

KIC 006921944

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})
006921944-01	OBS	2114.01	4.421569	132.183185	699.7	2.141	28.9	32.8	0.70	4299	2.19	67.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006921944-01	OBS	PC	1.00	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 006921944-01

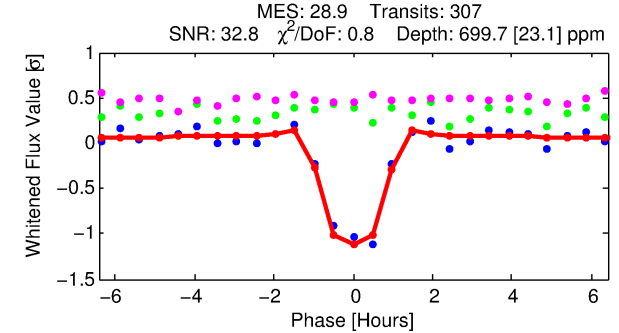
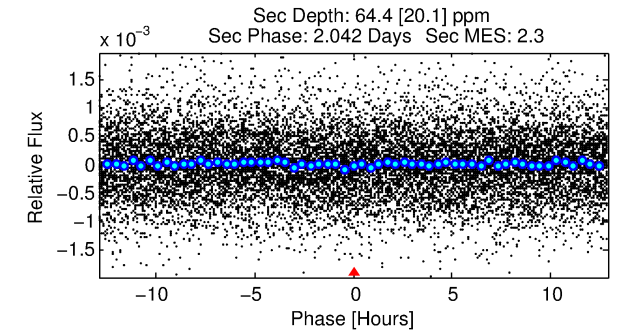
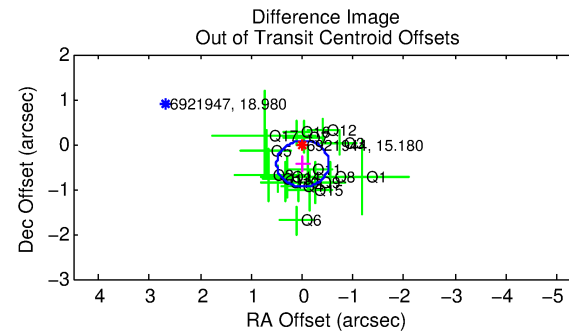
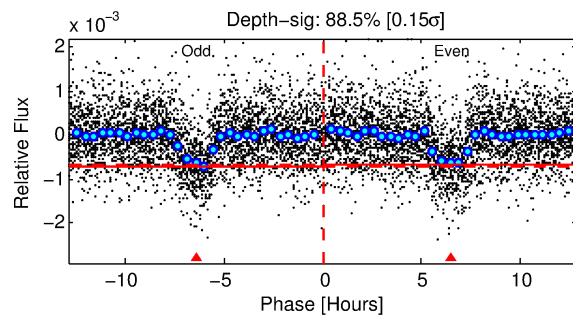
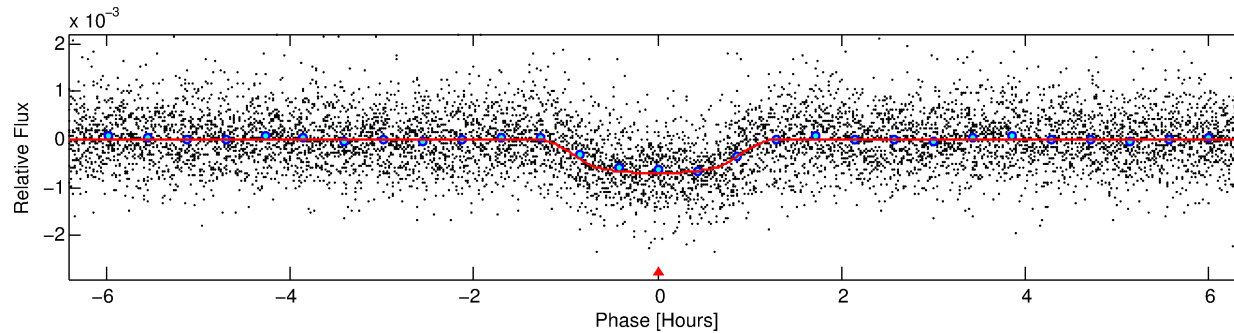
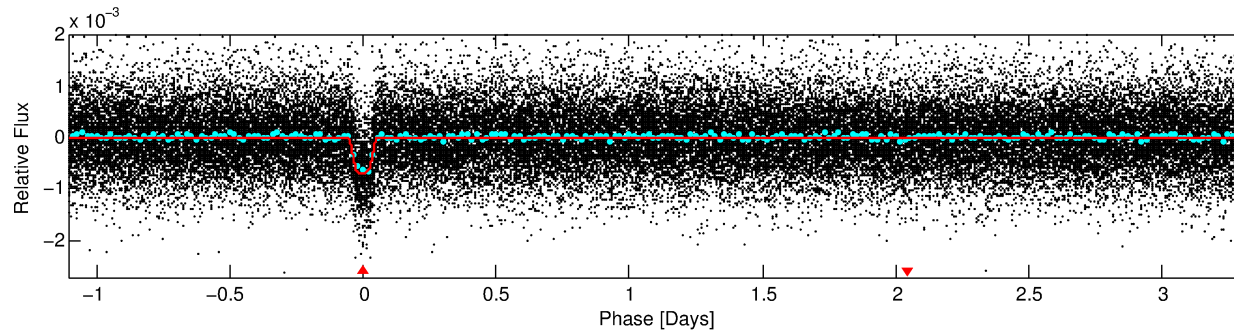
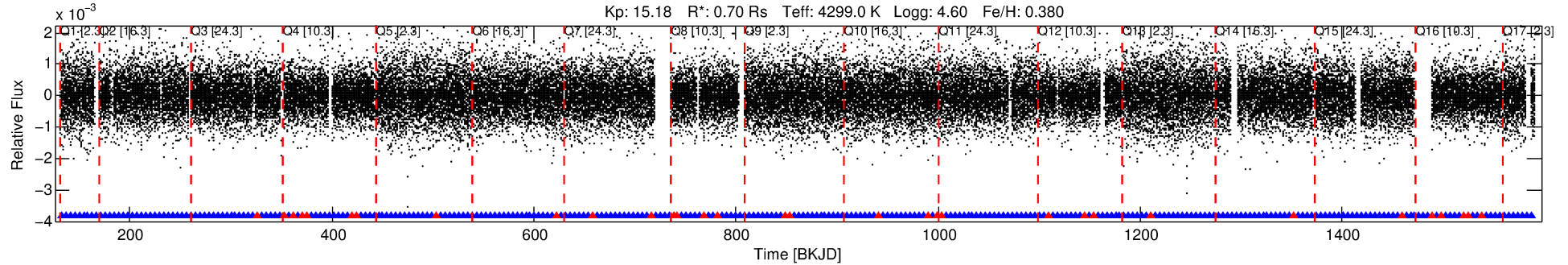
No Significant Match Found

DV One-Page Summary

KIC: 6921944 Candidate: 1 of 1 Period: 4.422 d

KOI: K02114.01 Corr: 0.984

Kp: 15.18 R*: 0.70 Rs Teff: 4299.0 K Logg: 4.60 Fe/H: 0.380



DV Fit Results:

Period = 4.42157 [0.00001] d
Epoch = 132.1832 [0.0011] BKJD
Rp/R* = 0.0288 [0.0075]
a/R* = 9.04 [7.60]
b = 0.86 [0.28]
Seff = 67.05 [6.67]
Teq = 730 [18] K
Rp = 2.19 [0.58] Re
a = 0.0471 [0.0019] AU
Ag = 16.41 [10.05] [1.53σ]
Teffp = 2271 [349] K [4.41σ]

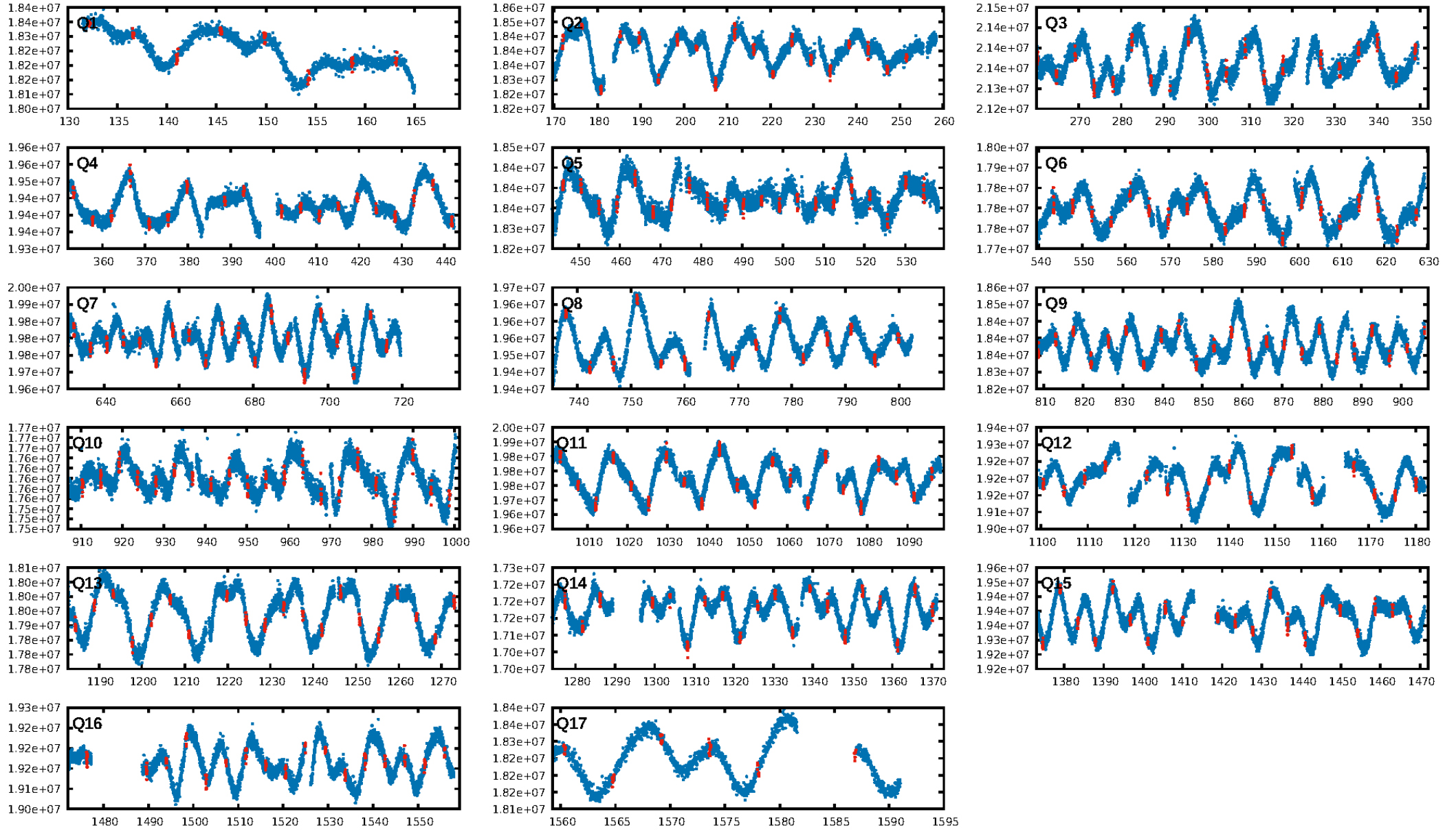
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.27e-174
RollingBand-fgt: 0.89 [261/293]
GhostDiagnostic-chr: 3.362
Centroid-sig: 0.0%
Centroid-so: 1.454 arcsec [5.10σ]
OotOffset-rm: 0.434 arcsec [2.53σ]
KicOffset-rm: 0.294 arcsec [2.06σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

