

KIC 007886528

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})
007886528-01	OBS	No	562.812124	341.068333	912.5	13.552	8.6	8.2	0.96	6029	3.11	0.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007886528-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—MOD_NONUNIQ_ALT—MOD_TER_ALT—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.

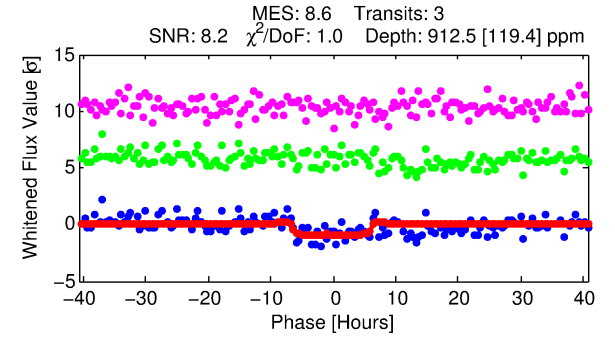
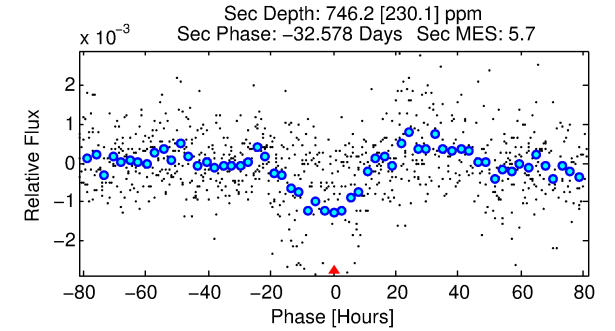
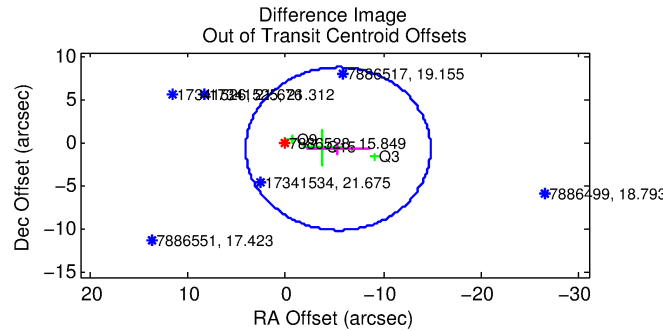
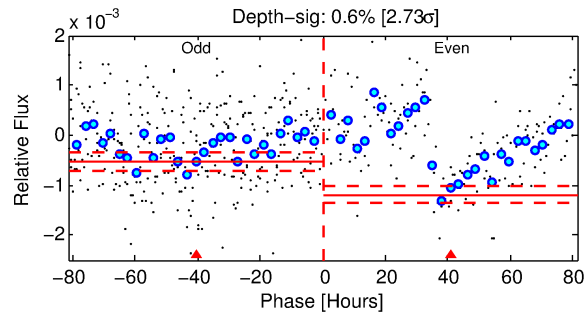
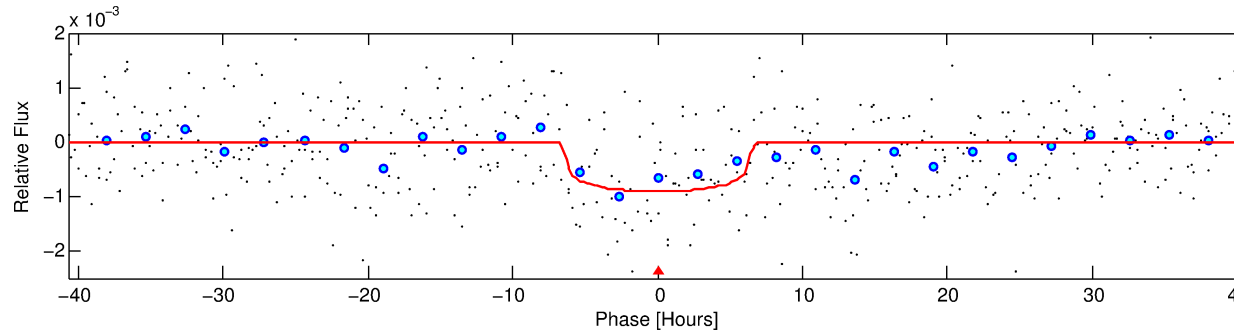
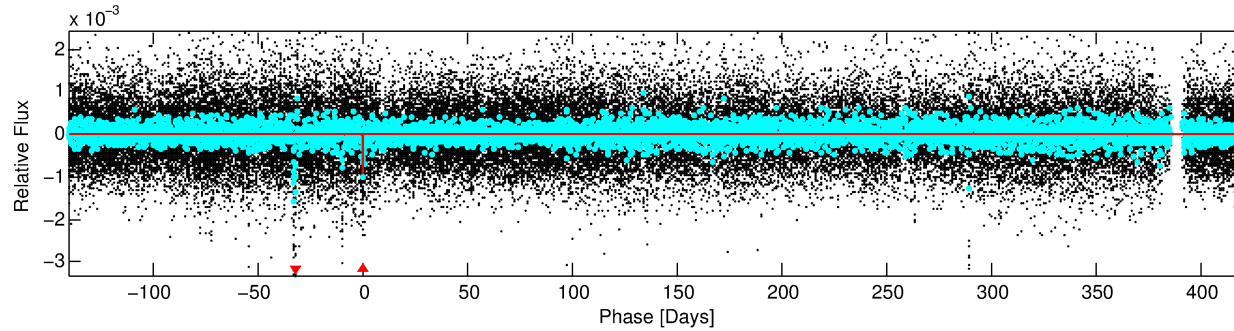
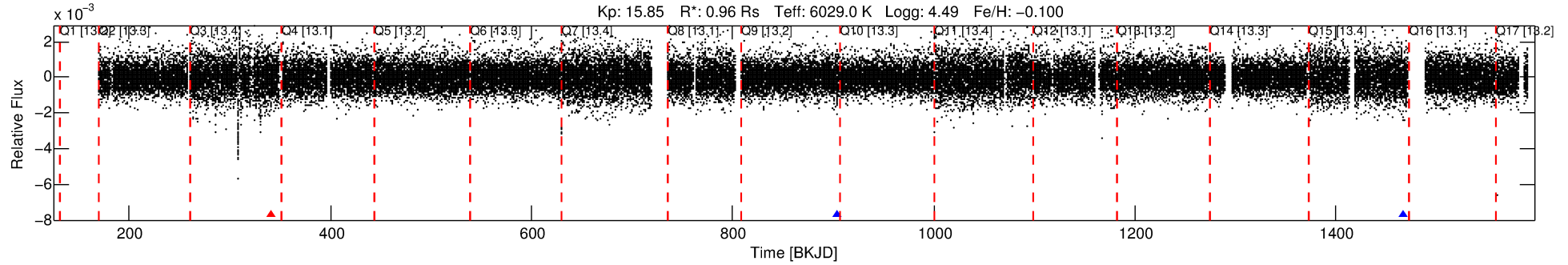
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007886528-01

No Significant Match Found

DV One-Page Summary

KIC: 7886528 Candidate: 1 of 1 Period: 562.812 d



DV Fit Results:

Period = 562.81212 [0.01890] d
Epoch = 341.0683 [0.0237] BKJD
Rp/R* = 0.0298 [0.0079]
a/R* = 230.88 [282.80]
b = 0.73 [0.80]
Seff = 0.59 [0.24]
Teq = 224 [23] K
Rp = 3.11 [1.28] Re
a = 1.3518 [0.3557] AU
Ag = 77436.02 [55957.94] [1.38 σ]
Teffp = 5769 [907] K [6.11 σ]

