

KIC 004773088

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})
004773088-01	OBS	No	514.013989	506.908835	275.3	15.055	9.2	8.1	1.03	5967	1.87	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004773088-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

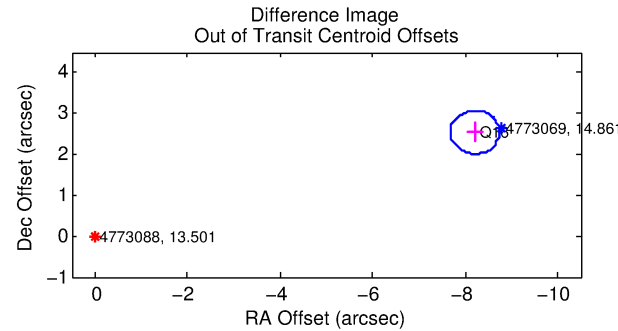
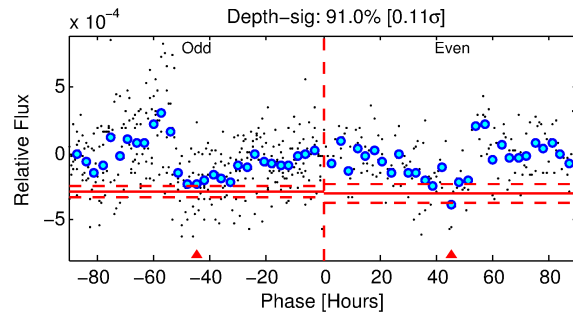
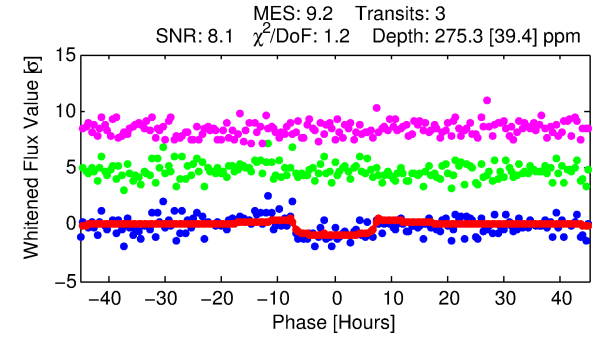
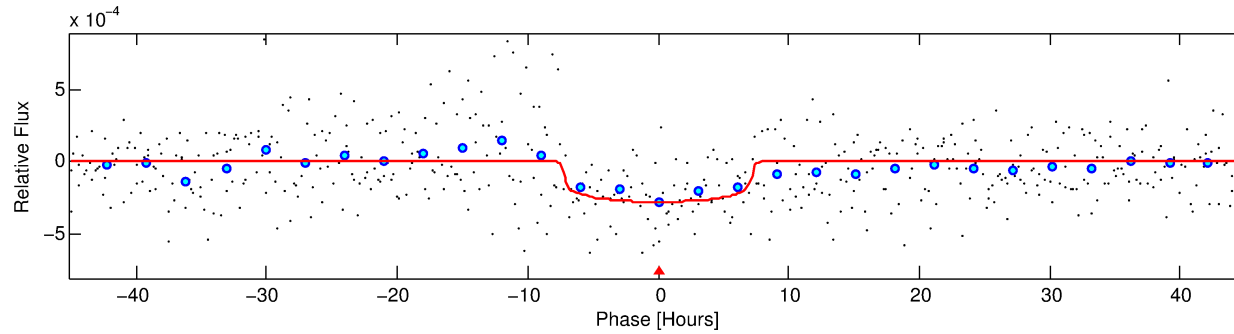
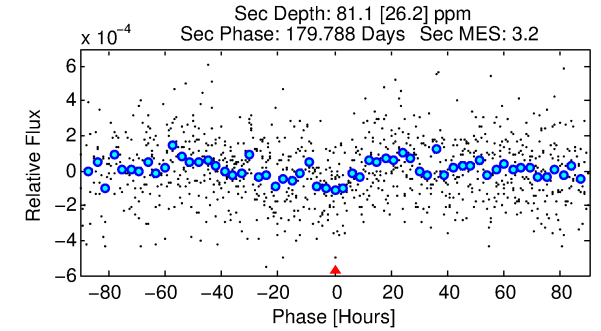
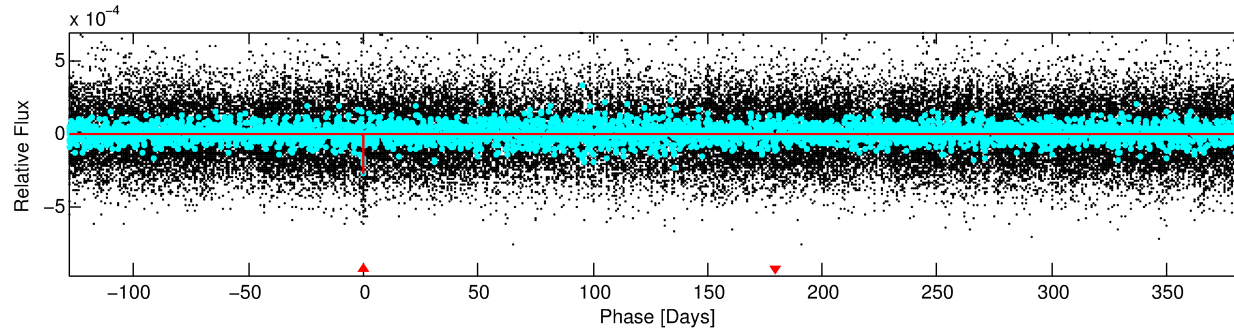
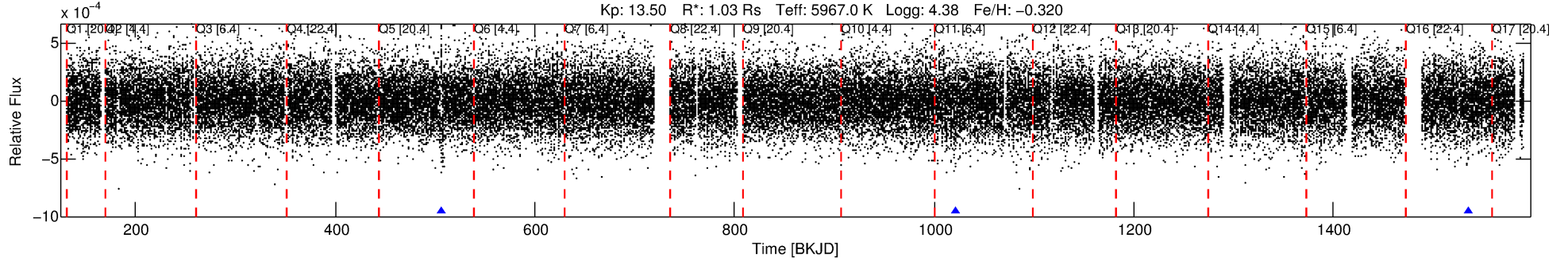
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004773088-01

No Significant Match Found

DV One-Page Summary

KIC: 4773088 Candidate: 1 of 1 Period: 514.014 d



DV Fit Results:

Period = 514.01399 [0.01420] d
Epoch = 506.9088 [0.0193] BKJD
Rp/R* = 0.0167 [0.0050]
a/R* = 168.76 [245.05]
b = 0.78 [0.71]
Seff = 0.81 [0.29]
Teq = 242 [22] K
Rp = 1.87 [0.78] Re
a = 1.2192 [0.2877] AU
Ag = 18891.84 [14395.92] [1.31σ]
Teffp = 4379 [759] K [5.45σ]