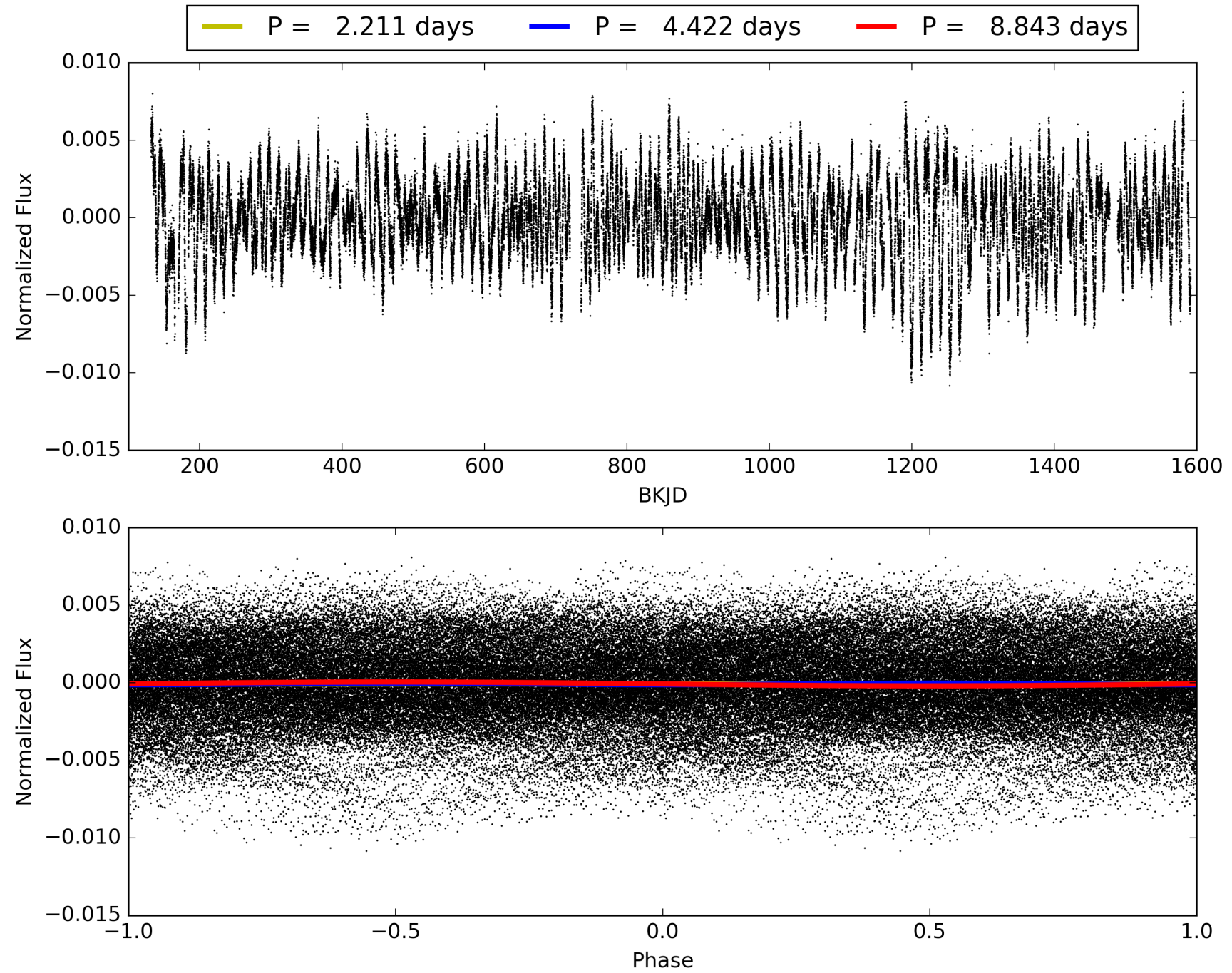
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:18:48 Z

