

KIC 007093401

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})
007093401-01	OBS	3433.01	34.084308	152.066933	3618.0	1.326	29.1	33.8	0.92	5252	7.83	15.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007093401-01	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.

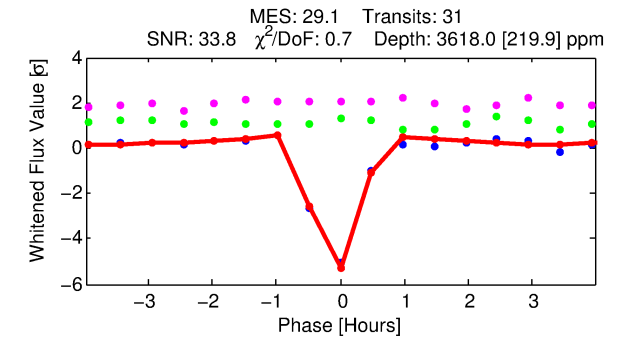
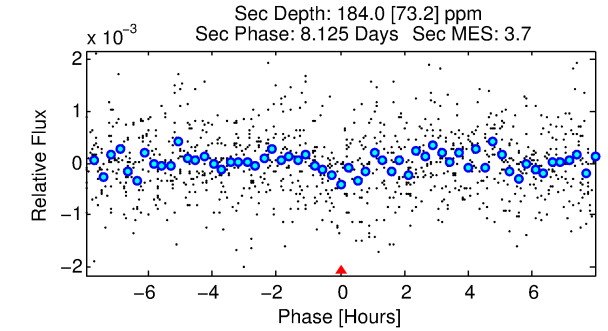
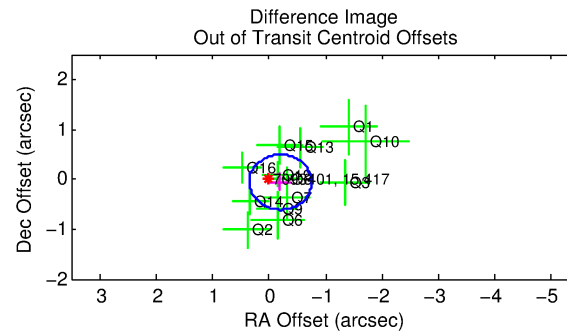
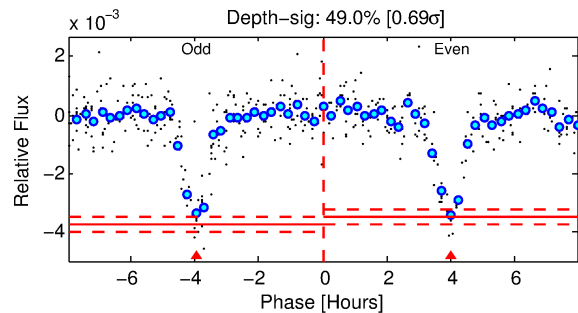
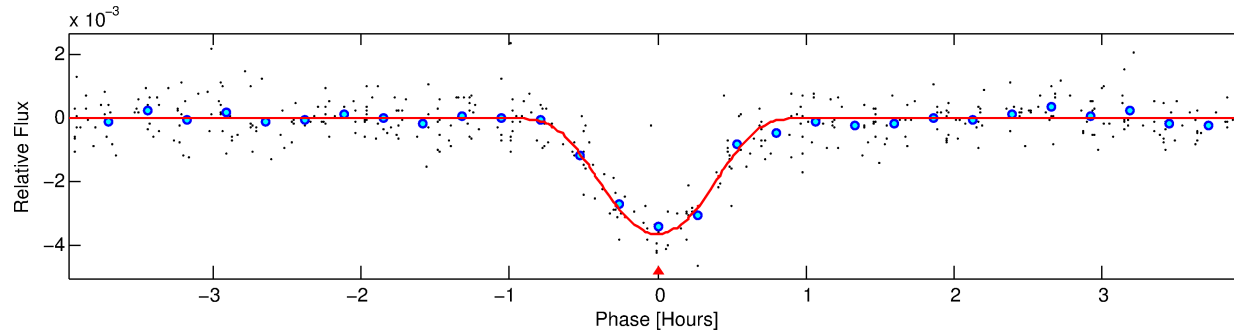
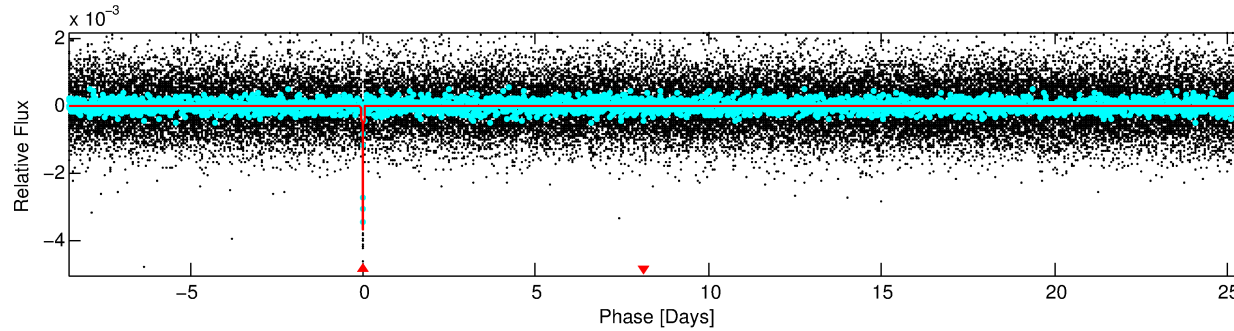
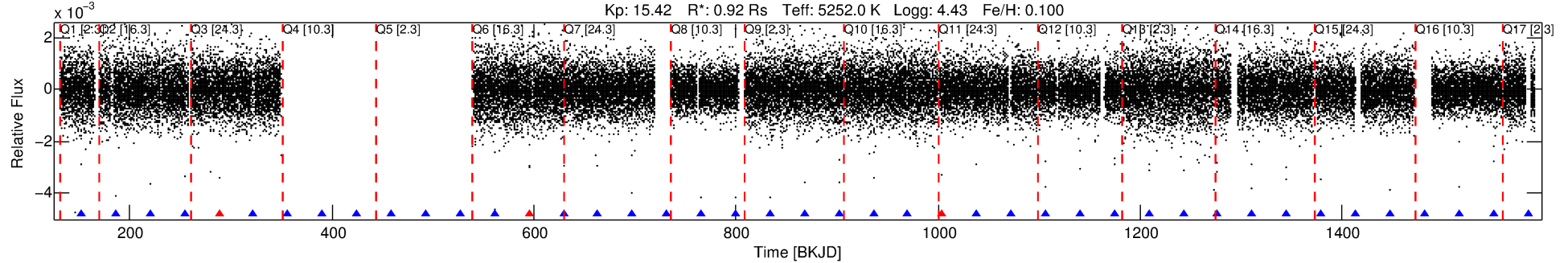
Ephemeris Match Information For 007093401-01

No Significant Match Found

DV One-Page Summary

KIC: 7093401 Candidate: 1 of 1 Period: 34.084 d
KOI: K03433.01 Corr: 0.979

Kp: 15.42 R*: 0.92 Rs Teff: 5252.0 K Logg: 4.43 Fe/H: 0.100



DV Fit Results:

Period = 34.08431 [0.00004] d
Epoch = 152.0669 [0.0010] BKJD
Rp/R* = 0.0779 [0.0543]
a/R* = 101.19 [33.99]
b = 0.95 [0.12]
Seff = 15.49 [7.77]
Teq = 506 [63] K
Rp = 7.83 [5.94] Re
a = 0.1934 [0.0575] AU
Ag = 61.73 [94.32] [0.64σ]
Teffp = 2192 [798] K [2.11σ]

