

KIC 005083543

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})
005083543-01	OBS	No	312.875143	317.200716	681.0	5.465	7.8	6.5	0.70	5735	2.15	0.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005083543-01	OBS	FP	0.00	1	0	0	0	LPP_DV LPP_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.

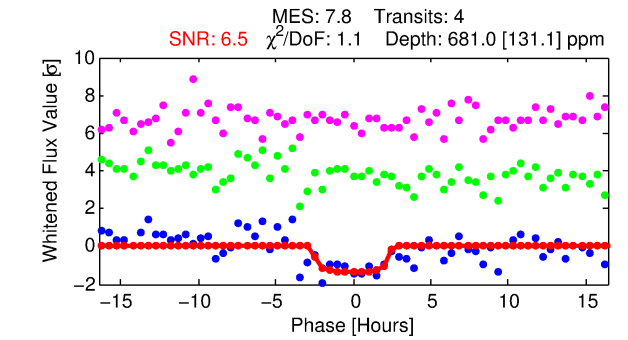
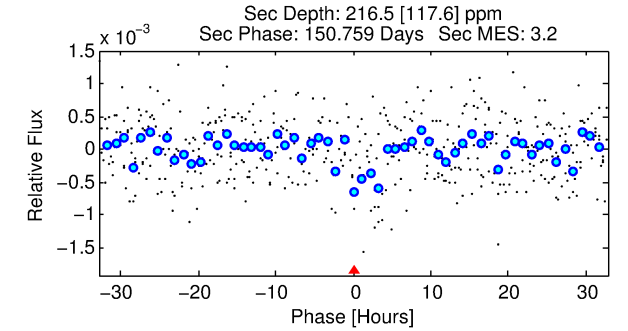
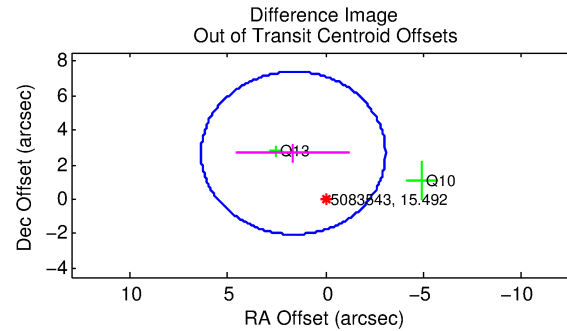
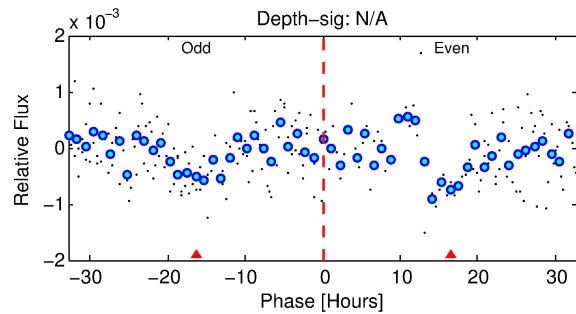
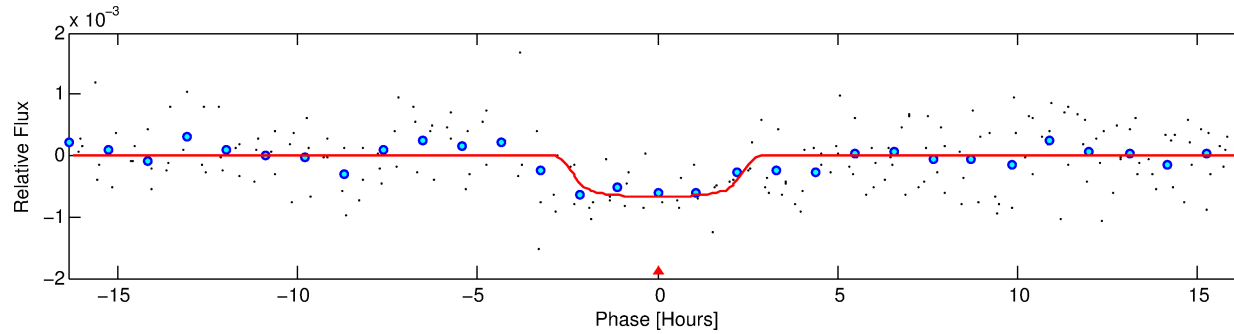
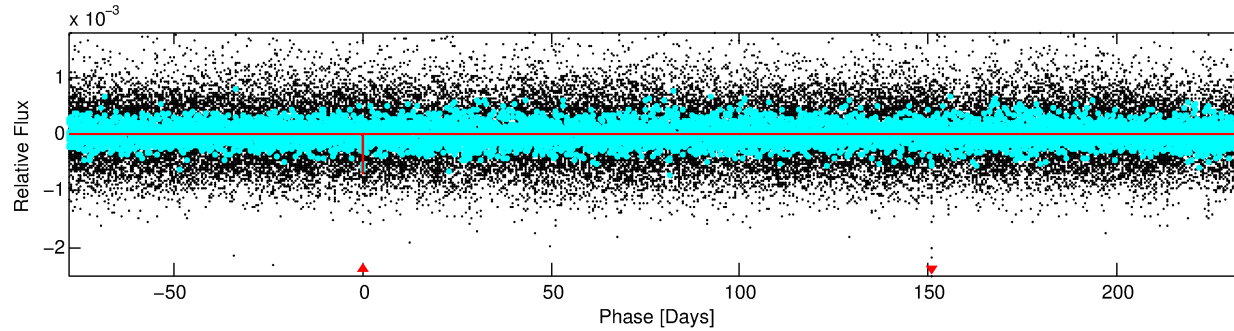
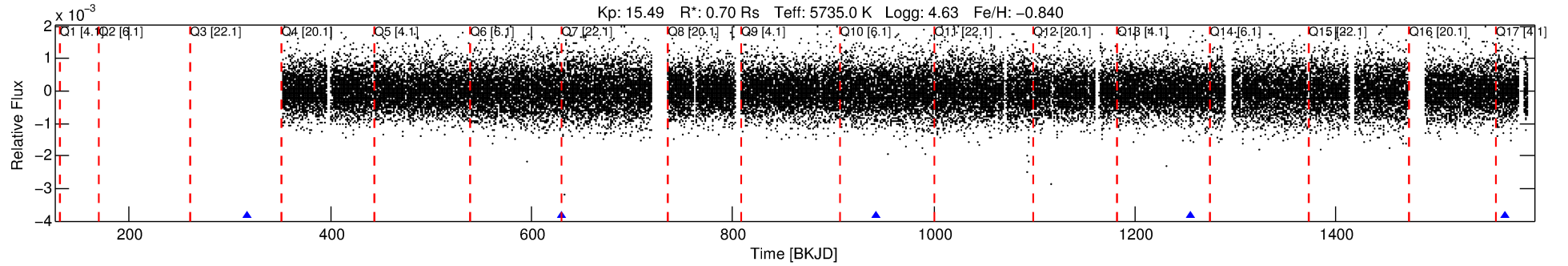
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005083543-01

No Significant Match Found

DV One-Page Summary

KIC: 5083543 Candidate: 1 of 1 Period: 312.875 d



DV Fit Results:

Period = 312.87514 [0.01275] d
Epoch = 317.2007 [0.0401] BKJD
Rp/R* = 0.0280 [0.0081]
a/R* = 222.05 [302.72]
b = 0.89 [0.31]
Seff = 0.70 [0.18]
Teq = 234 [15] K
Rp = 2.15 [0.74] Re
a = 0.8252 [0.1283] AU
Ag = 17614.44 [14545.41] [1.21σ]
Teffp = 4159 [839] K [4.68σ]

