

KIC 011337833

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})
011337833-01	OBS	1651.01	51.301694	153.518772	494.2	6.422	16.5	16.9	0.93	6032	2.52	13.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011337833-01	OBS	PC	0.99	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.

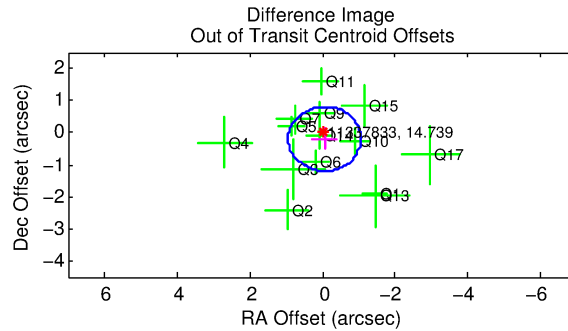
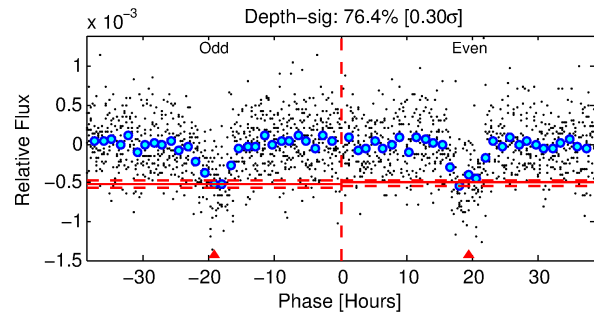
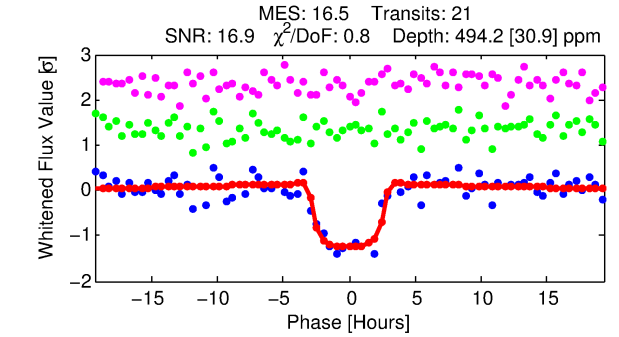
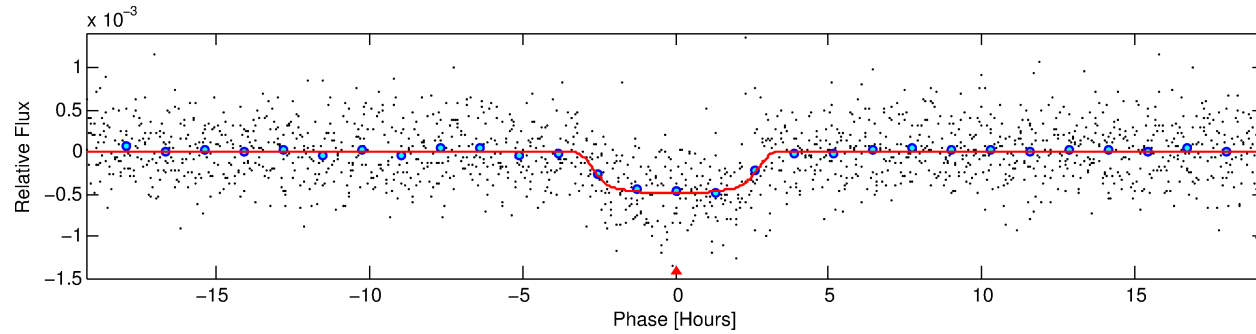
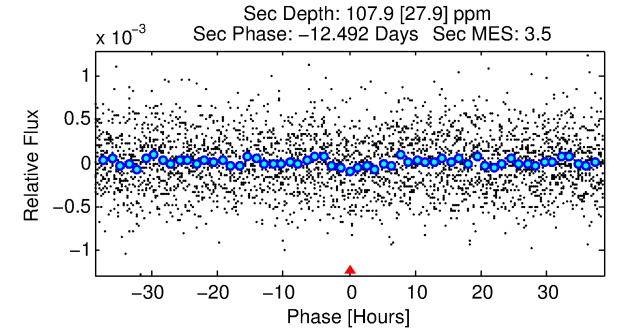
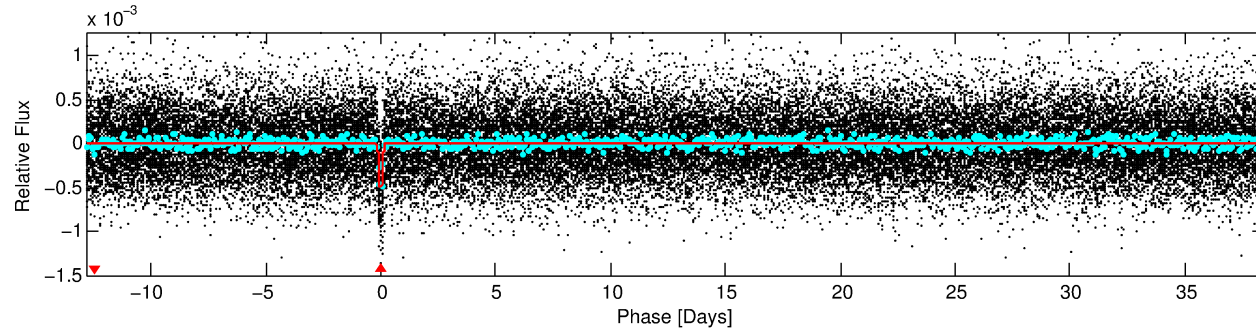
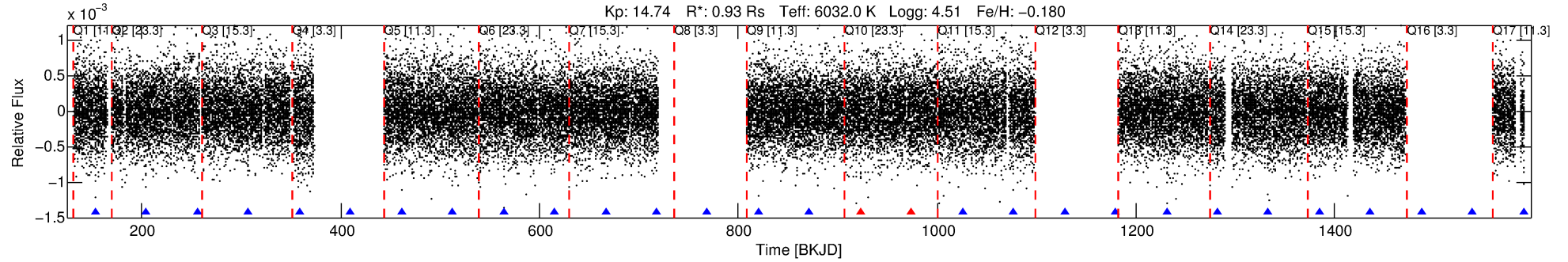
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011337833-01

No Significant Match Found

DV One-Page Summary

KIC: 11337833 Candidate: 1 of 1 Period: 51.302 d
KOI: K01651.01 Corr: 0.957



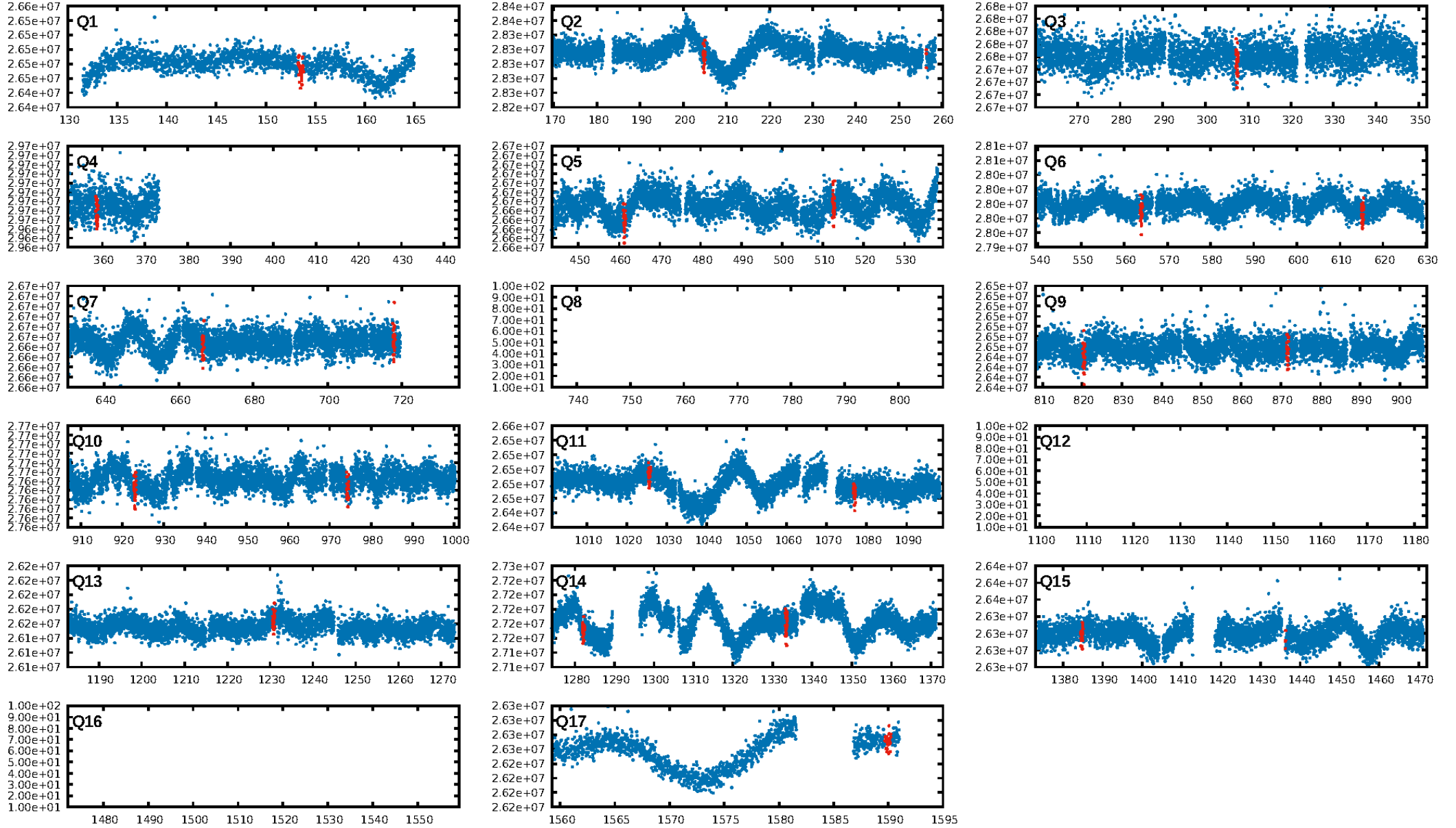
DV Fit Results:

