

KIC 003235282

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})
003235282-01	OBS	7649.01	494.166300	472.042589	1519.1	2.929	7.4	7.9	1.16	6392	6.29	1.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003235282-01	OBS	FP	0.01	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—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.

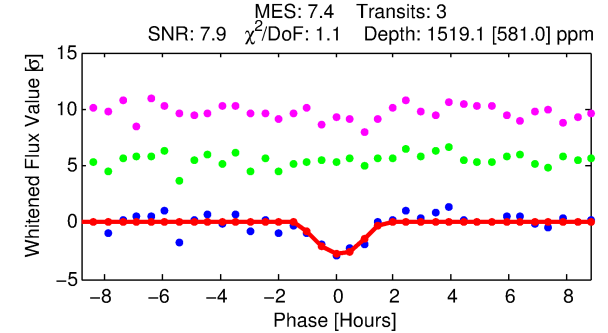
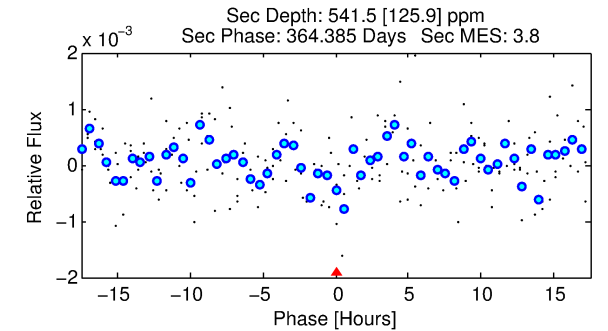
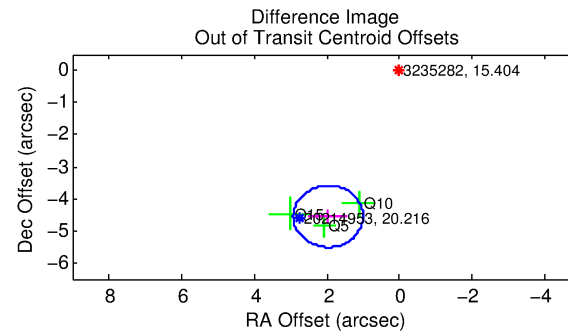
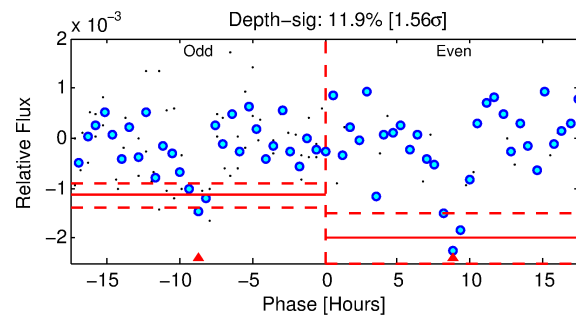
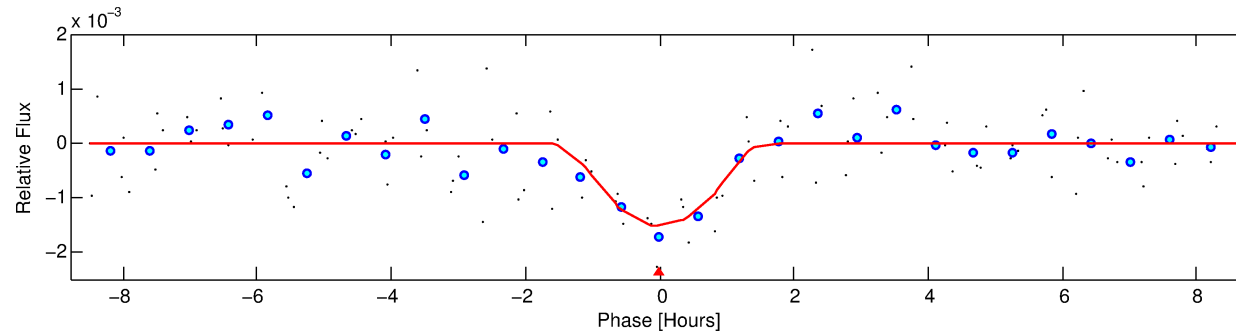
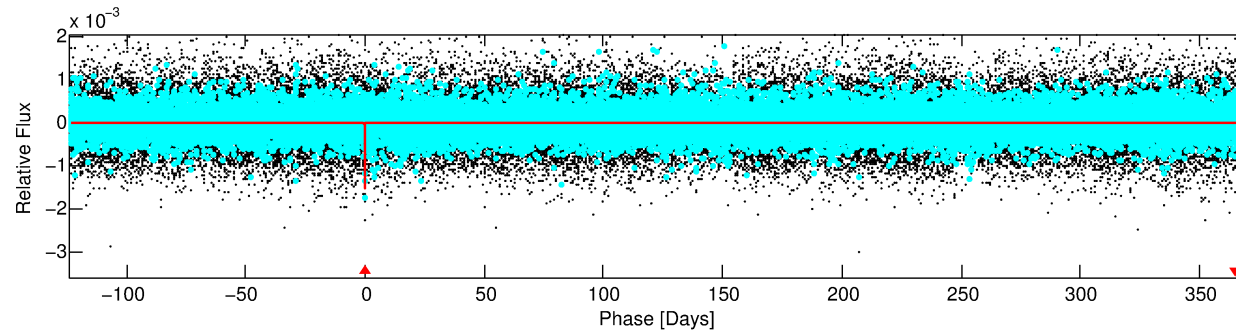
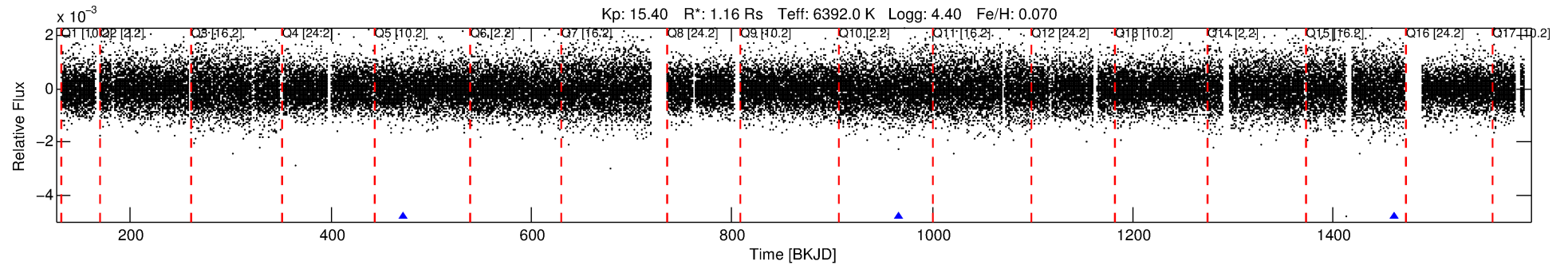
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003235282-01

No Significant Match Found

DV One-Page Summary

KIC: 3235282 Candidate: 1 of 1 Period: 494.166 d



DV Fit Results:

Period = 494.16630 [0.00658] d
Epoch = 472.0426 [0.0085] BKJD
Rp/R* = 0.0496 [0.0908]
a/R* = 521.55 [493.59]
b = 0.97 [0.21]
Seff = 1.17 [0.42]
Teq = 265 [24] K
Rp = 6.29 [11.65] Re
a = 1.3125 [0.3058] AU
Ag = 12972.94 [47810.44] [0.27 σ]
Teff = 4378 [4020] K [1.02 σ]