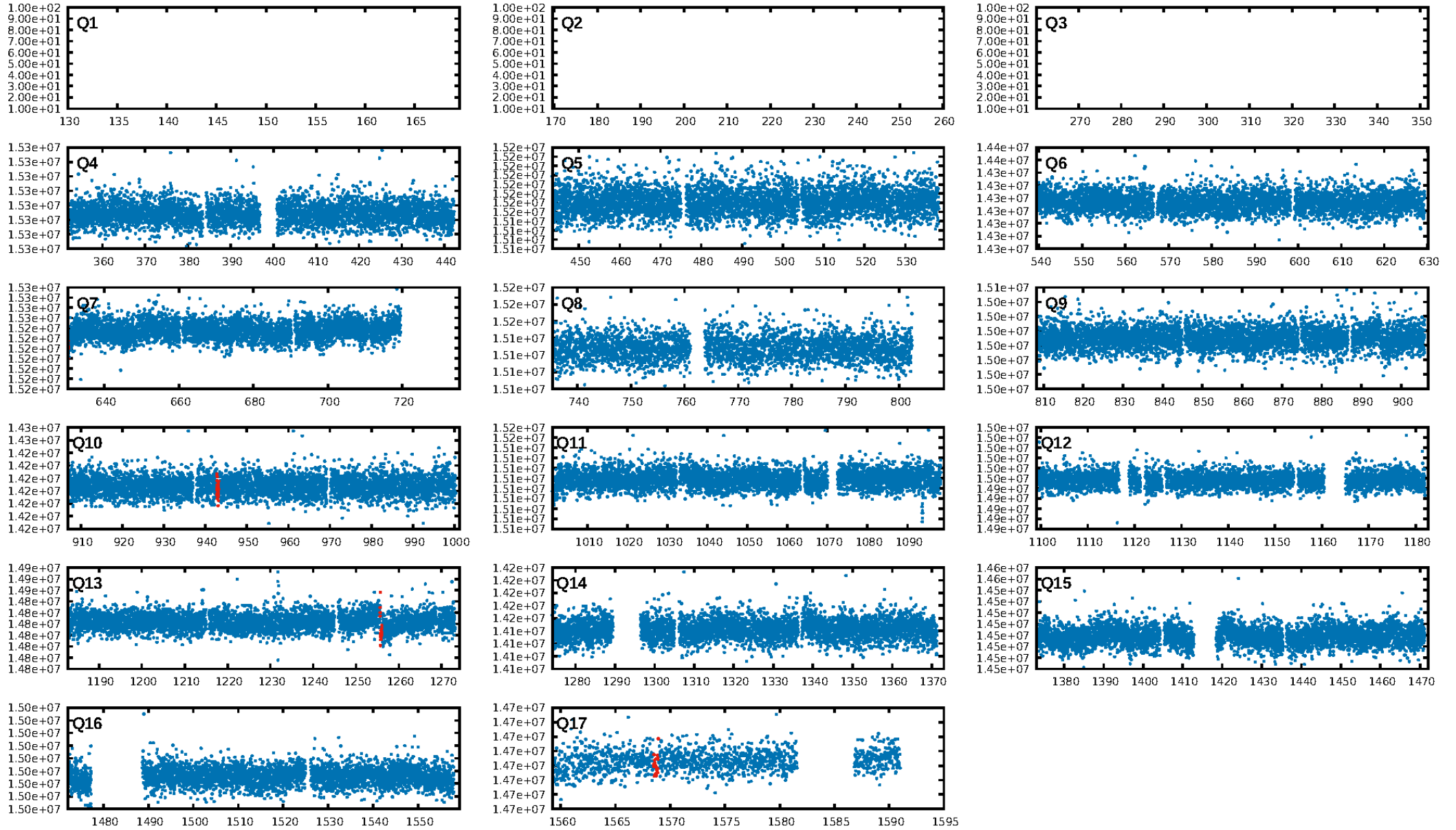
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 21.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.86e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 48.05
Centroid-sig: 99.7%
Centroid-so: 3.162 arcsec [2.09σ]
OotOffset-rm: 3.130 arcsec [1.99σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 3.571 arcsec [2.95σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

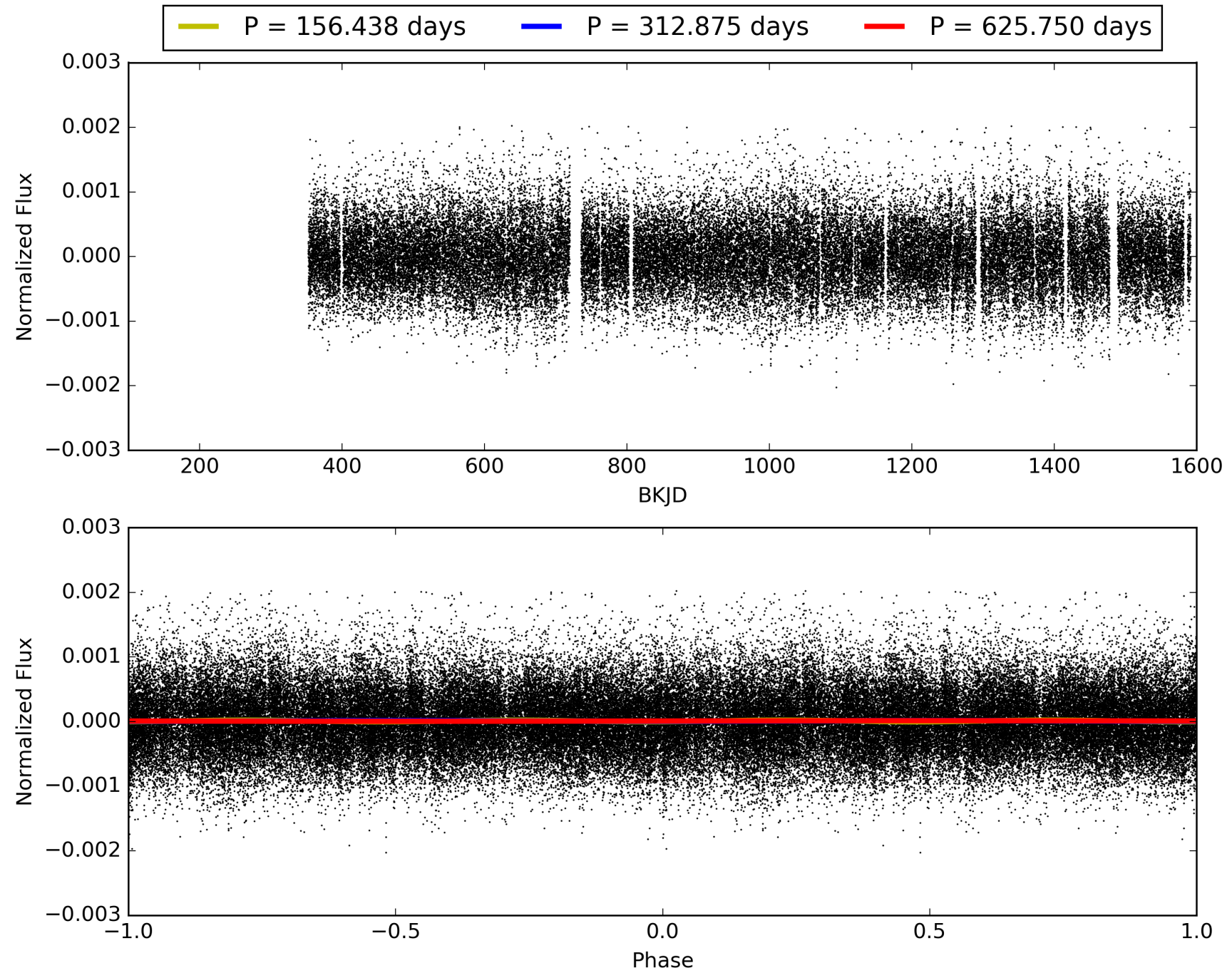
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 20:43:22 Z