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

TCE 006921944-01, PDC Light Curves

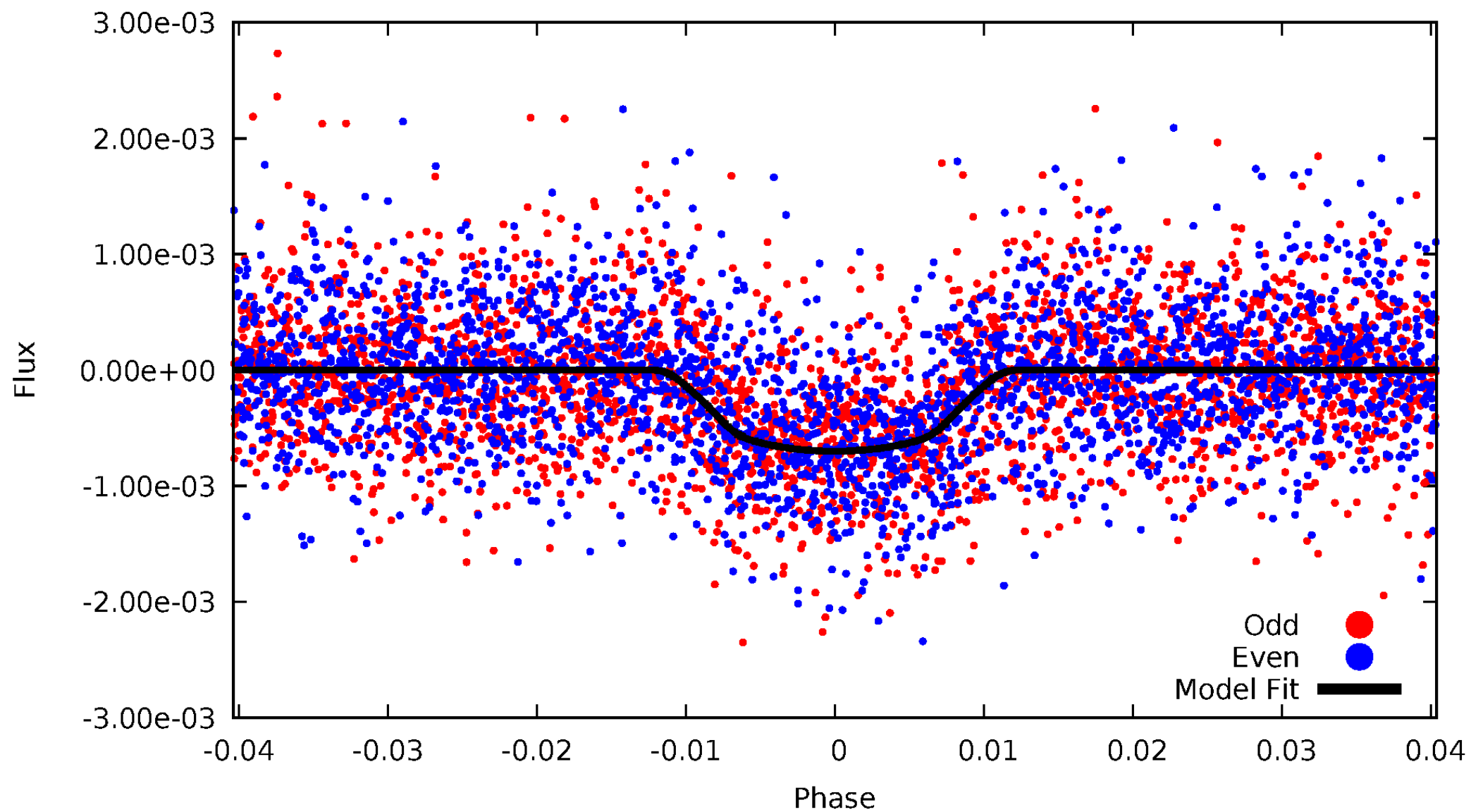


TCE 006921944-01



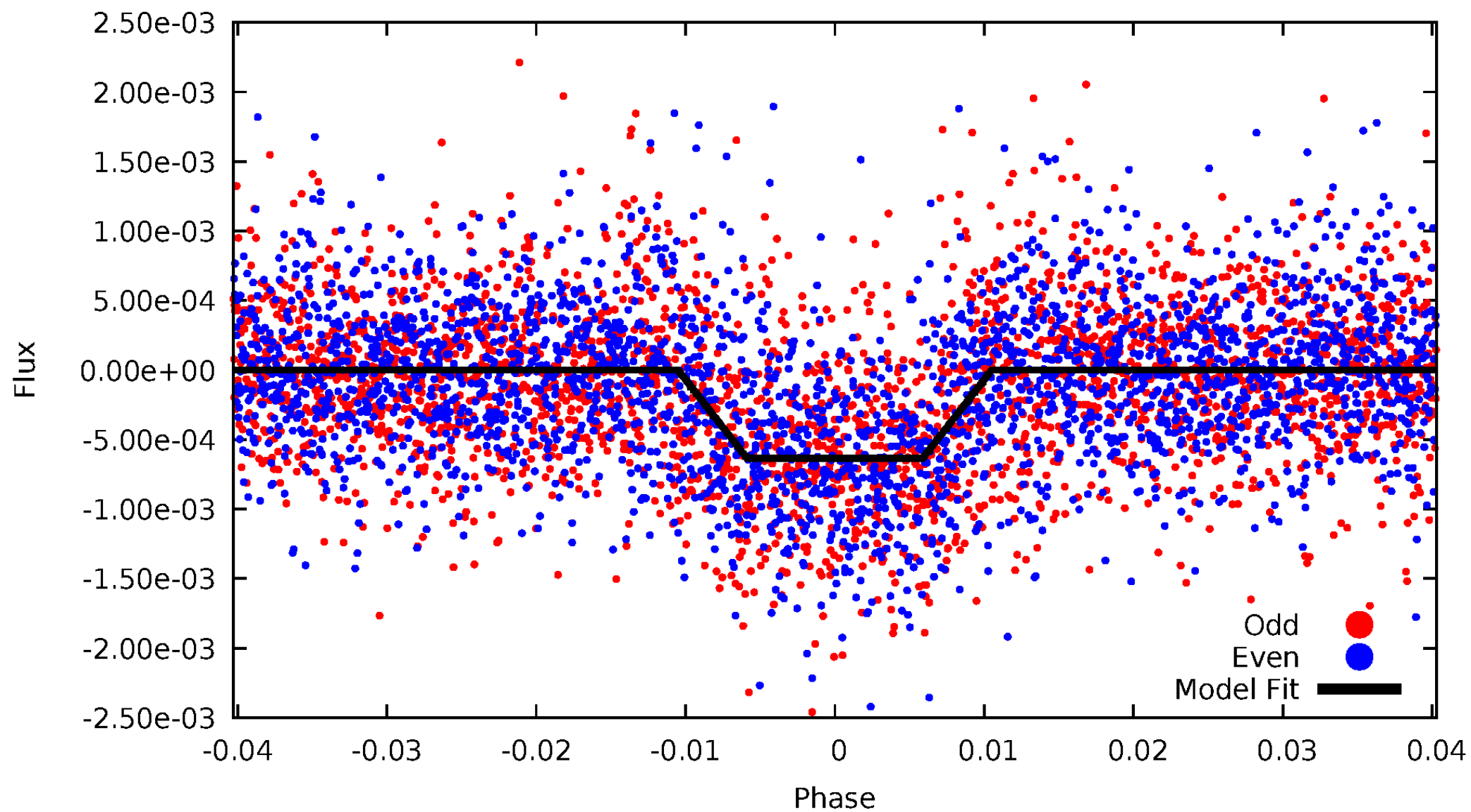
DV Odd/Even

TCE 006921944-01

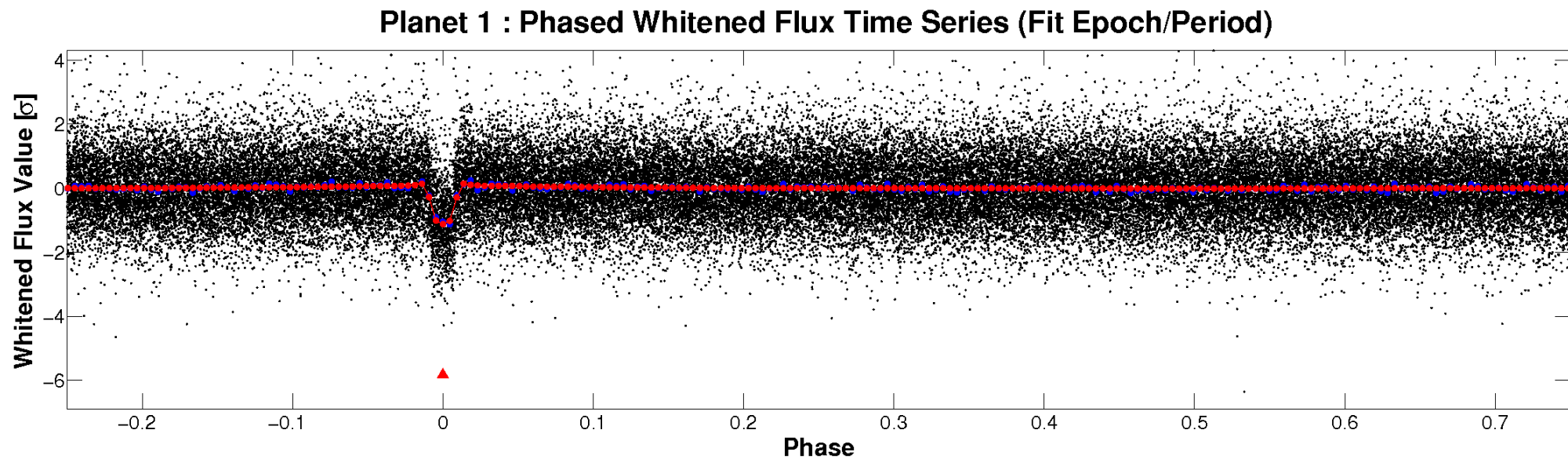
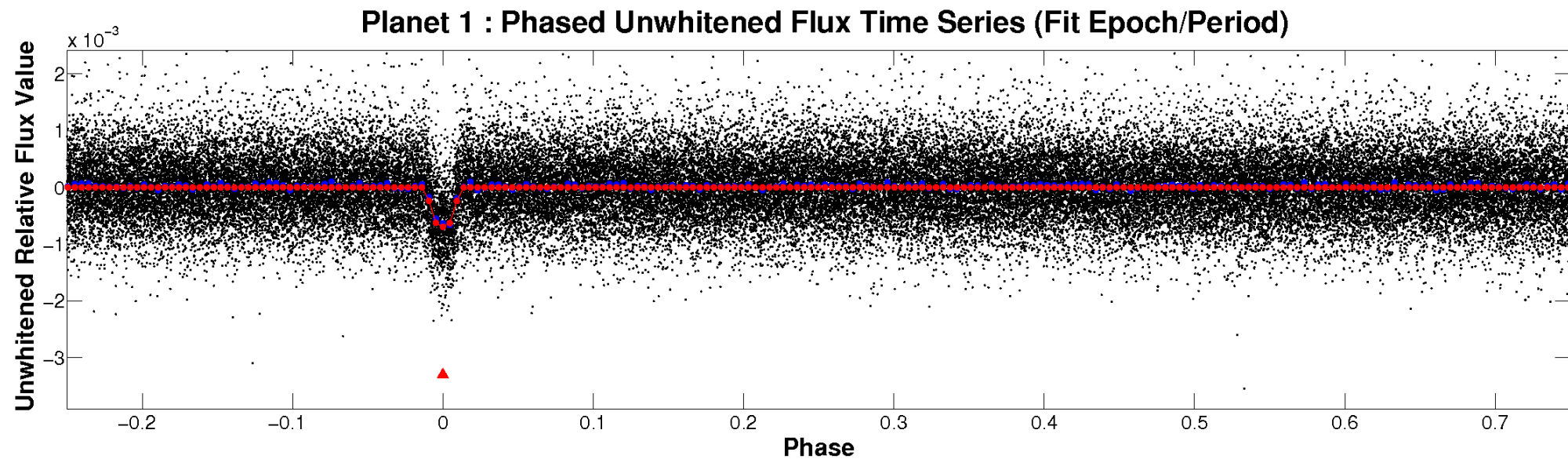


