

KIC 011854636

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})
011854636-01	OBS	7484.01	37.020174	131.833521	771.4	1.313	7.9	9.0	0.89	5685	2.69	15.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011854636-01	OBS	FP	0.23	1	0	0	0	MOD_NONUNIQ_ALT

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

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

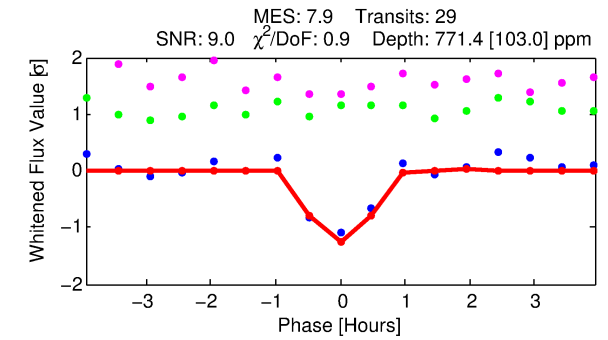
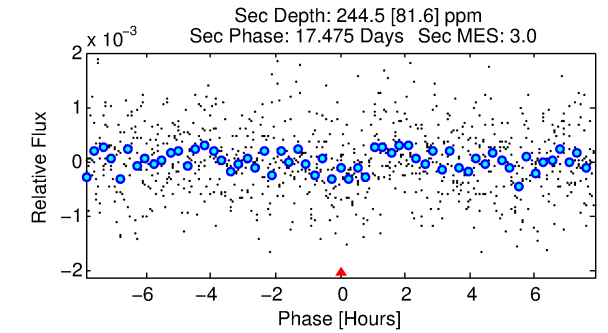
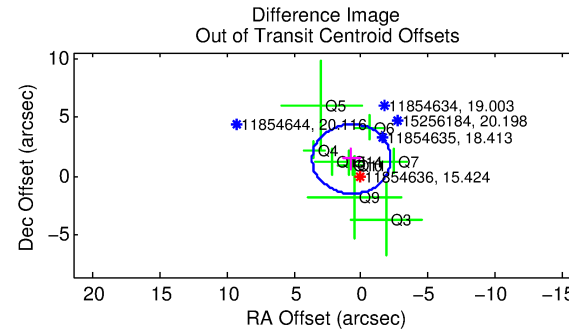
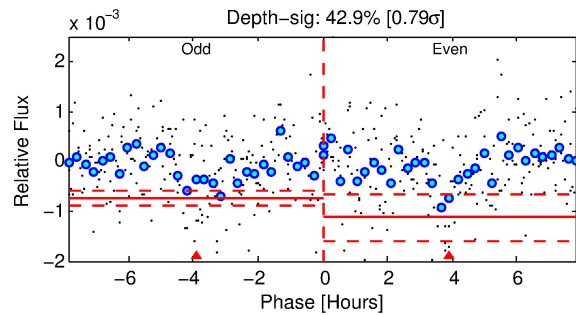
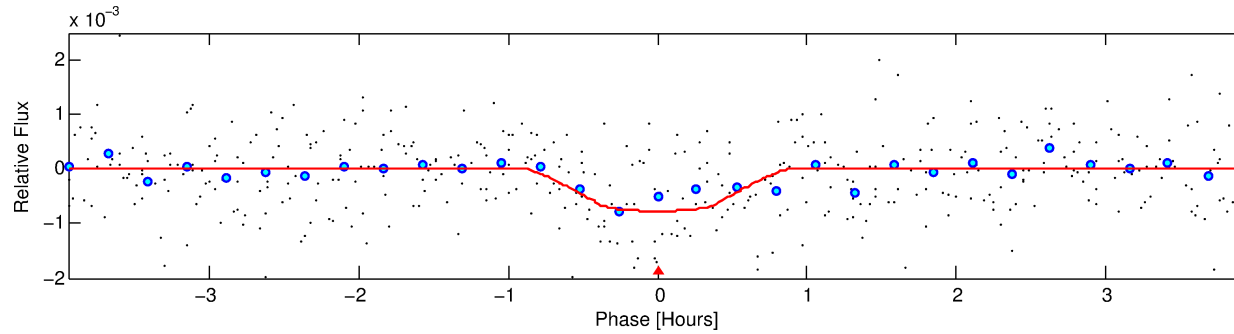
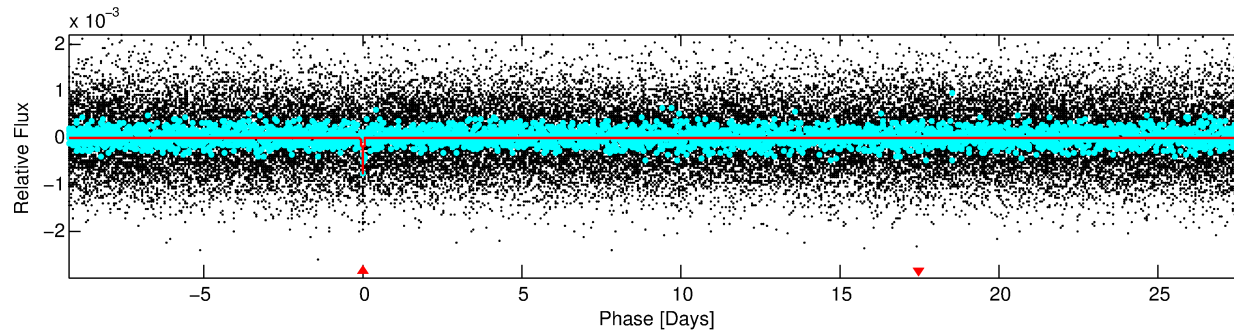
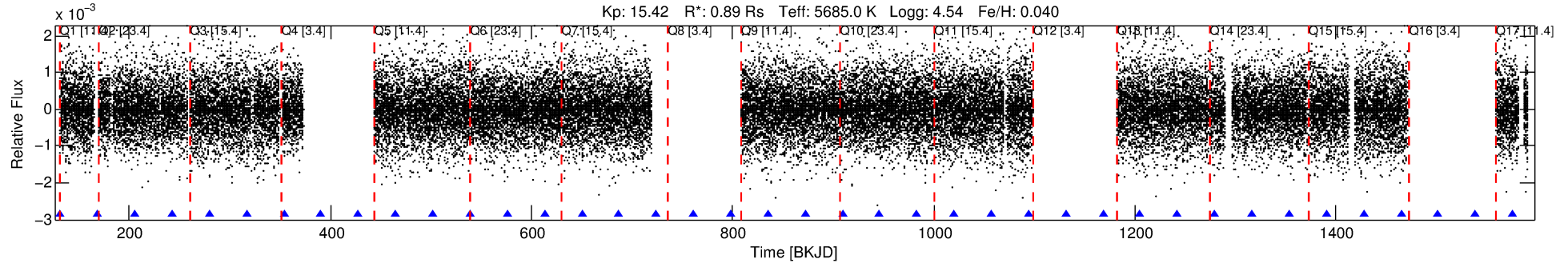
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011854636-01

No Significant Match Found

DV One-Page Summary

KIC: 11854636 Candidate: 1 of 1 Period: 37.020 d
KOI: K07484.01 Corr: 0.907



DV Fit Results:

Period = 37.02017 [0.00022] d
Epoch = 131.8335 [0.0053] BKJD
Rp/R* = 0.0278 [0.0442]
a/R* = 151.31 [1027.85]
b = 0.75 [4.03]
Seff = 15.69 [5.39]
Teq = 507 [44] K
Rp = 2.69 [4.34] Re
a = 0.2164 [0.0479] AU
Ag = 870.26 [2796.80] [0.31 σ]
Teffp = 4261 [3409] K [1.10 σ]

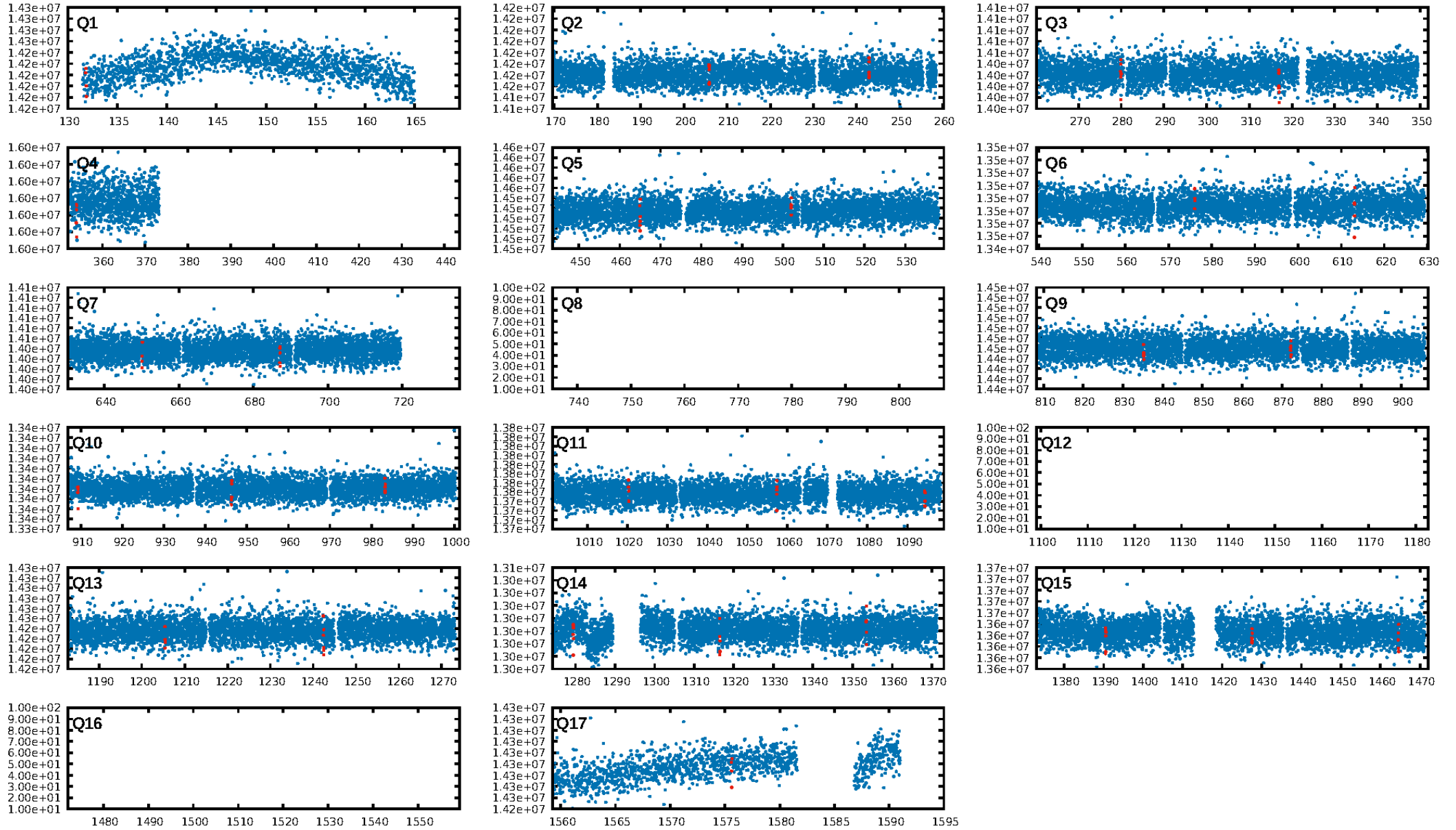
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 50.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.37e-15
RollingBand-fgt: 1.00 [26/26]
GhostDiagnostic-chr: 1.638
Centroid-sig: 81.7%
Centroid-so: 0.990 arcsec [0.62 σ]
OotOffset-rm: 1.642 arcsec [1.68 σ]
KicOffset-rm: 1.872 arcsec [2.08 σ]
OotOffset-st: 3/4/1/2 [10]
KicOffset-st: 3/4/1/2 [10]
DiffImageQuality-fgm: 0.20 [2/10]
DiffImageOverlap-fno: 1.00 [14/14]

