

KIC 008352681

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})
008352681-01	OBS	No	368.021478	236.160286	2316.8	10.099	8.1	8.1	0.76	5352	4.50	0.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008352681-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—CENT_FEW_DIFFS

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

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

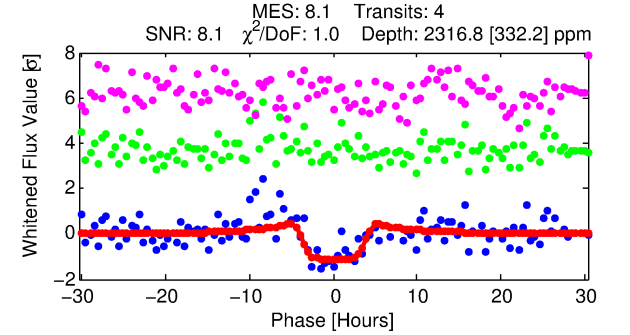
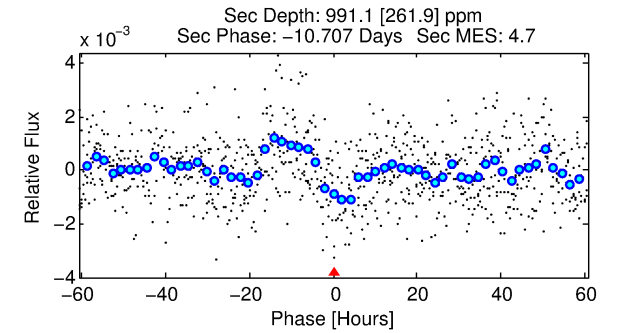
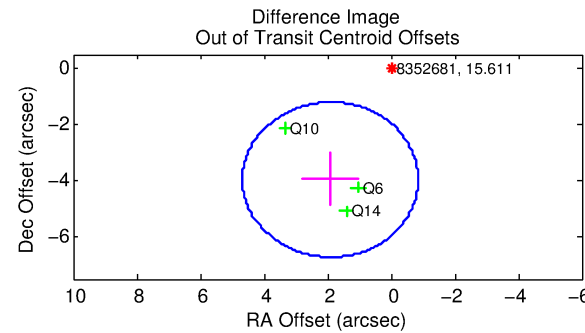
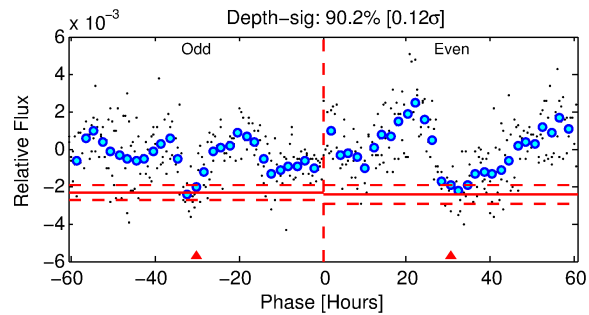
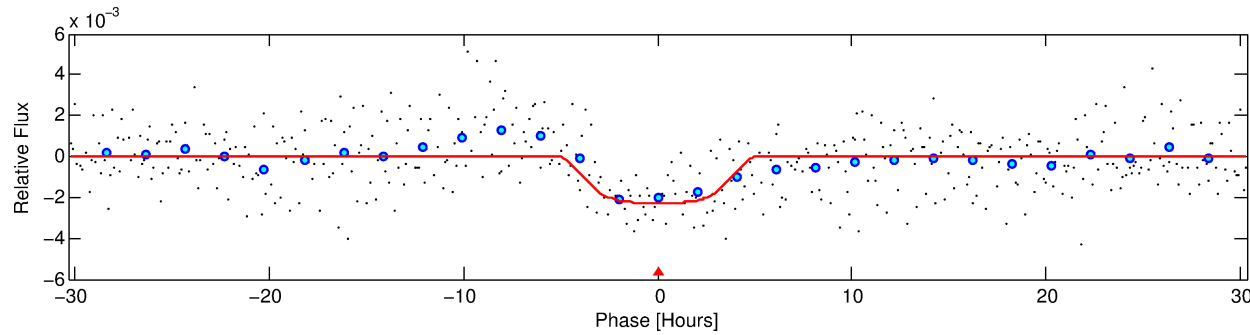
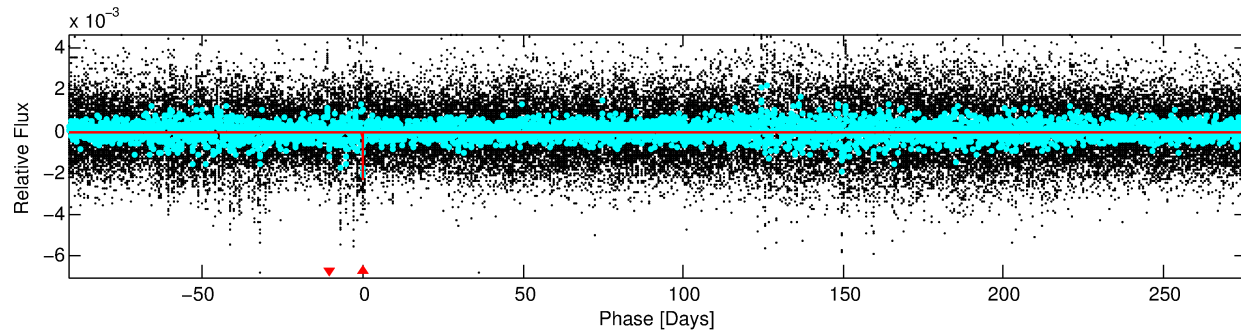
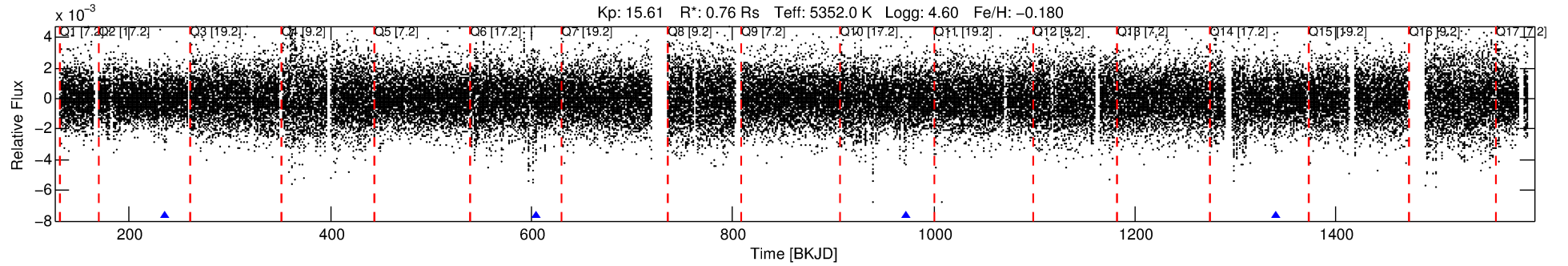
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008352681-01

No Significant Match Found

DV One-Page Summary

KIC: 8352681 Candidate: 1 of 1 Period: 368.021 d



DV Fit Results:

Period = 368.02148 [0.00988] d
Epoch = 236.1603 [0.0176] BKJD
Rp/R* = 0.0539 [0.0054]
a/R* = 146.71 [31.01]
b = 0.91 [0.04]
Seff = 0.47 [0.11]
Teq = 212 [12] K
Rp = 4.50 [0.85] Re
a = 0.9506 [0.1265] AU
Ag = 24359.12 [9327.99] [2.61 σ]
Teff = 4088 [360] K [10.77 σ]

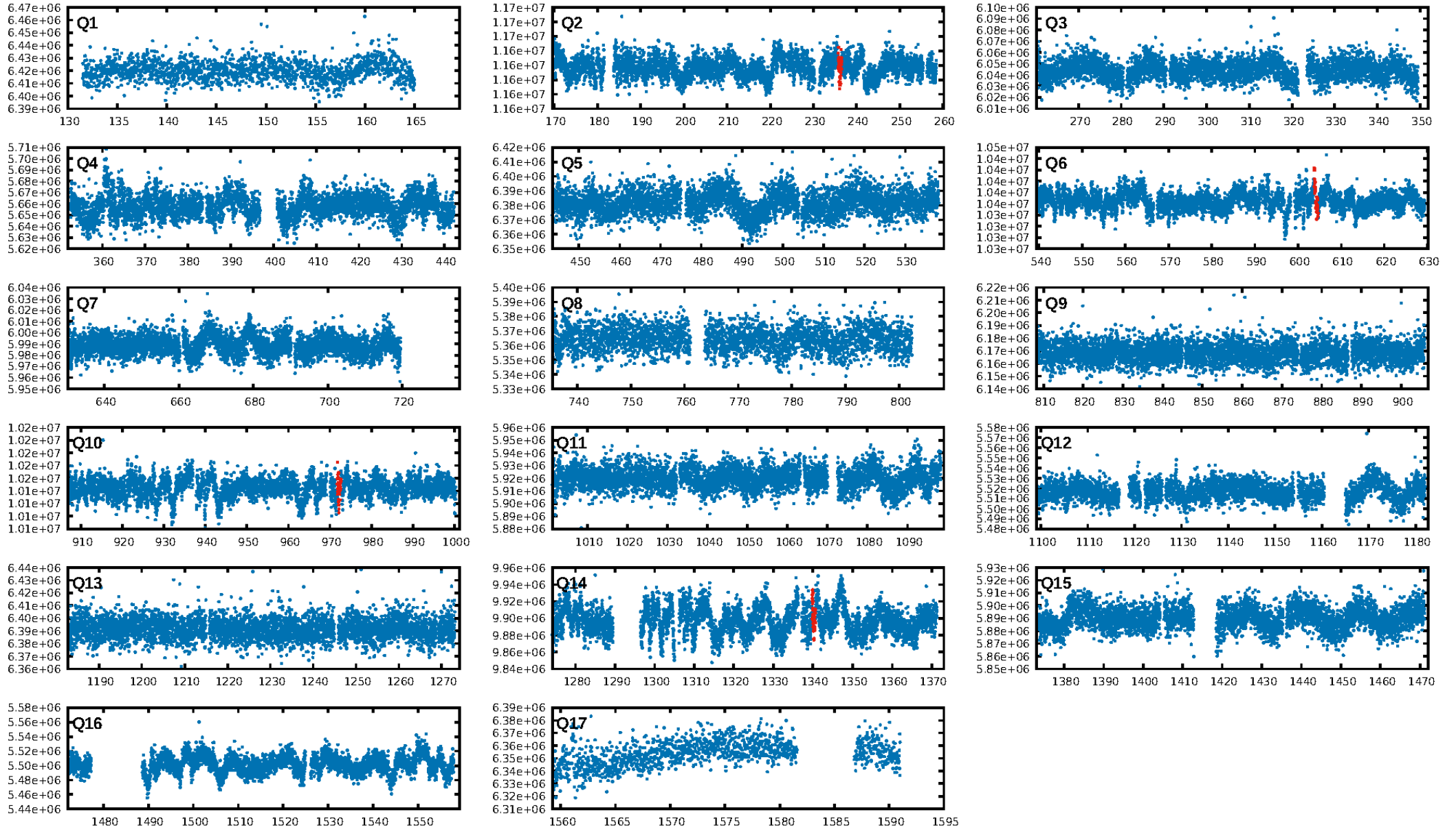
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.95e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.5058
Centroid-sig: 0.0%
Centroid-so: 0.974 arcsec [1.33 σ]
OotOffset-rm: 4.401 arcsec [4.78 σ]
KicOffset-rm: 3.338 arcsec [3.65 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [4/4]