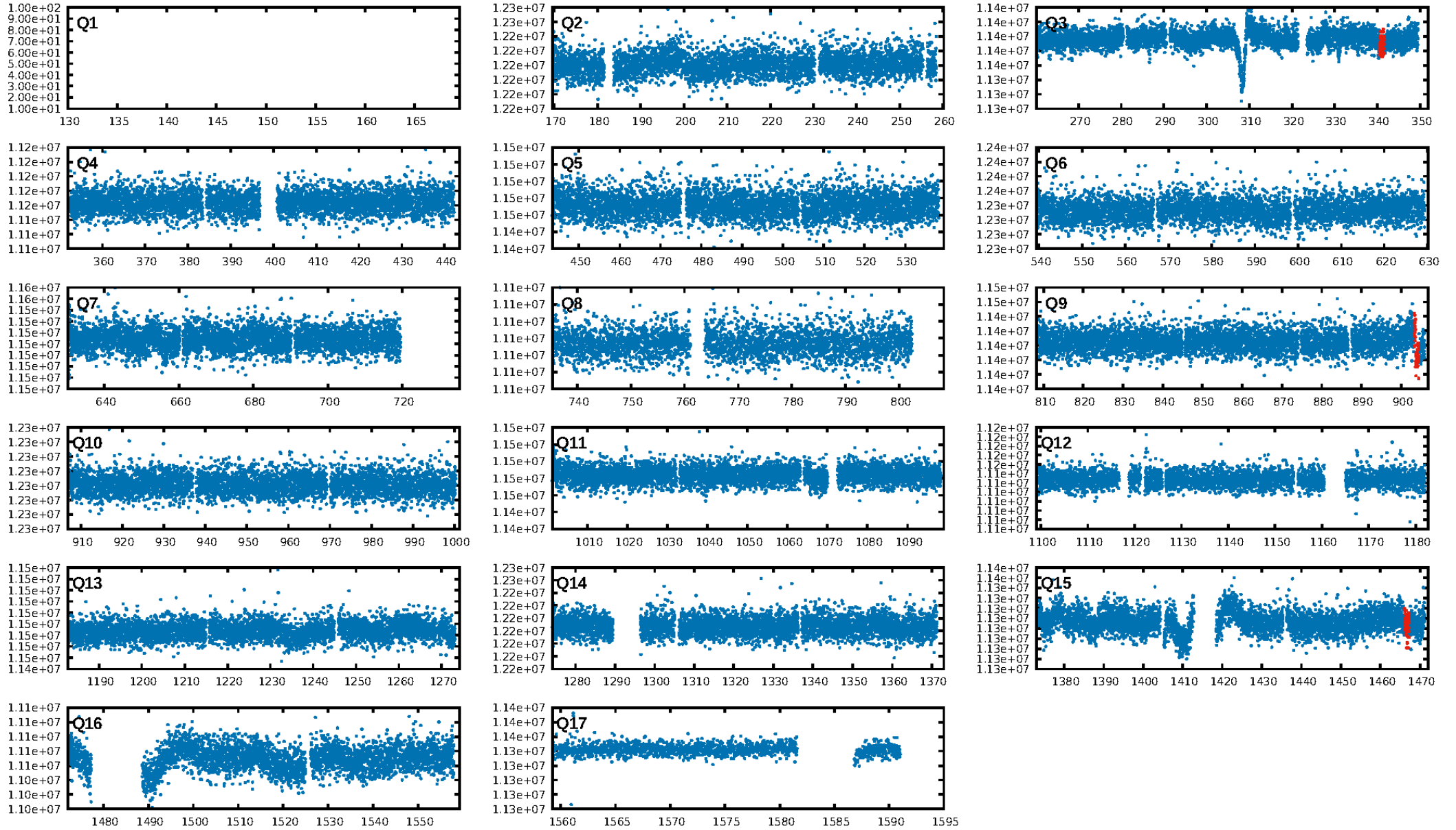
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.6%
ModelChiSquareGof-sig: 98.1%
Bootstrap-pfa: 7.12e-11
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 68.68
Centroid-sig: 65.1%
Centroid-so: 1.251 arcsec [0.65 σ]
OotOffset-rm: 5.411 arcsec [1.72 σ]
KicOffset-rm: 5.432 arcsec [1.73 σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

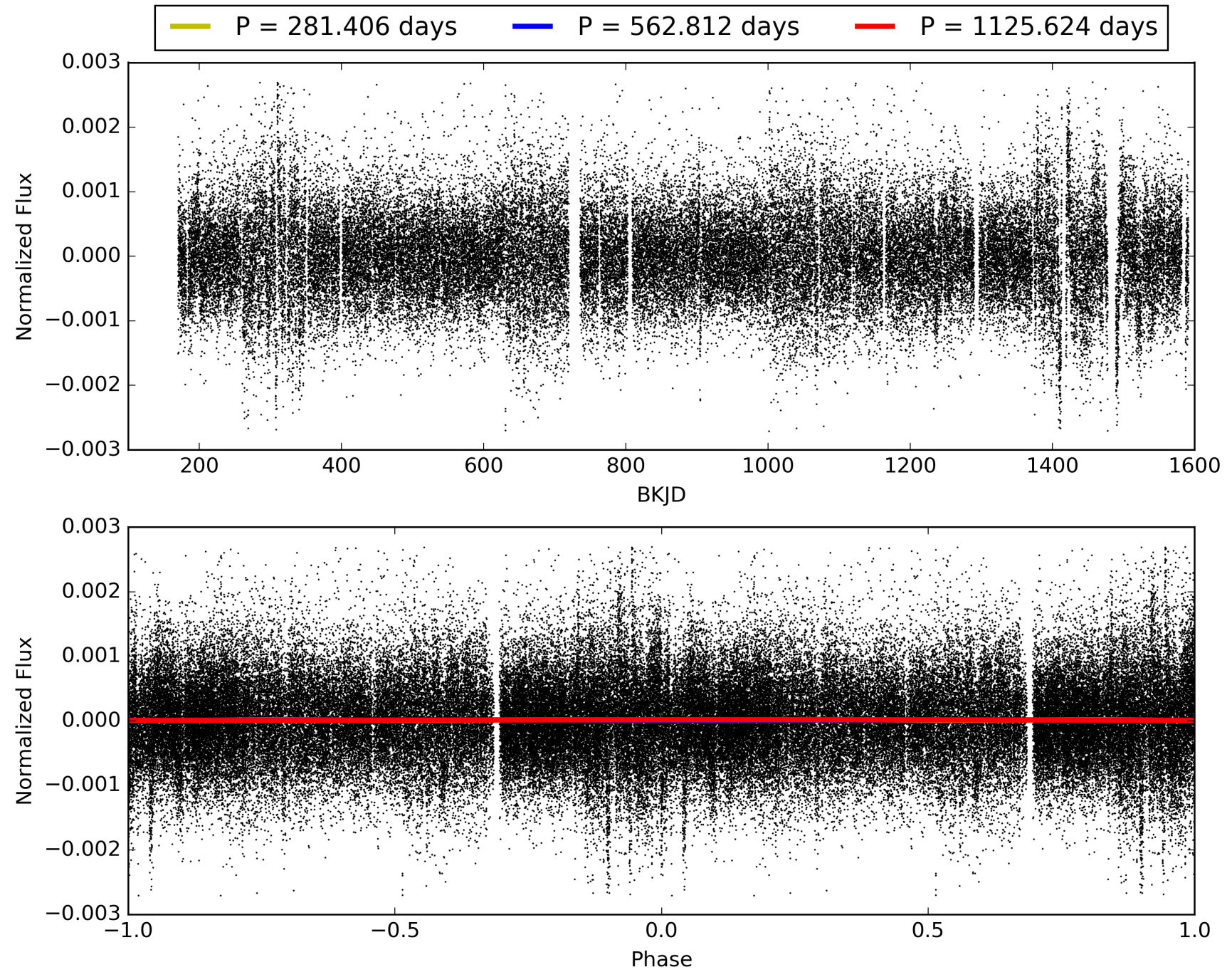
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:38:03 Z