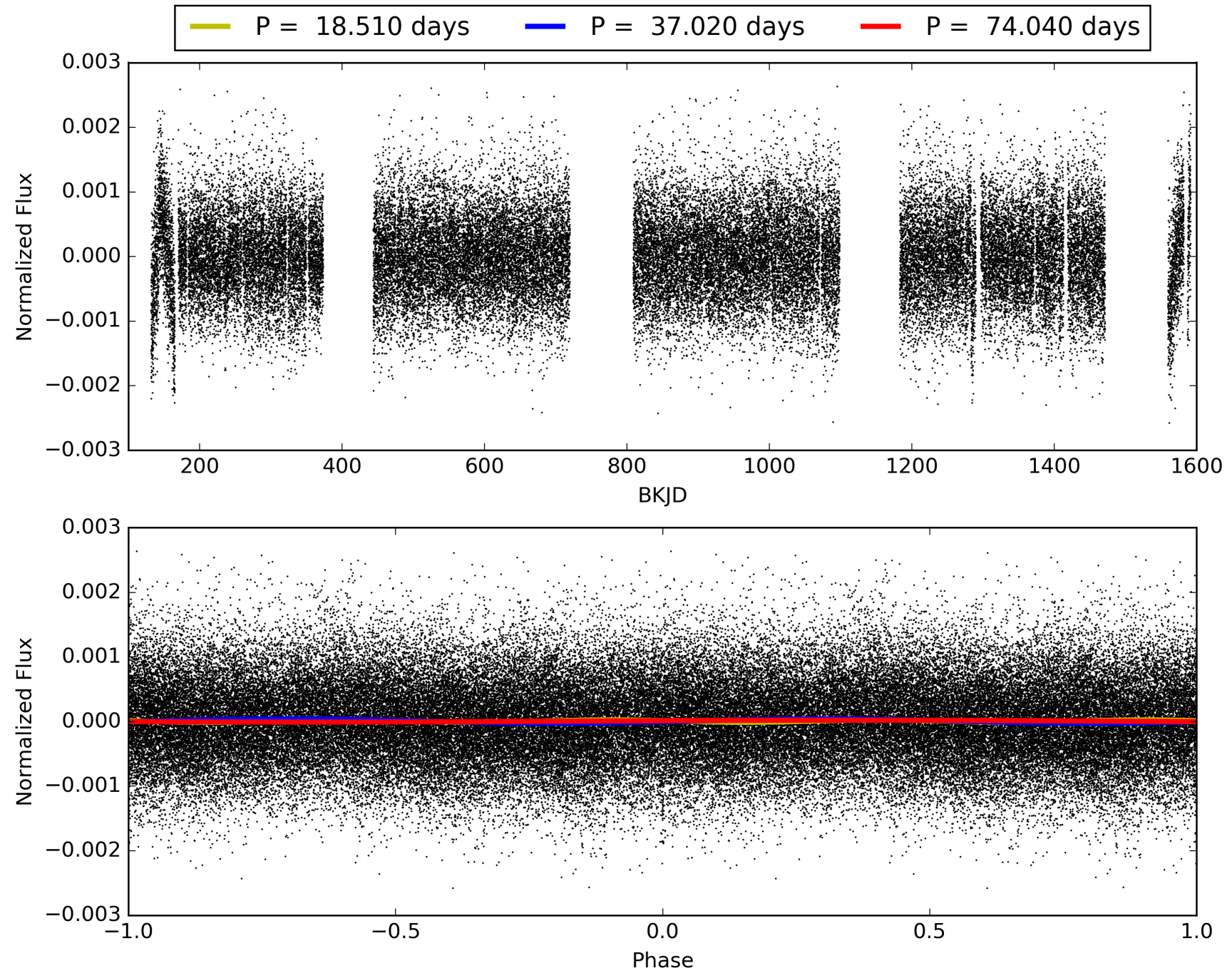
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:14:34 Z