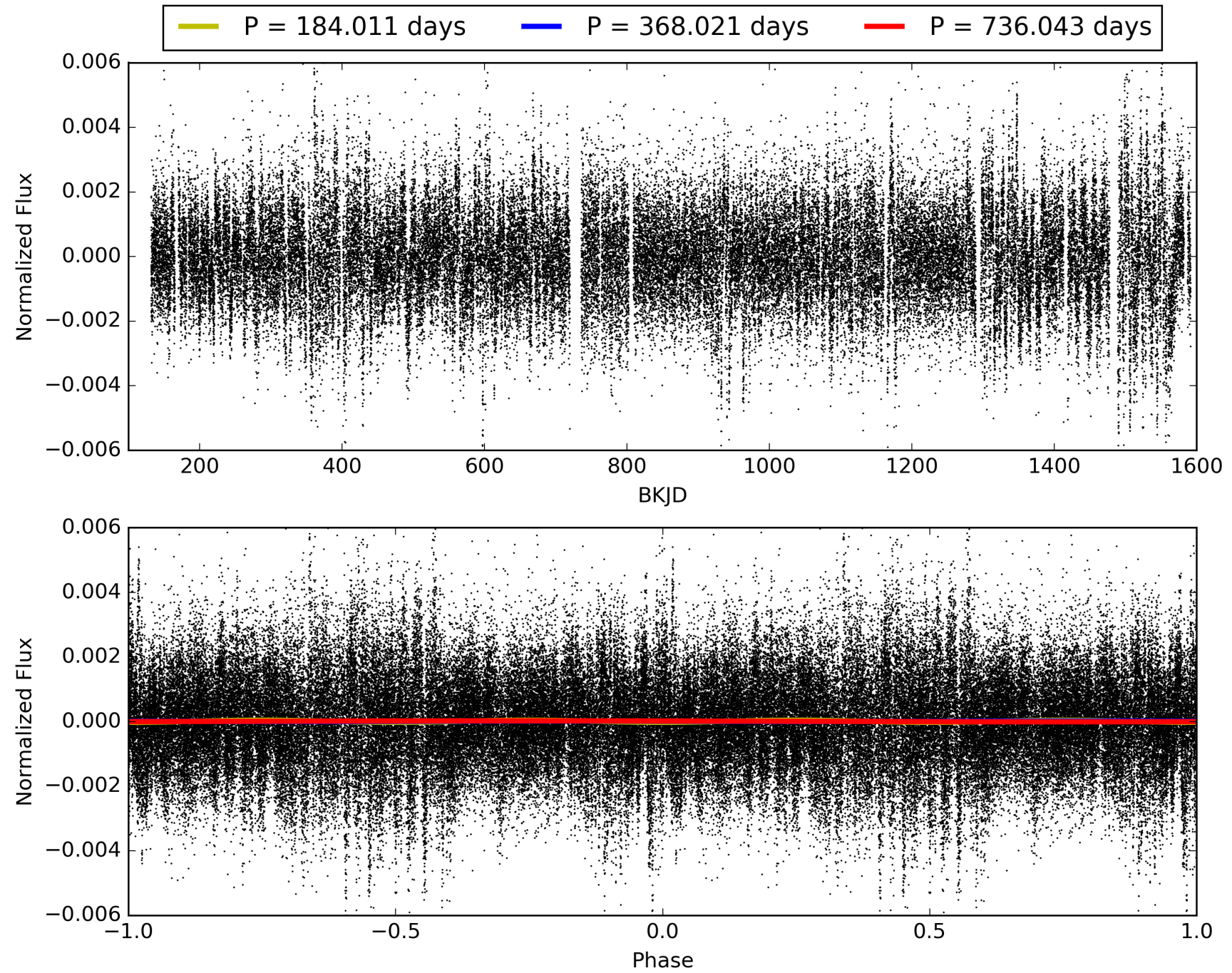
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:51:56 Z