Period = 51.30169 [0.00049] d
Epoch = 153.5188 [0.0074] BKJD
Rp/R* = 0.0248 [0.0015]
a/R* = 26.20 [6.63]
b = 0.93 [0.04]
Seff = 13.89 [5.55]
Teq = 492 [49] K
Rp = 2.52 [0.80] Re
a = 0.2715 [0.0714] AU
Ag = 691.34 [330.06] [2.09σ]
Teffp = 3902 [303] K [11.10σ]

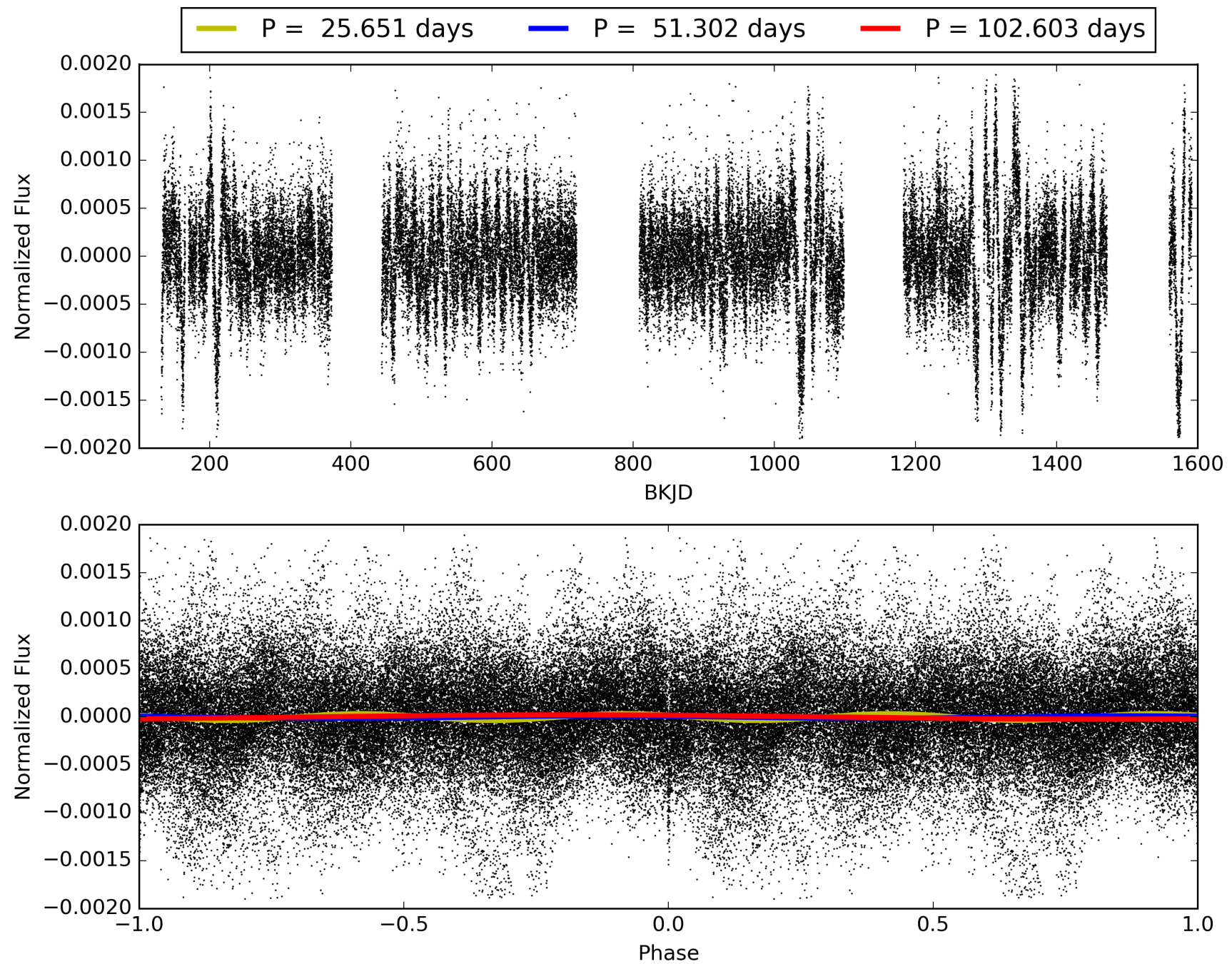
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 69.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.45e-60
RollingBand-fgt: 0.89 [16/18]
GhostDiagnostic-chr: -59.51
Centroid-sig: 12.5%
Centroid-so: 1.323 arcsec [1.50σ]
OotOffset-rm: 0.204 arcsec [0.61σ]
KicOffset-rm: 0.246 arcsec [0.81σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011337833-01, PDC Light Curves

