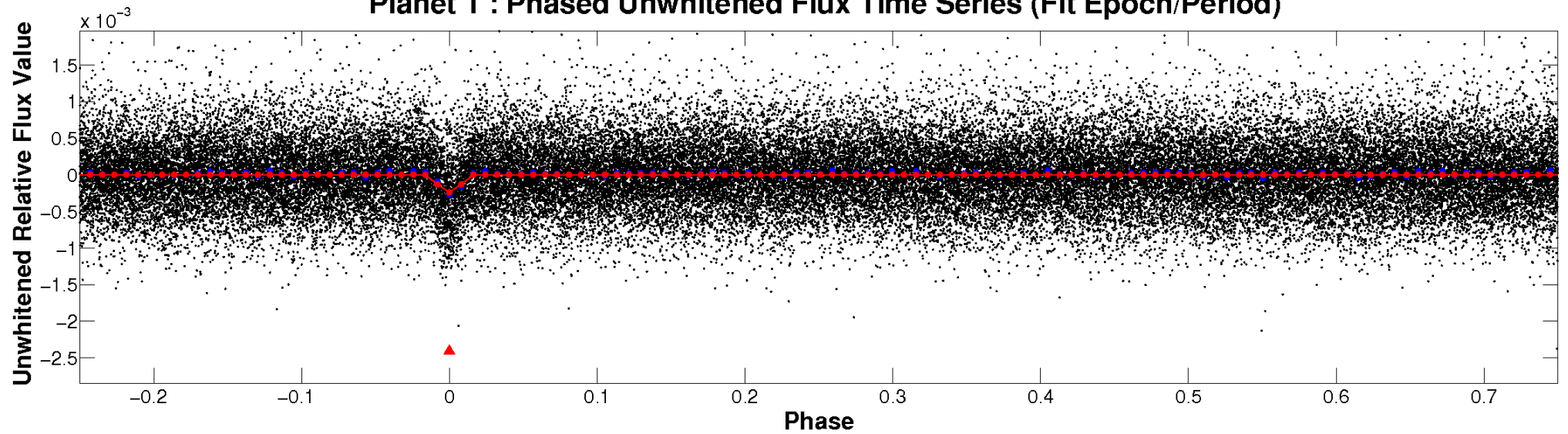
ALT Odd/Even

TCE 006211812-01

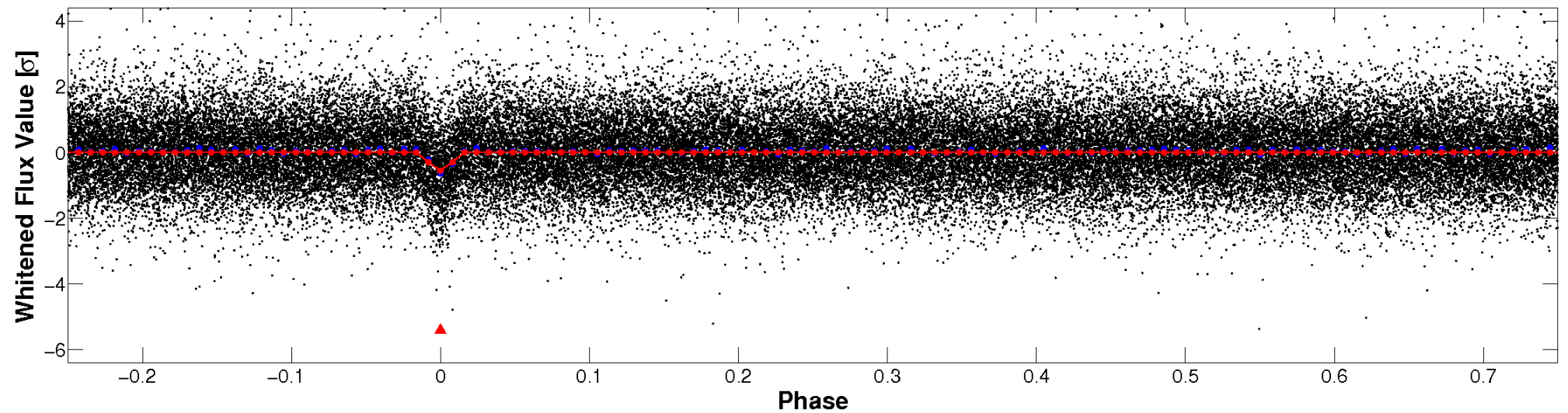


Non-Whitened Vs. Whitened Light Curve

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

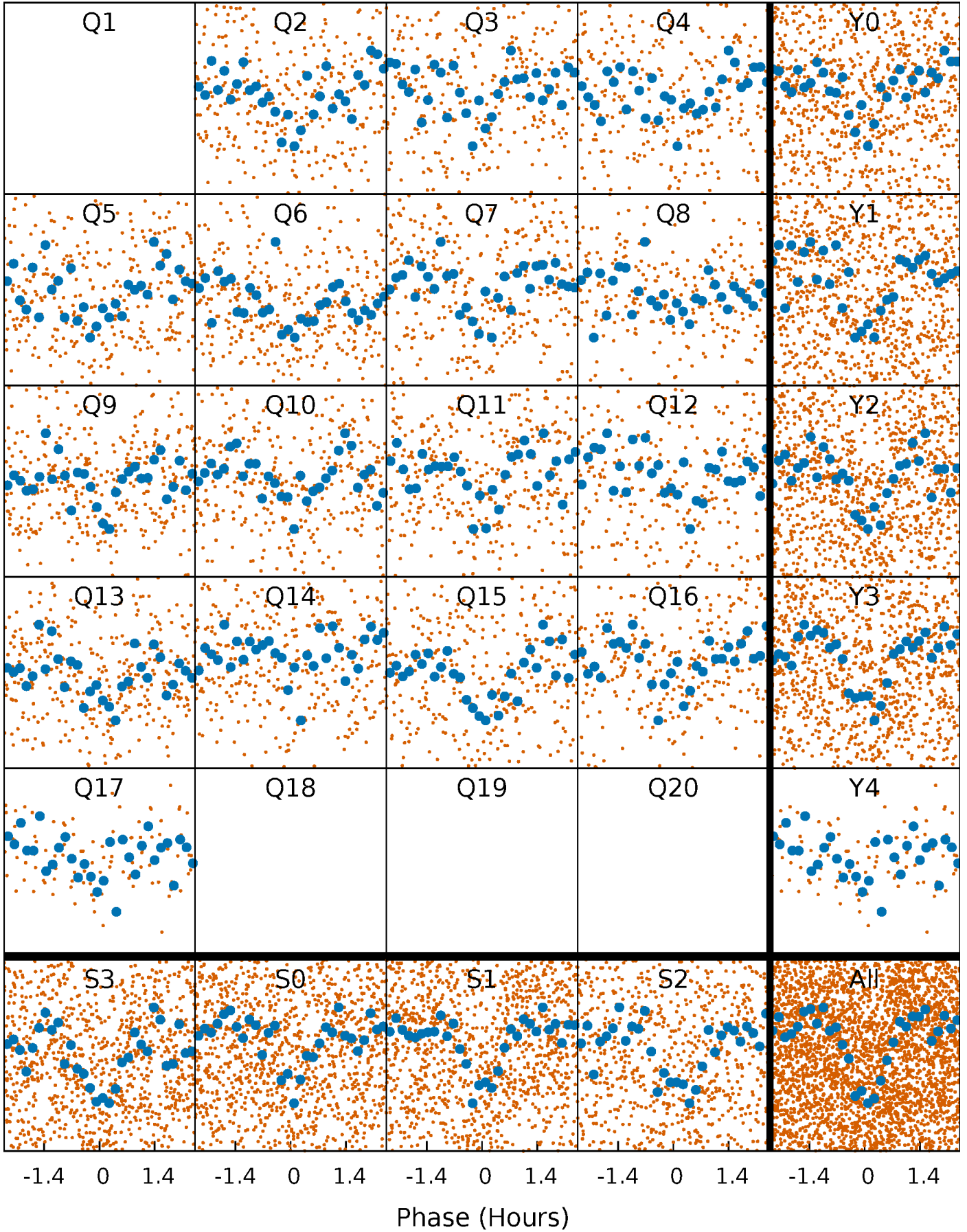


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