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

TCE 007886528-01, PDC Light Curves

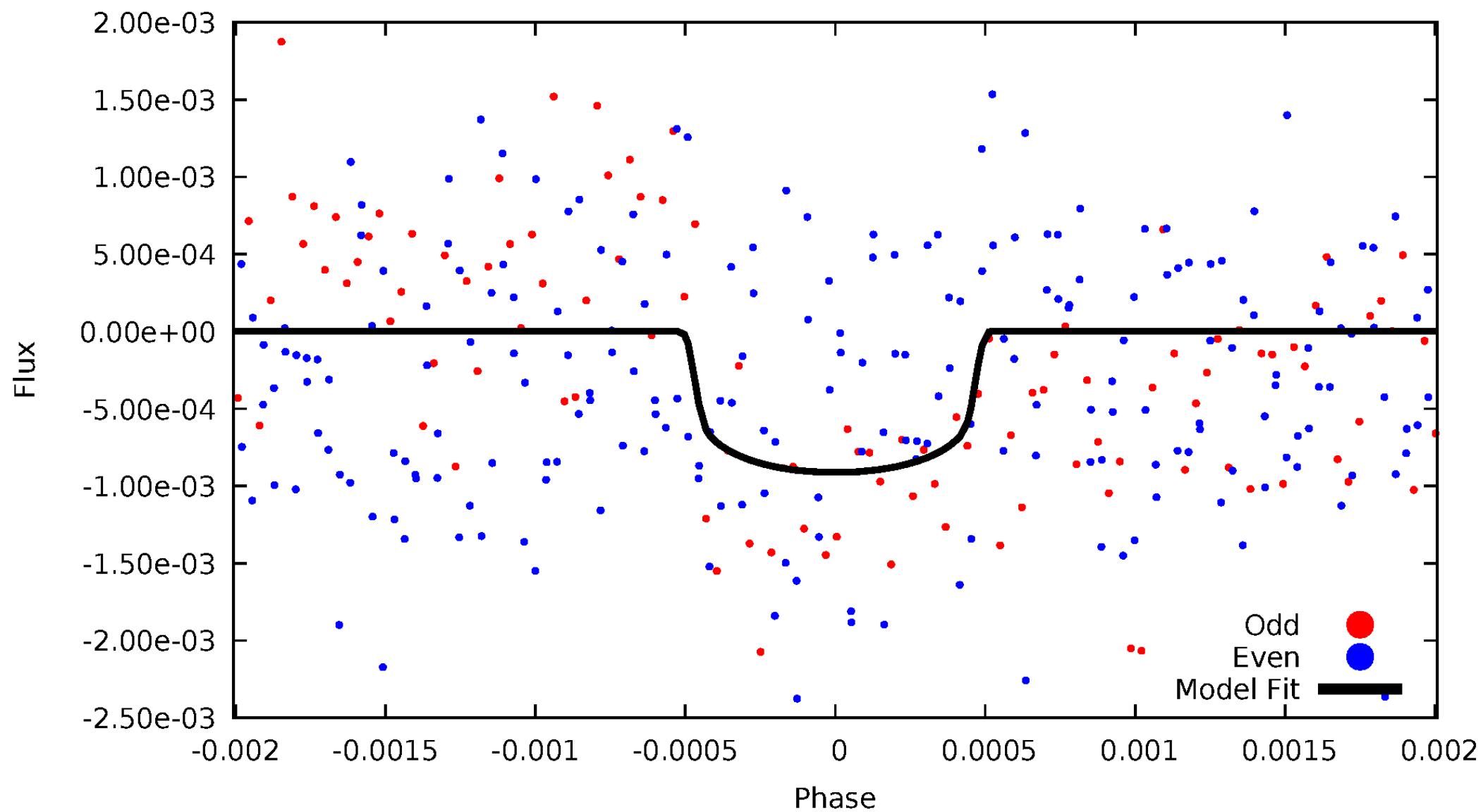


TCE 007886528-01



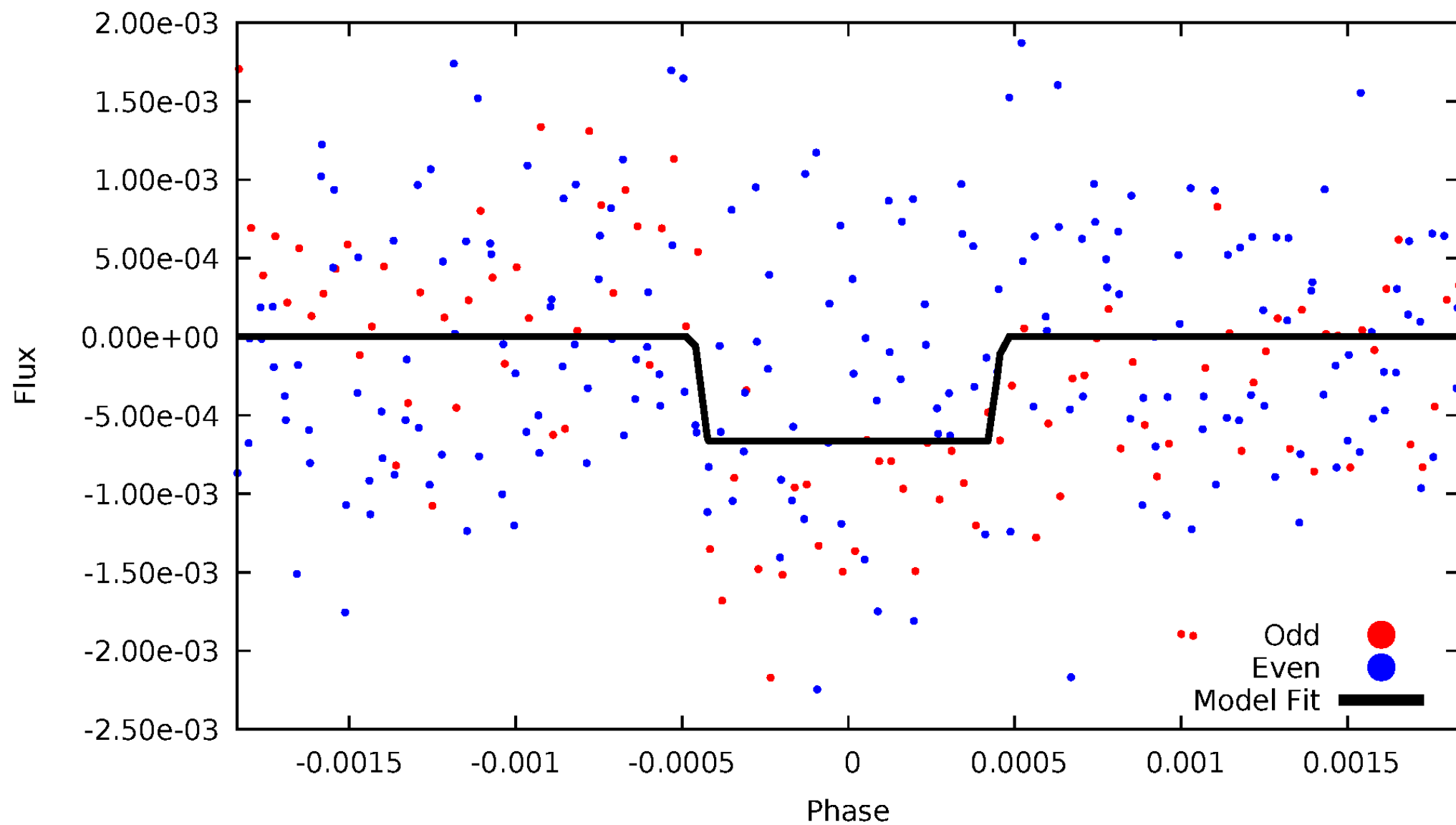
DV Odd/Even

TCE 007886528-01



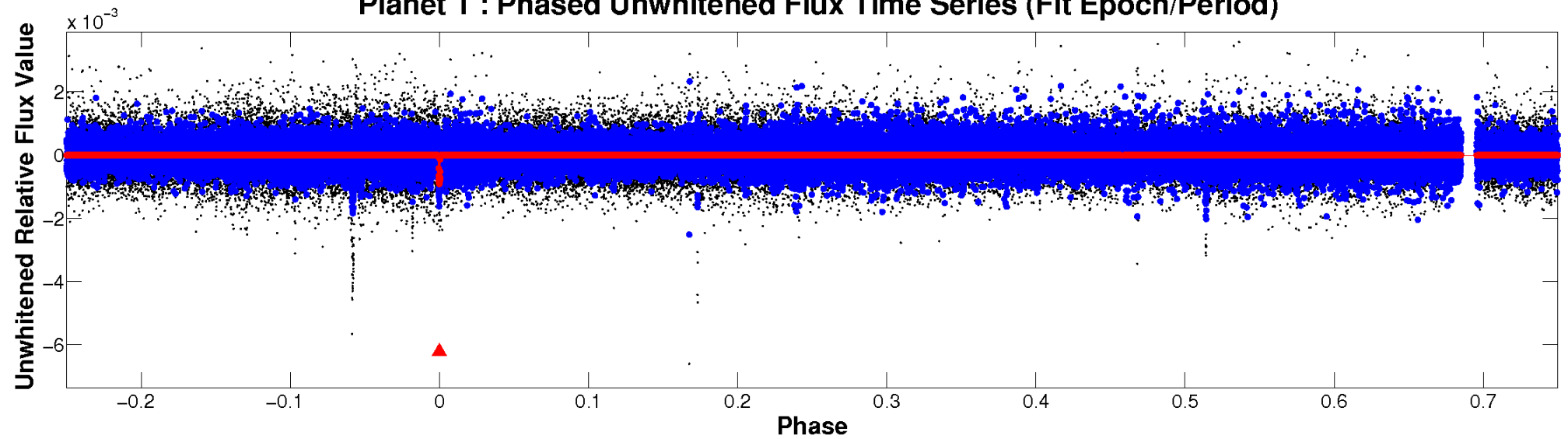
ALT Odd/Even

TCE 007886528-01