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

TCE 011854636-01, PDC Light Curves

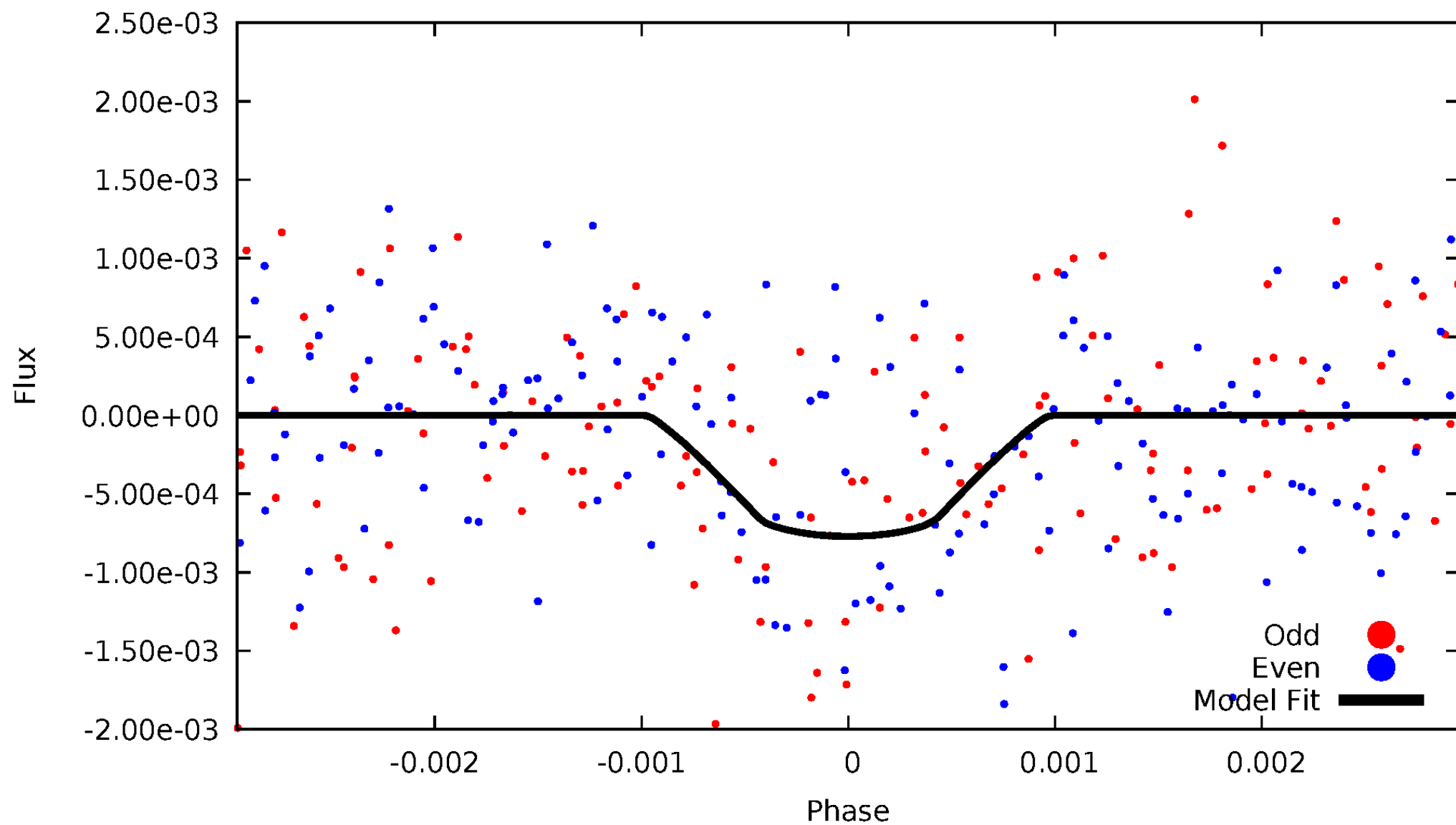


TCE 011854636-01



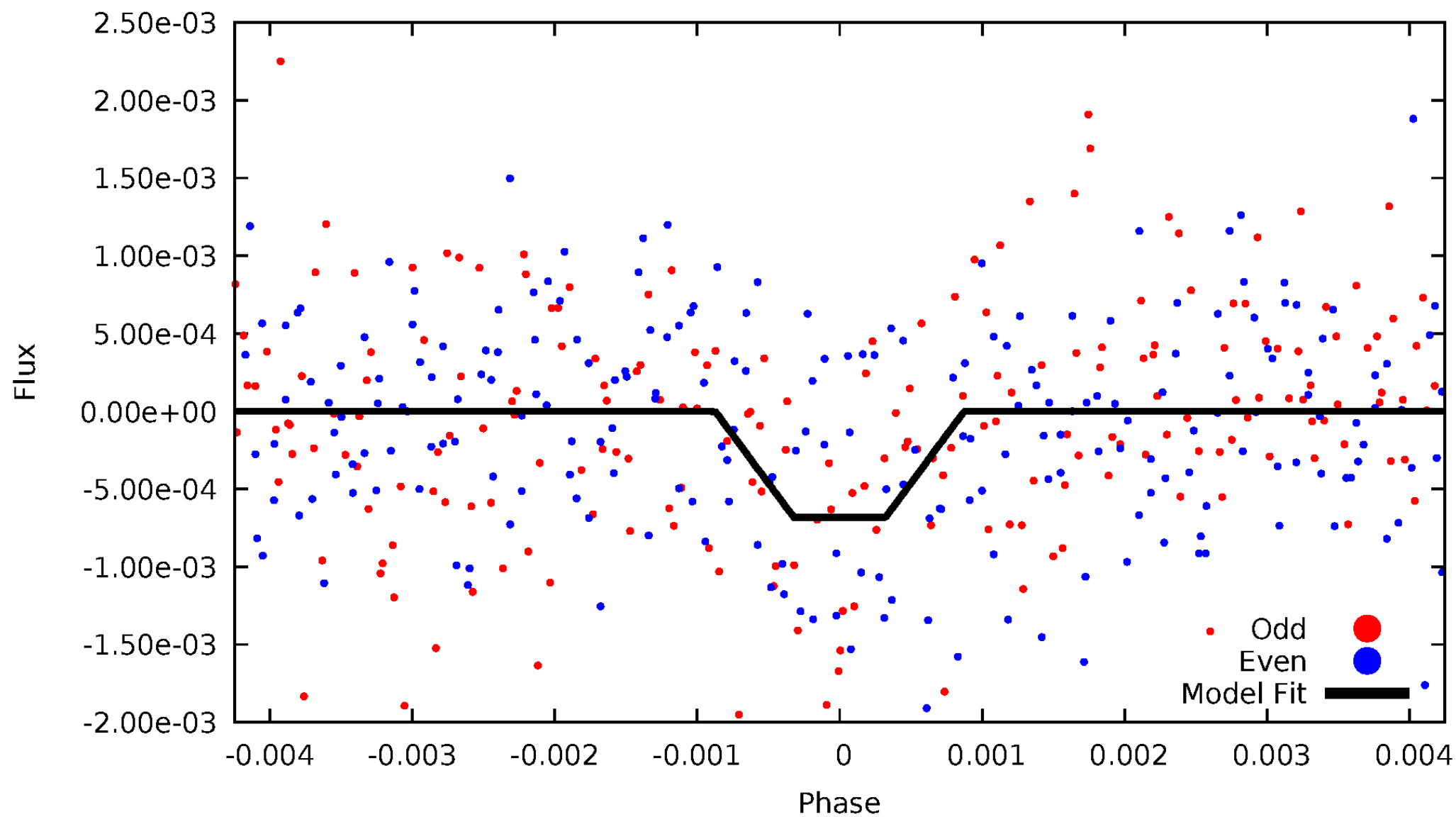
DV Odd/Even

TCE 011854636-01

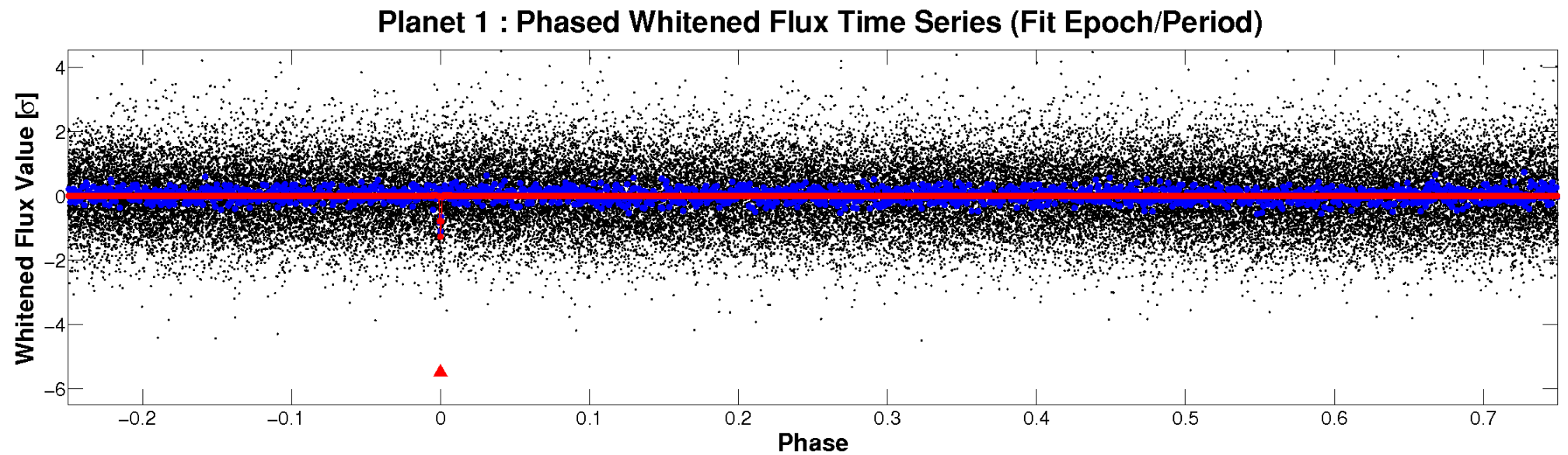
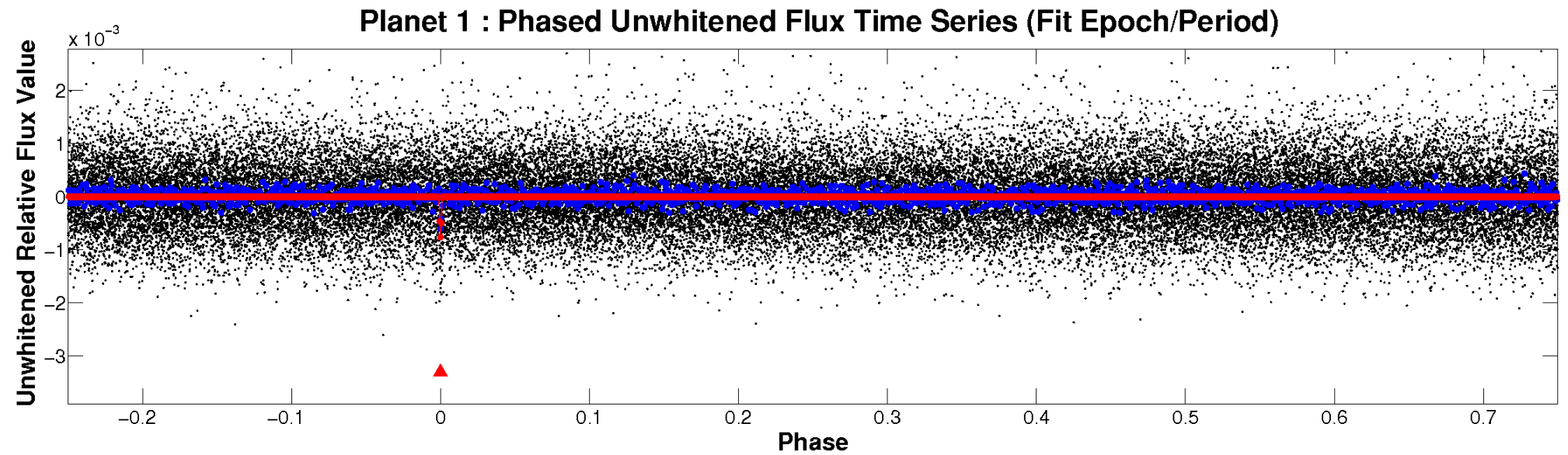


ALT Odd/Even

TCE 011854636-01

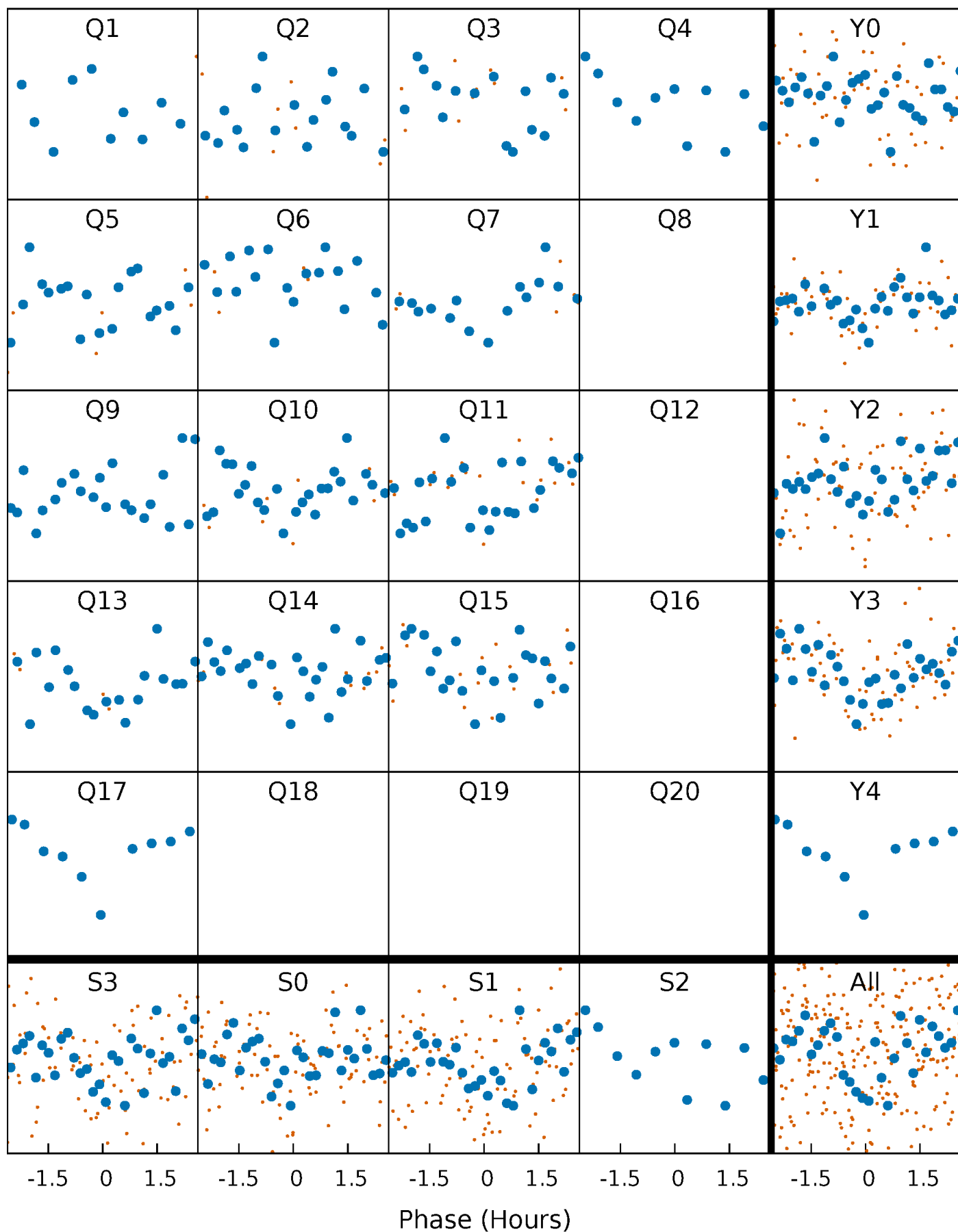


Non-Whitened Vs. Whitened Light Curve



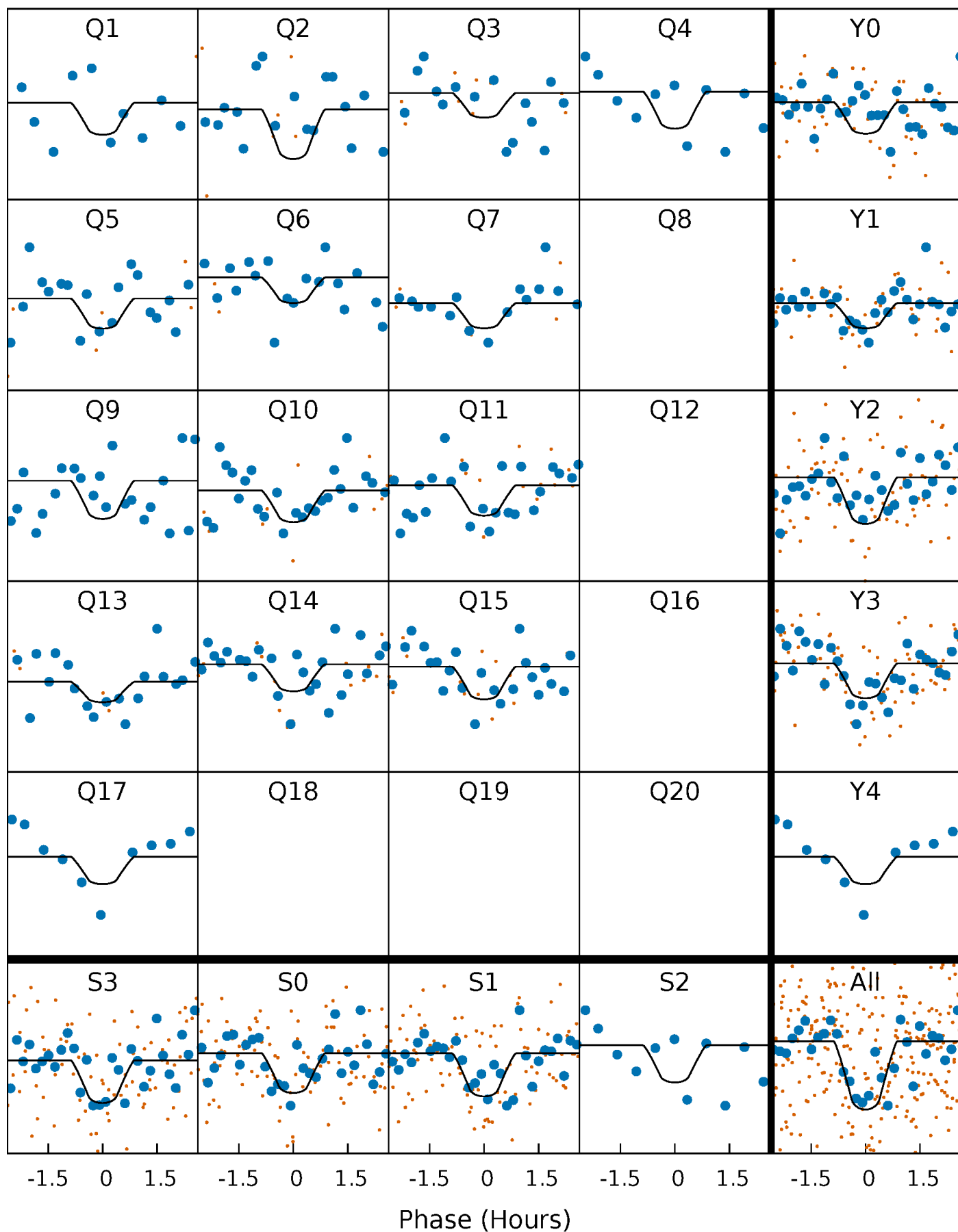
PDC Quarter-Phased Transit Curves

TCE 011854636-01 P= 37.020174 Days $T_0=131.833521$ (BKJD)