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

TCE 008352681-01, PDC Light Curves

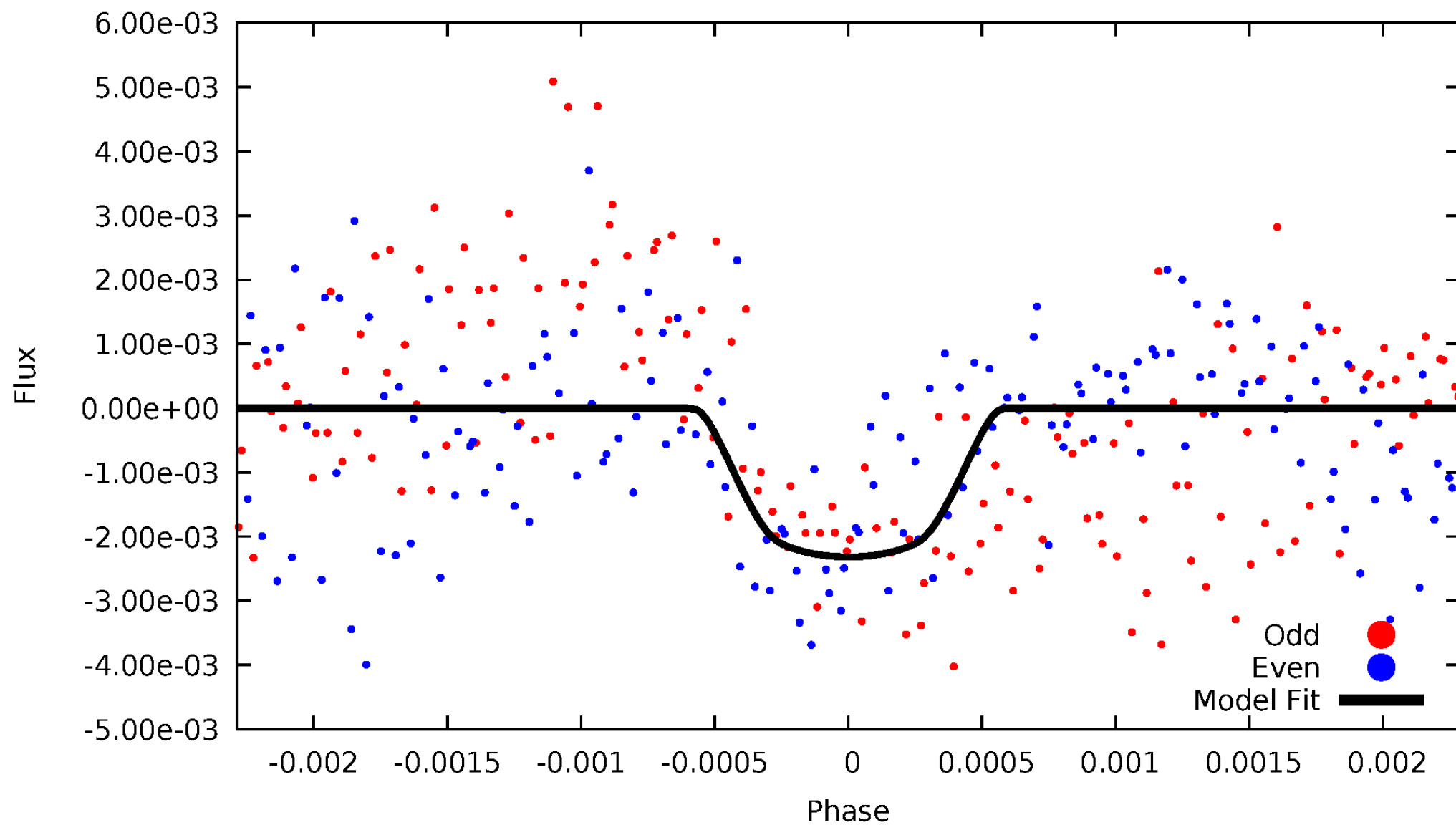


TCE 008352681-01



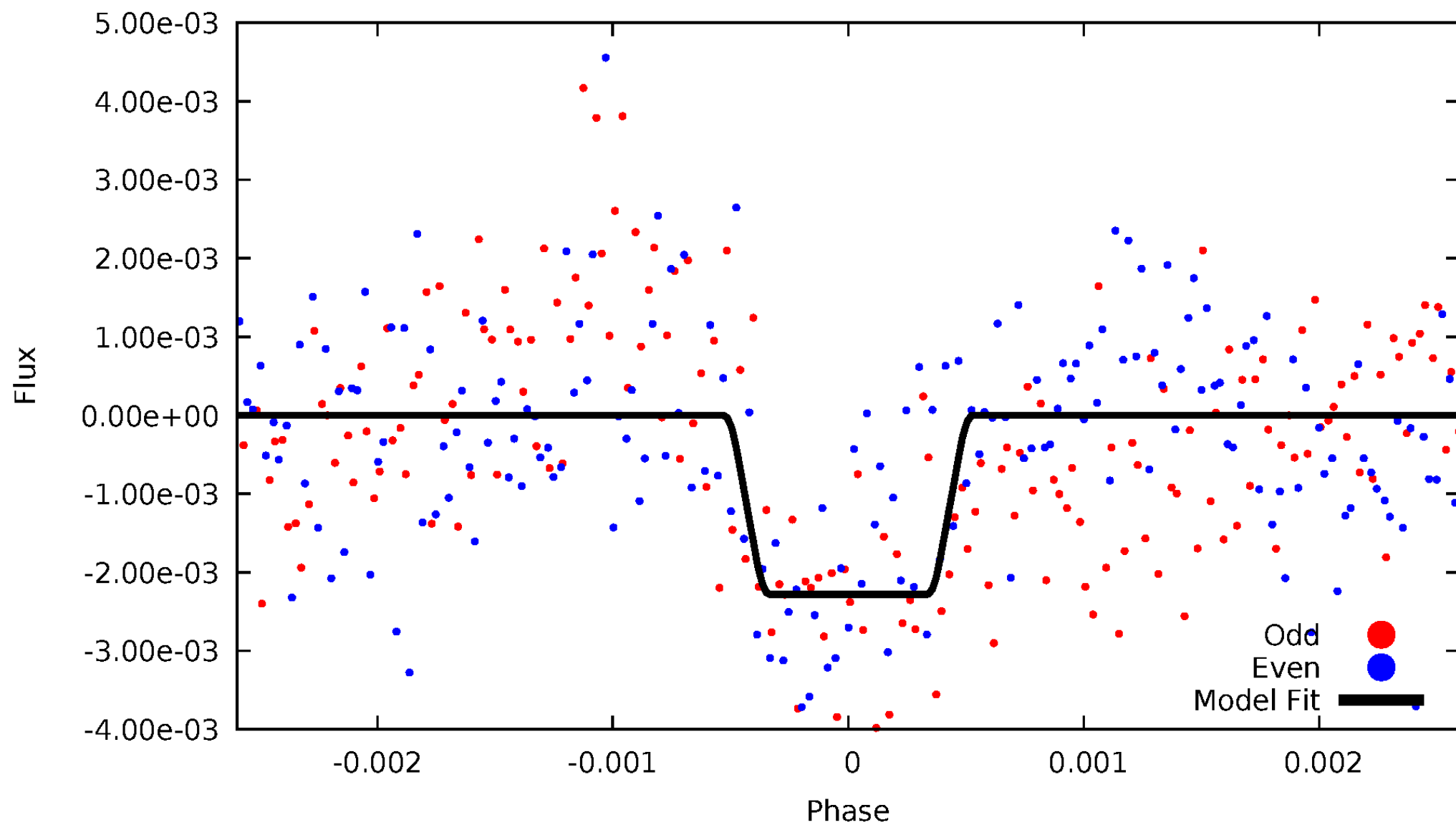
DV Odd/Even

TCE 008352681-01

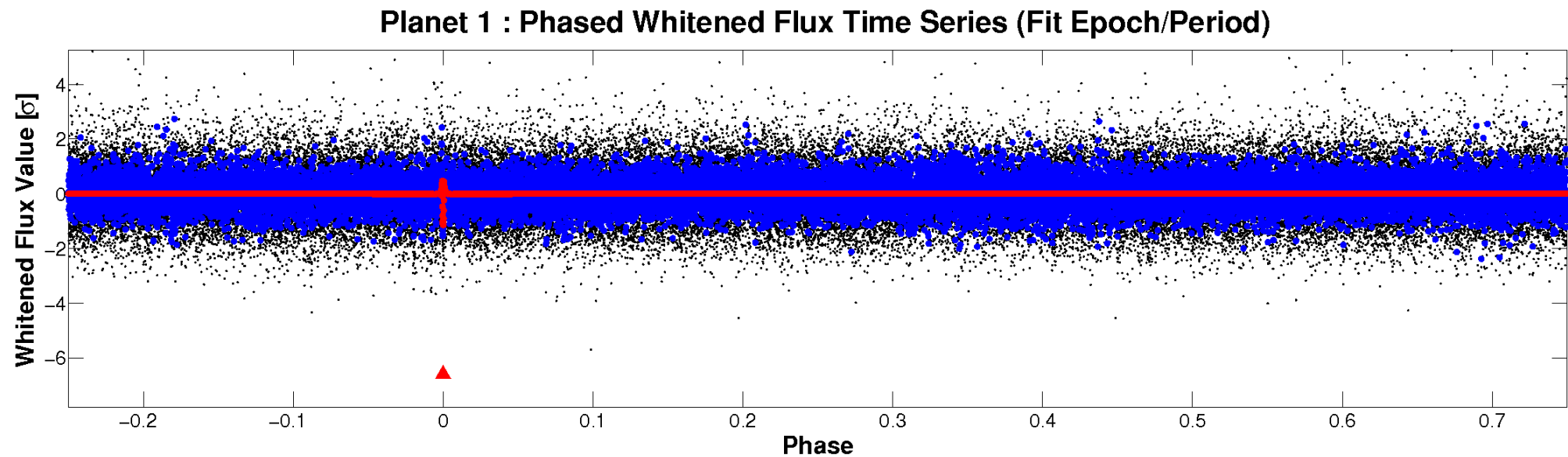
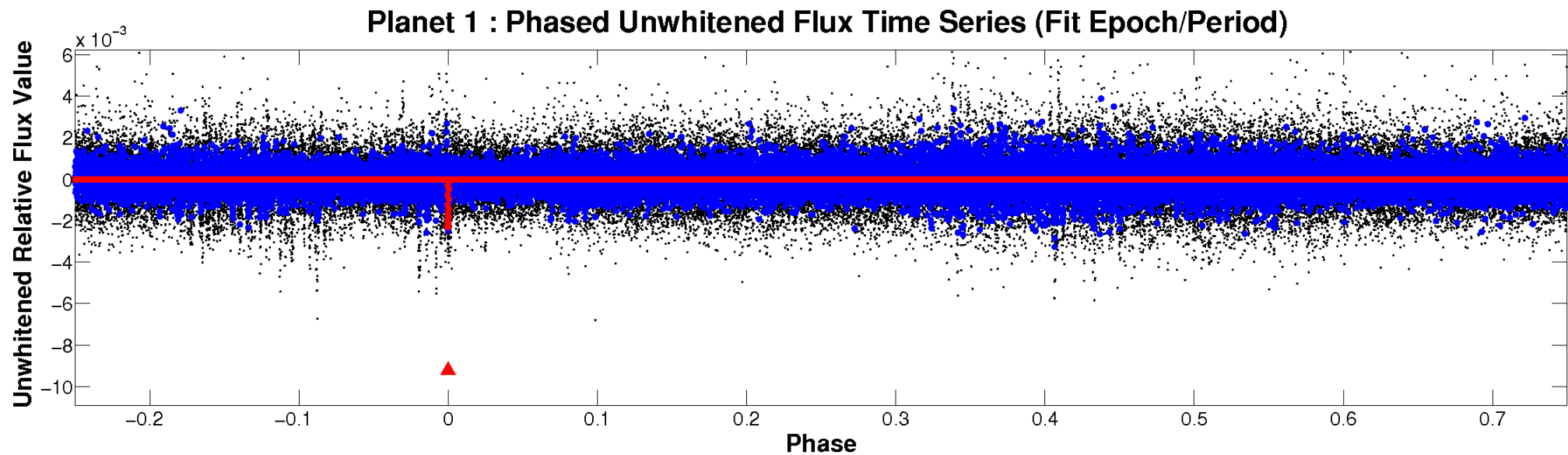