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

TCE 005083543-01, PDC Light Curves

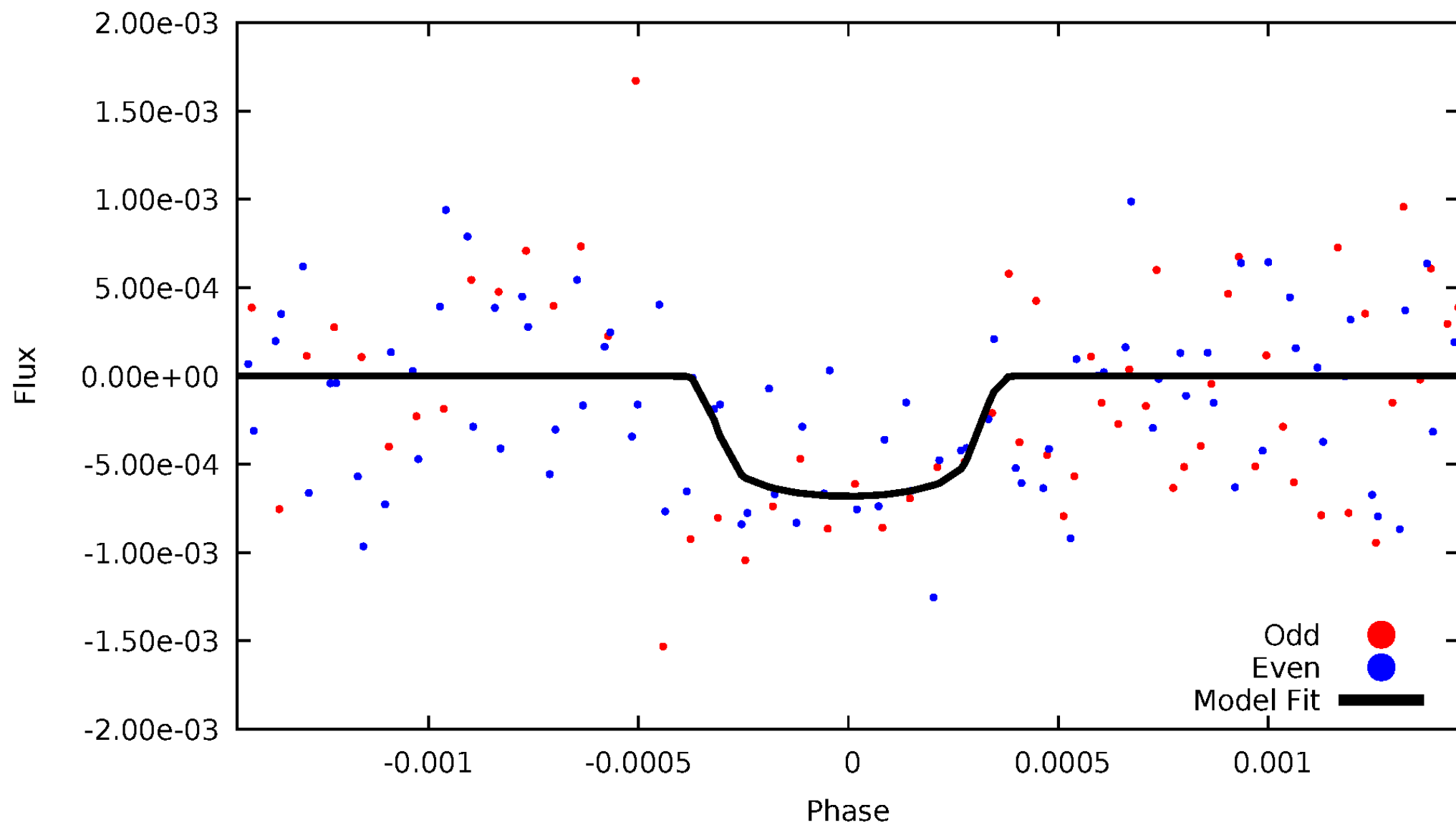


TCE 005083543-01



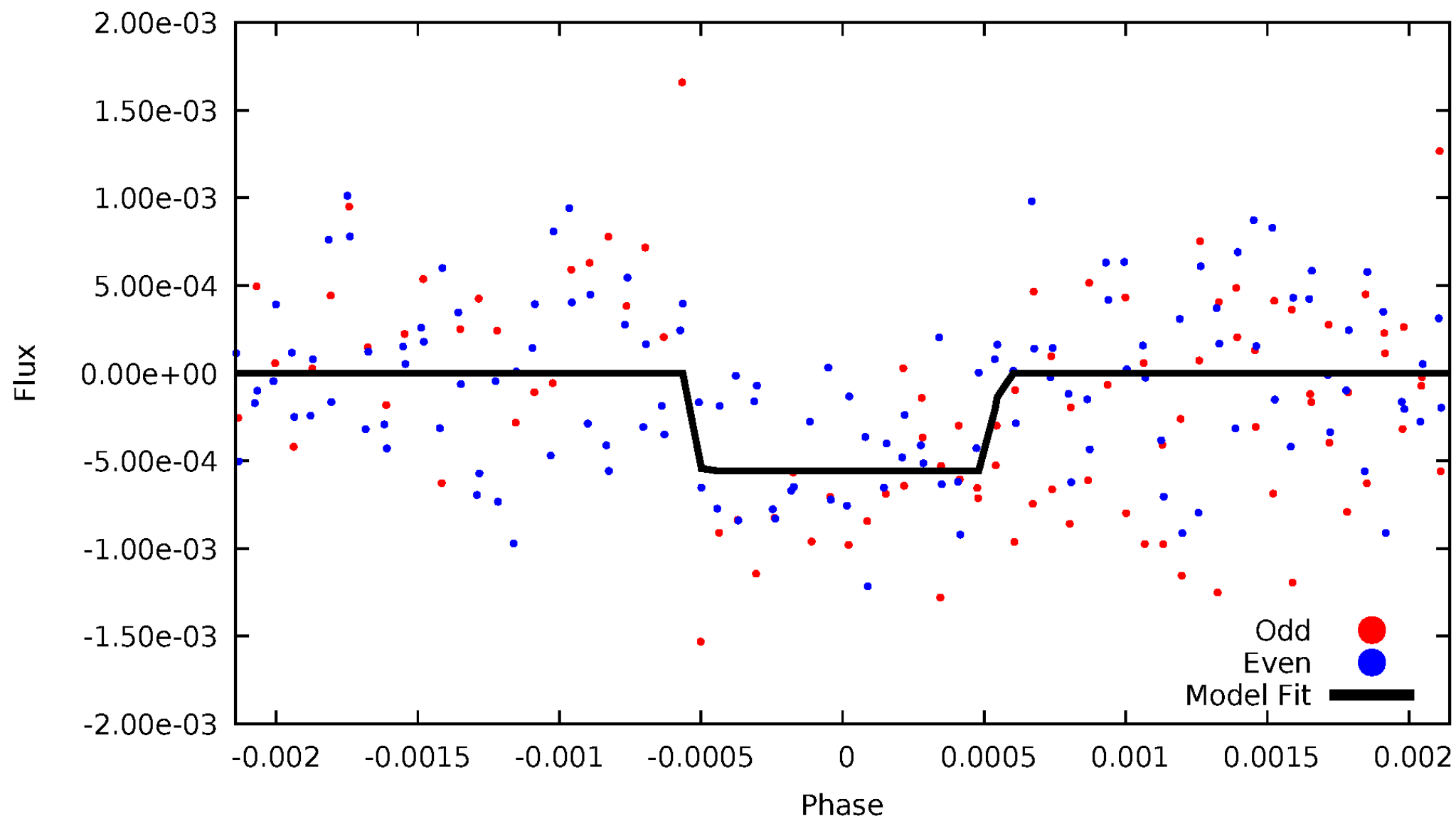
DV Odd/Even

TCE 005083543-01

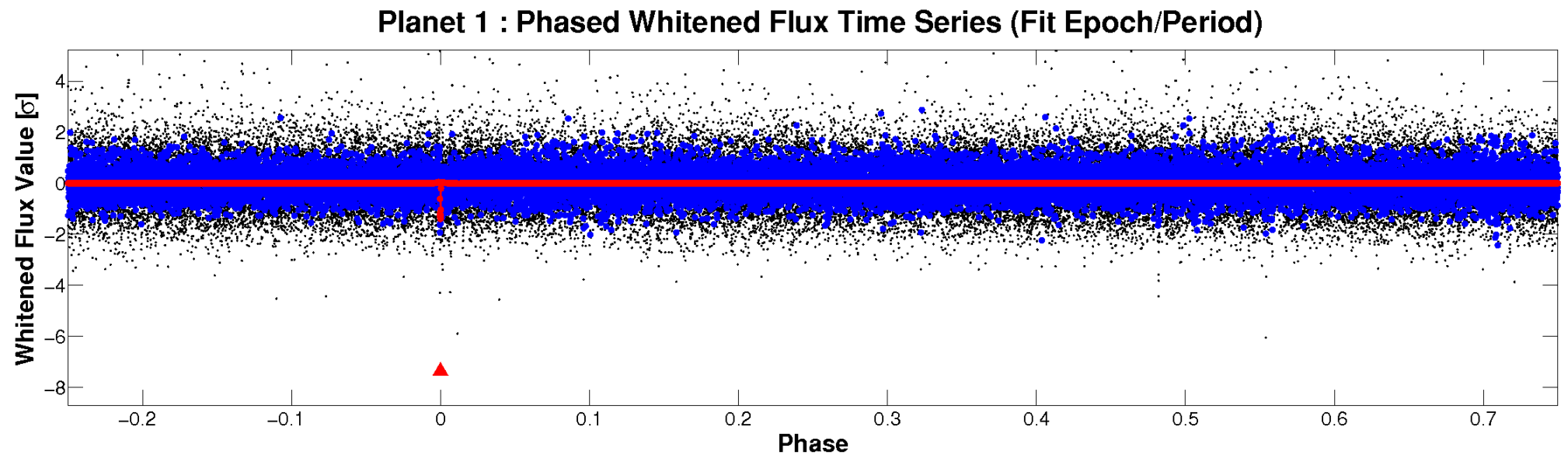
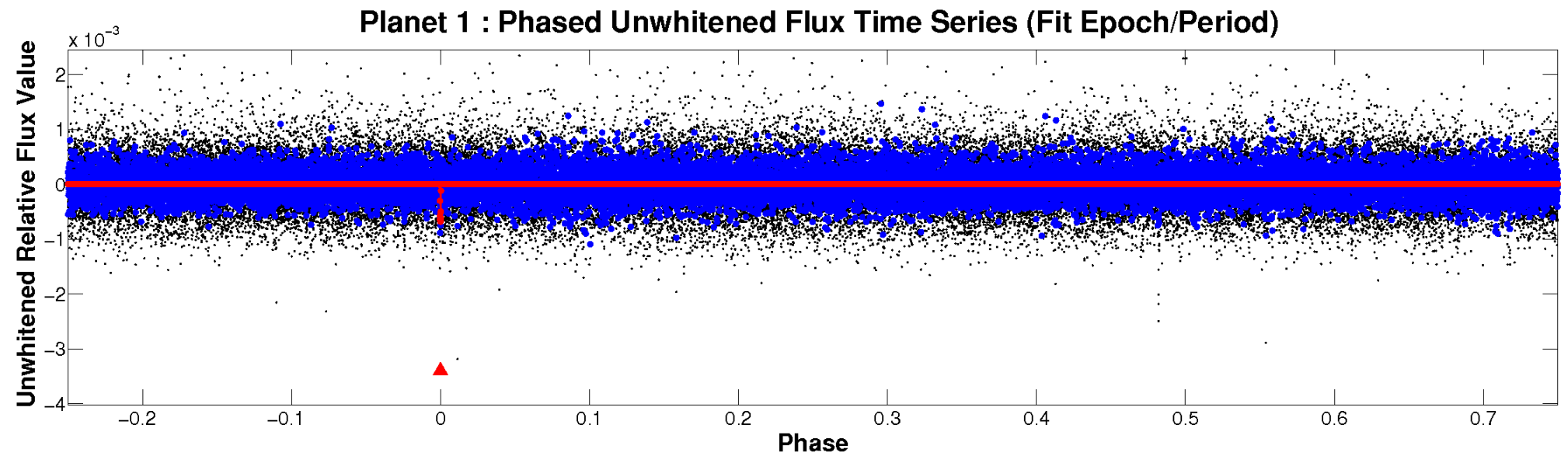