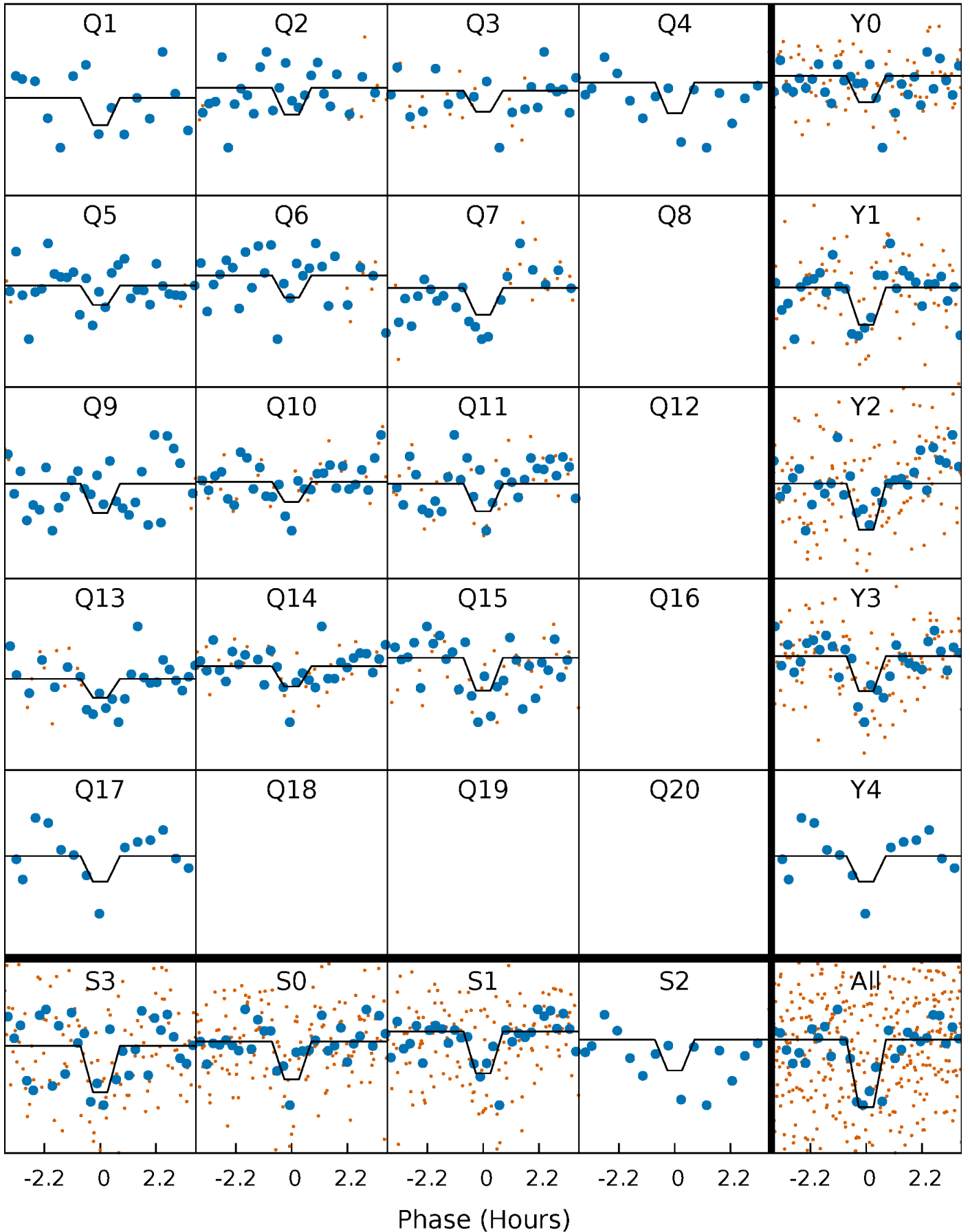
DV Quarter-Phased Transit Curves

TCE 011854636-01 P= 37.020174 Days $T_0=131.833521$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

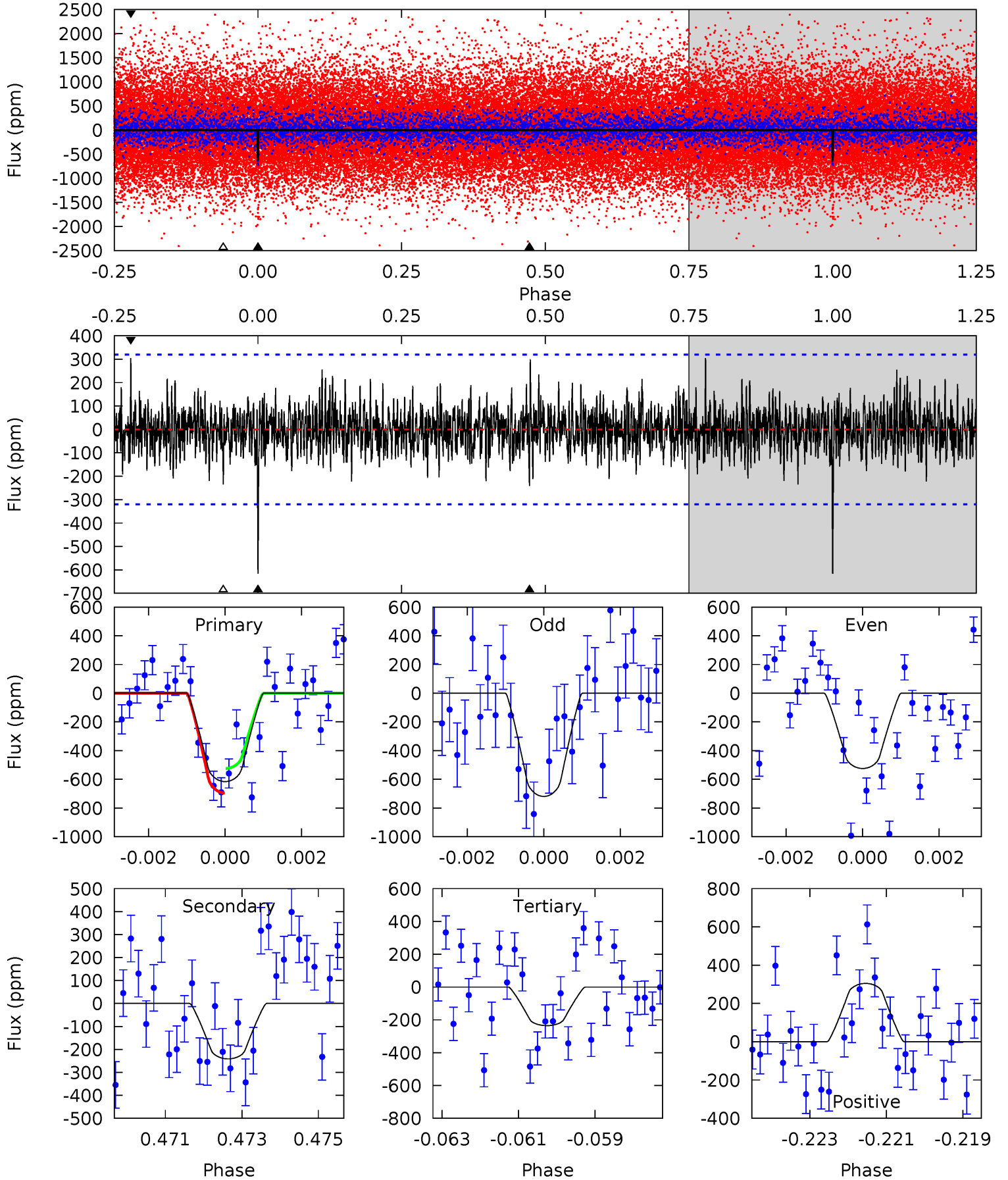
TCE 011854636-01 P= 37.019857 Days $T_0=131.840107$ (BKJD)