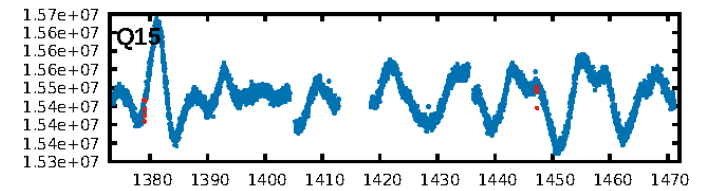
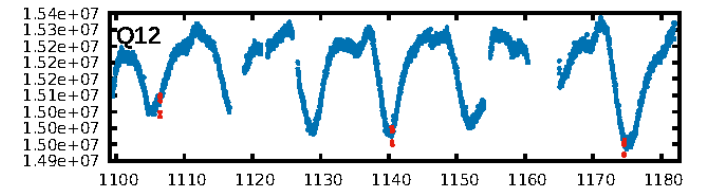
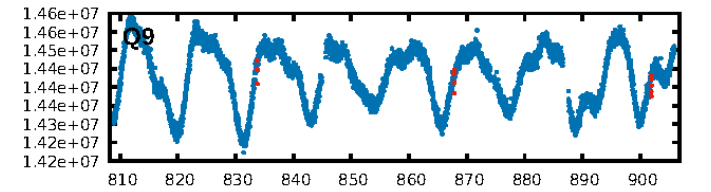
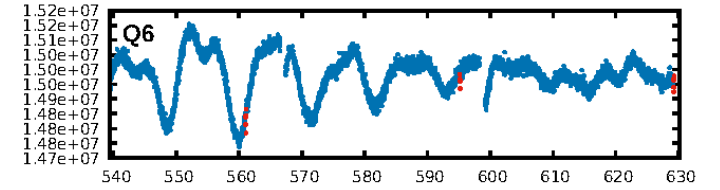
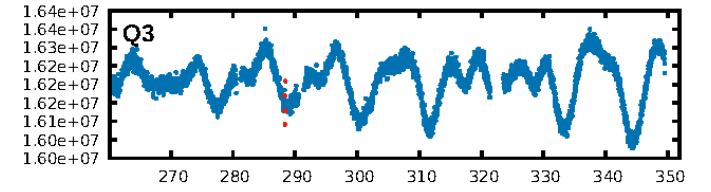
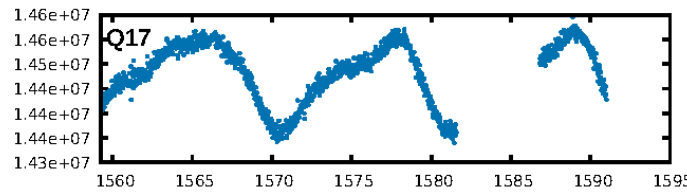
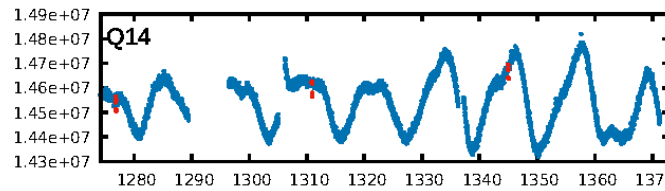
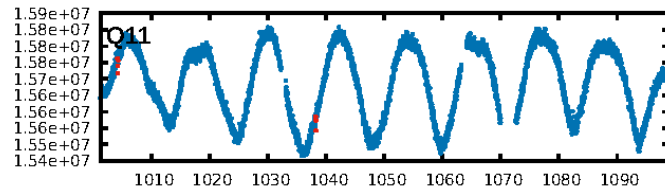
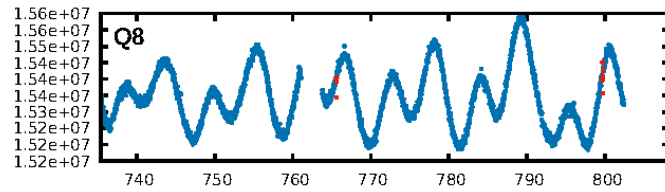
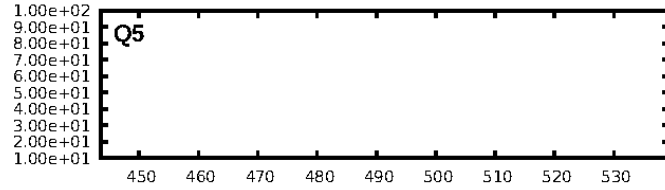
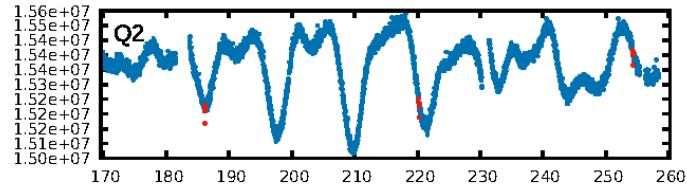
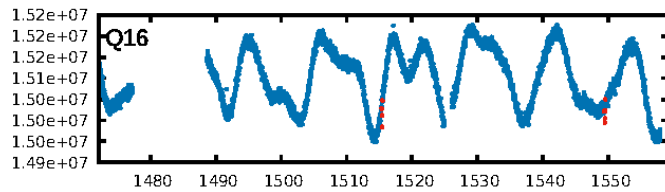
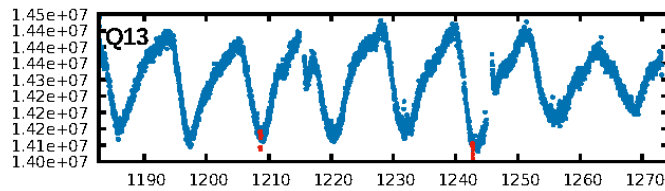
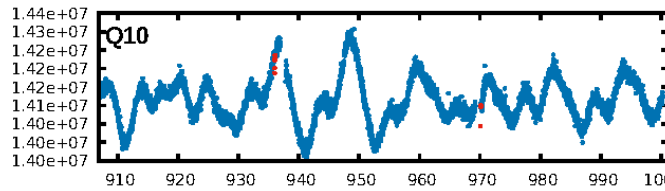
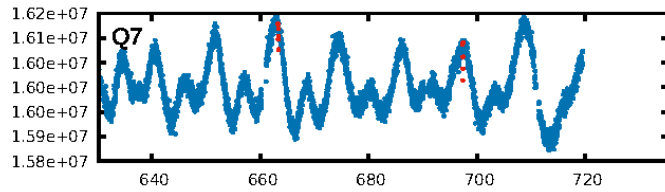
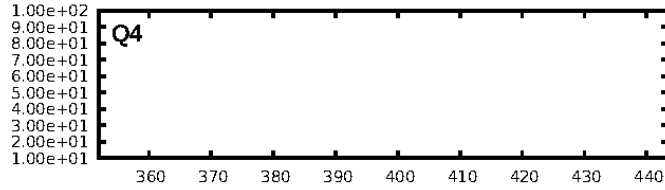
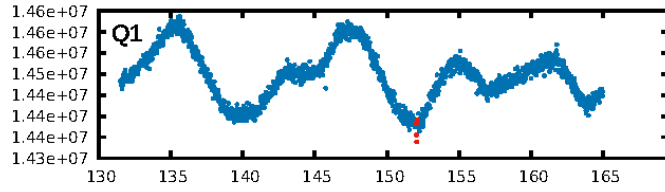
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 95.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.92e-168
RollingBand-fgt: 0.90 [27/30]
GhostDiagnostic-chr: 2.941
Centroid-sig: 91.9%
Centroid-so: 0.471 arcsec [1.29σ]
OotOffset-rm: 0.211 arcsec [1.14σ]
KicOffset-rm: 0.241 arcsec [1.13σ]
OotOffset-st: 4/3/3/3 [13]
KicOffset-st: 4/3/3/3 [13]
DiffImageQuality-fgm: 0.92 [12/13]
DiffImageOverlap-fno: 1.00 [13/13]

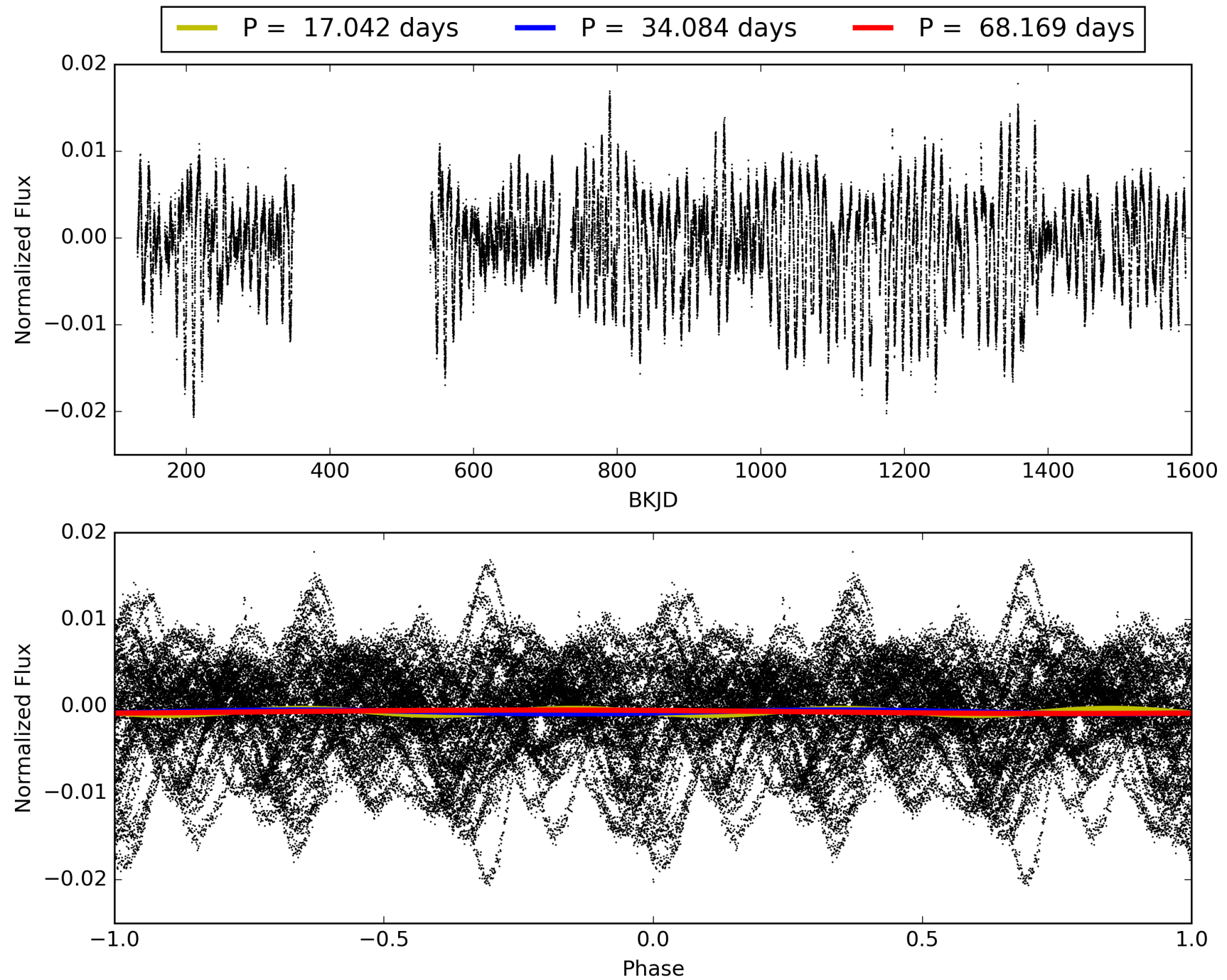
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:40:55 Z