ALT Odd/Even

TCE 005083543-01

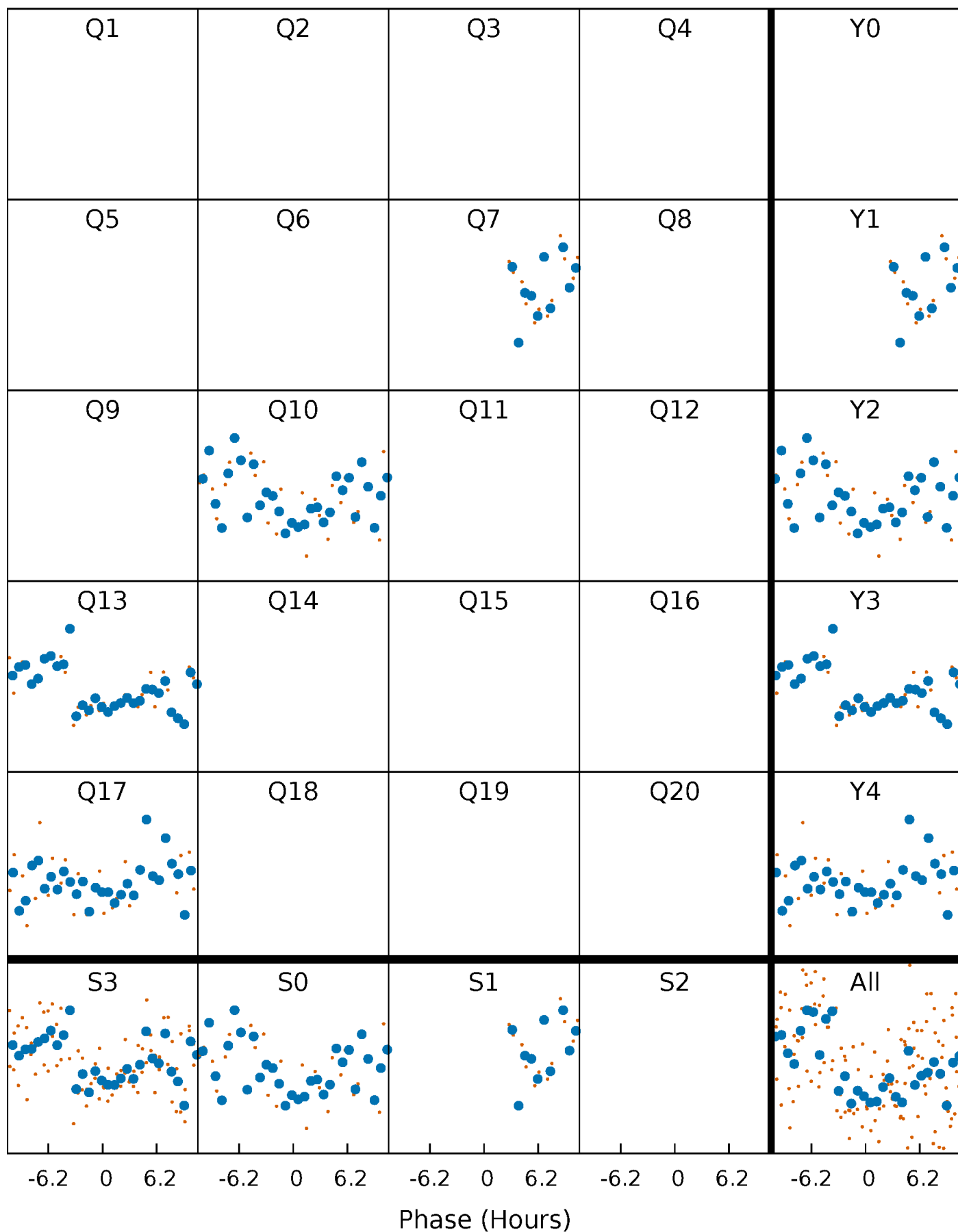


Non-Whitened Vs. Whitened Light Curve



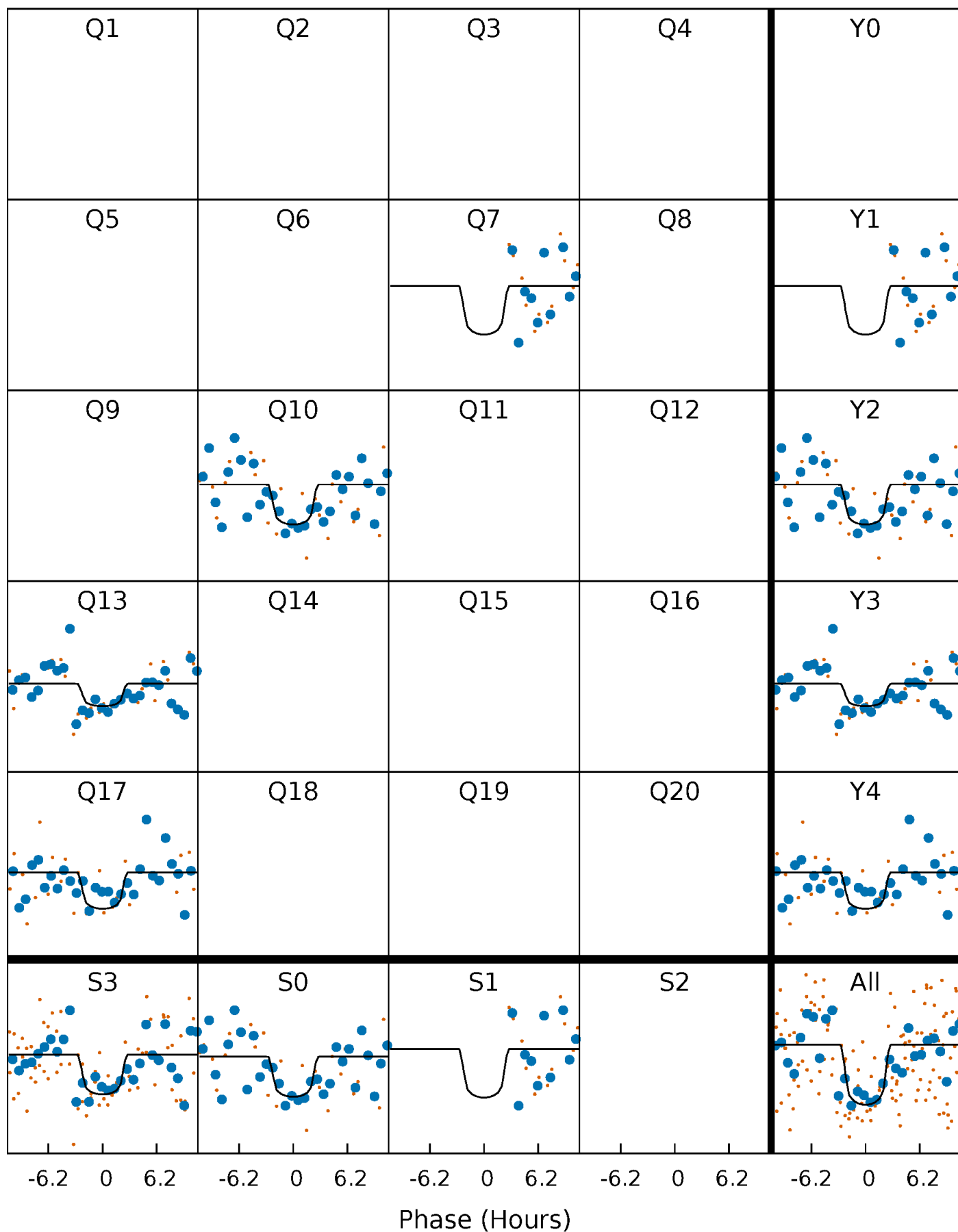
PDC Quarter-Phased Transit Curves

TCE 005083543-01 P=312.875143 Days $T_0=317.200716$ (BKJD)



