

KIC 010555520

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})
010555520-01	OBS	No	367.416578	173.205720	1519.4	30.395	8.0	10.4	0.64	4536	3.25	0.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010555520-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

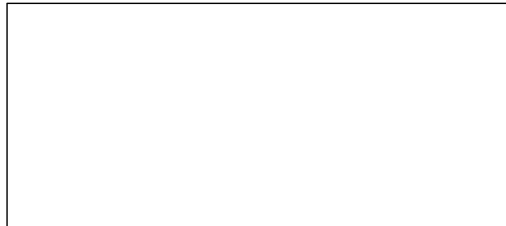
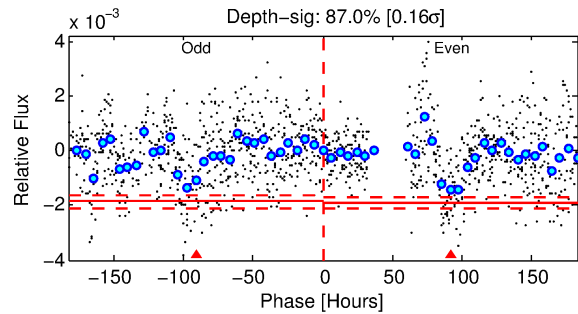
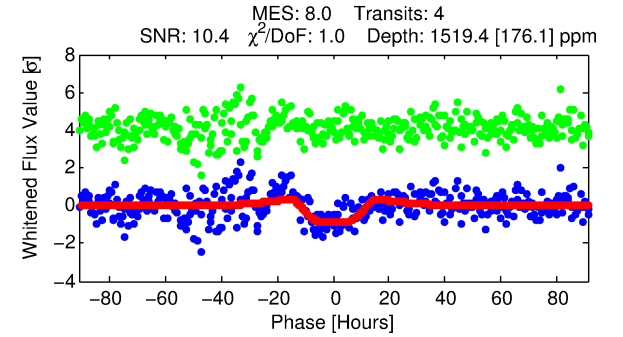
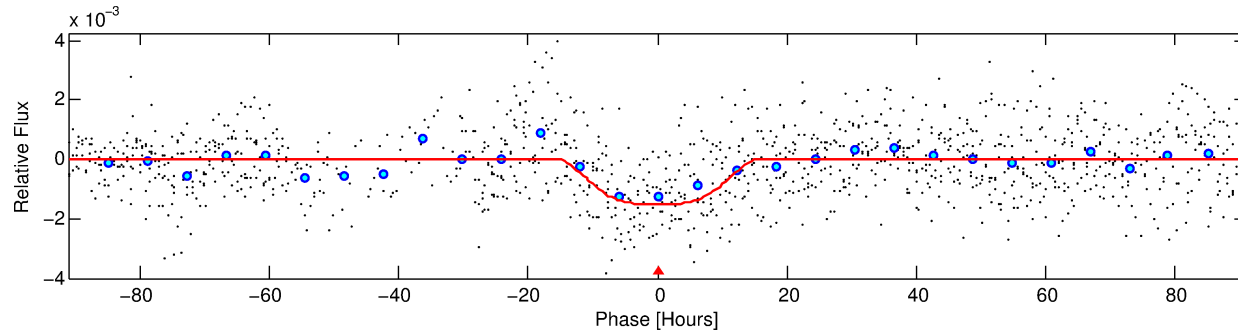
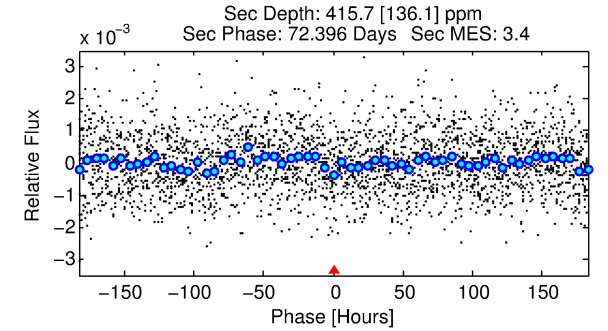
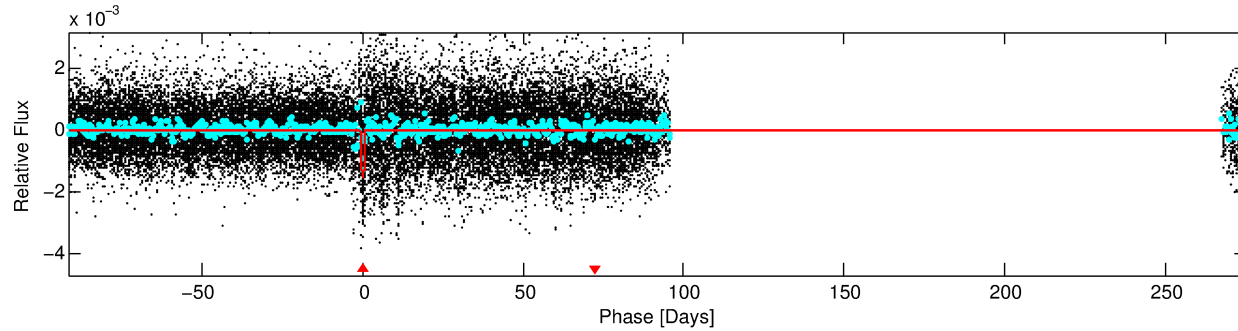
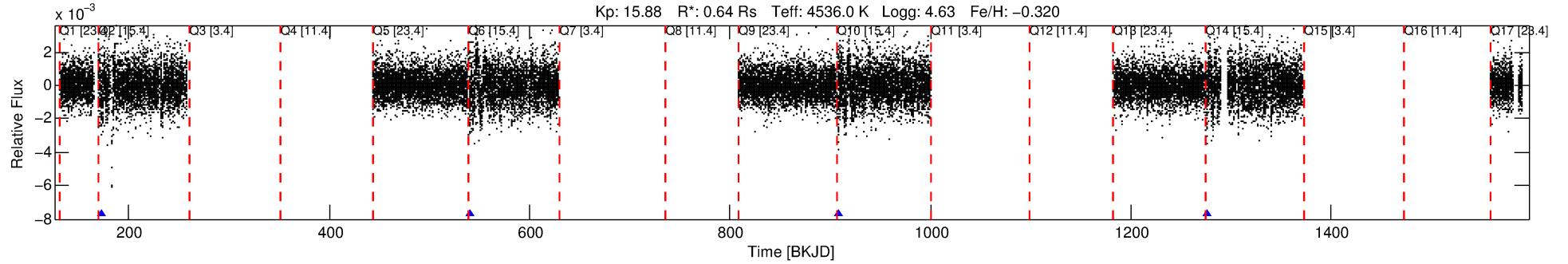
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010555520-01

No Significant Match Found

DV One-Page Summary

KIC: 10555520 Candidate: 1 of 1 Period: 367.417 d



DV Fit Results:

Period = 367.41658 [0.02484] d
Epoch = 173.2057 [0.0465] BKJD
Rp/R* = 0.0467 [0.0041]
a/R* = 42.81 [6.98]
b = 0.94 [0.02]
Seff = 0.21 [0.04]
Teq = 172 [7] K
Rp = 3.25 [0.40] Re
a = 0.8617 [0.0610] AU
Ag = 16082.65 [6172.37] [2.61σ]
Teffp = 2998 [297] K [9.51σ]