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

TCE 007093401-01, PDC Light Curves

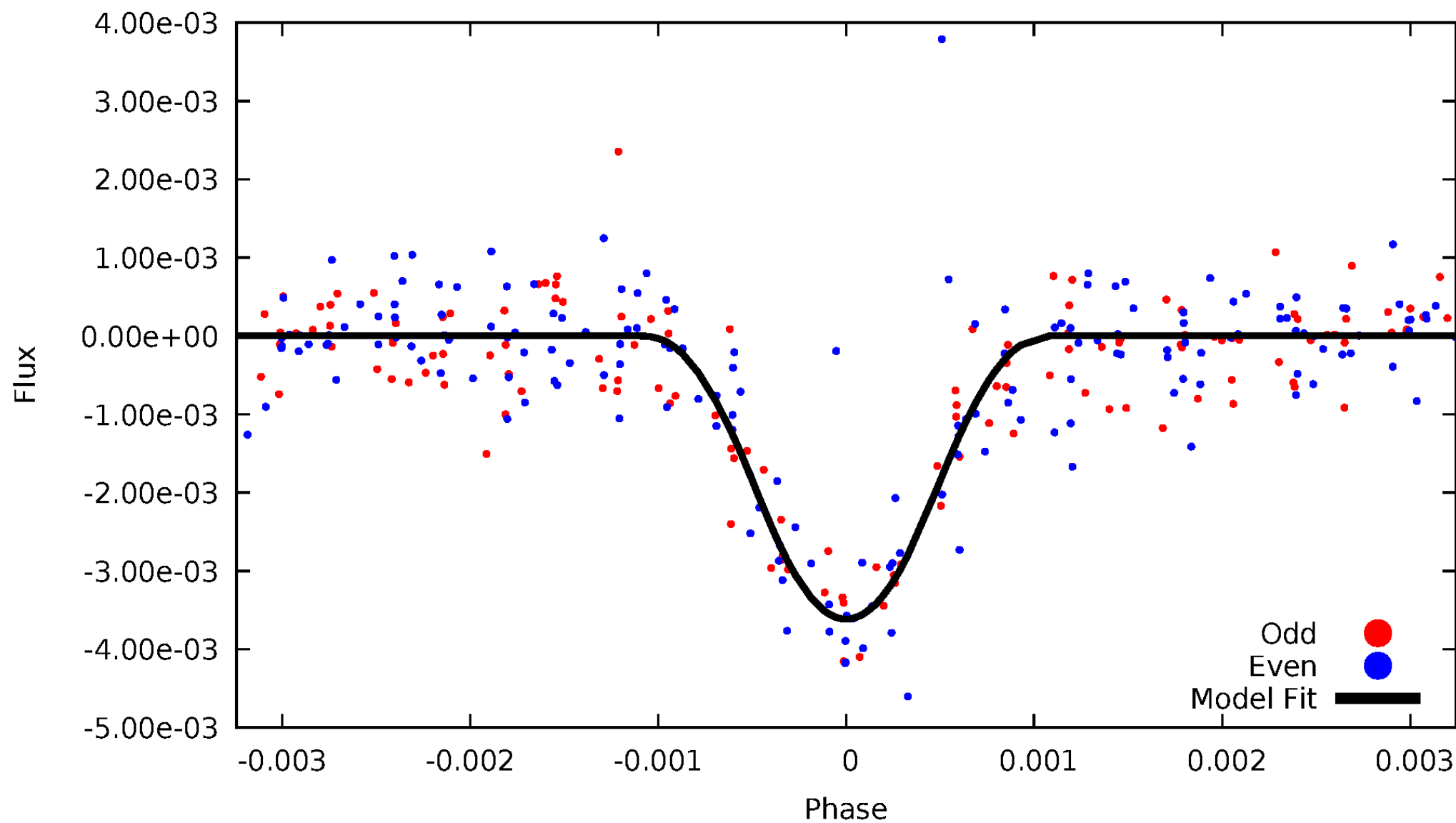


TCE 007093401-01



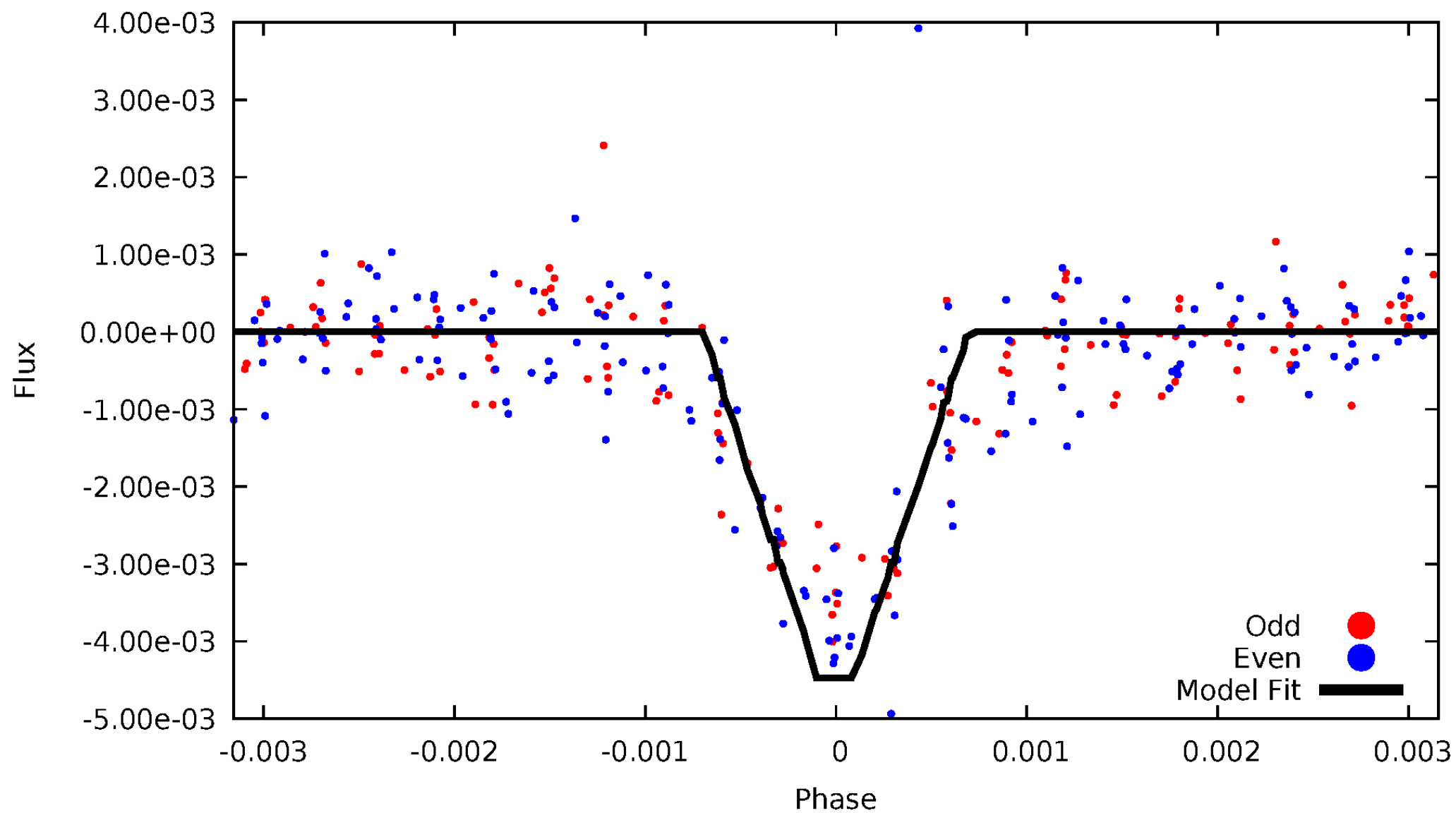
DV Odd/Even

TCE 007093401-01



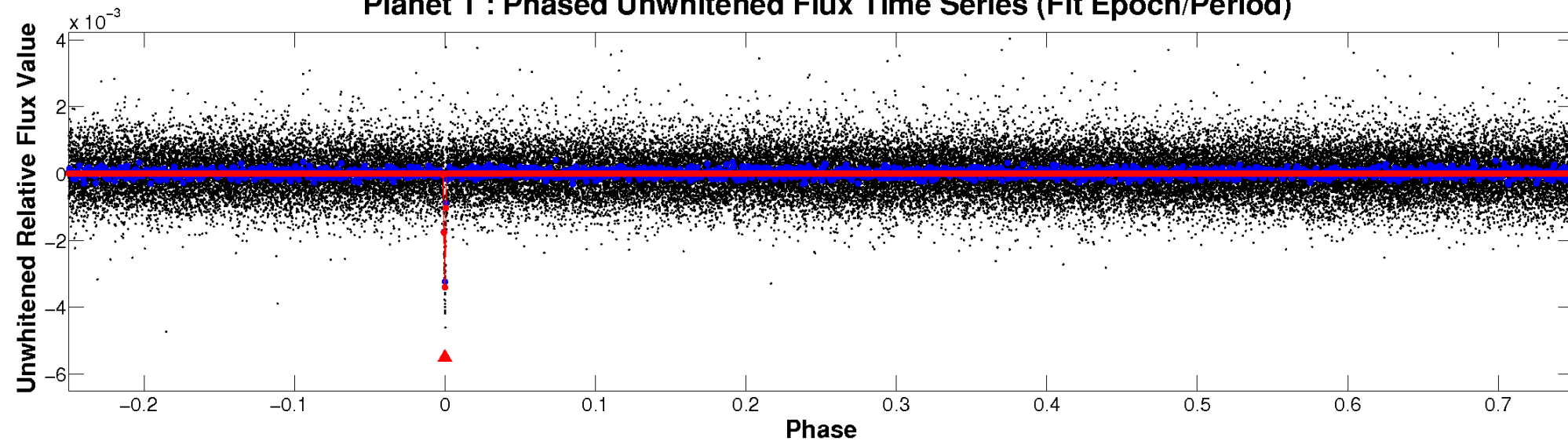
ALT Odd/Even

TCE 007093401-01

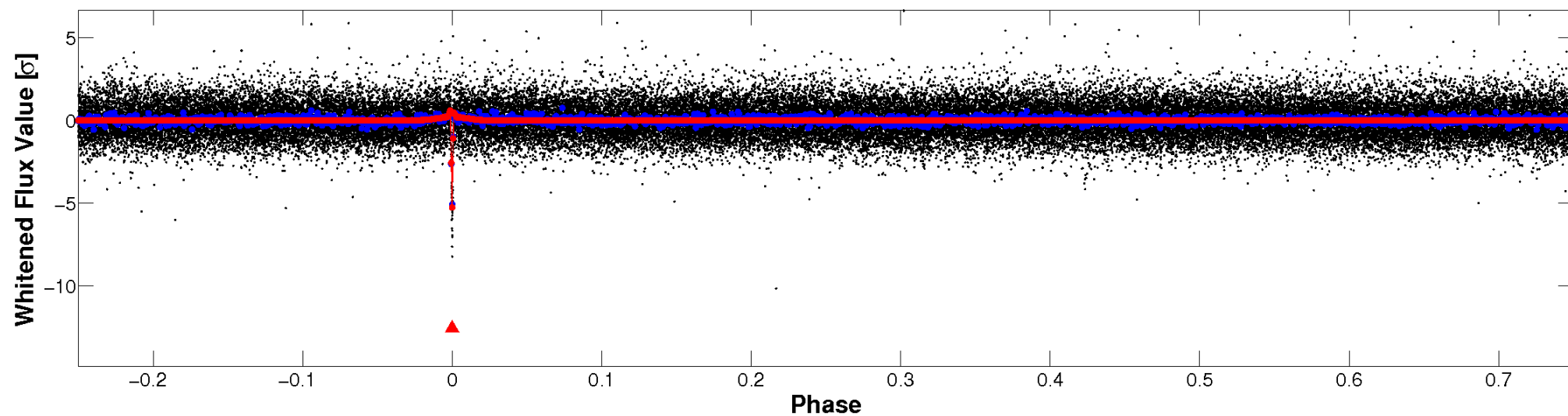