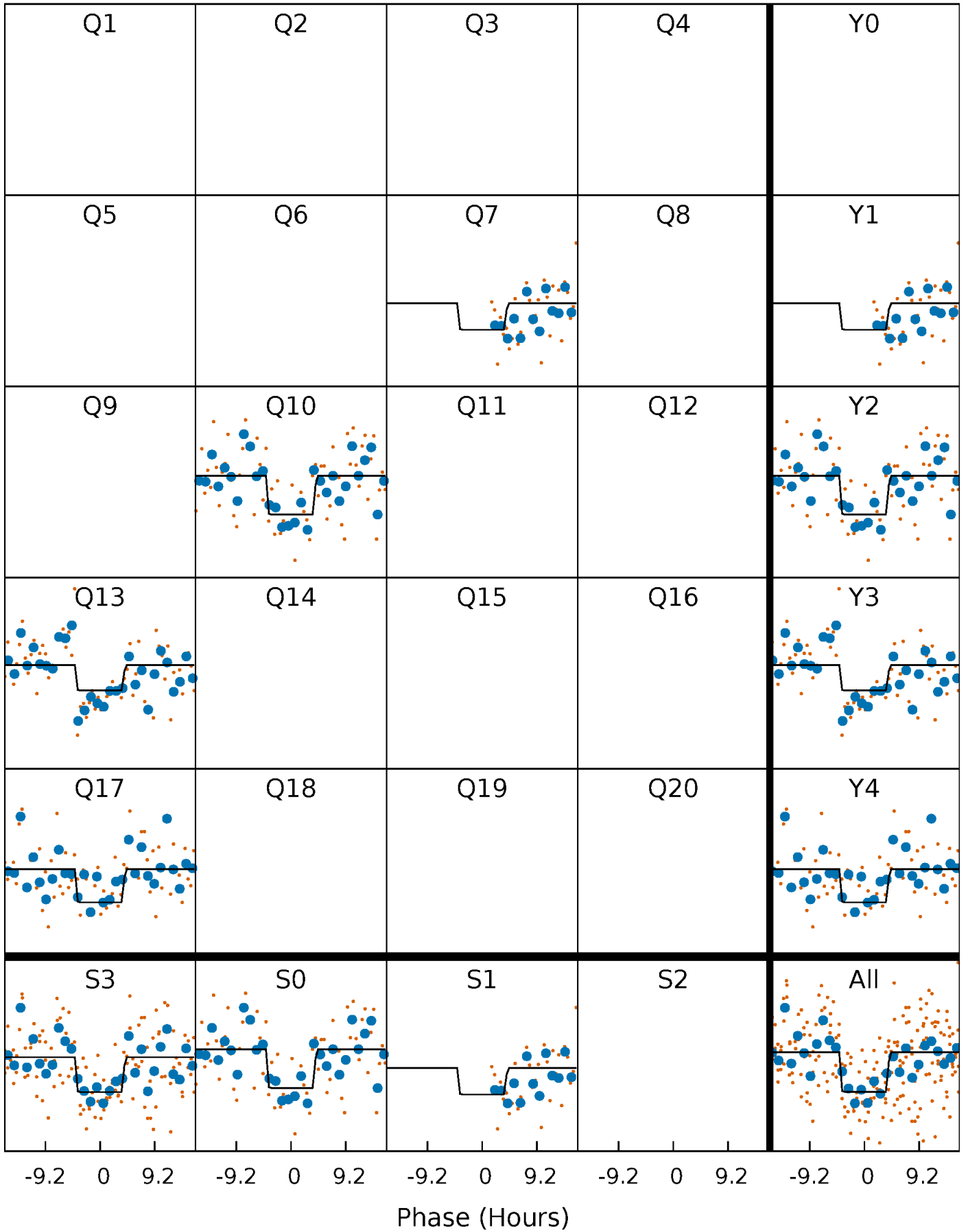
DV Quarter-Phased Transit Curves

TCE 005083543-01 P=312.875143 Days $T_0=317.200716$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

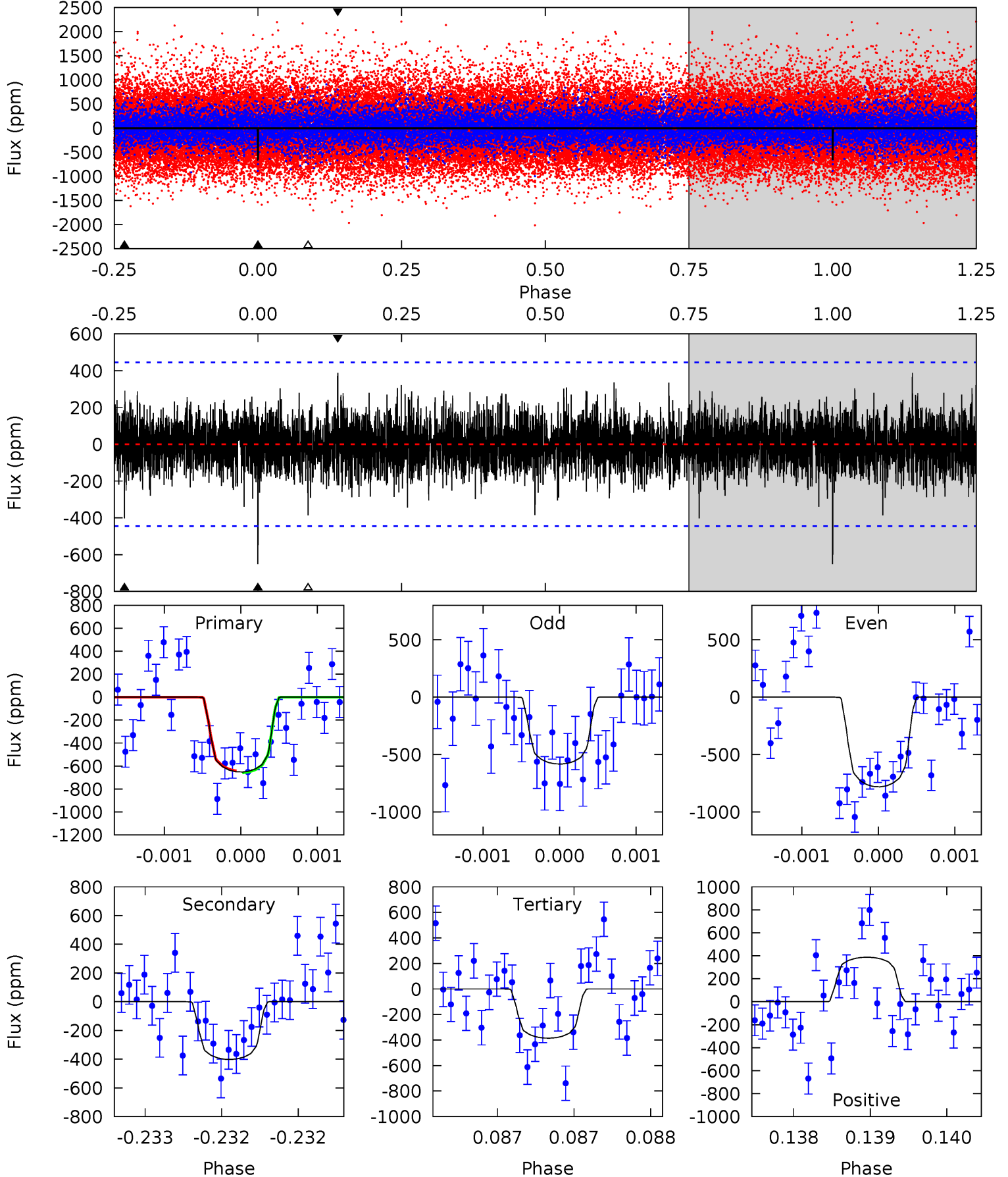
TCE 005083543-01 P=312.858237 Days $T_0=317.270104$ (BKJD)