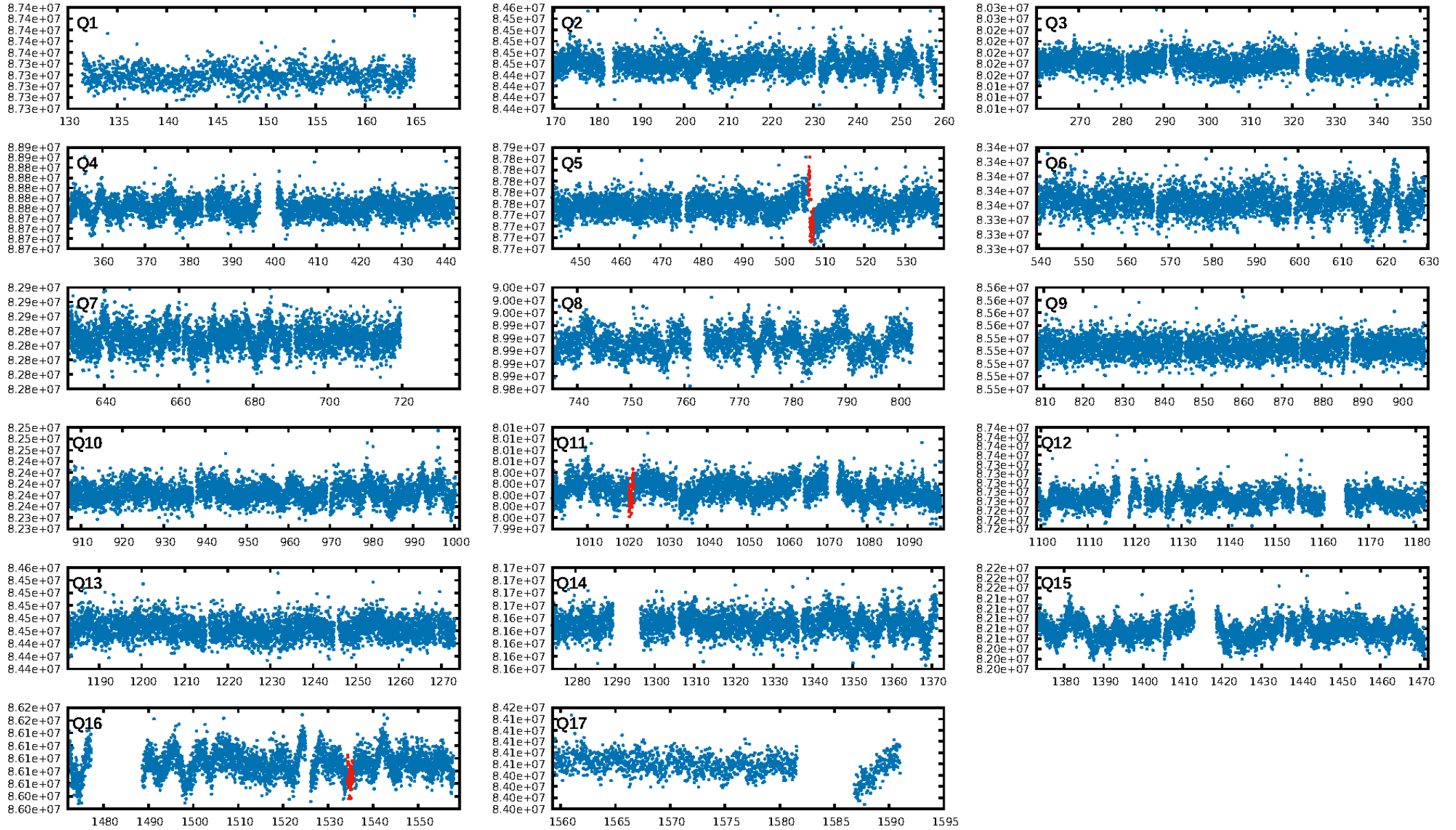
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.9%
ModelChiSquareGof-sig: 99.1%
Bootstrap-pfa: 1.74e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.6885
Centroid-sig: 39.4%
Centroid-so: 3.449 arcsec [1.13σ]
OotOffset-rm: 8.592 arcsec [48.69σ]
KicOffset-rm: 8.739 arcsec [49.75σ]
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]

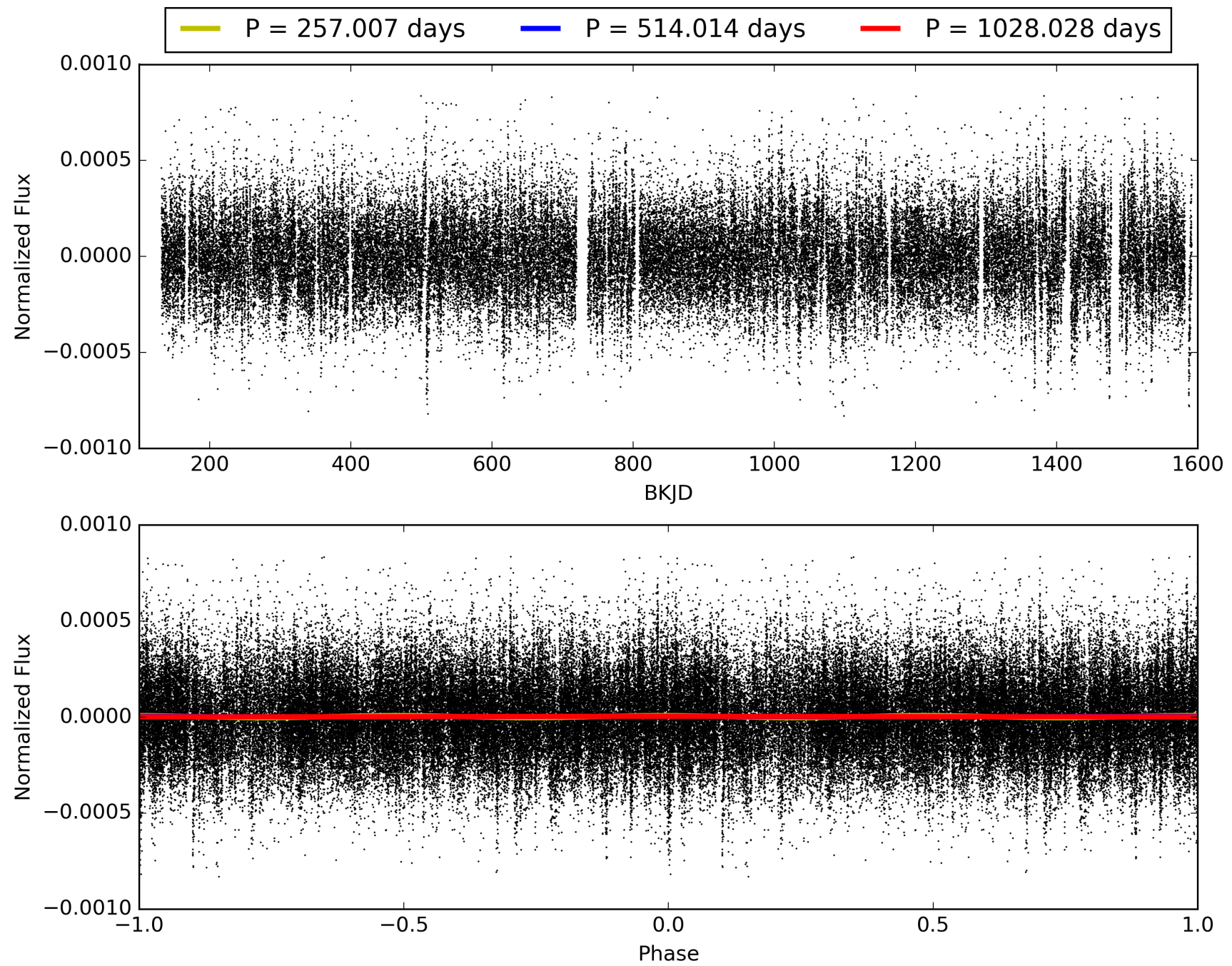
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:07:18 Z

