

KIC 010861280

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})
010861280-01	OBS	No	514.094003	368.329309	1115.1	21.318	10.5	9.8	0.77	5635	3.02	0.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010861280-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—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.

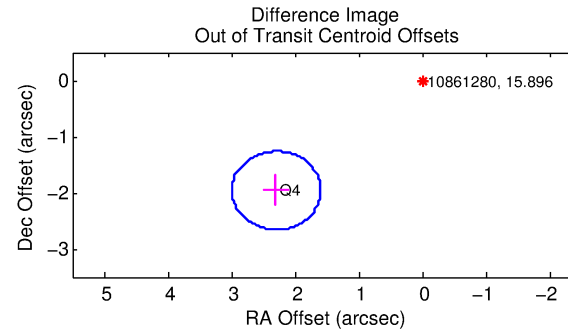
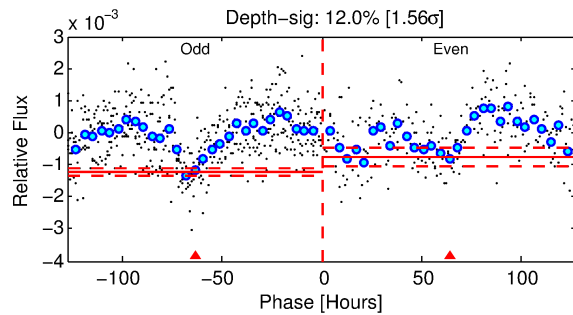
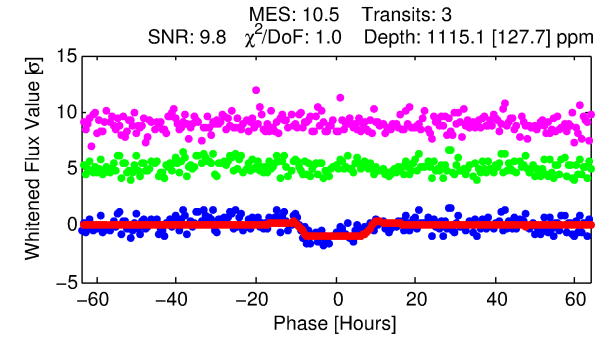
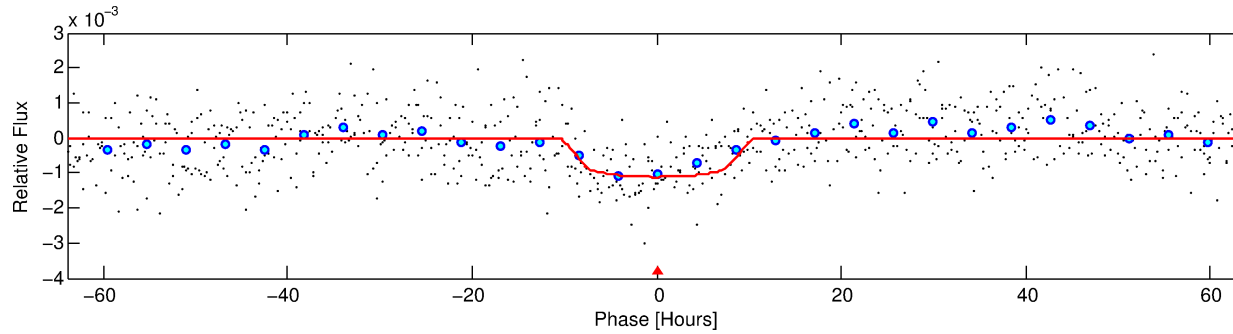
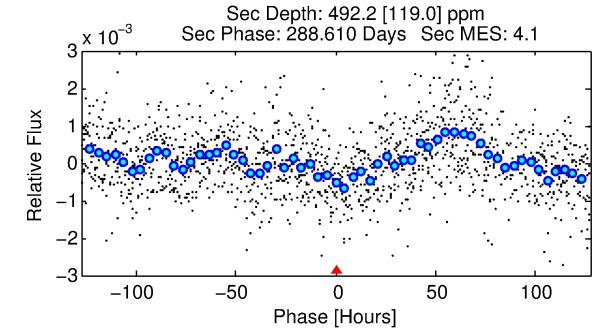
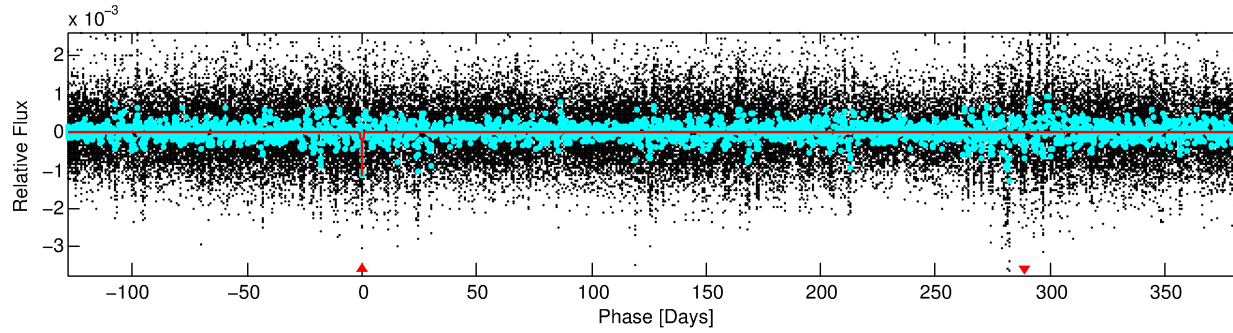
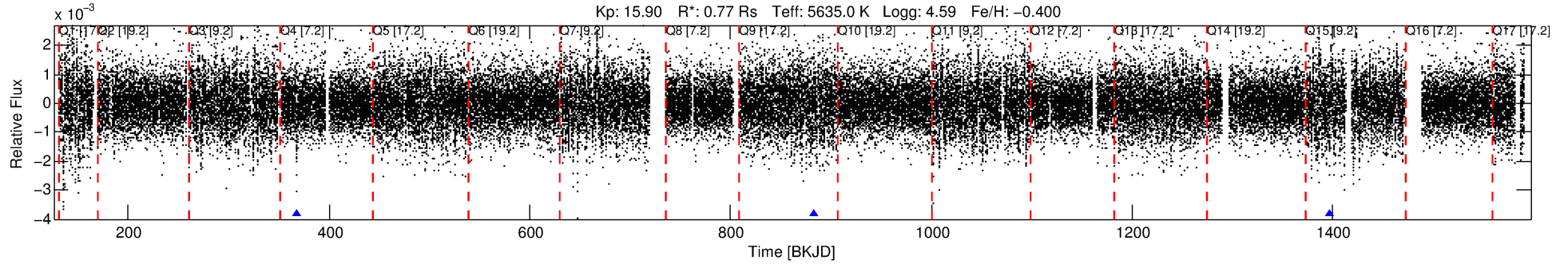
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010861280-01

No Significant Match Found

DV One-Page Summary

KIC: 10861280 Candidate: 1 of 1 Period: 514.094 d



DV Fit Results:

Period = 514.09400 [0.02400] d
Epoch = 368.3293 [0.0276] BKJD
Rp/R* = 0.0362 [0.0035]
a/R* = 95.65 [30.75]
b = 0.90 [0.07]
Seff = 0.38 [0.12]
Teq = 200 [15] K
Rp = 3.02 [0.78] Re
a = 1.1835 [0.2330] AU
Ag = 41485.08 [17361.91] [2.39σ]
Teff = 4410 [366] K [11.51σ]

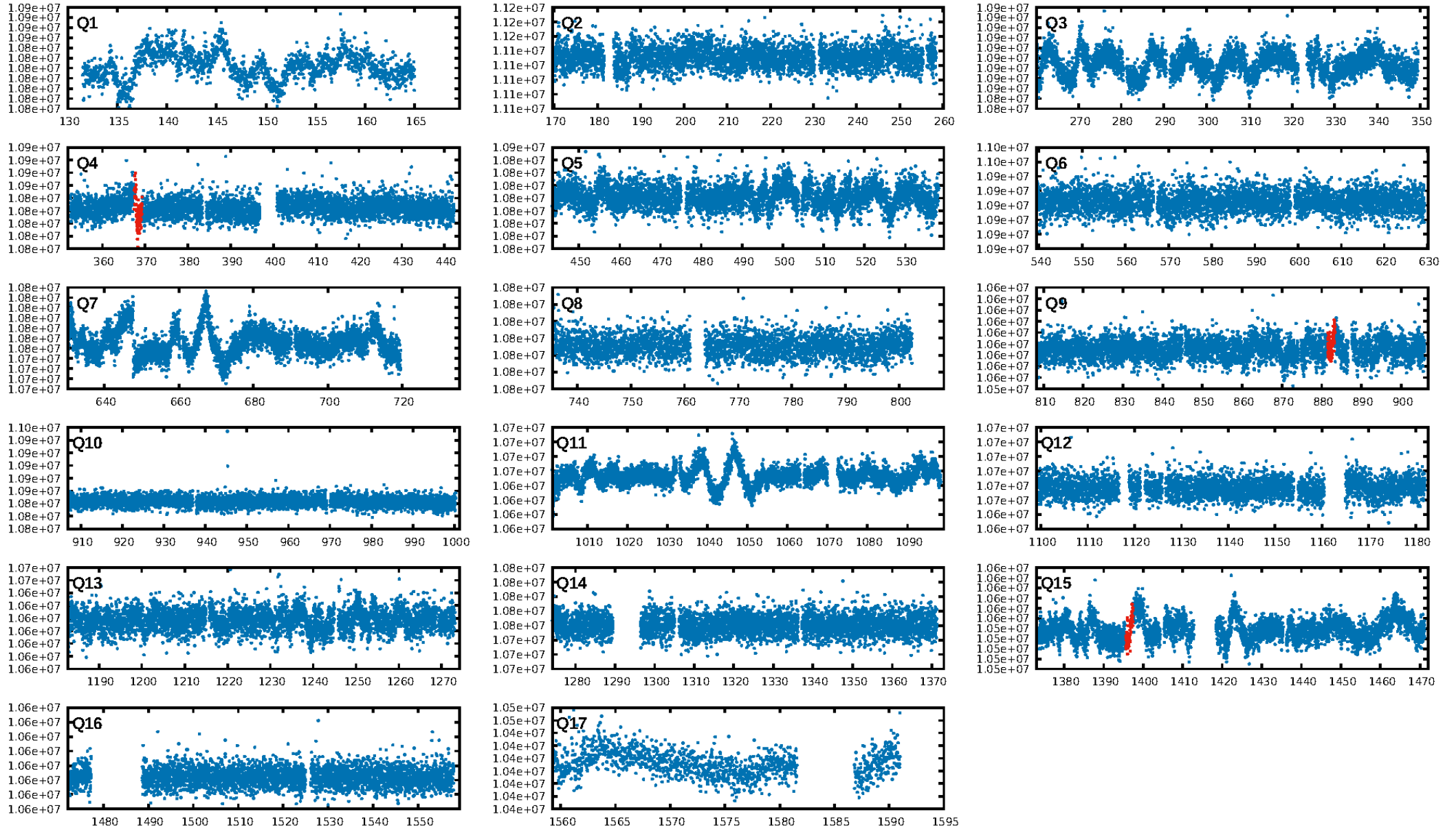
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.6%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 1.26e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 7.737
Centroid-sig: 6.5%
Centroid-so: 2.034 arcsec [1.39σ]
OotOffset-rm: 3.017 arcsec [12.97σ]
KicOffset-rm: 2.823 arcsec [12.10σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