ALT Odd/Even

TCE 006921944-01

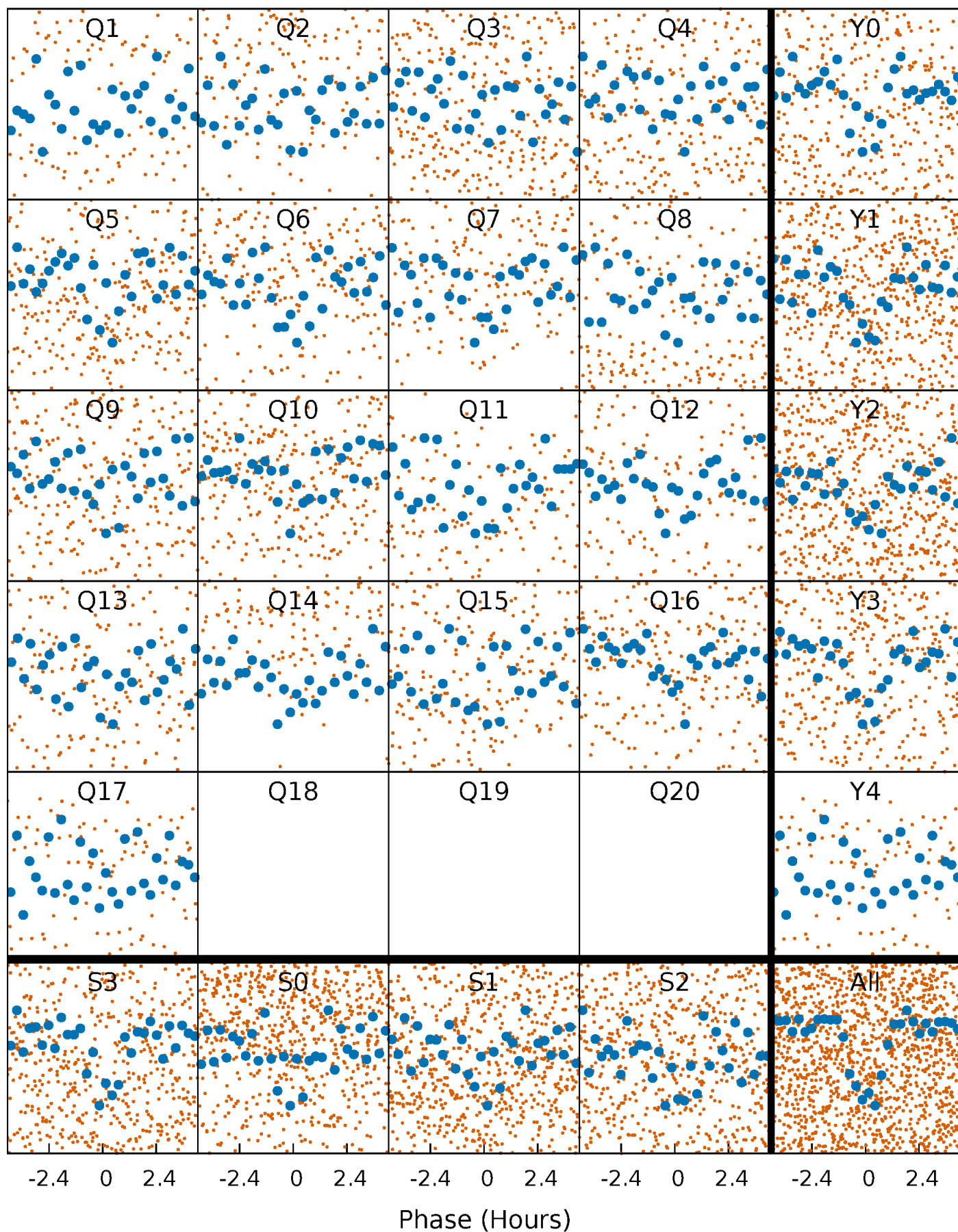


Non-Whitened Vs. Whitened Light Curve



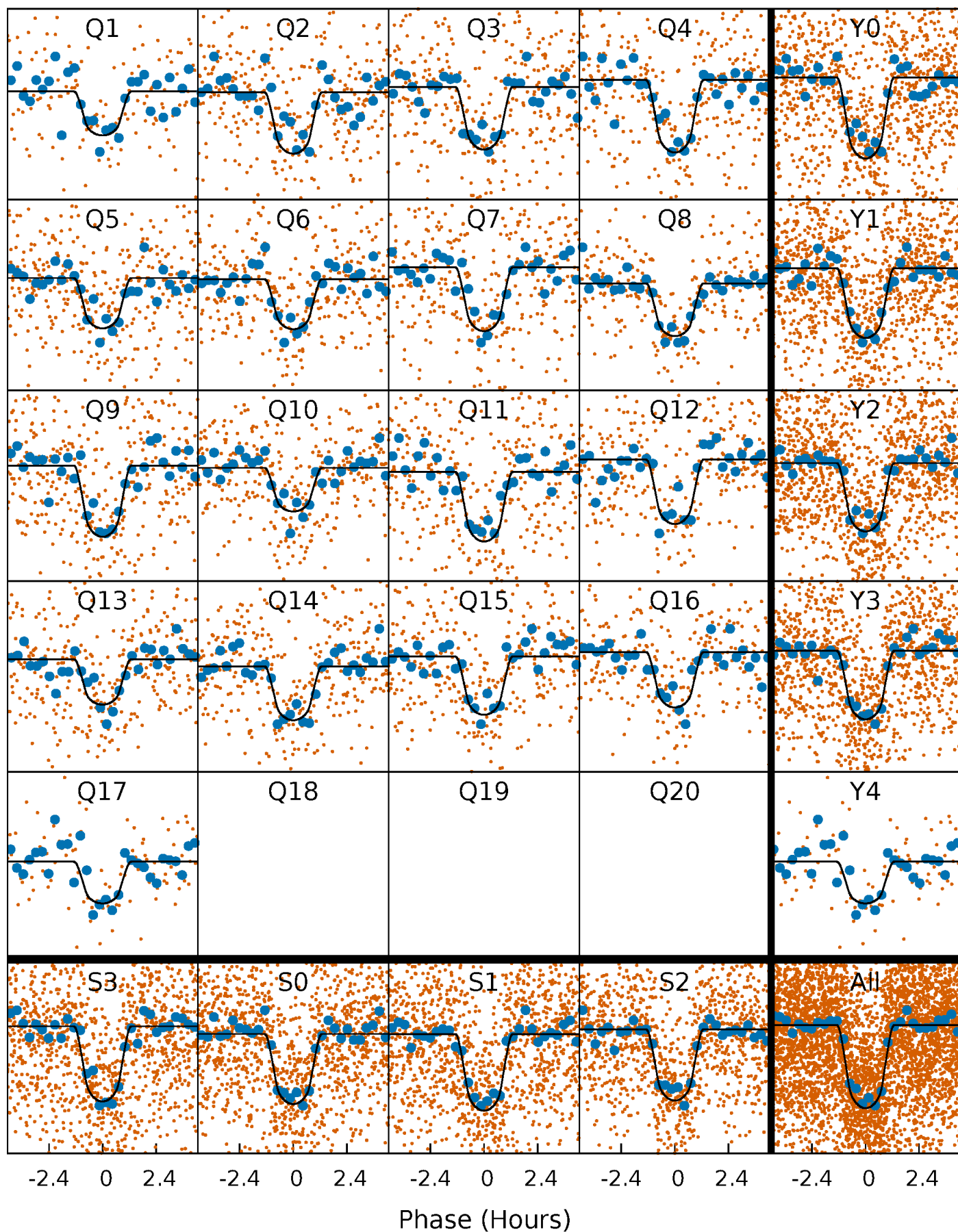
PDC Quarter-Phased Transit Curves

TCE 006921944-01 P= 4.421569 Days $T_0=132.183185$ (BKJD)



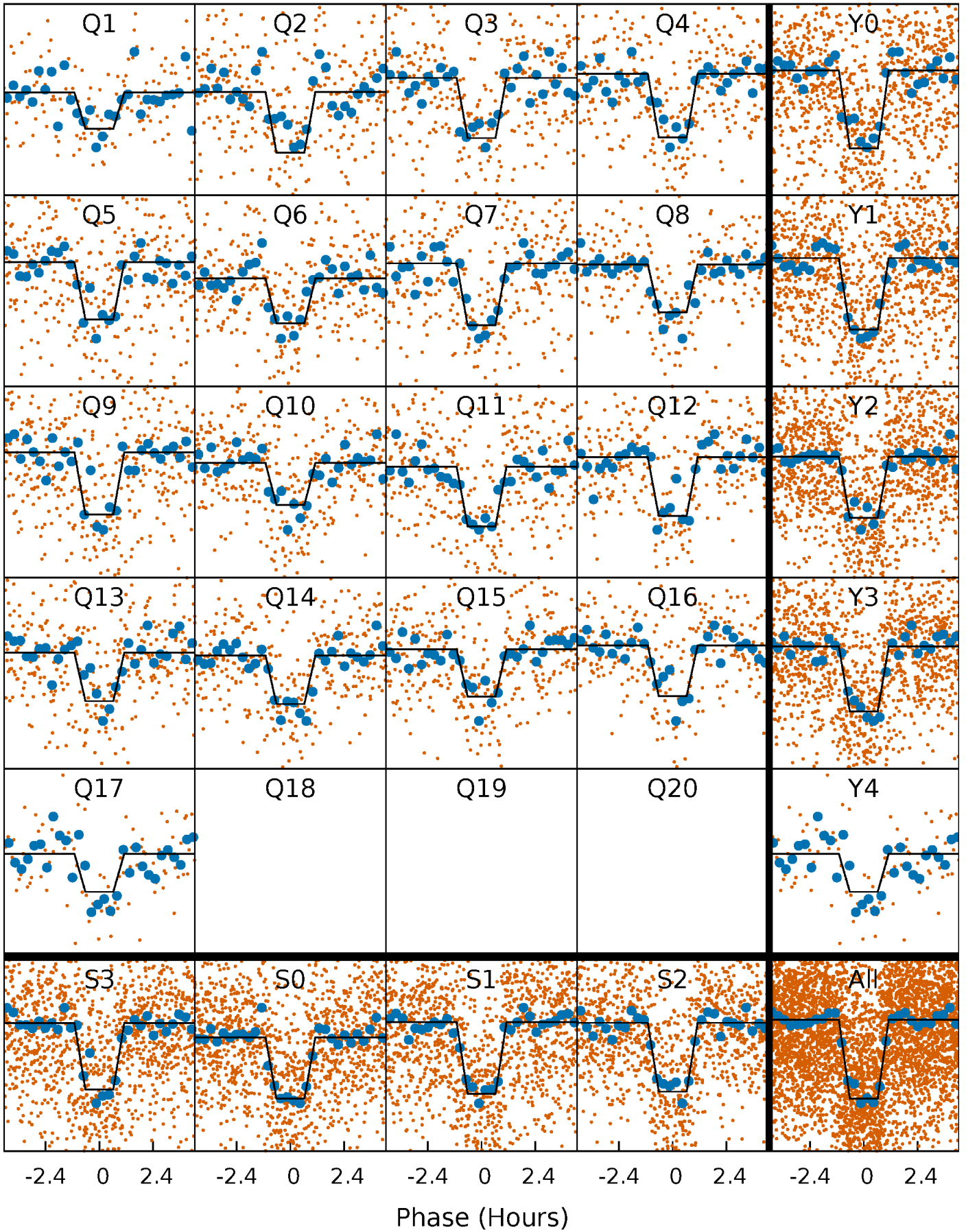
DV Quarter-Phased Transit Curves

TCE 006921944-01 P= 4.421569 Days $T_0=132.183185$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