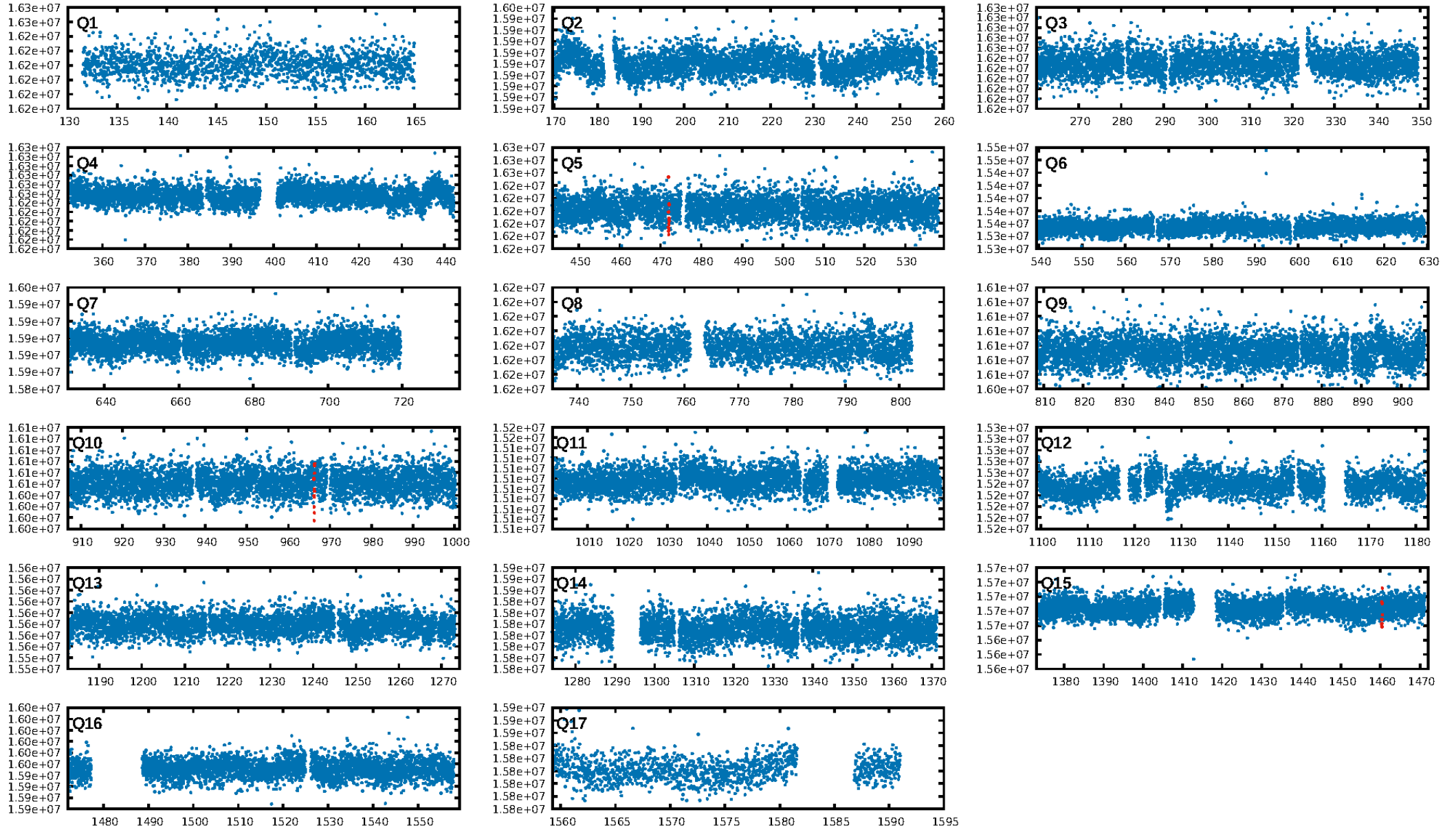
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.0%
ModelChiSquareGoF-sig: 96.0%
Bootstrap-pfa: 9.13e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.6928
Centroid-sig: 0.0%
Centroid-so: 6.607 arcsec [3.90 σ]
OotOffset-rm: 4.957 arcsec [15.47 σ]
KicOffset-rm: 5.171 arcsec [19.35 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

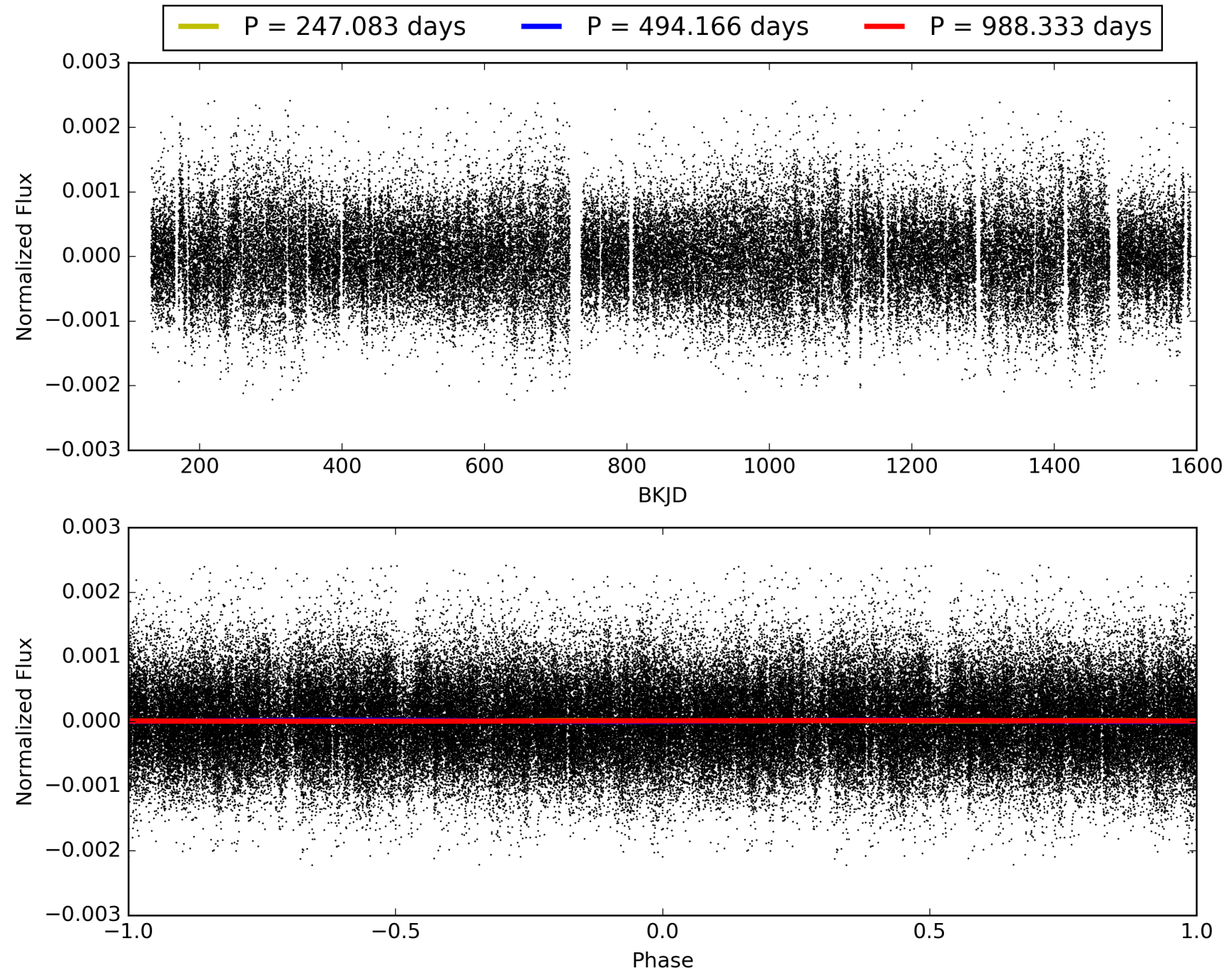
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:42:53 Z