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

TCE 004773088-01, PDC Light Curves

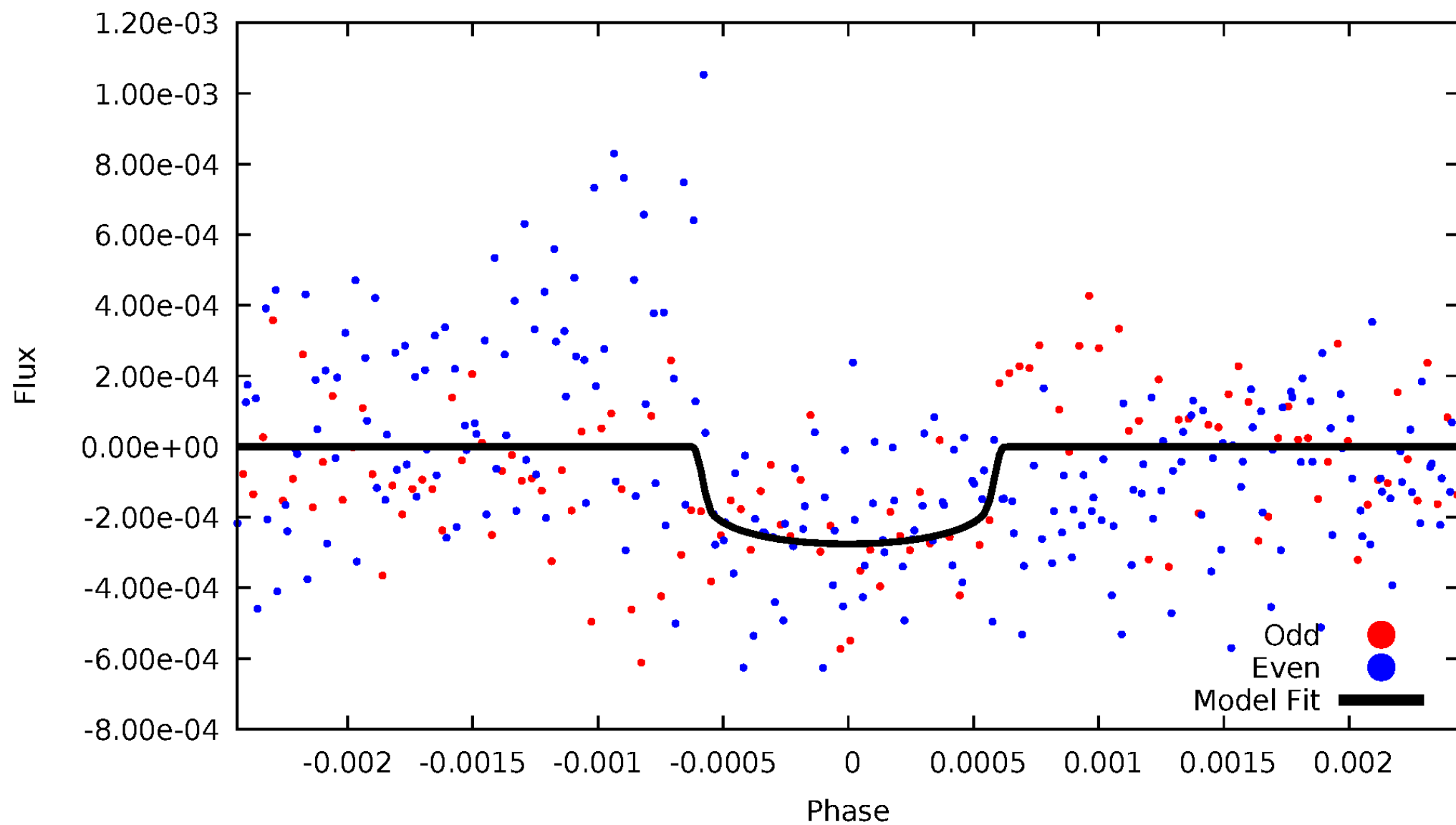


TCE 004773088-01