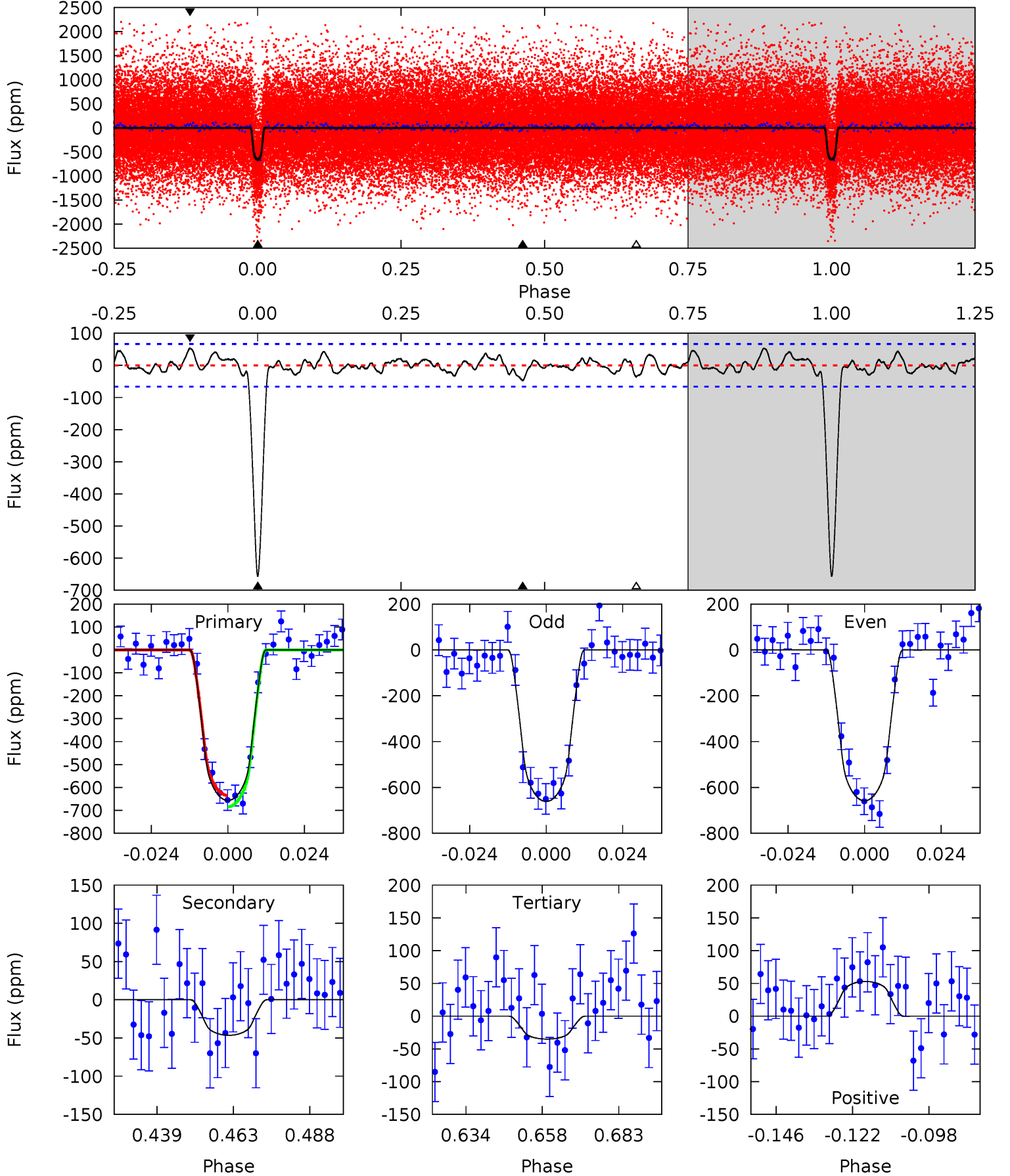
TCE 006921944-01 P= 4.421542 Days $T_0=132.188418$ (BKJD)



DV Model-Shift Uniqueness Test

006921944-01, P = 4.421569 Days, E = 127.761616 Days

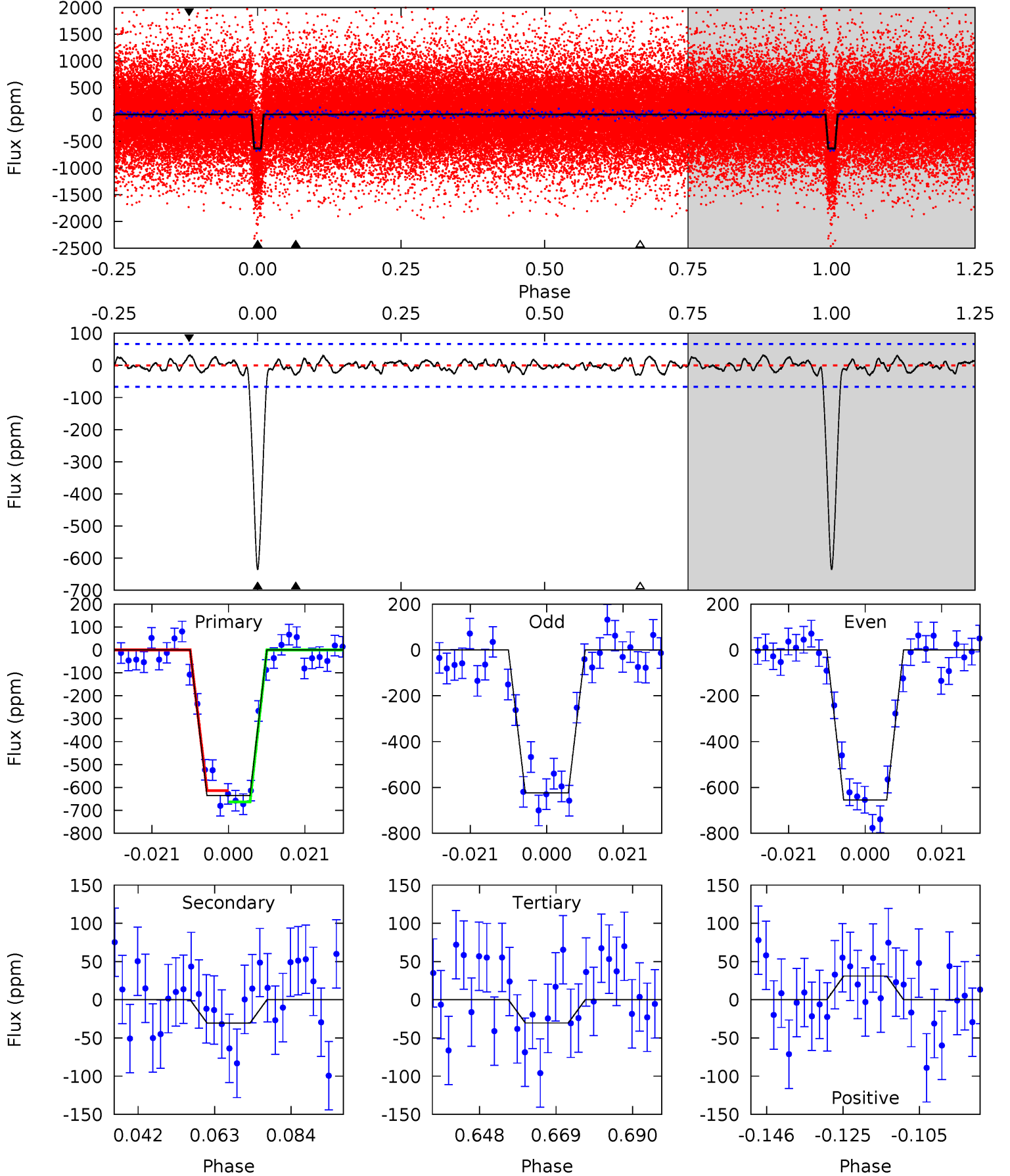
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.1	3.41	2.57	3.88	4.85	2.25	1.28	45.5	44.2	0.84	-0.47	0.12	0.99	0.07	1.82



Alt Model-Shift Uniqueness Test

006921944-01, P = 4.421542 Days, E = 127.766876 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.6	2.23	2.23	2.28	4.88	2.31	0.93	44.4	44.3	0.01	-0.05	1.15	0.97	0.05	1.82



Stellar Parameters For KIC 006921944

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4299^{+86}_{-86}	$4.604^{+0.033}_{-0.015}$	$0.380^{+0.100}_{-0.150}$	$0.697^{+0.019}_{-0.032}$	$0.713^{+0.024}_{-0.024}$	$2.960^{+0.392}_{-0.178}$
	+2%/-2%	+1%/-0%	+26%/-39%	+3%/-5%	+3%/-3%	+13%/-6%
Source	SPE60	SPE60	SPE60	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006921944-01 / KOI 2114.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-47 ± 14	$2.16^{+0.59}_{-0.51}$	1018^{+22}_{-23}	2735^{+240}_{-208}	12^{+10}_{-5}
Alt.	-30 ± 14	$1.94^{+0.57}_{-0.59}$	1016^{+24}_{-22}	2657^{+310}_{-261}	$9.776^{+11.021}_{-5.485}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

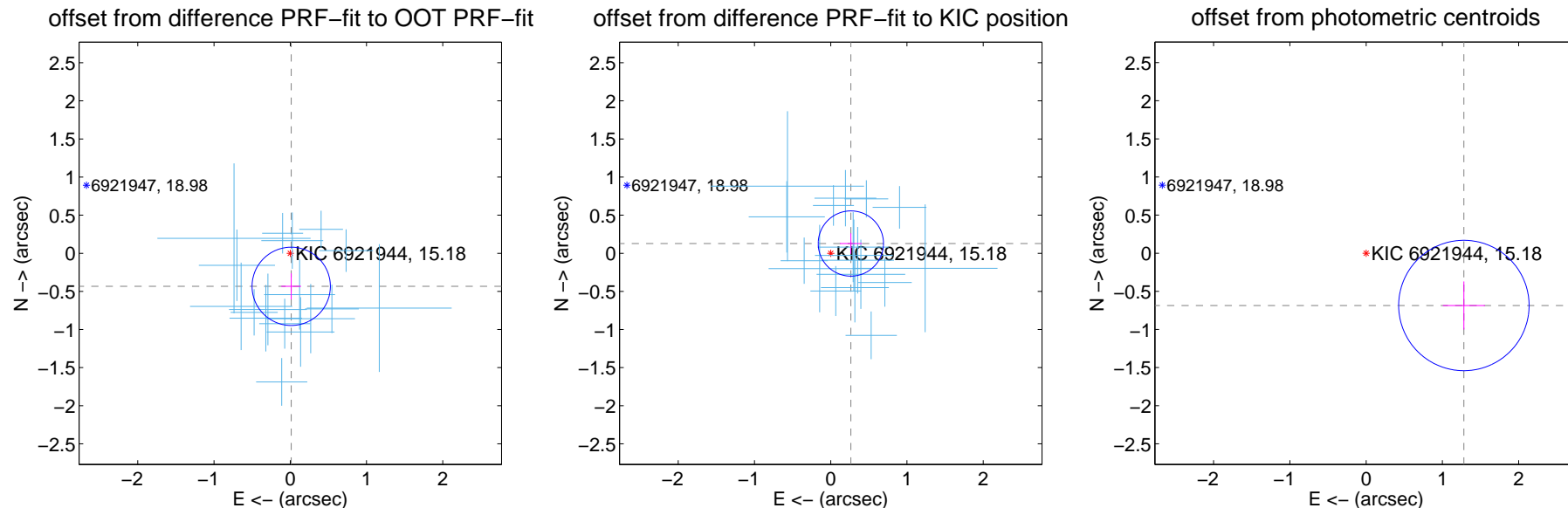
DV Centroid Data

Supplemental centroid analysis for 006921944-01. Kepler magnitude: 15.18. Transit SNR 32.82