DV Model-Shift Uniqueness Test

011854636-01, P = 37.020174 Days, E = 94.813347 Days

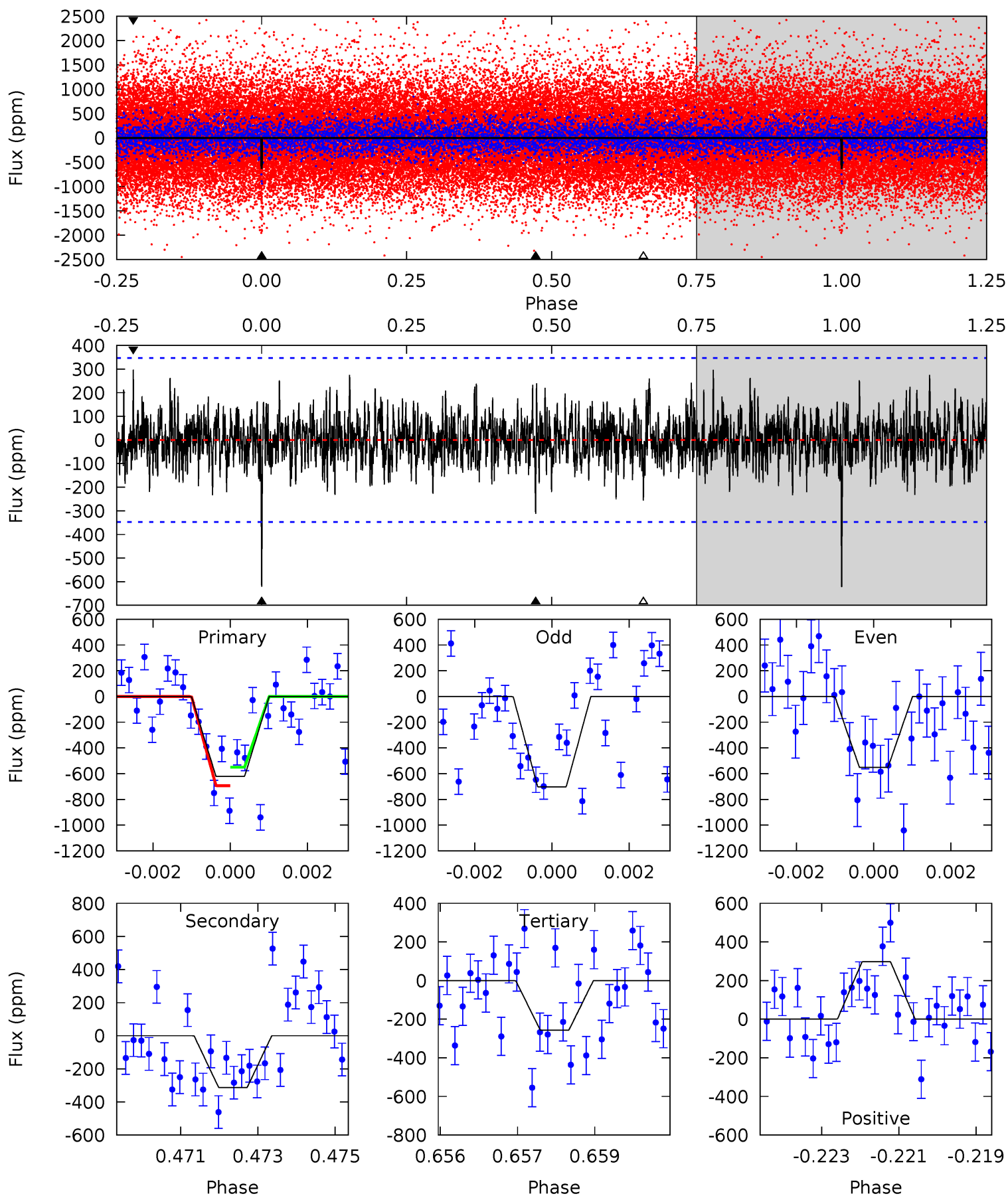
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	4.02	3.92	5.08	5.33	3.09	1.23	6.35	5.19	0.10	-1.06	1.63	1.31	0.33	1.43



Alt Model-Shift Uniqueness Test

011854636-01, P = 37.019857 Days, E = 94.820250 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.59	4.82	3.96	4.58	5.35	3.13	1.22	5.62	5.01	0.86	0.24	1.17	1.24	0.32	1.10



Stellar Parameters For KIC 011854636

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5685^{+152}_{-169}	$4.537^{+0.044}_{-0.176}$	$0.040^{+0.250}_{-0.300}$	$0.886^{+0.233}_{-0.078}$	$0.987^{+0.094}_{-0.115}$	$1.996^{+0.441}_{-0.940}$
	+3%/-3%	+1%/-4%	+625%/-750%	+26%/-9%	+10%/-12%	+22%/-47%
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 011854636-01 / KOI 7484.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-241 ± 60	$4.25^{+3.98}_{-2.65}$	721^{+42}_{-32}	3783^{+1760}_{-689}	333^{+1967}_{-247}
Alt.	-313 ± 65	$4.29^{+3.94}_{-2.81}$	723^{+44}_{-32}	3993^{+2255}_{-781}	436^{+3208}_{-323}

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 $A_{obs} \gg 1.0$

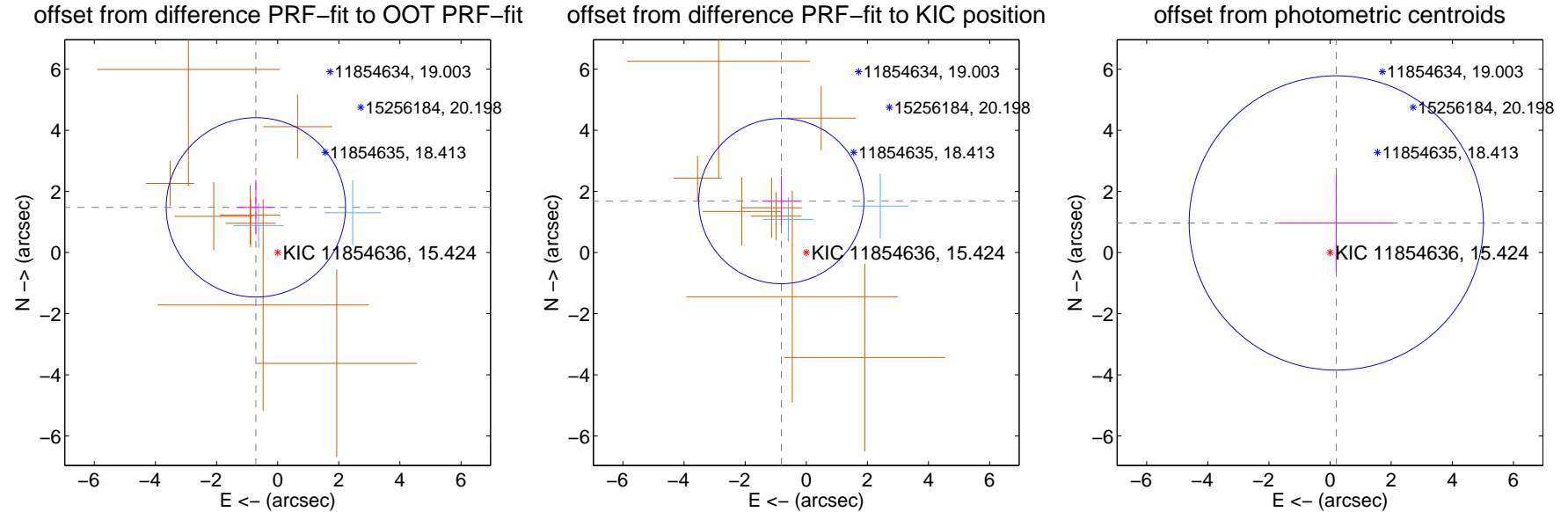
DV Centroid Data

Supplemental centroid analysis for 011854636-01. Kepler magnitude: 15.42. Transit SNR 8.99

There are 2 quarters with good PRF difference image offsets

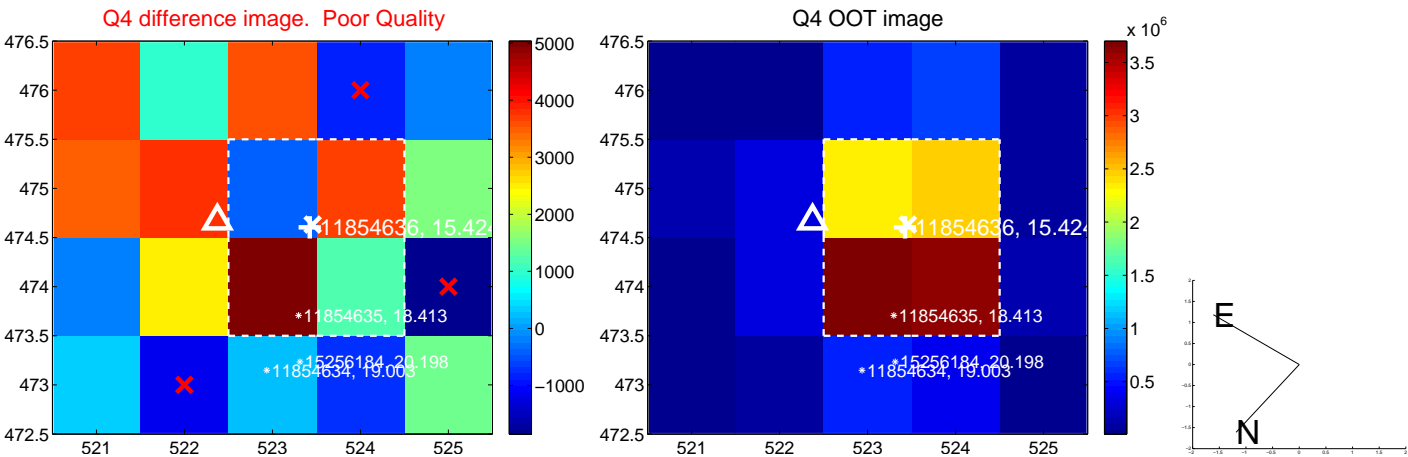
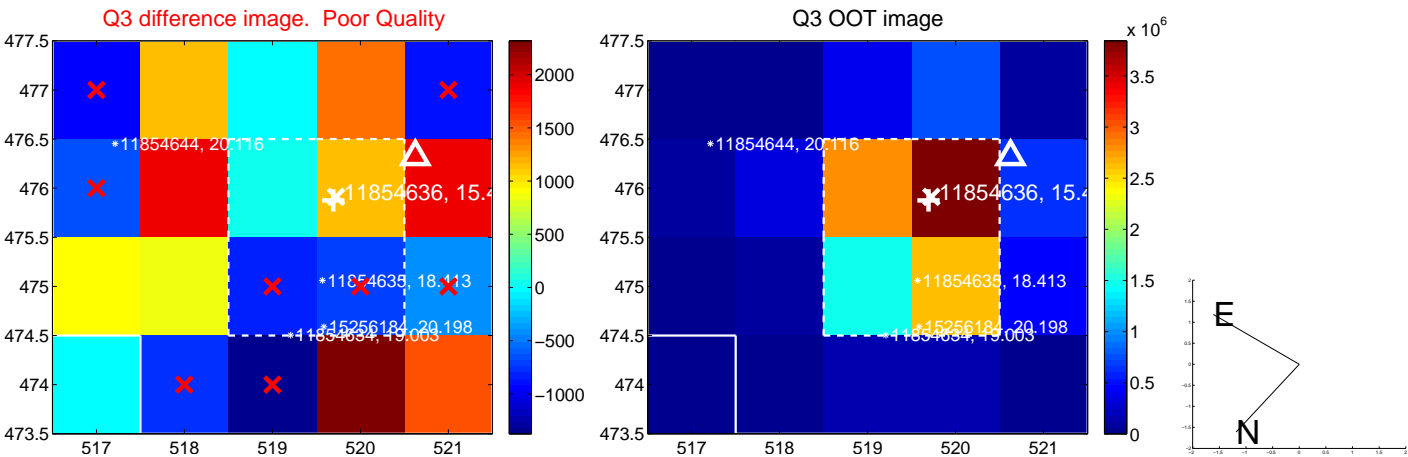
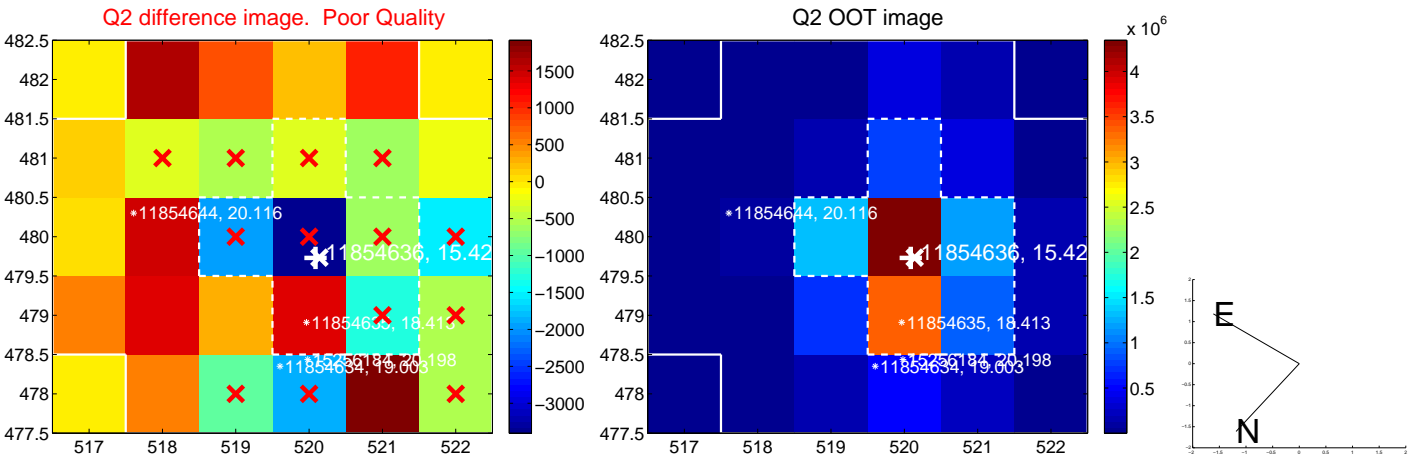
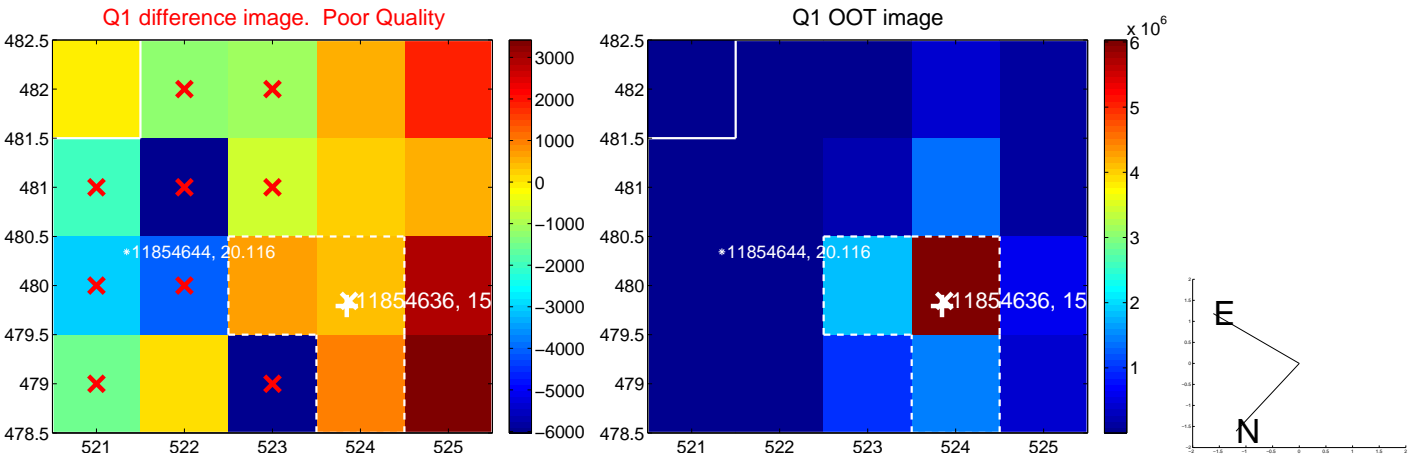
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.642 ± 0.978	1.68	0.713 ± 0.627	1.479 ± 0.892
PRF-fit source offset from KIC position	1.872 ± 0.901	2.08	0.817 ± 0.630	1.684 ± 0.819
photometric centroid source offset	0.99 ± 1.60	0.62	-0.20 ± 1.87	0.97 ± 1.59