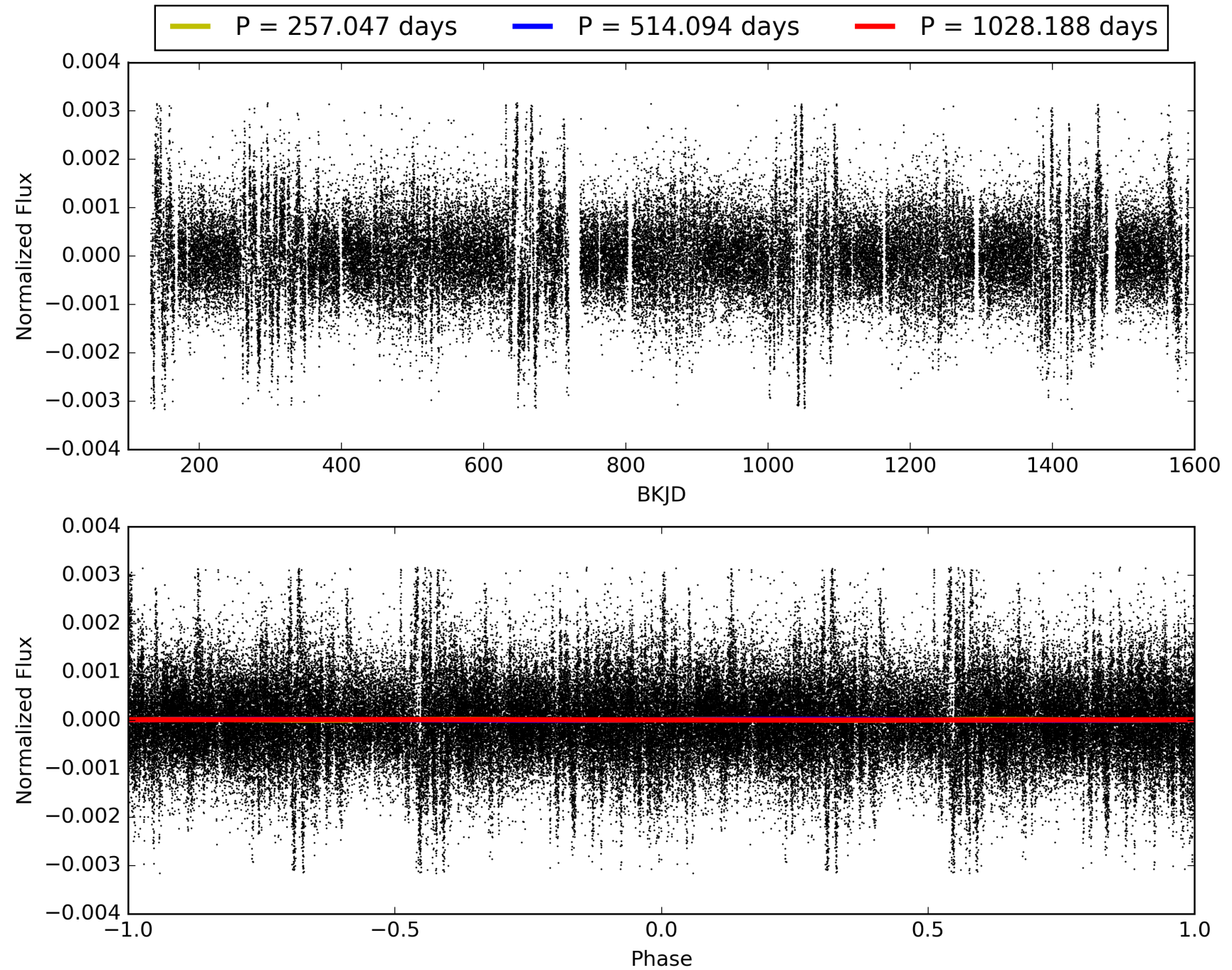
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:07:50 Z