There are 17 quarters with good PRF difference image offsets

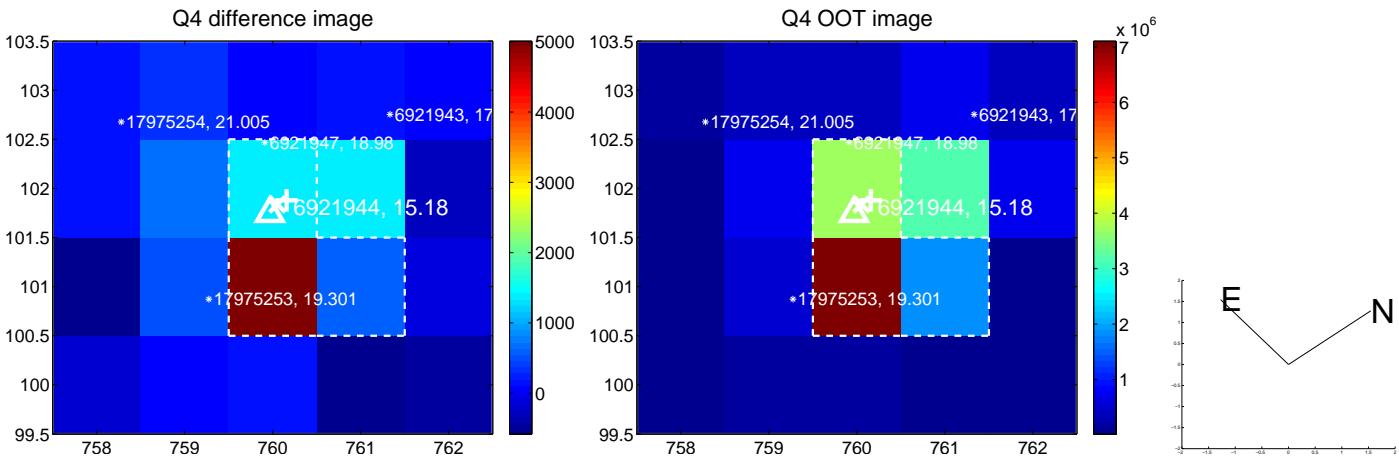
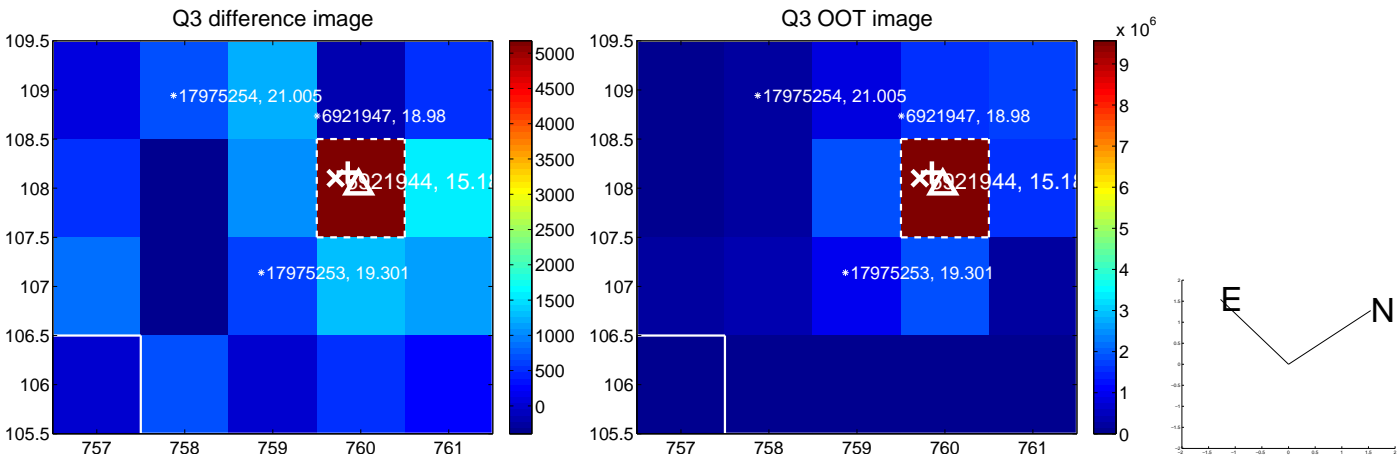
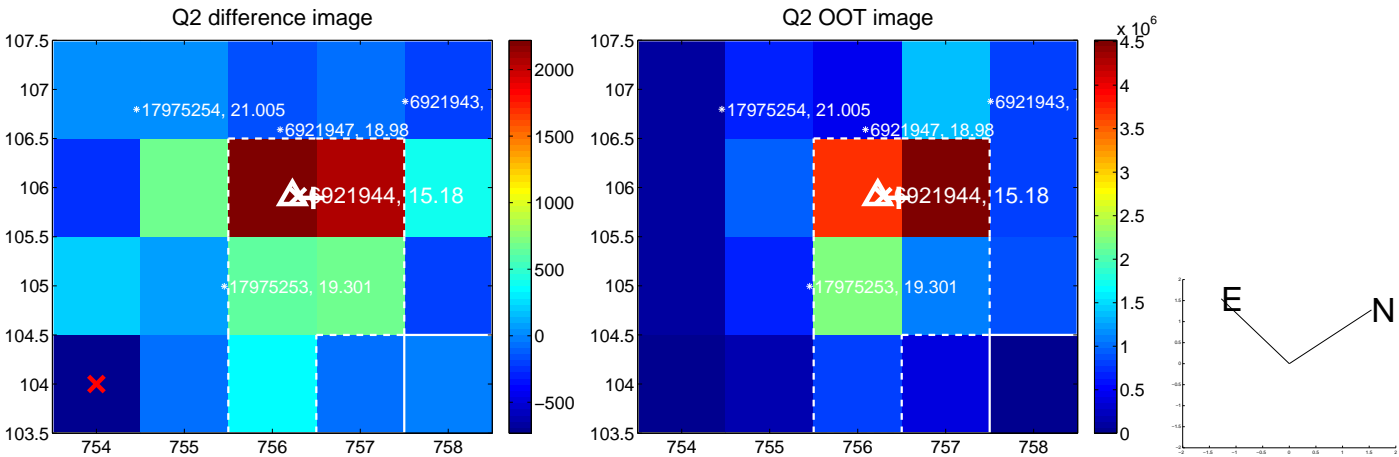
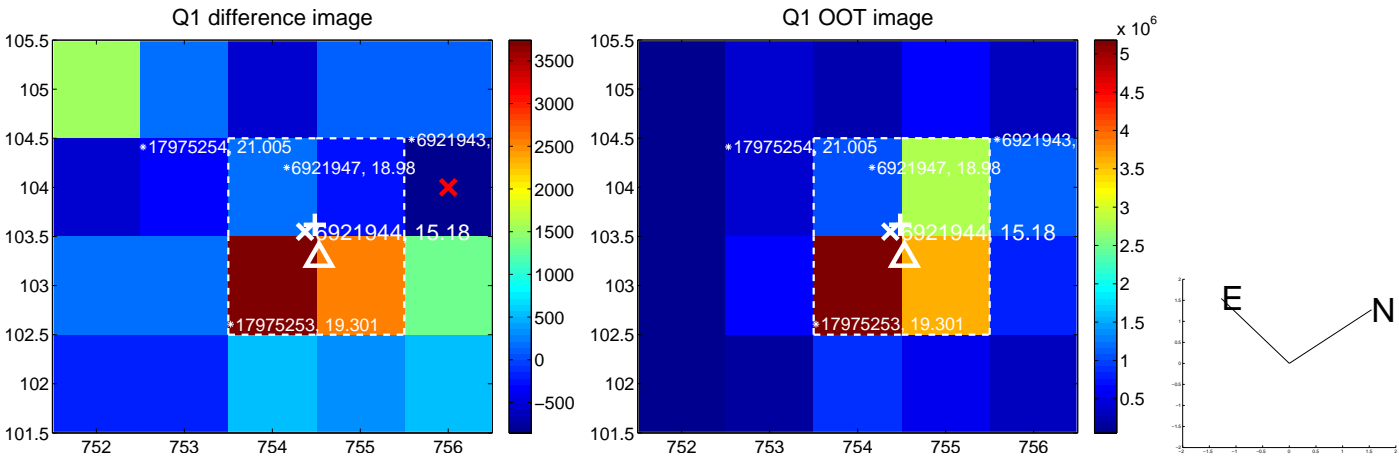
The direct PRF centroid is offset from the target star catalog position by about 0.71 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.434 ± 0.171	2.53	-0.012 ± 0.130	-0.434 ± 0.171
PRF-fit source offset from KIC position	0.294 ± 0.143	2.06	-0.264 ± 0.144	0.128 ± 0.135
photometric centroid source offset	1.45 ± 0.29	5.10	-1.28 ± 0.28	-0.69 ± 0.31