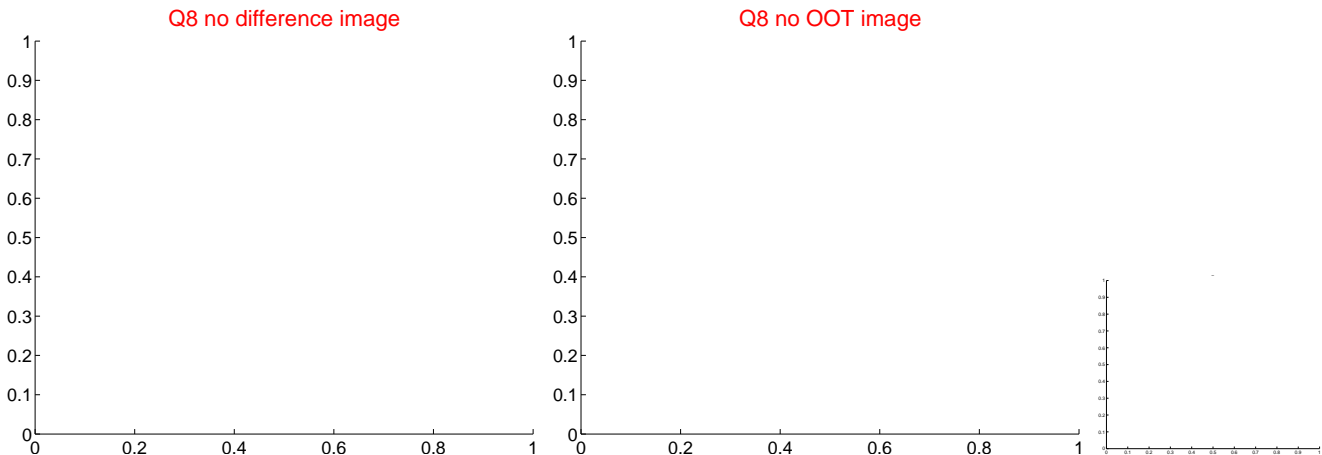
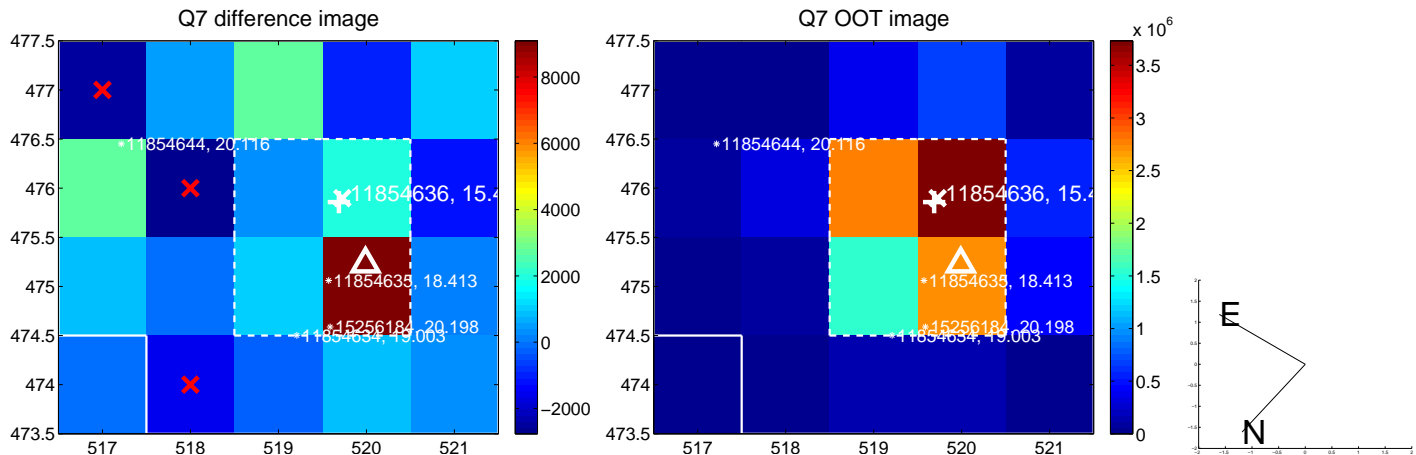
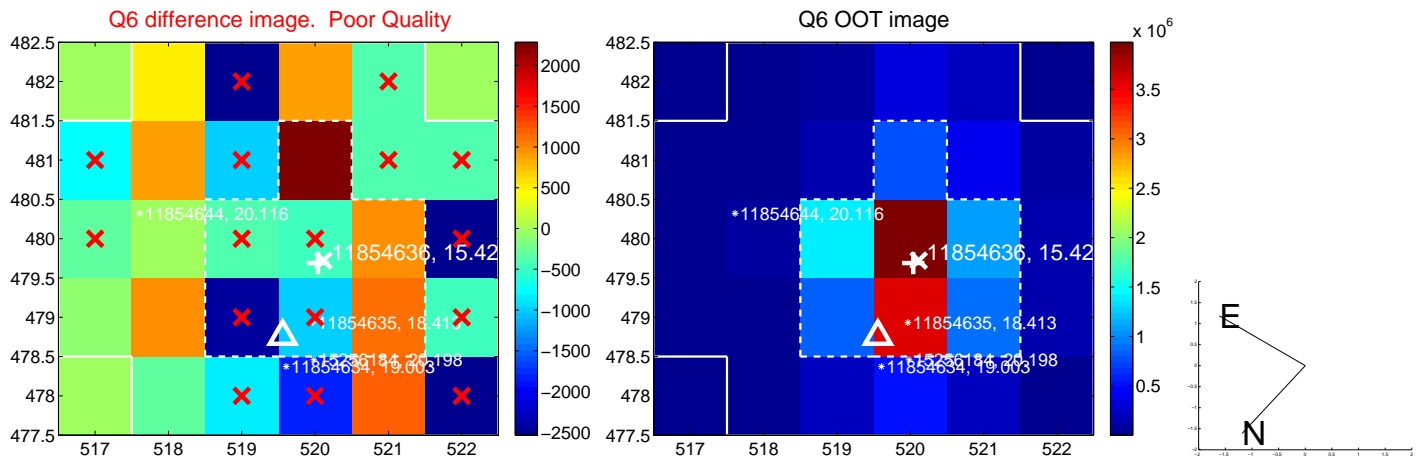
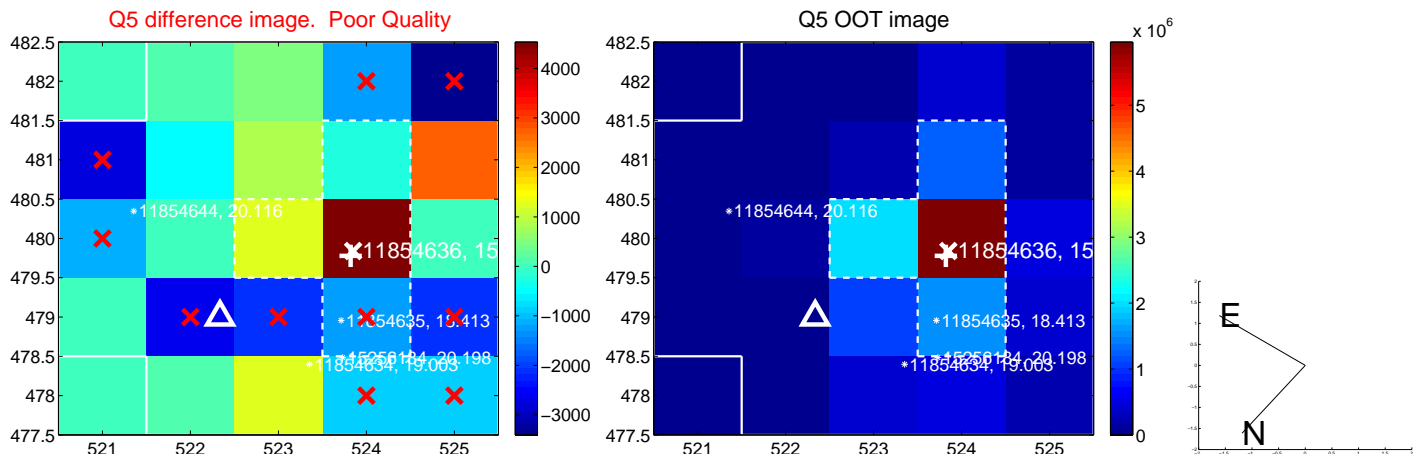