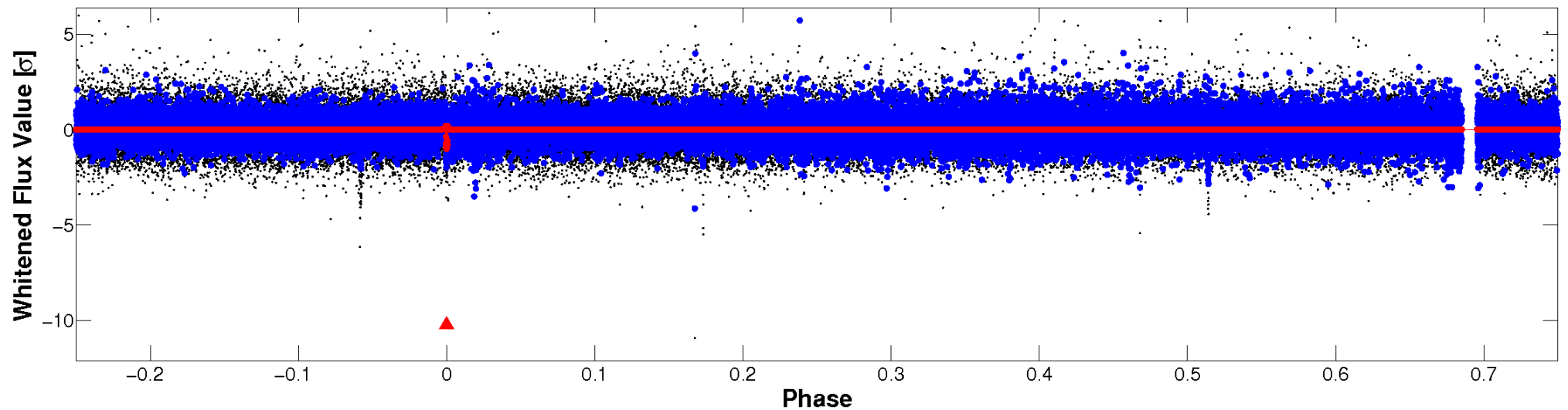


Non-Whitened Vs. Whitened Light Curve

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

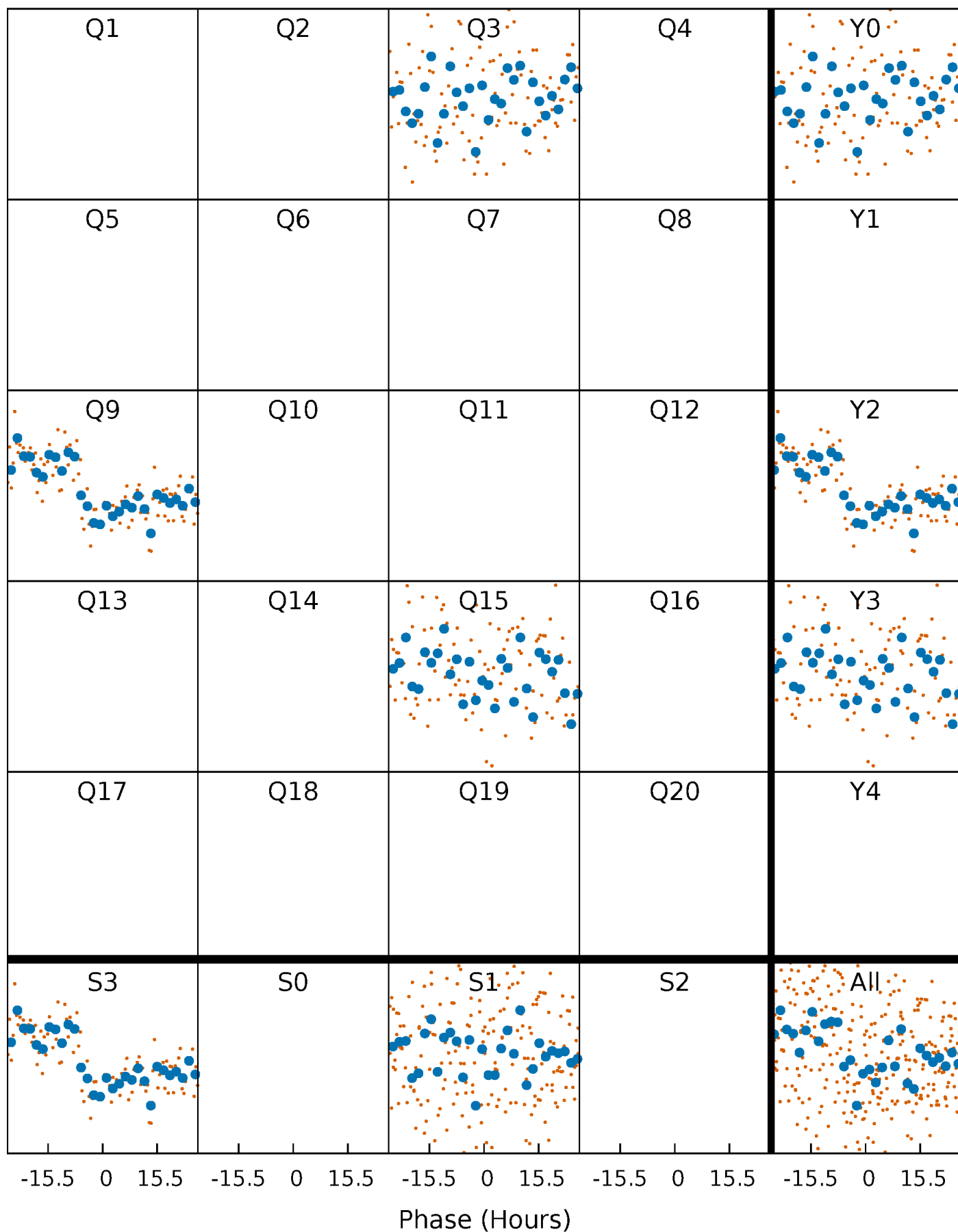


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



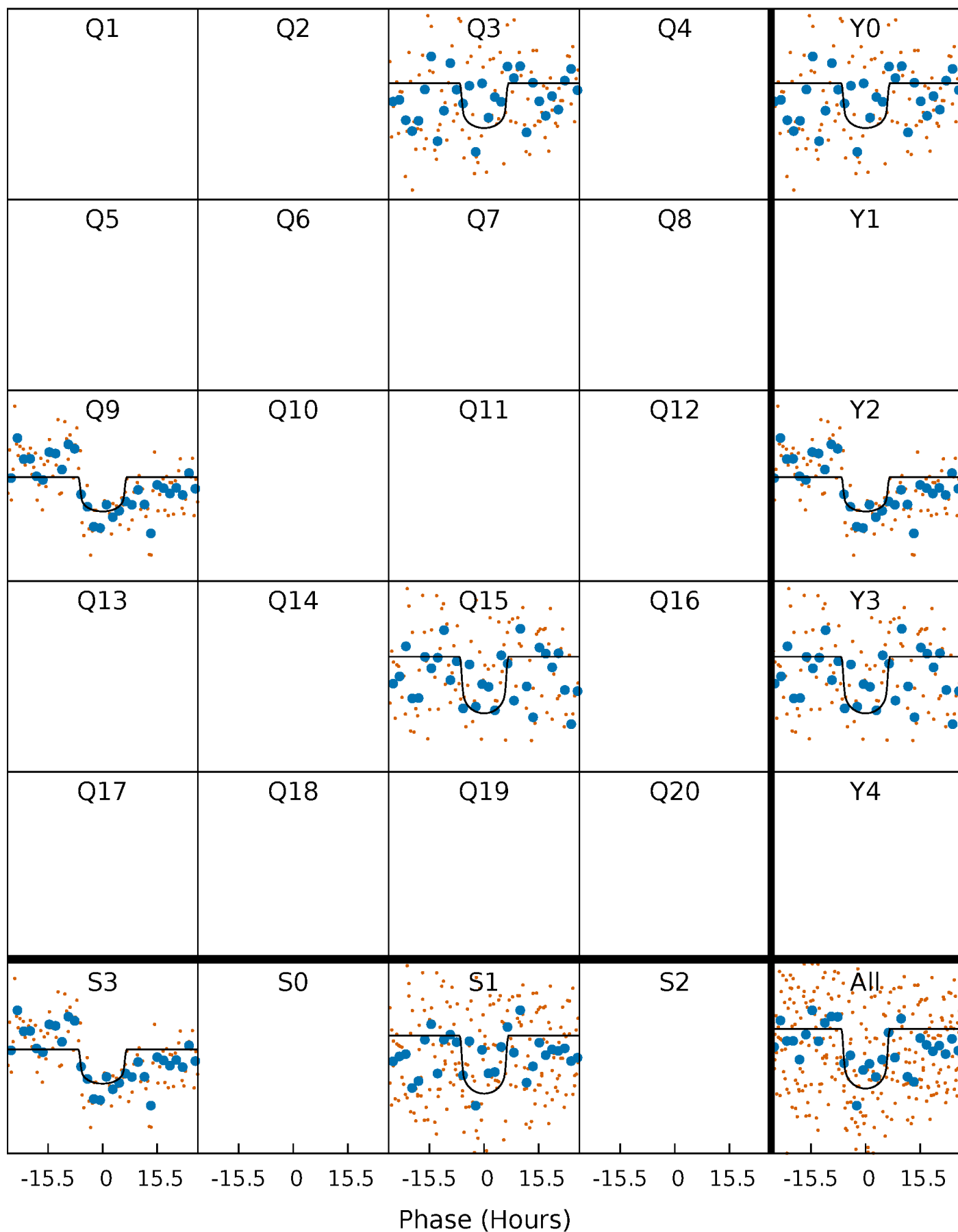
PDC Quarter-Phased Transit Curves