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

TCE 010861280-01, PDC Light Curves

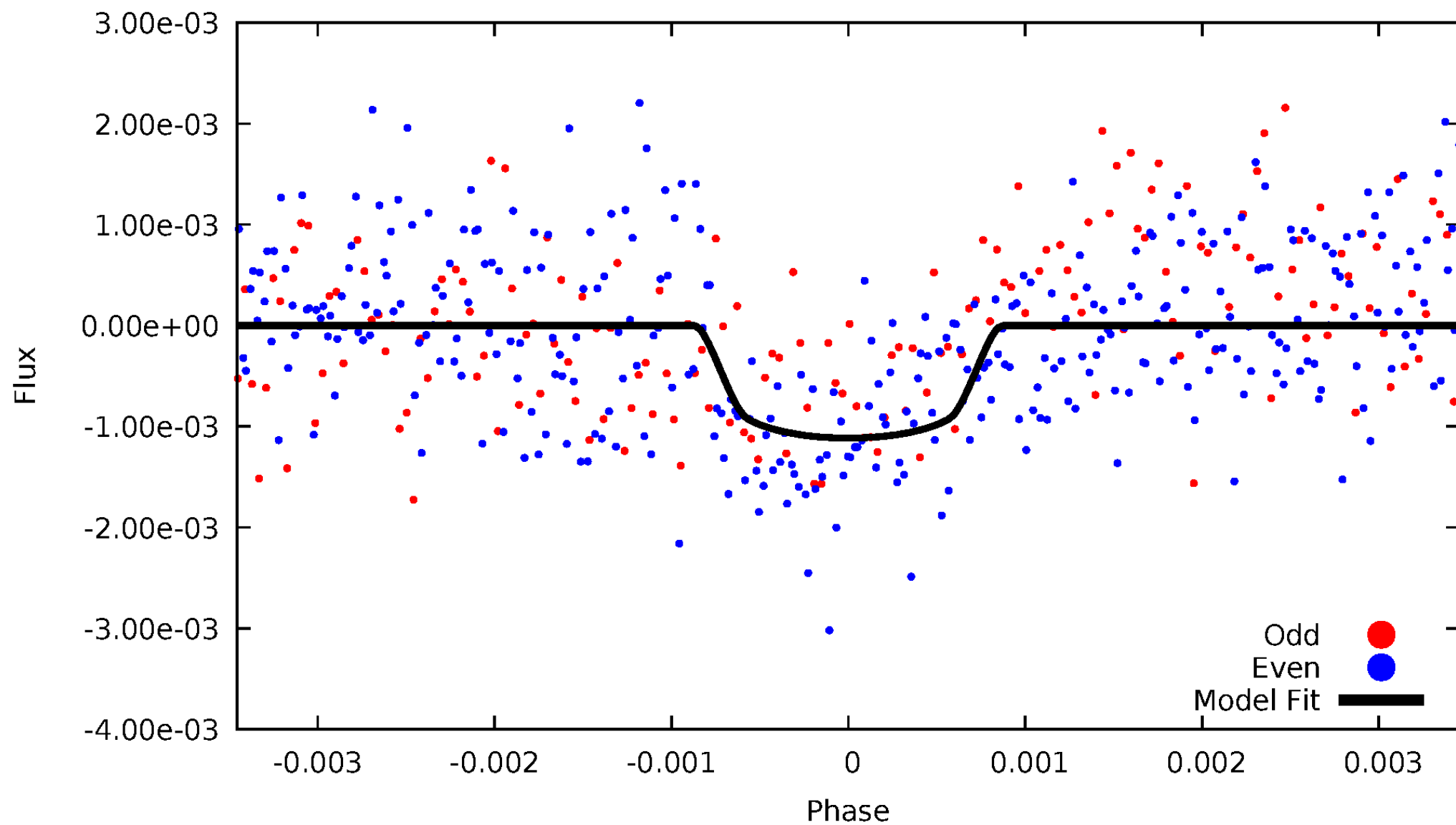


TCE 010861280-01



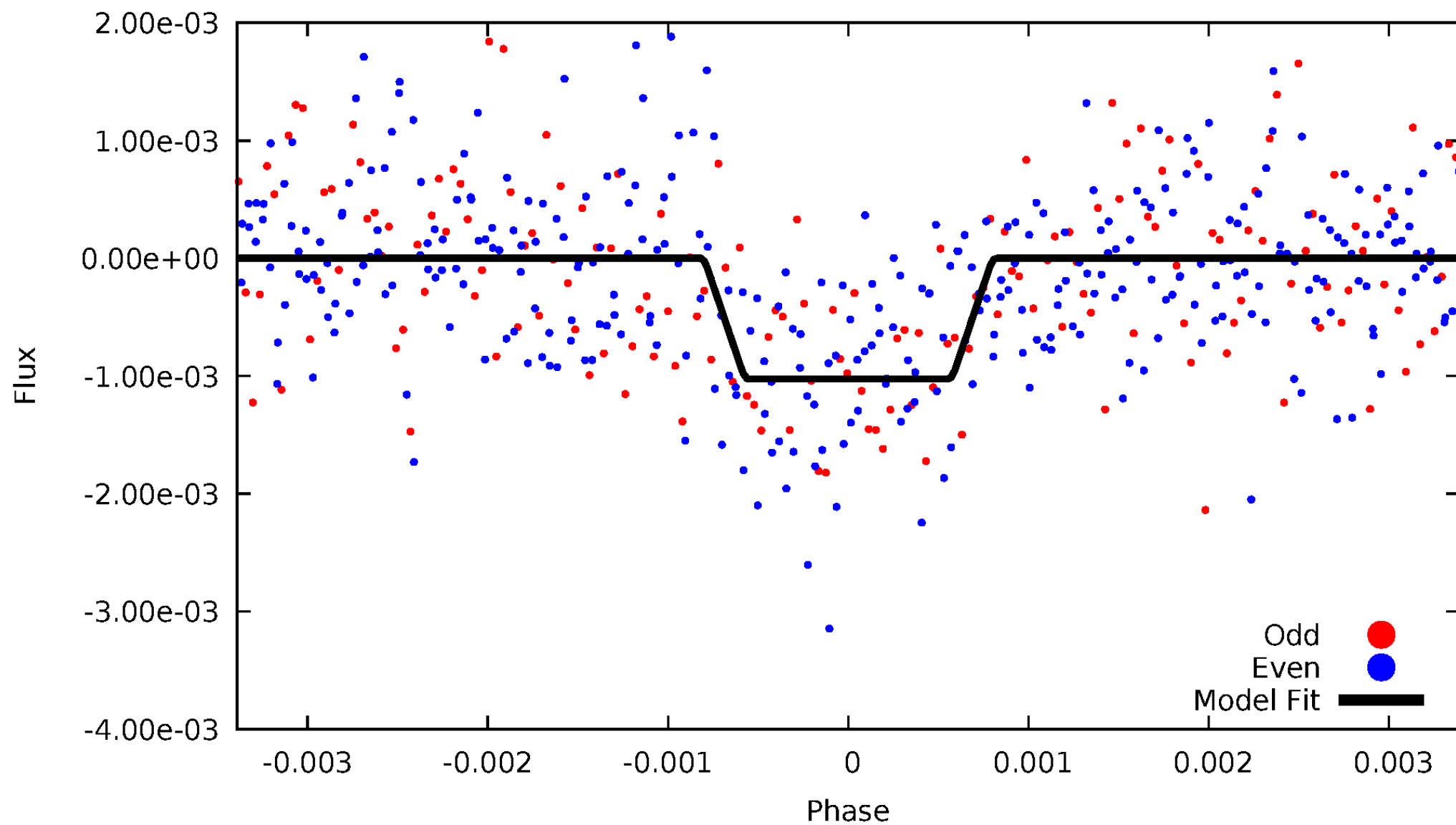
DV Odd/Even

TCE 010861280-01

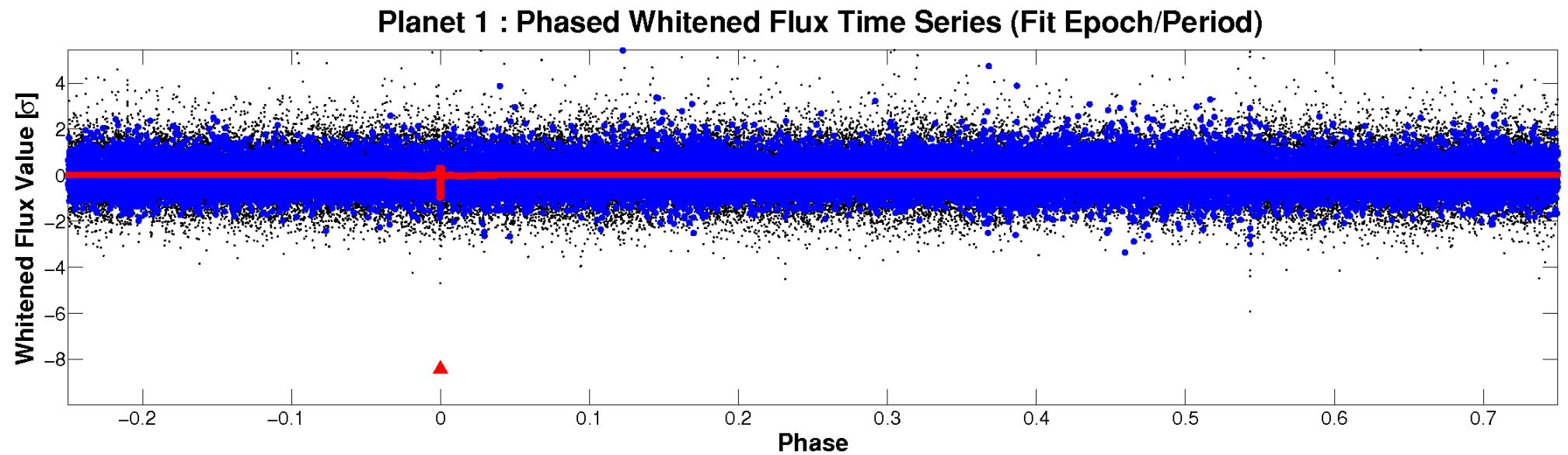
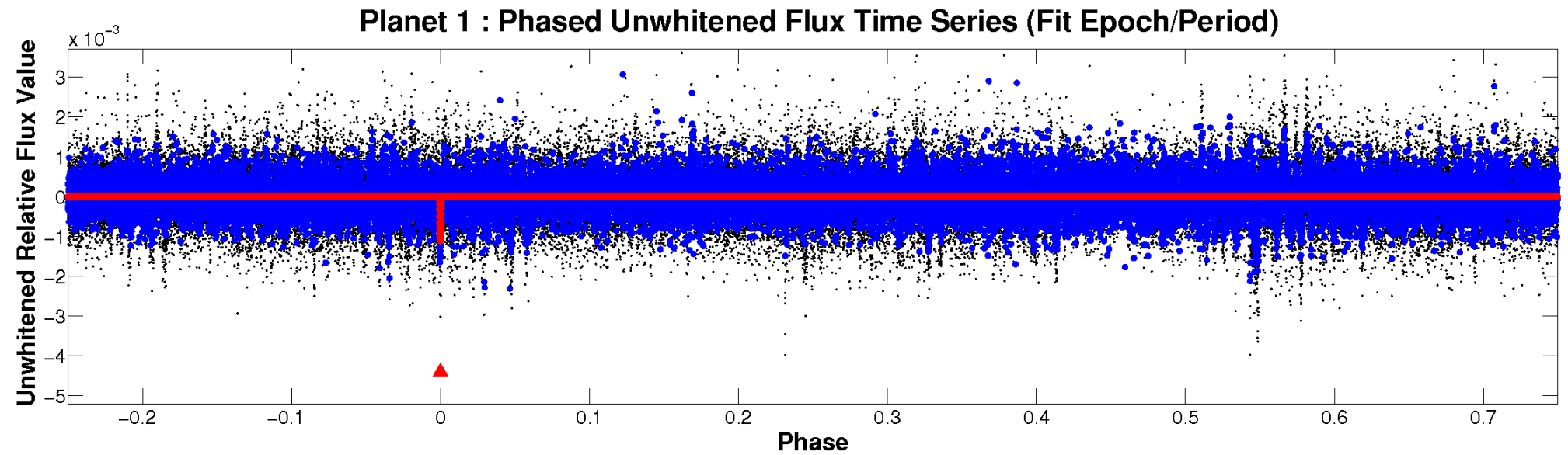