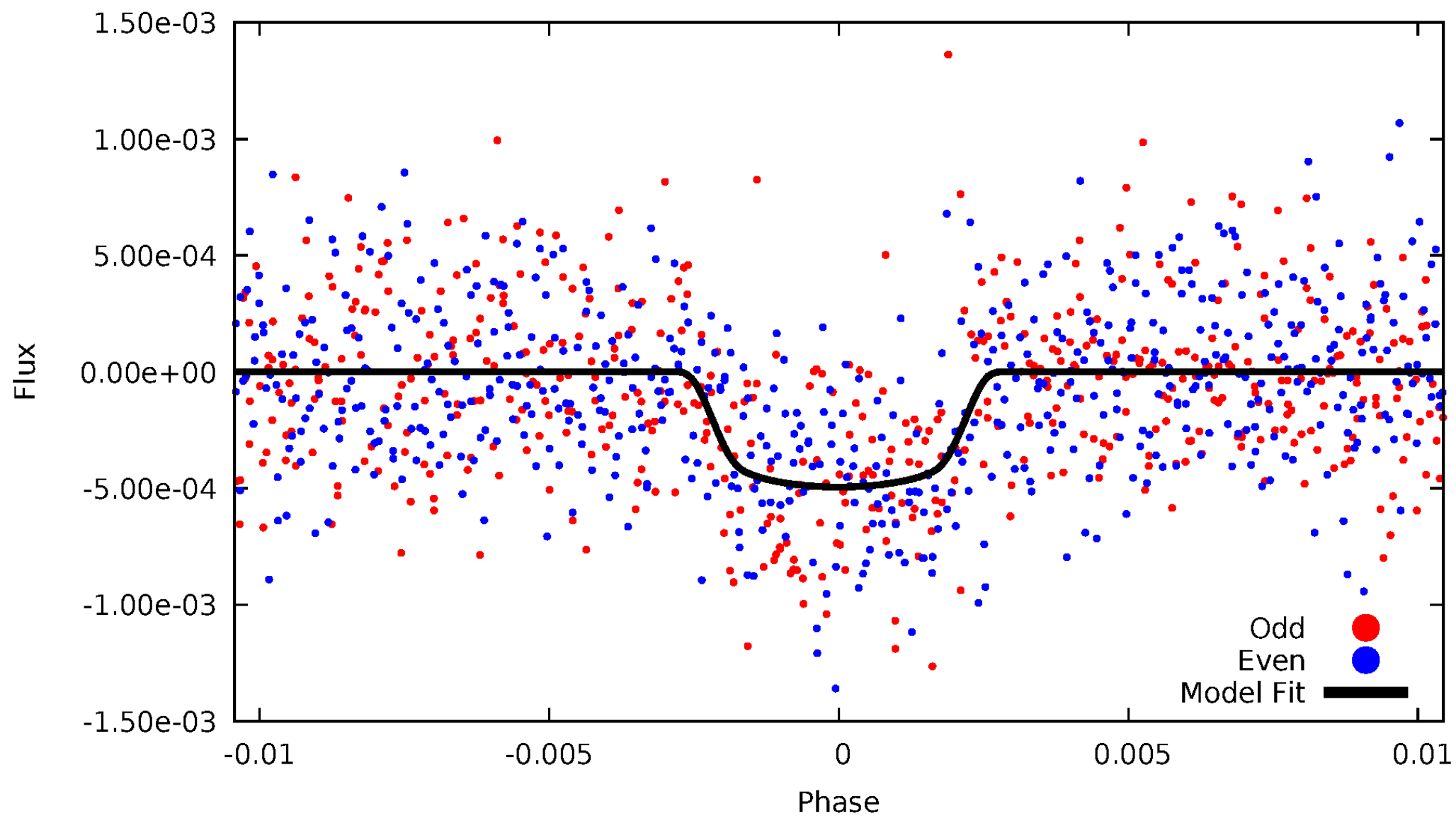


TCE 011337833-01



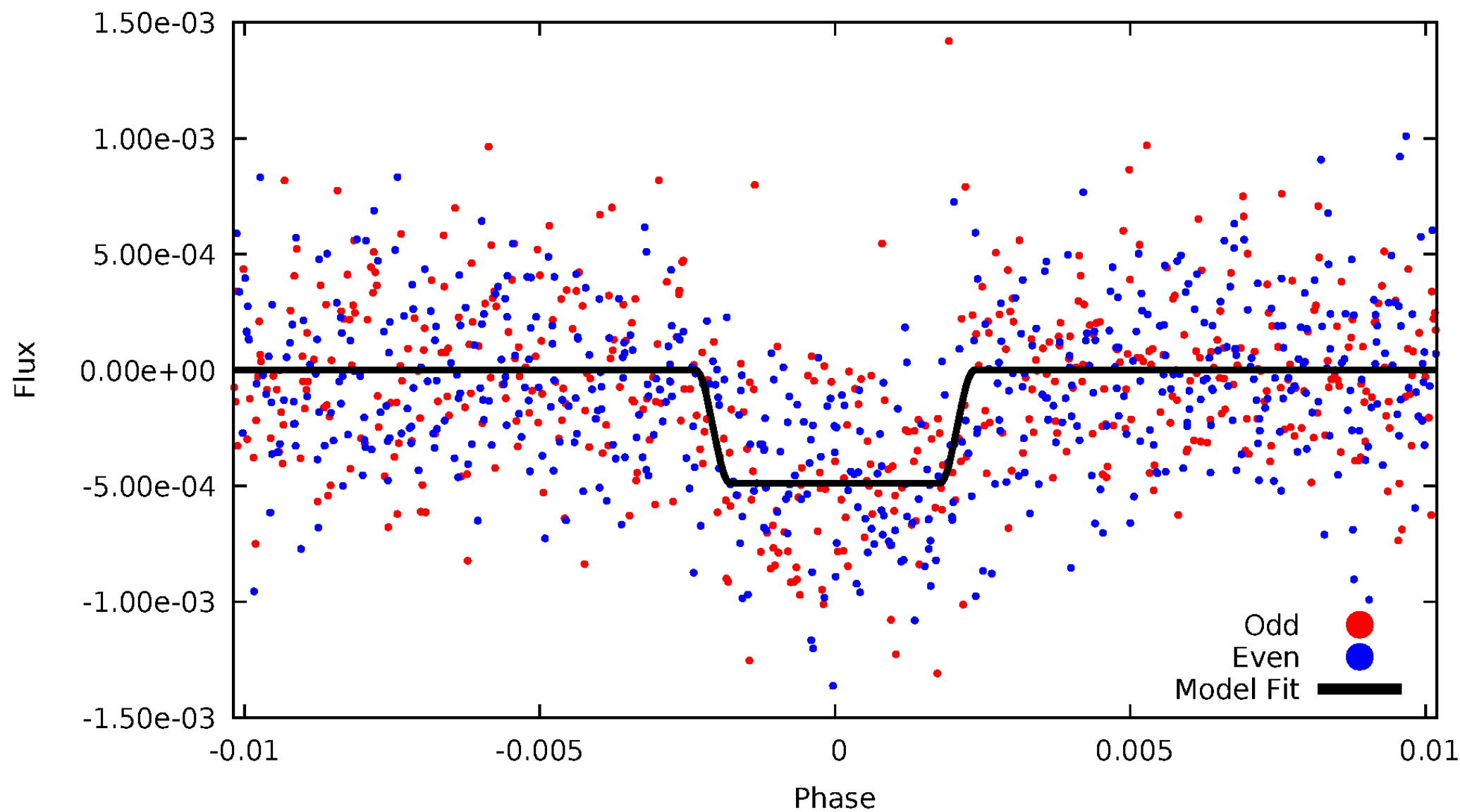
DV Odd/Even

TCE 011337833-01

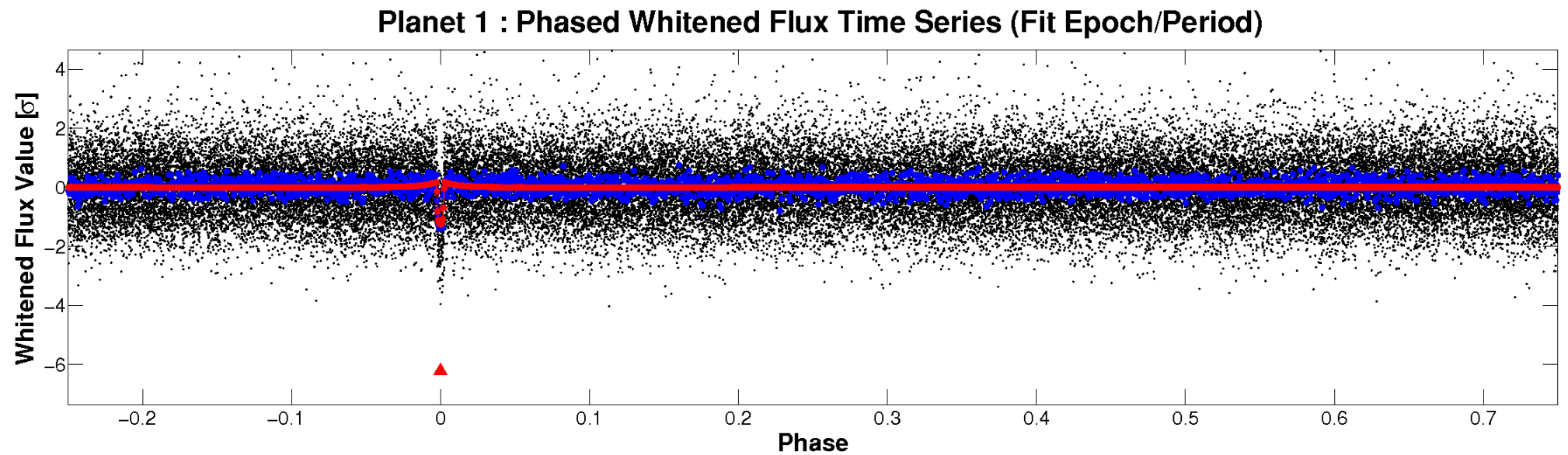
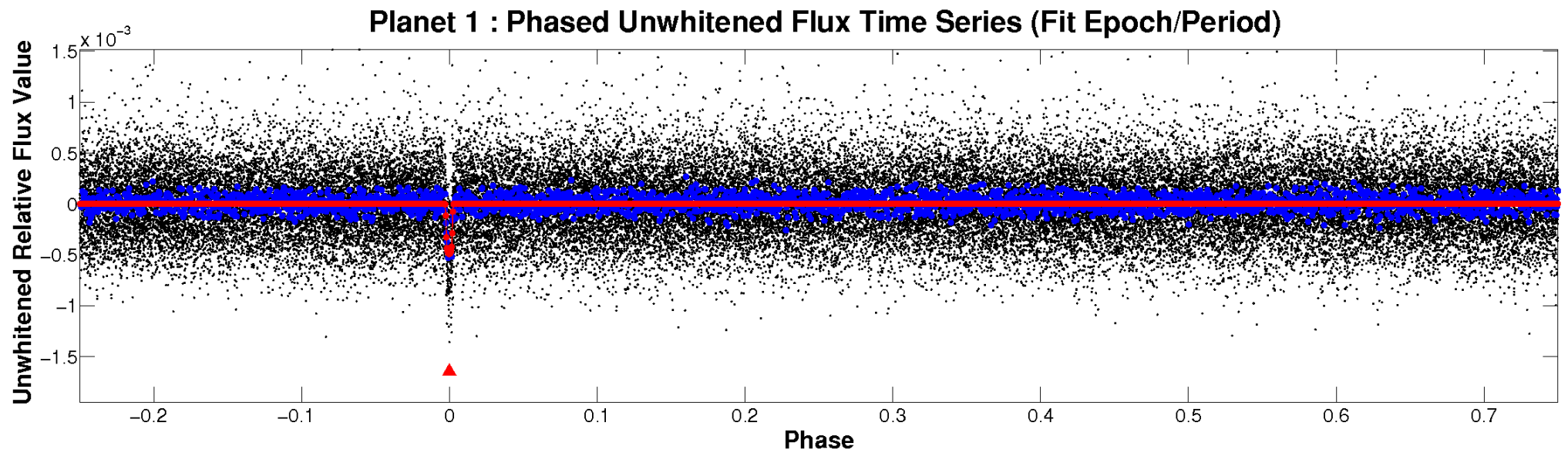