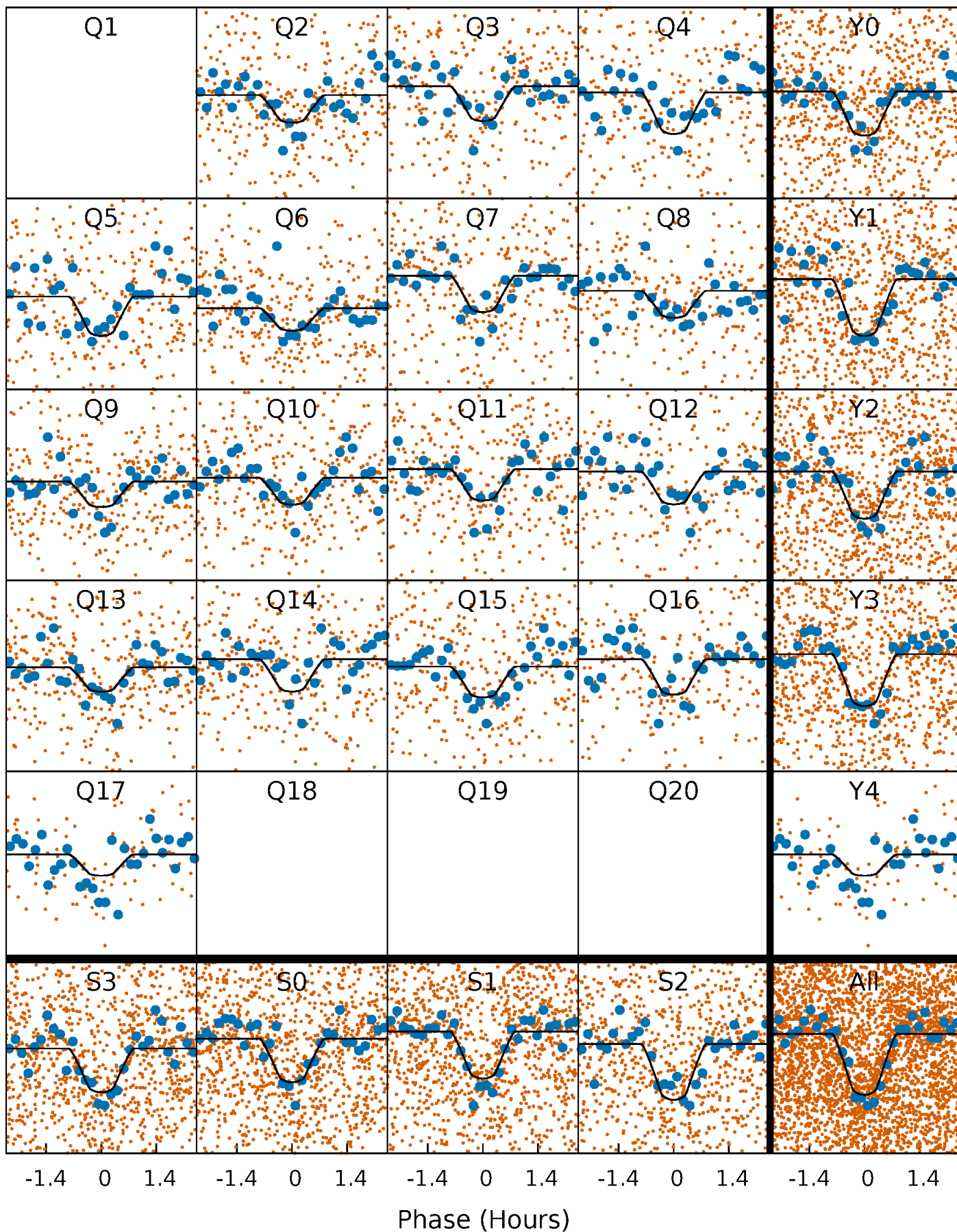
PDC Quarter-Phased Transit Curves

TCE 006211812-01 P= 2.524010 Days $T_0=133.860306$ (BKJD)



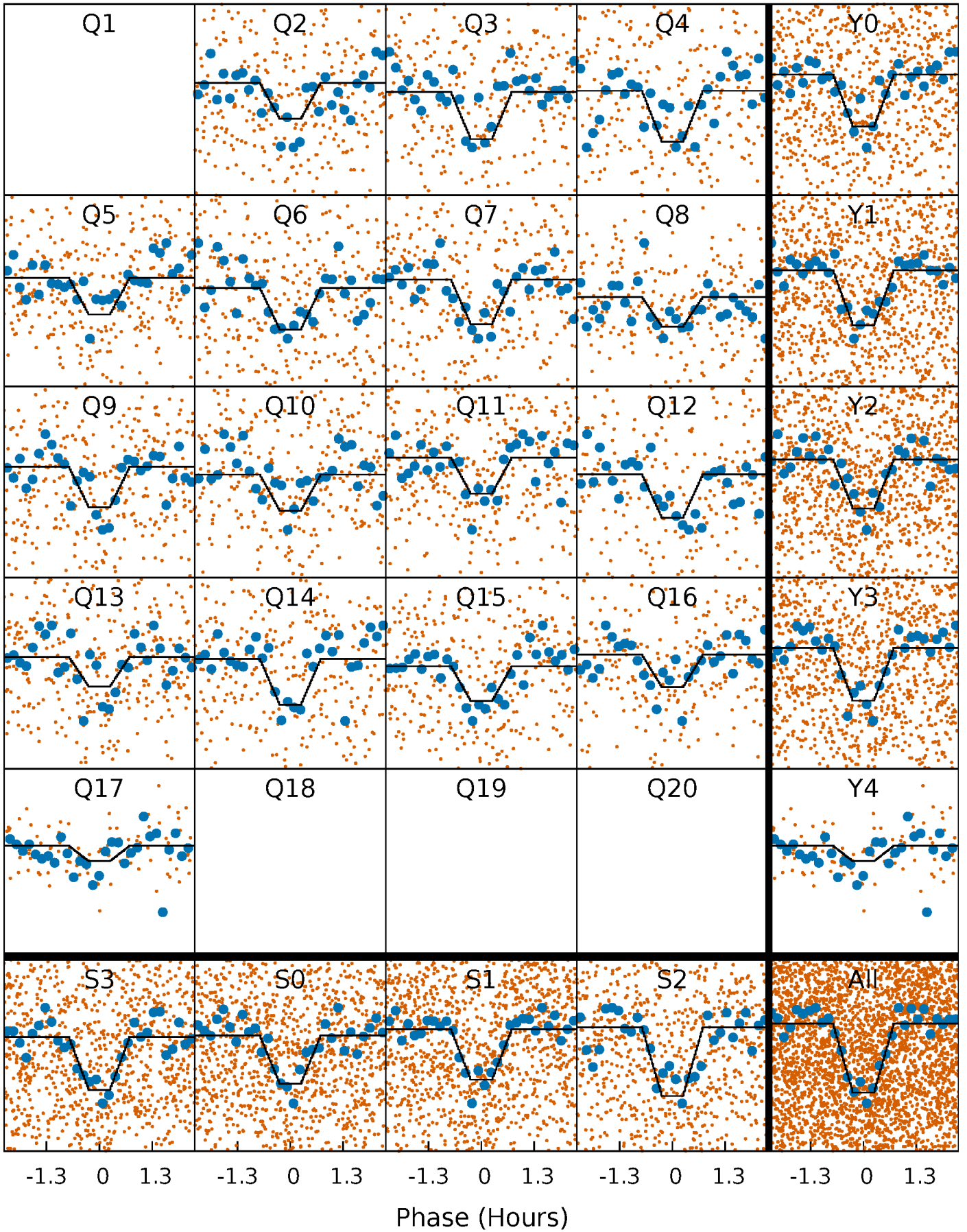
DV Quarter-Phased Transit Curves

TCE 006211812-01 P= 2.524010 Days $T_0=133.860306$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