ALT Odd/Even

TCE 010861280-01

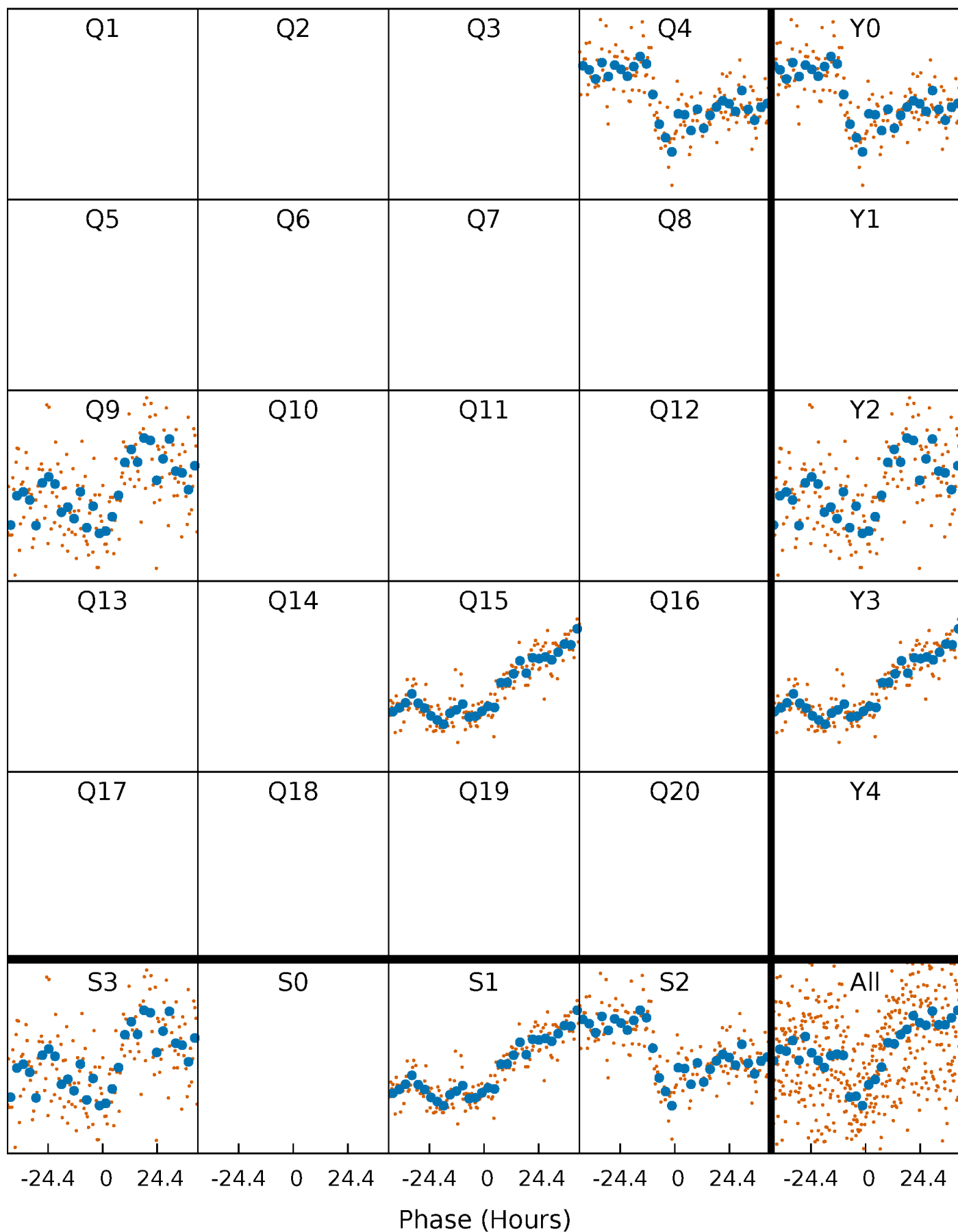


Non-Whitened Vs. Whitened Light Curve



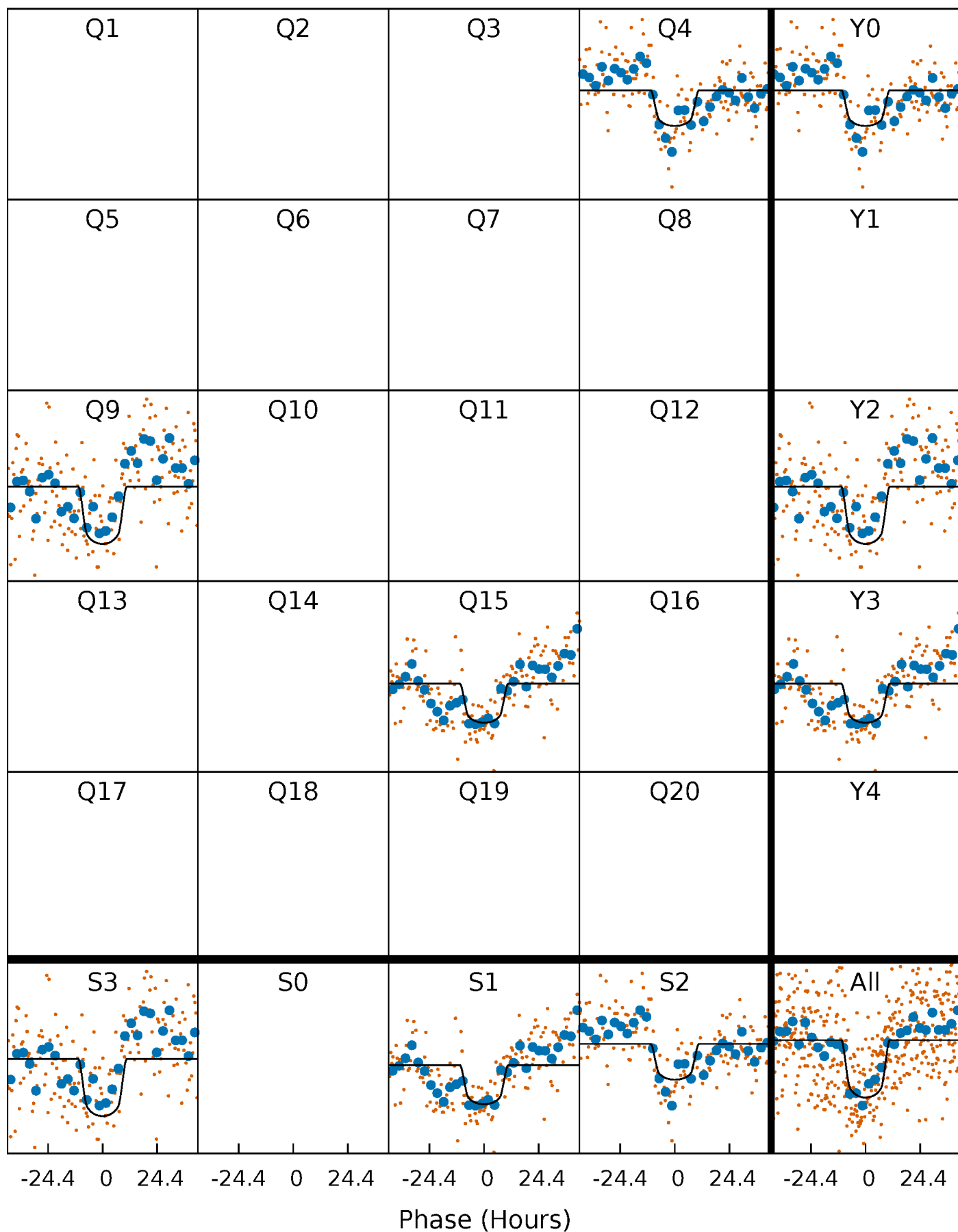
PDC Quarter-Phased Transit Curves

TCE 010861280-01 P=514.094003 Days $T_0=368.329309$ (BKJD)