ALT Odd/Even

TCE 011337833-01

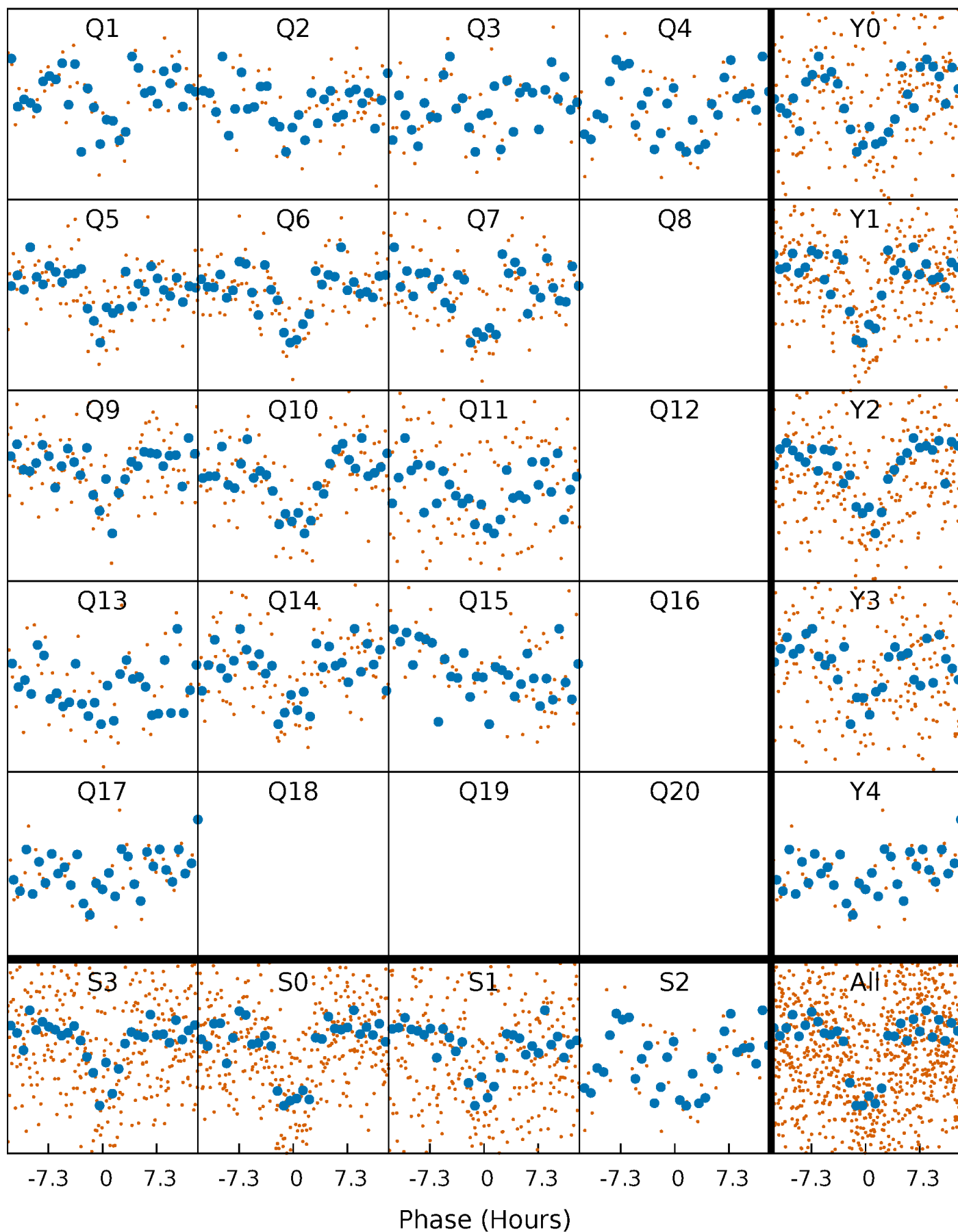


Non-Whitened Vs. Whitened Light Curve



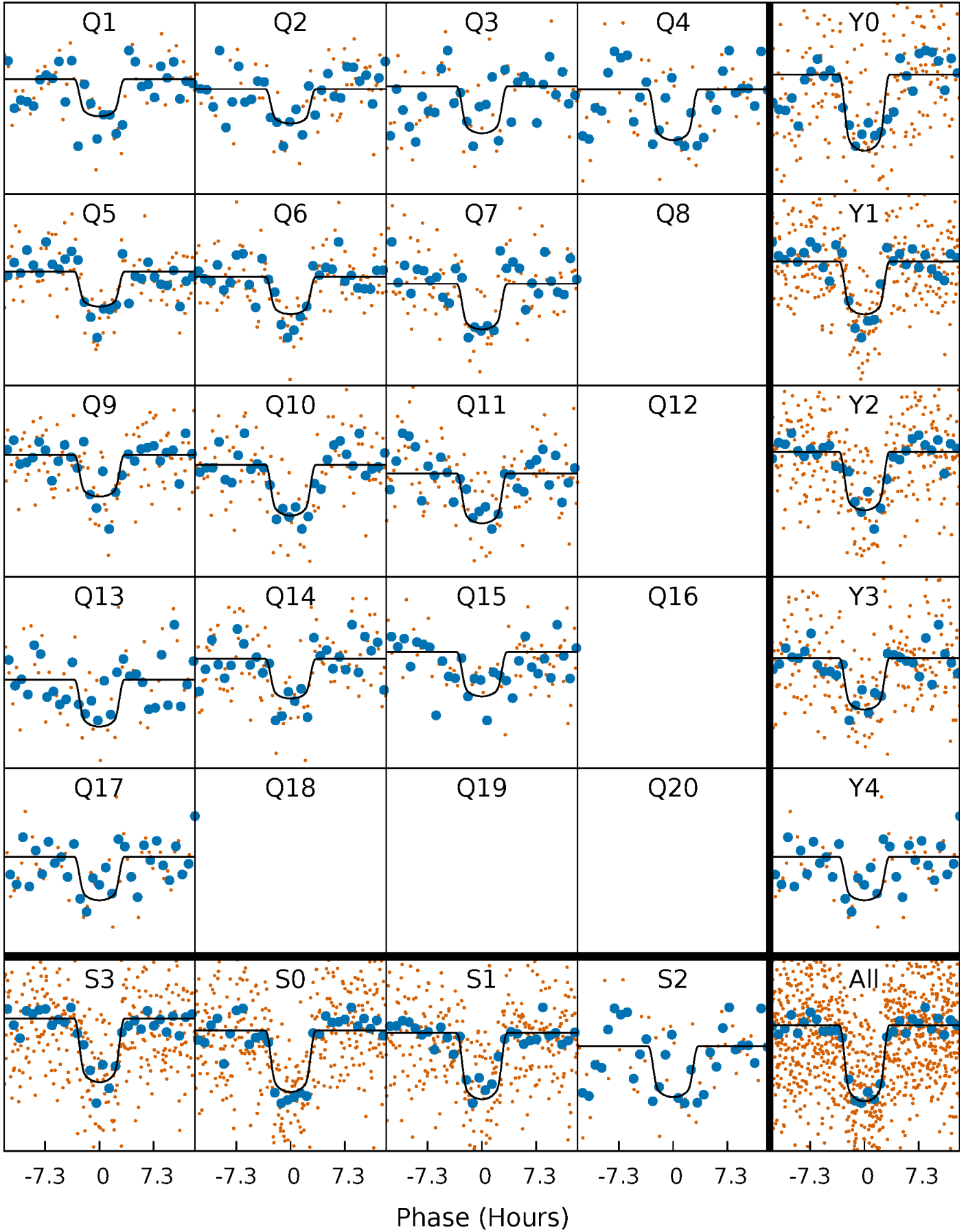
PDC Quarter-Phased Transit Curves

TCE 011337833-01 P= 51.301694 Days $T_0=153.518772$ (BKJD)



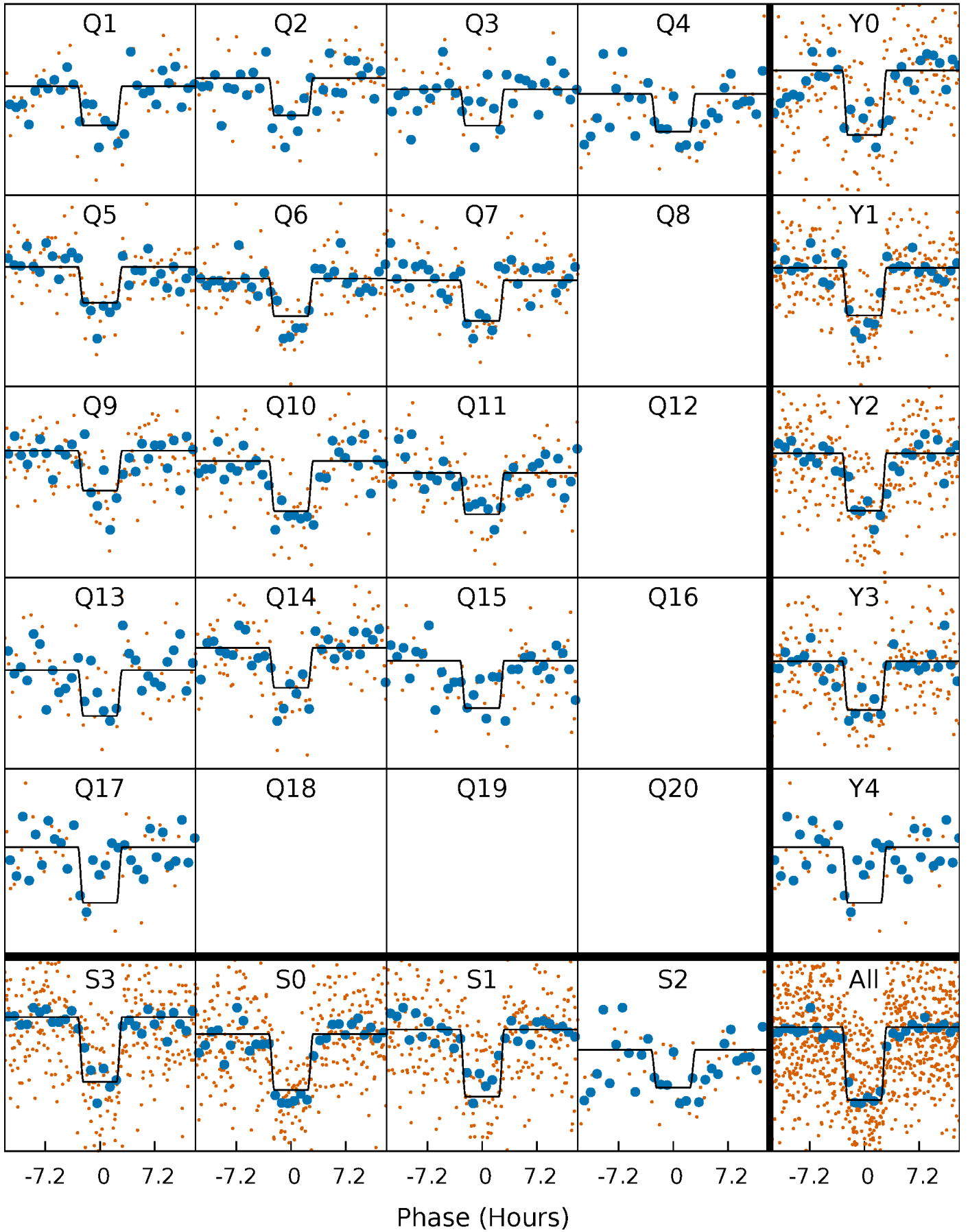
DV Quarter-Phased Transit Curves

TCE 011337833-01 P= 51.301694 Days $T_0=153.518772$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

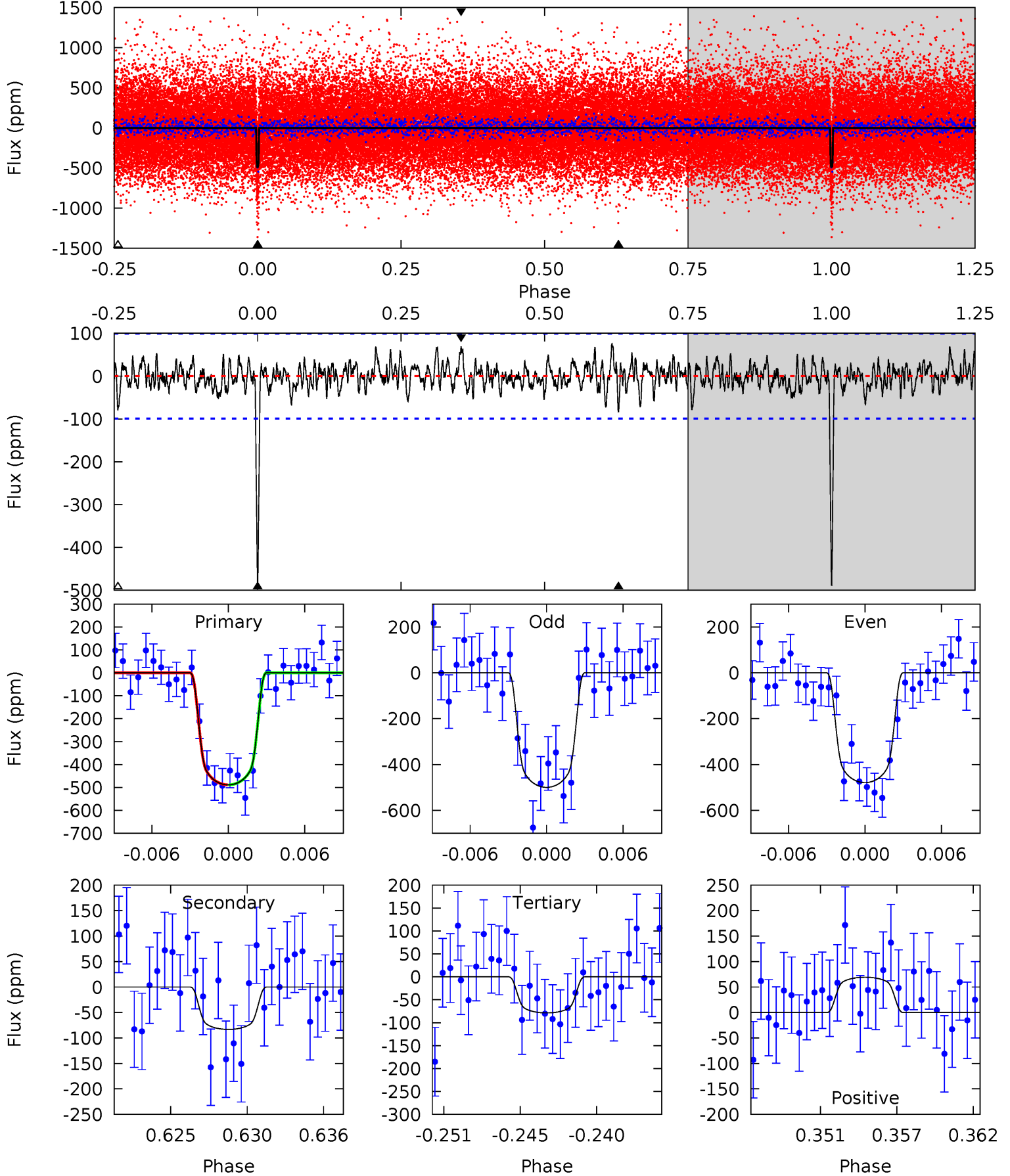
TCE 011337833-01 P= 51.301360 Days $T_0=153.520351$ (BKJD)