Non-Whitened Vs. Whitened Light Curve

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

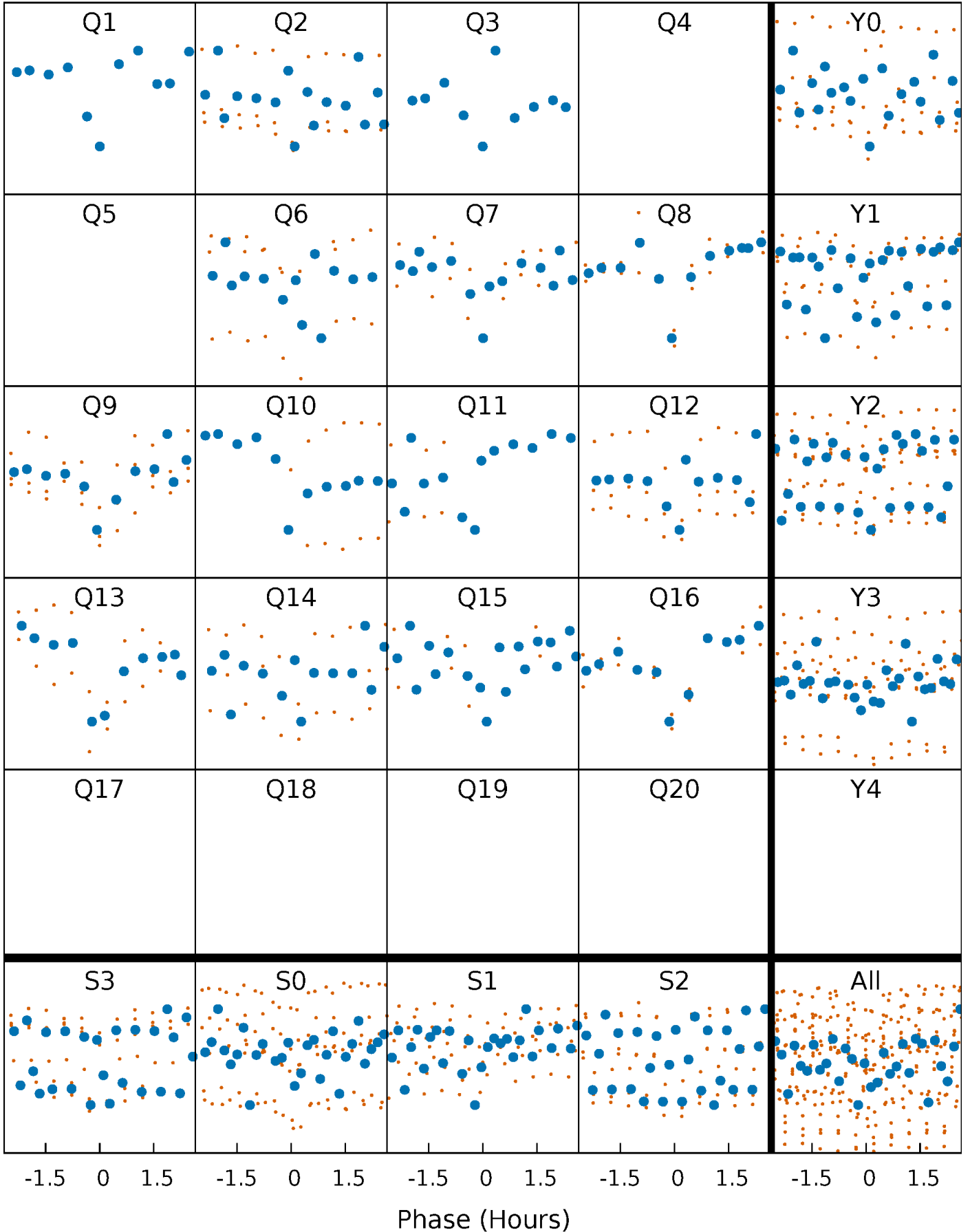


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



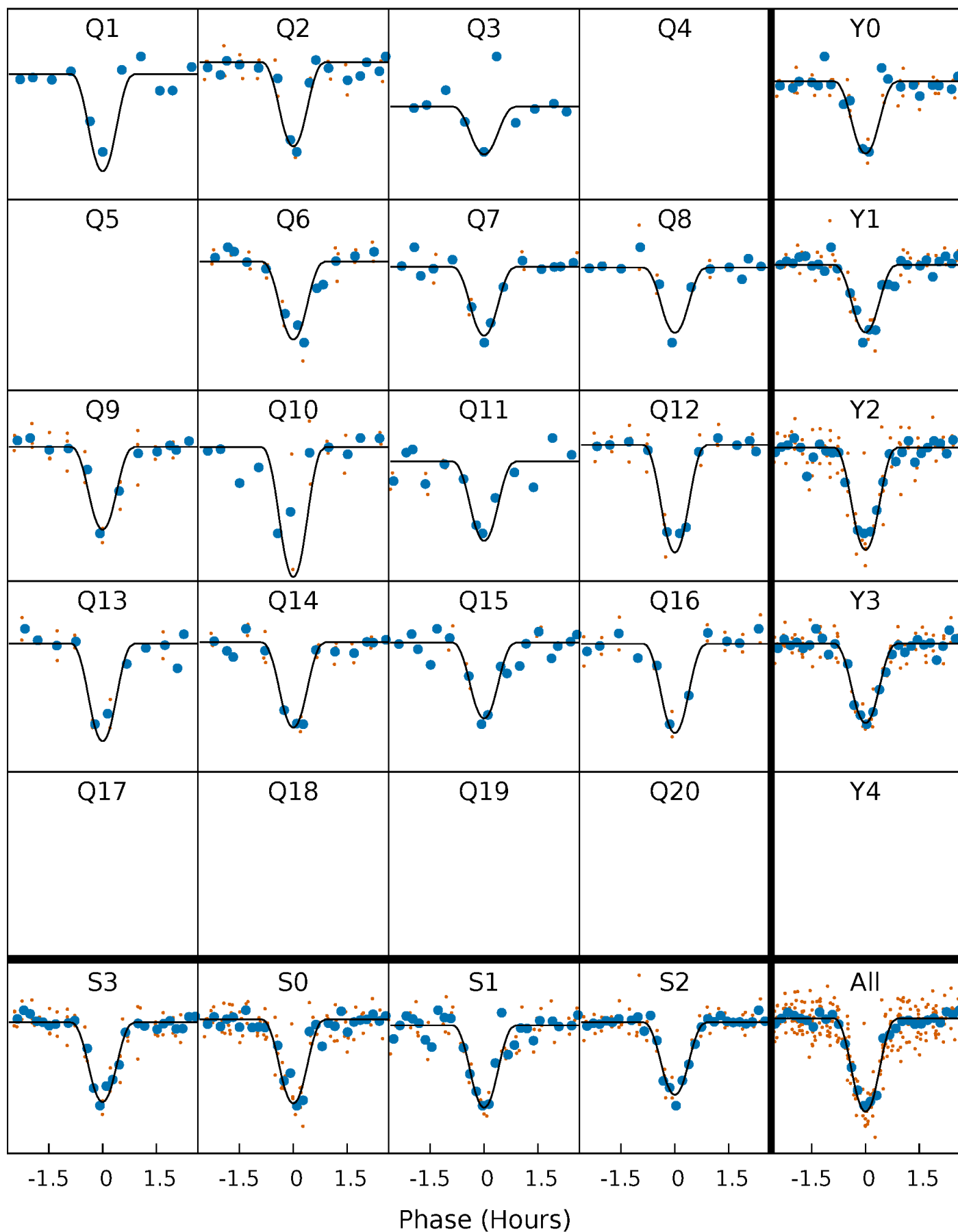
PDC Quarter-Phased Transit Curves

TCE 007093401-01 P= 34.084308 Days $T_0=152.066933$ (BKJD)