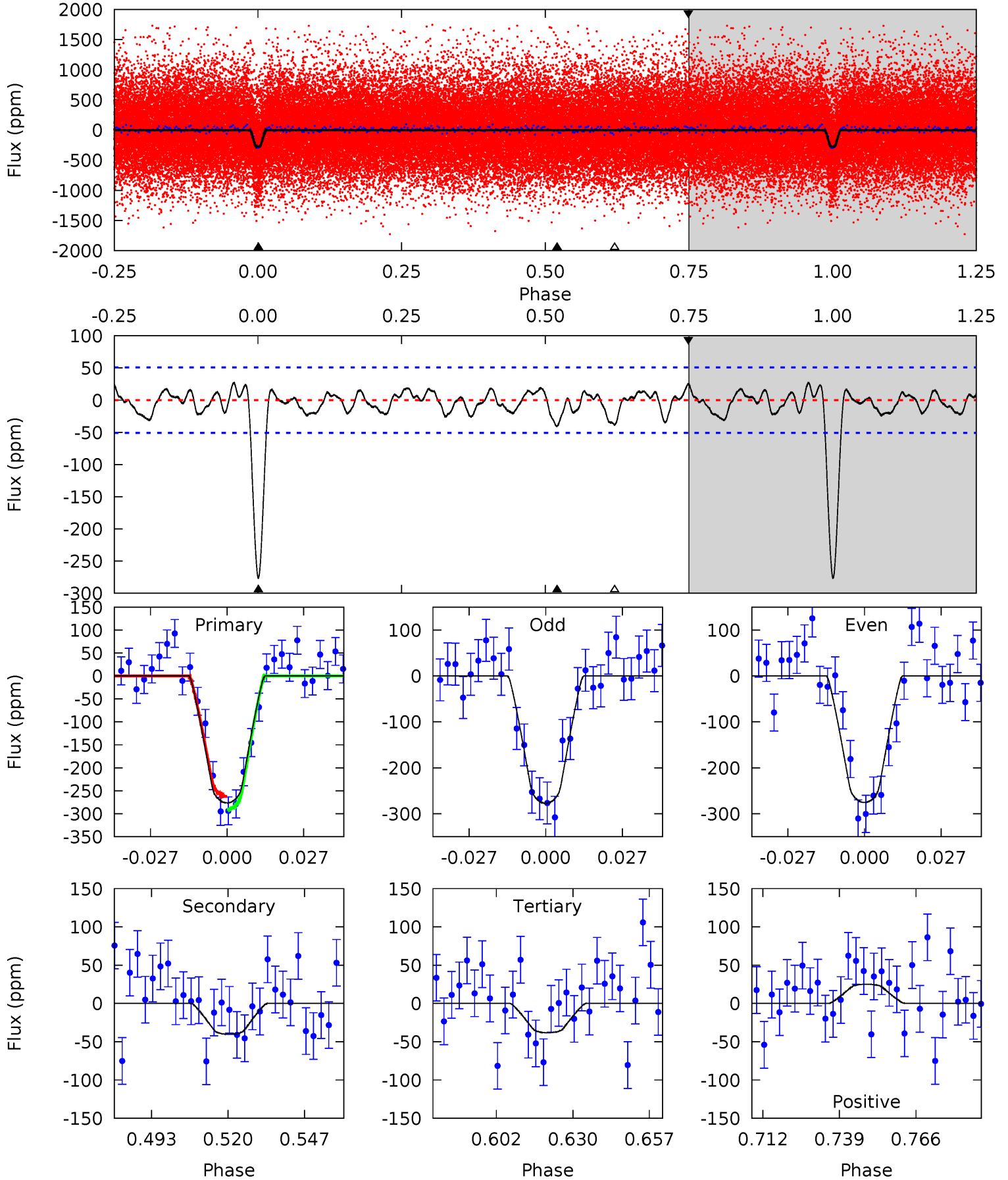
TCE 006211812-01 P= 2.524016 Days $T_0=133.860199$ (BKJD)



DV Model-Shift Uniqueness Test

006211812-01, P = 2.524010 Days, E = 133.860306 Days

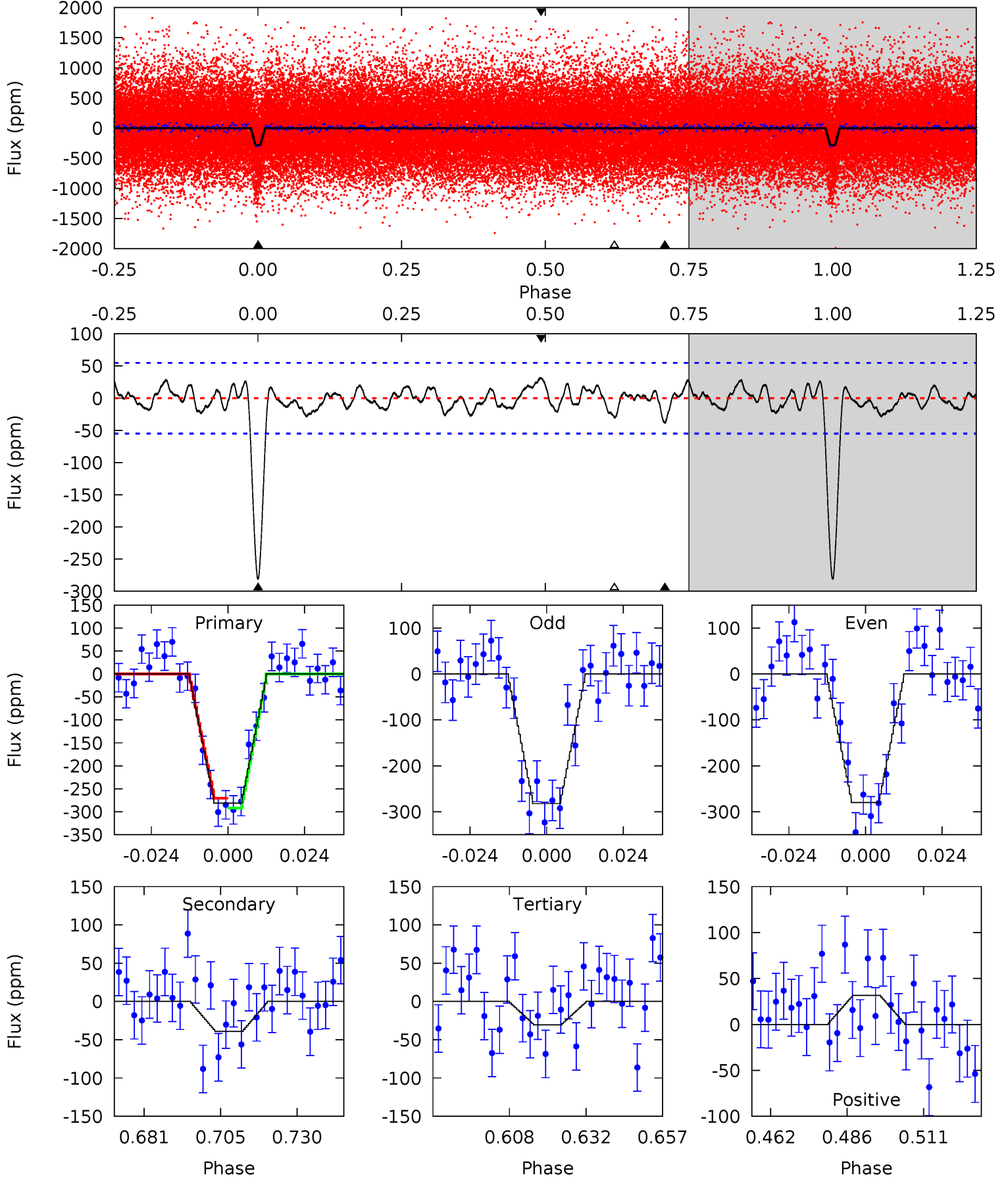
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.2	3.84	3.63	2.38	4.83	2.21	1.29	22.6	23.9	0.20	1.46	0.08	1.01	0.09	1.33