DV Model-Shift Uniqueness Test

011337833-01, P = 51.301694 Days, E = 102.217078 Days

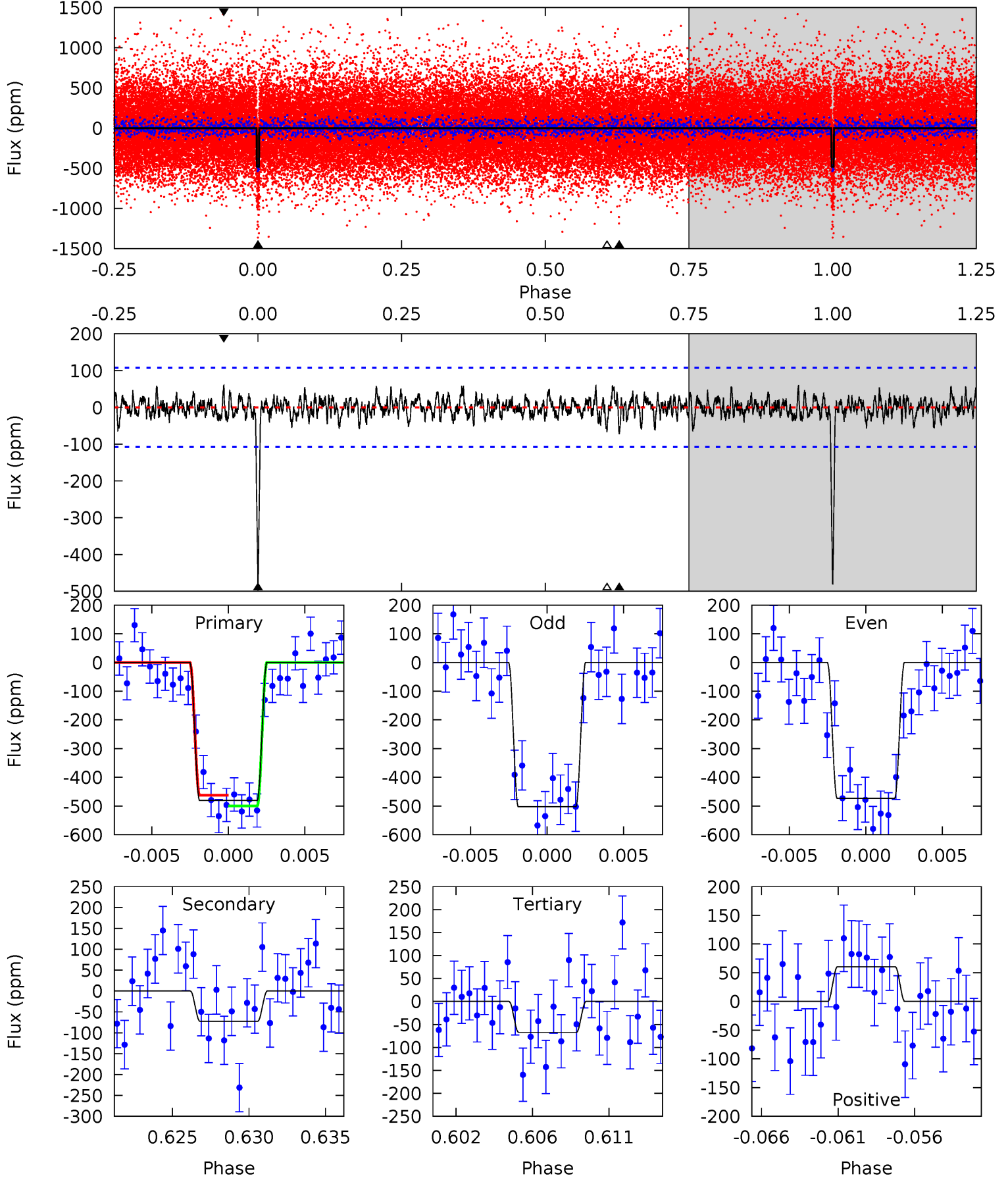
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	4.31	4.08	3.59	5.14	2.77	1.26	21.3	21.8	0.24	0.73	0.54	1.03	0.13	0.01



Alt Model-Shift Uniqueness Test

011337833-01, P = 51.301360 Days, E = 102.218991 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.1	3.48	3.24	2.91	5.17	2.83	0.99	19.9	20.2	0.24	0.58	0.72	0.99	0.11	0.90



Stellar Parameters For KIC 011337833

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6032^{+162}_{-180}	$4.508^{+0.052}_{-0.208}$	$-0.180^{+0.300}_{-0.300}$	$0.929^{+0.291}_{-0.078}$	$1.014^{+0.130}_{-0.130}$	$1.783^{+0.381}_{-0.961}$
	+3%/-3%	+1%/-5%	+167%/-167%	+31%/-8%	+13%/-13%	+21%/-54%
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 011337833-01 / KOI 1651.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-83 ± 19	$2.60^{+0.45}_{-0.26}$	703^{+47}_{-34}	3976^{+217}_{-201}	475^{+187}_{-141}
Alt.	-72 ± 21	$2.31^{+0.40}_{-0.26}$	701^{+53}_{-33}	4042^{+240}_{-263}	521^{+230}_{-193}

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 $A_{obs} \gg 1.0$

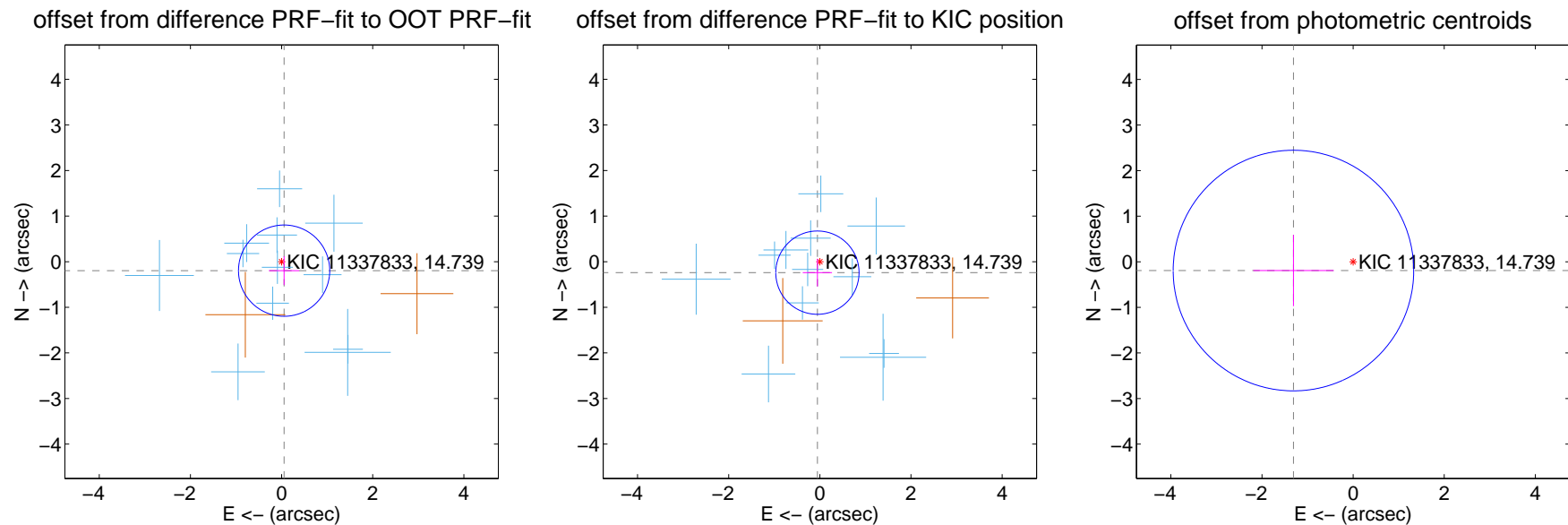
DV Centroid Data

Supplemental centroid analysis for 011337833-01. Kepler magnitude: 14.74. Transit SNR 16.86