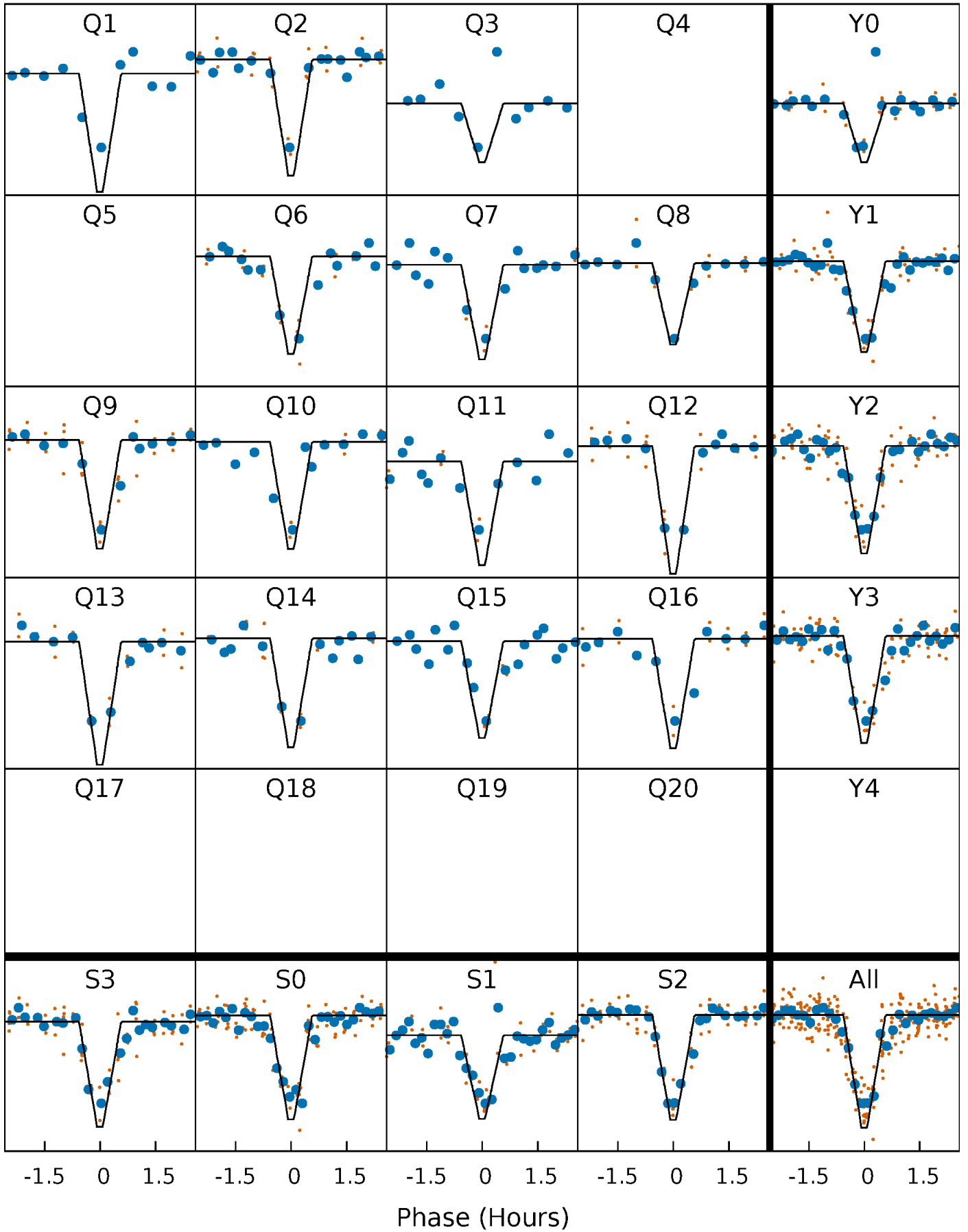
DV Quarter-Phased Transit Curves

TCE 007093401-01 P= 34.084308 Days $T_0=152.066933$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

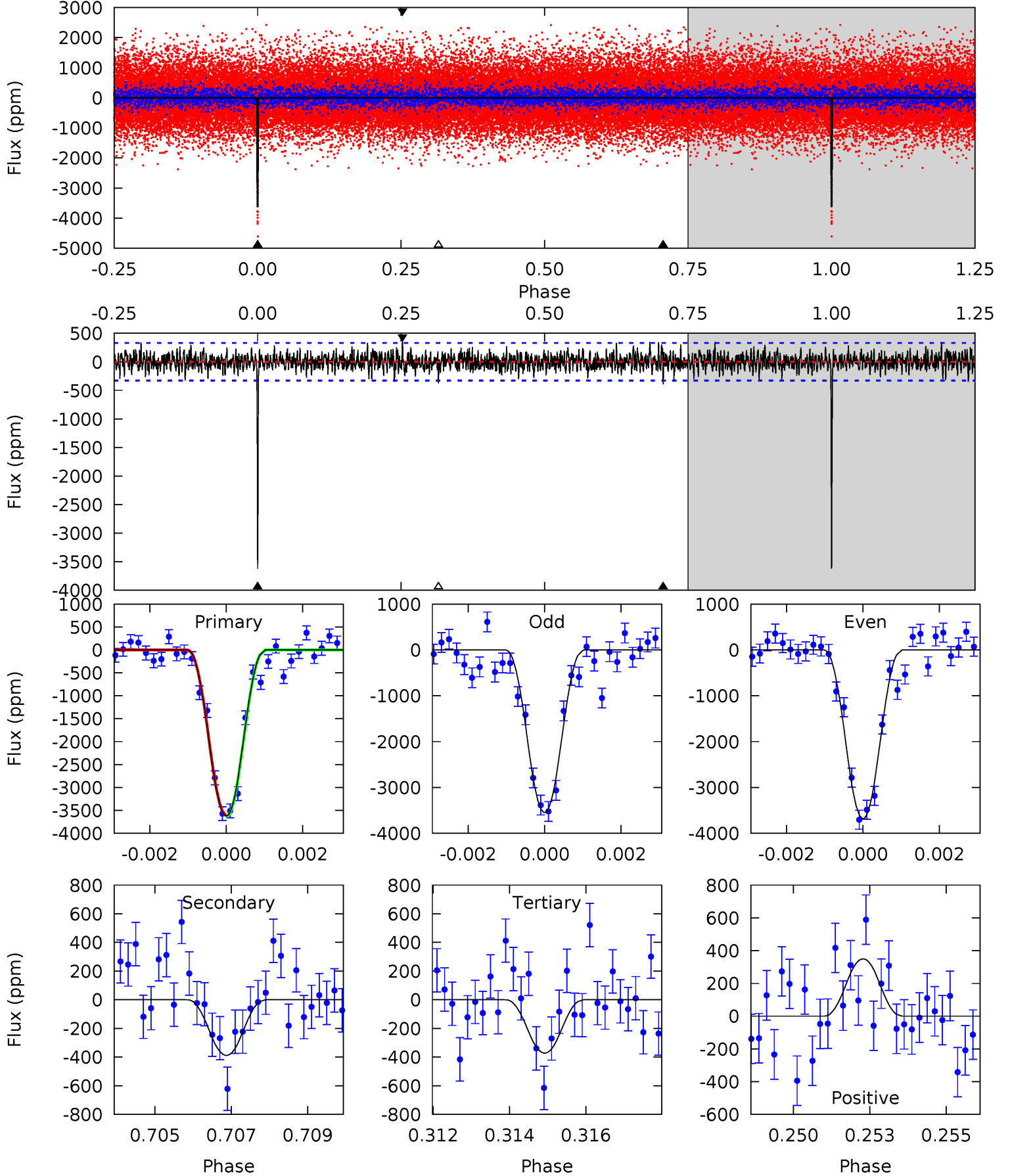
TCE 007093401-01 P= 34.084144 Days $T_0=152.070222$ (BKJD)



DV Model-Shift Uniqueness Test

007093401-01, $P = 34.084308$ Days, $E = 117.982625$ Days

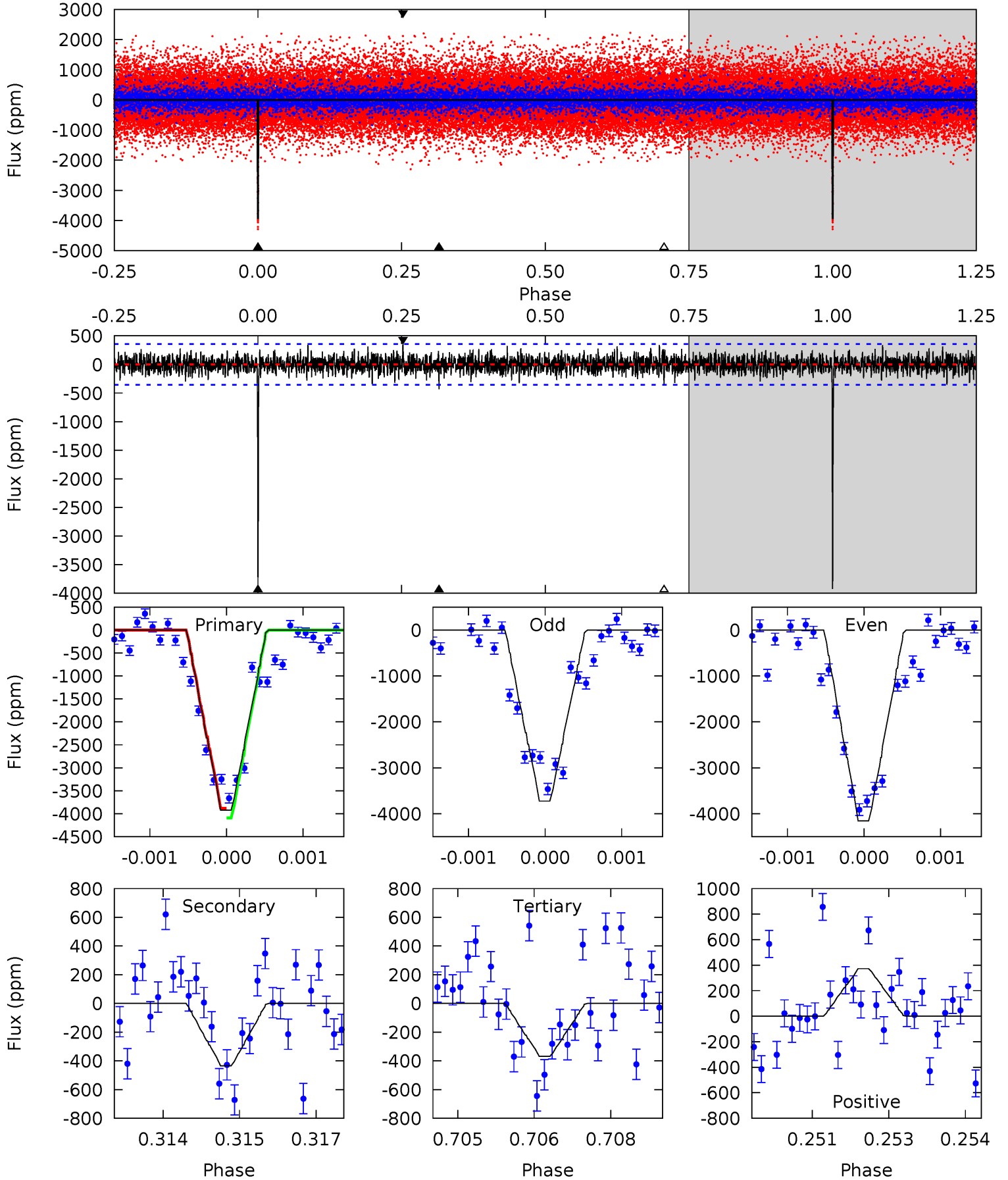
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.5	6.28	6.01	5.65	5.32	3.07	1.64	52.5	52.9	0.26	0.63	1.08	0.93	0.09	0.26