DV Model-Shift Uniqueness Test

005083543-01, P = 312.875143 Days, E = 317.200716 Days

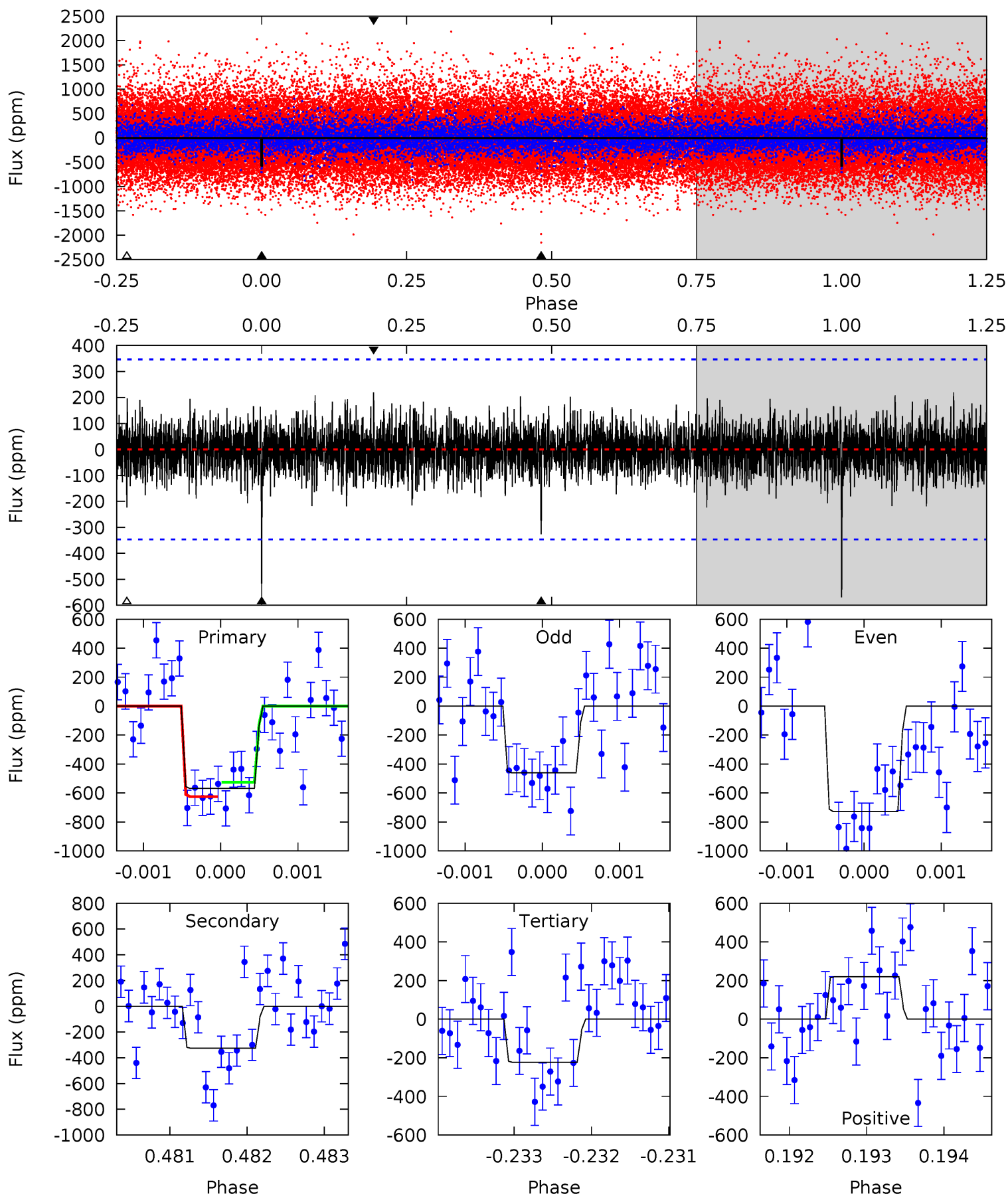
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.06	4.97	4.77	4.79	5.50	3.36	1.17	3.29	3.27	0.20	0.18	1.20	0.97	0.37	0.09



Alt Model-Shift Uniqueness Test

005083543-01, P = 312.858237 Days, E = 317.270104 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.92	5.11	3.50	3.44	5.43	3.26	0.94	5.42	5.48	1.61	1.67	2.07	1.09	0.28	0.76



Stellar Parameters For KIC 005083543

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5735^{+197}_{-197}	$4.628^{+0.032}_{-0.120}$	$-0.840^{+0.300}_{-0.300}$	$0.703^{+0.132}_{-0.044}$	$0.764^{+0.072}_{-0.065}$	$3.100^{+0.499}_{-1.119}$
	+3%/-3%	+1%/-3%	+36%/-36%	+19%/-6%	+9%/-9%	+16%/-36%
Source	KIC0	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 005083543-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-402 ± 81	$2.19^{+0.68}_{-0.57}$	330^{+18}_{-13}	4951^{+753}_{-553}	30299^{+27860}_{-12876}
Alt.	-326 ± 64	$1.84^{+0.64}_{-0.64}$	332^{+16}_{-15}	5092^{+1165}_{-636}	35060^{+48281}_{-16590}

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

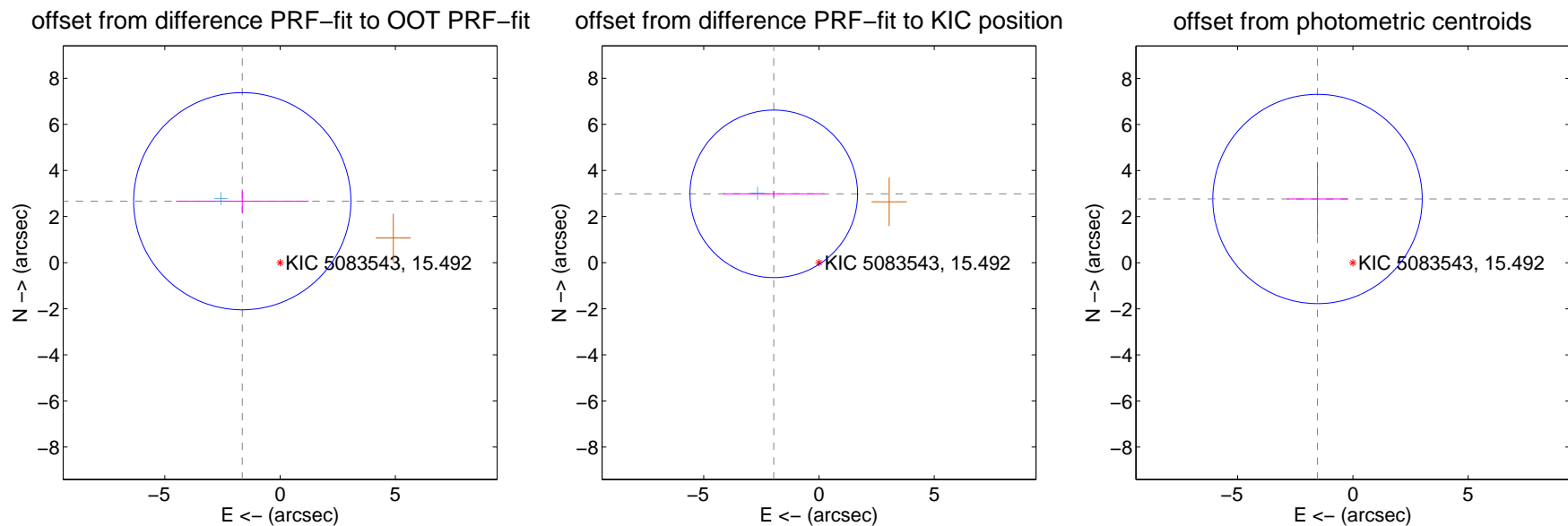
DV Centroid Data

Supplemental centroid analysis for 005083543-01. Kepler magnitude: 15.49. Transit SNR 6.54

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.130 ± 1.570	1.99	1.641 ± 2.877	2.665 ± 0.510
PRF-fit source offset from KIC position	3.571 ± 1.211	2.95	1.961 ± 2.198	2.985 ± 0.129
photometric centroid source offset	3.16 ± 1.51	2.09	1.53 ± 1.32	2.77 ± 1.57



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.