ALT Odd/Even

TCE 008352681-01

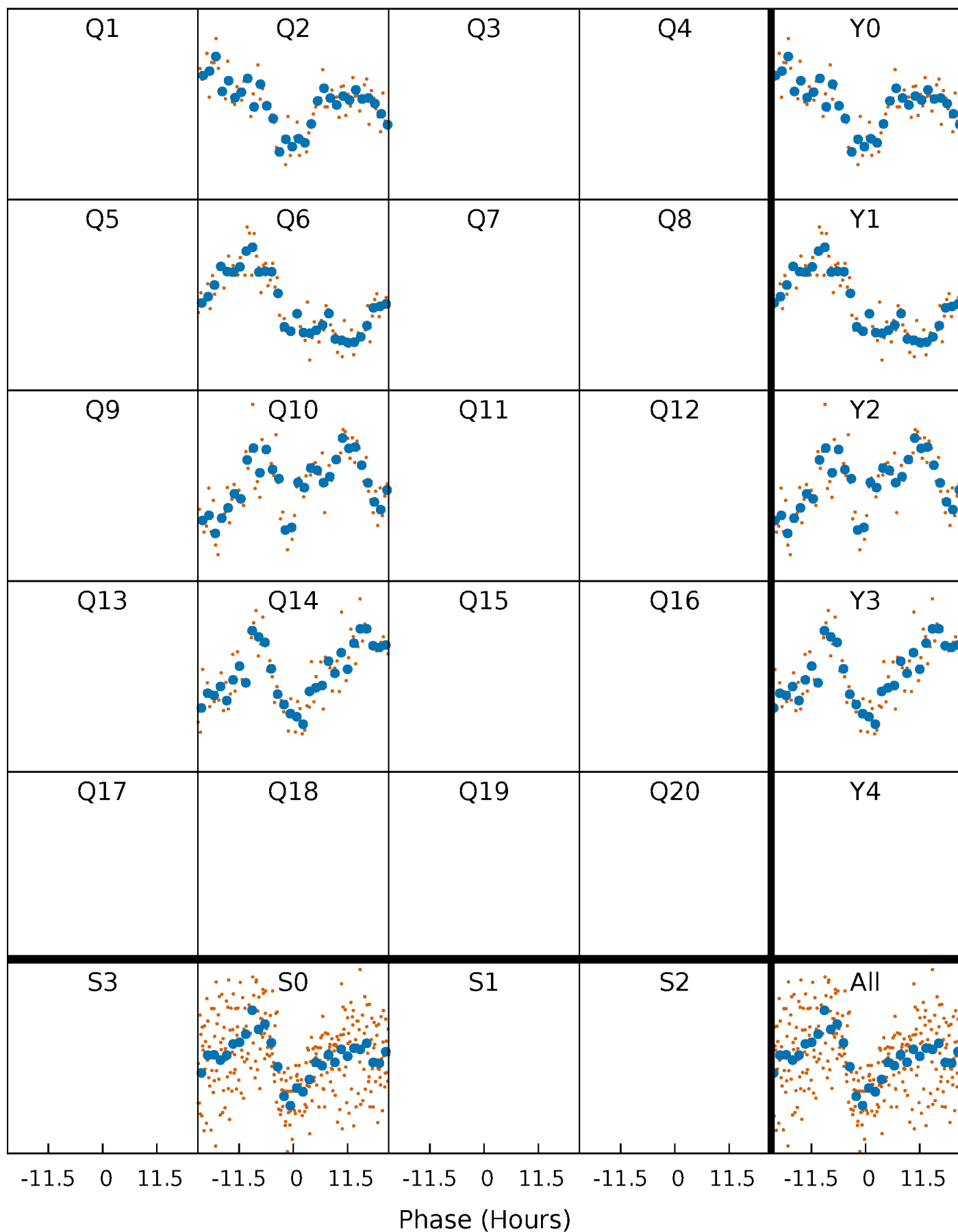


Non-Whitened Vs. Whitened Light Curve



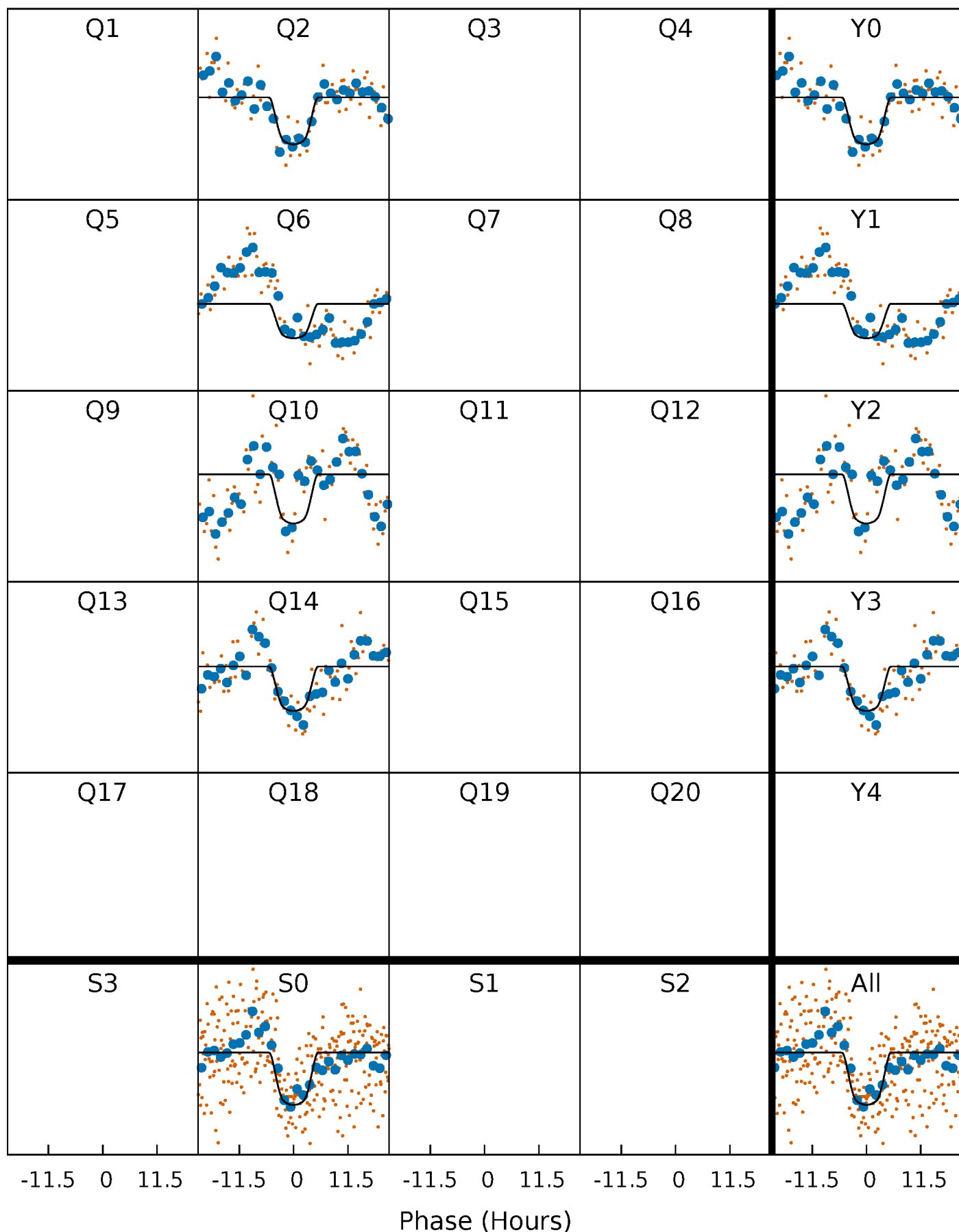
PDC Quarter-Phased Transit Curves

TCE 008352681-01 $P=368.021478$ Days $T_0=236.160286$ (BKJD)



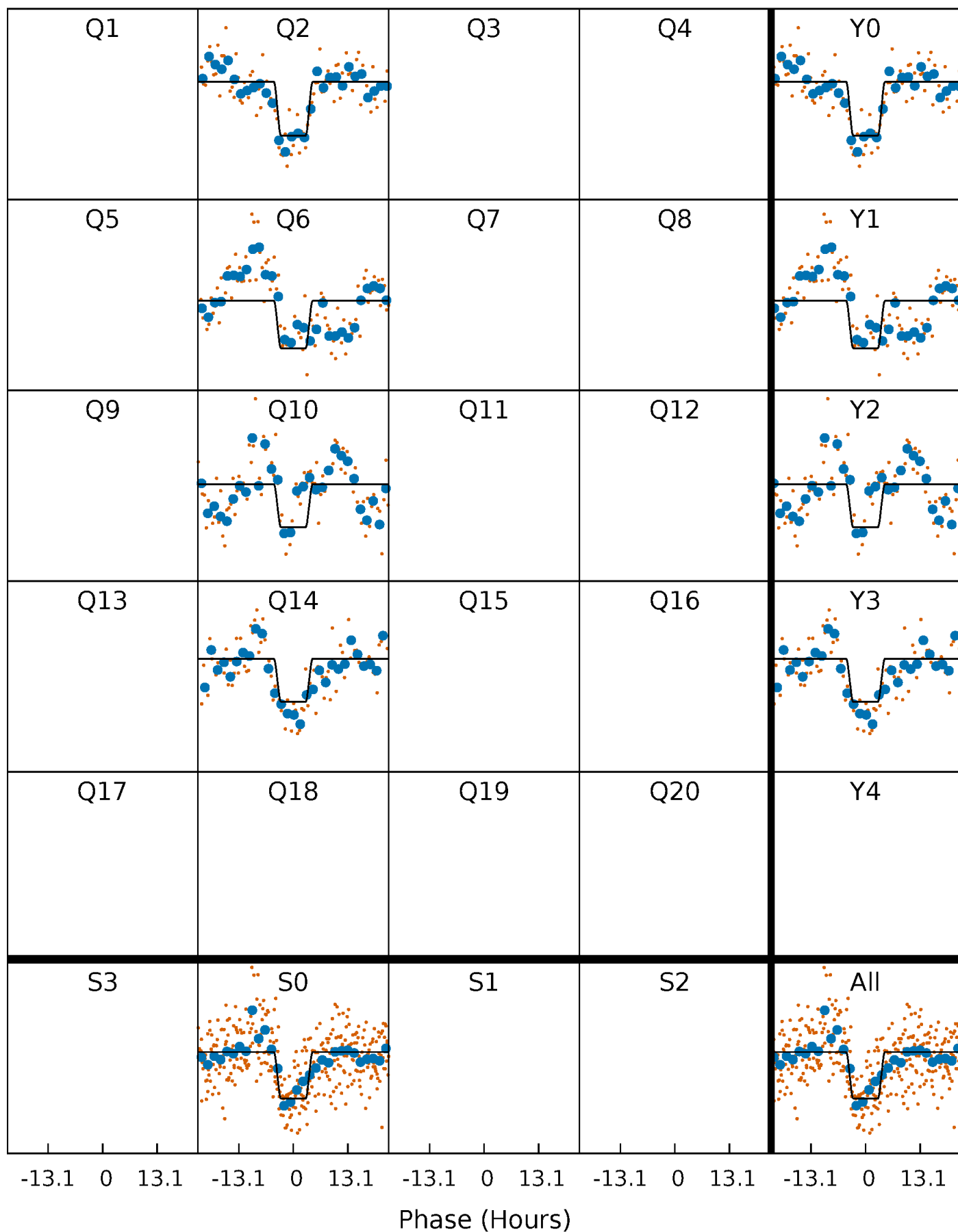
DV Quarter-Phased Transit Curves

TCE 008352681-01 P=368.021478 Days $T_0=236.160286$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

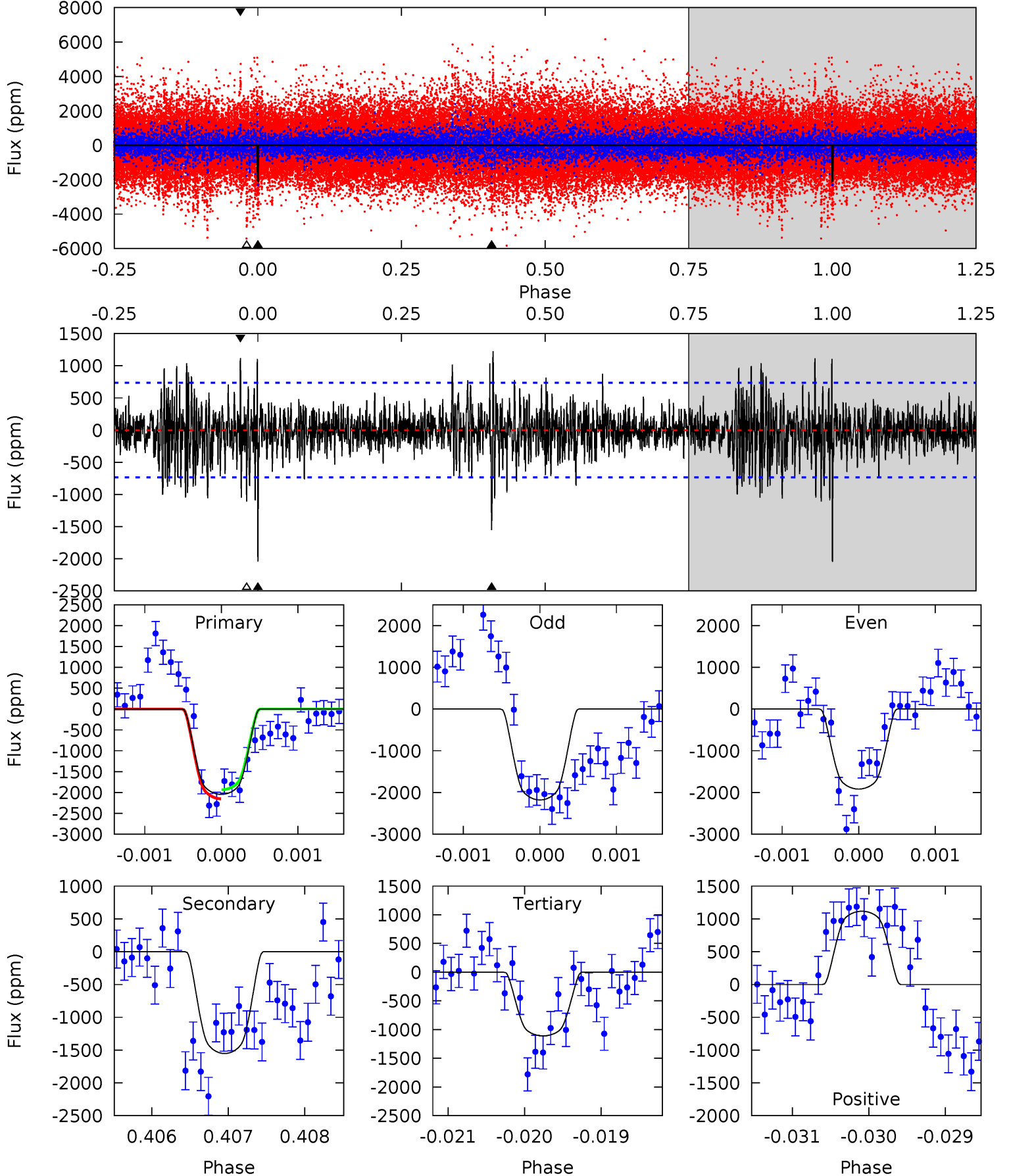
TCE 008352681-01 P=368.035660 Days $T_0=236.153878$ (BKJD)