There are 12 quarters with good PRF difference image offsets

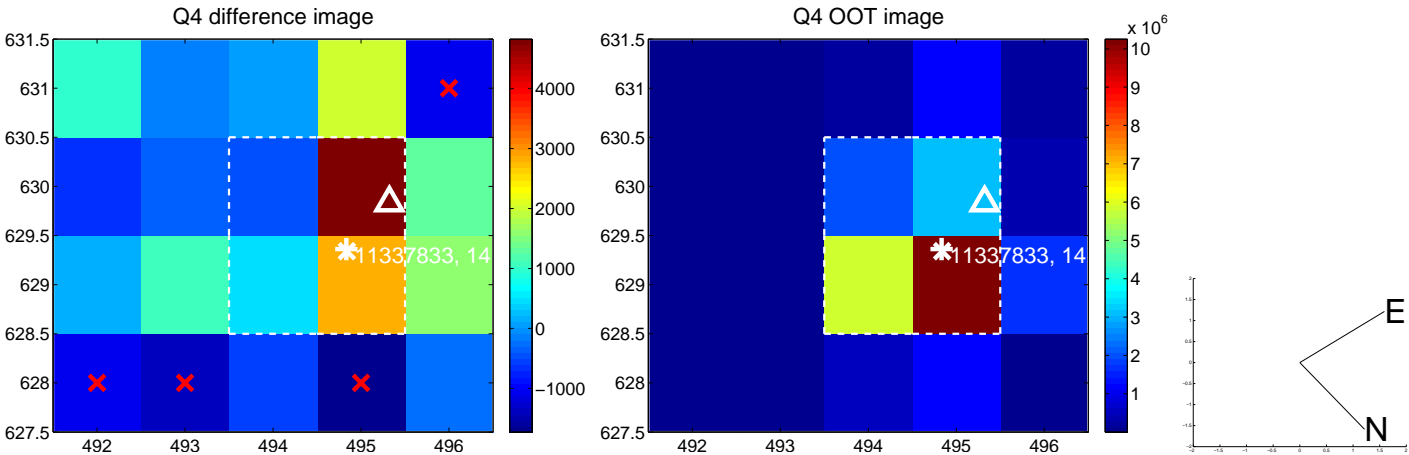
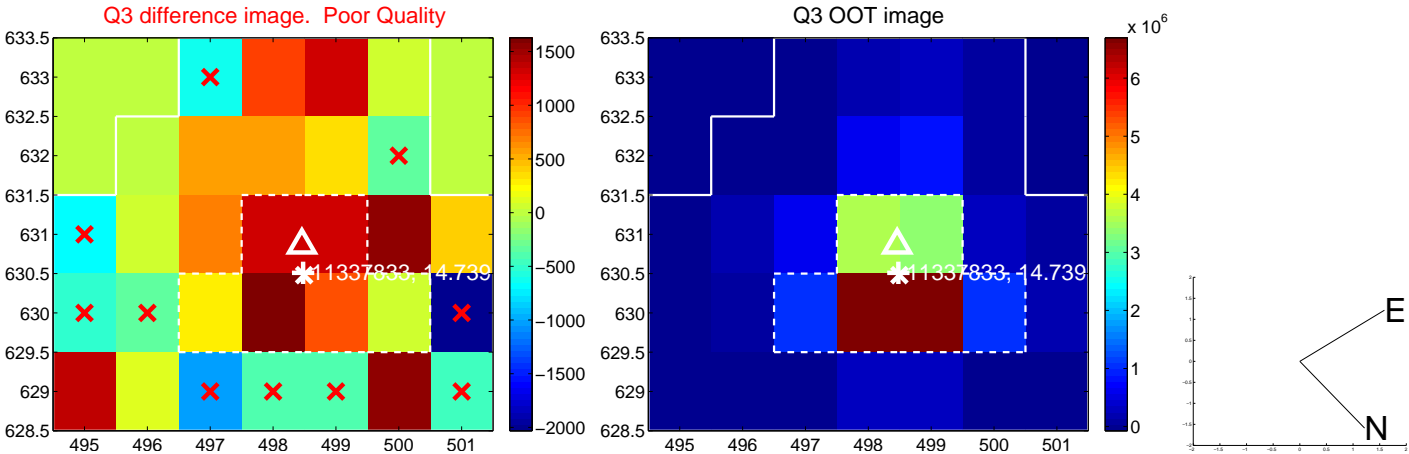
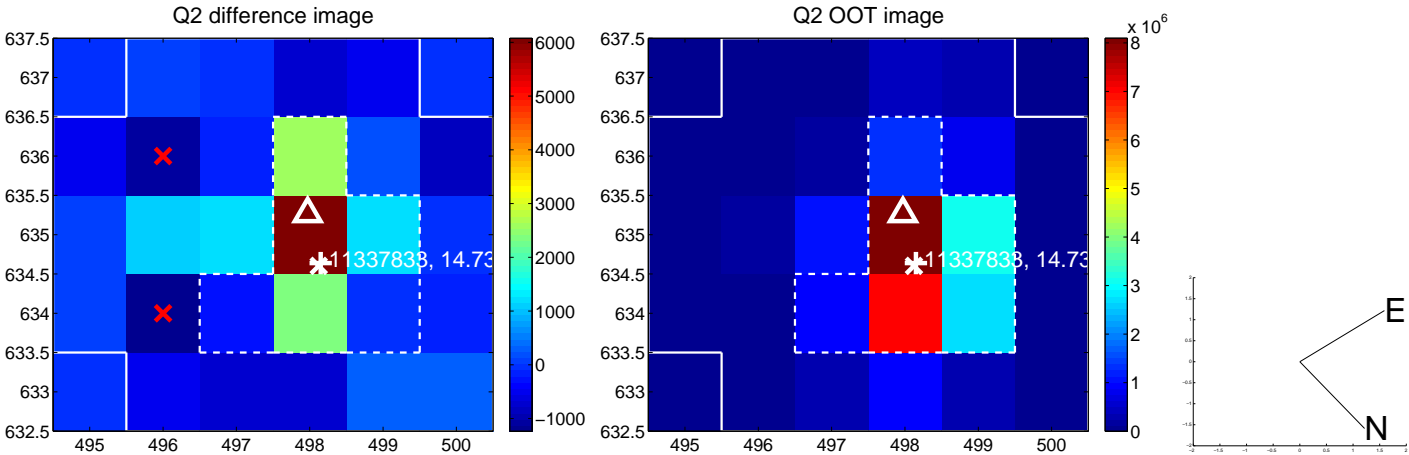
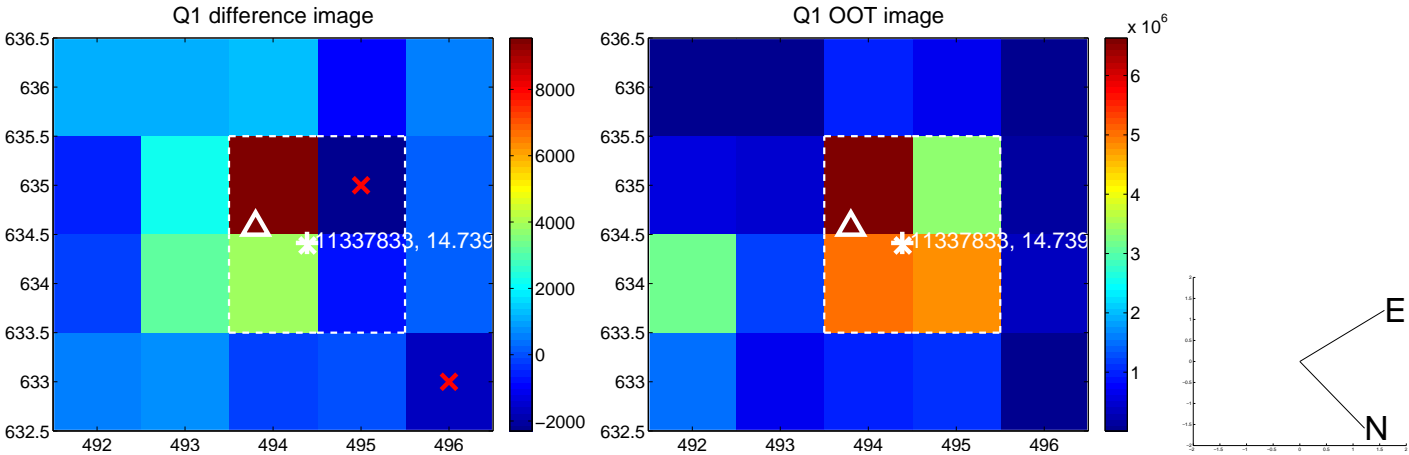
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.204 ± 0.334	0.61	-0.056 ± 0.333	-0.196 ± 0.317
PRF-fit source offset from KIC position	0.246 ± 0.305	0.81	0.053 ± 0.321	-0.241 ± 0.304
photometric centroid source offset	1.32 ± 0.88	1.50	1.31 ± 0.88	-0.19 ± 0.78

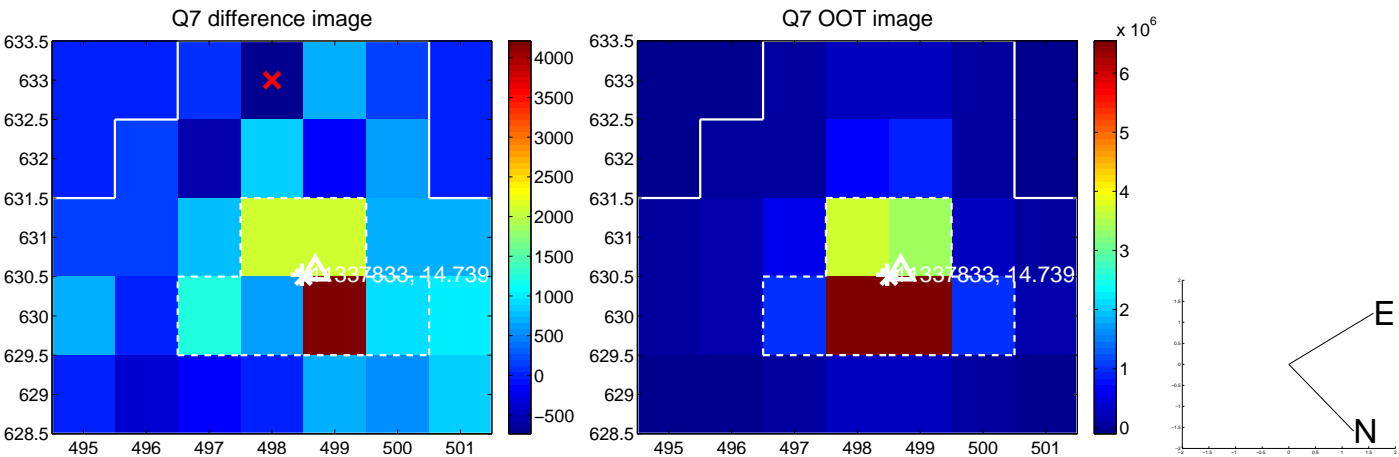
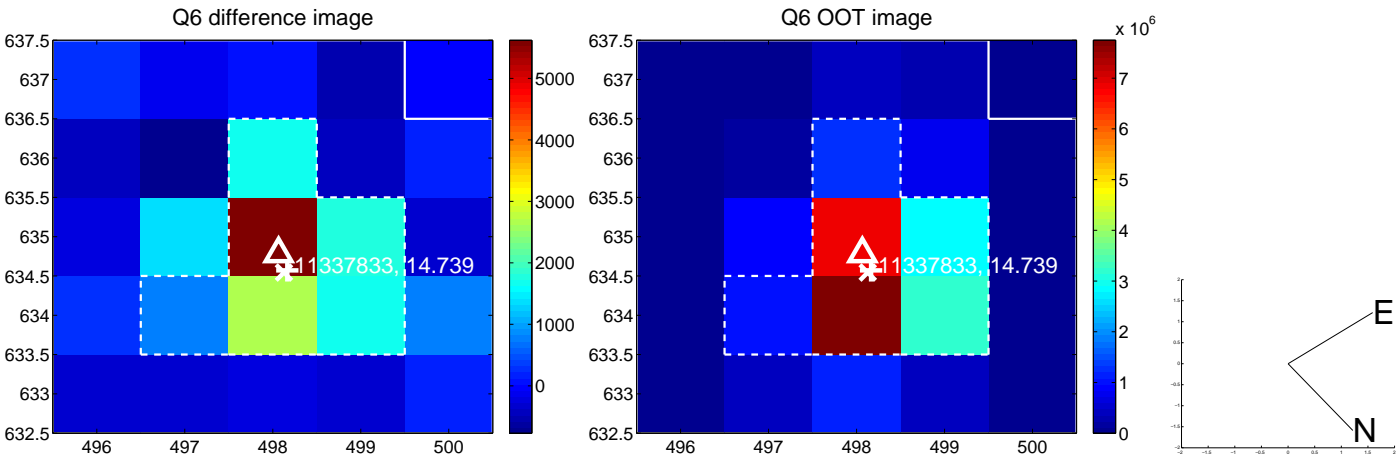
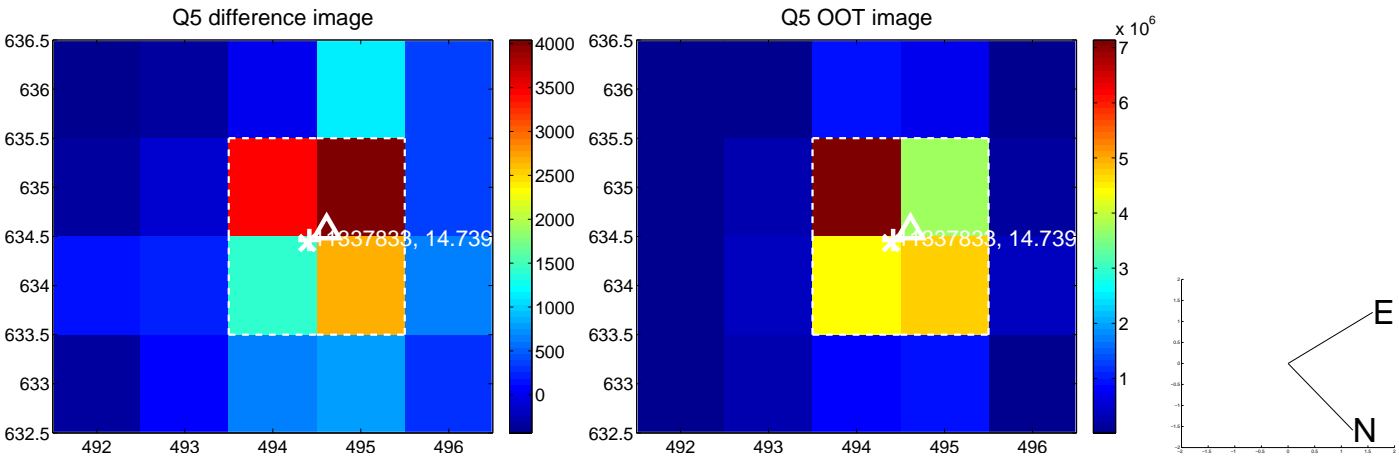