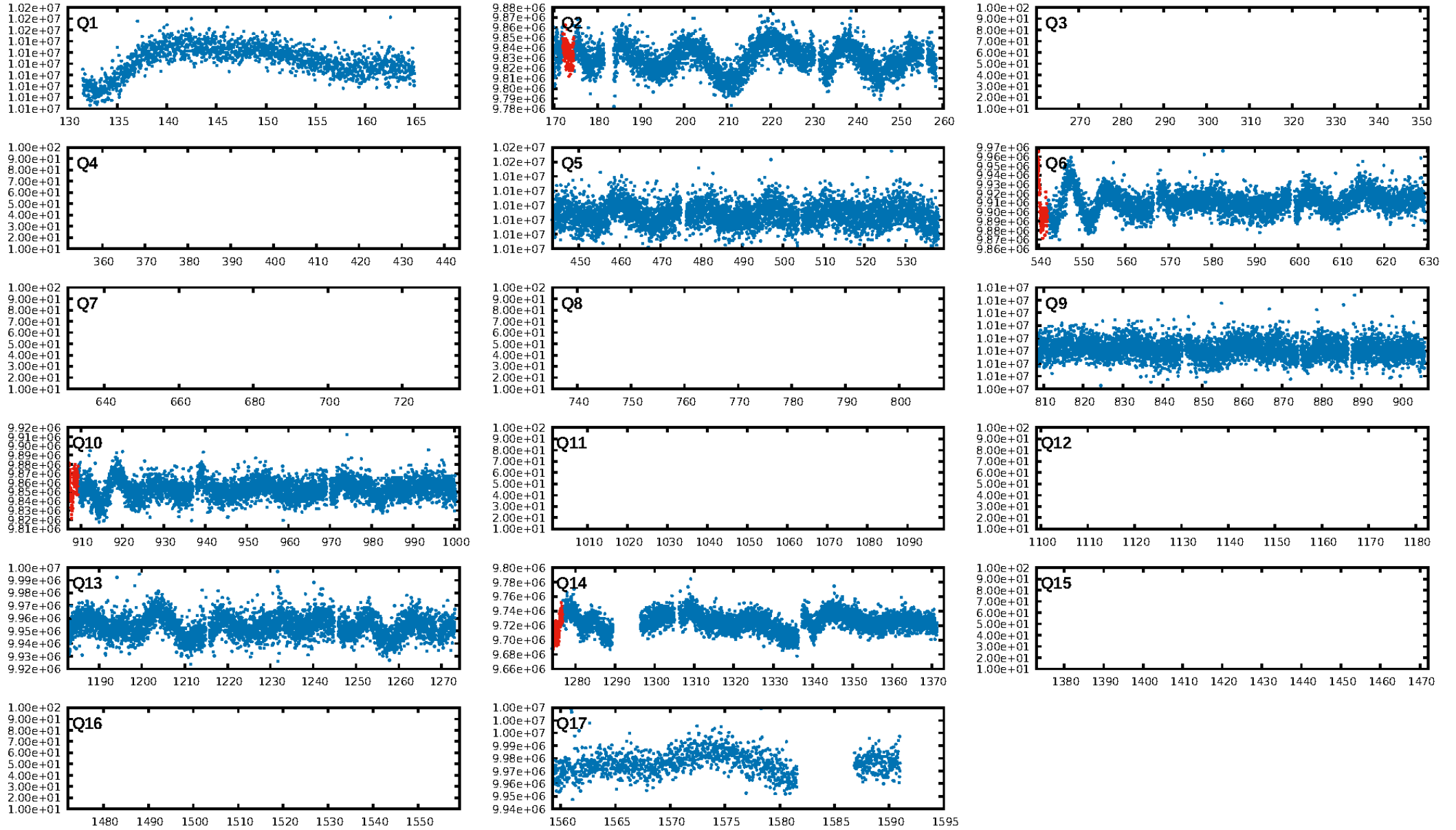
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.5%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 2.24e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.023
Centroid-sig: 0.0%
Centroid-so: 8.061 arcsec [3.10σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [1/1]

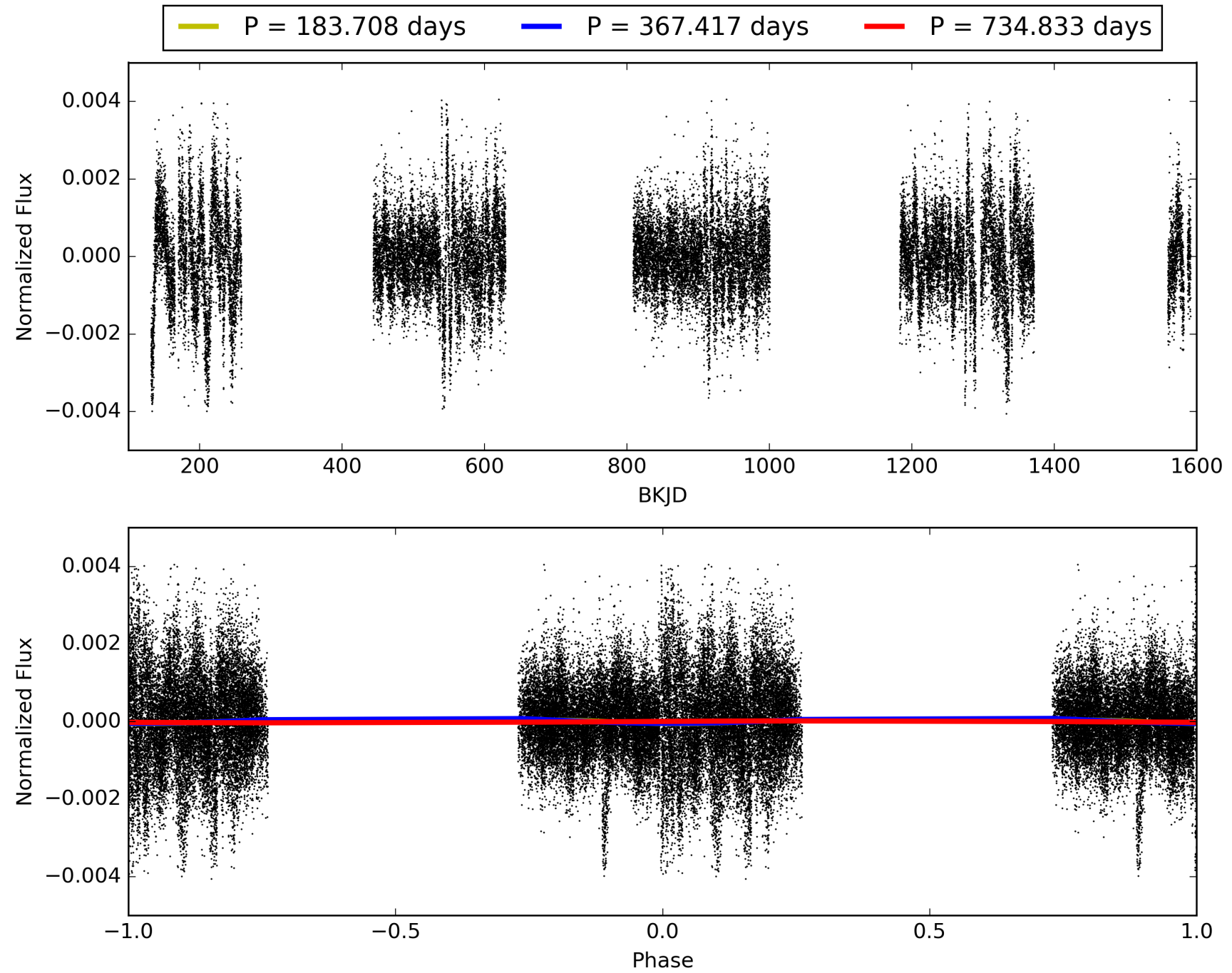
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:53:54 Z