DV Model-Shift Uniqueness Test

008352681-01, P = 368.021478 Days, E = 236.160286 Days

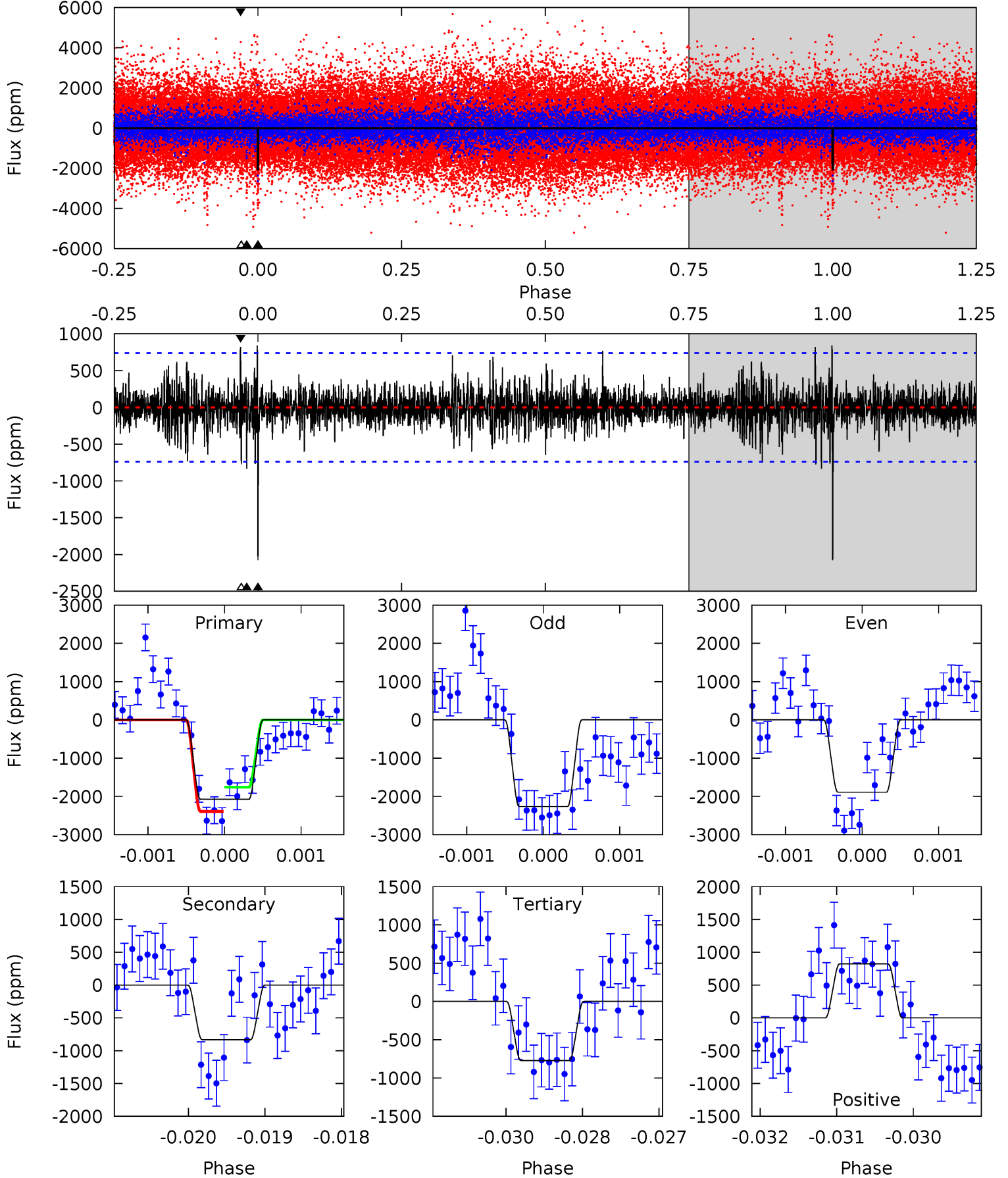
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	11.4	8.18	8.23	5.42	3.25	2.03	6.91	6.85	3.27	3.21	0.96	0.95	0.37	0.79



Alt Model-Shift Uniqueness Test

008352681-01, P = 368.035660 Days, E = 236.153878 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	6.14	5.69	6.06	5.44	3.28	1.29	9.59	9.22	0.45	0.08	1.37	0.98	0.29	2.34



Stellar Parameters For KIC 008352681

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5352^{+159}_{-159}	$4.599^{+0.032}_{-0.104}$	$-0.180^{+0.300}_{-0.300}$	$0.764^{+0.122}_{-0.066}$	$0.857^{+0.070}_{-0.104}$	$2.702^{+0.486}_{-0.864}$
	+3%/-3%	+1%/-2%	+167%/-167%	+16%/-9%	+8%/-12%	+18%/-32%
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 008352681-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1552 ± 136	$4.60^{+0.57}_{-0.53}$	300^{+13}_{-11}	4696^{+261}_{-239}	36355^{+9548}_{-8196}
Alt.	-833 ± 136	$4.11^{+0.56}_{-0.54}$	300^{+13}_{-12}	4354^{+261}_{-242}	24381^{+8536}_{-6251}

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

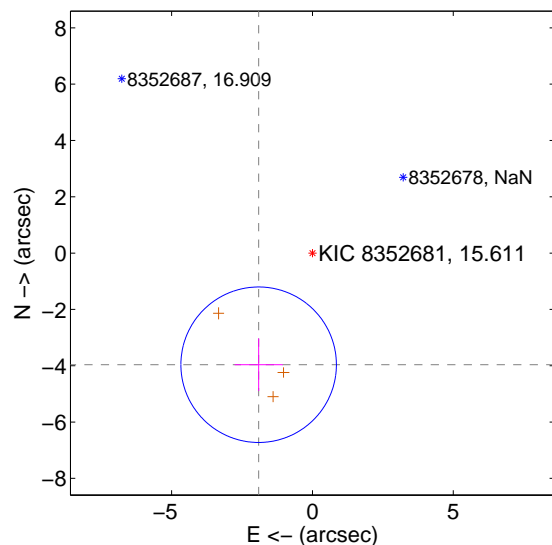
Supplemental centroid analysis for 008352681-01. Kepler magnitude: 15.61. Transit SNR 8.07

There are 0 quarters with good PRF difference image offsets

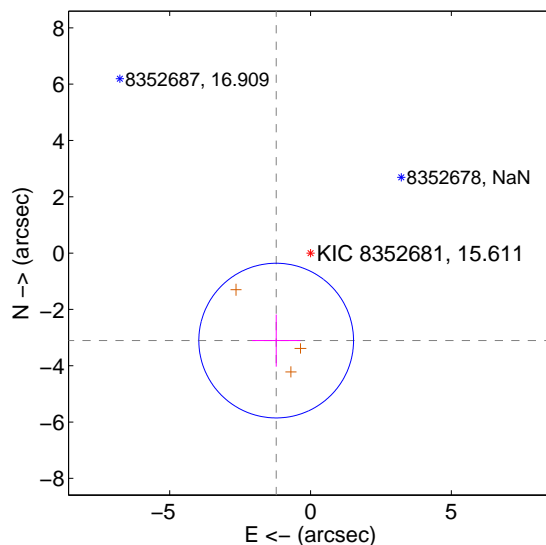
The direct PRF centroid is offset from the target star catalog position by about 1.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.401 ± 0.920	4.78	1.911 ± 0.854	-3.964 ± 0.935
PRF-fit source offset from KIC position	3.338 ± 0.916	3.65	1.219 ± 0.859	-3.107 ± 0.924
photometric centroid source offset	0.97 ± 0.73	1.33	0.91 ± 0.66	-0.36 ± 1.08

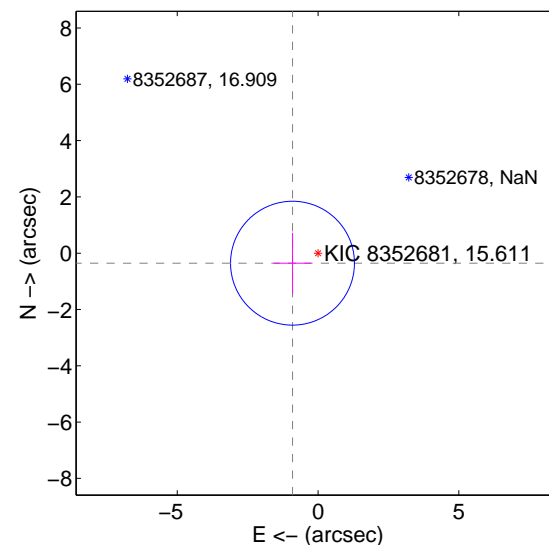
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