Alt Model-Shift Uniqueness Test

007093401-01, P = 34.084144 Days, E = 117.986078 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
59.5	6.59	5.60	5.65	5.40	3.21	1.48	53.9	53.9	0.99	0.93	3.30	0.97	0.09	1.62



Stellar Parameters For KIC 007093401

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5252^{+174}_{-158}	$4.428^{+0.143}_{-0.287}$	$0.100^{+0.250}_{-0.250}$	$0.922^{+0.276}_{-0.127}$	$0.830^{+0.098}_{-0.066}$	$1.495^{+0.939}_{-0.885}$
	+3%/-3%	+3%/-6%	+250%/-250%	+30%/-14%	+12%/-8%	+63%/-59%
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 007093401-01 / KOI 3433.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-389 ± 62	$8.78^{+5.61}_{-4.88}$	716^{+59}_{-41}	3139^{+944}_{-412}	104^{+396}_{-67}
Alt.	-434 ± 66	$7.70^{+5.49}_{-4.44}$	715^{+66}_{-45}	3304^{+1118}_{-457}	151^{+630}_{-100}

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 $A_{obs} \gg 1.0$

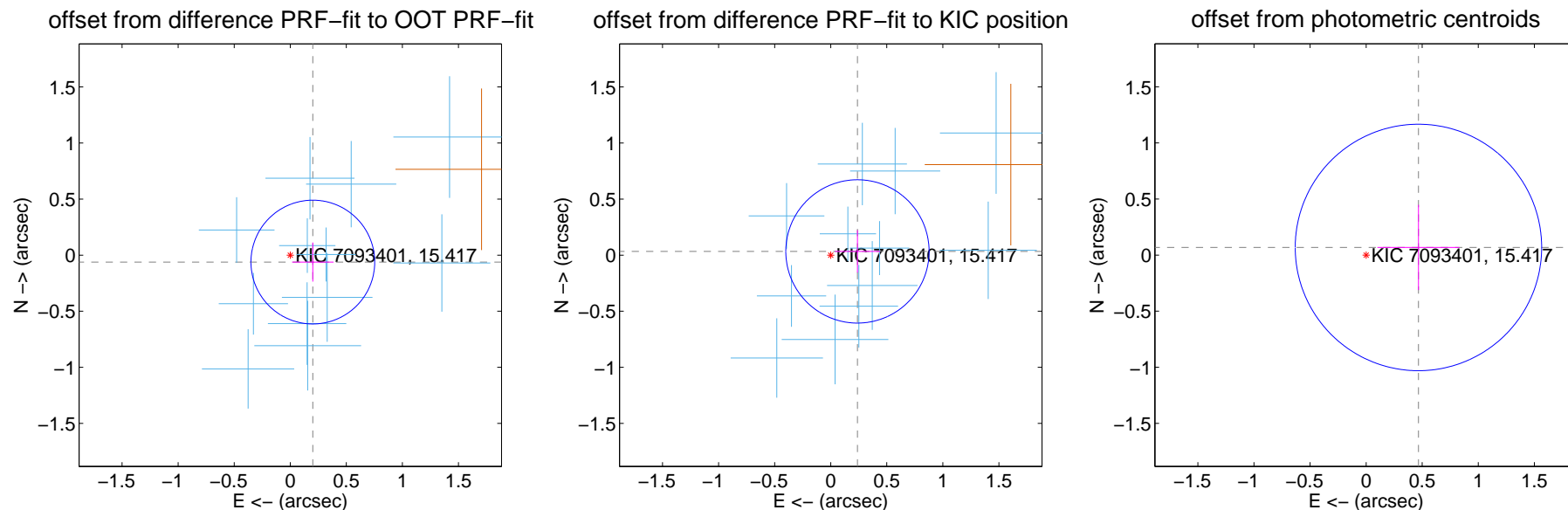
DV Centroid Data

Supplemental centroid analysis for 007093401-01. Kepler magnitude: 15.42. Transit SNR 33.84

There are 12 quarters with good PRF difference image offsets

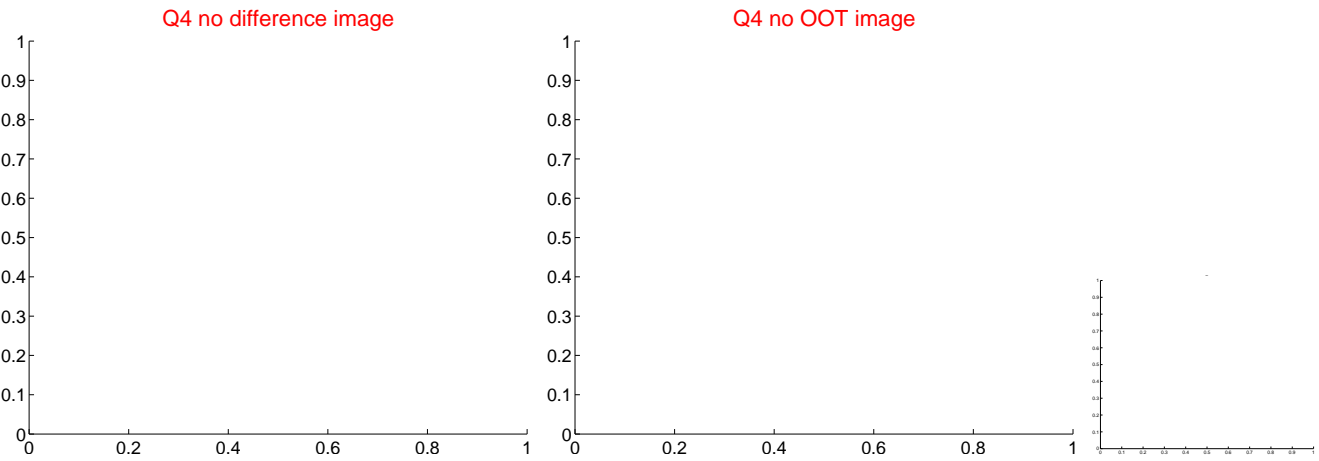
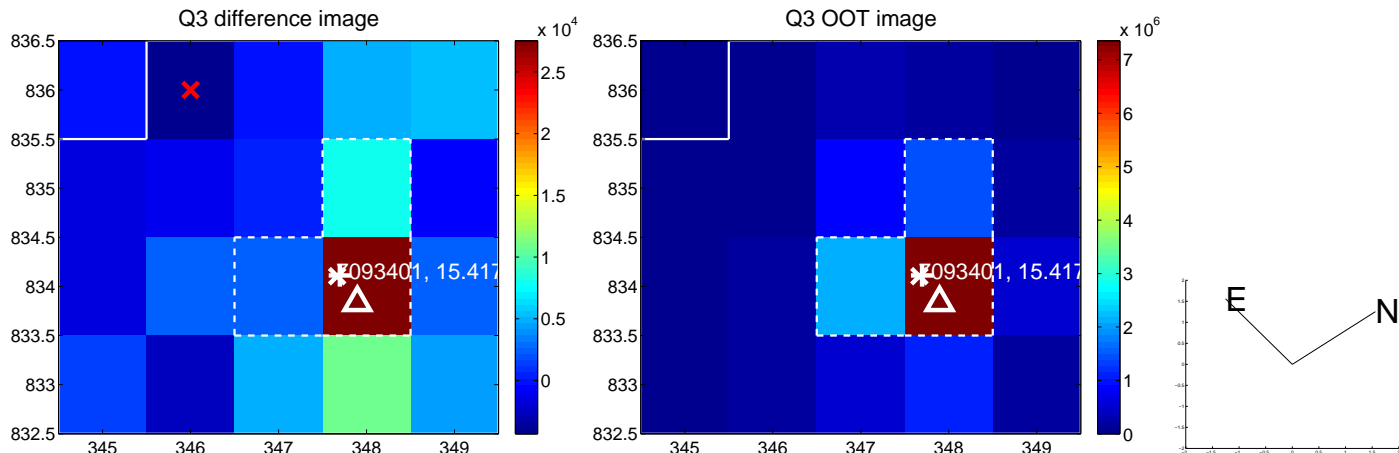
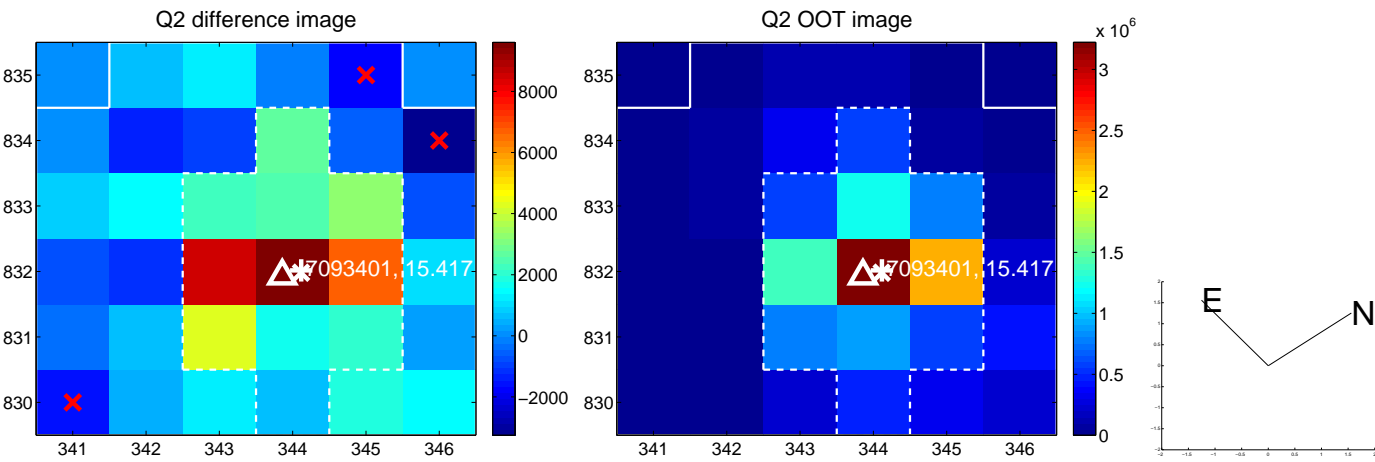
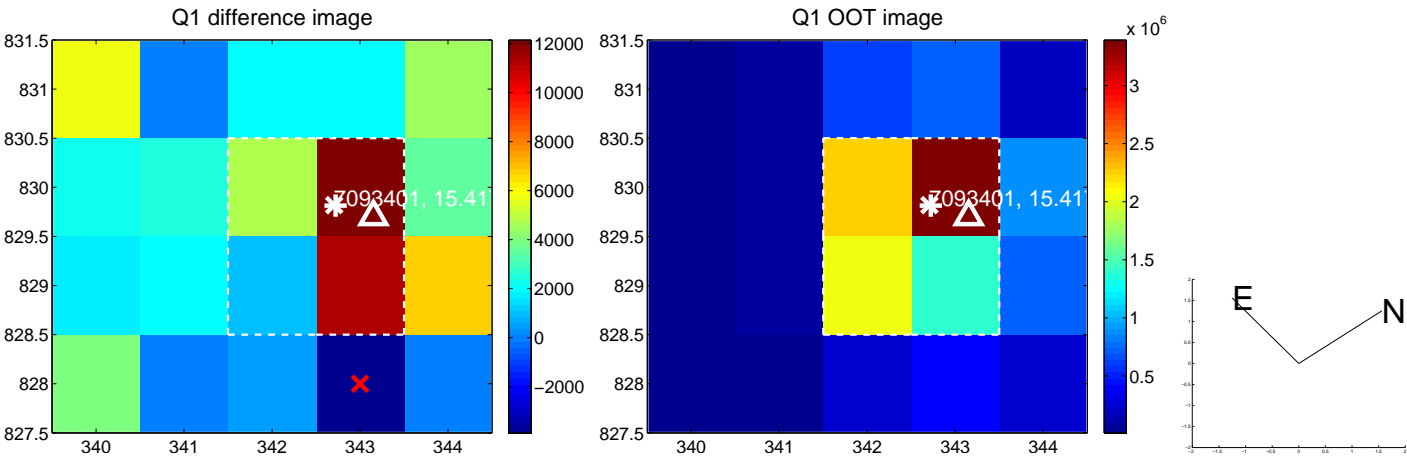
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.211 ± 0.184	1.14	-0.201 ± 0.185	-0.062 ± 0.174
PRF-fit source offset from KIC position	0.241 ± 0.213	1.13	-0.238 ± 0.201	0.033 ± 0.189
photometric centroid source offset	0.47 ± 0.37	1.29	-0.47 ± 0.37	0.07 ± 0.38