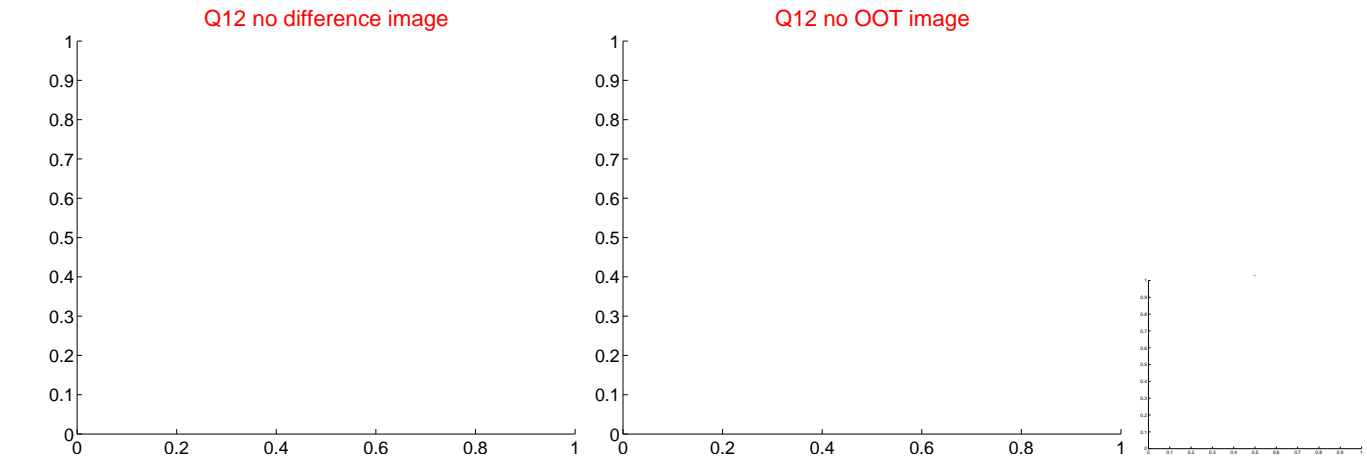
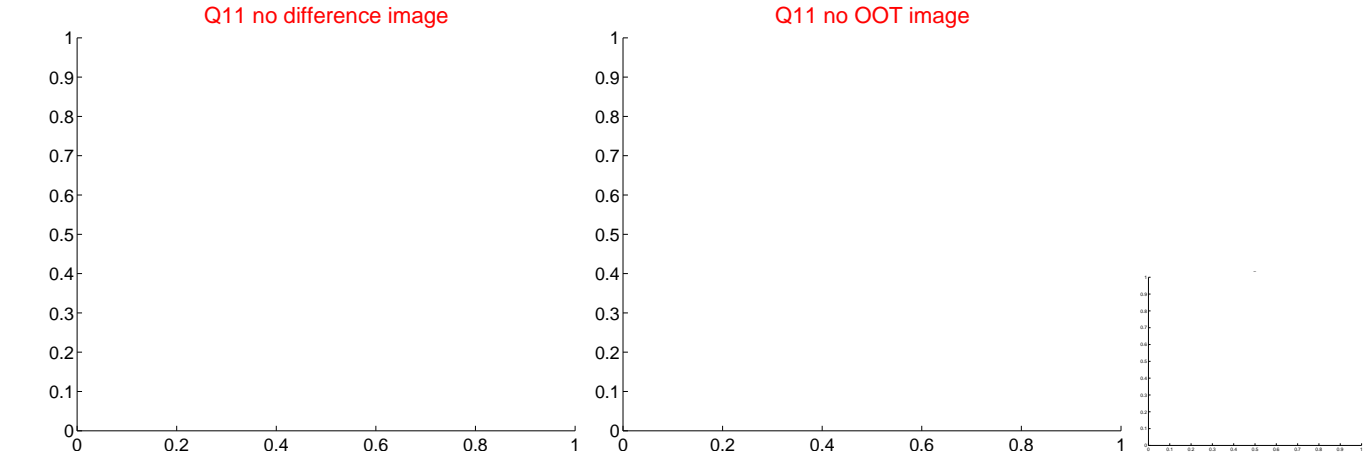
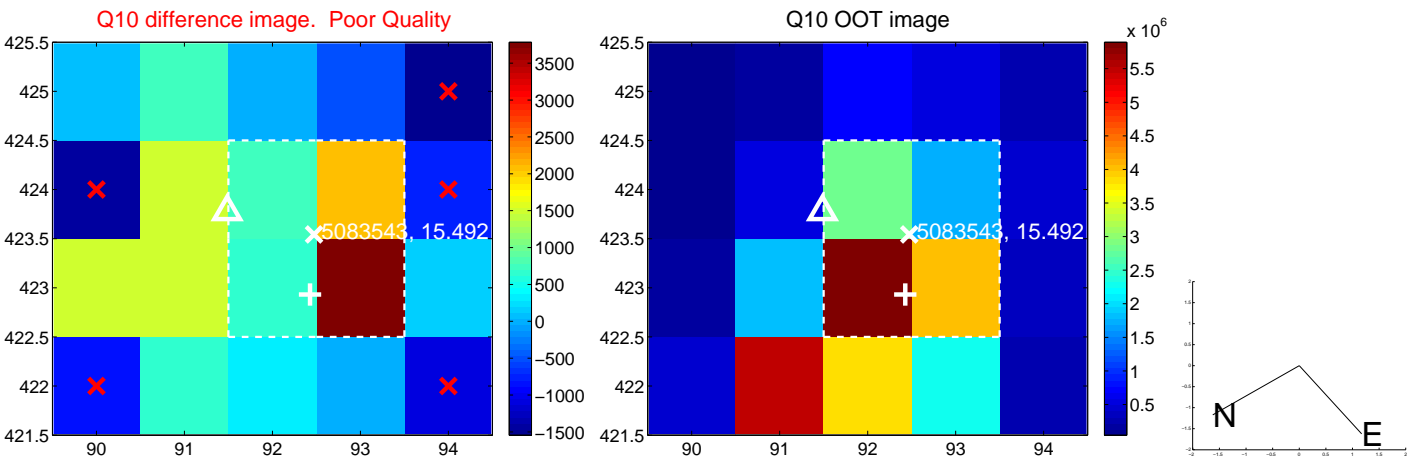
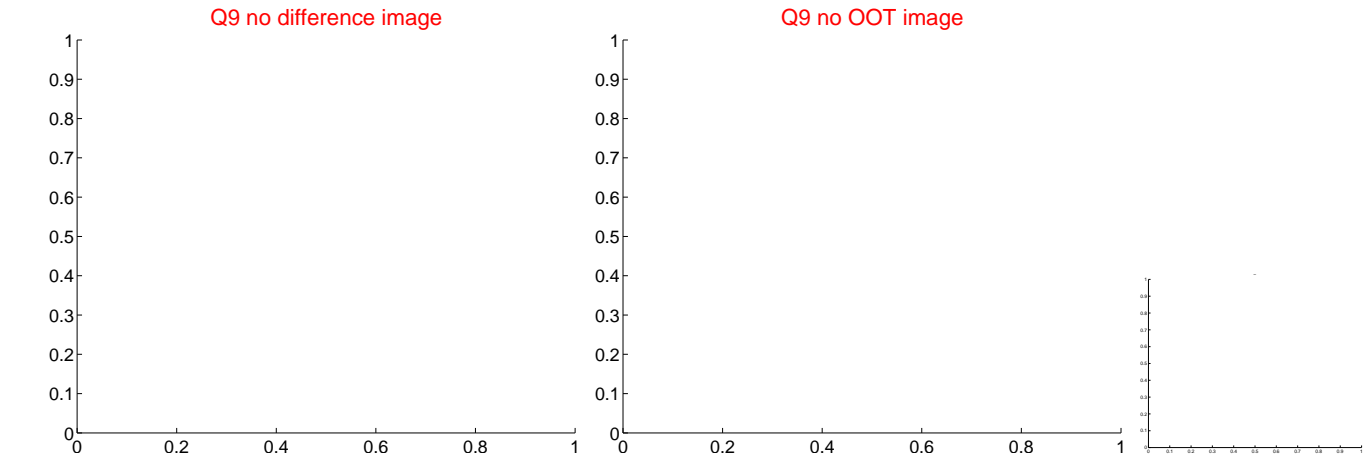
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