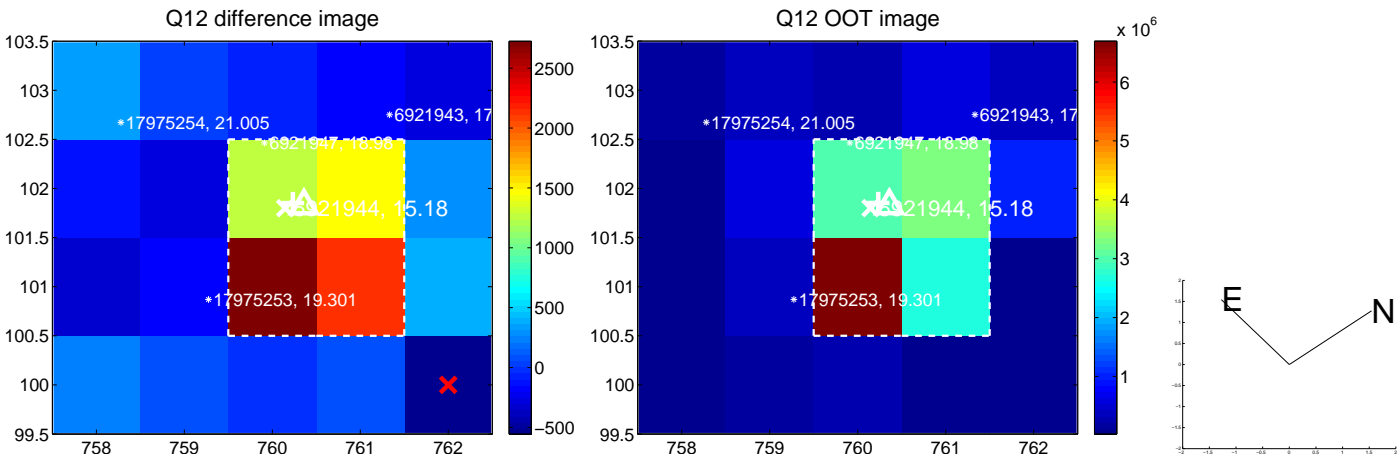
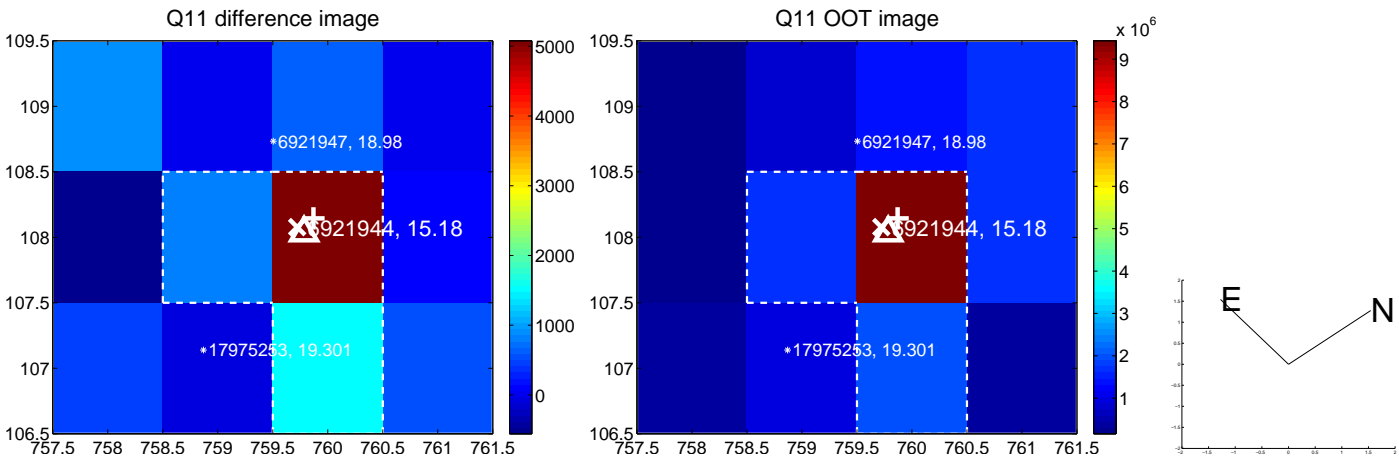
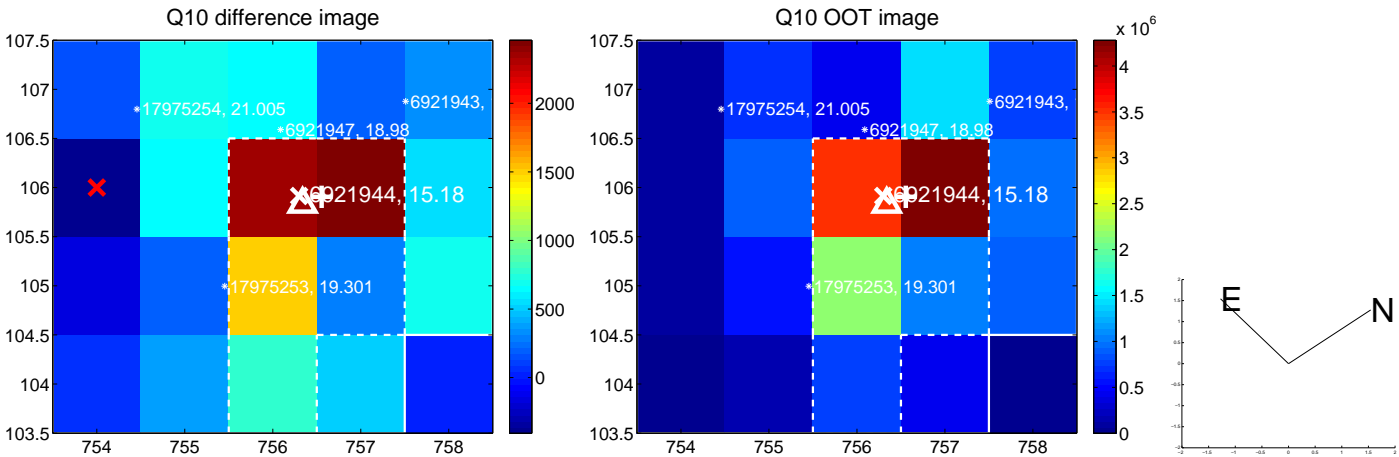
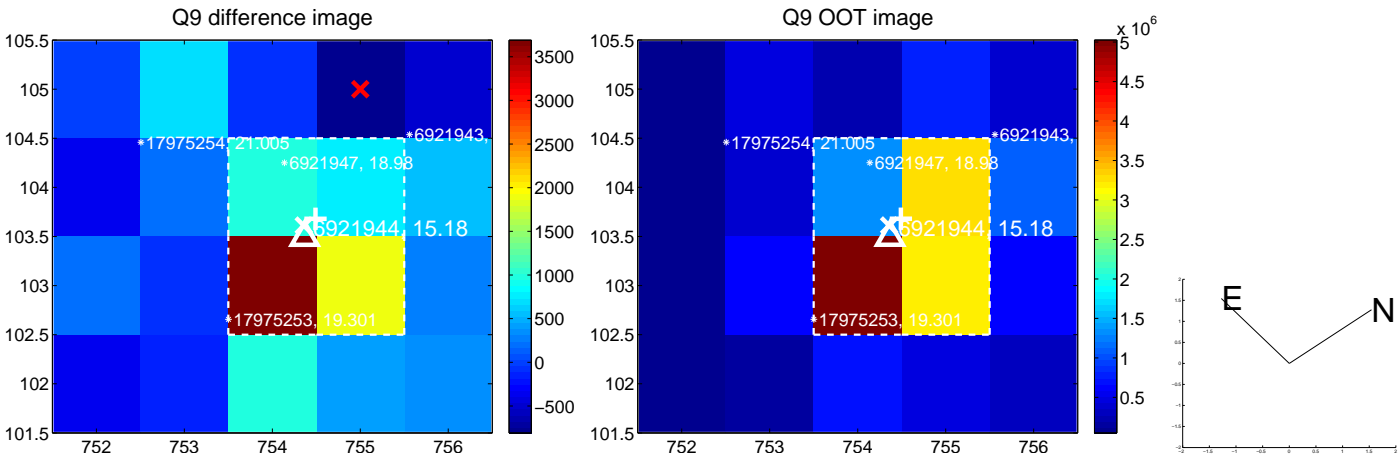