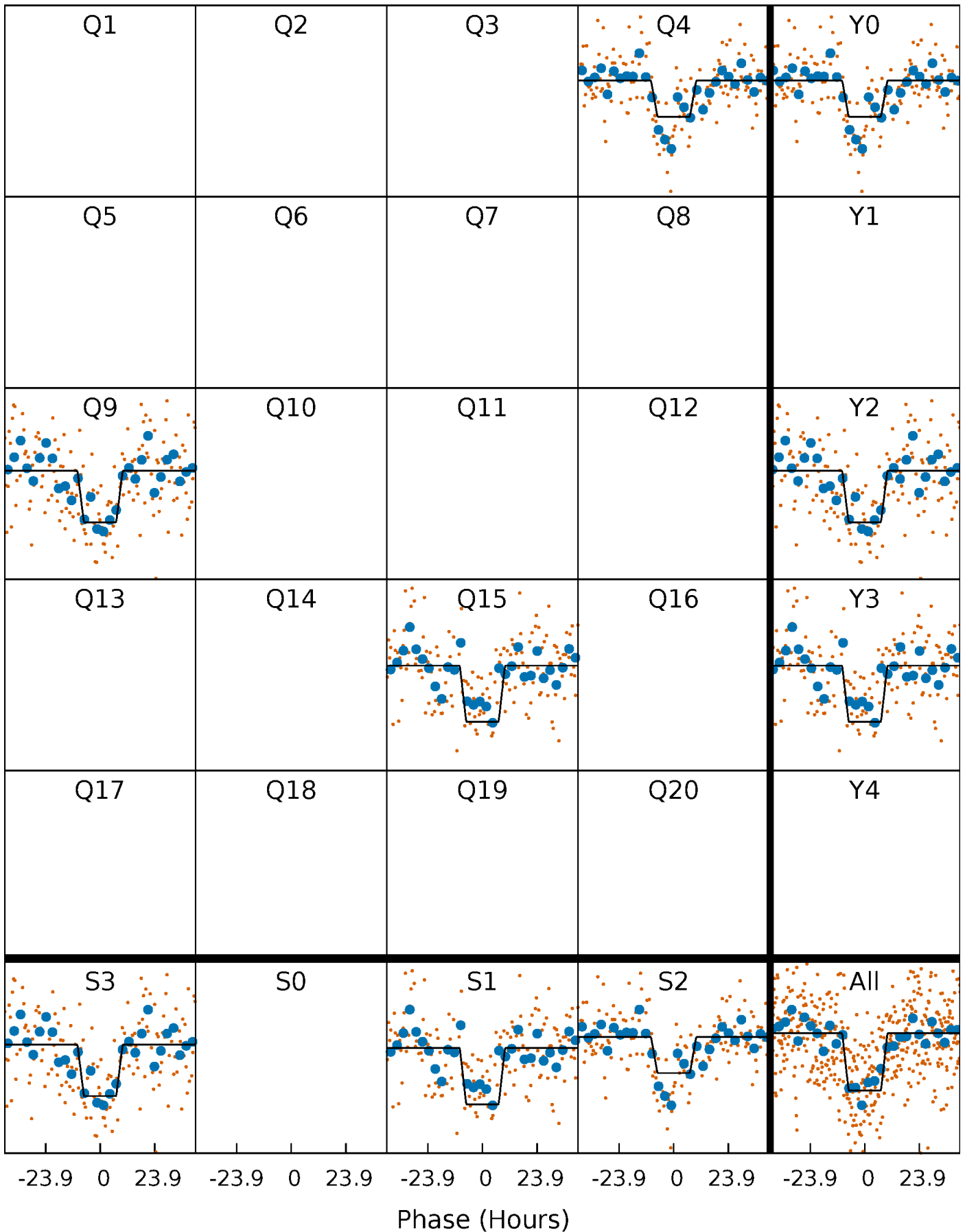
DV Quarter-Phased Transit Curves

TCE 010861280-01 P=514.094003 Days $T_0=368.329309$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

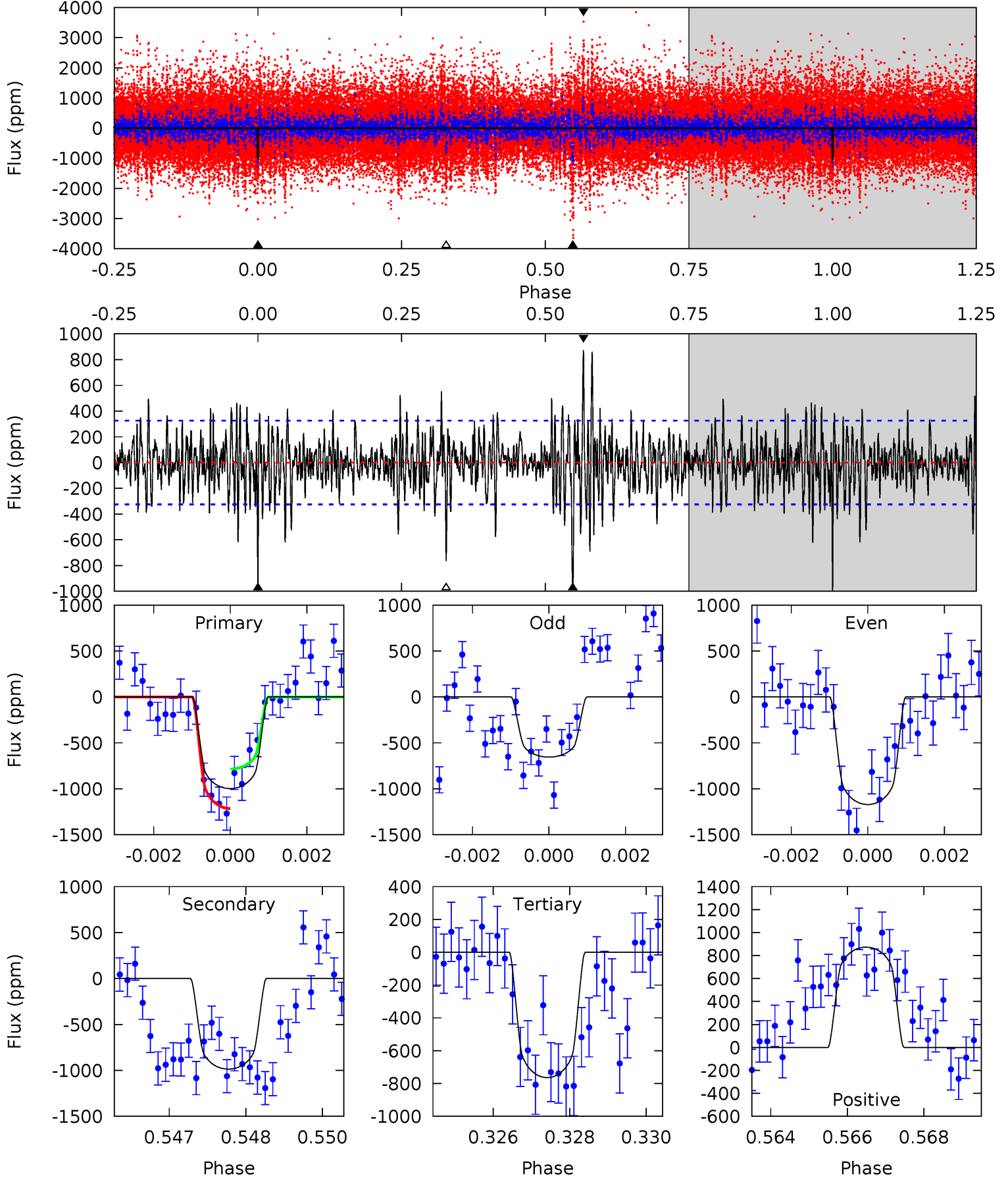
TCE 010861280-01 P=514.081125 Days $T_0=368.328276$ (BKJD)



DV Model-Shift Uniqueness Test

010861280-01, P = 514.094003 Days, E = 368.329309 Days

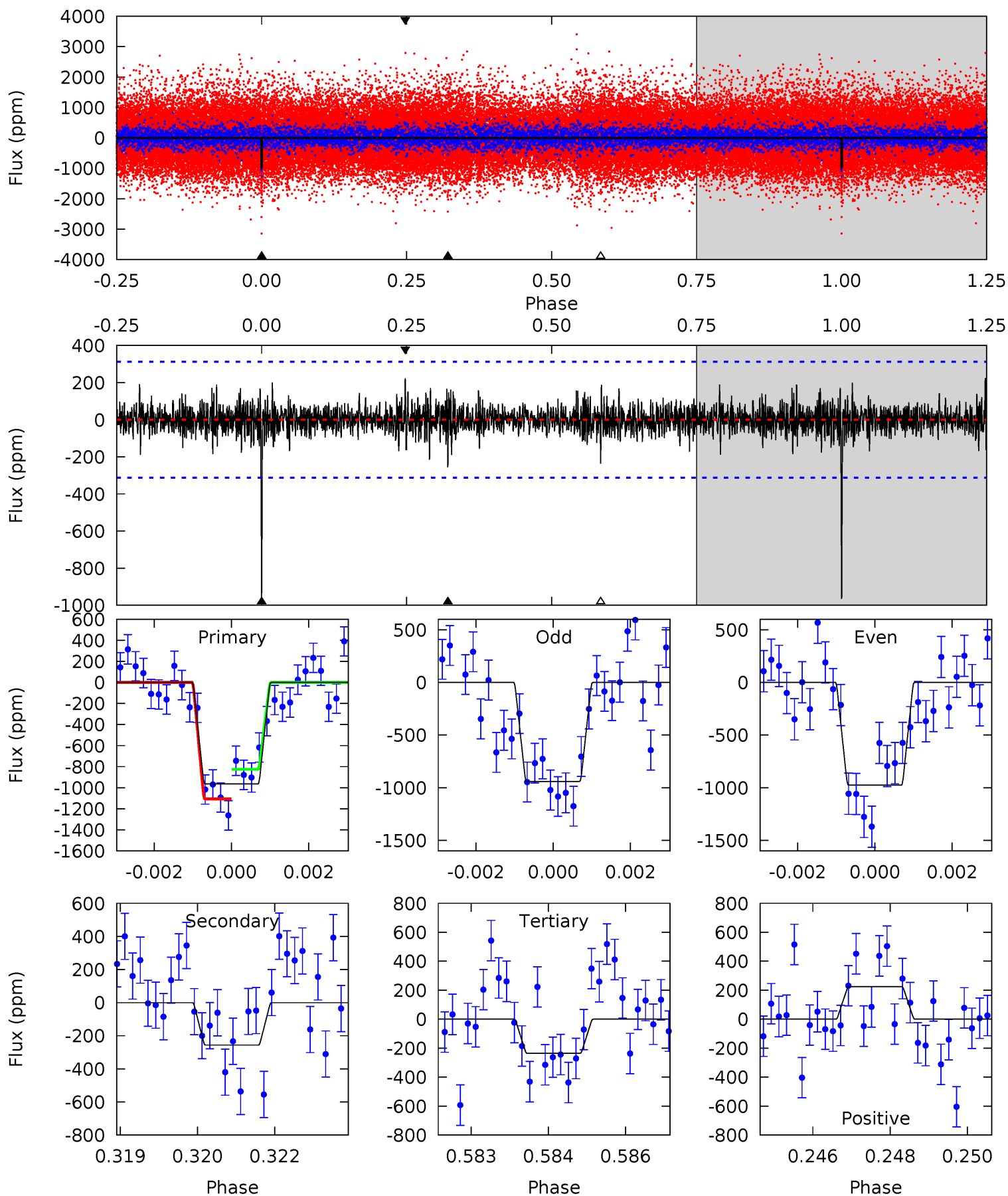
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	16.2	12.6	14.3	5.35	3.13	2.94	3.85	2.06	3.65	1.87	4.02	0.91	0.47	3.55