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

TCE 01055520-01, PDC Light Curves

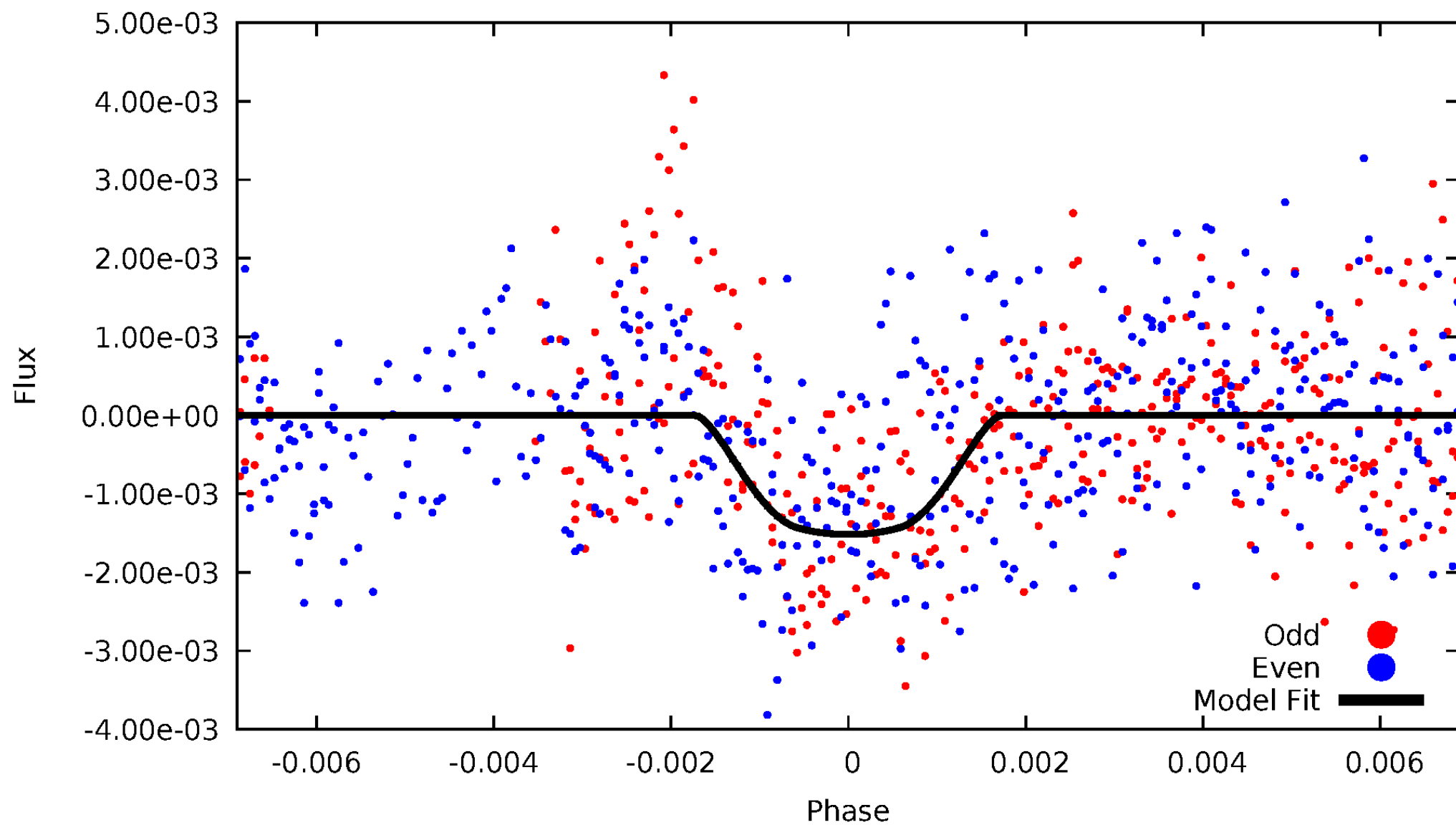


TCE 010555520-01



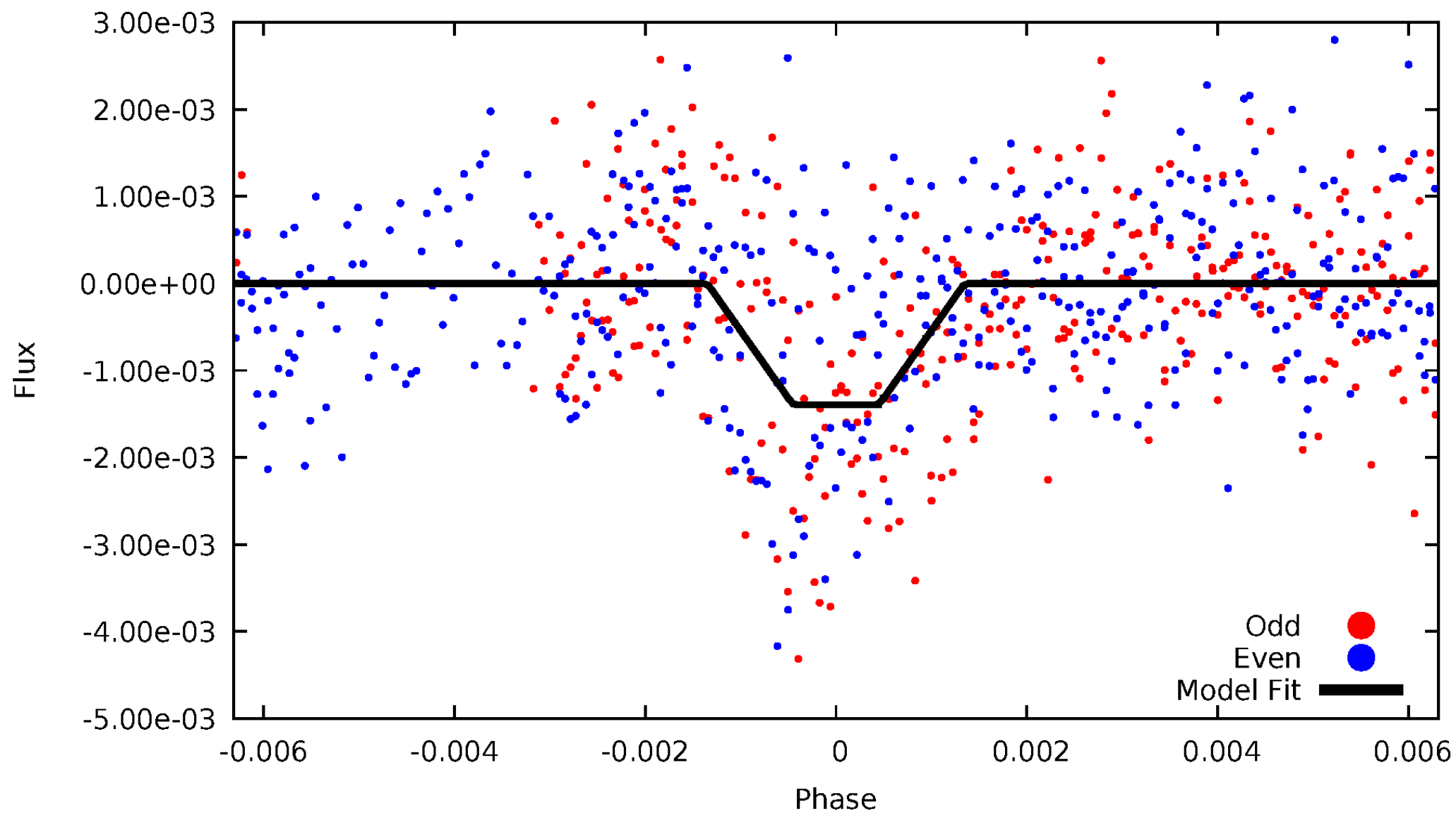
DV Odd/Even

TCE 010555520-01



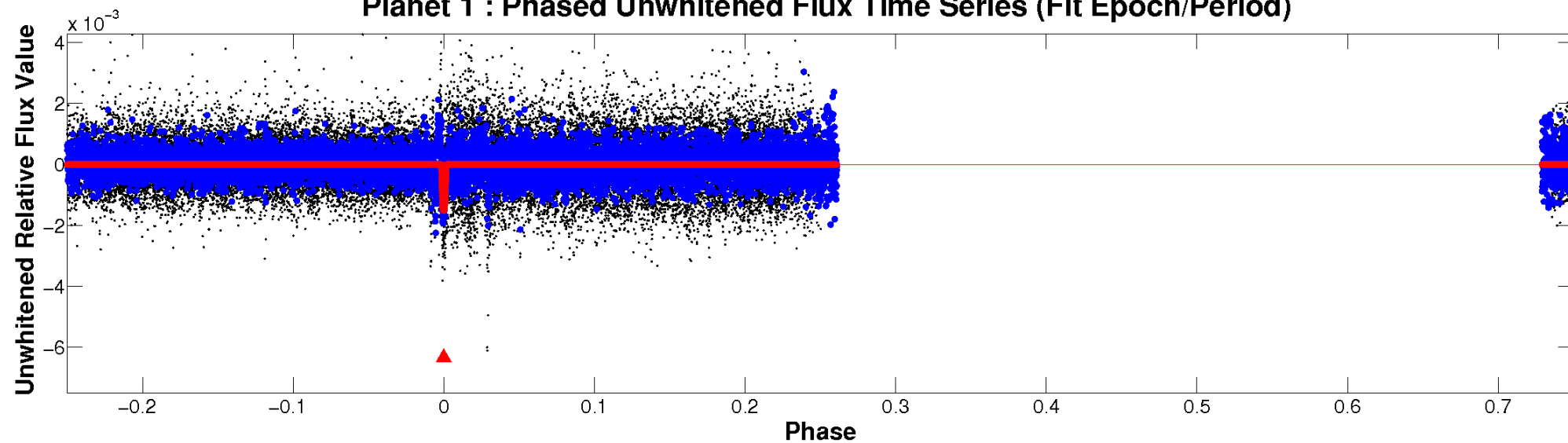
ALT Odd/Even