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

TCE 003235282-01, PDC Light Curves

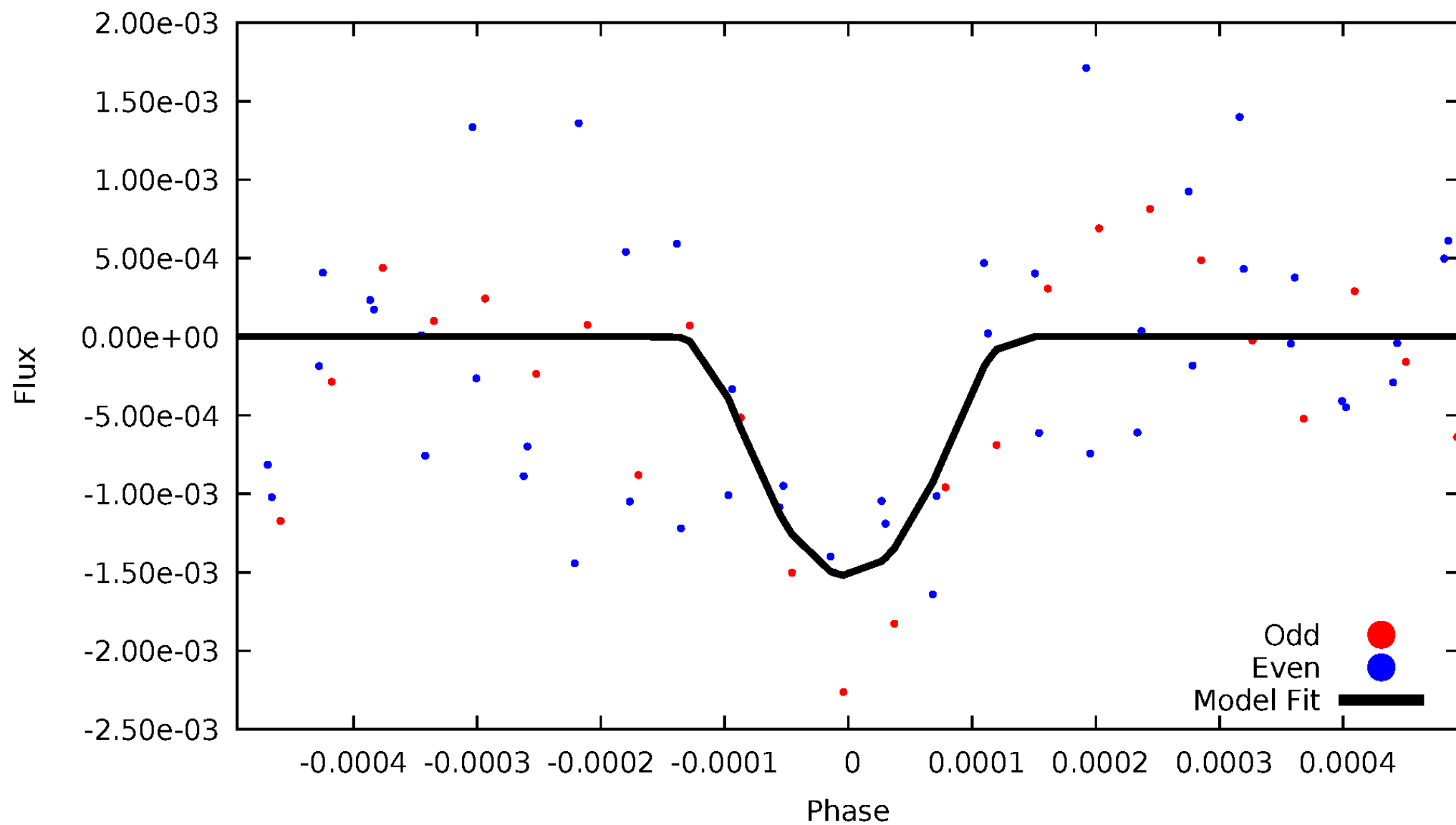


TCE 003235282-01



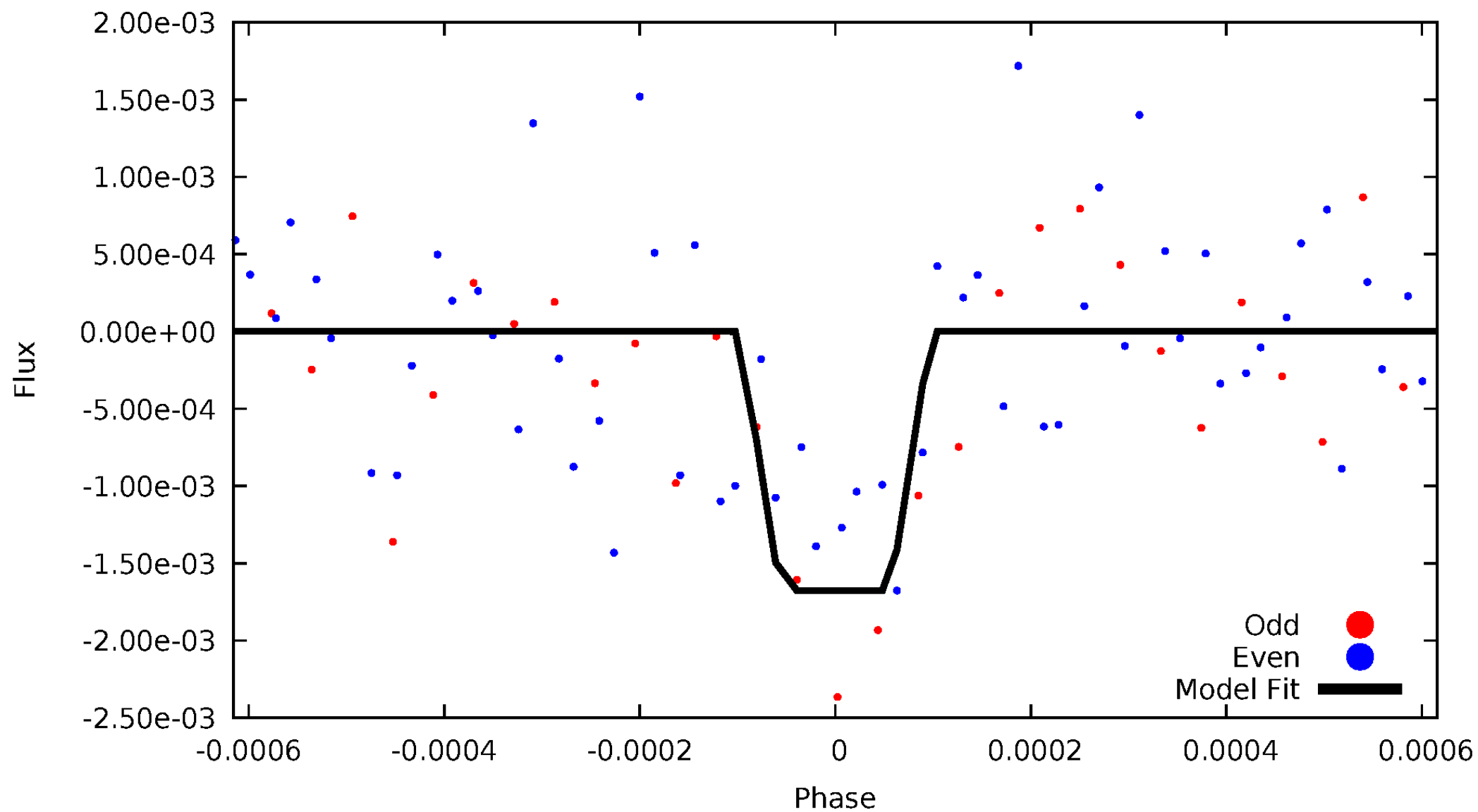
DV Odd/Even

TCE 003235282-01



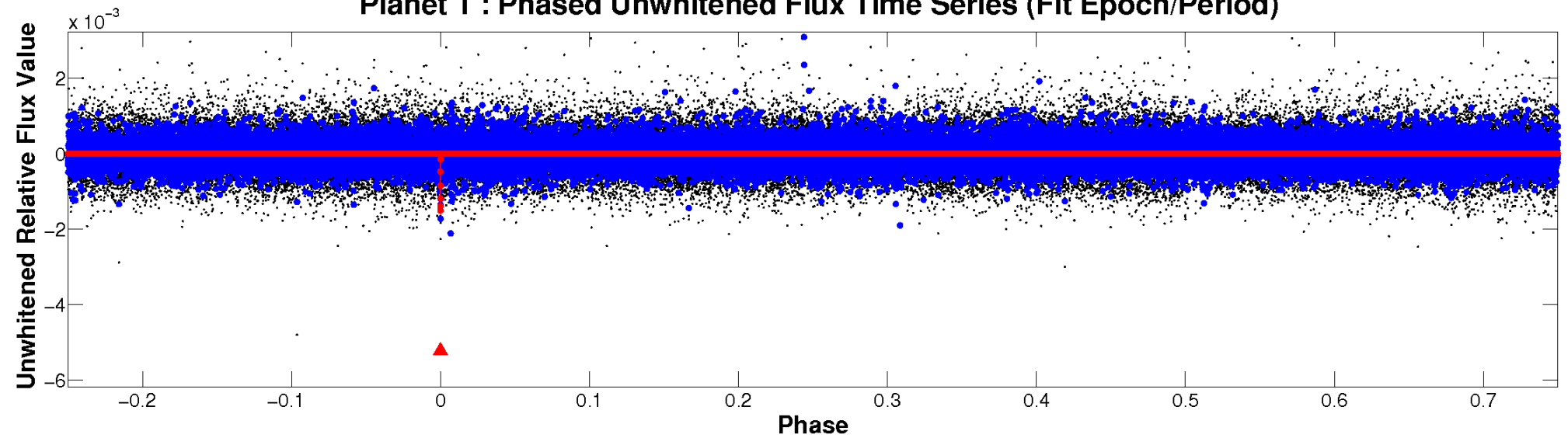
ALT Odd/Even

TCE 003235282-01

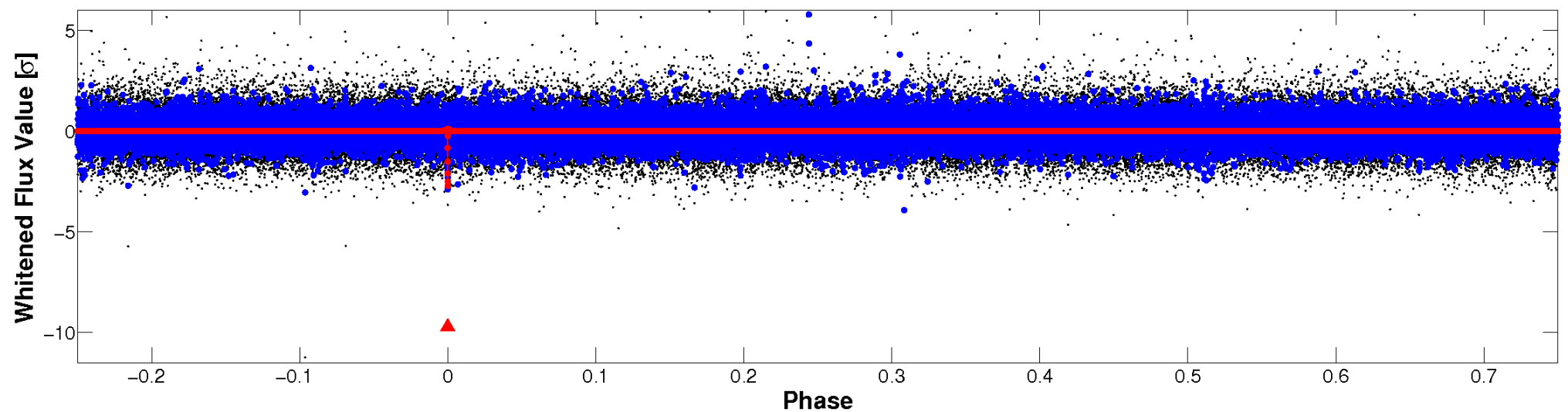


Non-Whitened Vs. Whitened Light Curve

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