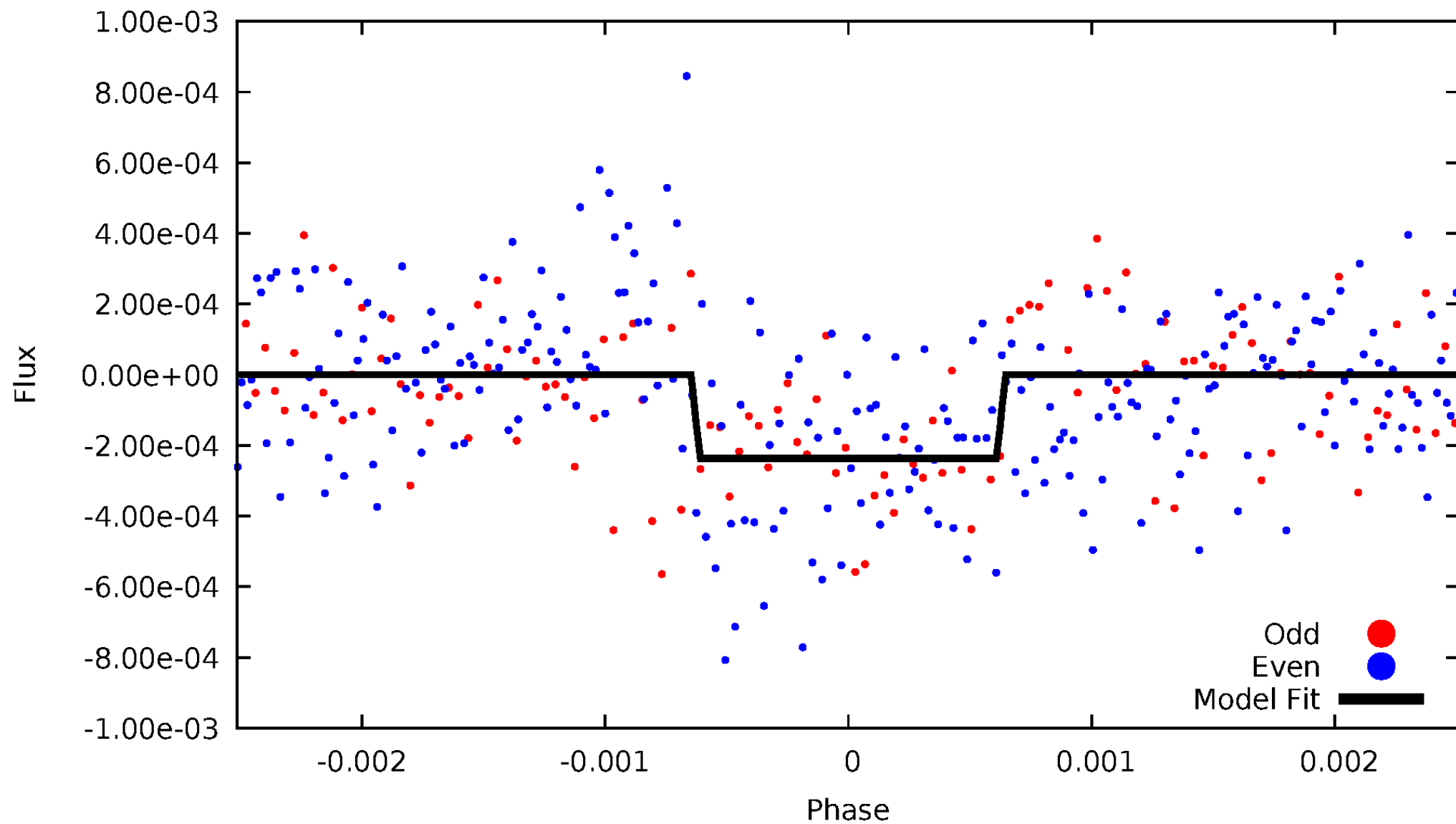
DV Odd/Even

TCE 004773088-01

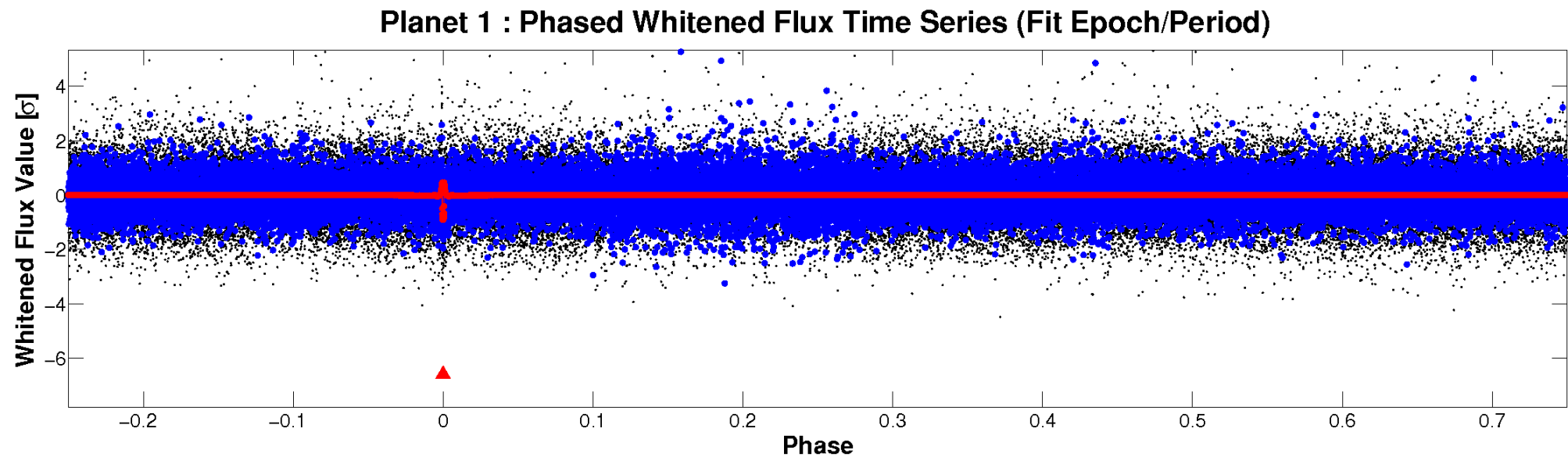
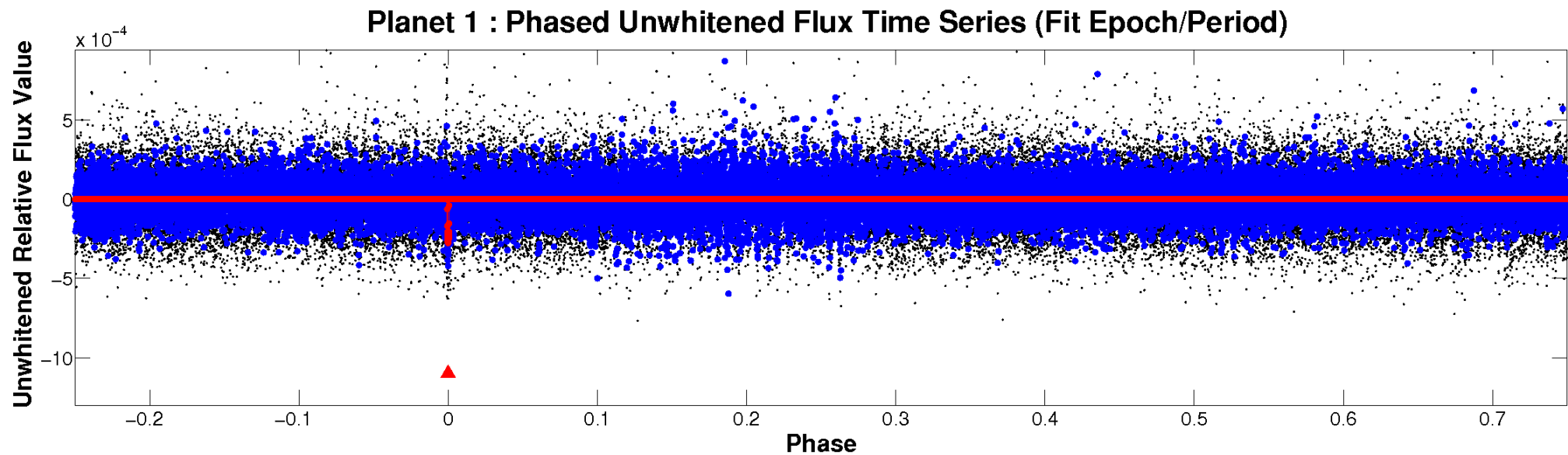