TCE 007886528-01 P=562.812124 Days $T_0=341.068333$ (BKJD)



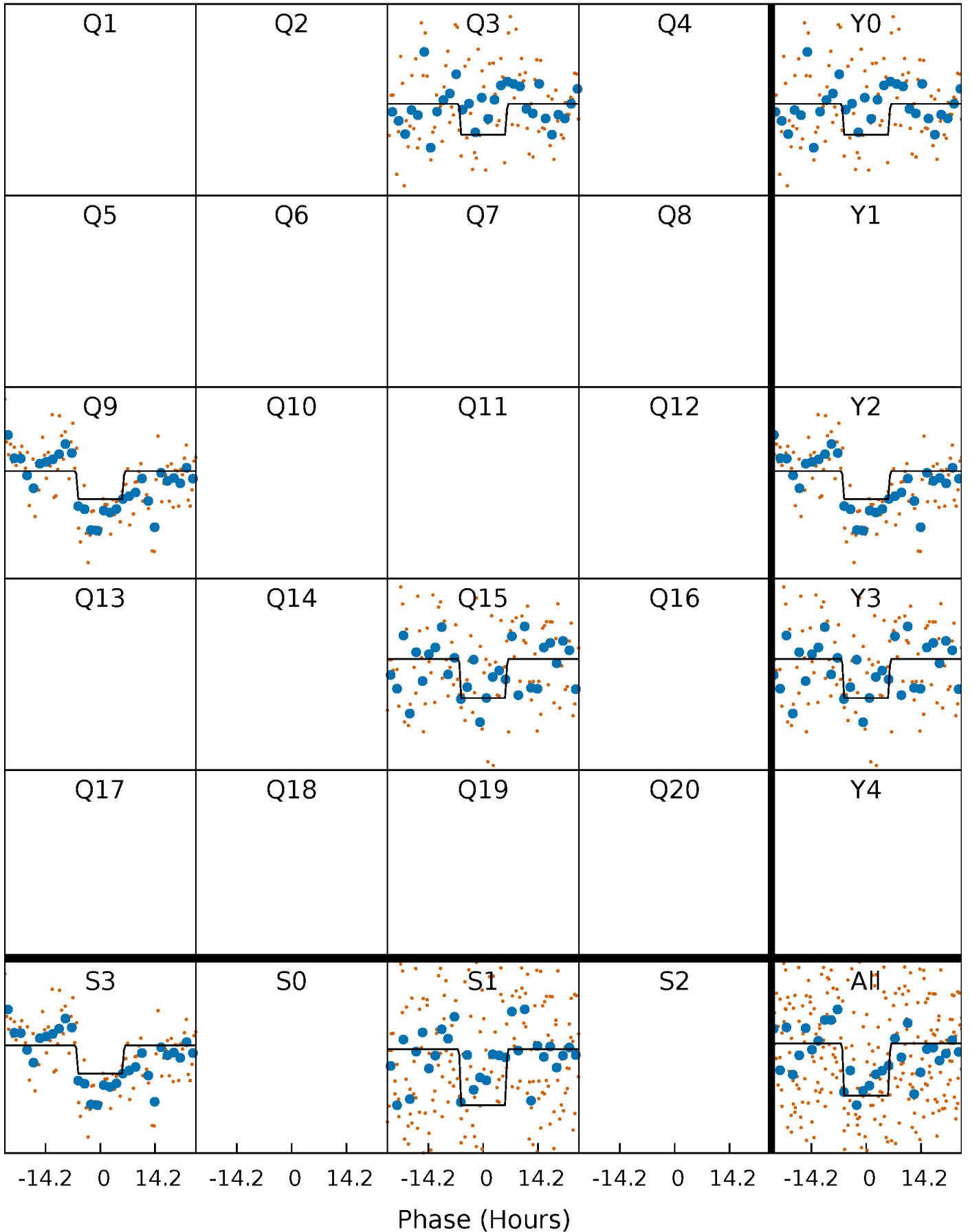
DV Quarter-Phased Transit Curves

TCE 007886528-01 P=562.812124 Days $T_0=341.068333$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

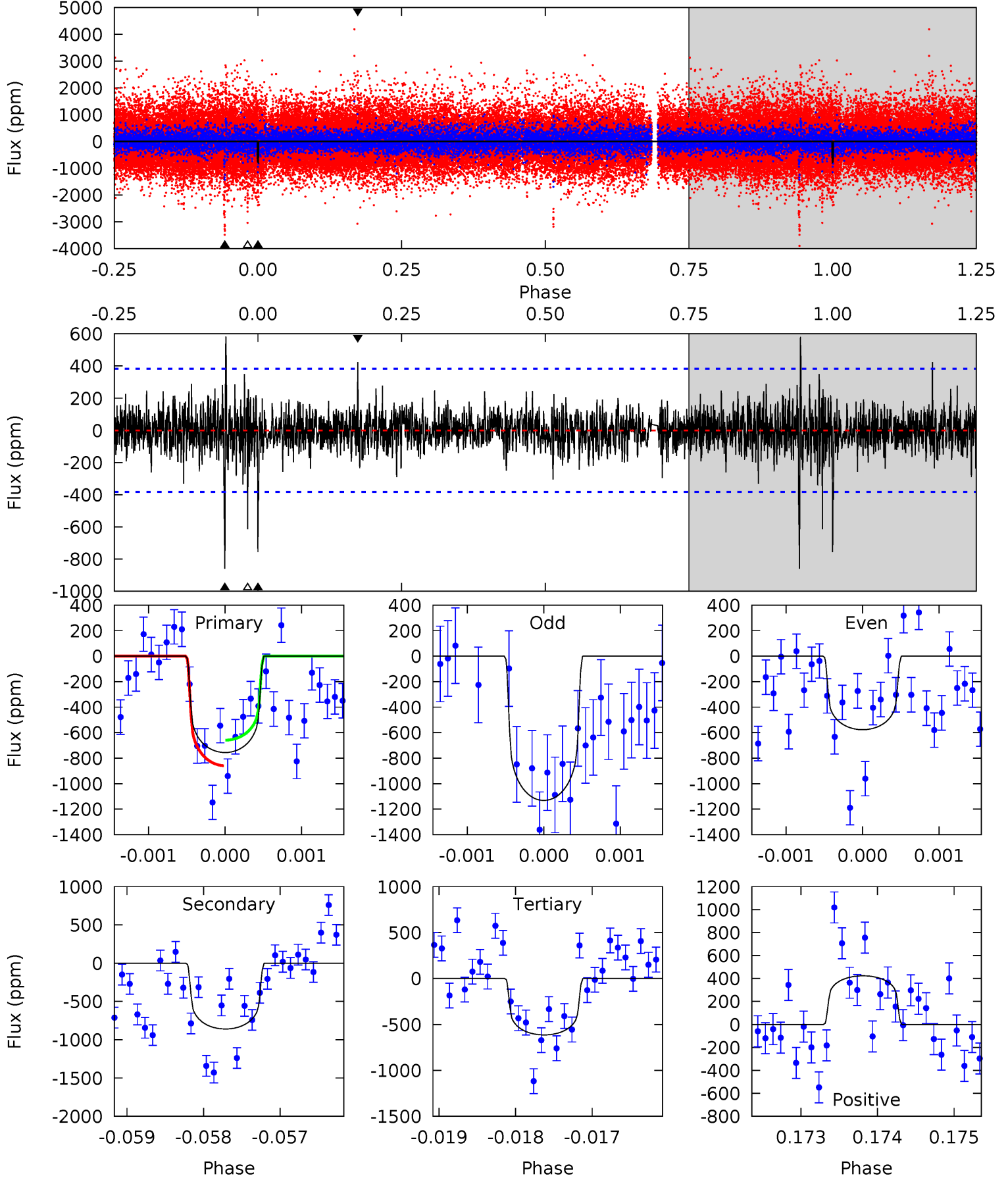
TCE 007886528-01 P=562.801543 Days $T_0=341.070279$ (BKJD)