Alt Model-Shift Uniqueness Test

010861280-01, P = 514.081125 Days, E = 368.328276 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.6	4.40	4.05	3.84	5.37	3.15	0.91	12.5	12.7	0.36	0.56	0.28	1.02	0.19	2.42



Stellar Parameters For KIC 010861280

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5635^{+169}_{-169}	$4.593^{+0.038}_{-0.152}$	$-0.400^{+0.300}_{-0.300}$	$0.765^{+0.182}_{-0.061}$	$0.842^{+0.089}_{-0.089}$	$2.643^{+0.509}_{-1.079}$
	+3%/-3%	+1%/-3%	+75%/-75%	+24%/-8%	+11%/-11%	+19%/-41%
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 010861280-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-986 ± 61	$3.15^{+0.46}_{-0.38}$	285^{+16}_{-13}	5271^{+290}_{-273}	76279^{+20411}_{-19398}
Alt.	-256 ± 58	$2.76^{+0.44}_{-0.35}$	284^{+16}_{-11}	4224^{+263}_{-278}	24940^{+9687}_{-7594}

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

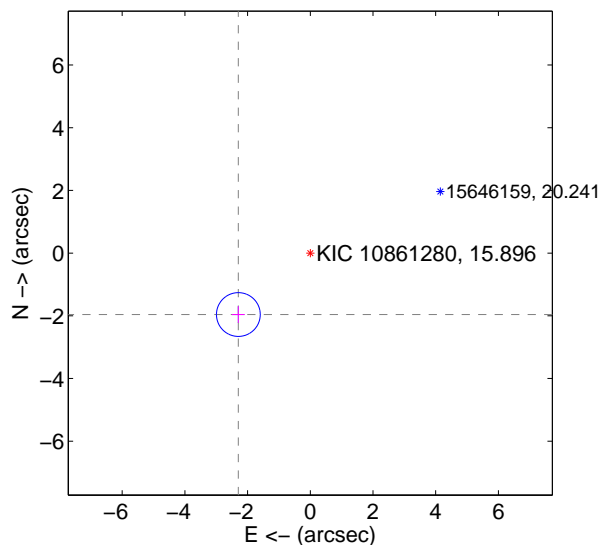
Supplemental centroid analysis for 010861280-01. Kepler magnitude: 15.90. Transit SNR 9.83

There are 1 quarters with good PRF difference image offsets

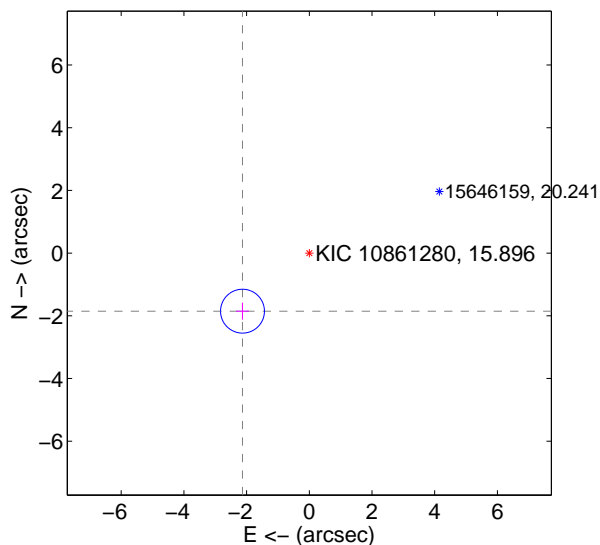
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.017 ± 0.233	12.97	2.294 ± 0.203	-1.960 ± 0.268
PRF-fit source offset from KIC position	2.823 ± 0.233	12.10	2.131 ± 0.203	-1.852 ± 0.268
photometric centroid source offset	2.03 ± 1.47	1.39	1.51 ± 1.51	-1.37 ± 1.41

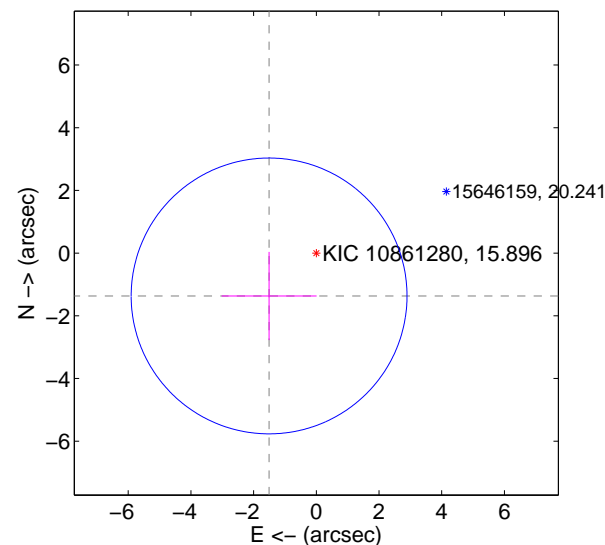
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