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

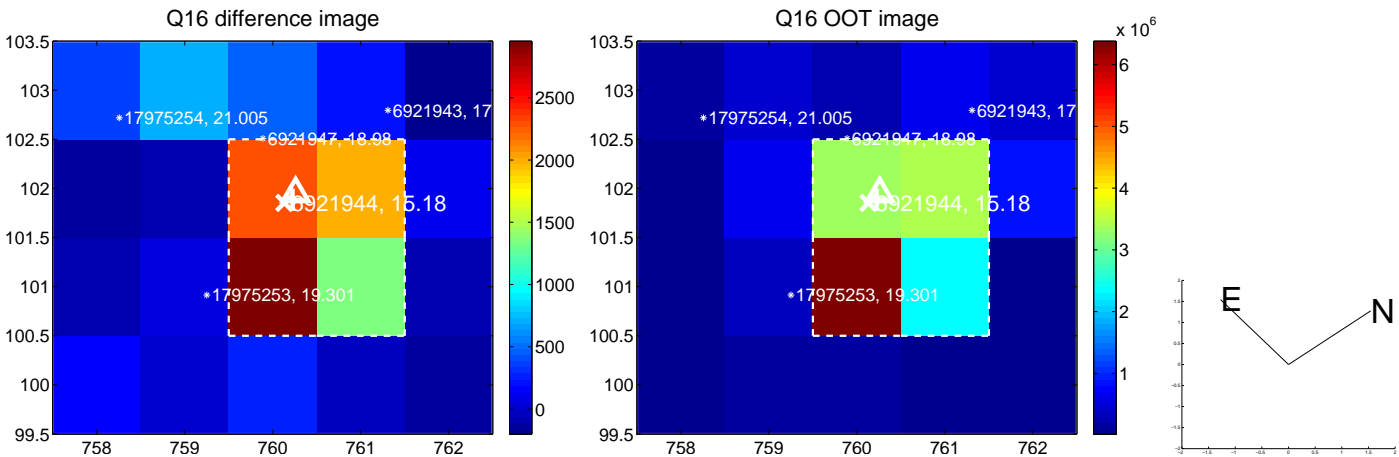
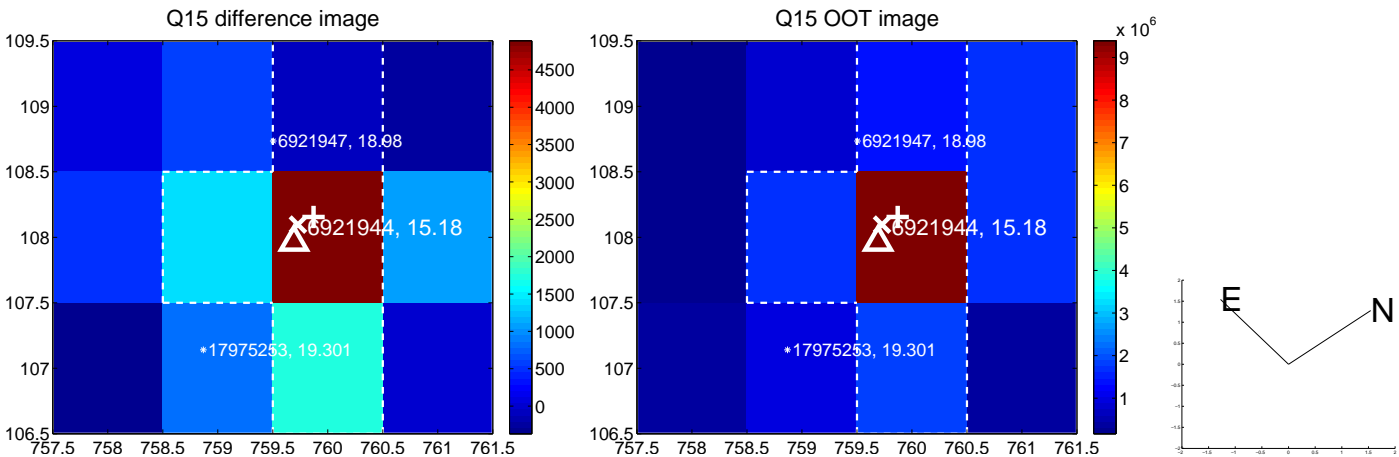
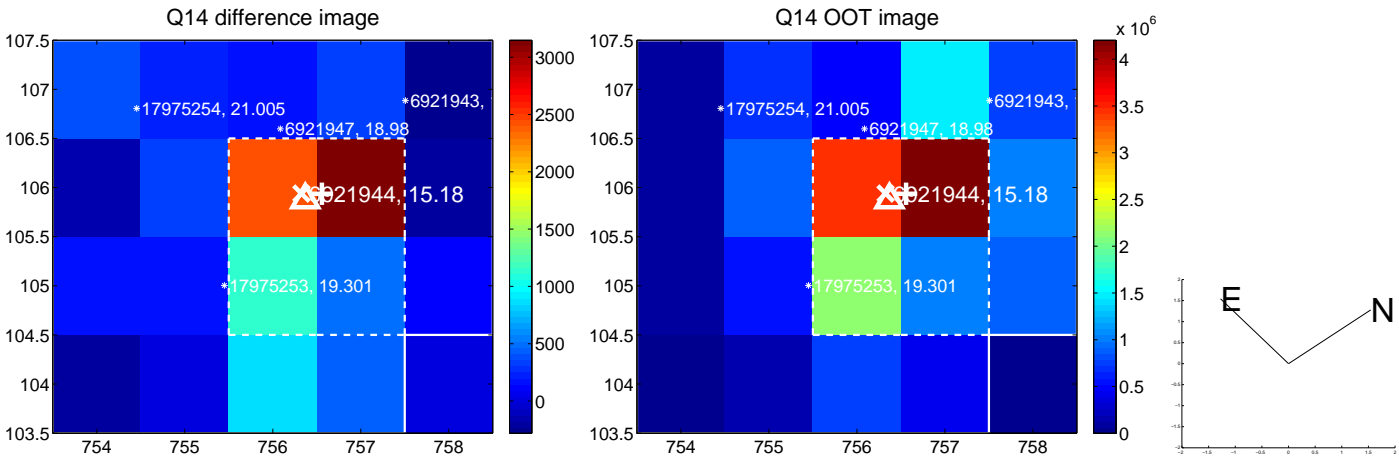
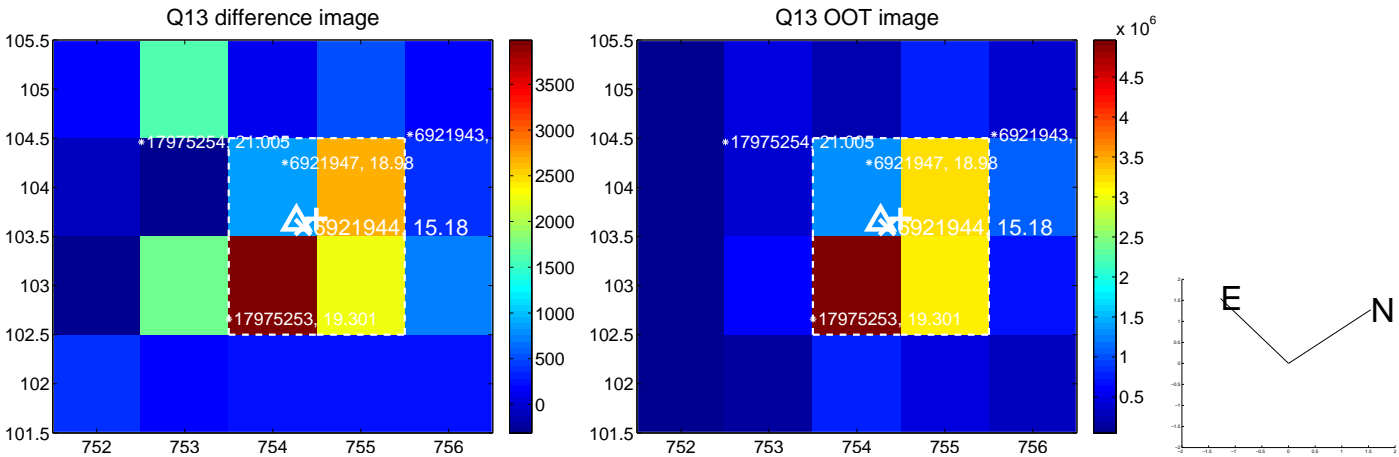
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



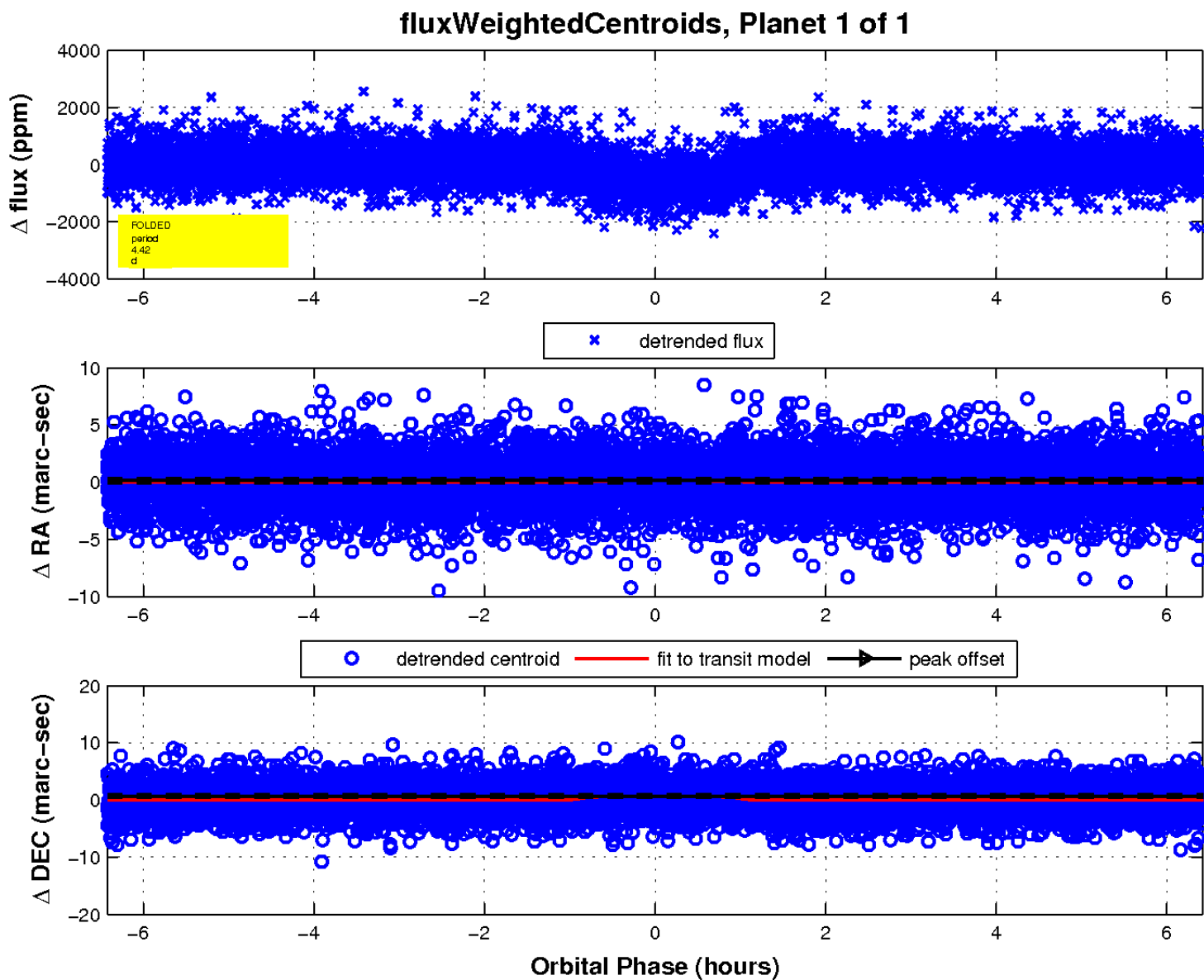
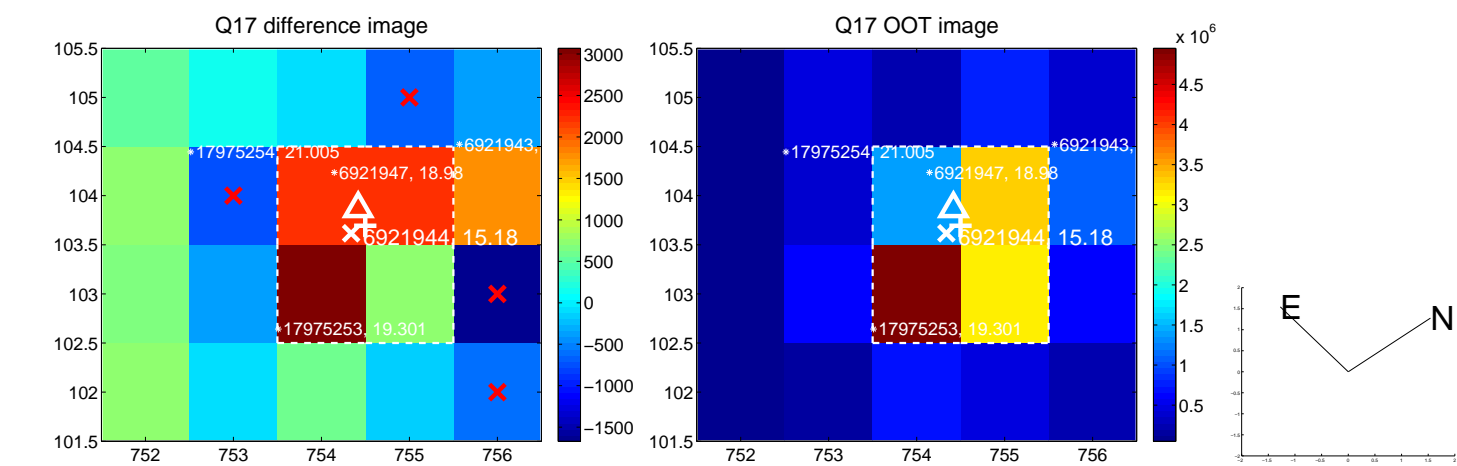
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