TCE 01055520-01

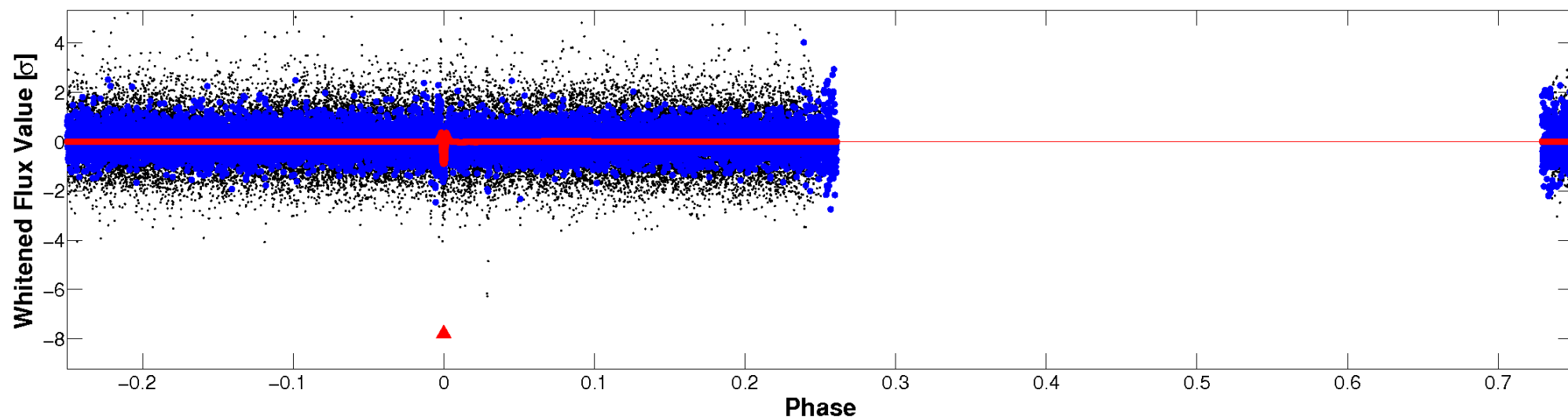


Non-Whitened Vs. Whitened Light Curve

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

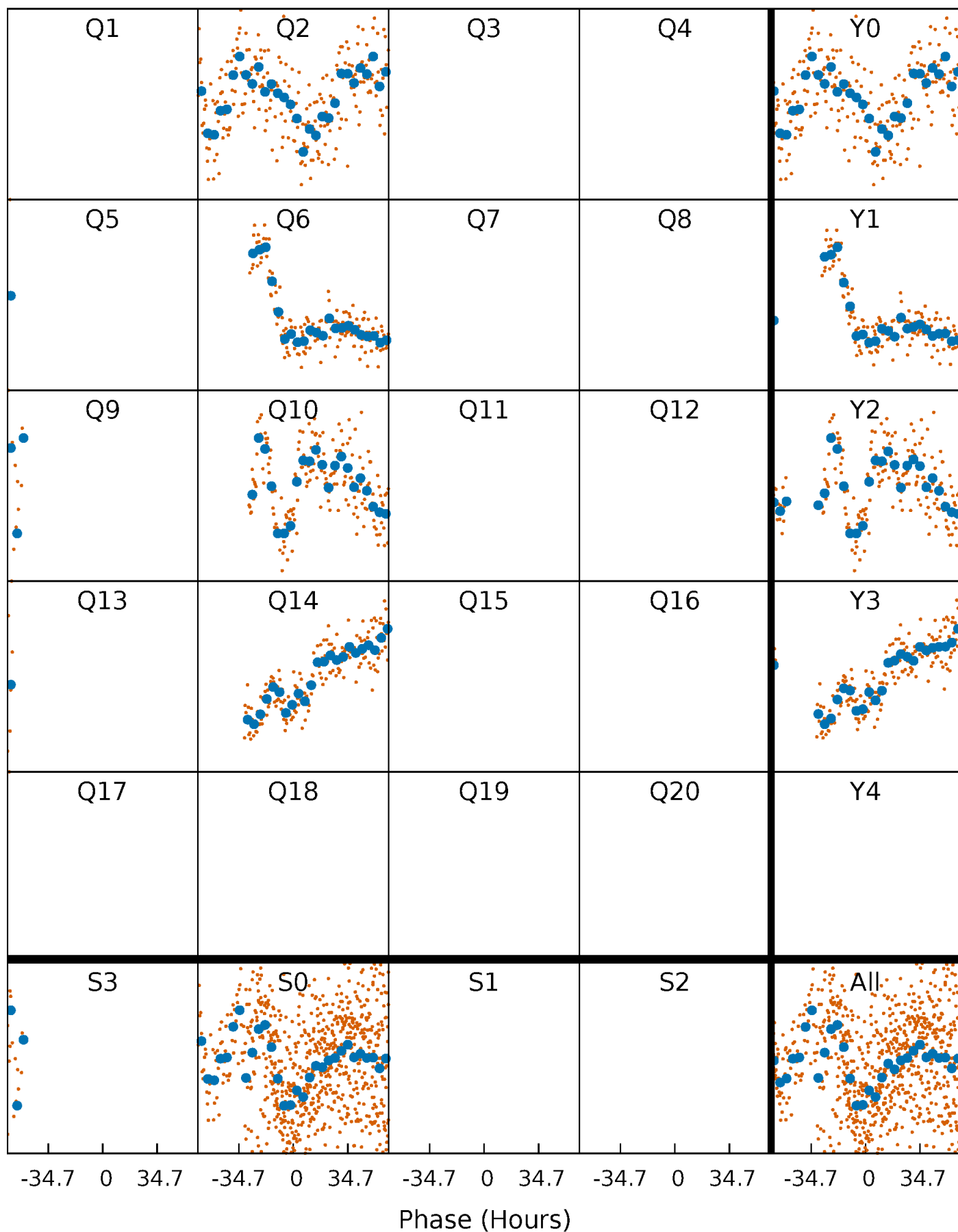


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



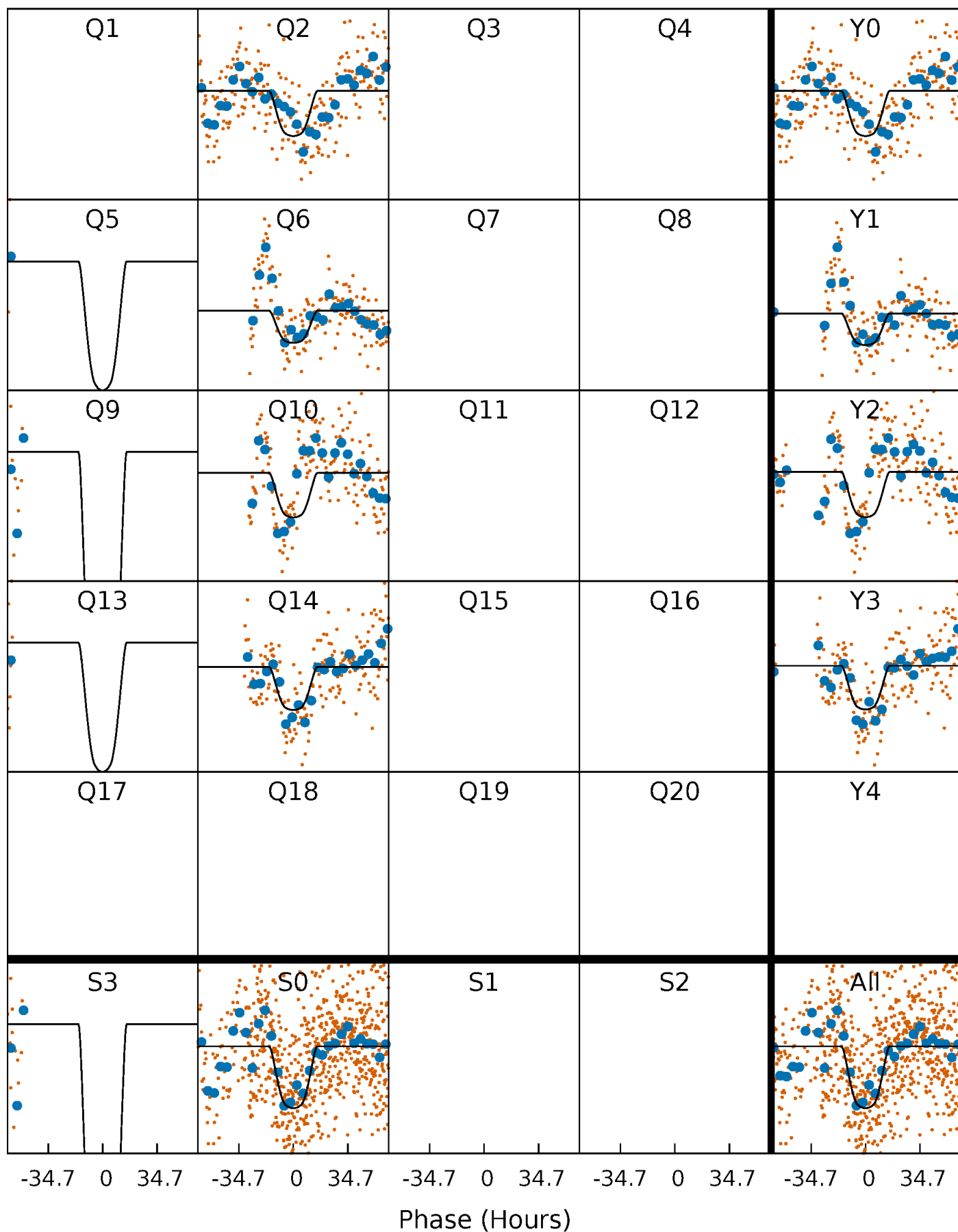