Alt Model-Shift Uniqueness Test

006211812-01, P = 2.524016 Days, E = 133.860199 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	3.45	2.70	2.80	4.85	2.25	1.18	22.2	22.1	0.75	0.65	0.09	0.97	0.10	0.95



Stellar Parameters For KIC 006211812

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5420^{+177}_{-161}	$4.487^{+0.077}_{-0.143}$	$-0.060^{+0.300}_{-0.300}$	$0.871^{+0.180}_{-0.097}$	$0.849^{+0.098}_{-0.073}$	$1.810^{+0.599}_{-0.705}$
	+3%/-3%	+2%/-3%	+500%/-500%	+21%/-11%	+12%/-9%	+33%/-39%
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 006211812-01 / KOI 2638.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-40 ± 11	$1.70^{+0.98}_{-0.85}$	1701^{+97}_{-83}	3658^{+1029}_{-512}	$8.940^{+27.850}_{-5.397}$
Alt.	-39 ± 11	$1.70^{+0.87}_{-0.91}$	1699^{+101}_{-85}	3647^{+1078}_{-540}	$8.725^{+28.721}_{-5.416}$

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 $A_{obs} \gg 1.0$

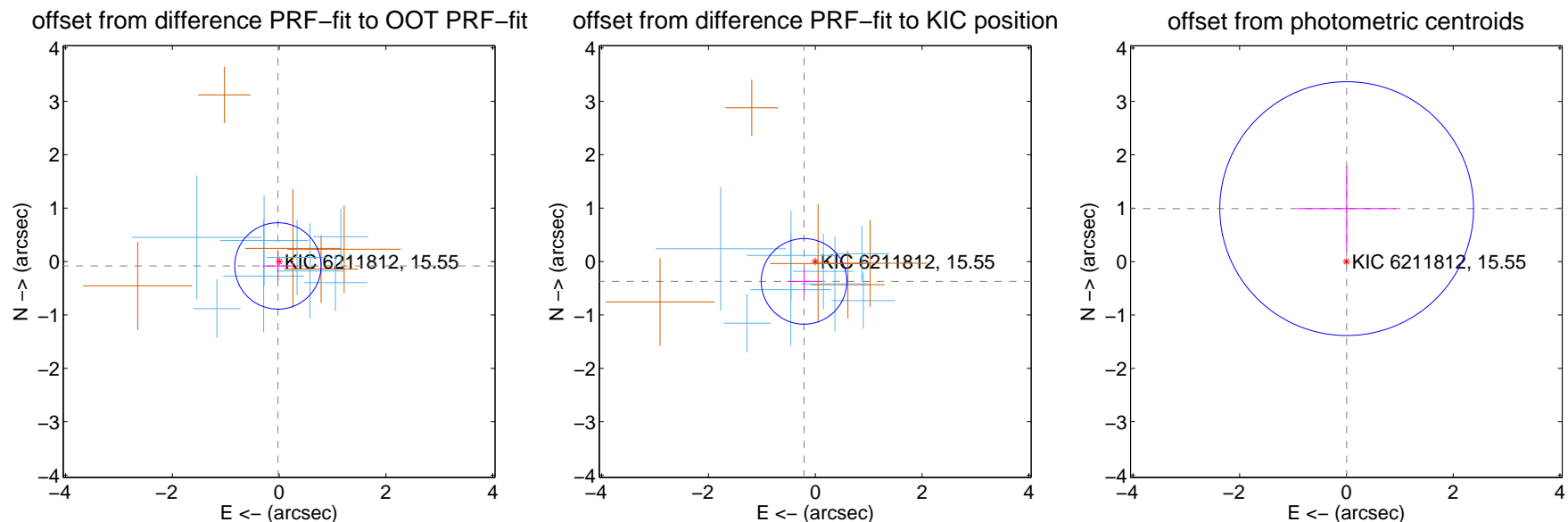
DV Centroid Data

Supplemental centroid analysis for 006211812-01. Kepler magnitude: 15.55. Transit SNR 16.00

There are 8 quarters with good PRF difference image offsets

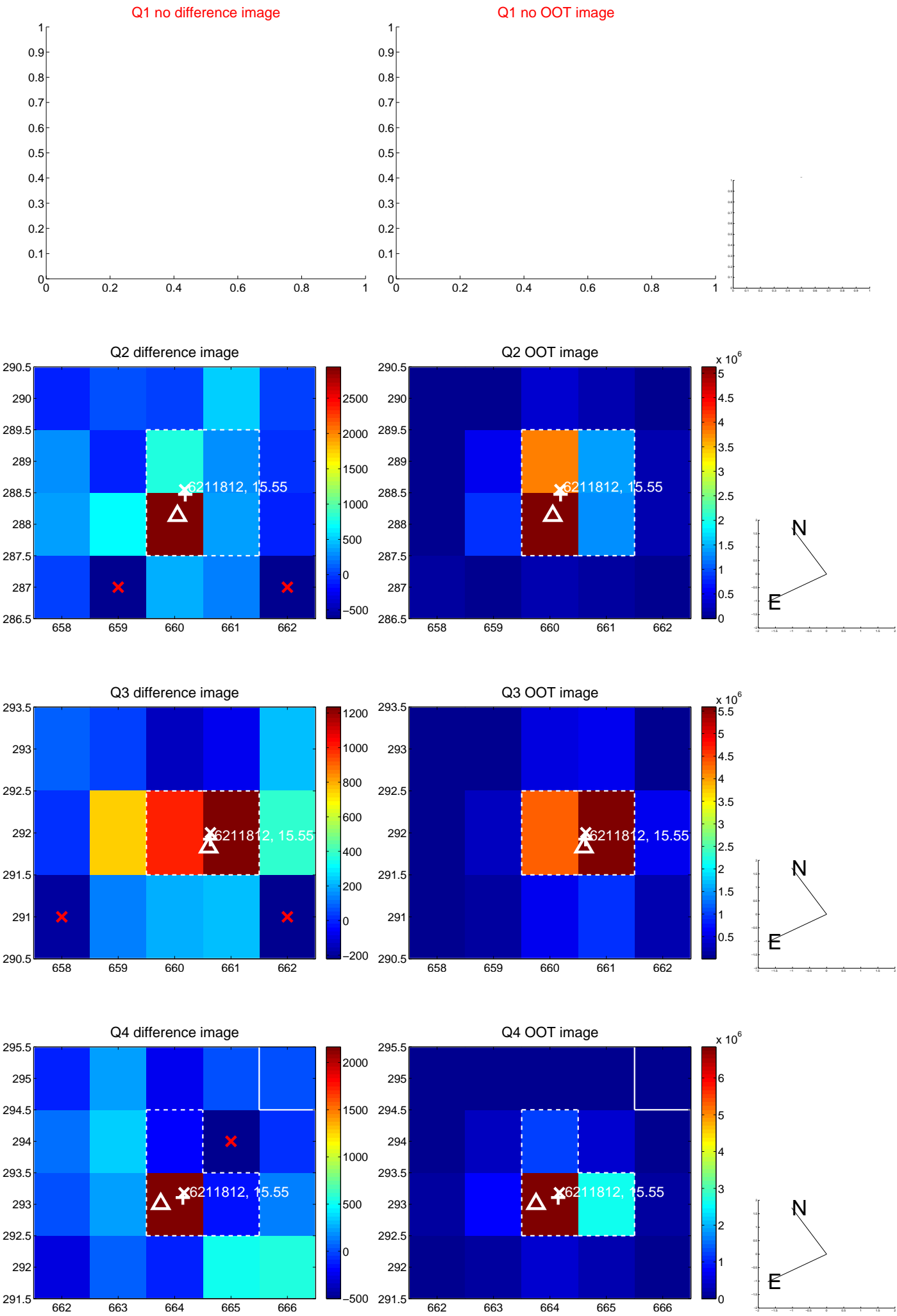
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.086 ± 0.269	0.32	0.023 ± 0.289	-0.082 ± 0.272
PRF-fit source offset from KIC position	0.427 ± 0.267	1.60	0.210 ± 0.317	-0.371 ± 0.245
photometric centroid source offset	0.99 ± 0.79	1.25	-0.01 ± 0.92	0.99 ± 0.79