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

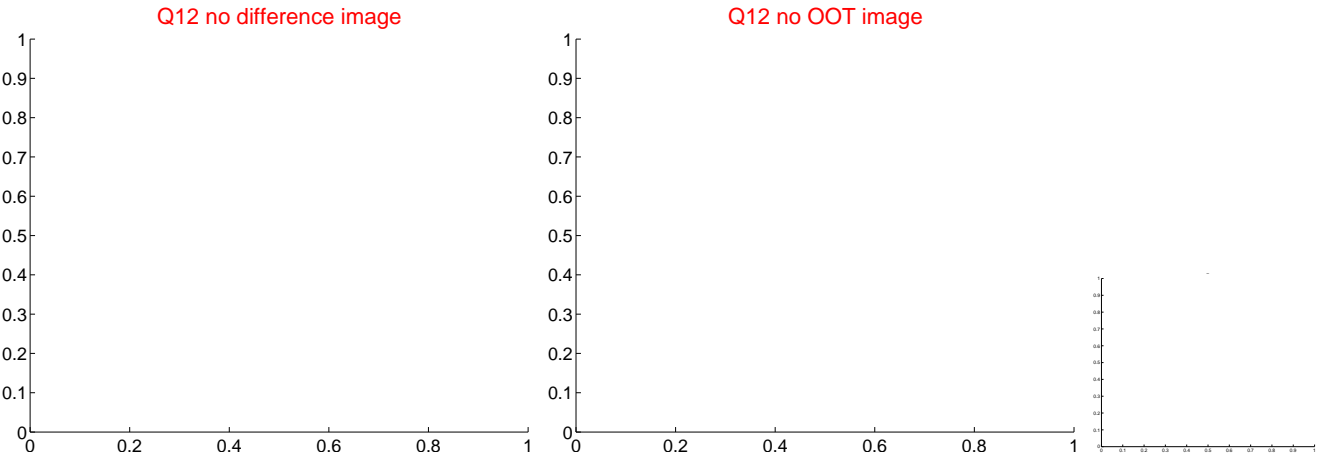
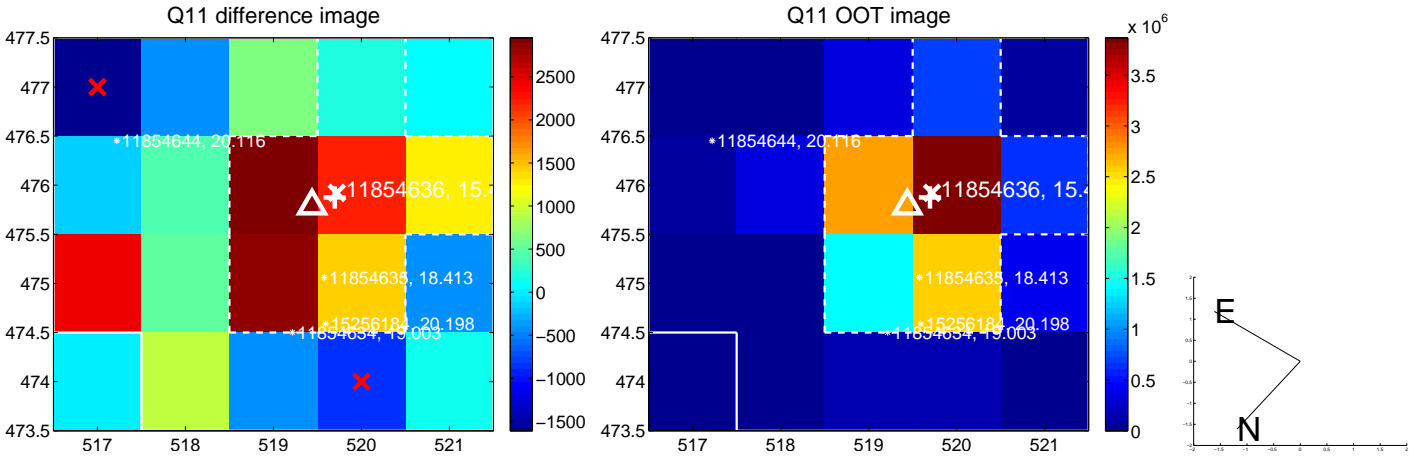
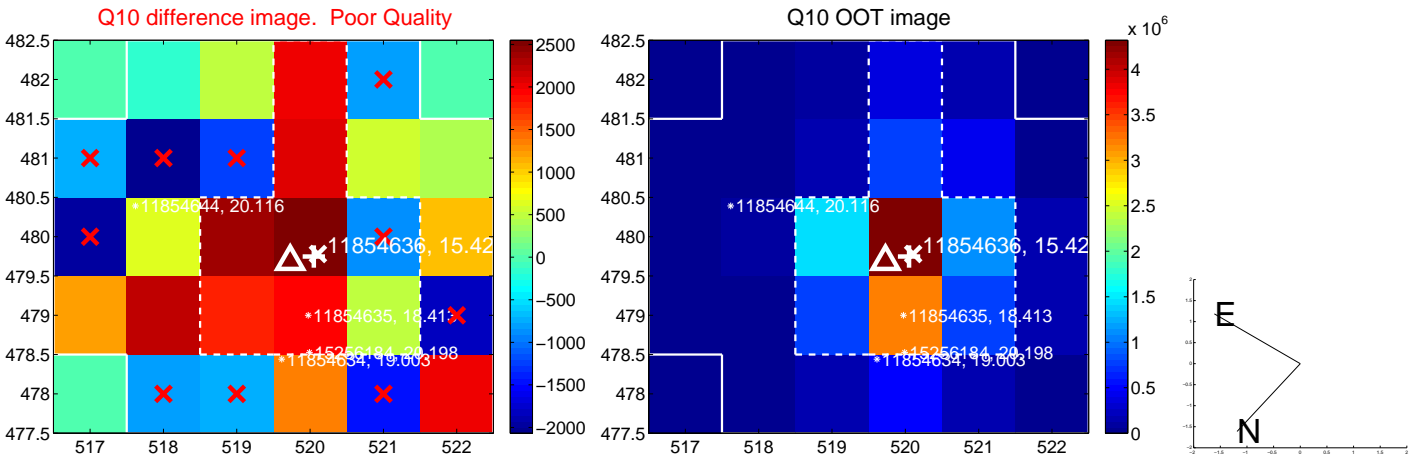
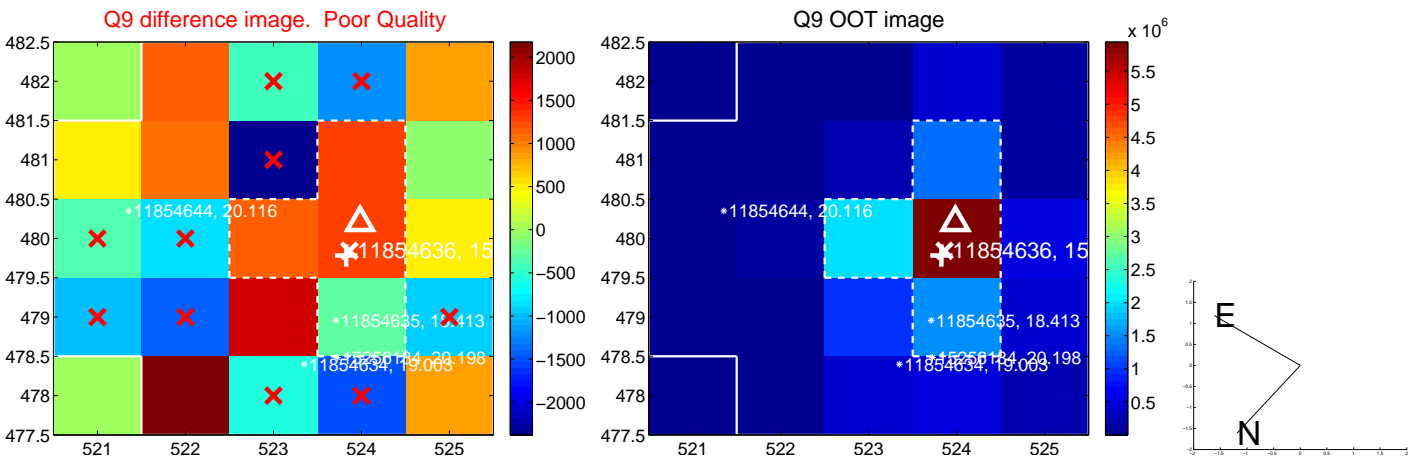
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