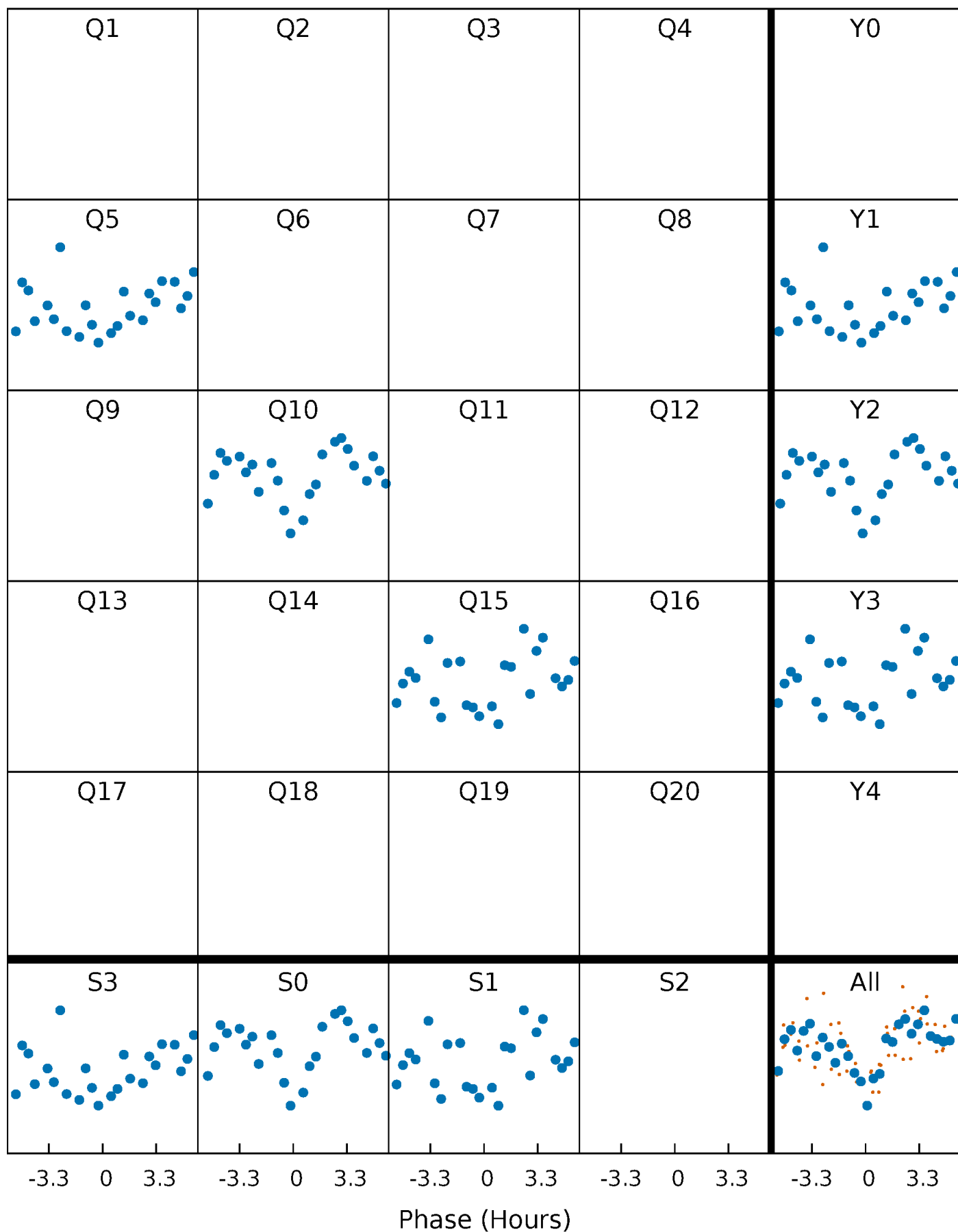


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 003235282-01 P=494.166300 Days $T_0=472.042589$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003235282-01 P=494.166300 Days $T_0=472.042589$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

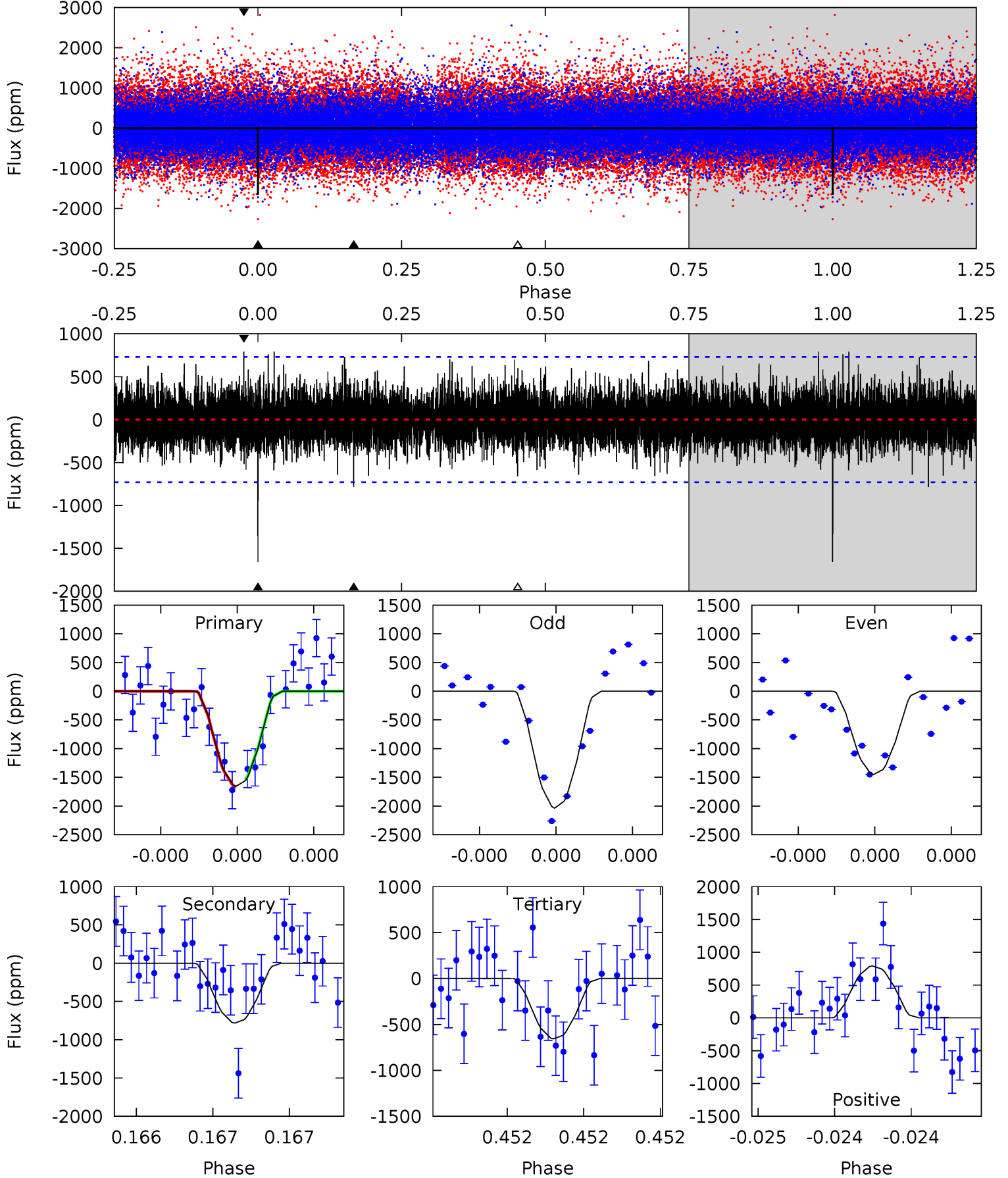
TCE 003235282-01 P=494.172026 Days $T_0=472.033697$ (BKJD)