ALT Odd/Even

TCE 004773088-01

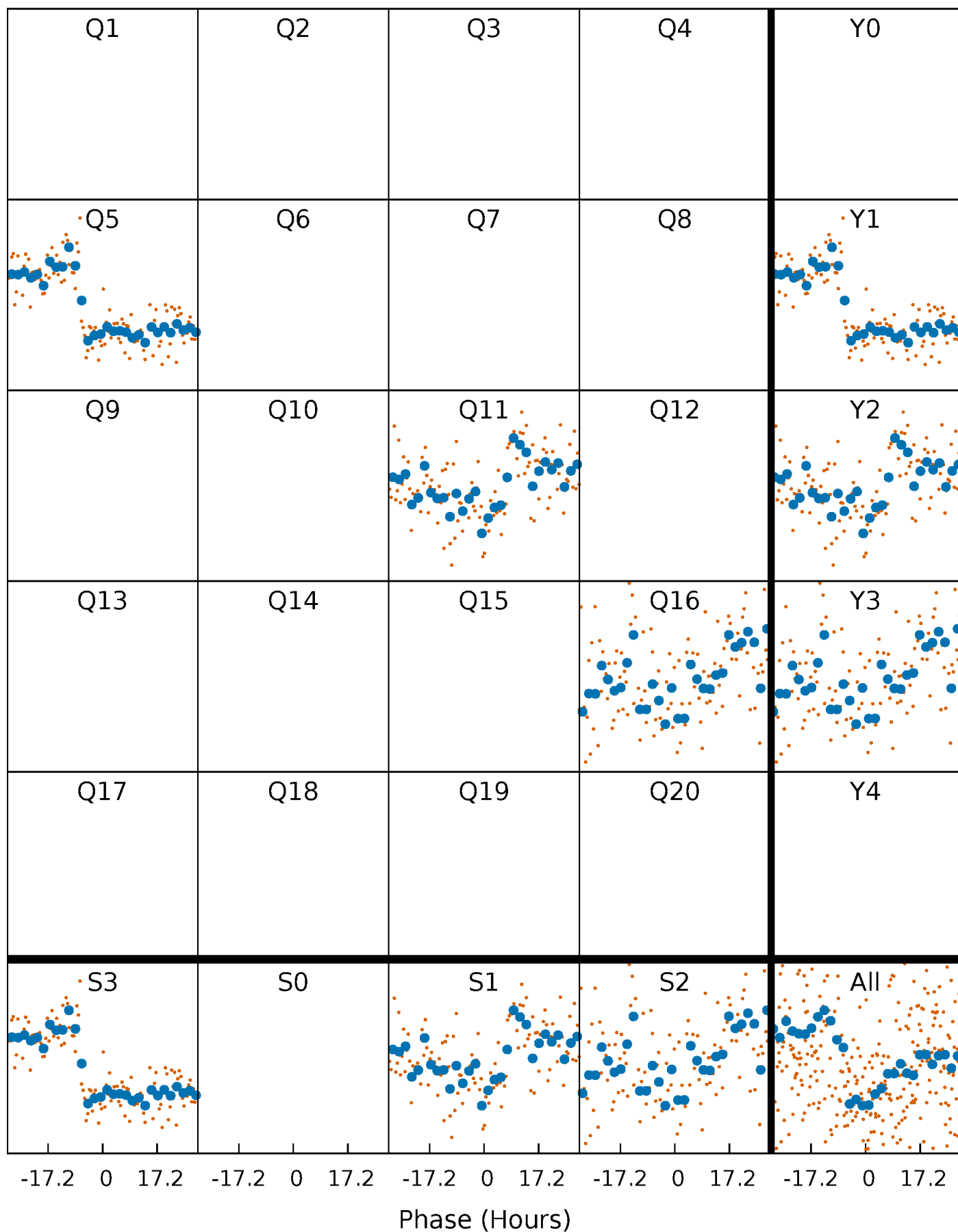


Non-Whitened Vs. Whitened Light Curve



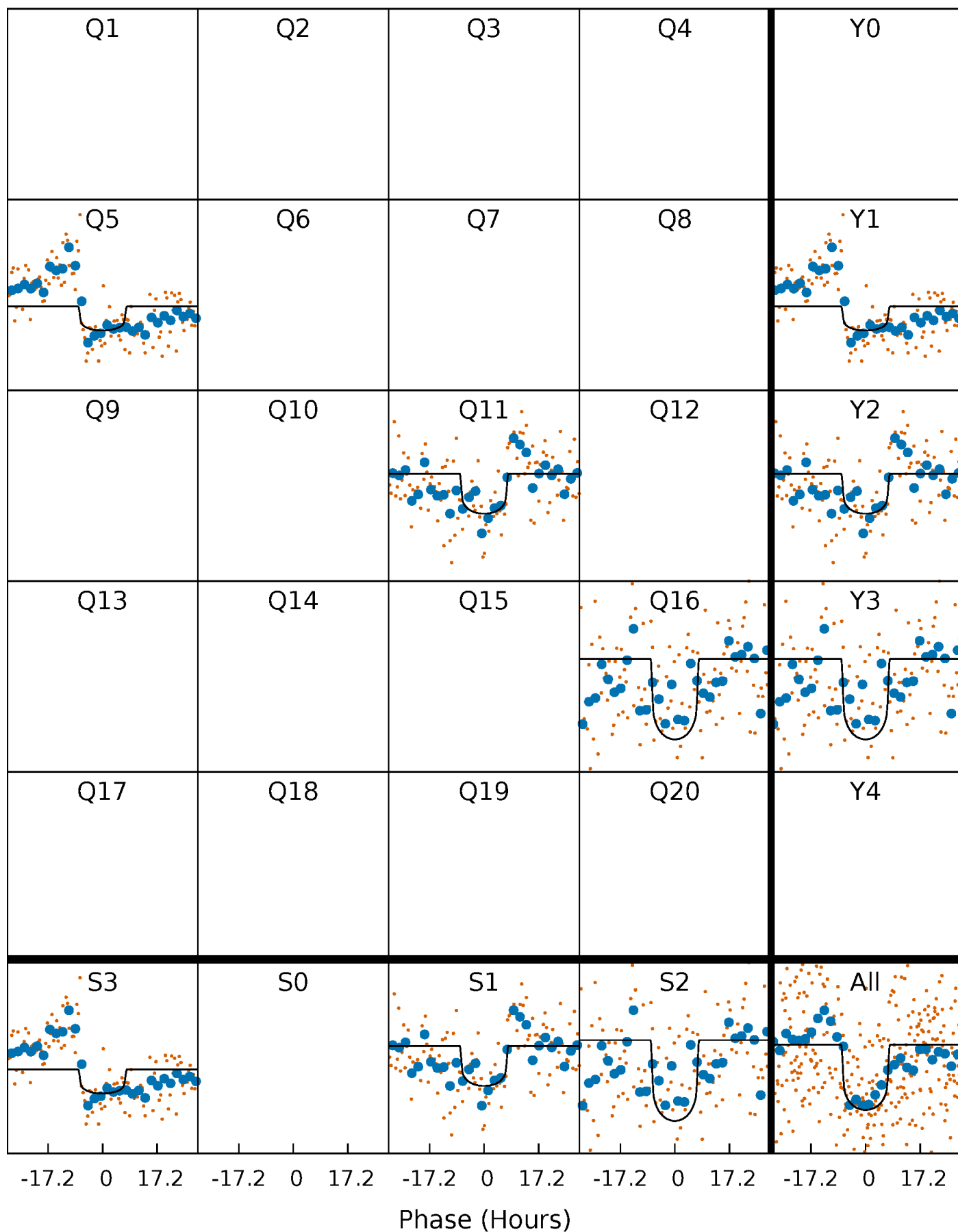
PDC Quarter-Phased Transit Curves

TCE 004773088-01 P=514.013989 Days $T_0=506.908835$ (BKJD)



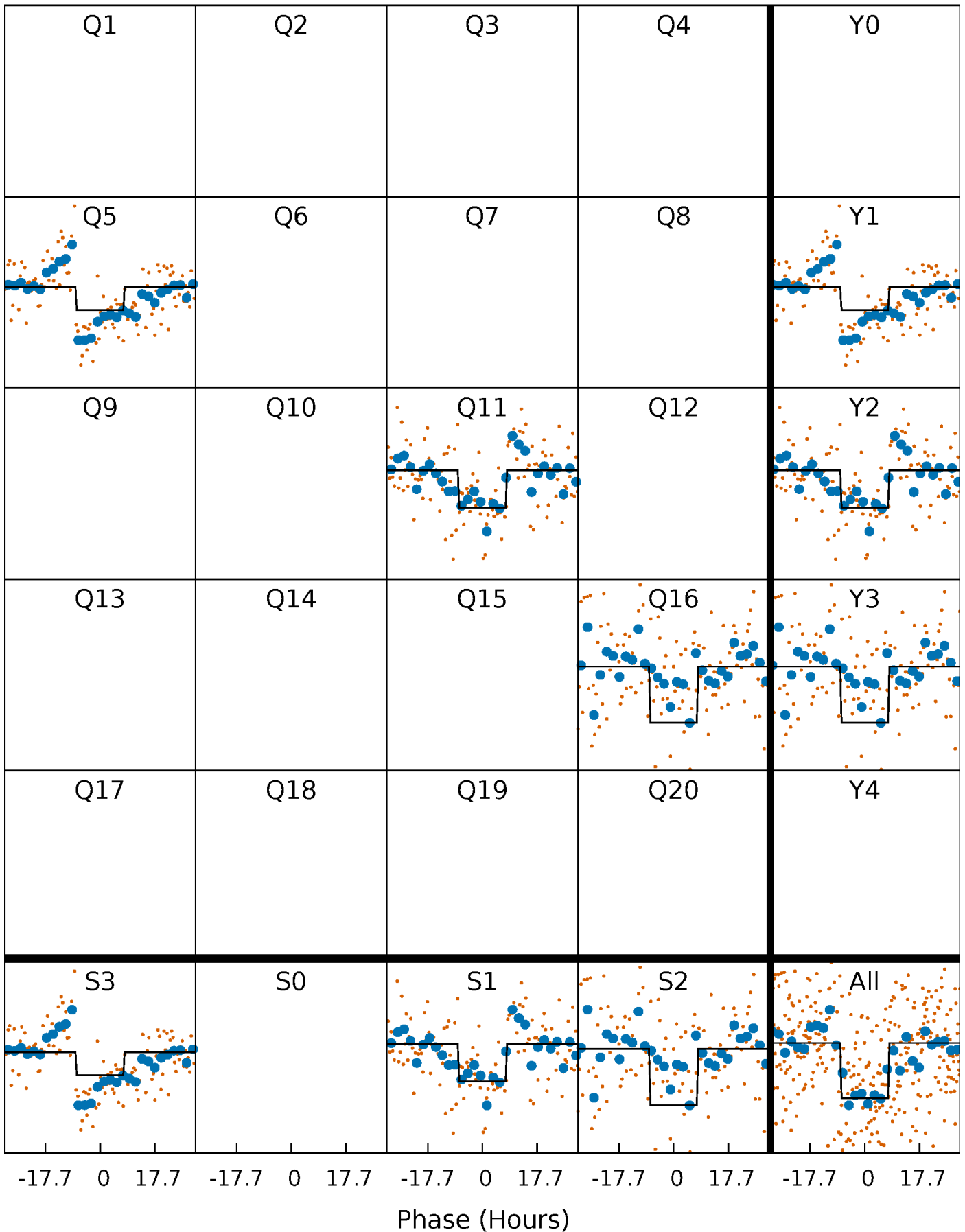
DV Quarter-Phased Transit Curves

TCE 004773088-01 P=514.013989 Days $T_0=506.908835$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