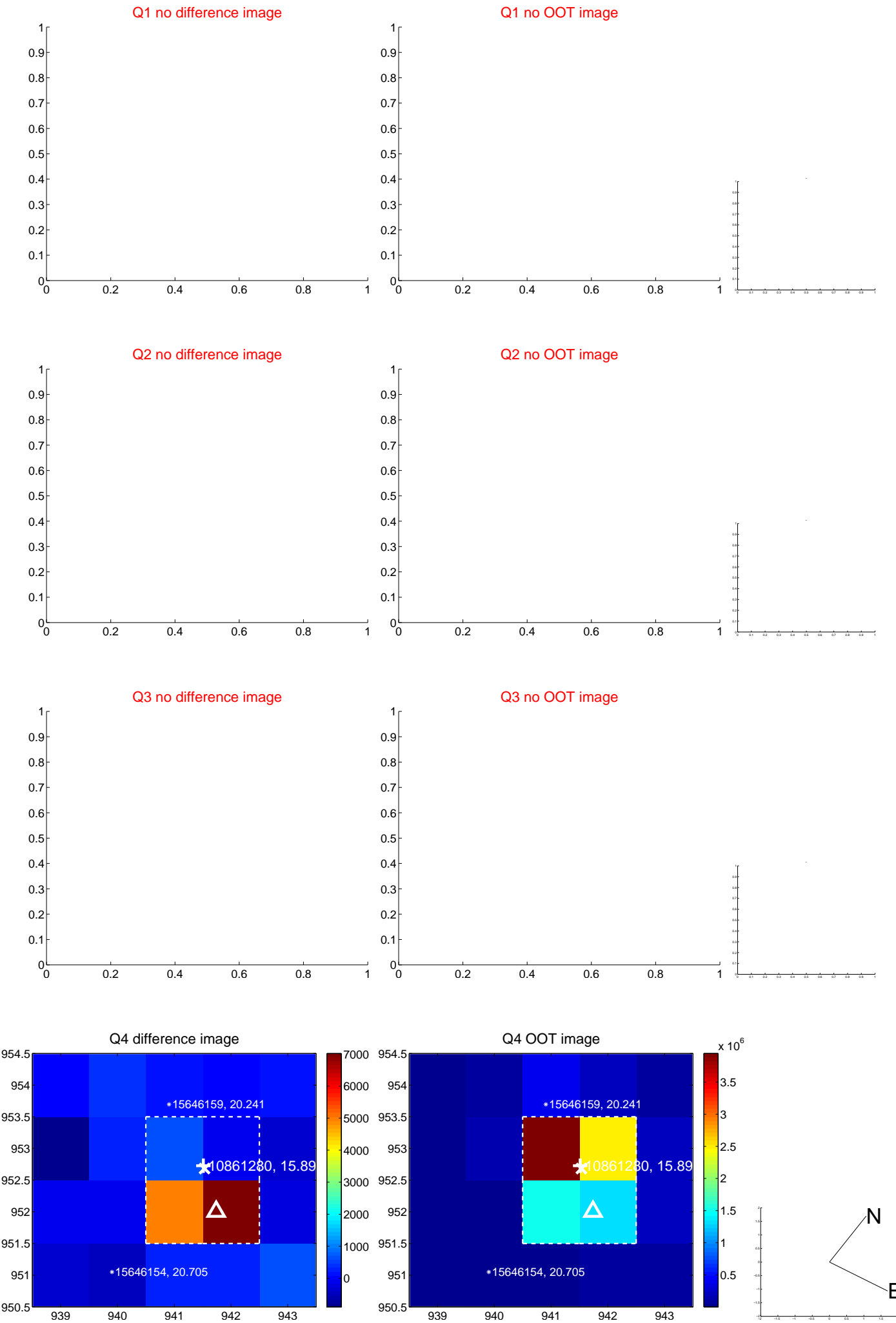


offset from photometric centroids

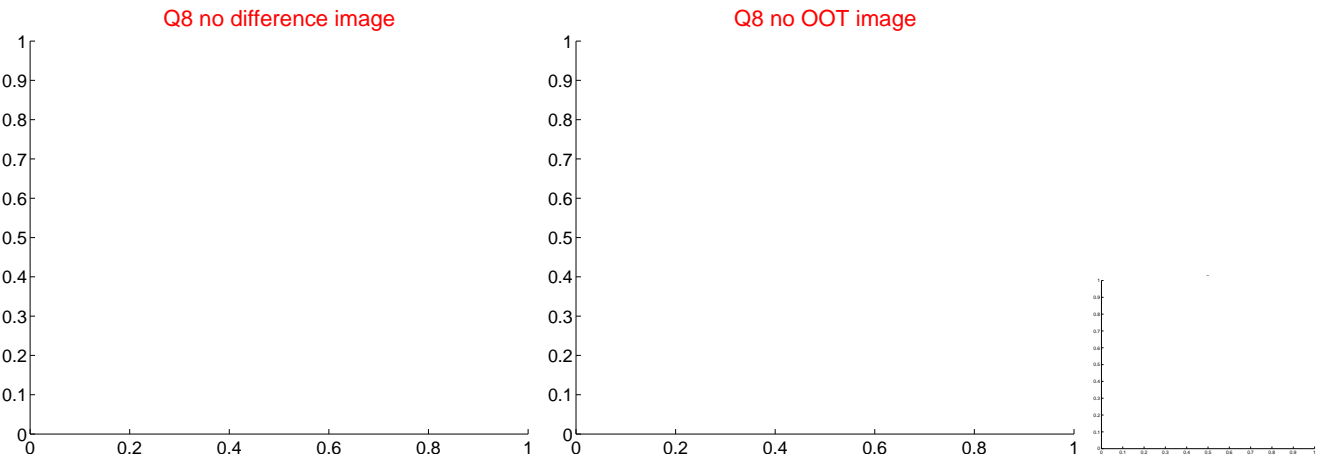
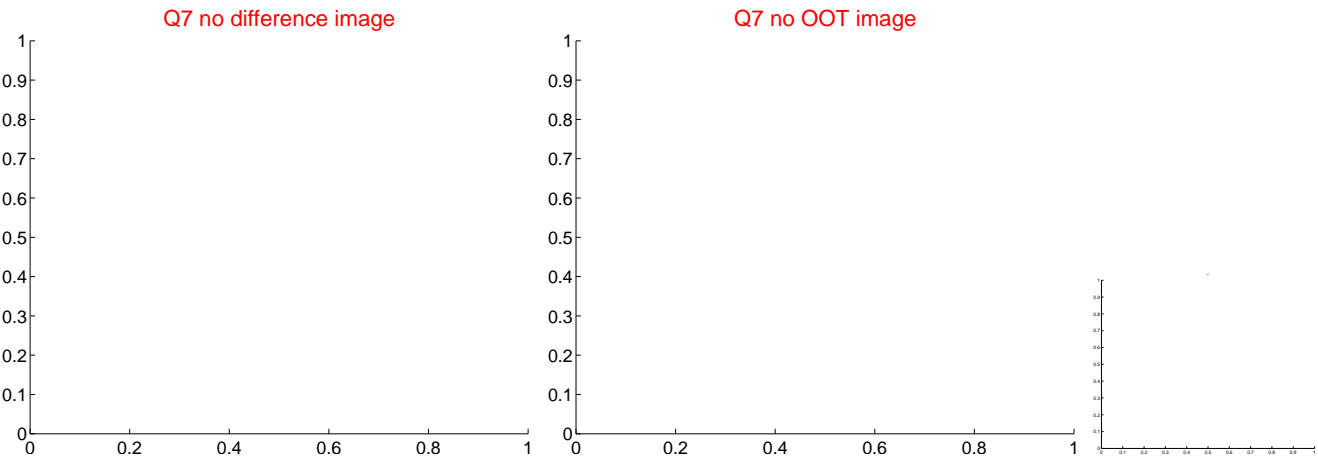
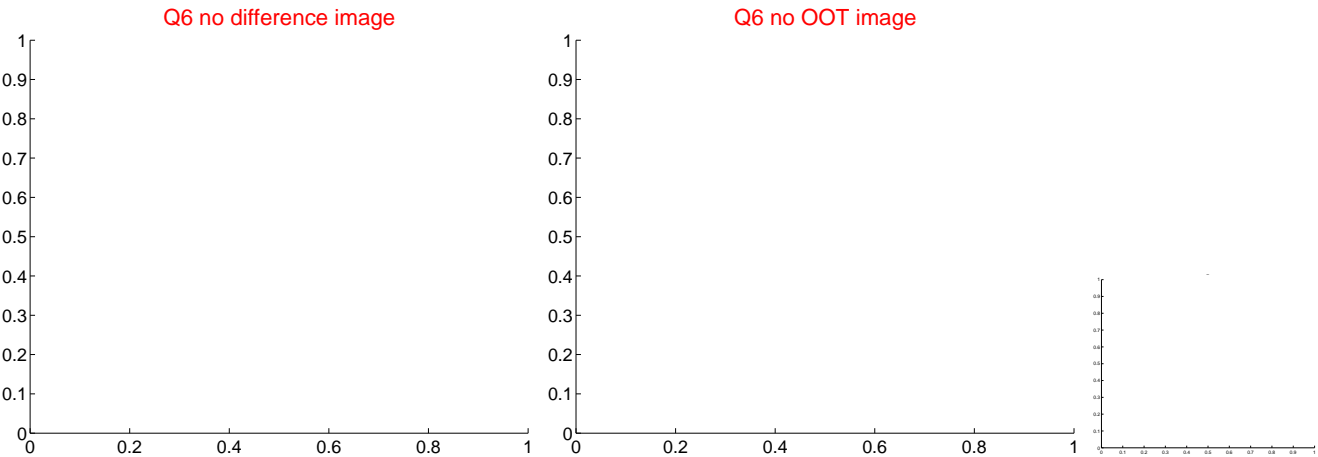
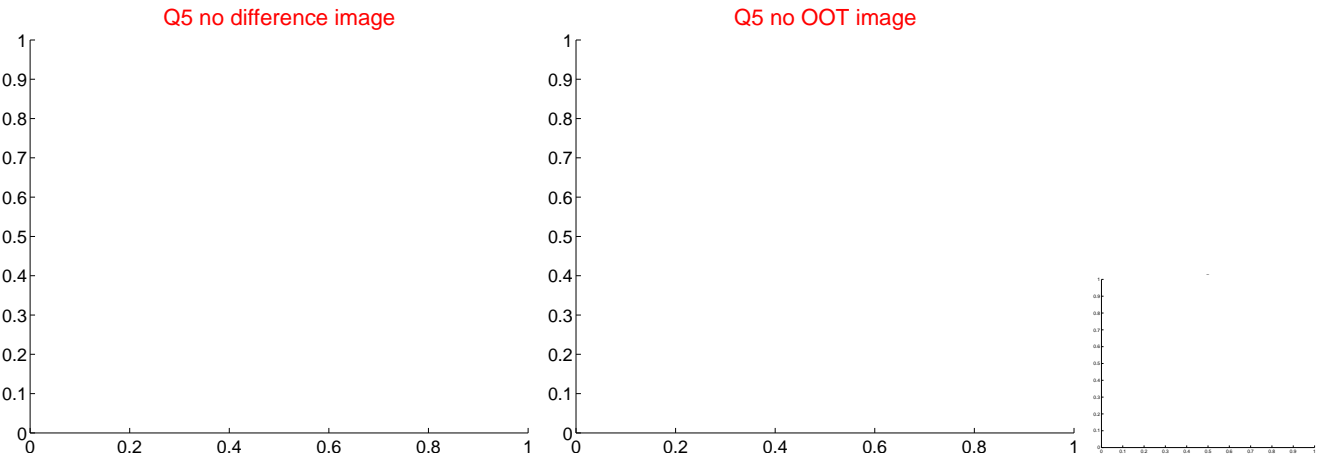