PDC Quarter-Phased Transit Curves

TCE 010555520-01 P=367.416578 Days $T_0=173.205720$ (BKJD)



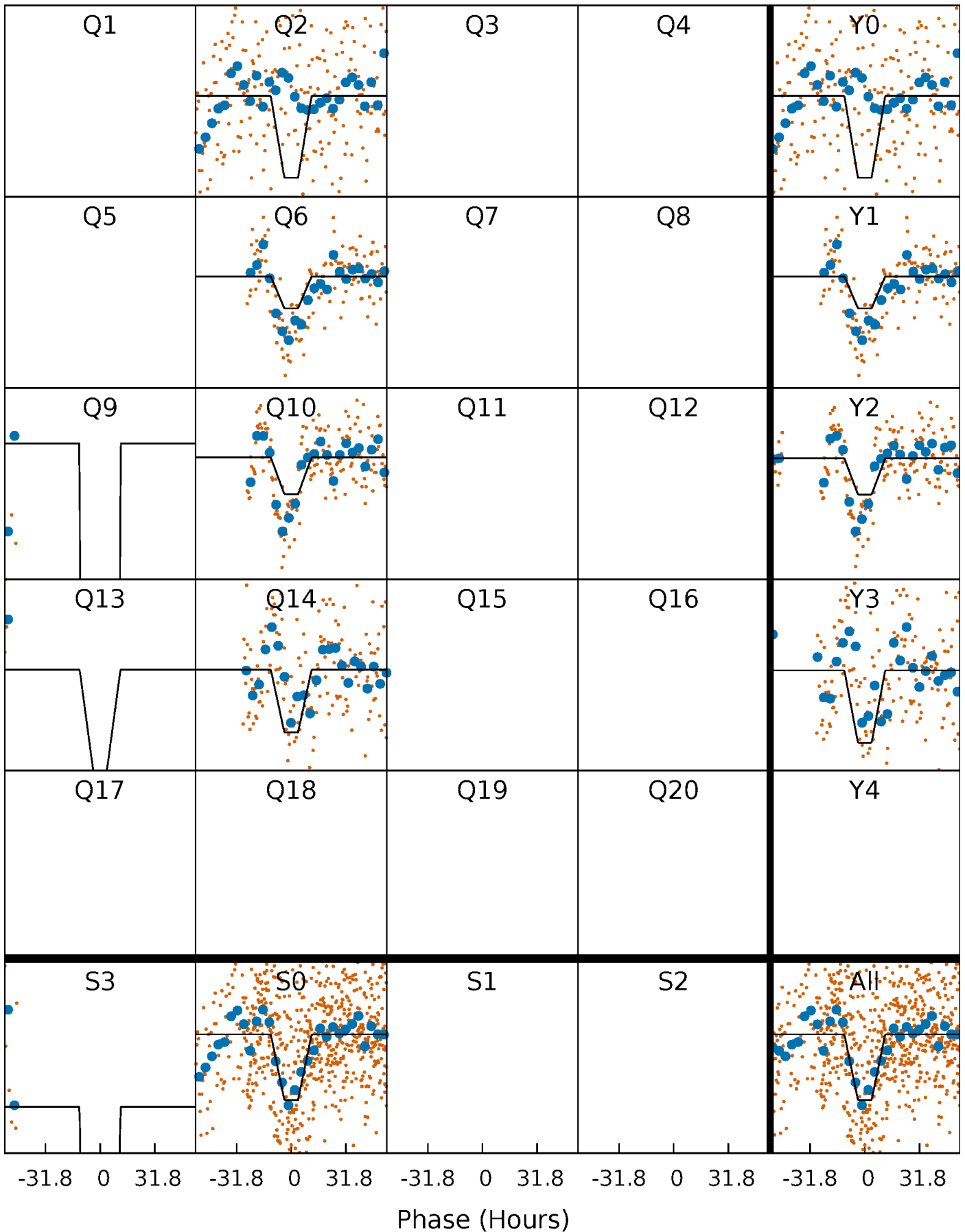
DV Quarter-Phased Transit Curves

TCE 010555520-01 P=367.416578 Days $T_0=173.205720$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