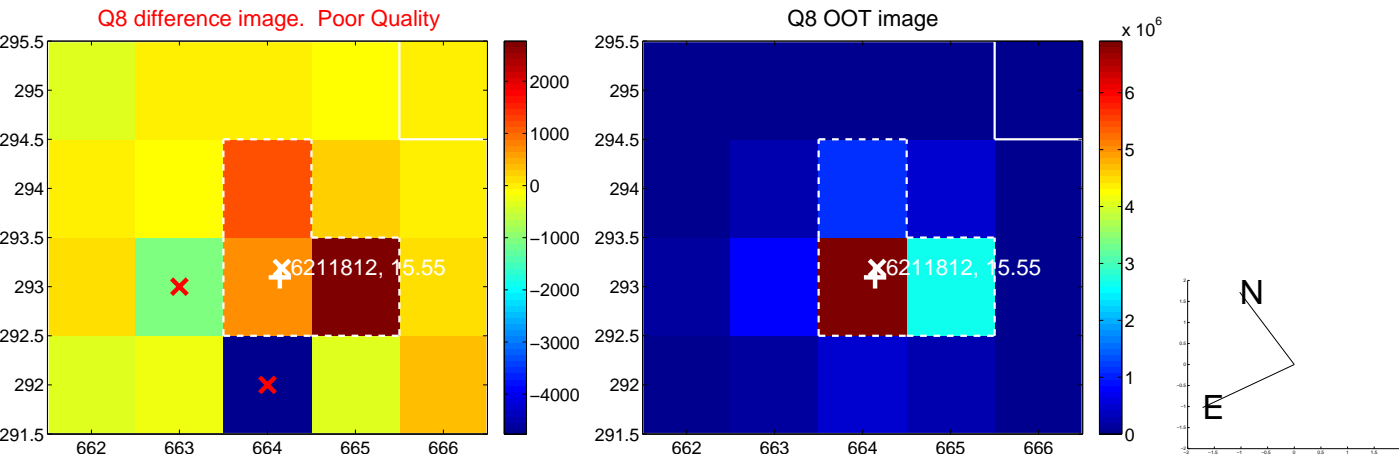
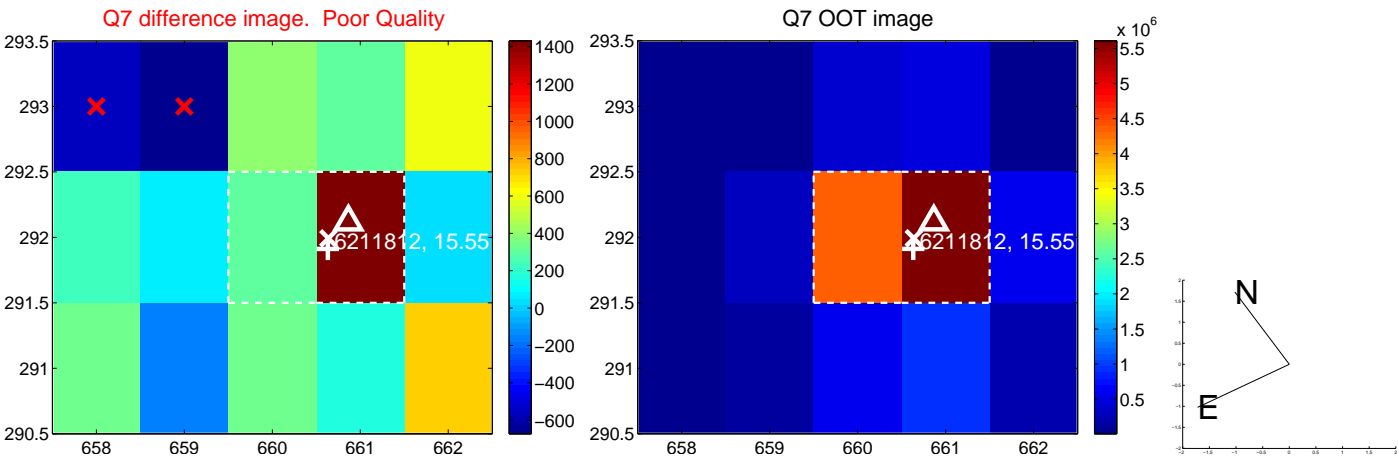
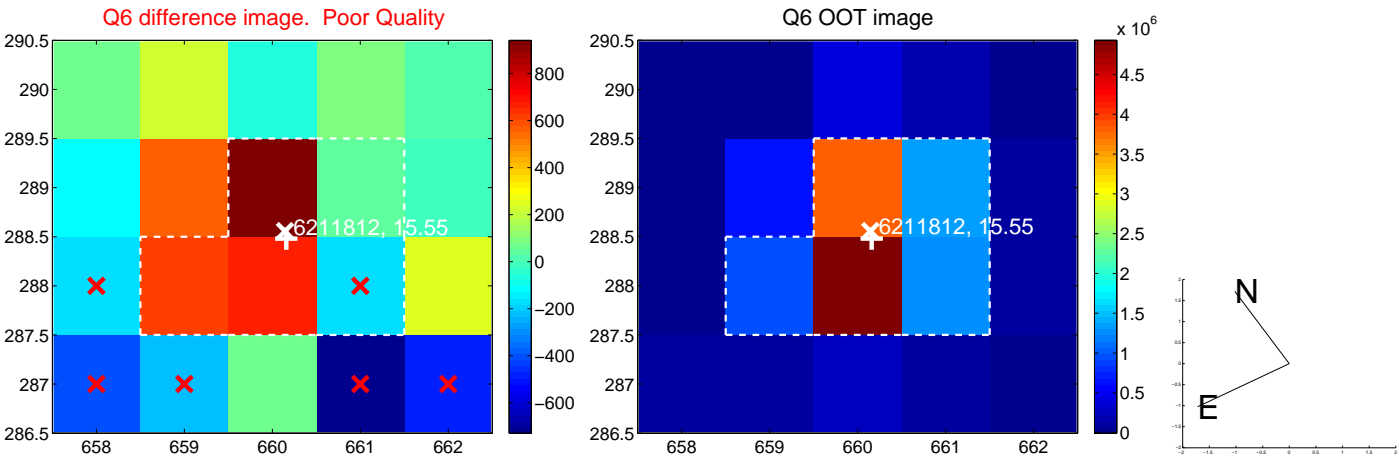
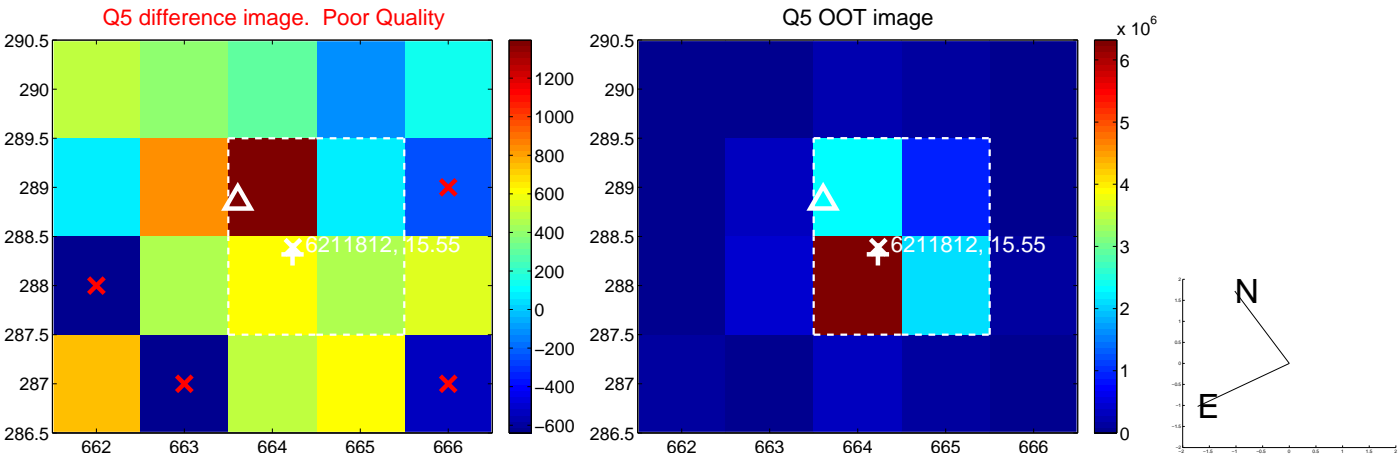