DV Model-Shift Uniqueness Test

003235282-01, P = 494.166300 Days, E = 472.042589 Days

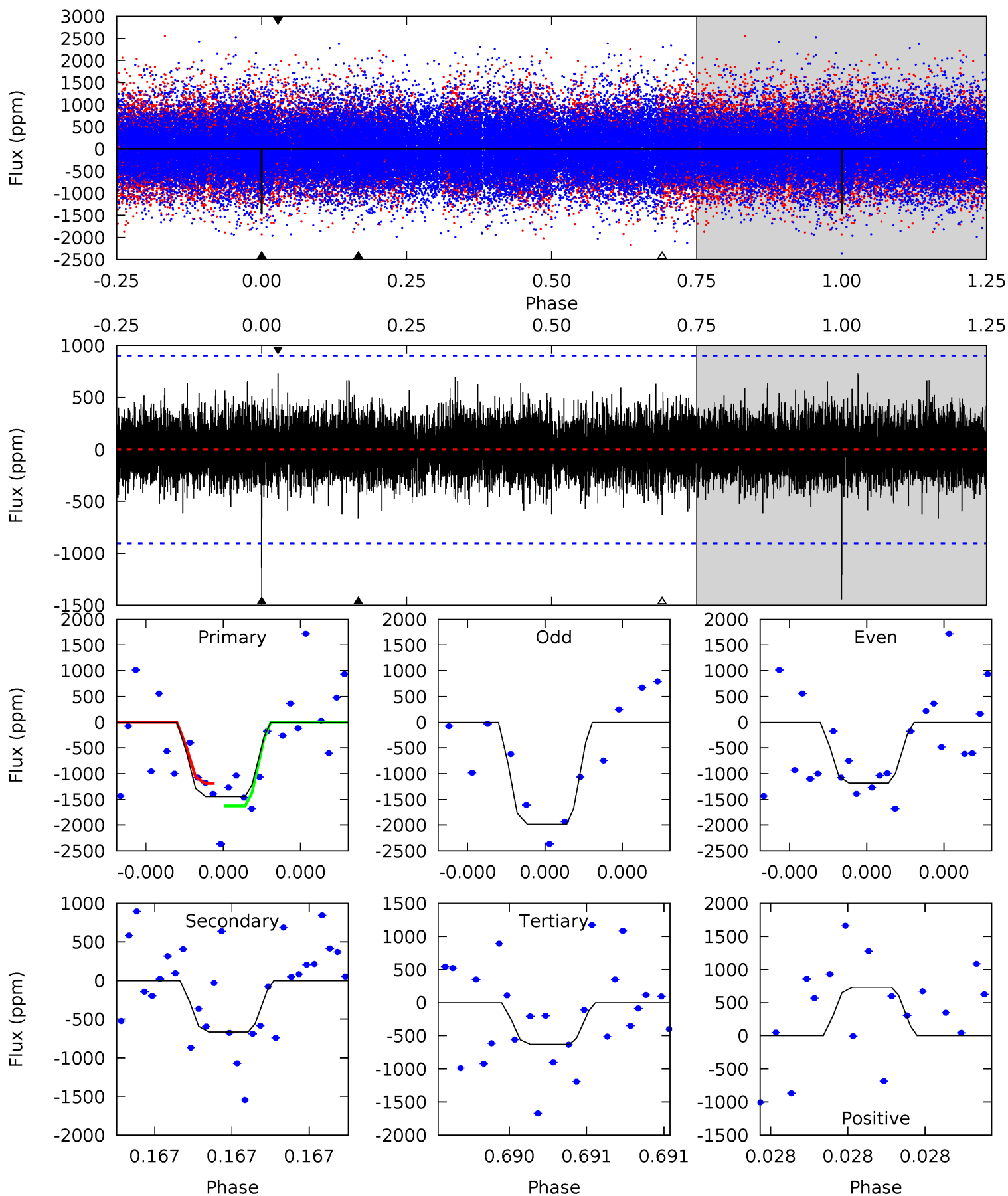
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	6.10	5.12	6.17	5.69	3.66	1.37	7.78	6.73	0.98	-0.06	2.17	1.08	0.32	0.48



Alt Model-Shift Uniqueness Test

003235282-01, P = 494.172026 Days, E = 472.033697 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.19	4.23	4.01	4.65	5.76	3.76	1.05	5.18	4.54	0.22	-0.42	2.44	1.06	0.34	1.37



Stellar Parameters For KIC 003235282

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6392^{+179}_{-224}	$4.399^{+0.060}_{-0.180}$	$0.070^{+0.200}_{-0.350}$	$1.162^{+0.327}_{-0.140}$	$1.232^{+0.135}_{-0.185}$	$1.107^{+0.345}_{-0.516}$
	+3%/-4%	+1%/-4%	+286%/-500%	+28%/-12%	+11%/-15%	+31%/-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 003235282-01 / KOI 7649.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-783 ± 128	$10.94^{+10.26}_{-7.38}$	376^{+24}_{-18}	4019^{+2354}_{-792}	6033^{+48012}_{-4463}
Alt.	-664 ± 157	$9.67^{+10.56}_{-6.30}$	377^{+23}_{-19}	4076^{+2305}_{-882}	6406^{+48211}_{-4948}

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 $A_{obs} \gg 1.0$

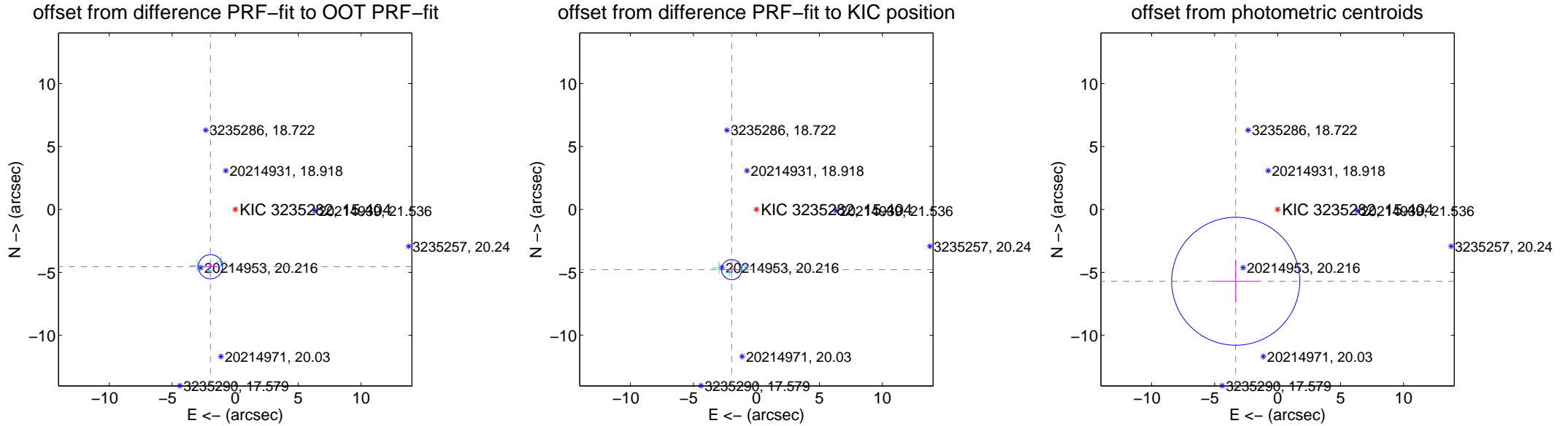
DV Centroid Data

Supplemental centroid analysis for 003235282-01. Kepler magnitude: 15.40. Transit SNR 7.90