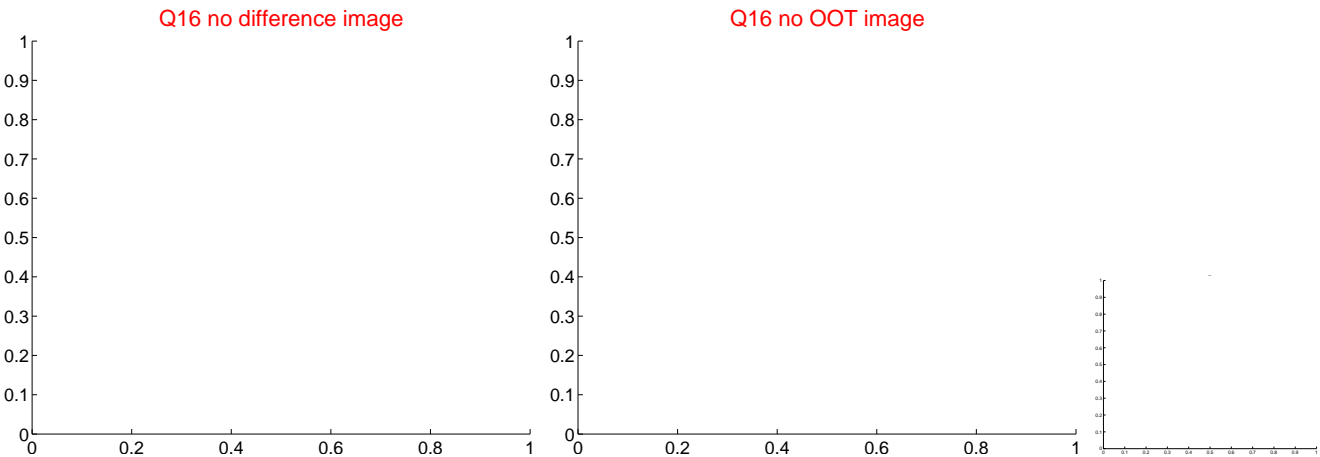
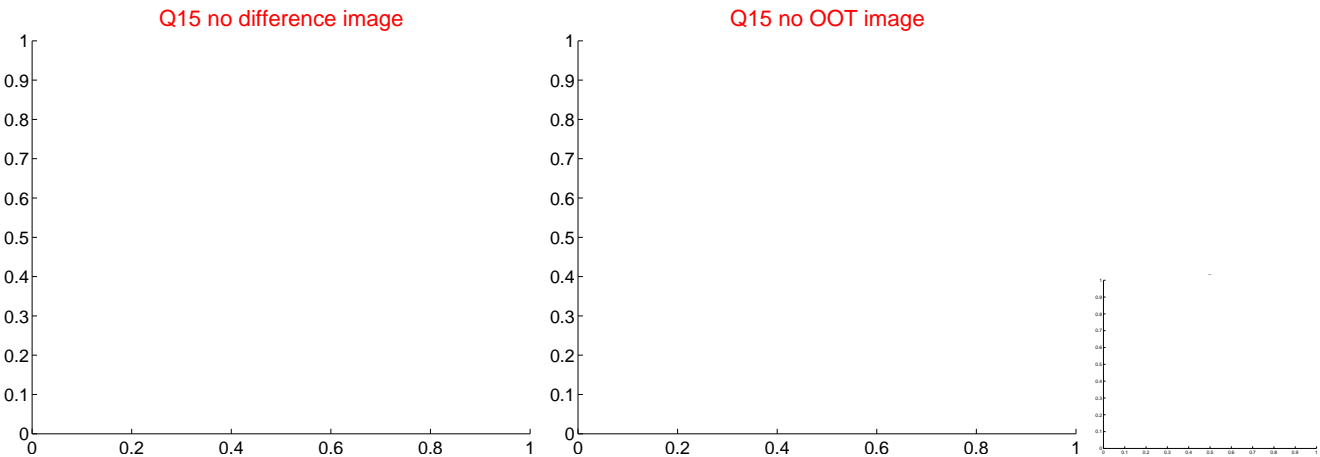
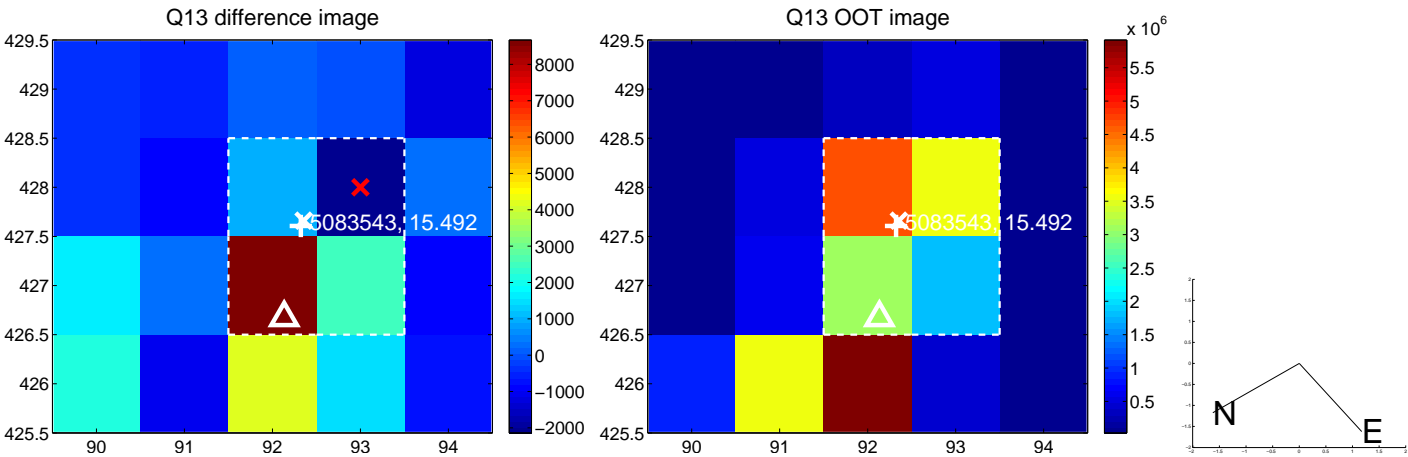
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



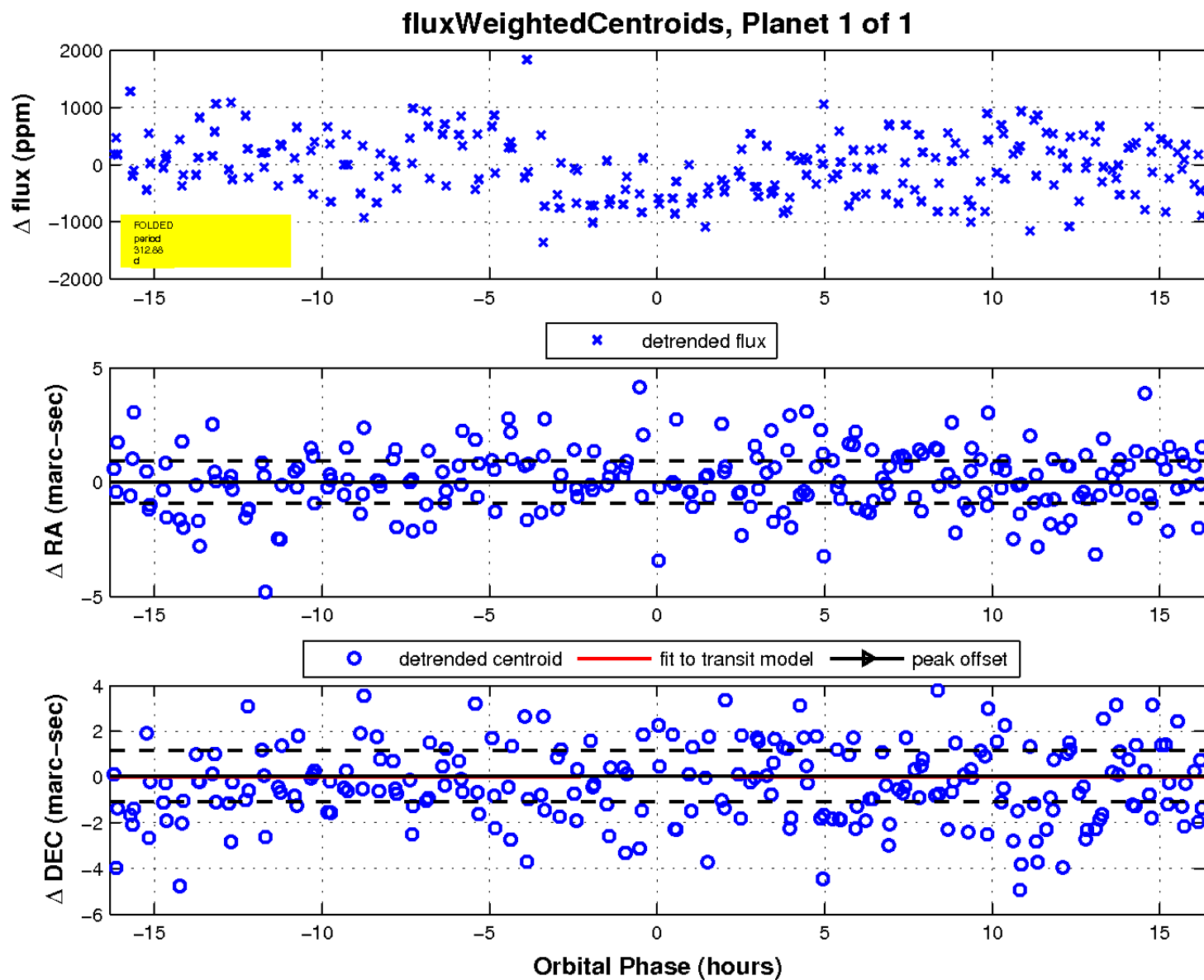
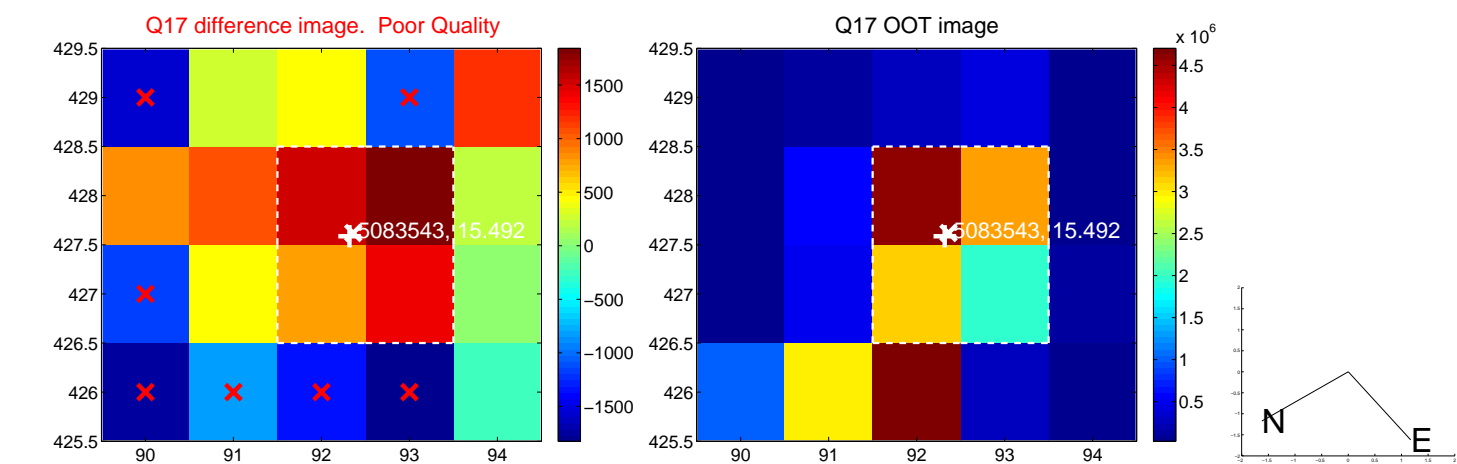
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