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

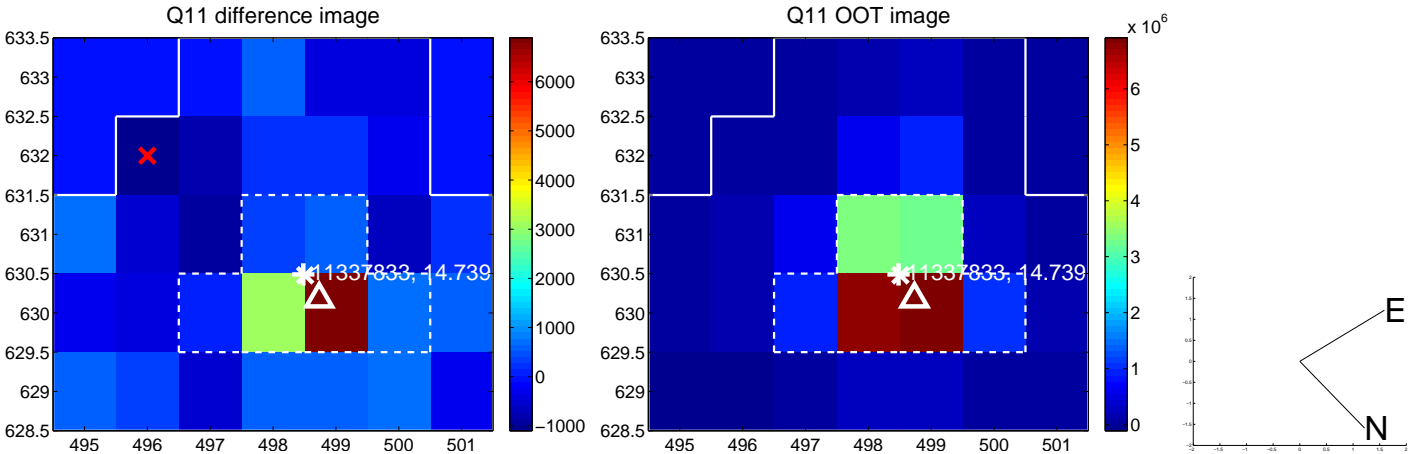
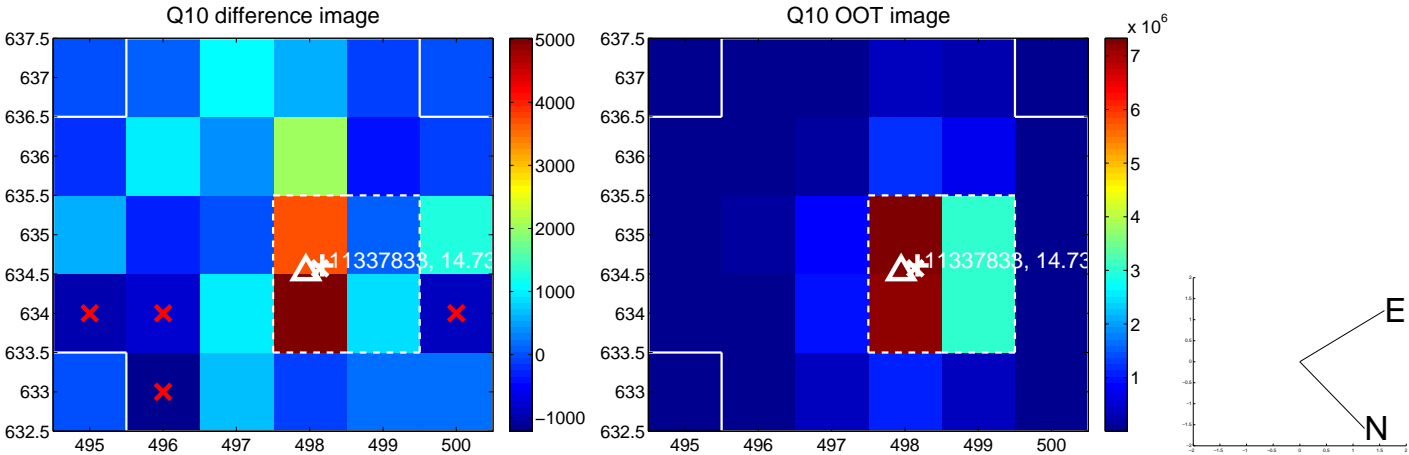
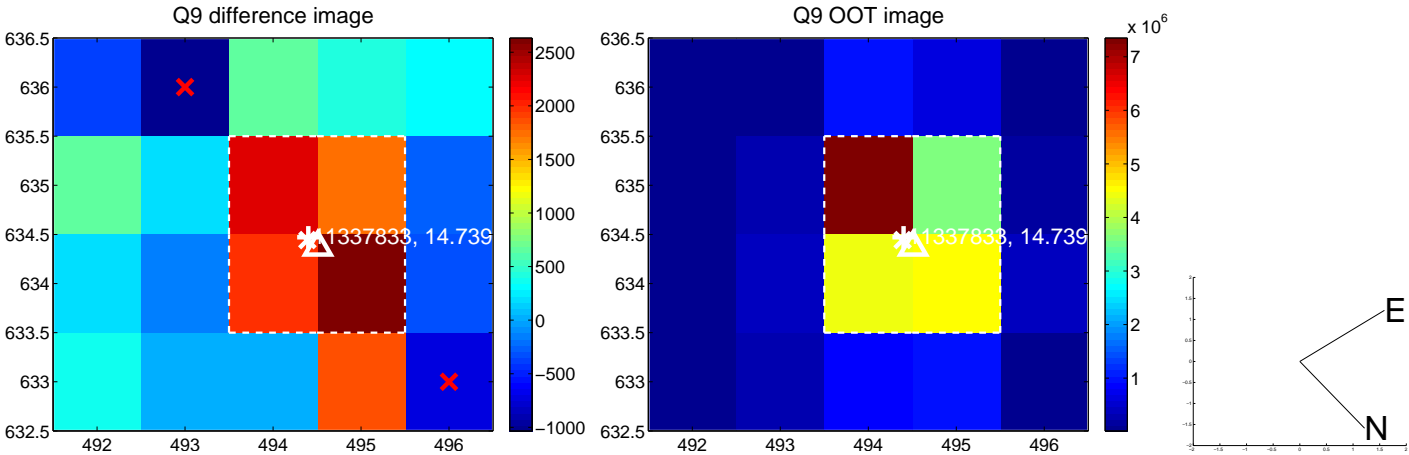
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