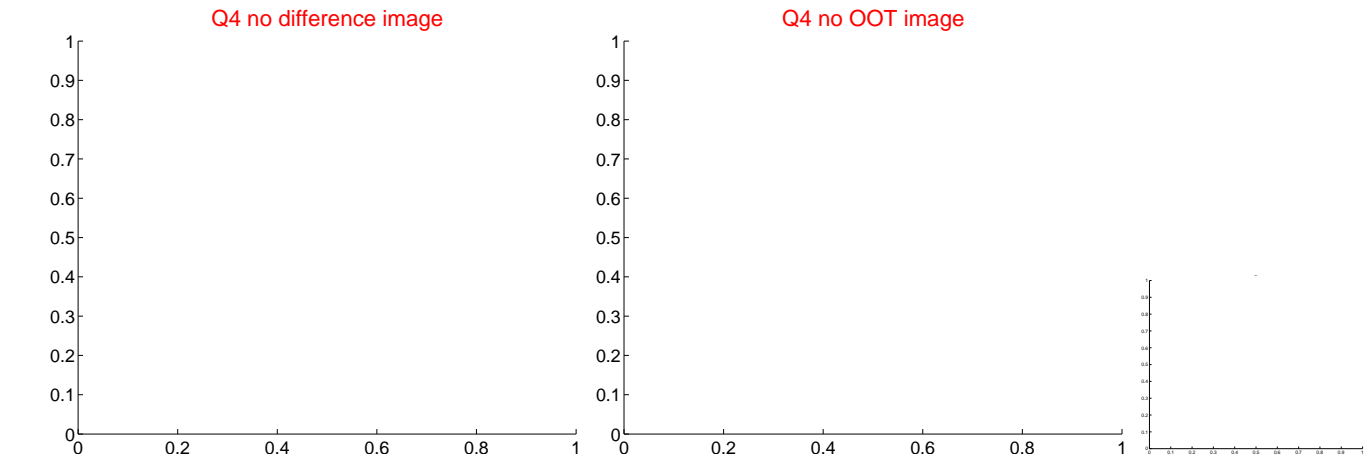
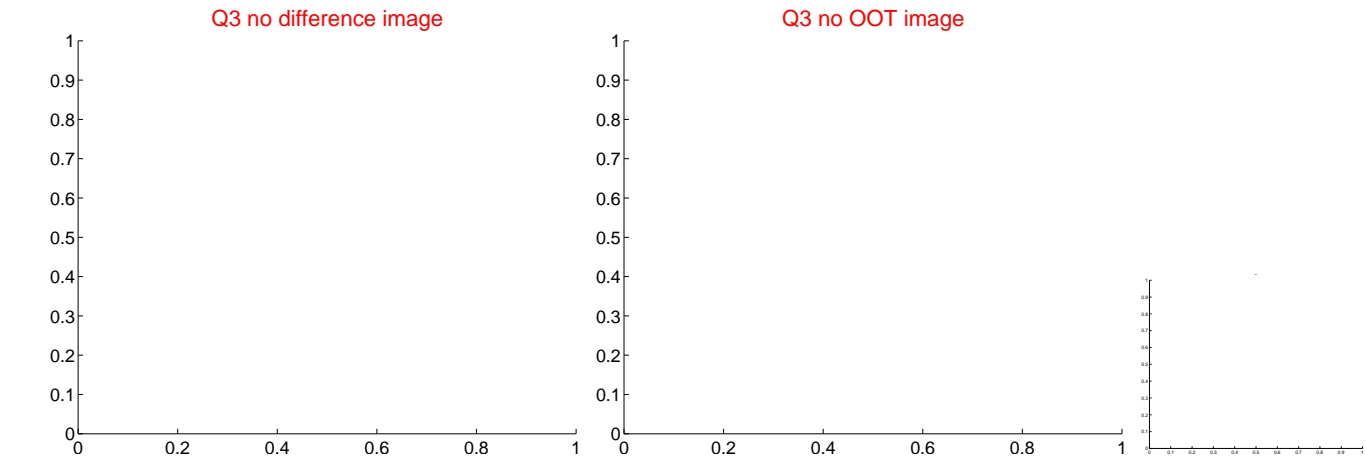
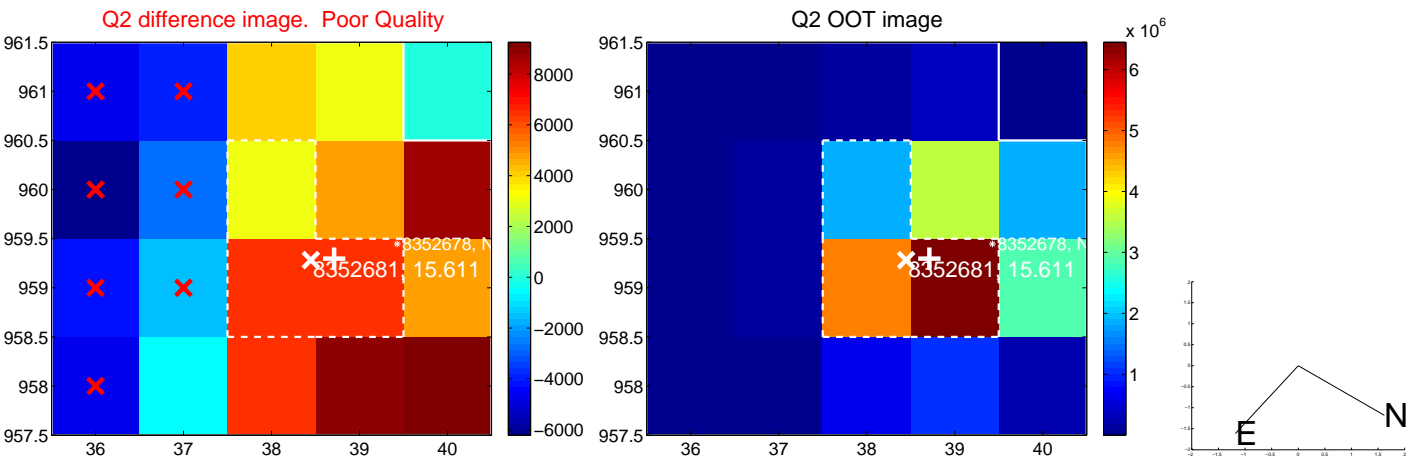
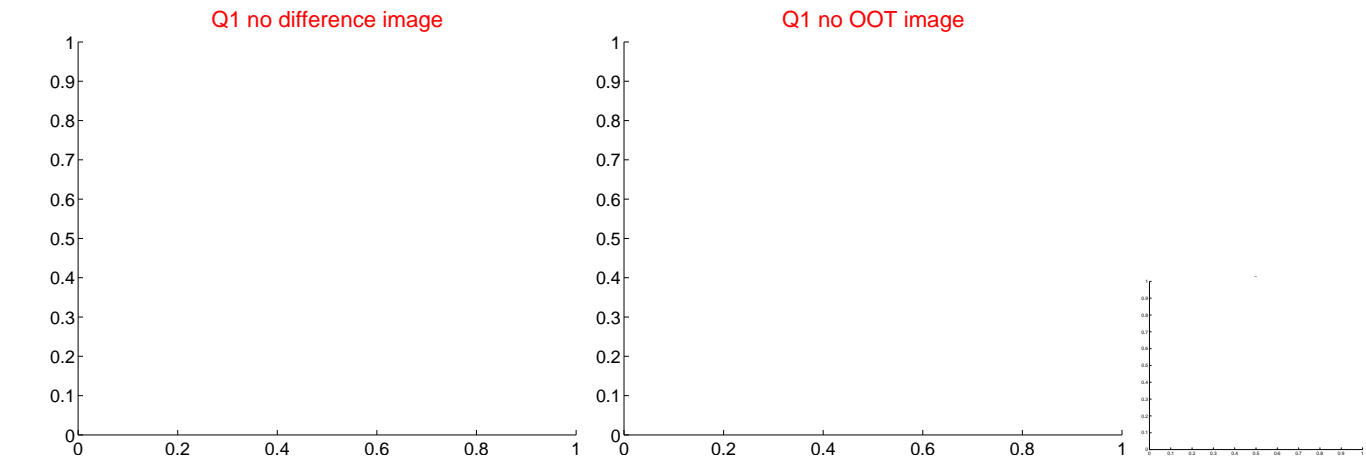