DV Model-Shift Uniqueness Test

007886528-01, P = 562.812124 Days, E = 341.068333 Days

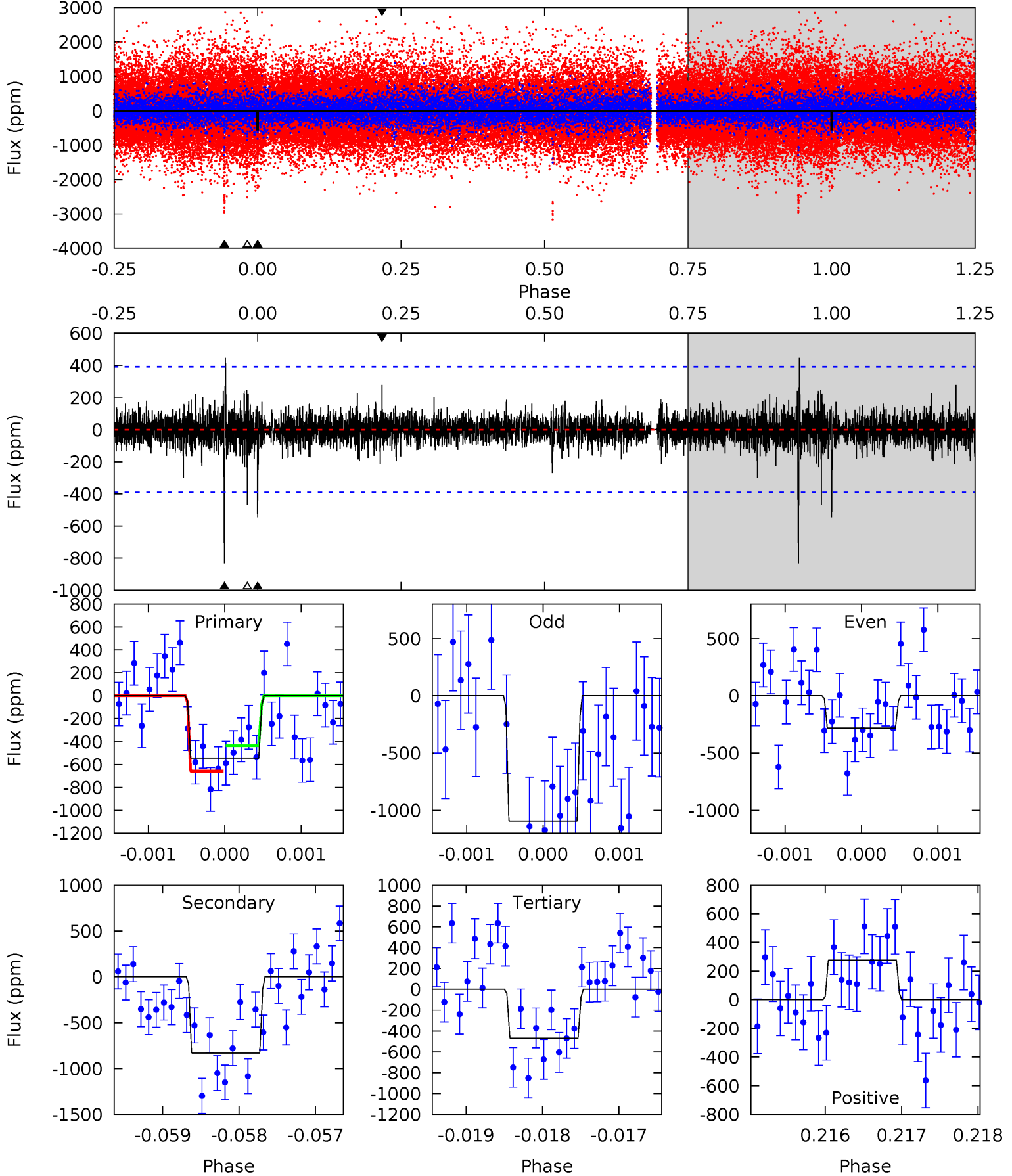
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	12.2	8.74	6.02	5.45	3.29	1.29	2.02	4.73	3.49	6.21	3.69	1.29	0.40	1.42



Alt Model-Shift Uniqueness Test

007886528-01, P = 562.801543 Days, E = 341.070279 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.61	11.6	6.55	3.87	5.46	3.31	0.87	1.05	3.74	5.05	7.74	5.29	1.28	0.35	1.55



Stellar Parameters For KIC 007886528

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6029^{+189}_{-210}	$4.494^{+0.052}_{-0.208}$	$-0.100^{+0.300}_{-0.300}$	$0.956^{+0.300}_{-0.100}$	$1.040^{+0.129}_{-0.142}$	$1.675^{+0.453}_{-0.854}$
	+3%/-3%	+1%/-5%	+300%/-300%	+31%/-10%	+12%/-14%	+27%/-51%
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 007886528-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-860 ± 70	$3.26^{+1.02}_{-0.98}$	318^{+23}_{-15}	5972^{+1137}_{-671}	80184^{+78401}_{-33771}
Alt.	-831 ± 72	$2.80^{+0.99}_{-0.92}$	319^{+23}_{-17}	6375^{+1454}_{-819}	$104257^{+122835}_{-47208}$

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

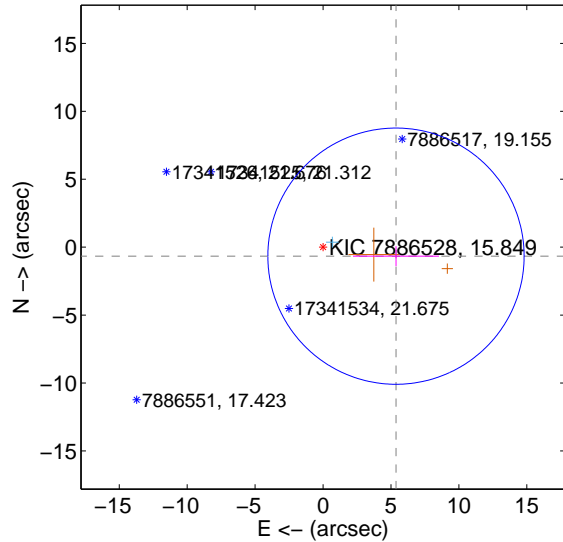
Supplemental centroid analysis for 007886528-01. Kepler magnitude: 15.85. Transit SNR 8.18

There are 1 quarters with good PRF difference image offsets

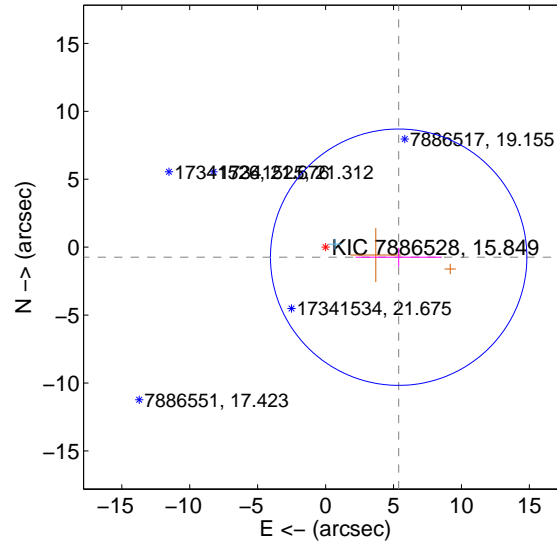
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.411 ± 3.145	1.72	-5.371 ± 3.167	-0.662 ± 0.736
PRF-fit source offset from KIC position	5.432 ± 3.146	1.73	-5.382 ± 3.174	-0.738 ± 0.691
photometric centroid source offset	1.25 ± 1.92	0.65	1.25 ± 1.92	-0.12 ± 1.81