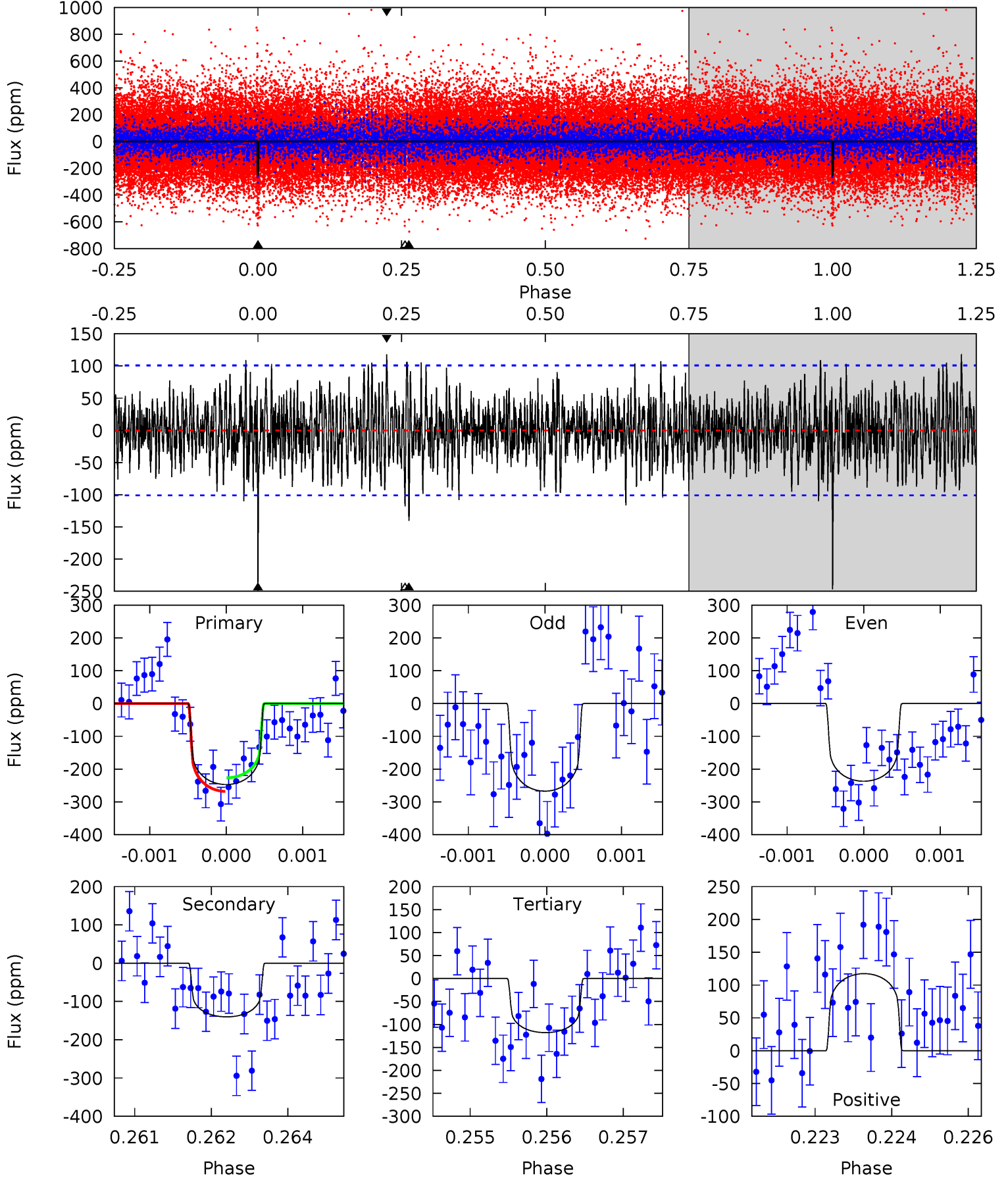
TCE 004773088-01 P=513.938090 Days $T_0=506.953551$ (BKJD)



DV Model-Shift Uniqueness Test

004773088-01, P = 514.013989 Days, E = 506.908835 Days

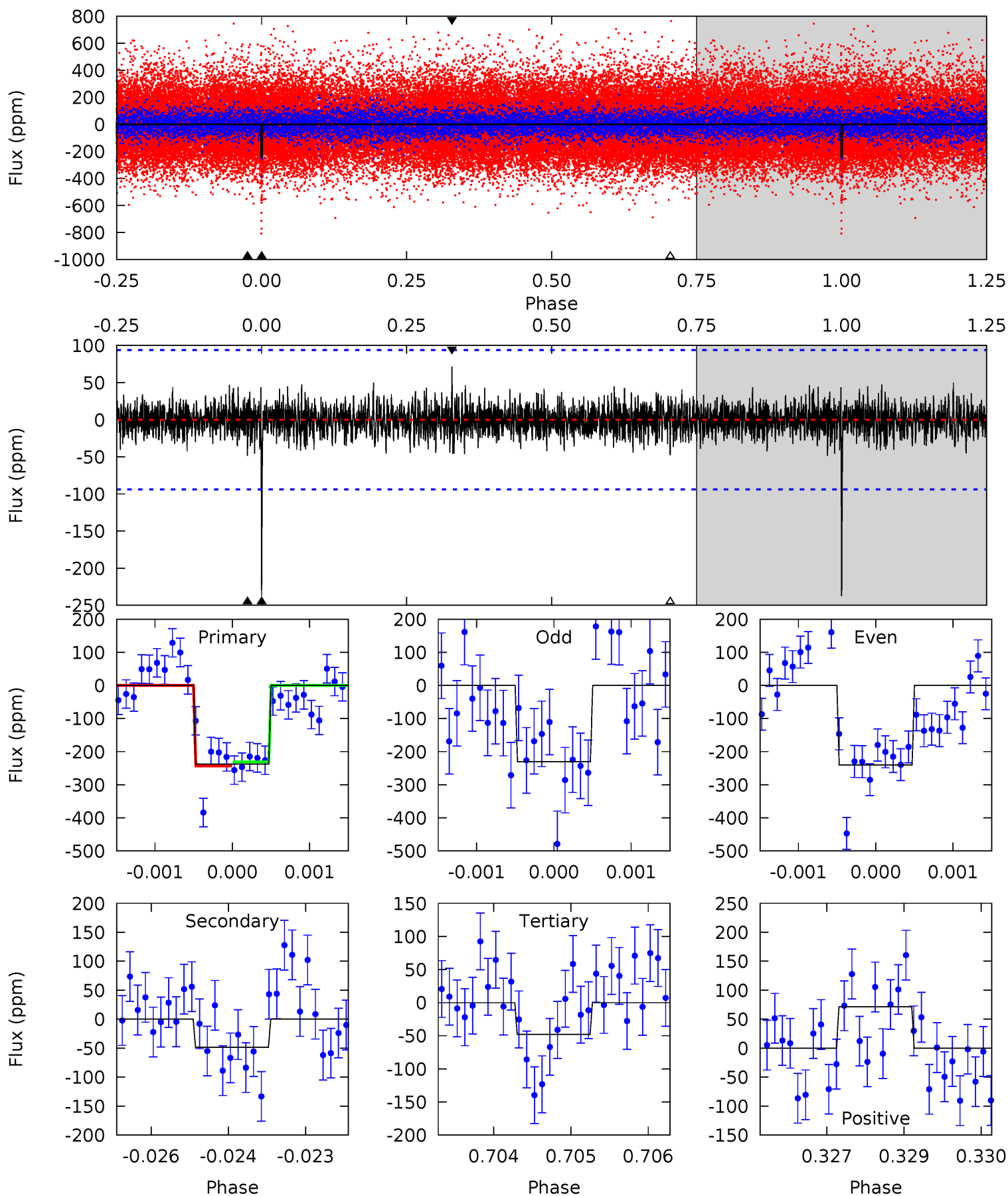
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	7.53	6.33	6.30	5.41	3.22	1.90	6.93	6.96	1.20	1.23	0.77	0.90	0.32	1.11



Alt Model-Shift Uniqueness Test

004773088-01, P = 513.938090 Days, E = 506.953551 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	2.79	2.76	4.11	5.41	3.22	0.81	10.9	9.56	0.03	-1.31	0.28	1.04	0.23	0.36



Stellar Parameters For KIC 004773088

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5967^{+161}_{-179}	$4.376^{+0.132}_{-0.182}$	$-0.320^{+0.300}_{-0.300}$	$1.027^{+0.293}_{-0.180}$	$0.914^{+0.129}_{-0.094}$	$1.189^{+0.711}_{-0.606}$
	+3%/-3%	+3%/-4%	+94%/-94%	+29%/-18%	+14%/-10%	+60%/-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 004773088-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-140 ± 19	$1.92^{+0.63}_{-0.66}$	339^{+27}_{-20}	5103^{+996}_{-554}	31507^{+43023}_{-13970}
Alt.	-49 ± 17	$1.76^{+0.66}_{-0.60}$	339^{+25}_{-21}	4245^{+814}_{-544}	12632^{+18651}_{-6848}