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

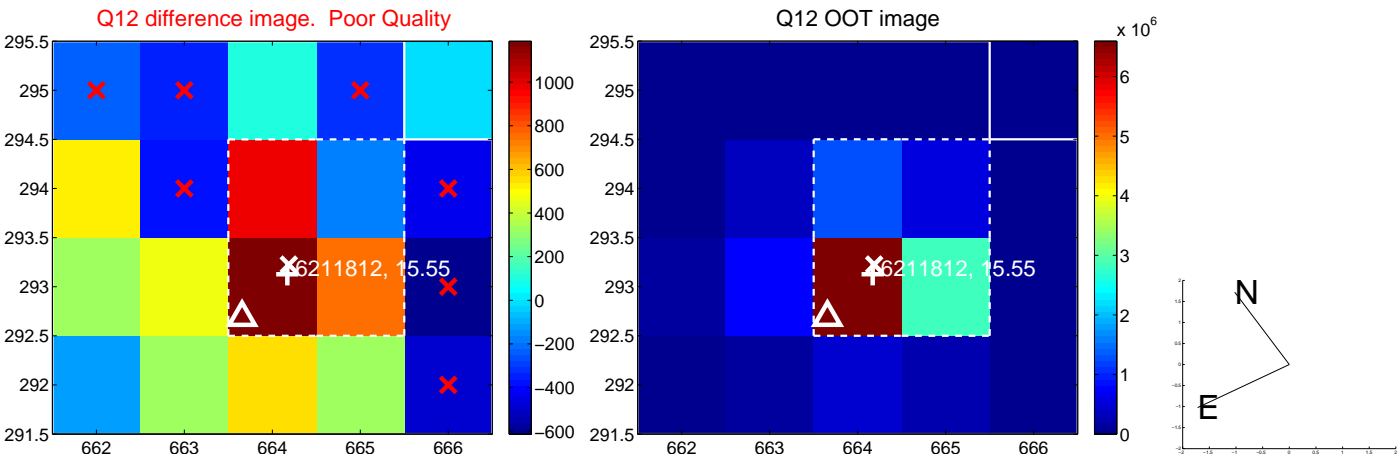
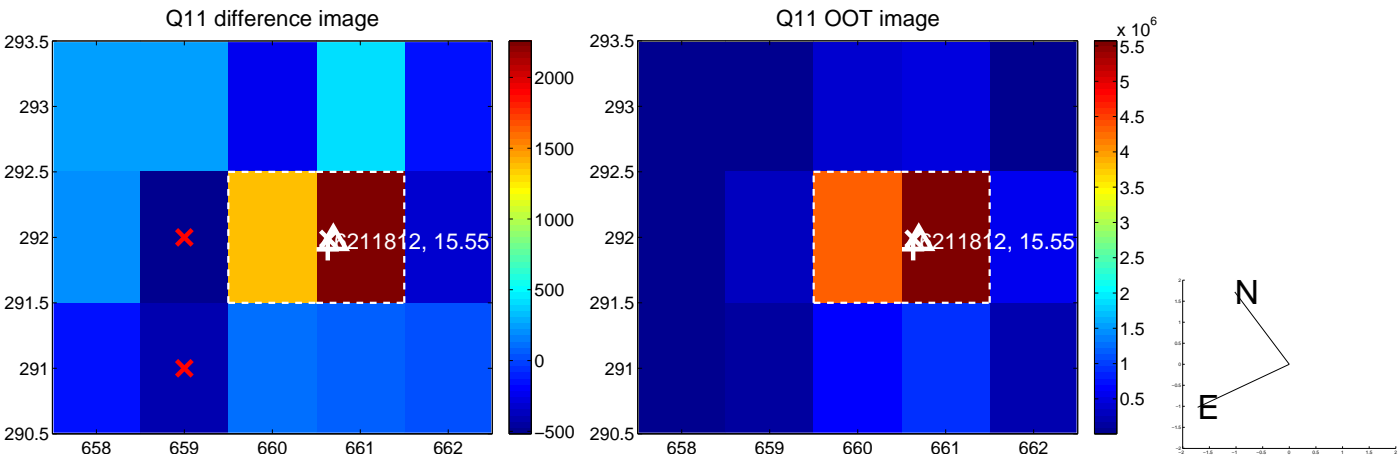
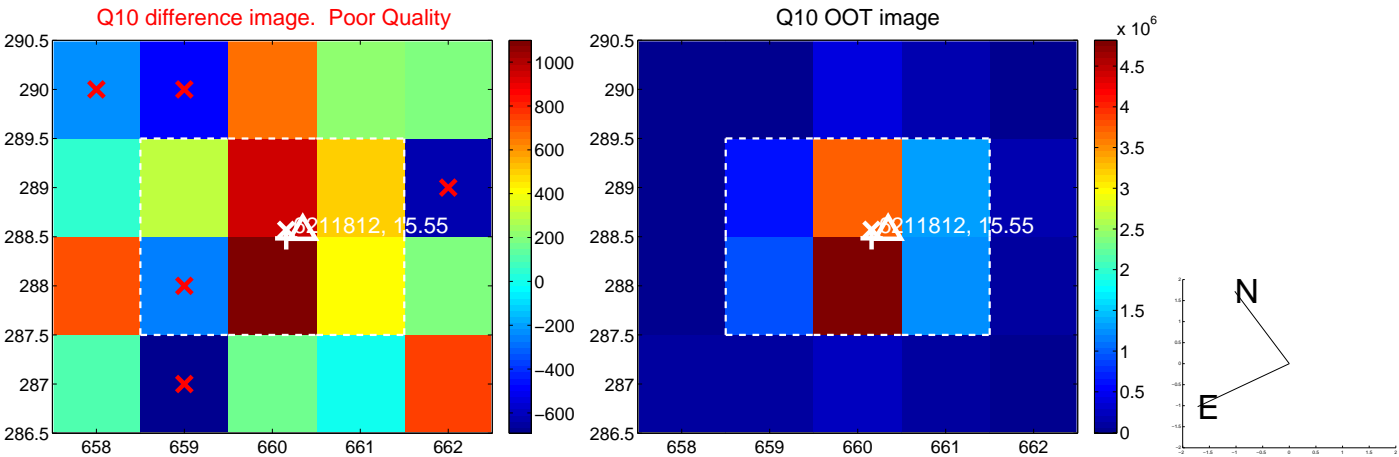
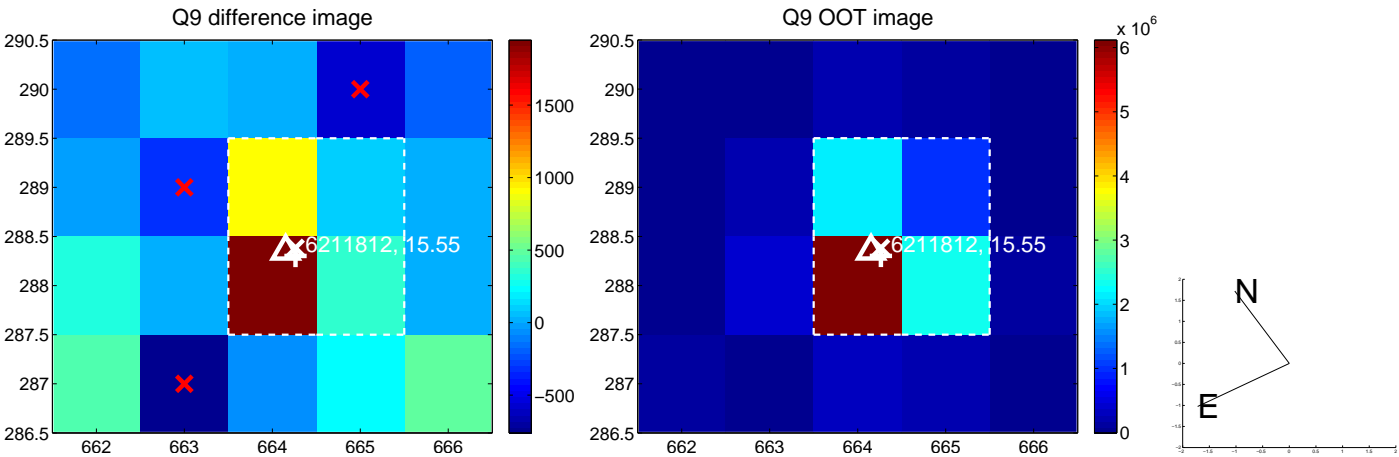
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