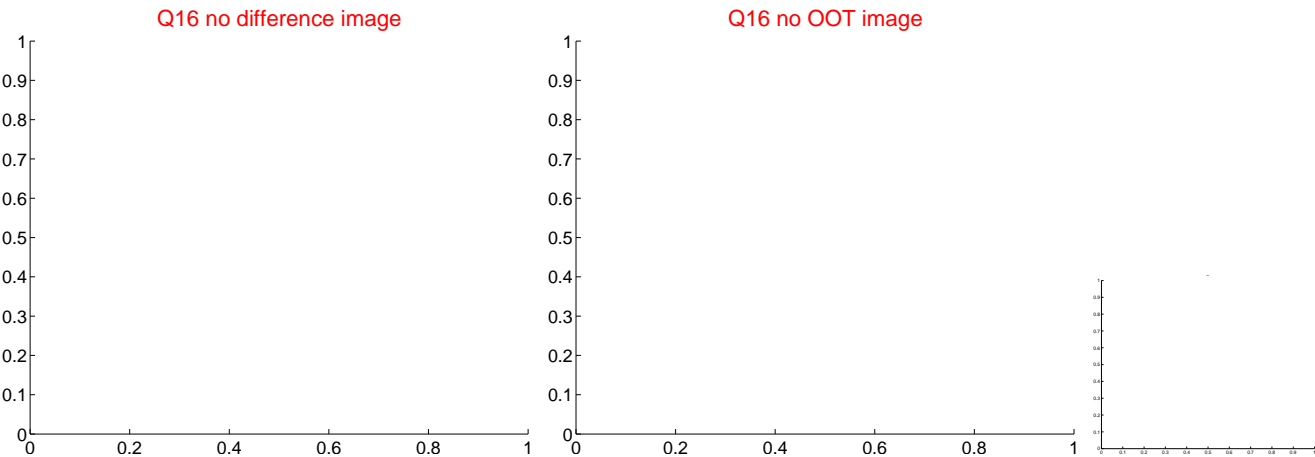
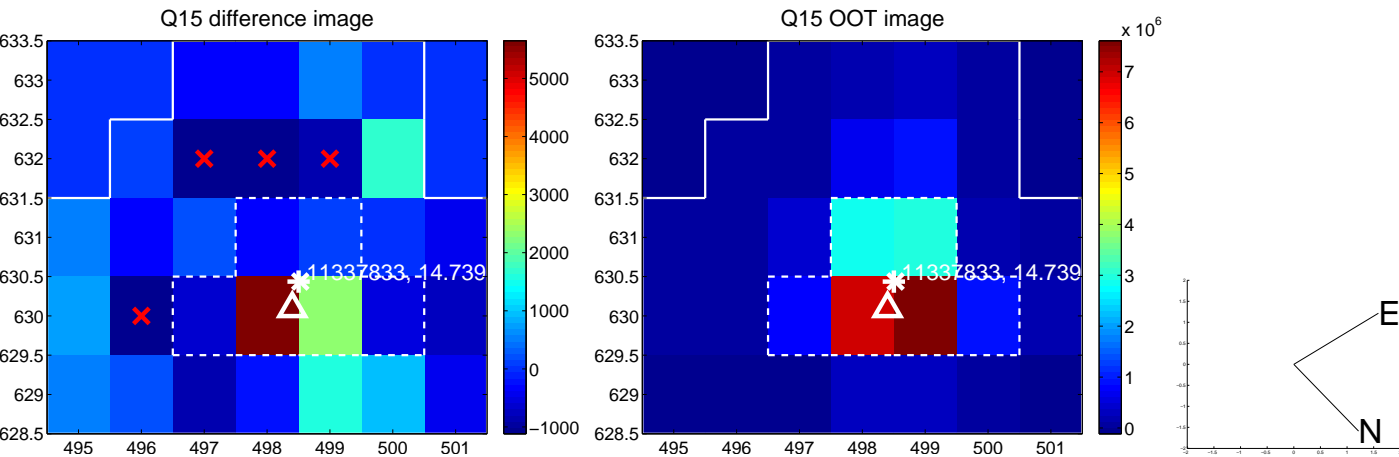
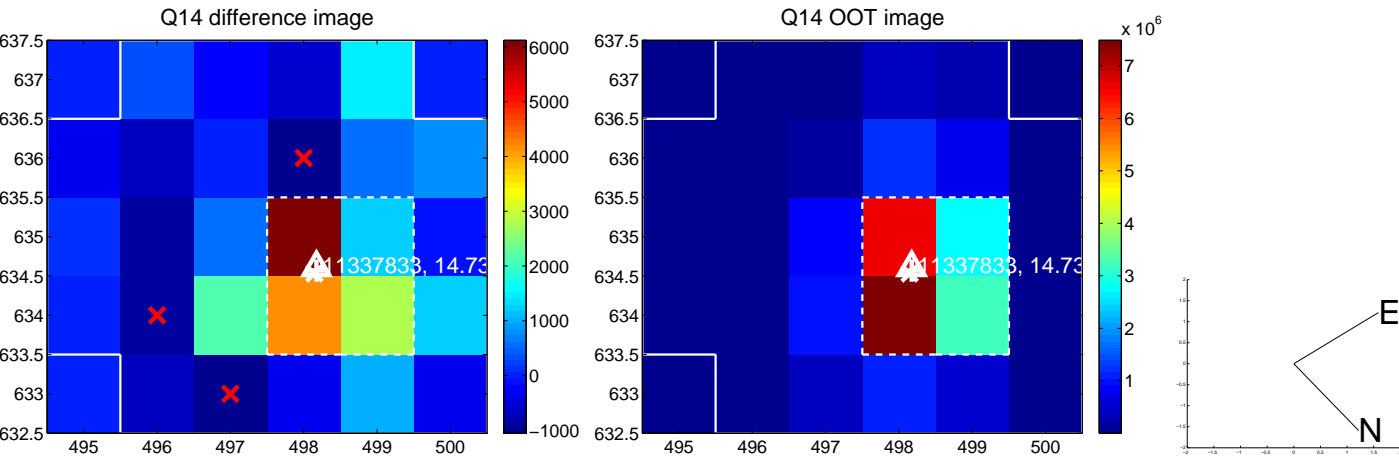
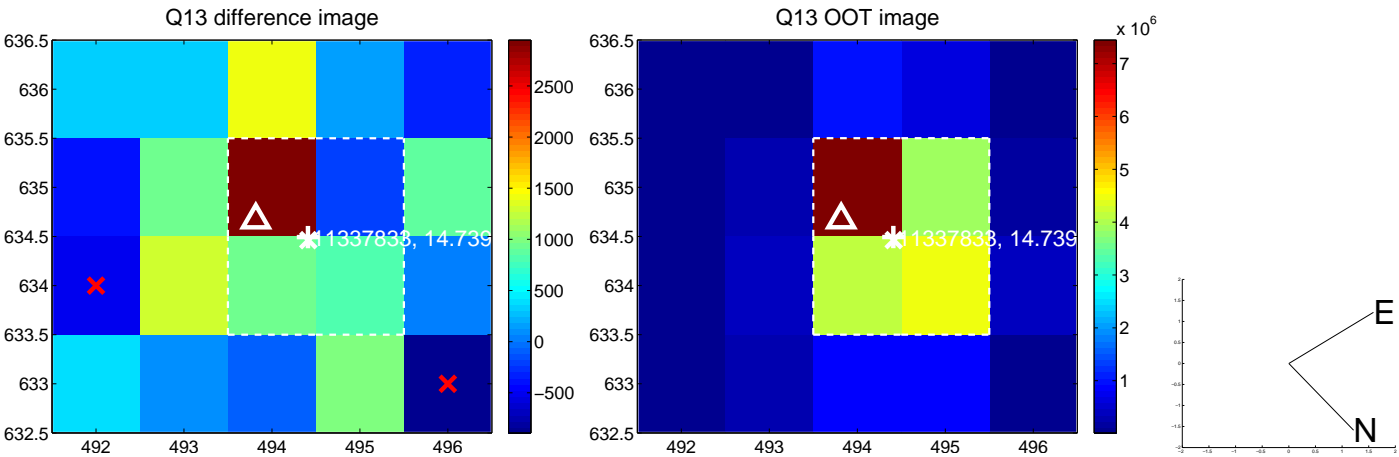
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



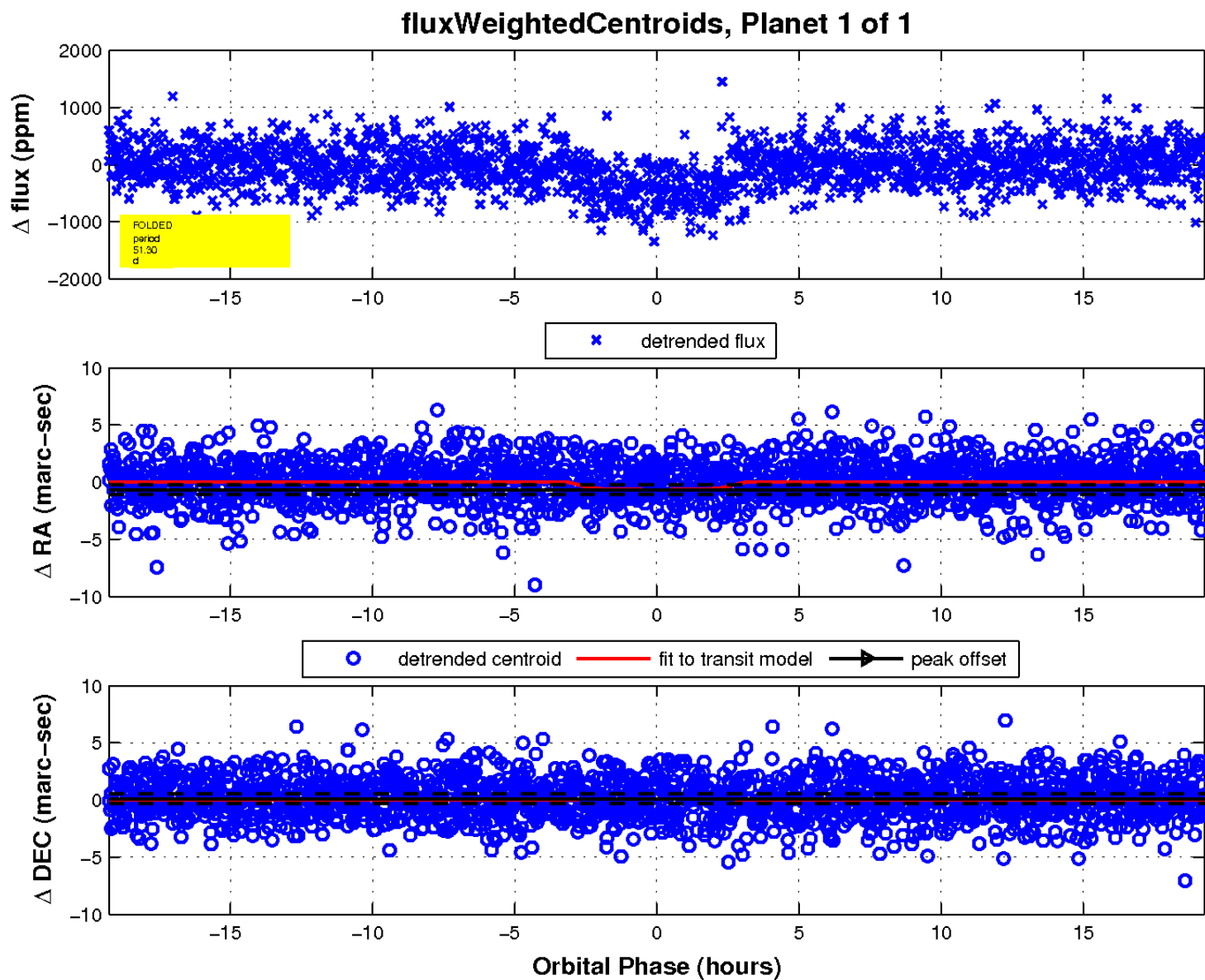
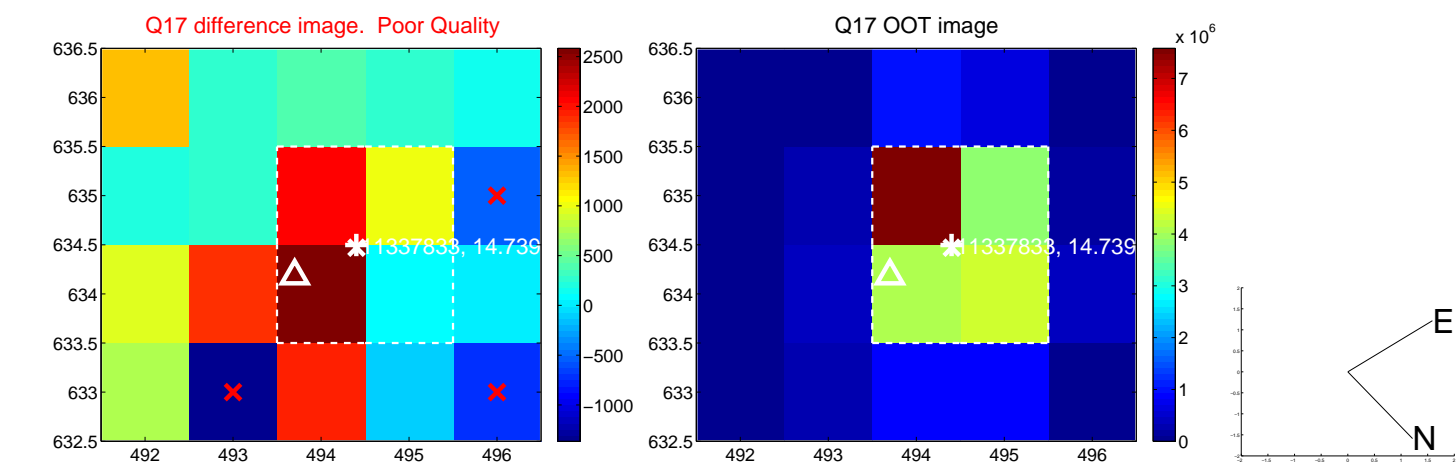
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UKIRT Image

Declination