There are 3 quarters with good PRF difference image offsets

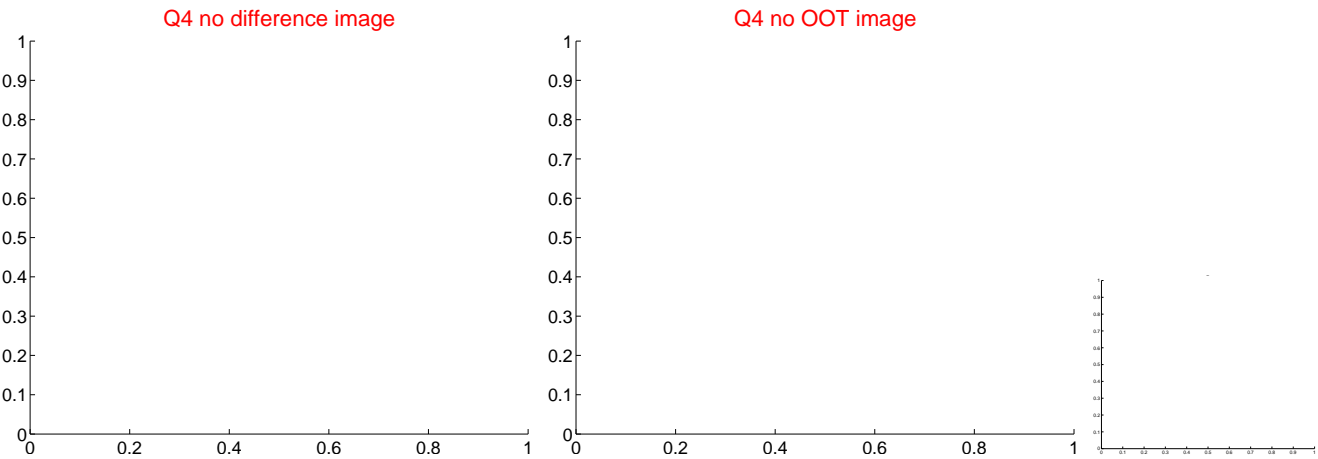
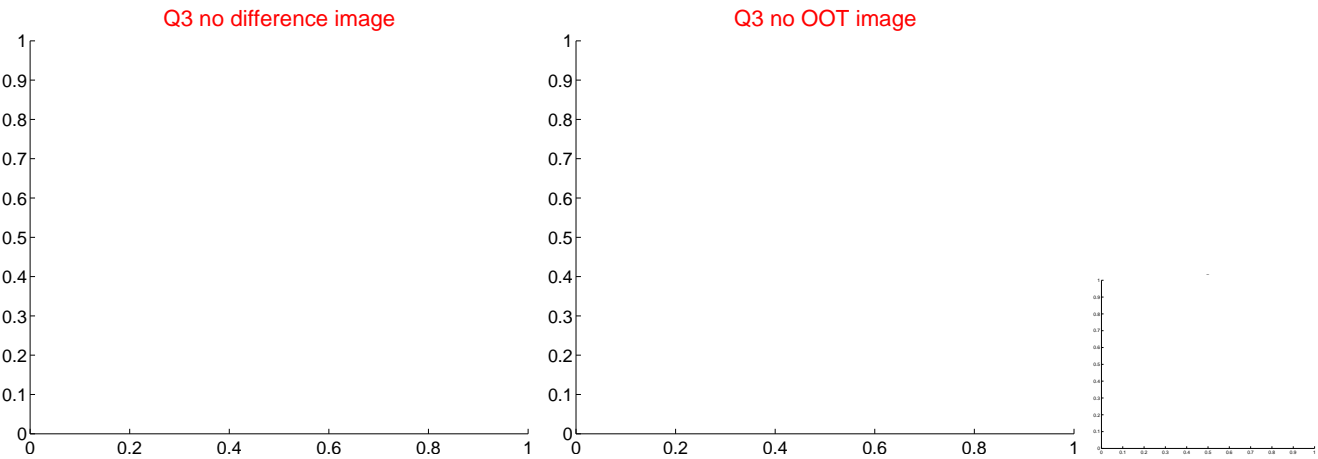
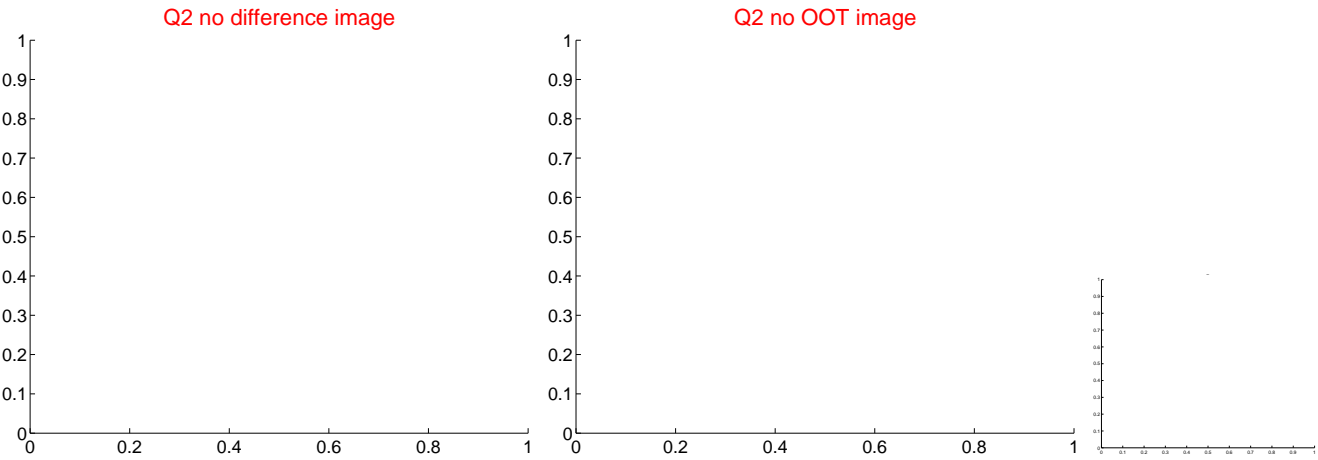
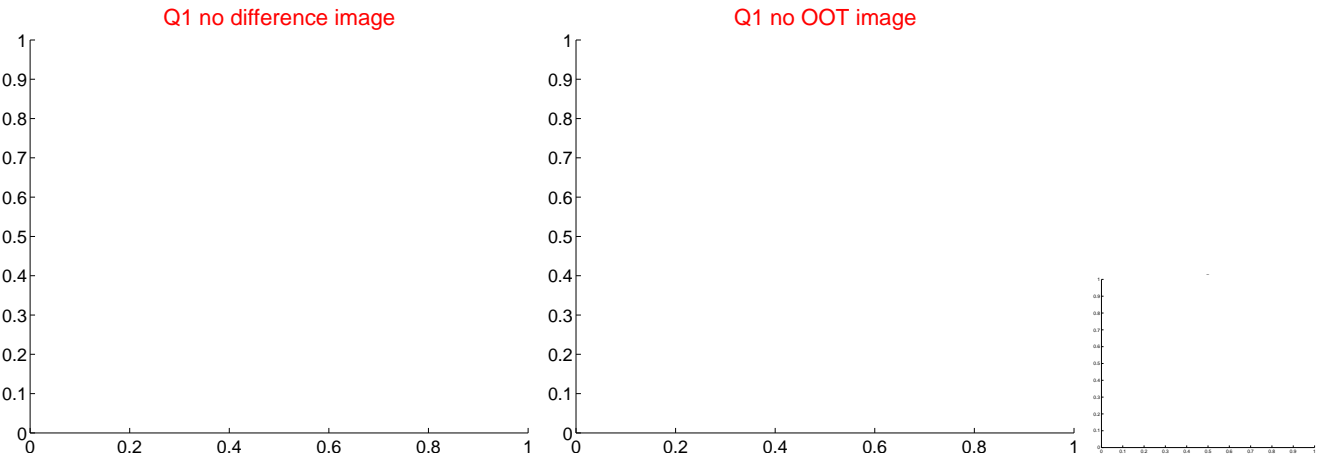
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.957 ± 0.320	15.47	1.965 ± 0.530	-4.551 ± 0.169
PRF-fit source offset from KIC position	5.171 ± 0.267	19.35	1.964 ± 0.561	-4.783 ± 0.174
photometric centroid source offset	6.61 ± 1.69	3.90	3.33 ± 1.80	-5.71 ± 1.66

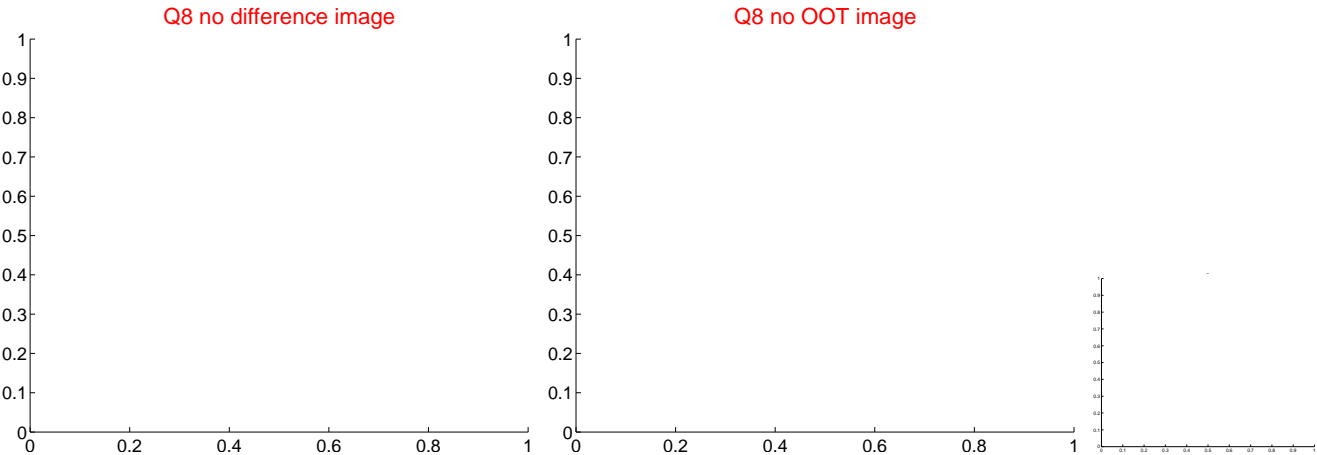
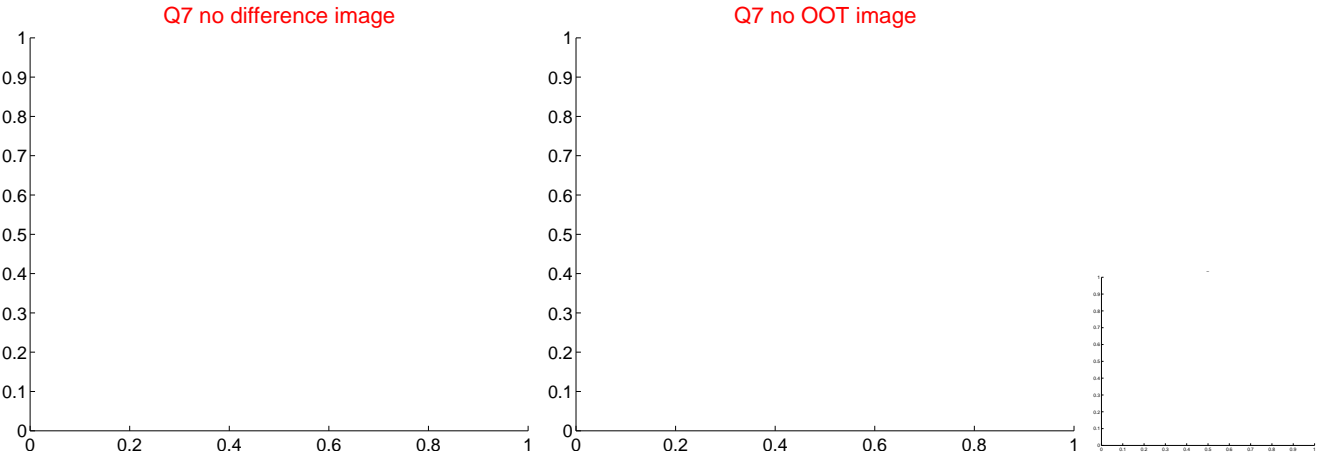
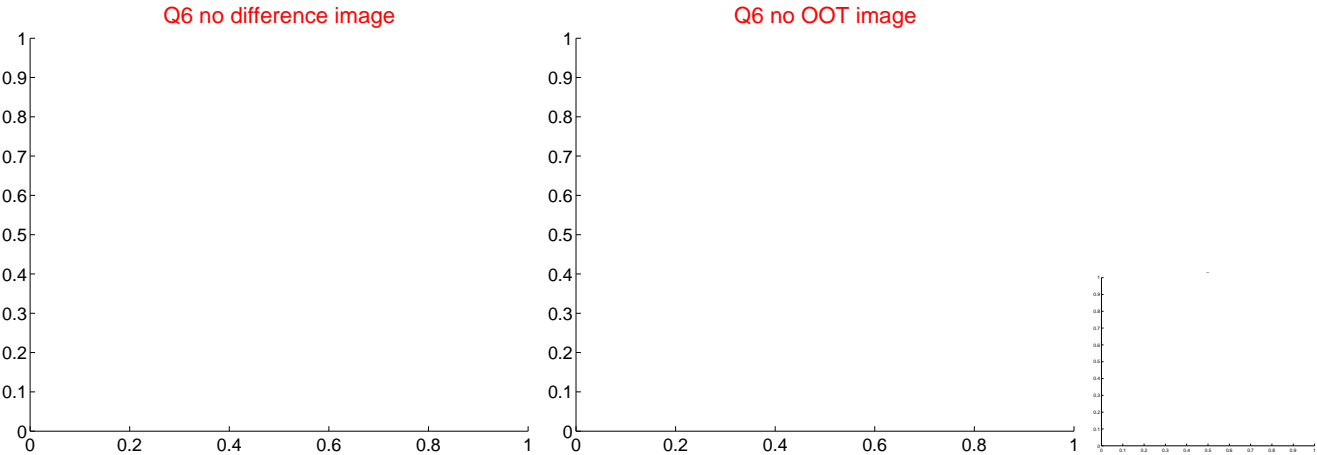
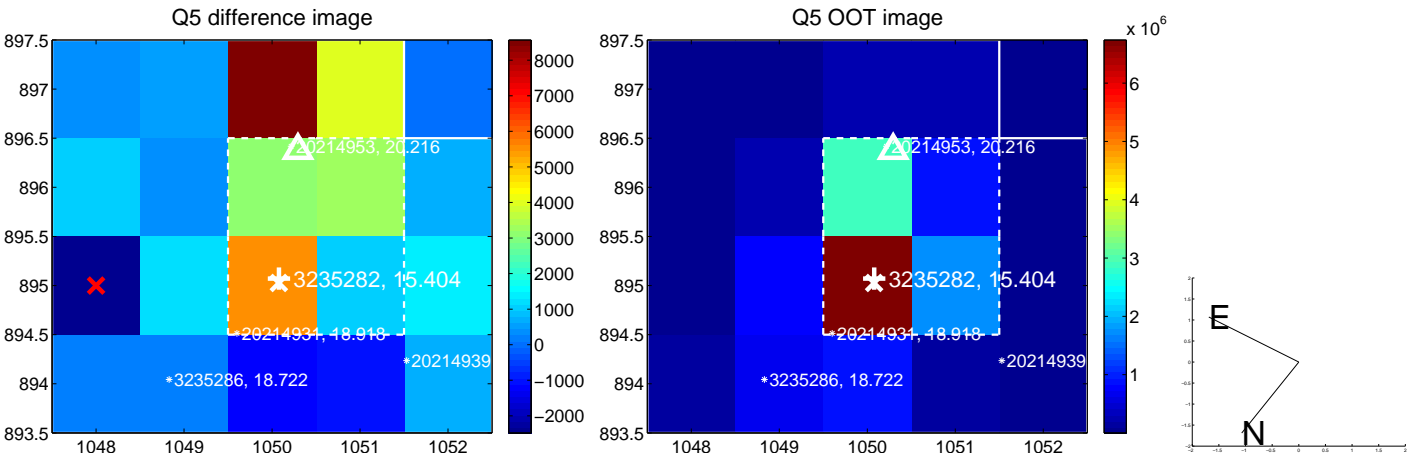