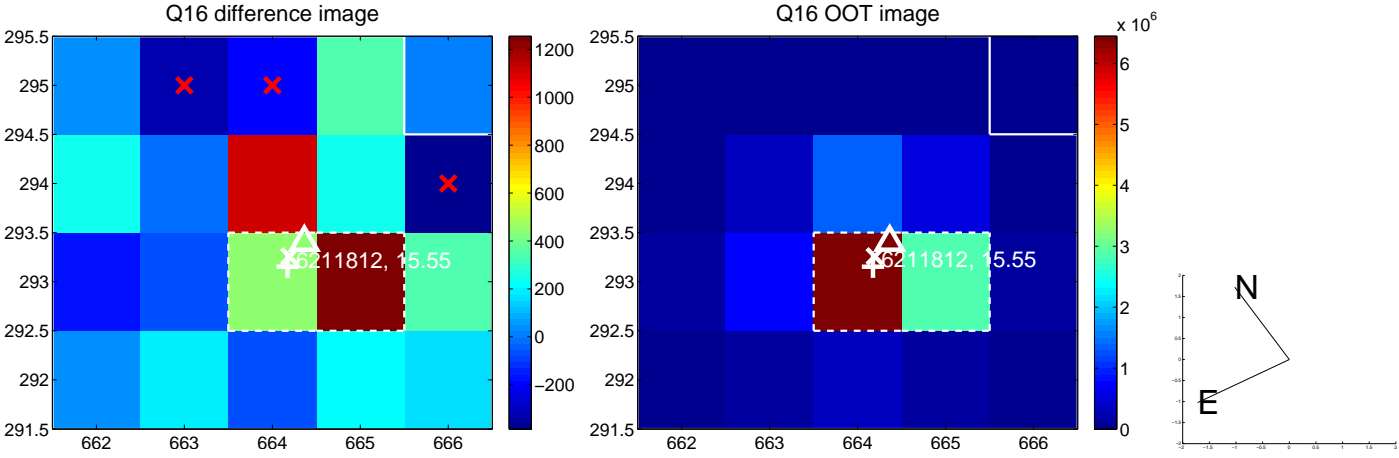
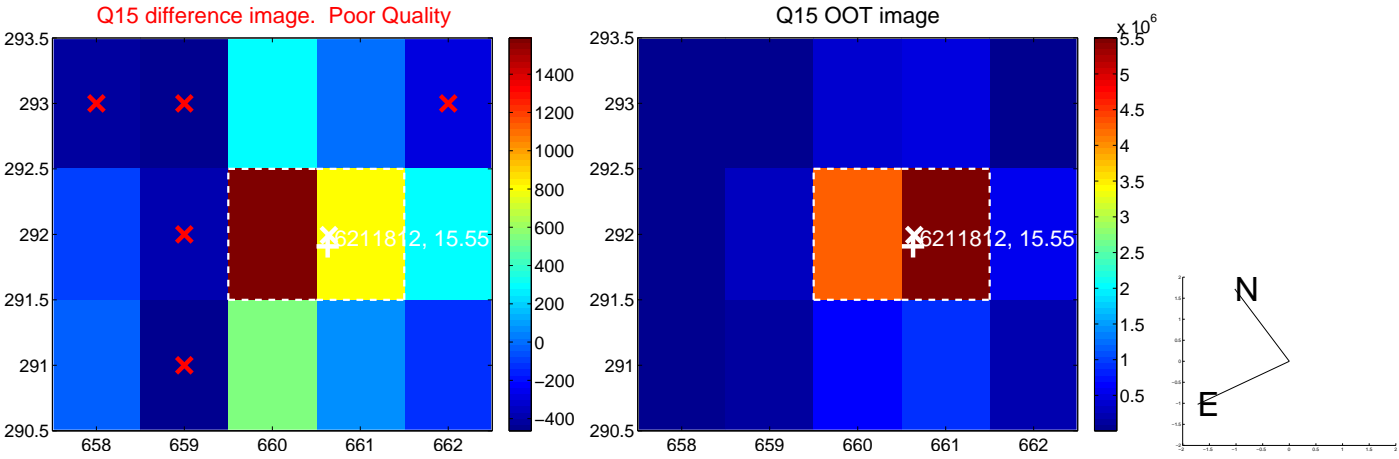
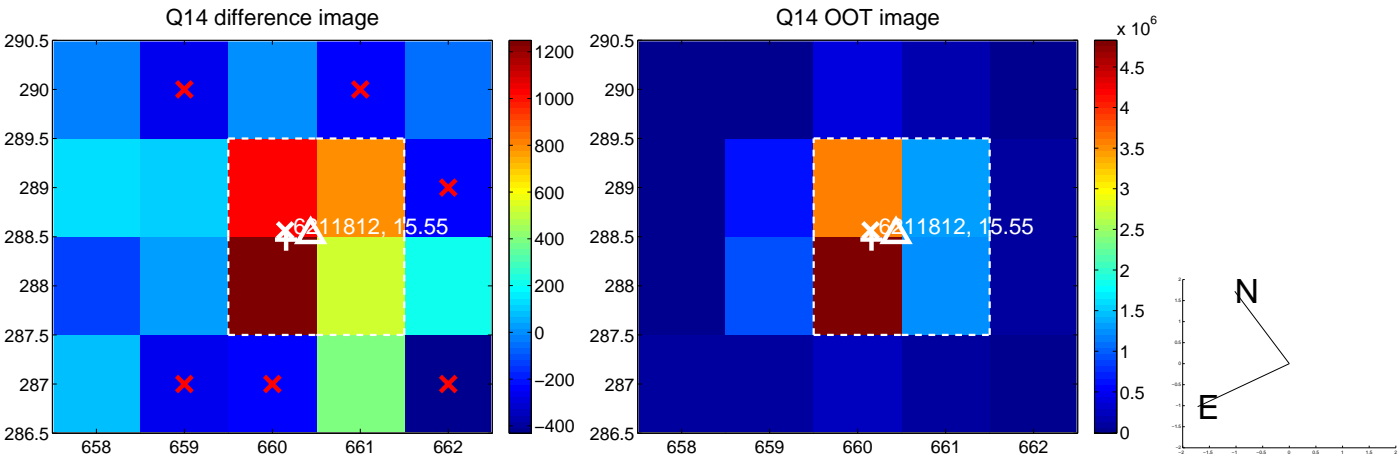
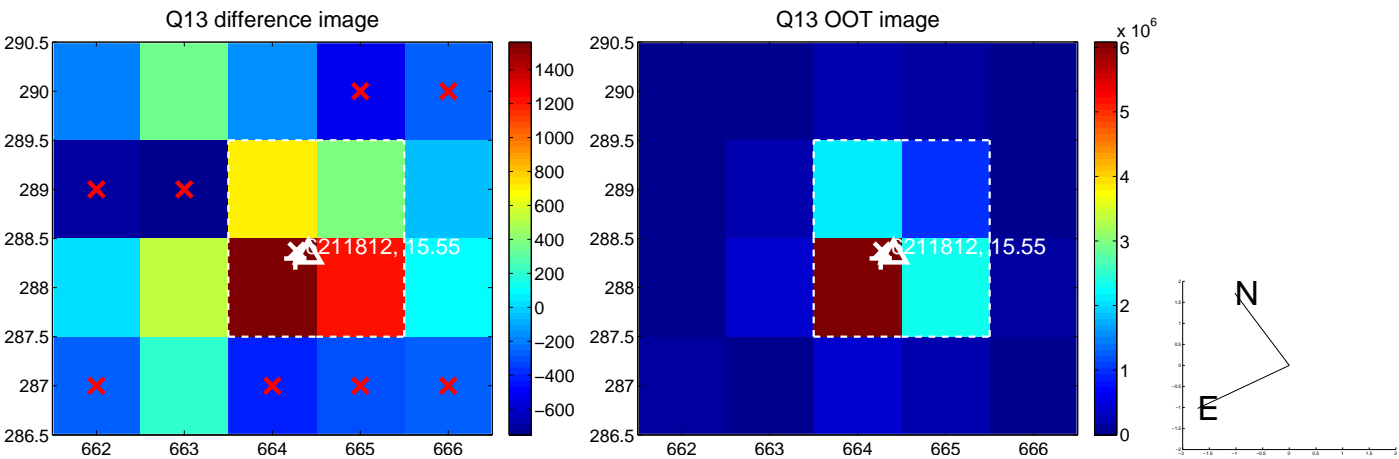
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