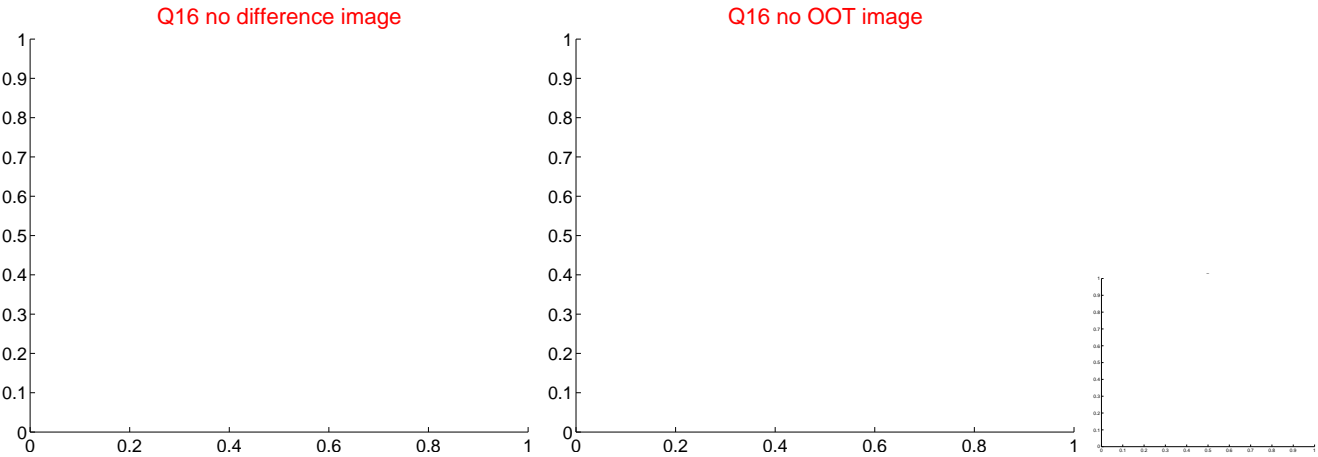
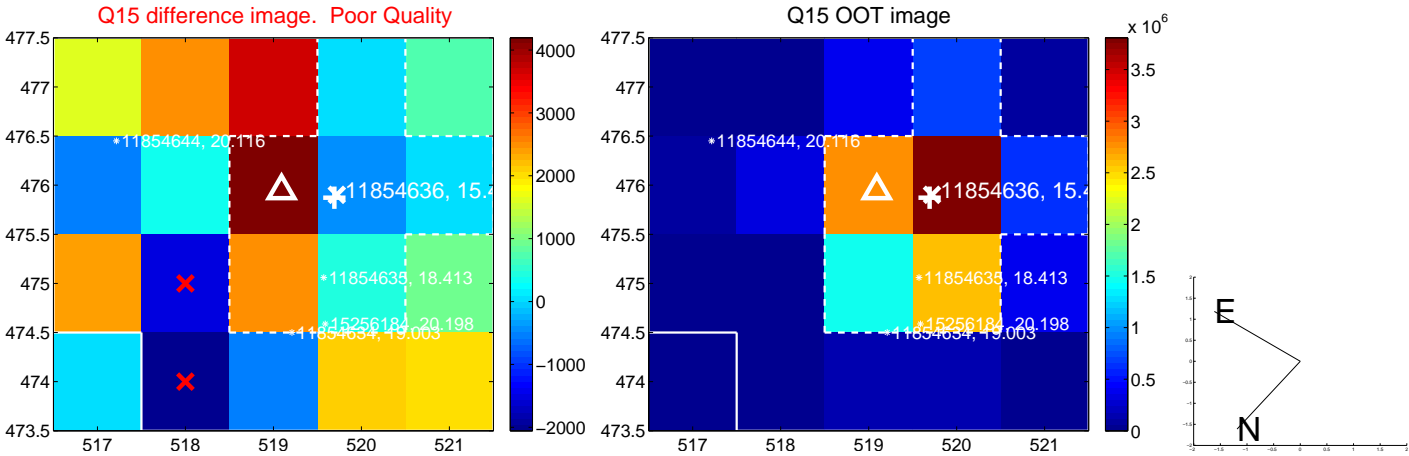
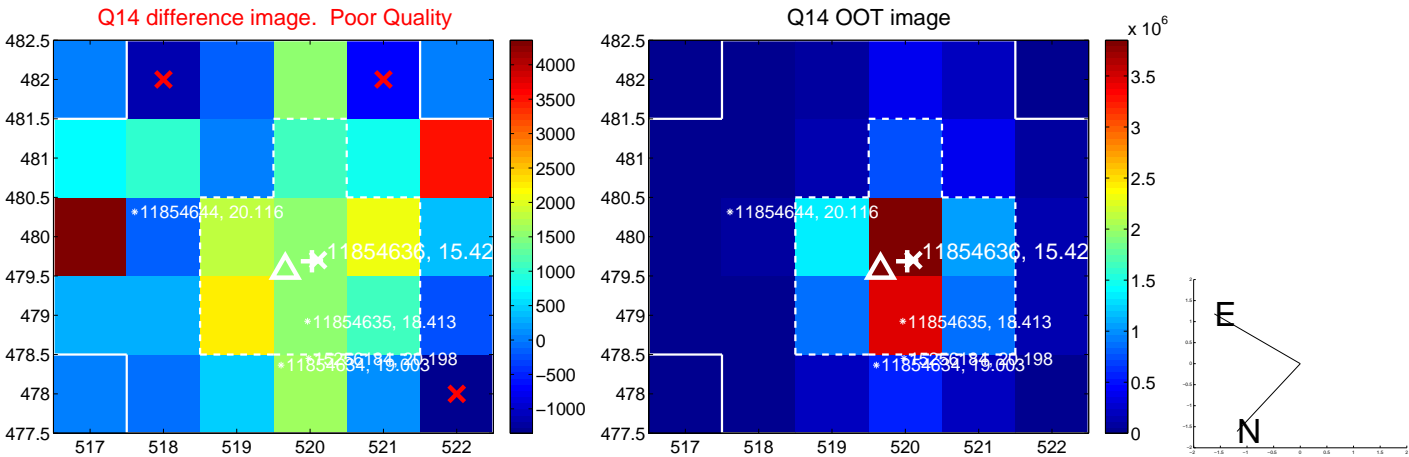
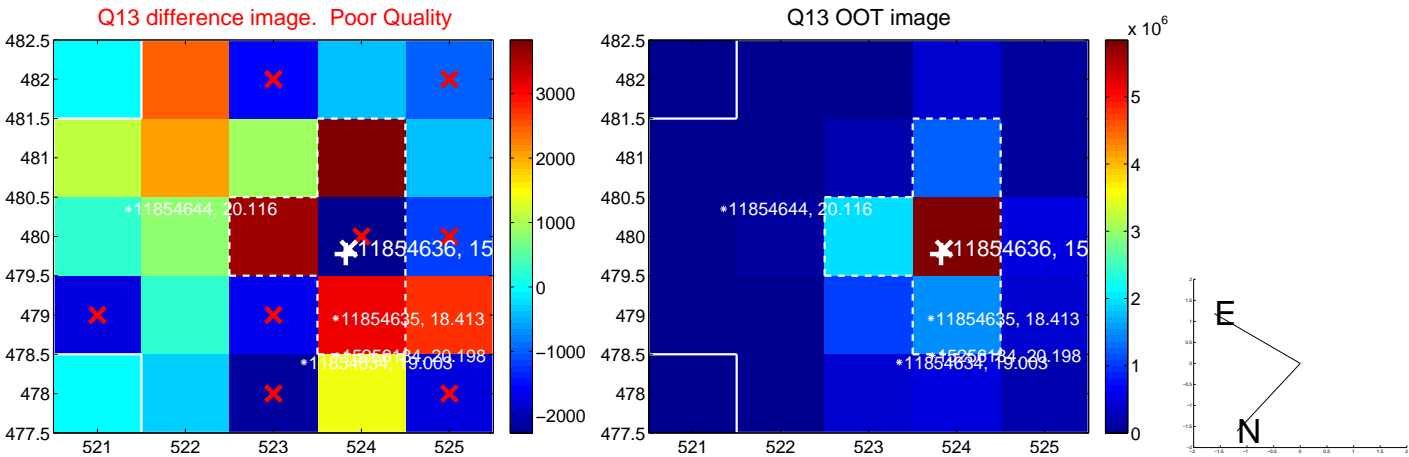
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



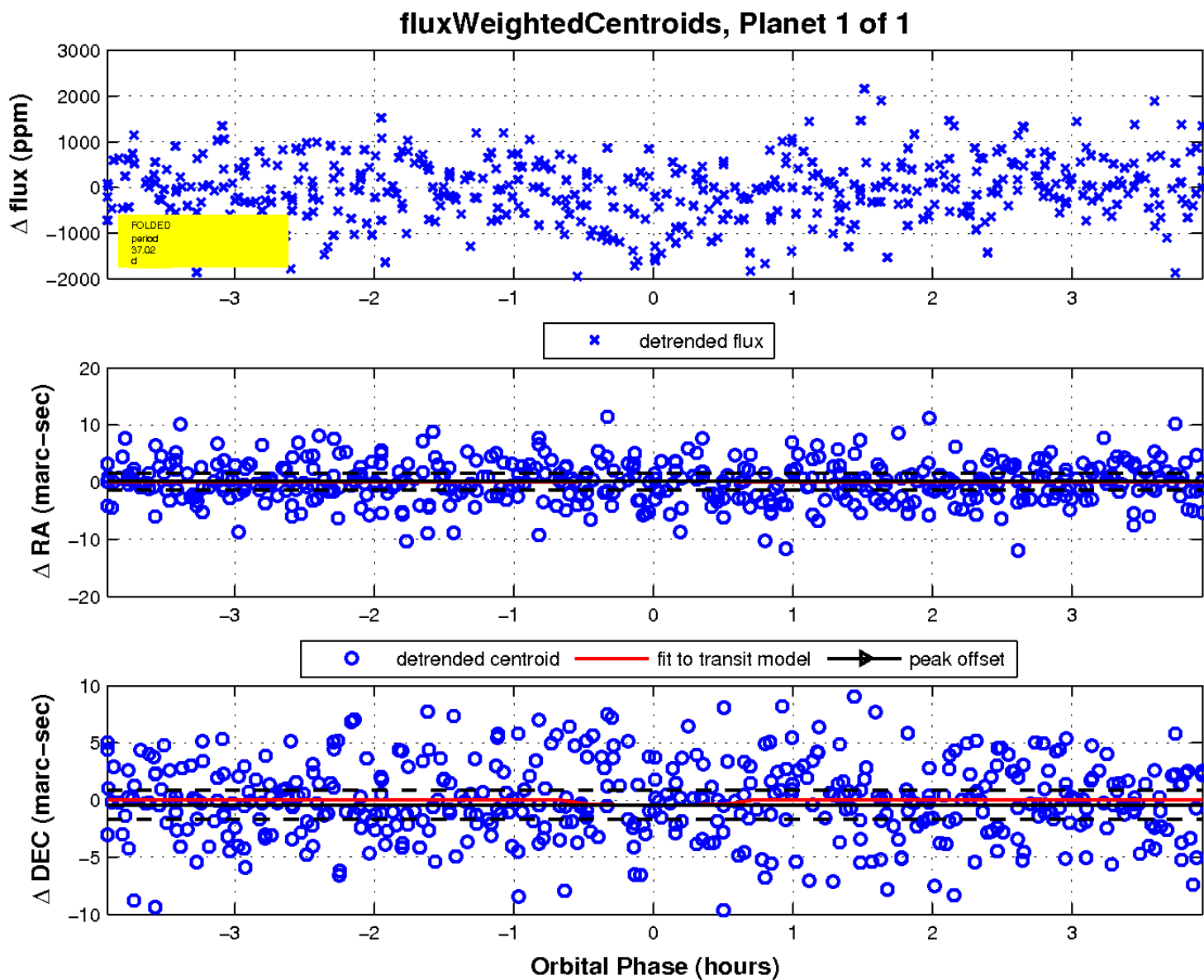
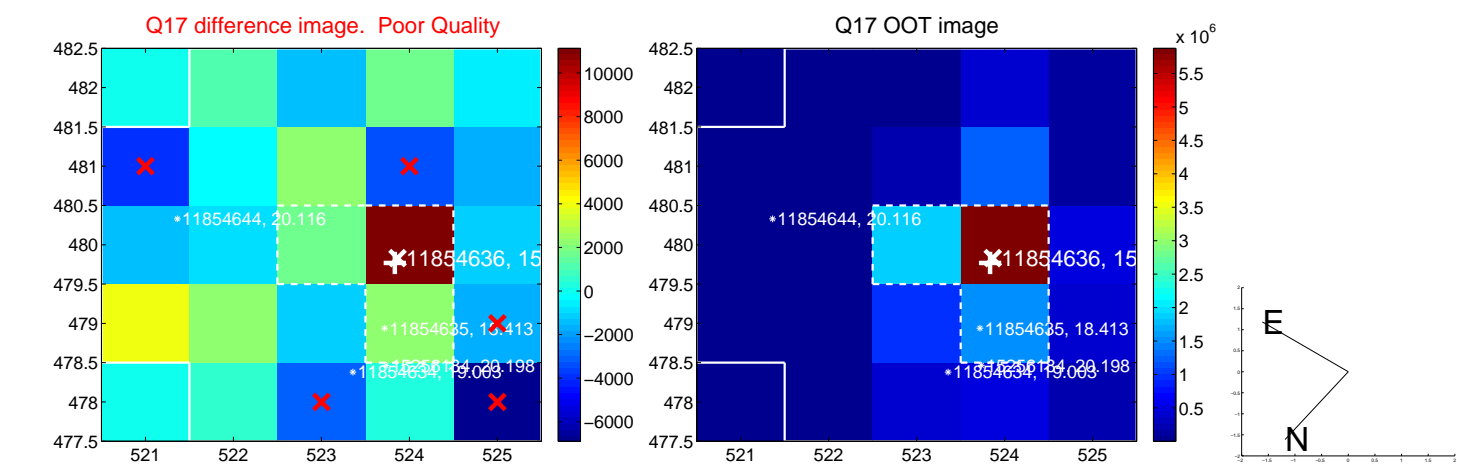
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