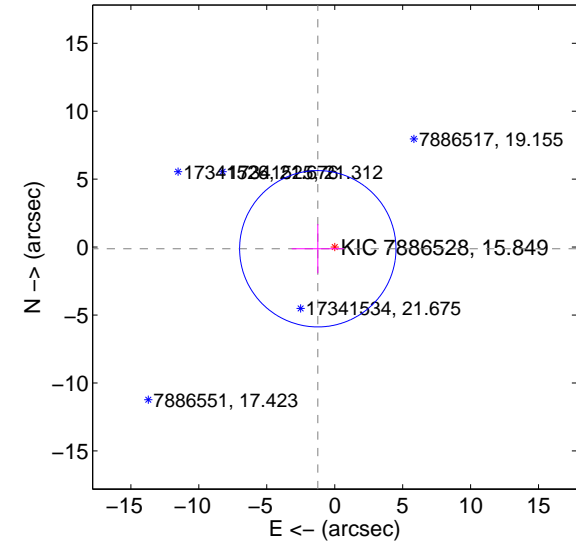
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

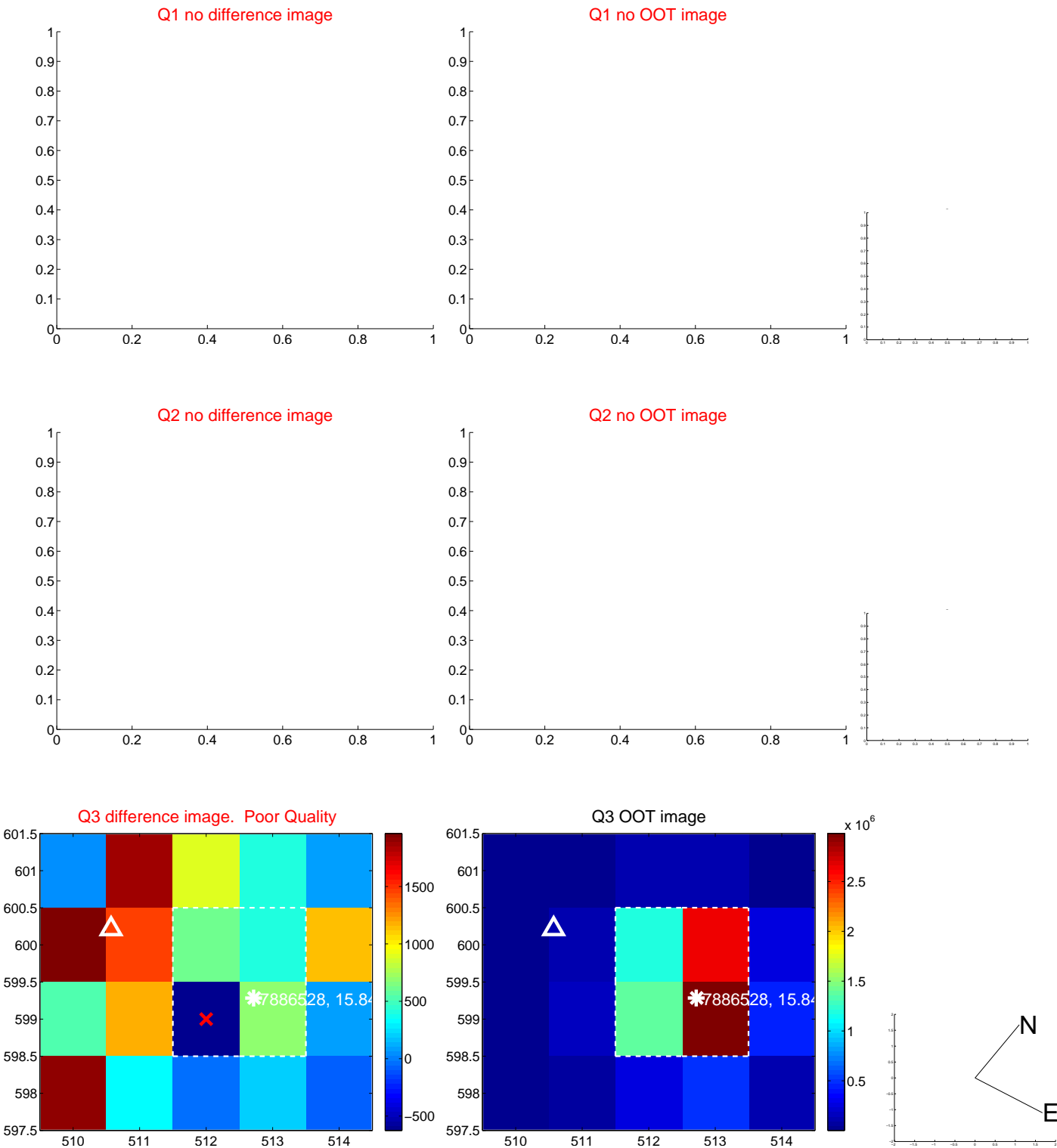


offset from photometric centroids

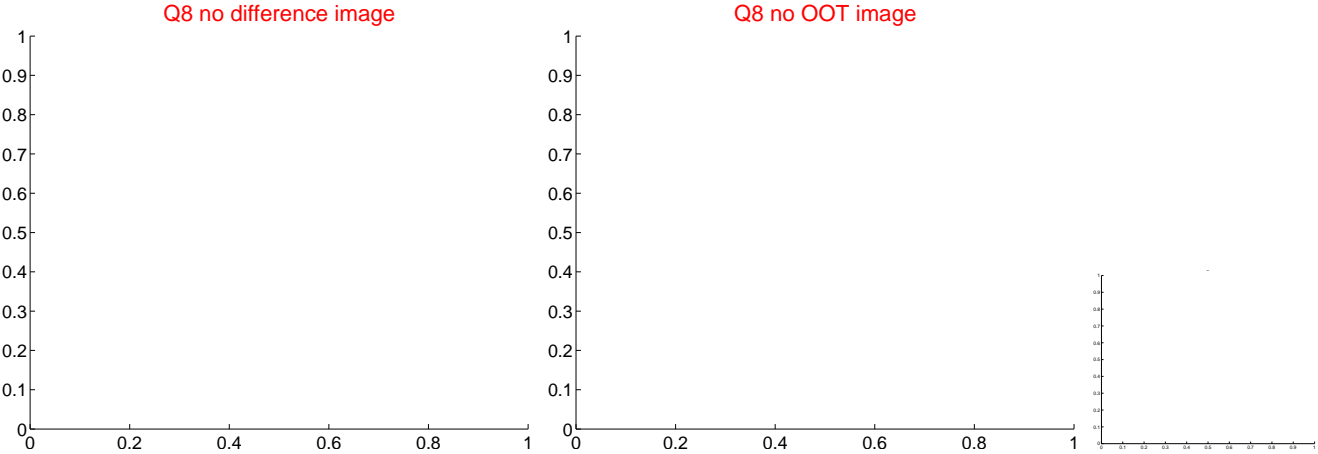


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

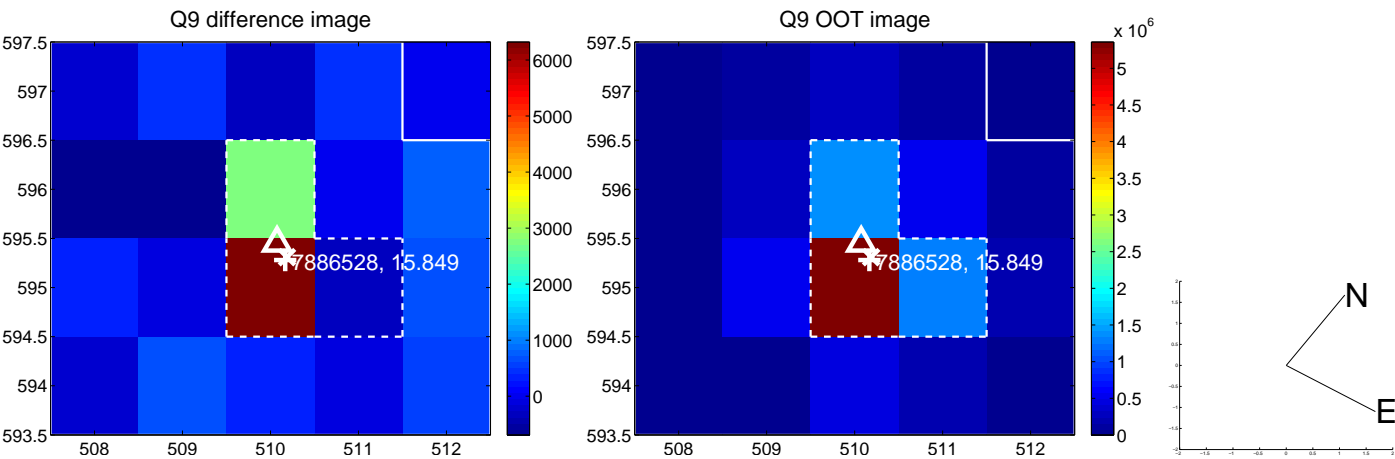
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