offset from photometric centroids

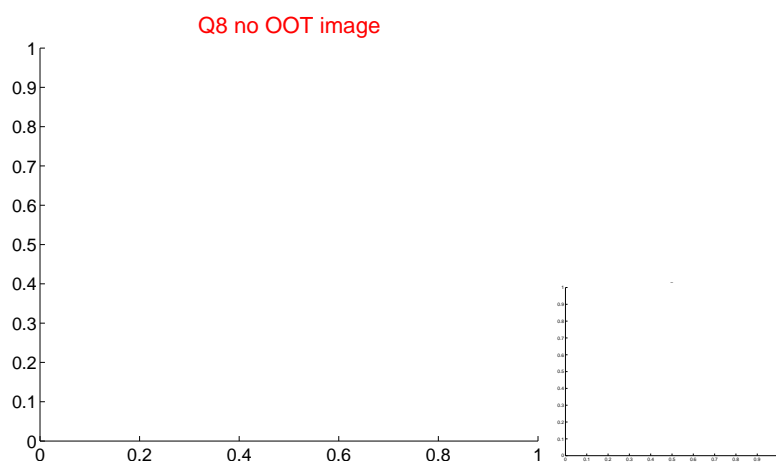
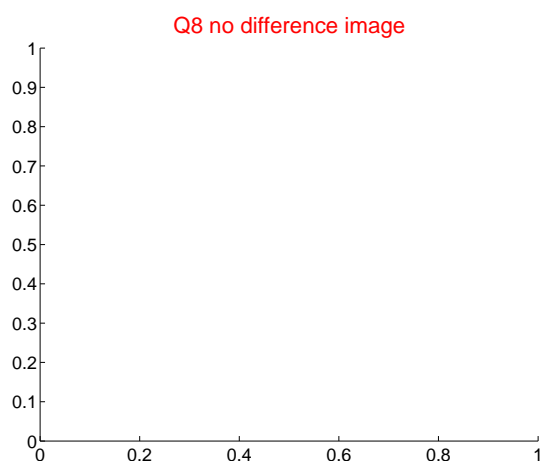
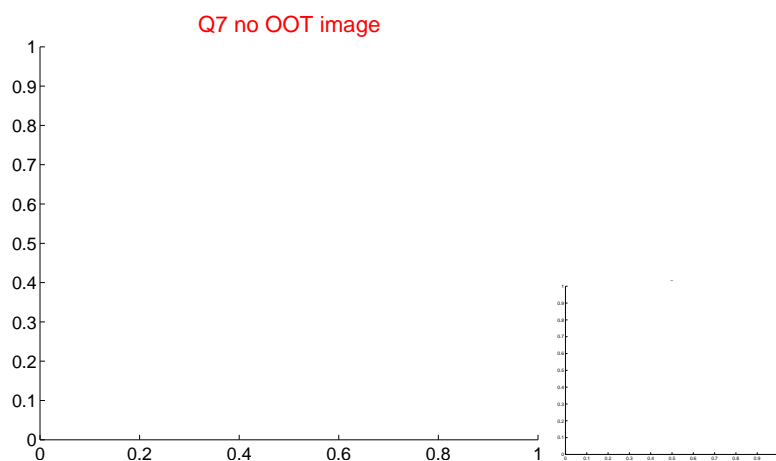
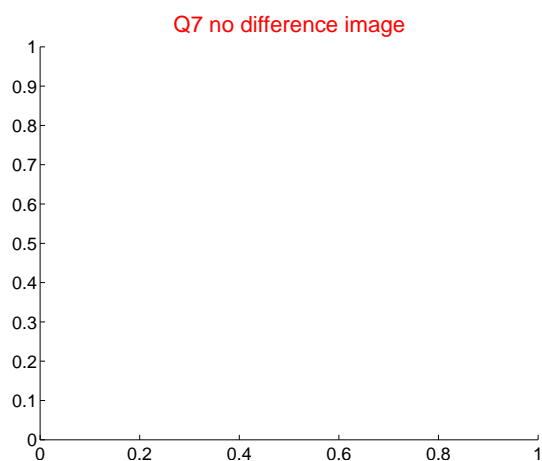
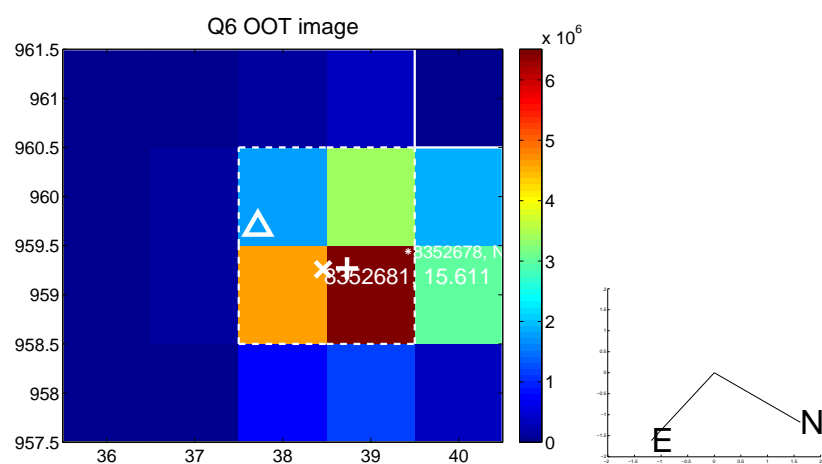
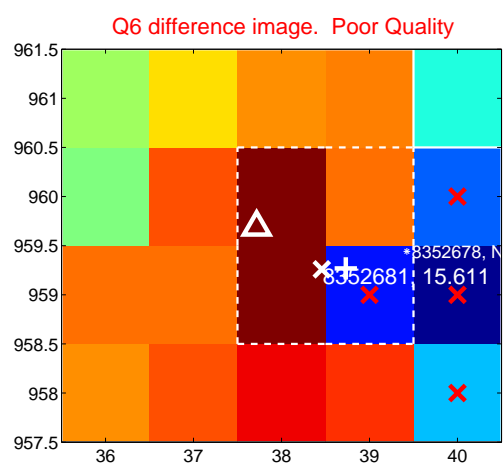
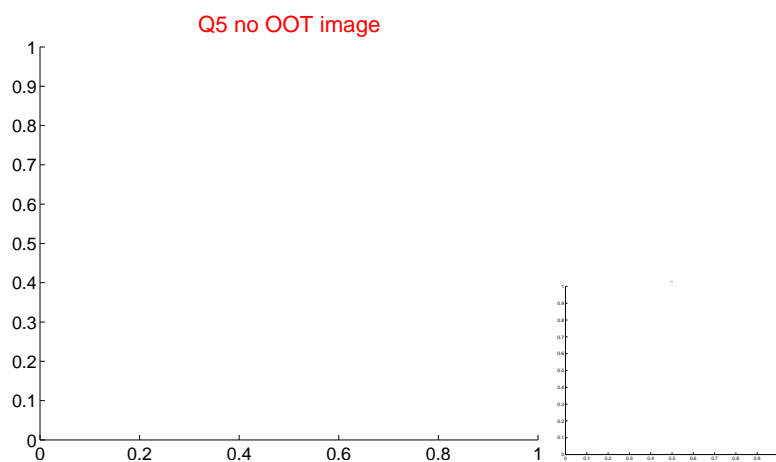
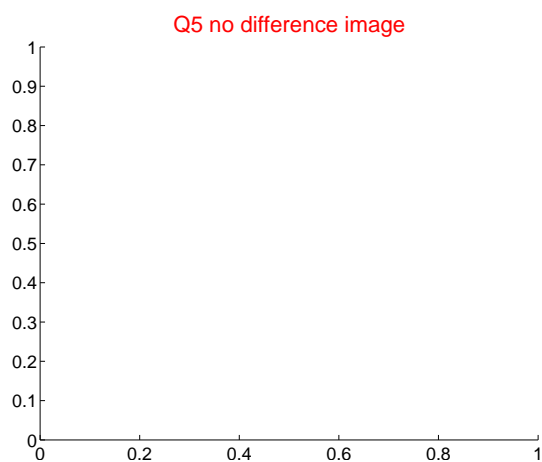


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

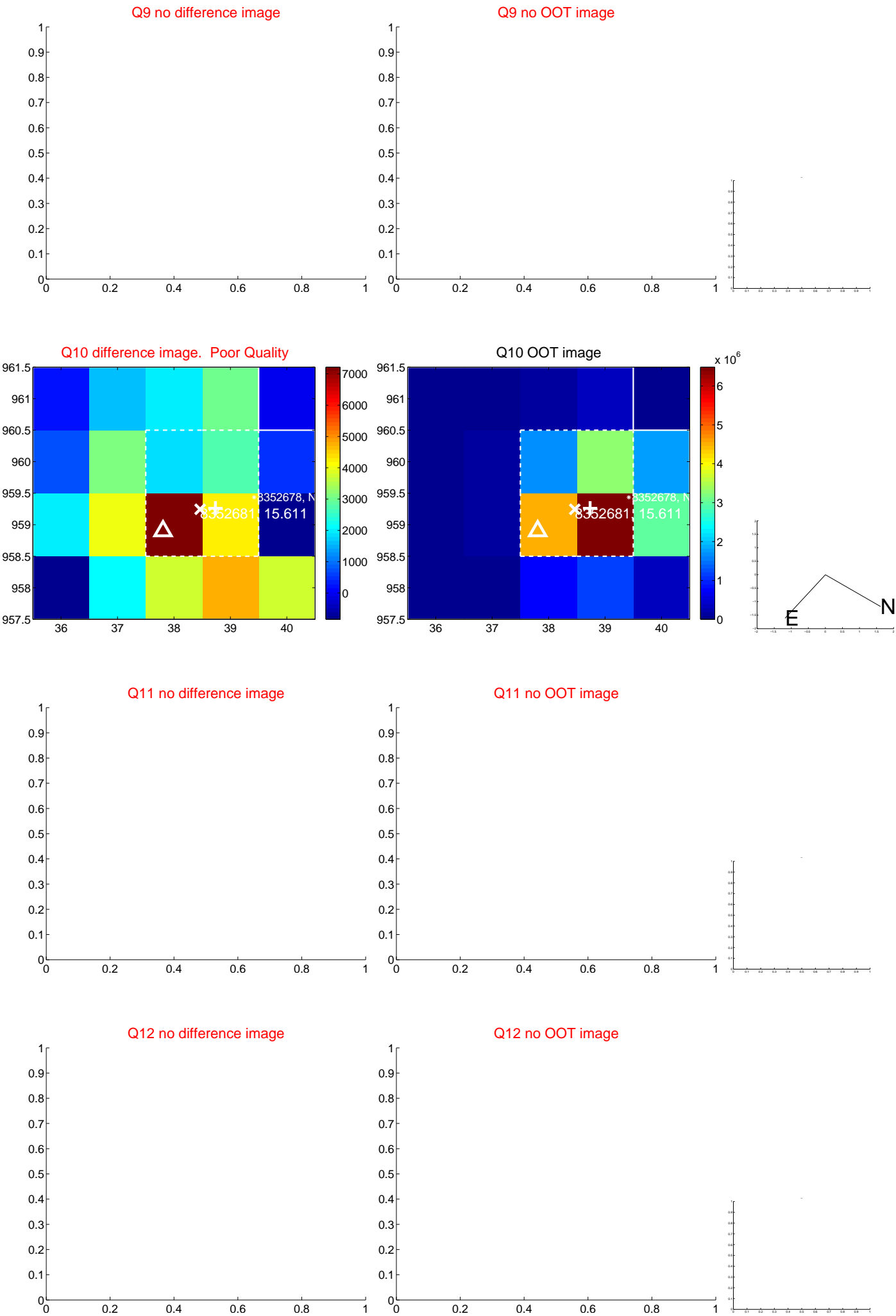
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