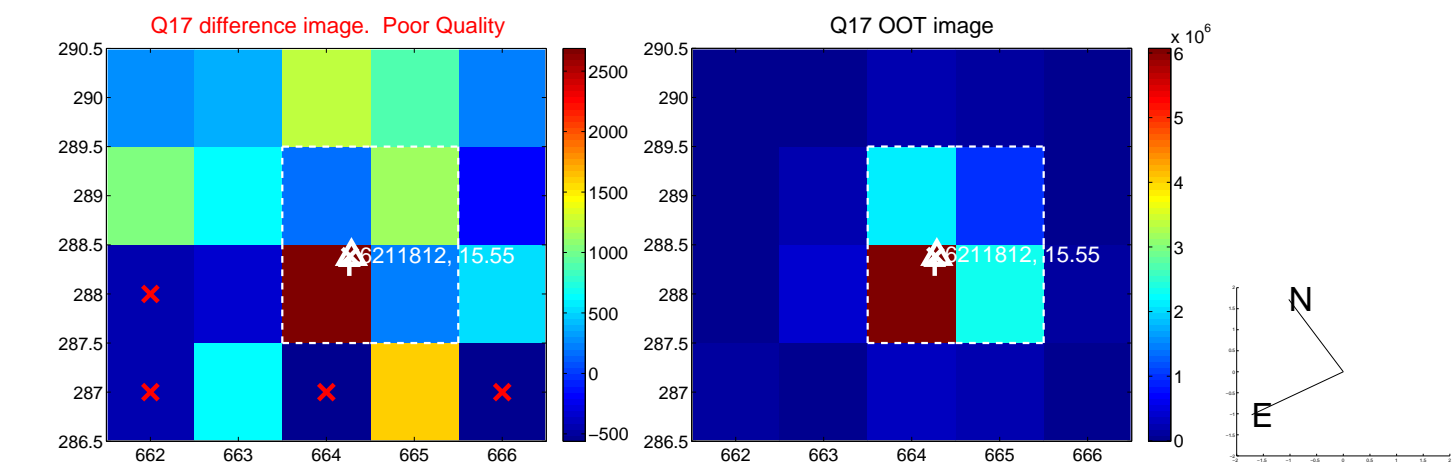
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



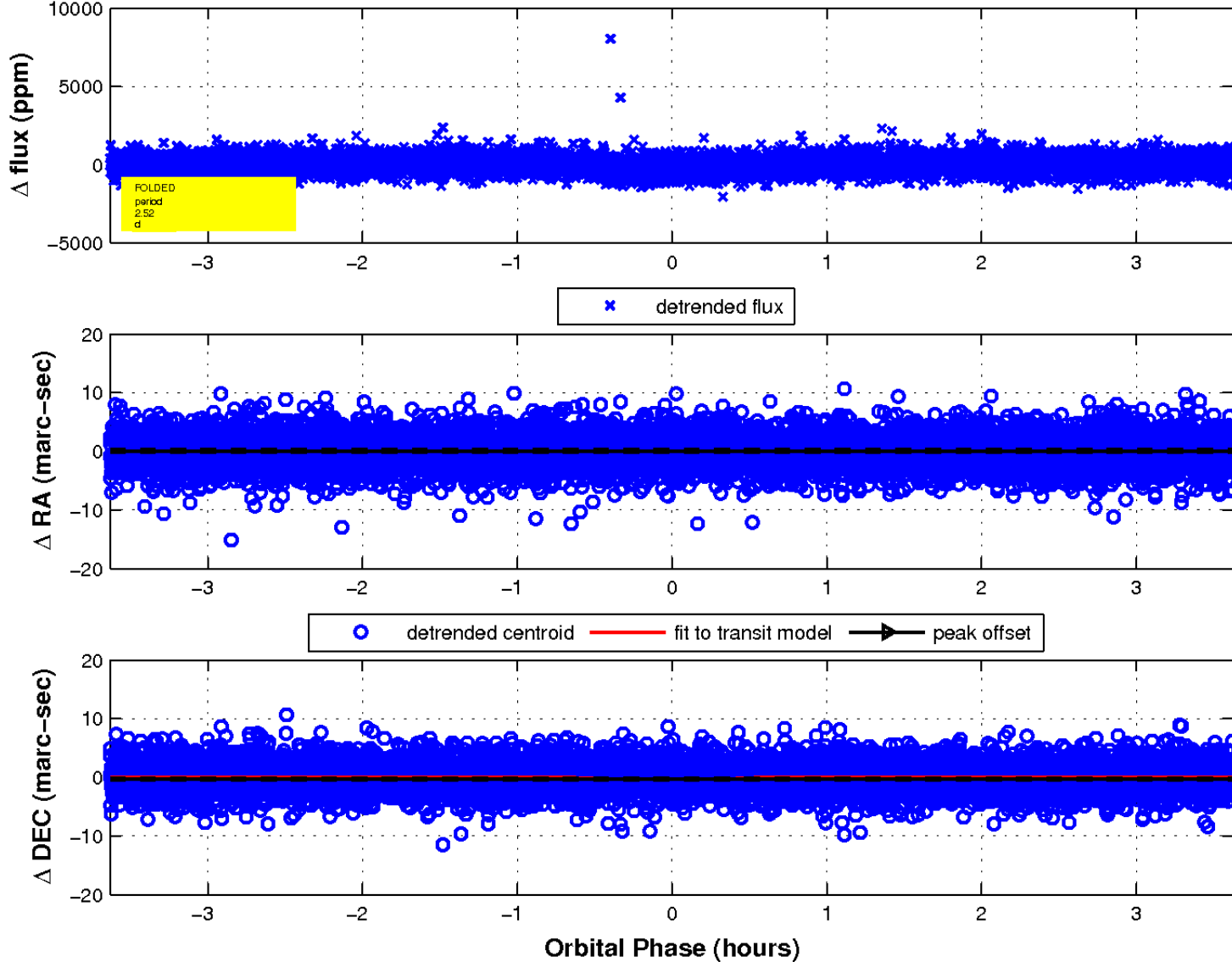
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