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

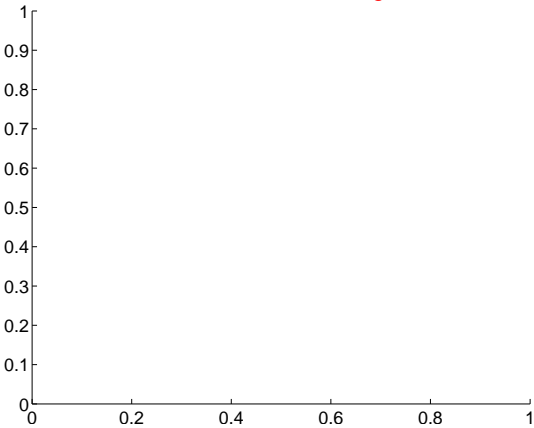


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

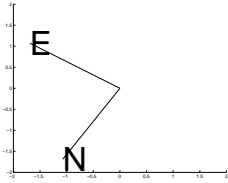
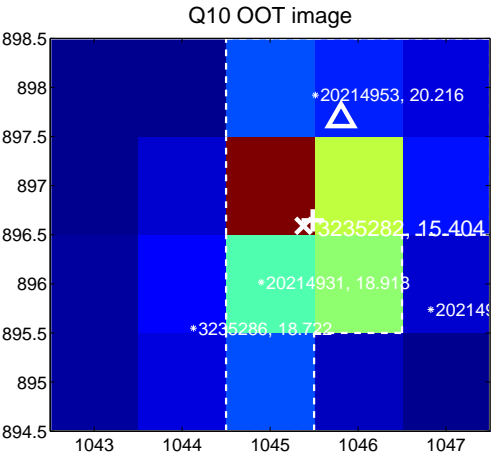
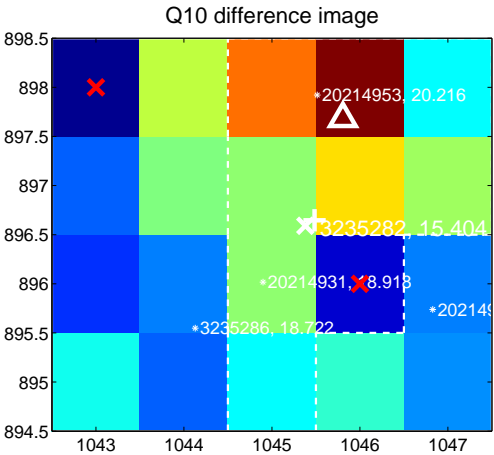
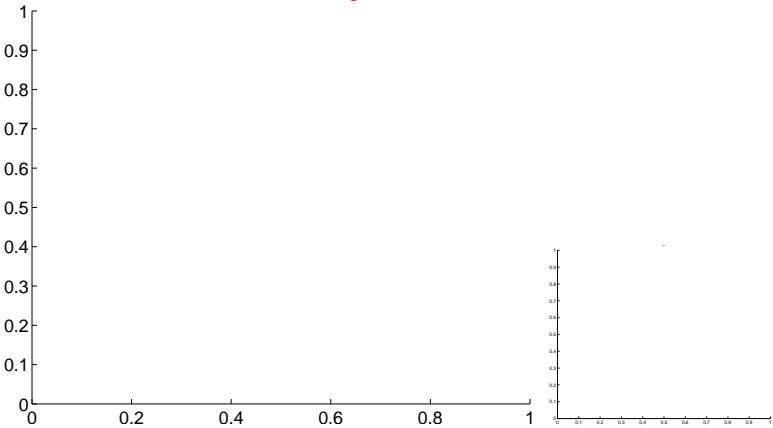