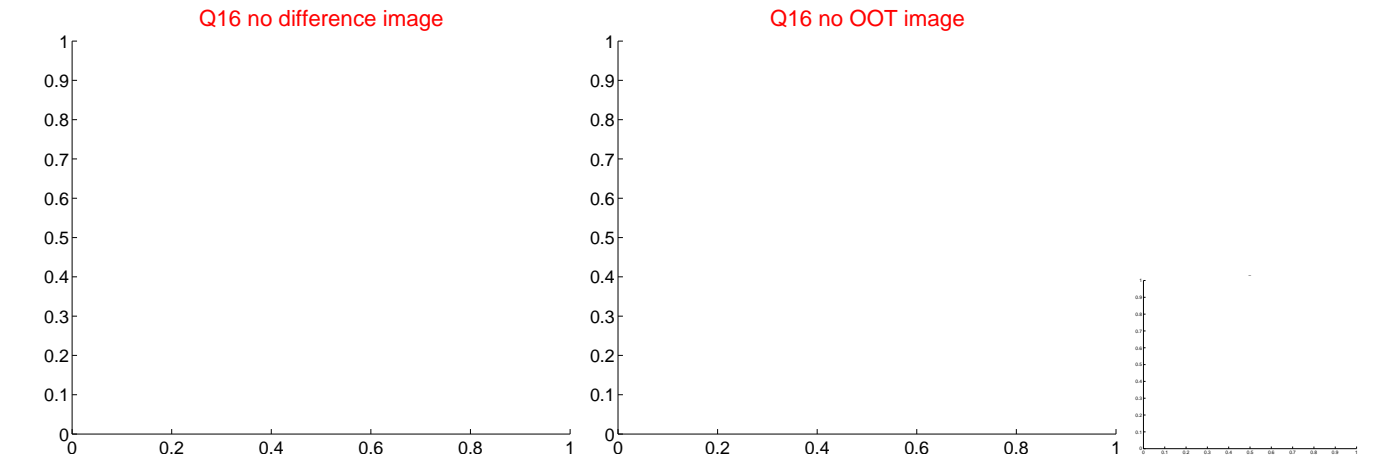
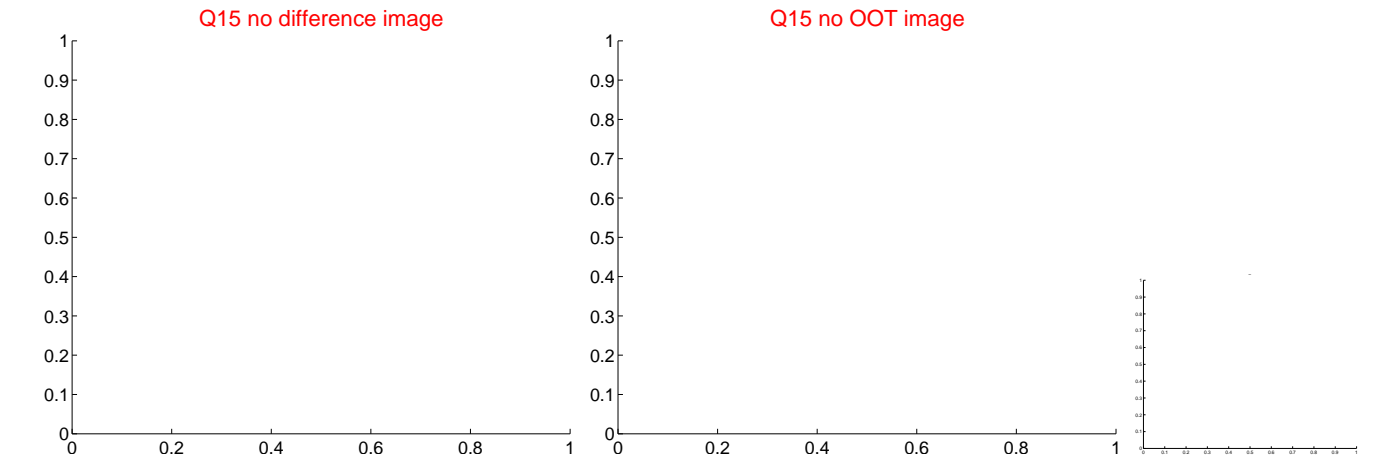
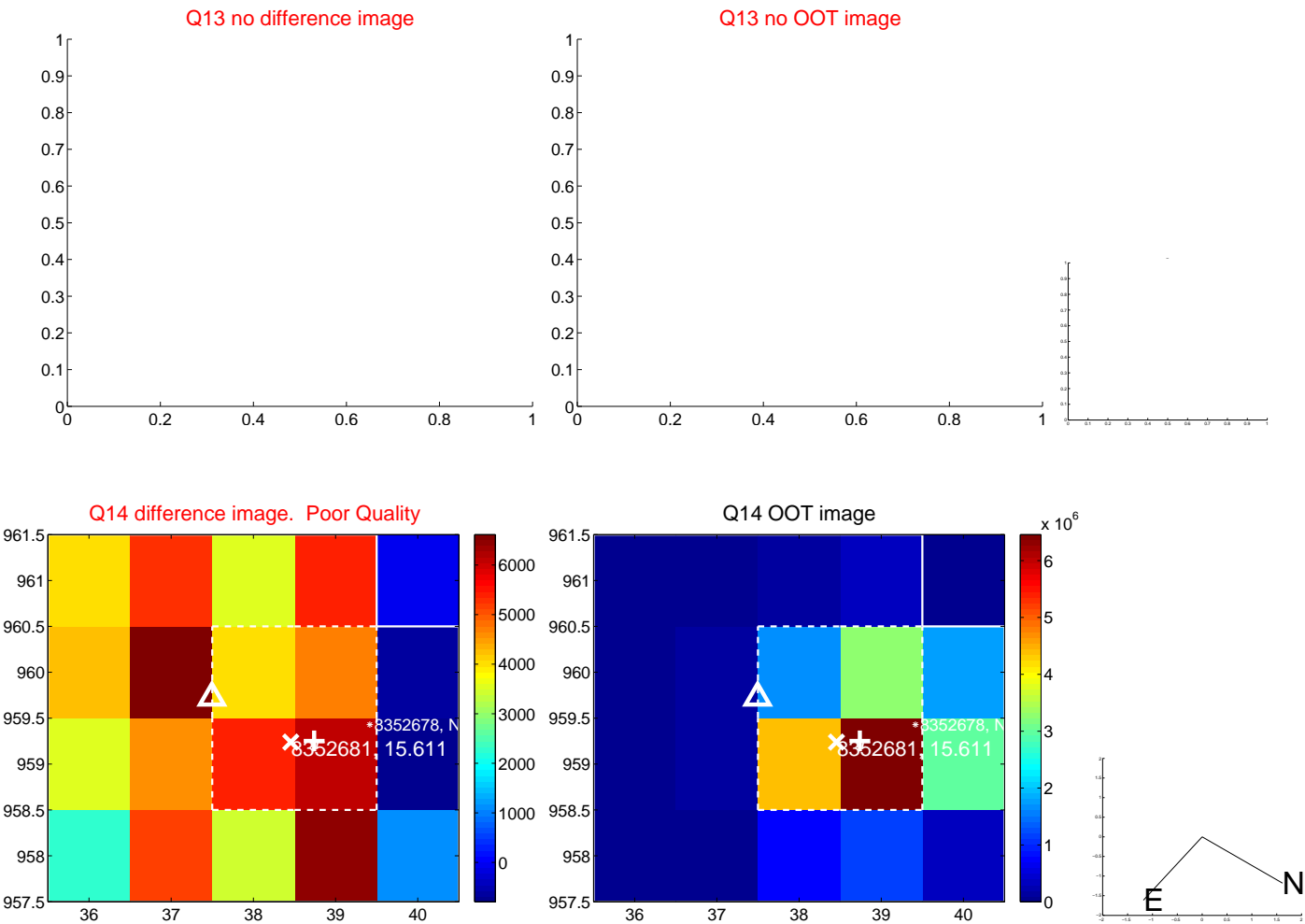
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



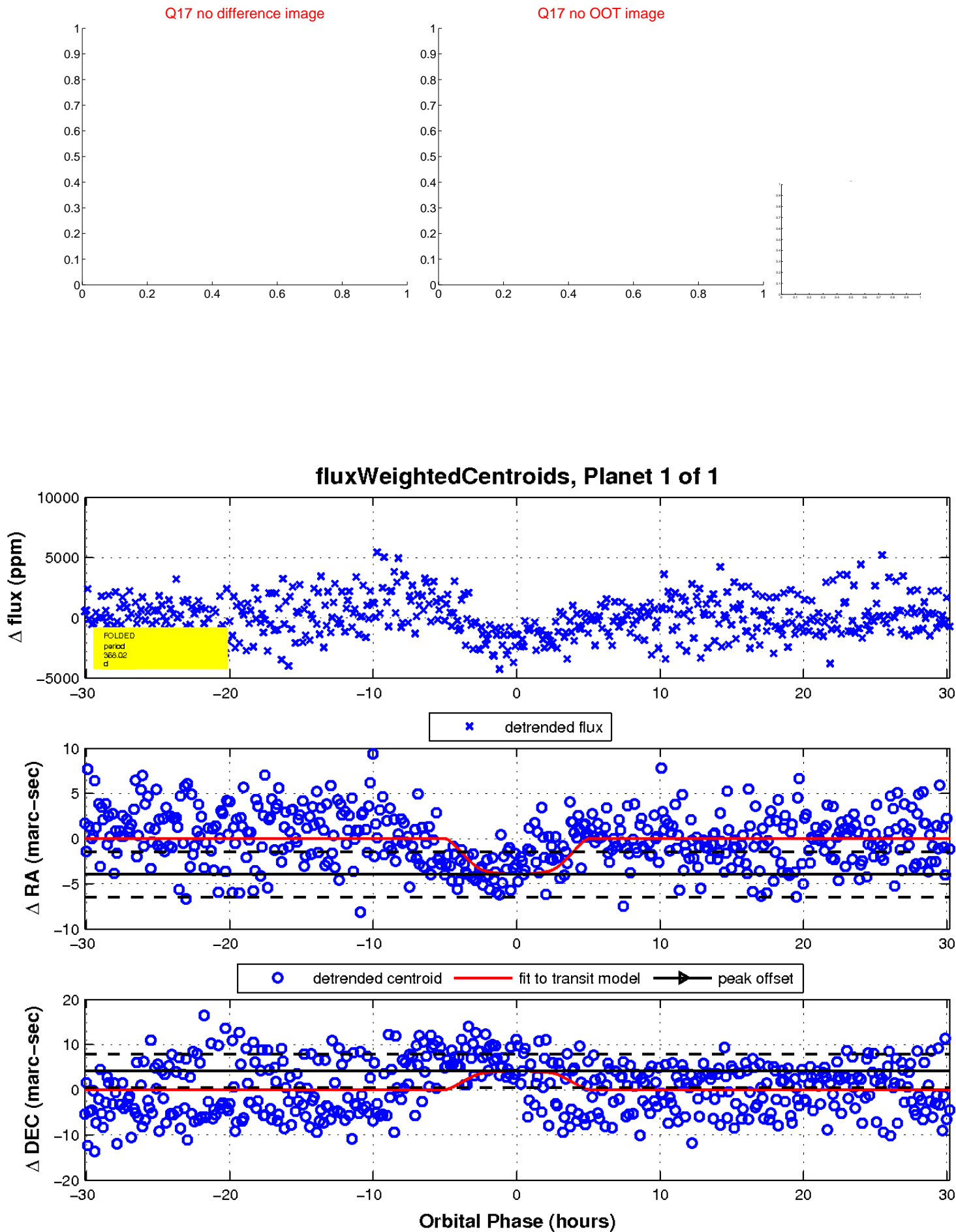
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