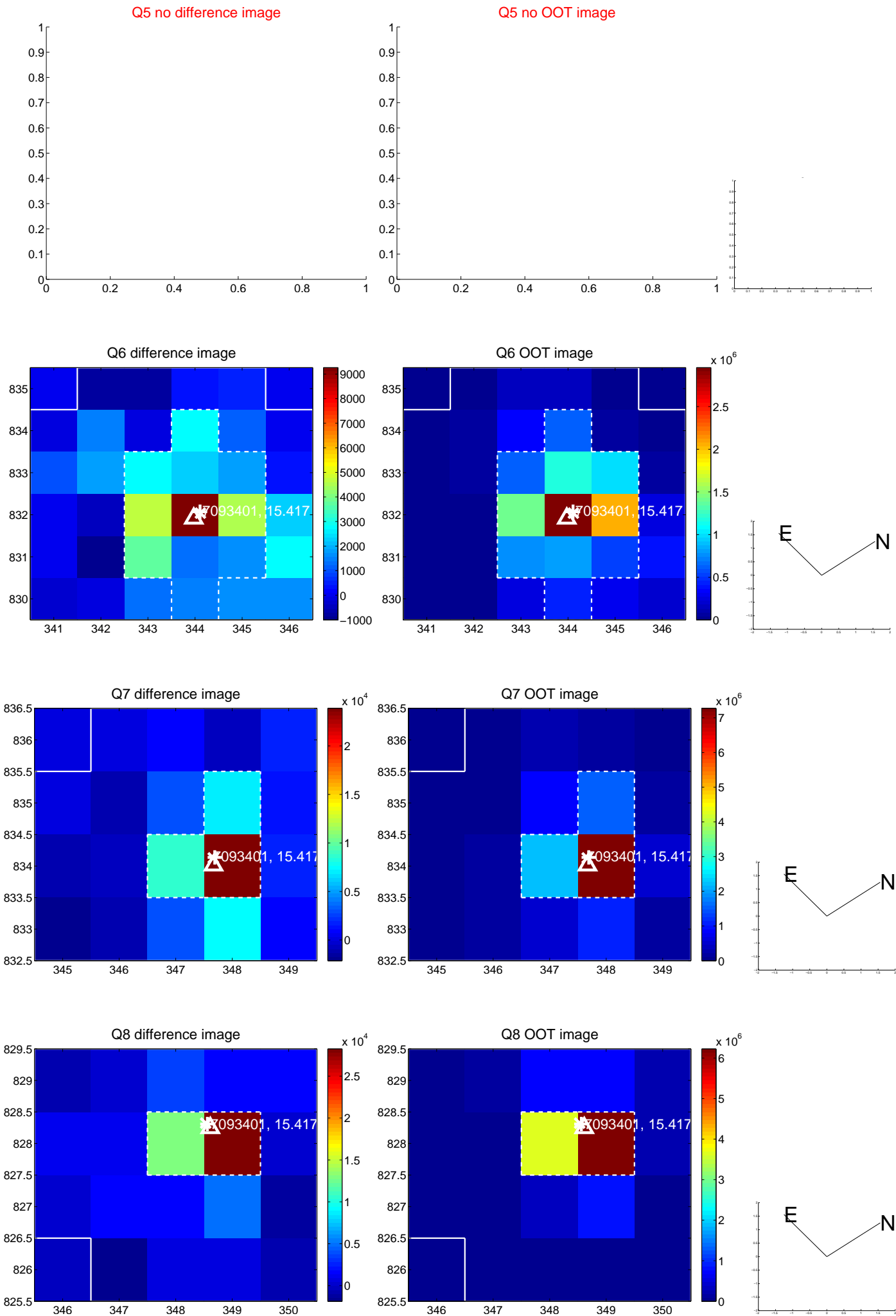


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

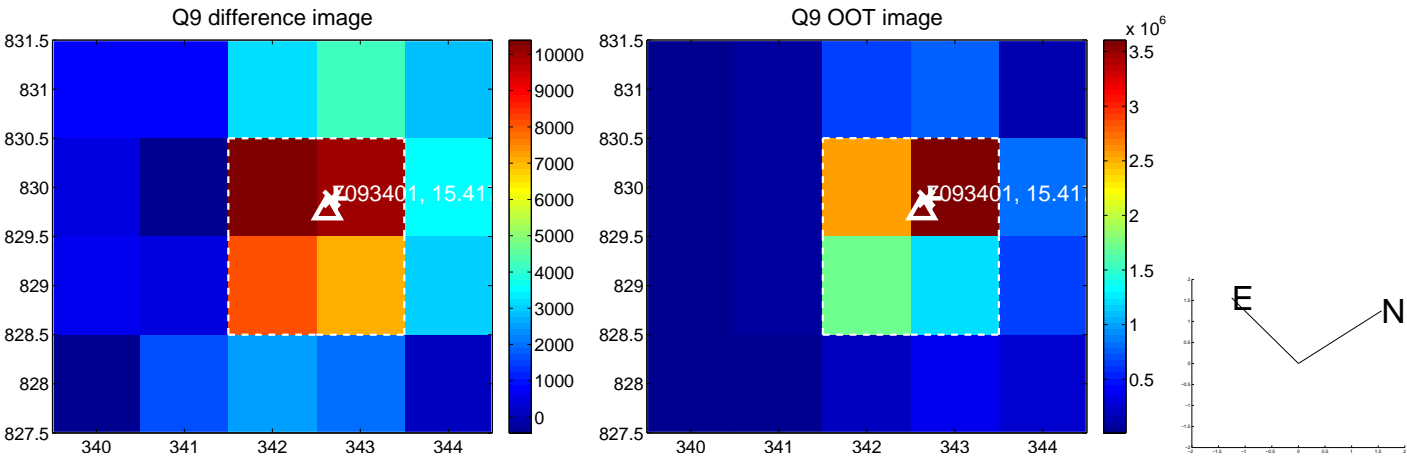
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