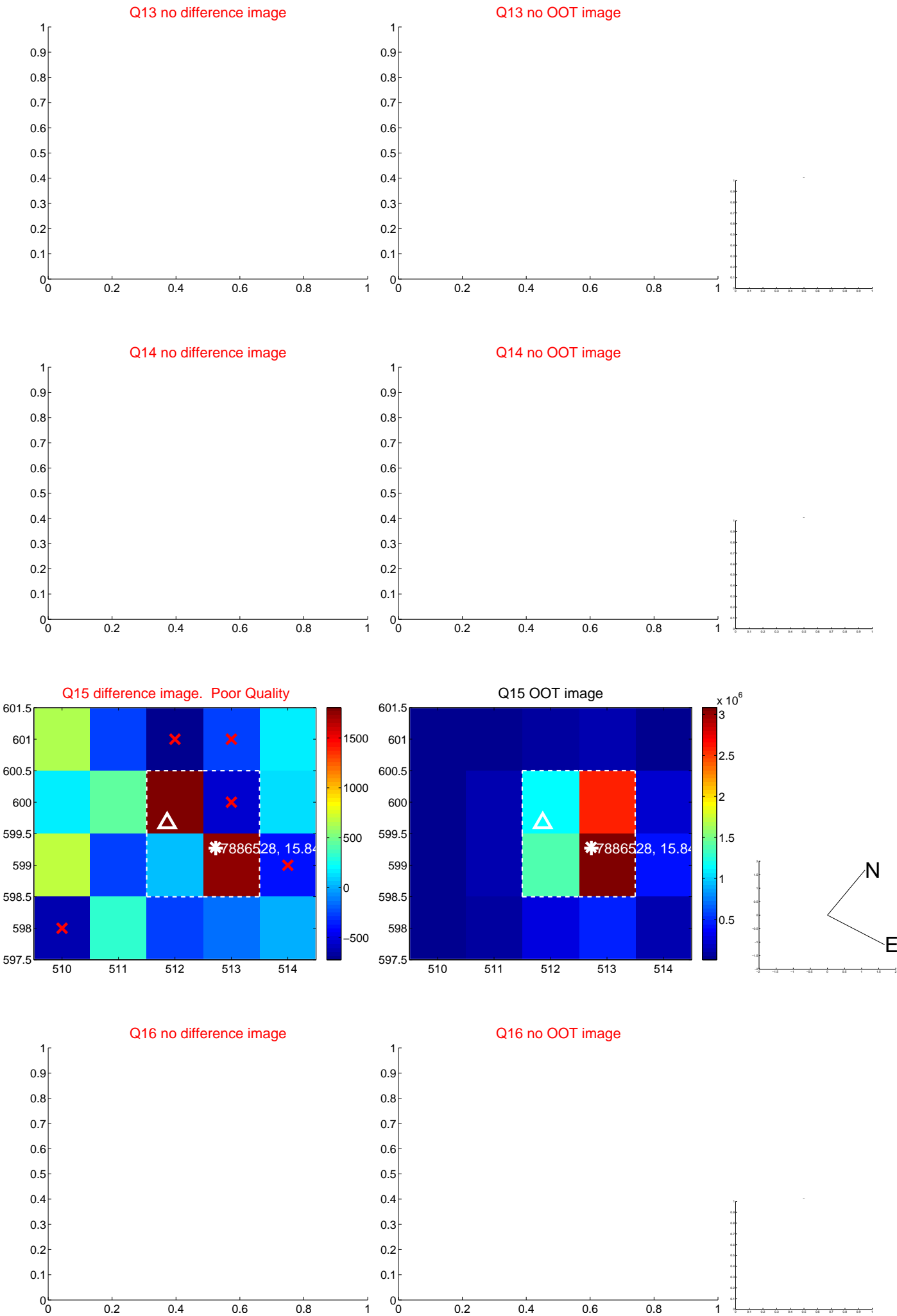
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



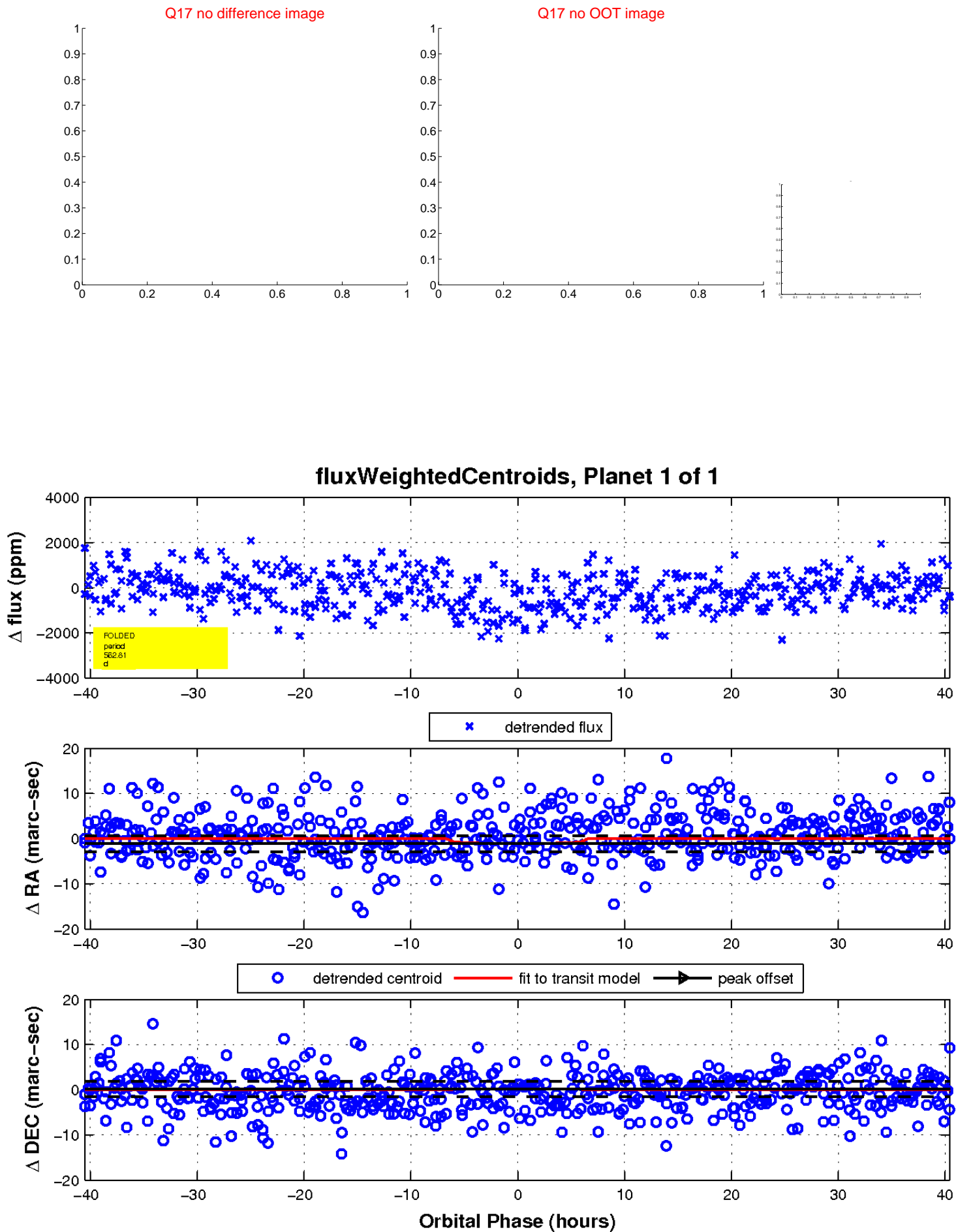
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