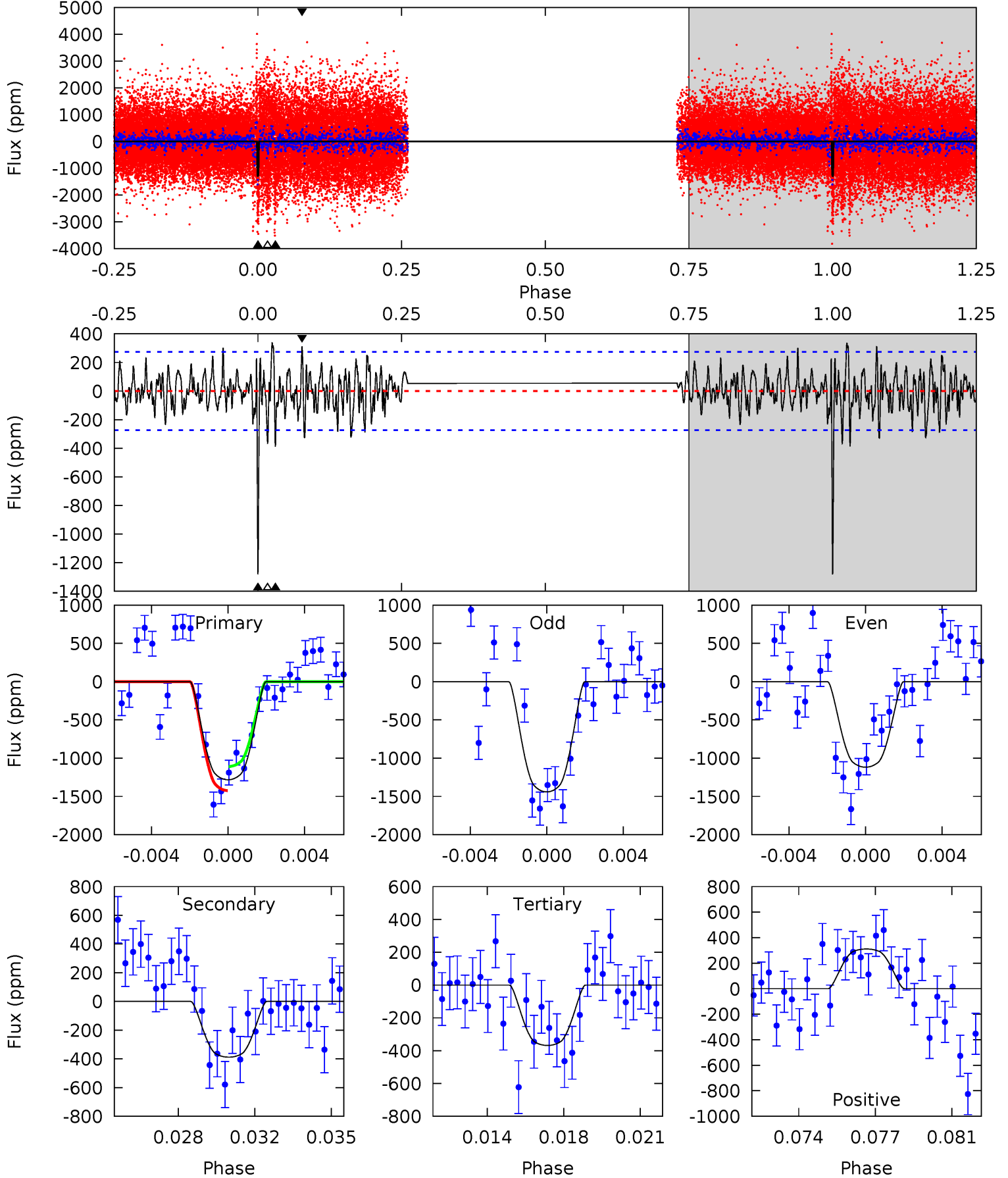
TCE 010555520-01 P=367.395409 Days $T_0=173.138360$ (BKJD)



DV Model-Shift Uniqueness Test

010555520-01, P = 367.416578 Days, E = 173.205720 Days

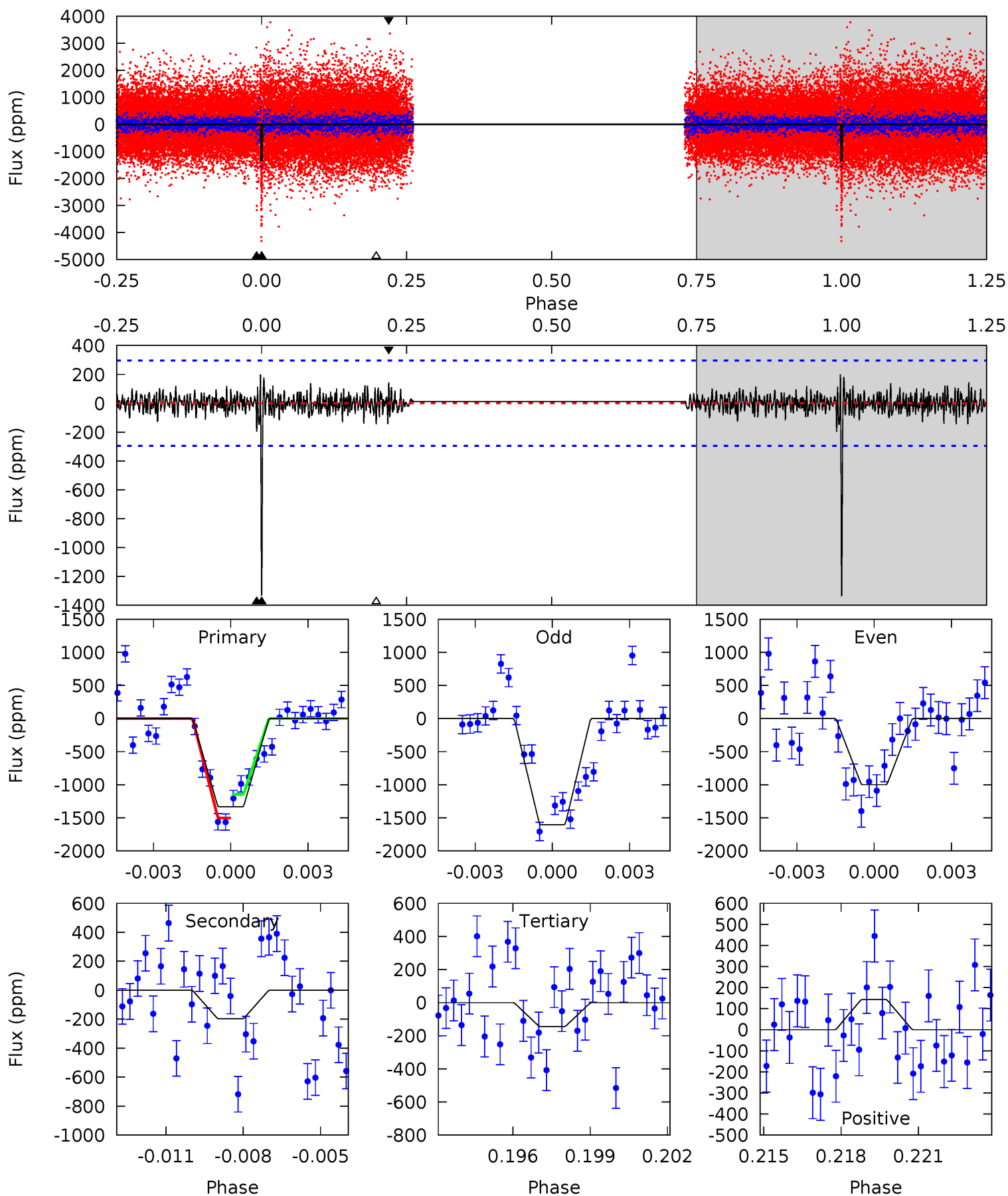
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	7.40	7.02	5.94	5.22	2.92	2.08	17.4	18.5	0.38	1.47	3.06	1.10	0.21	2.96



Alt Model-Shift Uniqueness Test

010555520-01, P = 367.395409 Days, E = 173.138360 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.7	3.52	2.59	2.55	5.27	3.00	0.84	21.2	21.2	0.92	0.97	5.39	0.97	0.13	3.14



Stellar Parameters For KIC 010555520

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4536^{+159}_{-159}	$4.629^{+0.052}_{-0.028}$	$-0.320^{+0.300}_{-0.300}$	$0.638^{+0.051}_{-0.056}$	$0.631^{+0.077}_{-0.051}$	$3.428^{+0.789}_{-0.442}$
	+4%/-4%	+1%/-1%	+94%/-94%	+8%/-9%	+12%/-8%	+23%/-13%
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 010555520-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-388 ± 52	$3.23^{+0.32}_{-0.28}$	240^{+9}_{-9}	3372^{+148}_{-143}	15465^{+3700}_{-3104}
Alt.	-197 ± 56	$2.58^{+0.30}_{-0.30}$	239^{+10}_{-10}	3239^{+218}_{-200}	12178^{+5115}_{-3928}