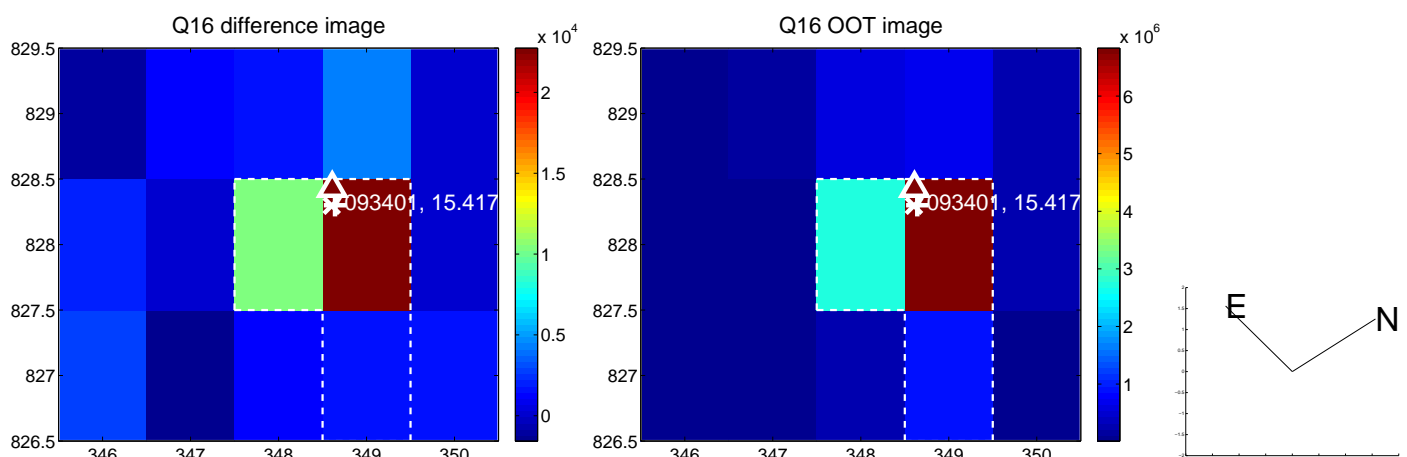
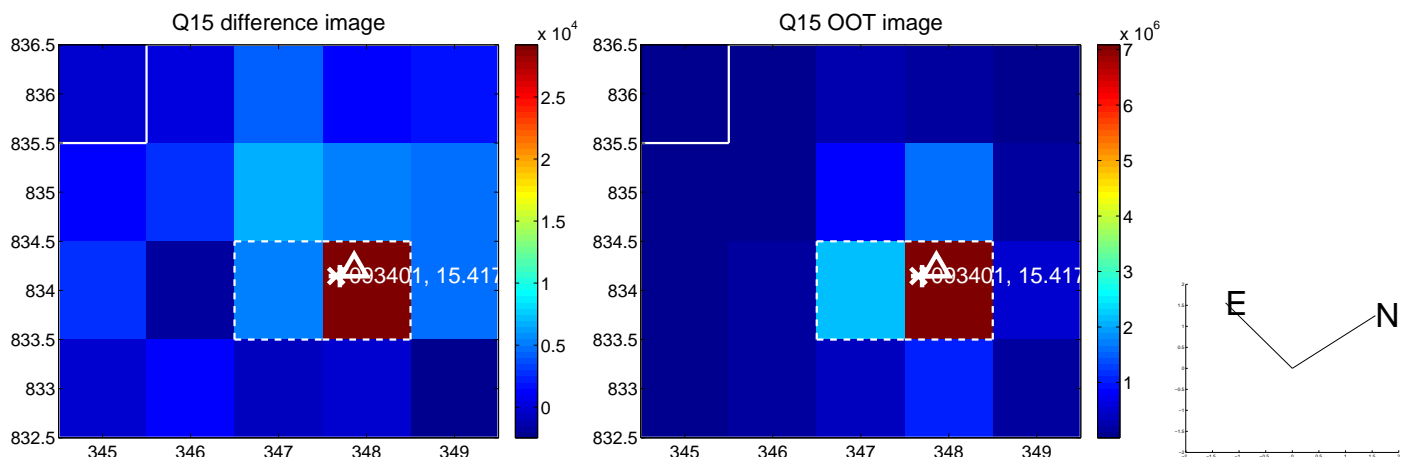
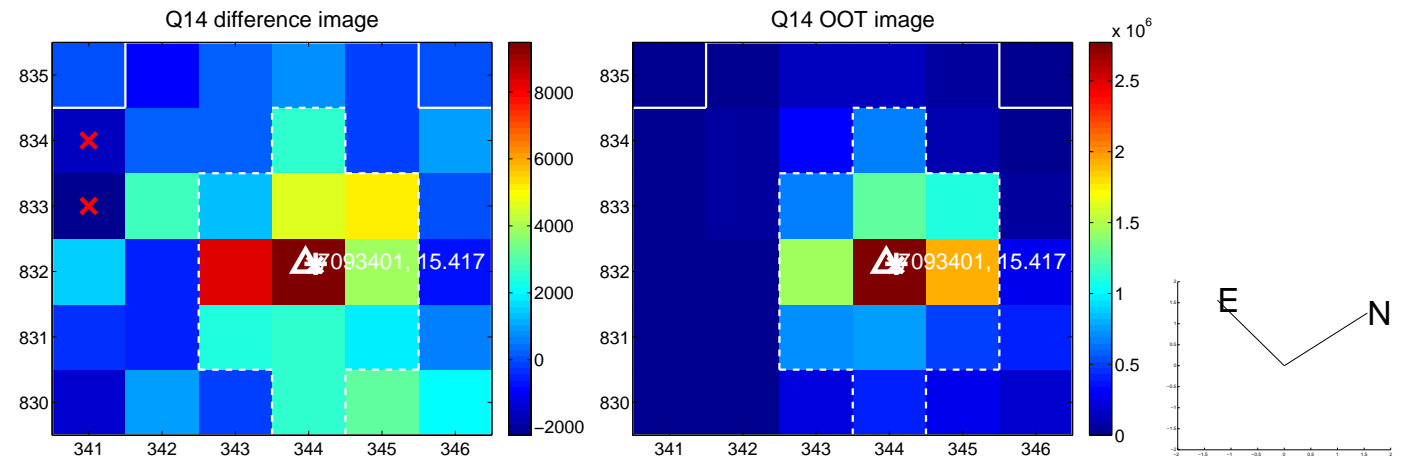
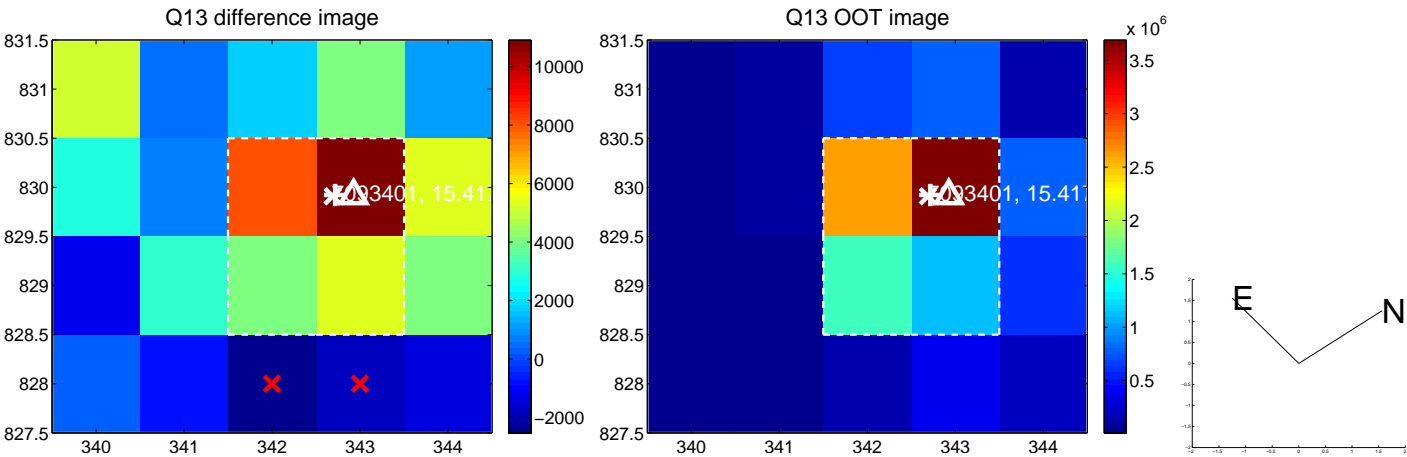
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



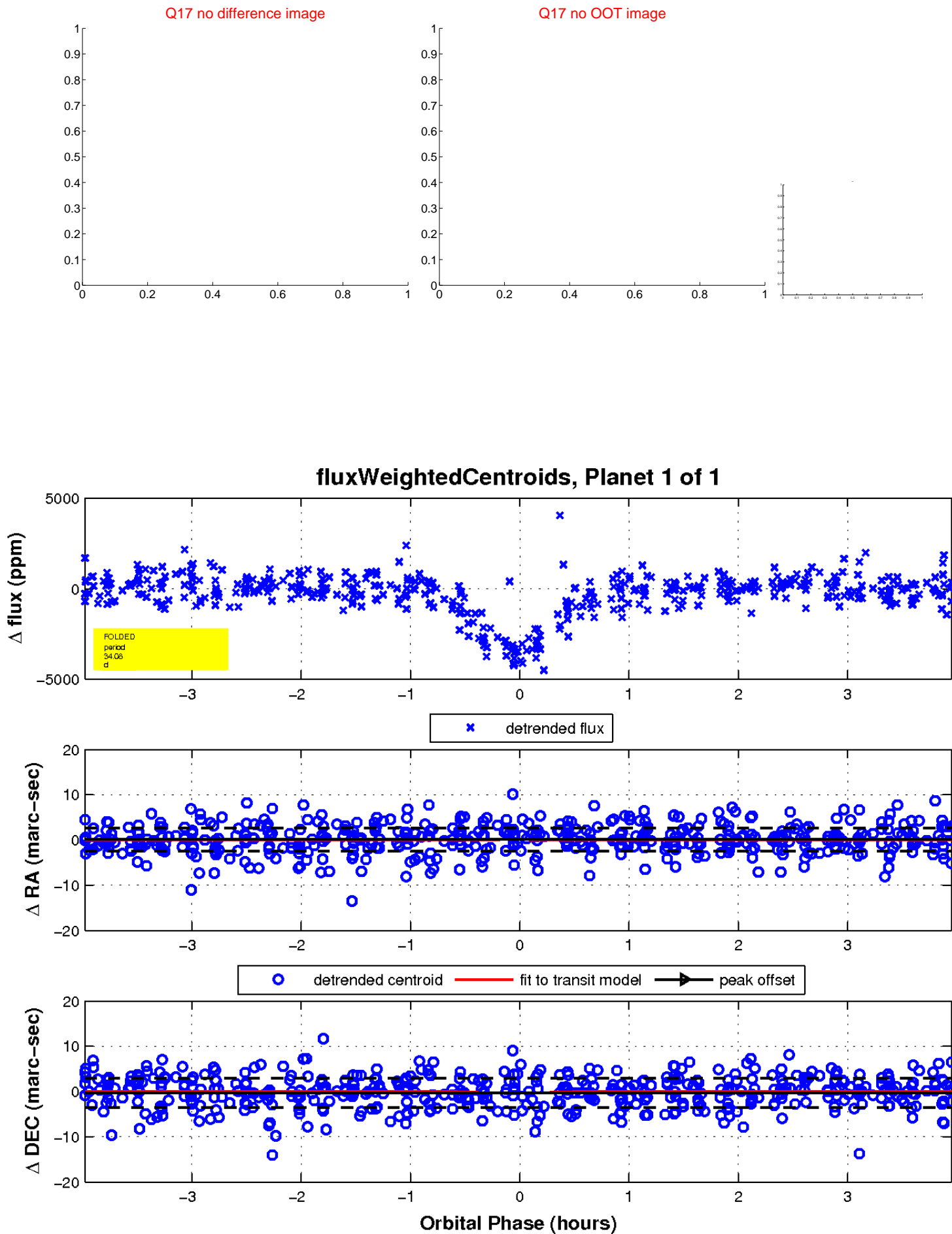
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UKIRT Image

Declination