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 $A_{\text{obs}} \gg 1.0$

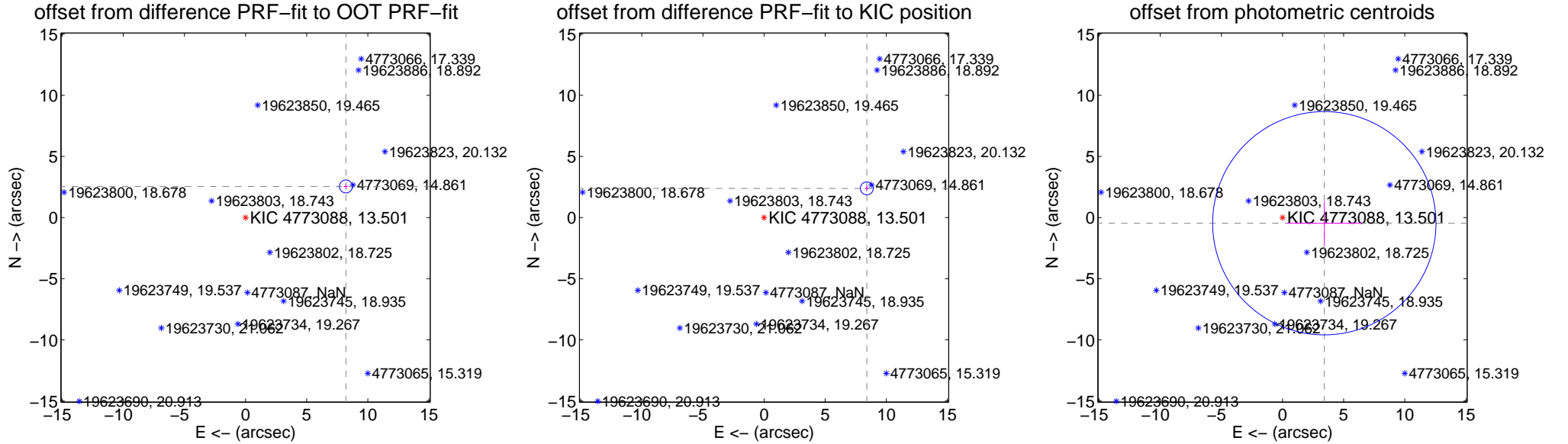
DV Centroid Data

Supplemental centroid analysis for 004773088-01. Kepler magnitude: 13.50. Transit SNR 8.15

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.592 \pm 0.176	48.69	-8.207 \pm 0.171	2.544 \pm 0.225
PRF-fit source offset from KIC position	8.739 \pm 0.176	49.75	-8.407 \pm 0.171	2.385 \pm 0.225
photometric centroid source offset	3.45 \pm 3.04	1.13	-3.42 \pm 3.06	-0.46 \pm 1.82

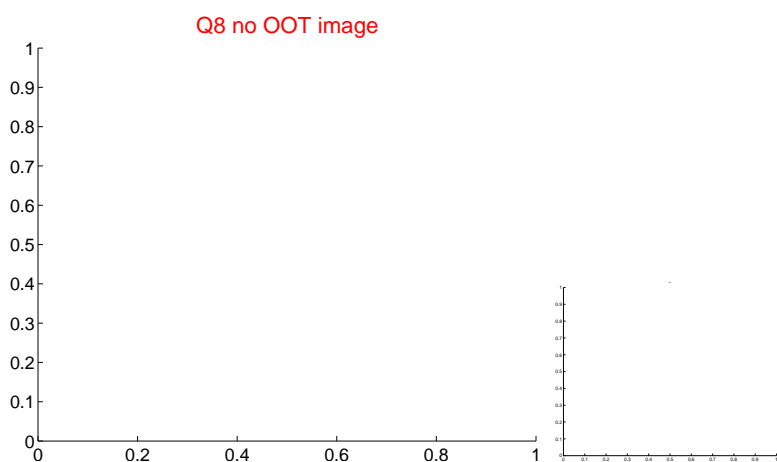
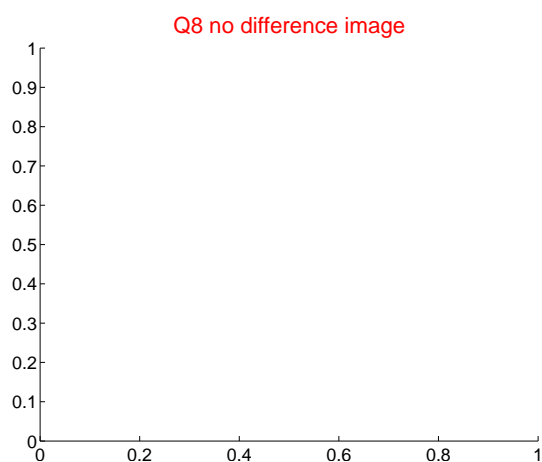
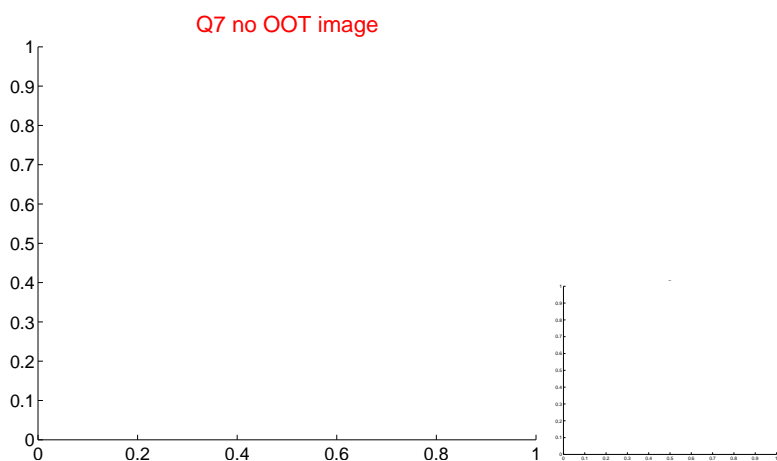
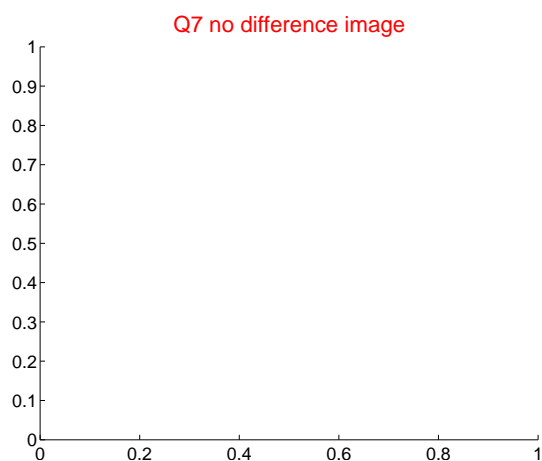
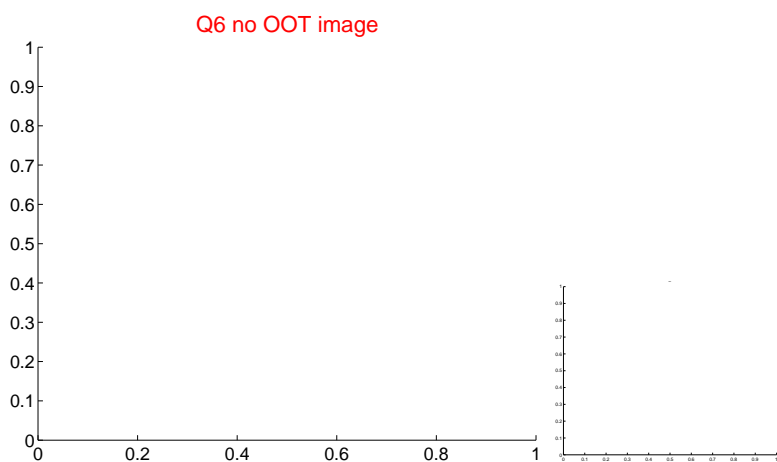
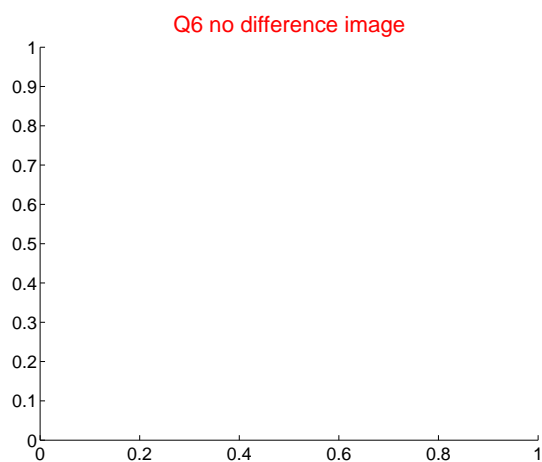
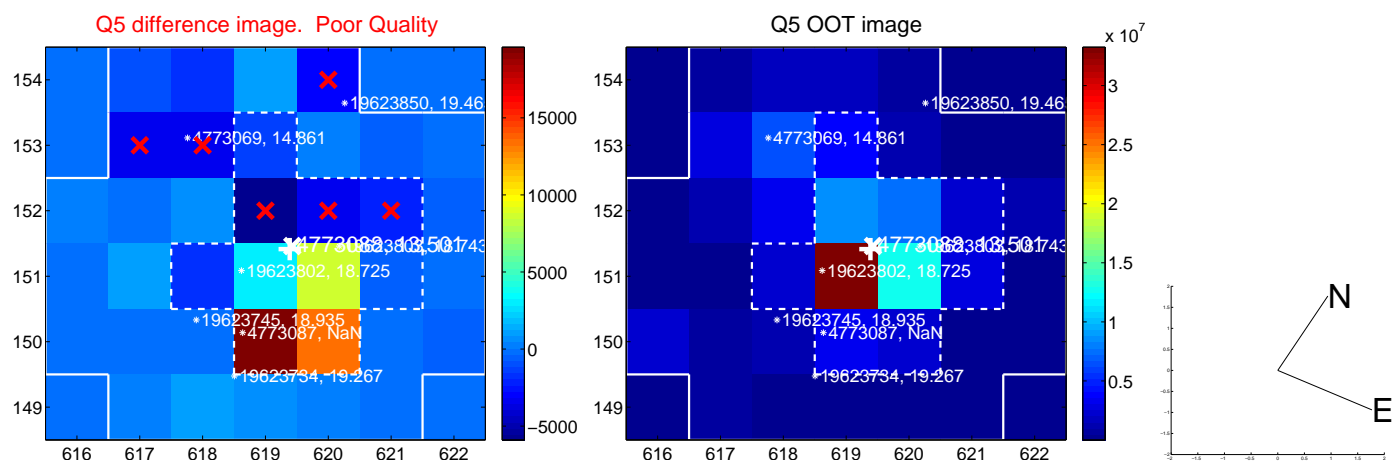