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

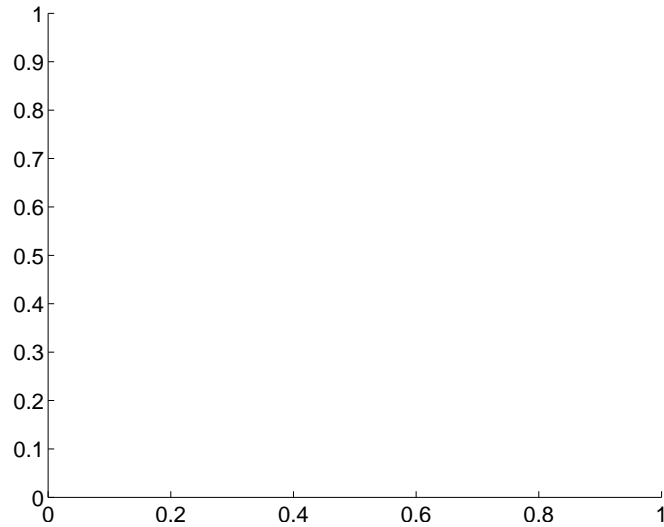
Supplemental centroid analysis for 010555520-01. Kepler magnitude: 15.88. Transit SNR 10.38

There are 0 quarters with good PRF difference image offsets

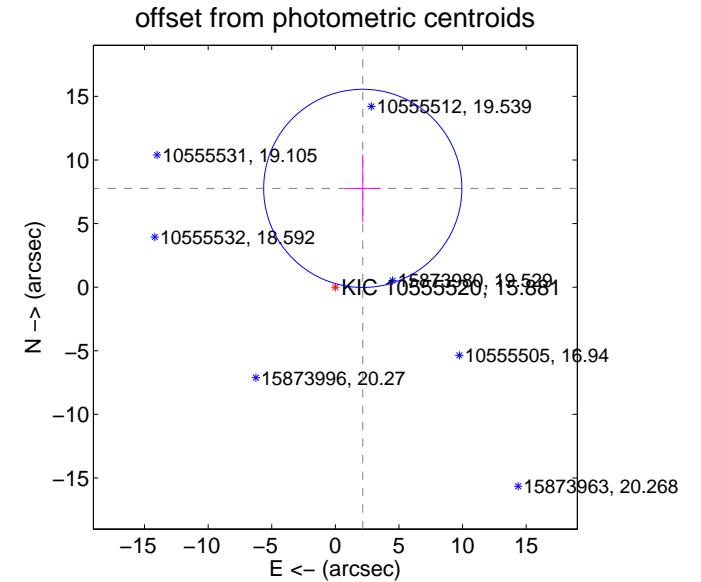
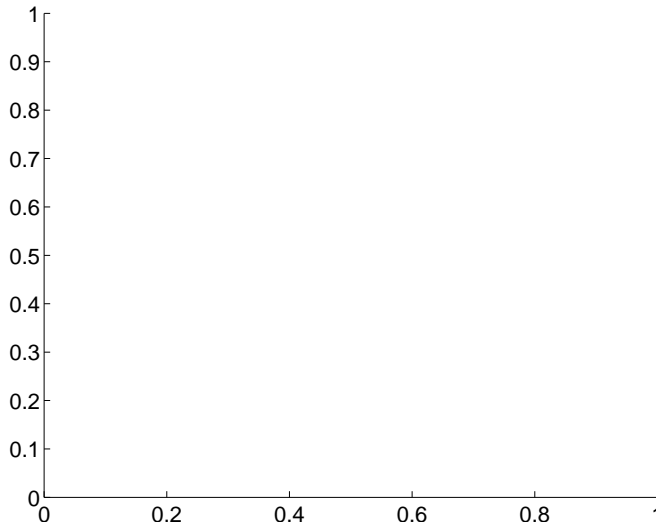
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	8.06 ± 2.60	3.10	-2.16 ± 1.40	7.77 ± 2.67