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

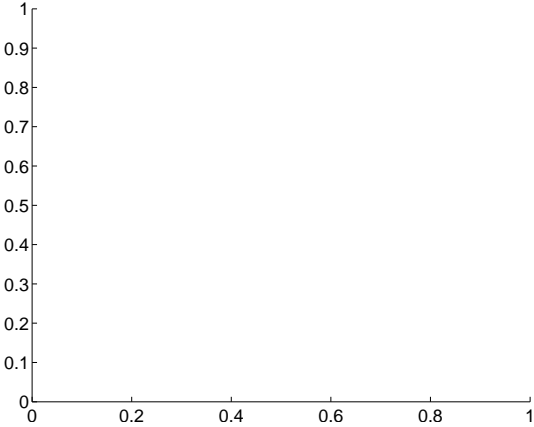
Q9 no difference image



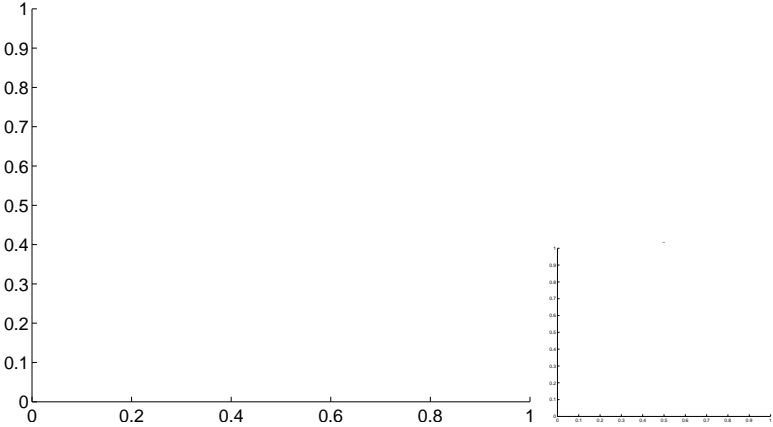
Q9 no OOT image



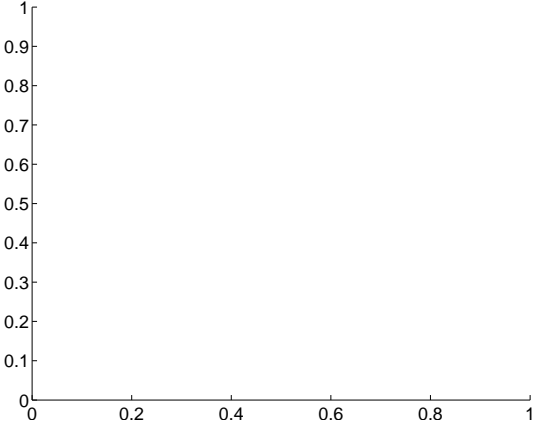
Q11 no difference image



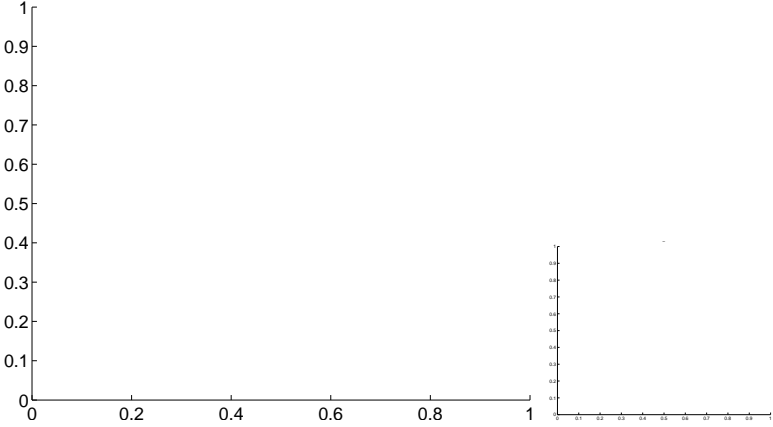
Q11 no OOT image



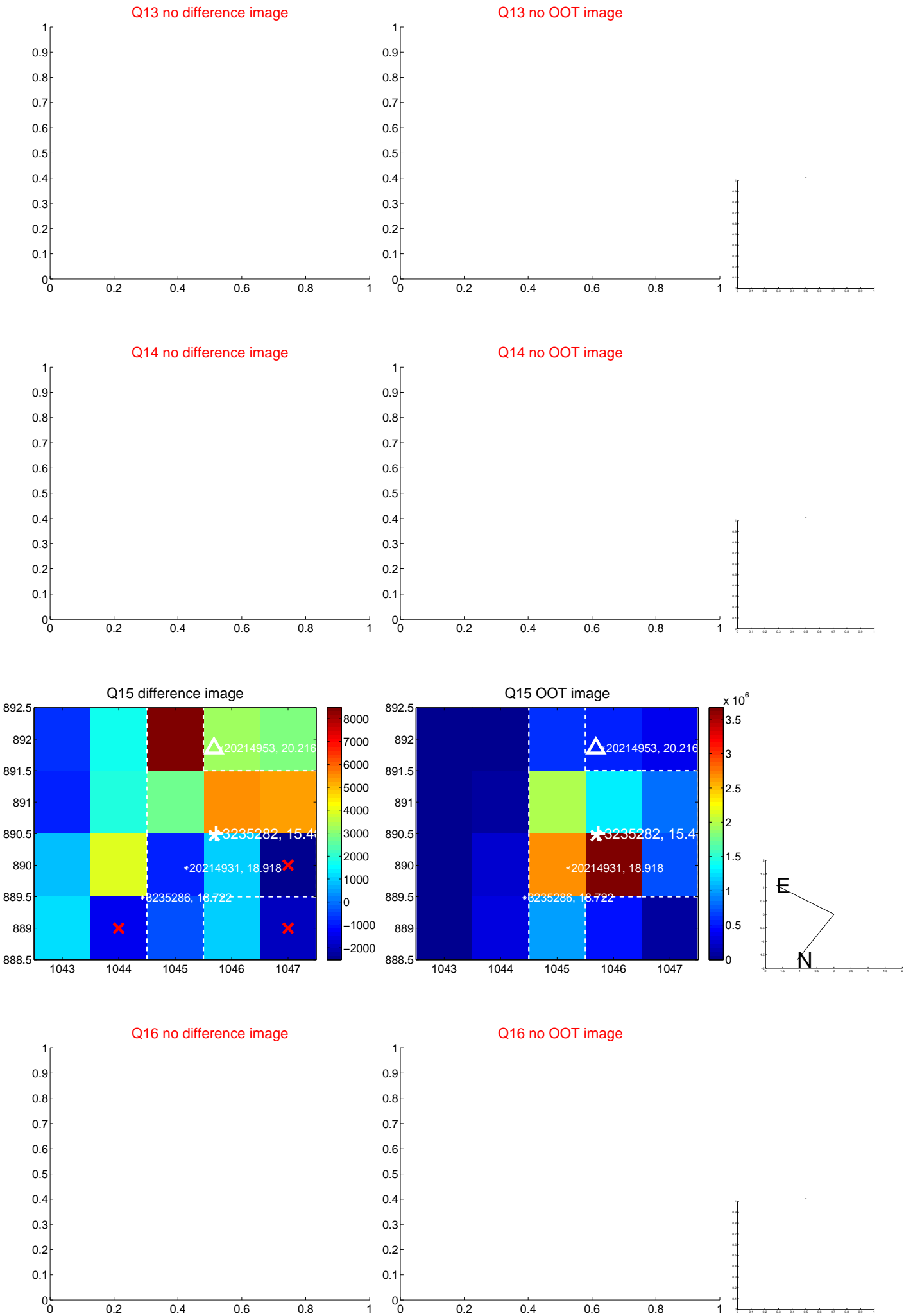
Q12 no difference image



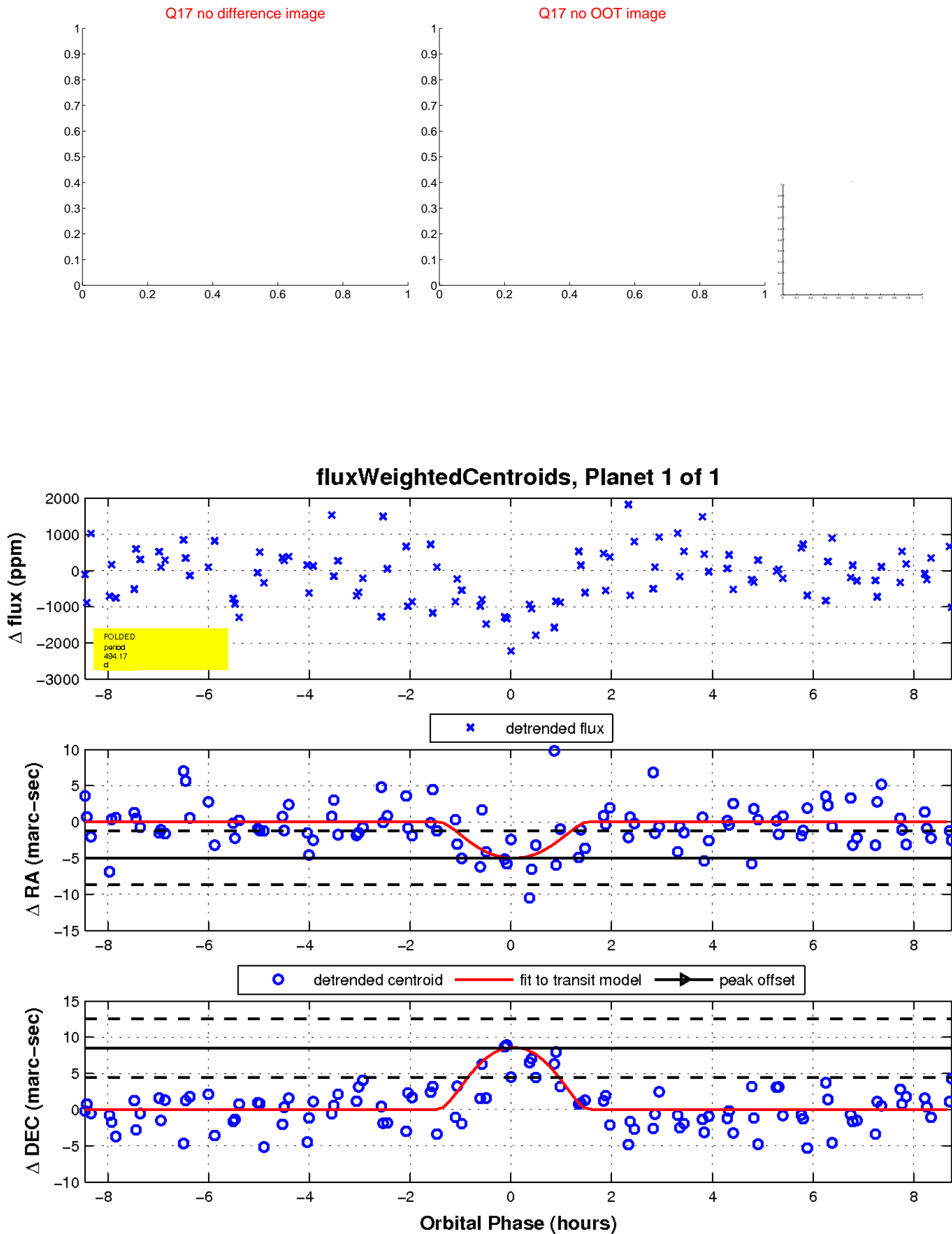
Q12 no OOT image



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.



UKIRT Image

Declination