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



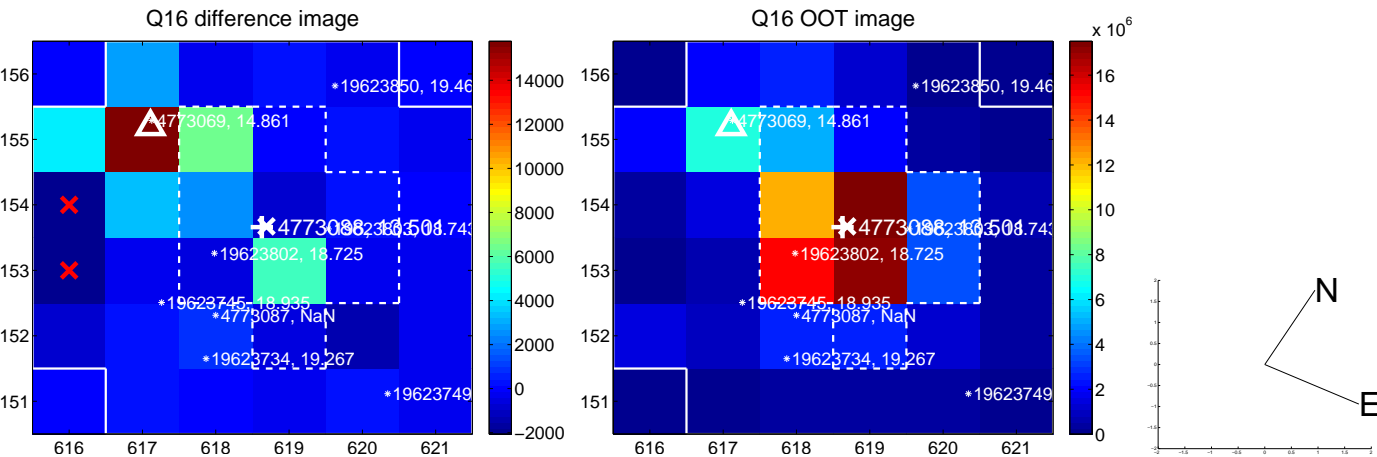
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



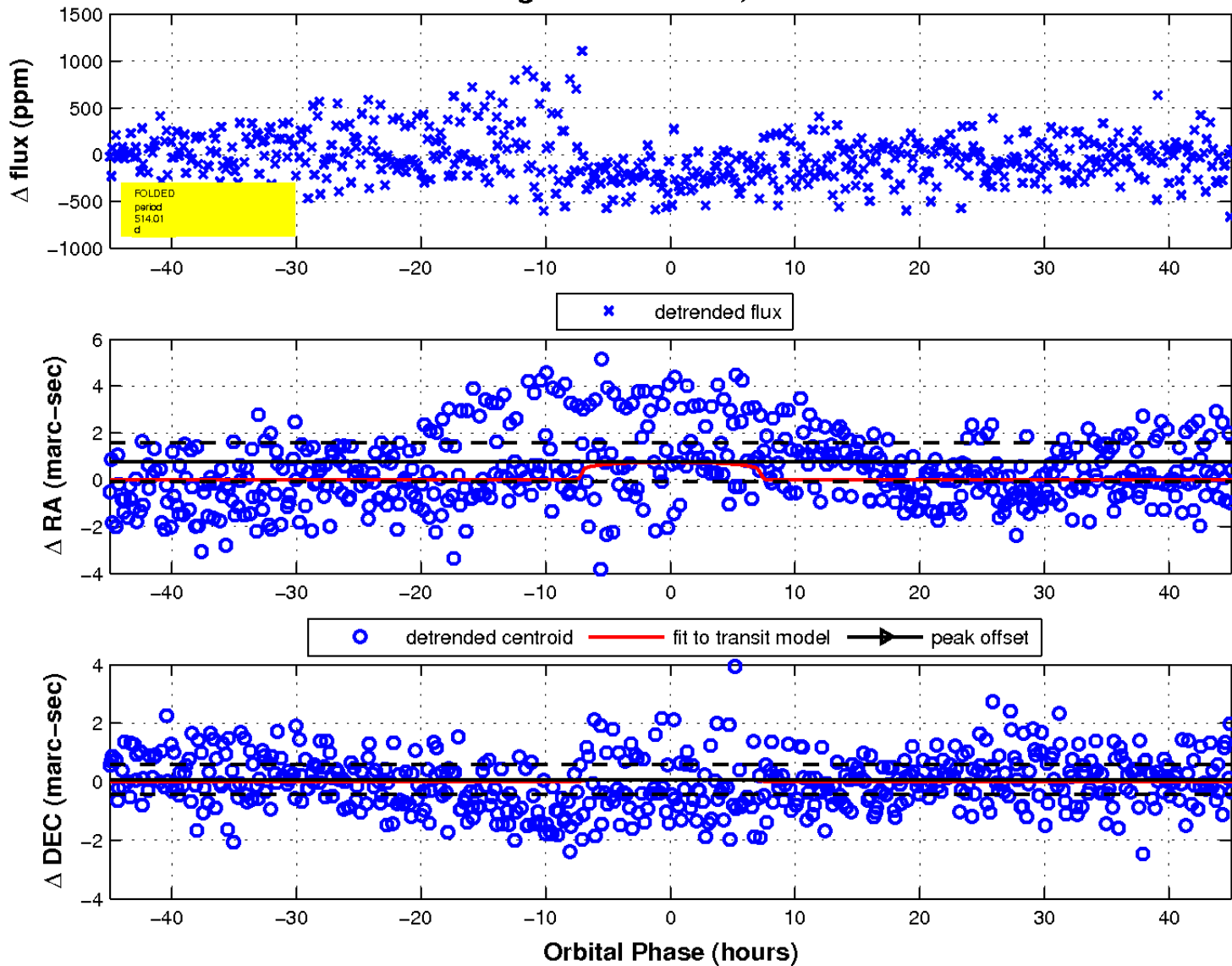
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