There is no PRF-fit offset from OOT-fit

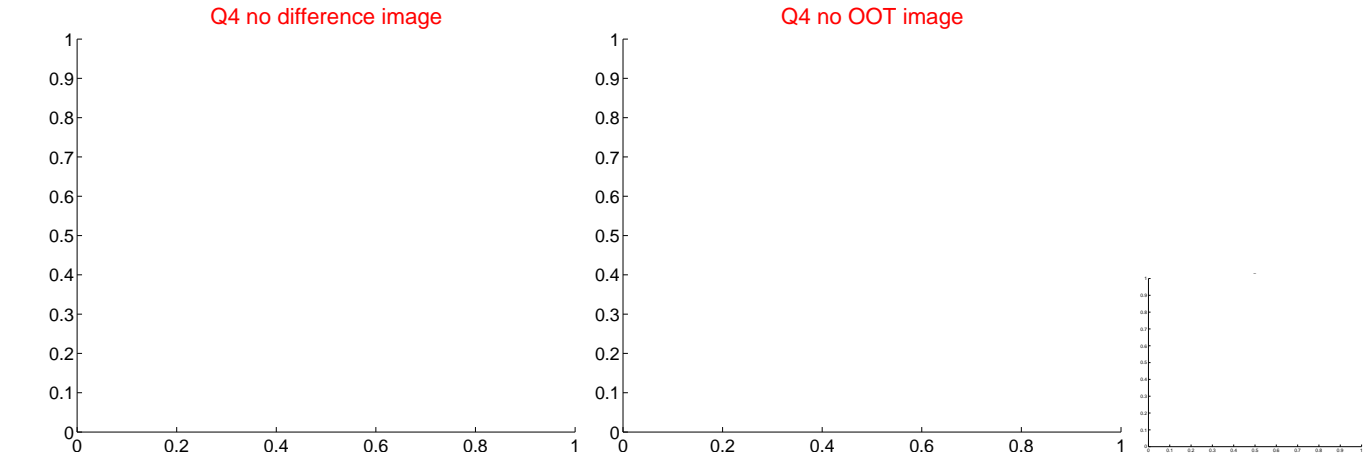
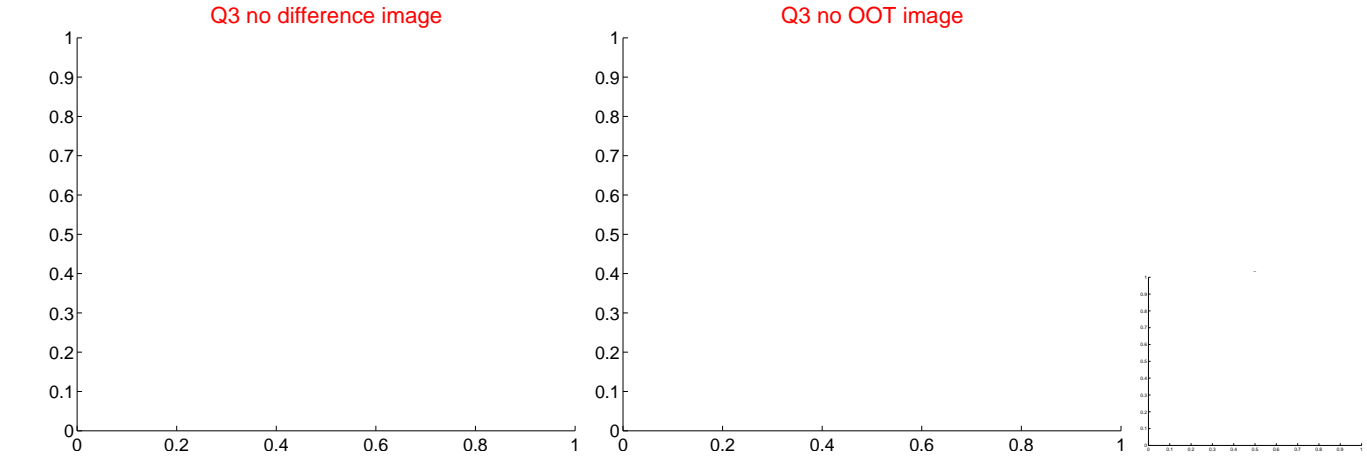
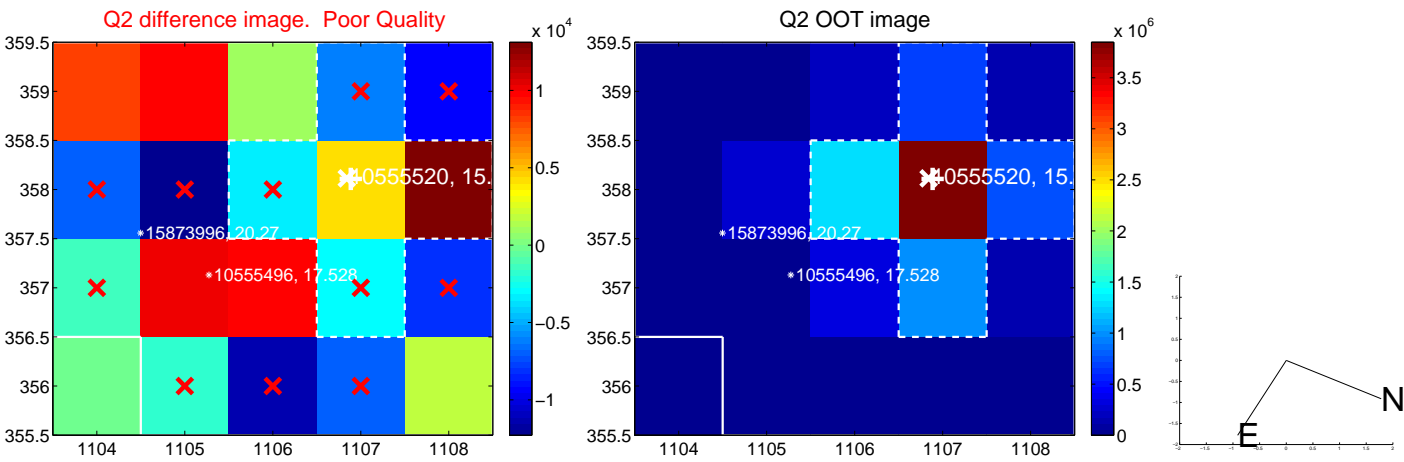
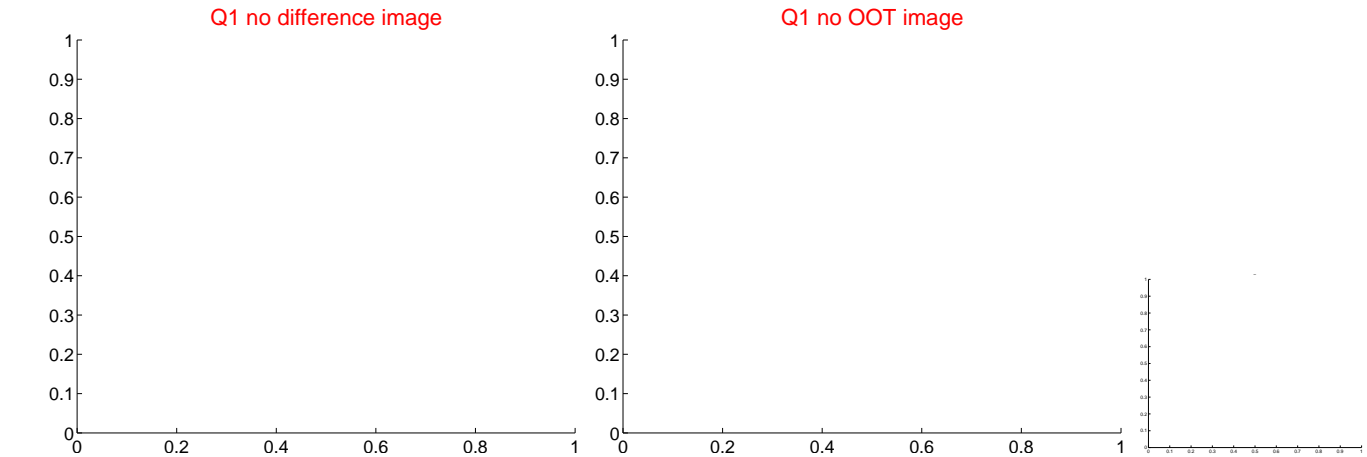


There is no PRF-fit offset from KIC



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.



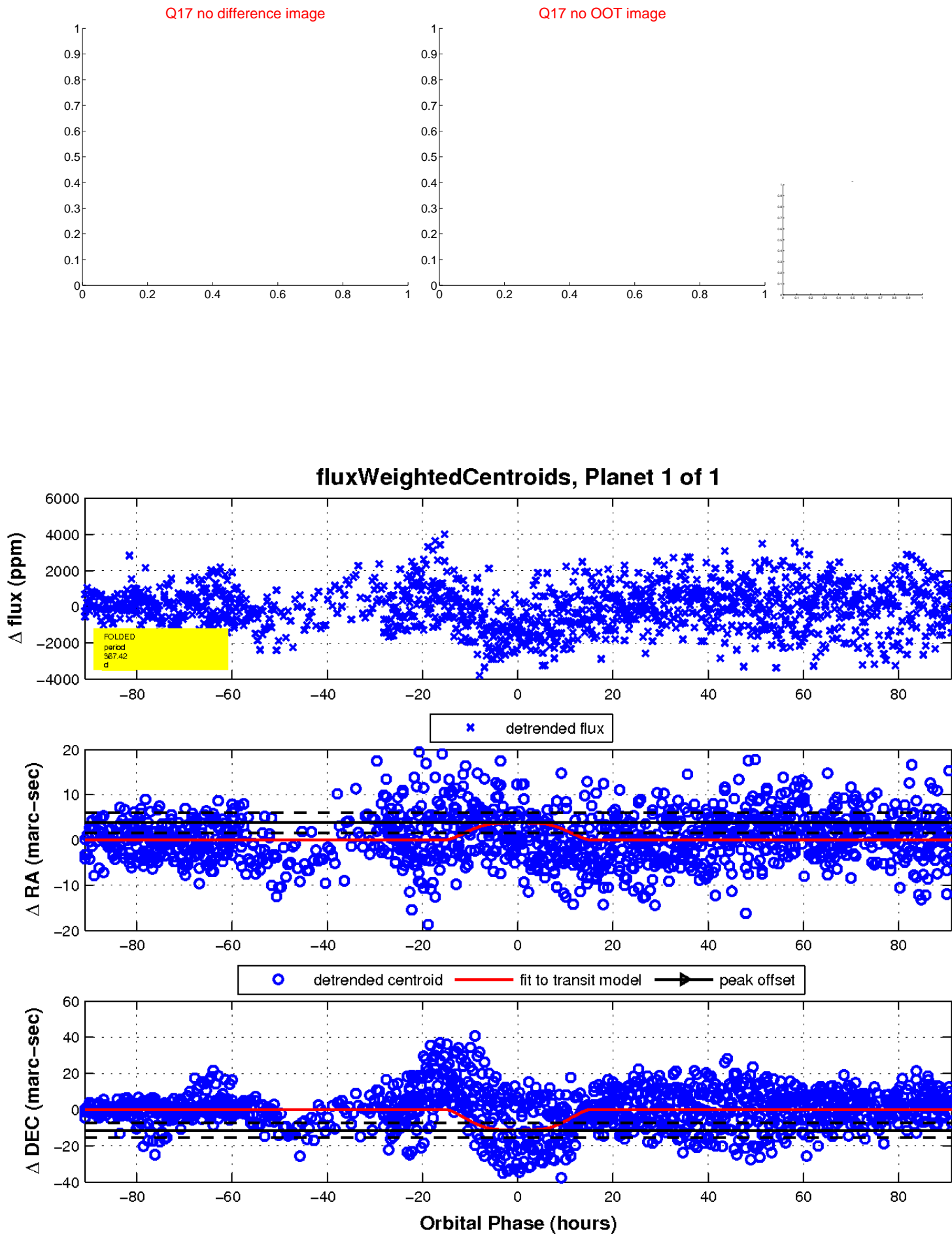
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