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

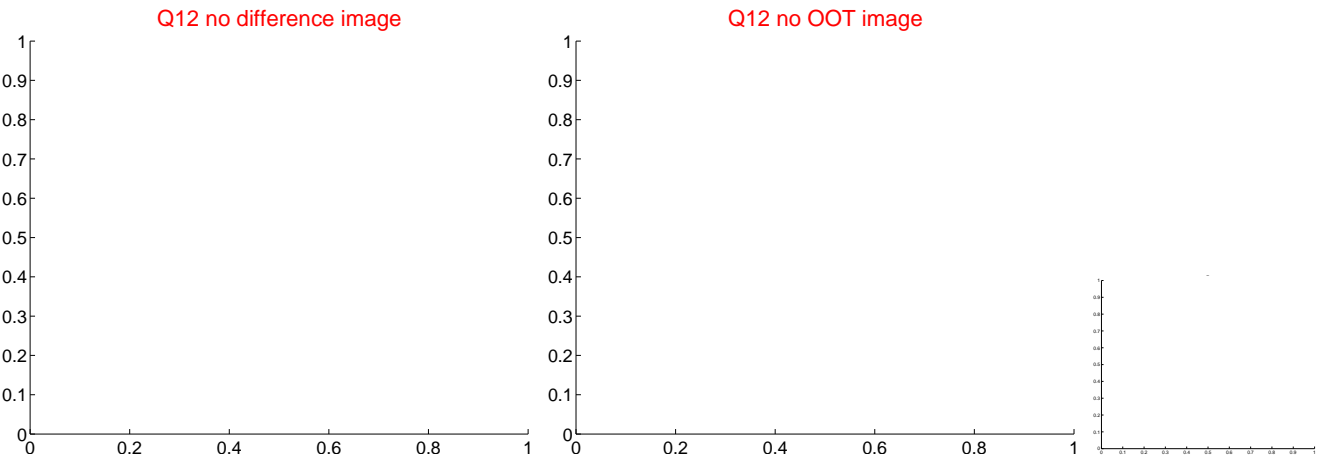
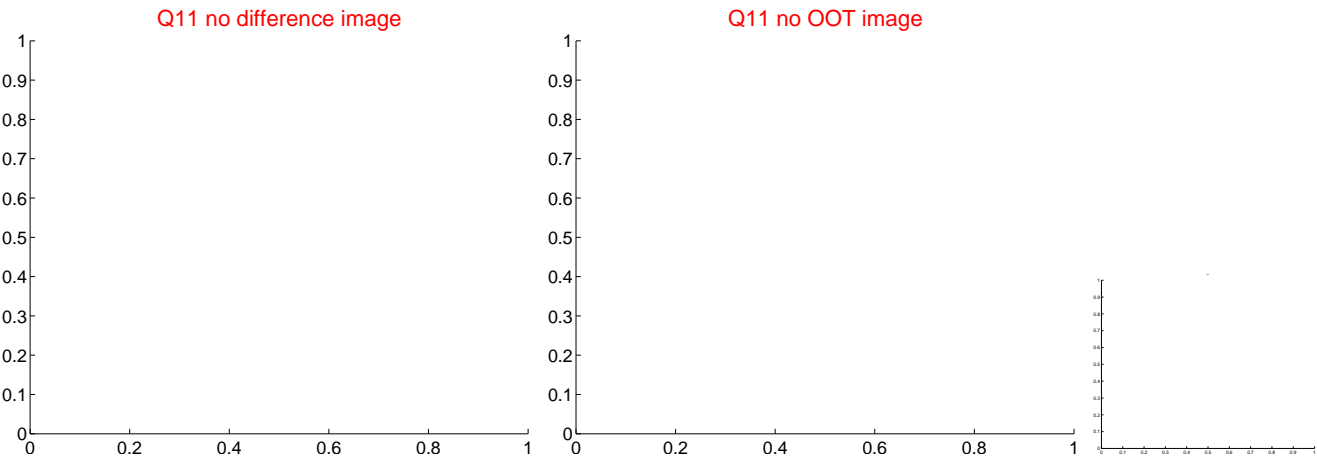
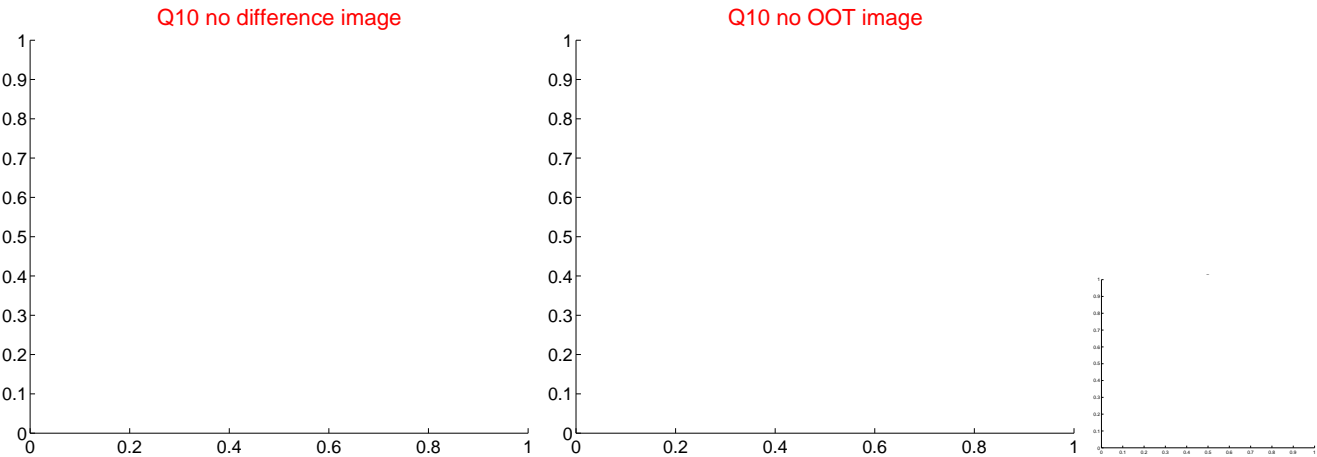
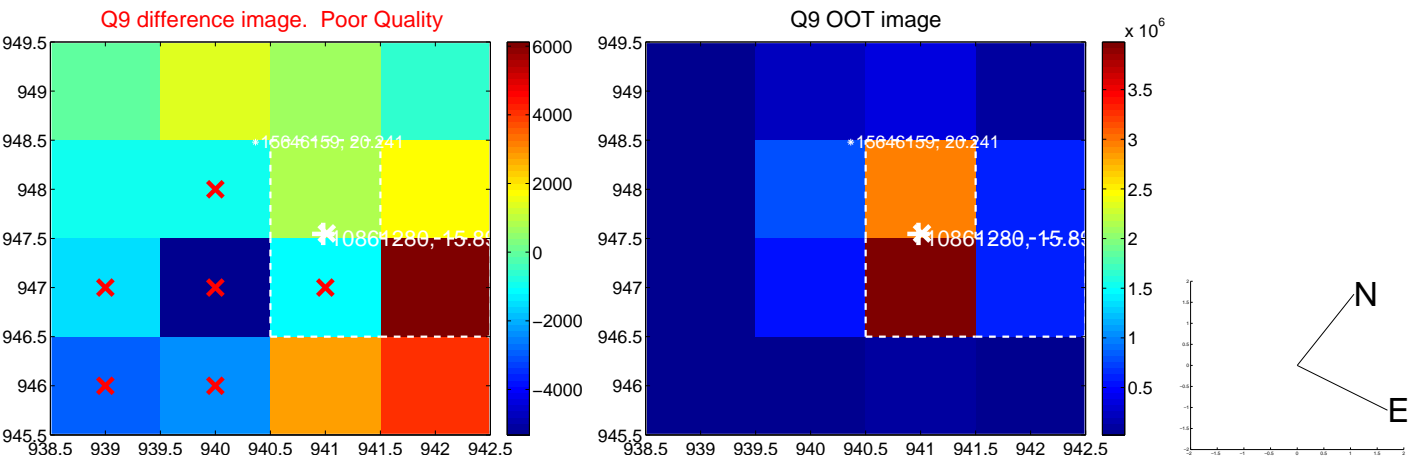
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



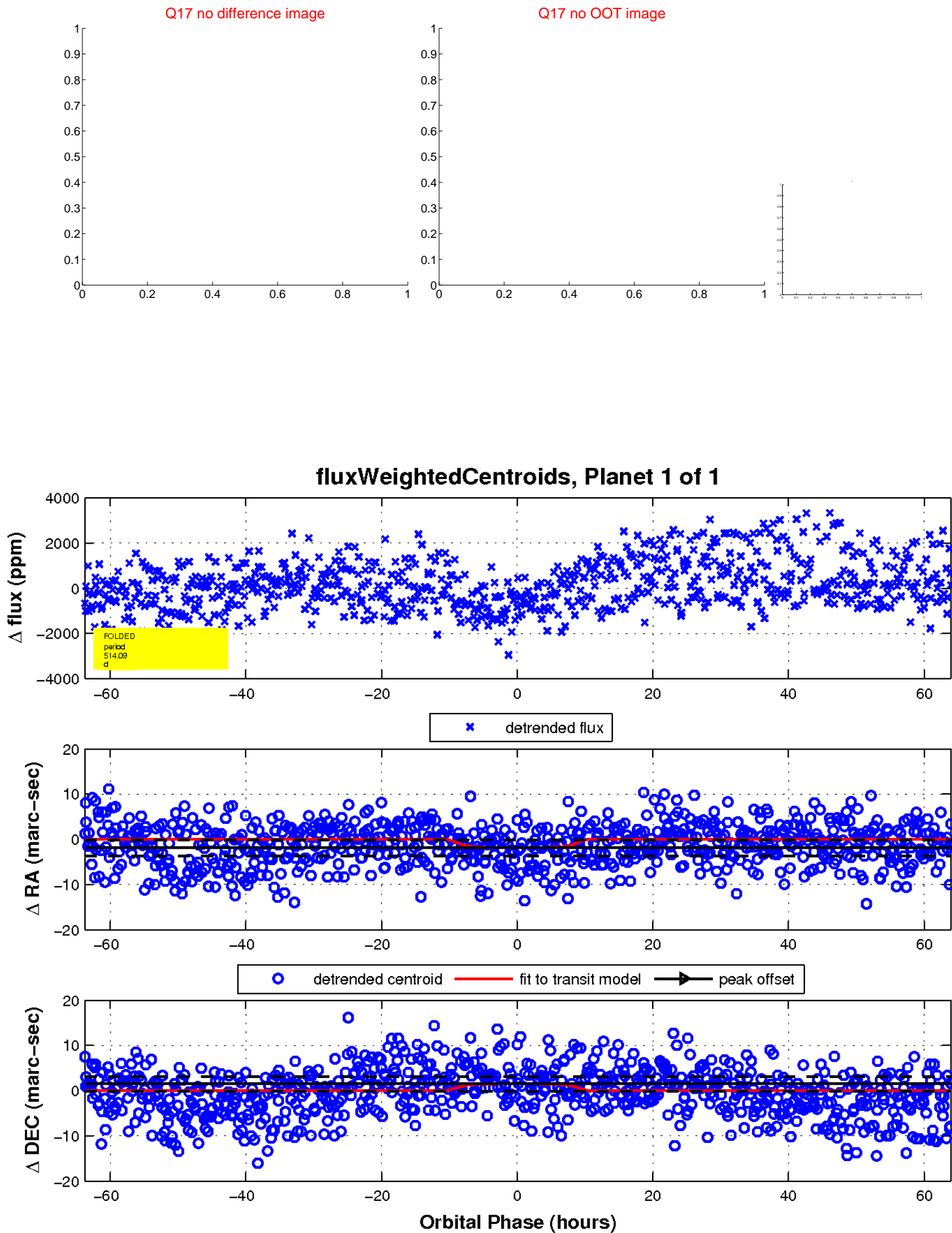
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



white \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

