

KIC 010555667

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})
010555667-01	OBS	No	562.775227	216.335167	232.4	6.503	7.6	7.7	2.67	6181	4.56	4.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010555667-01	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.

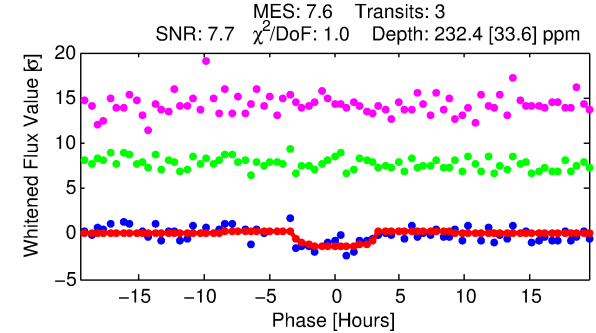
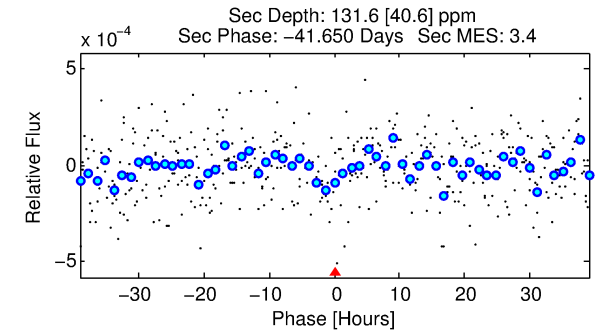
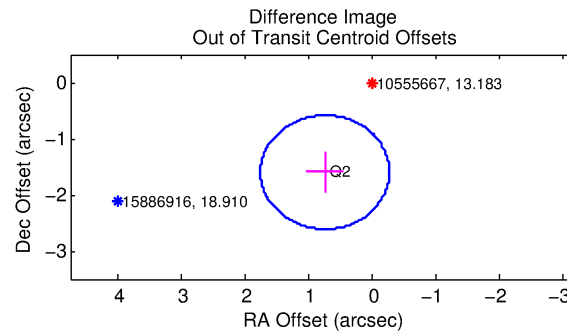
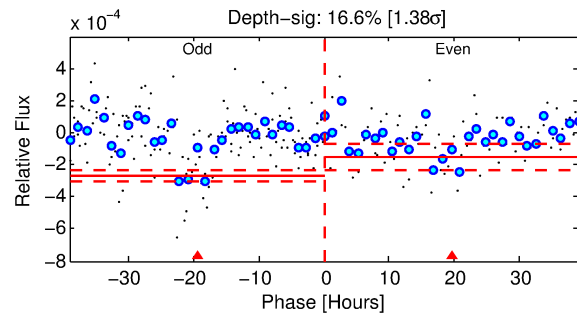
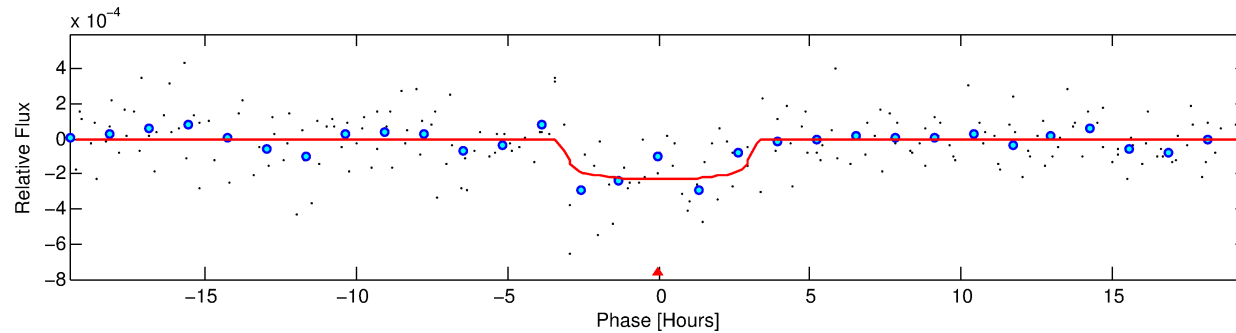
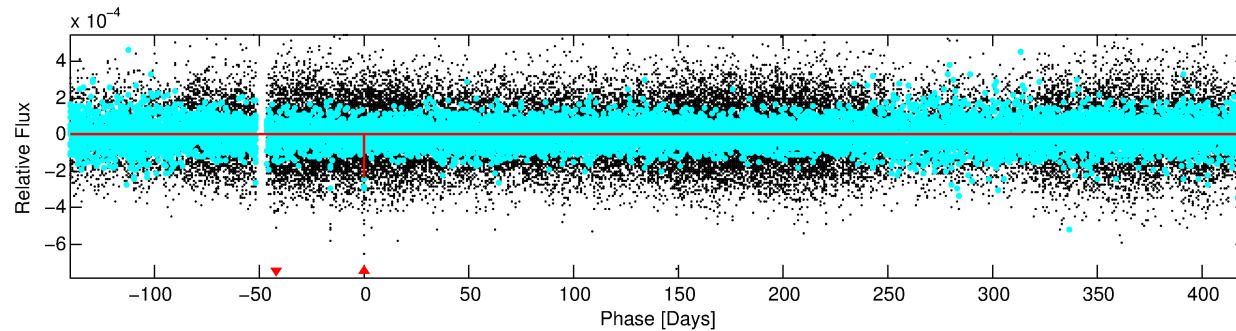
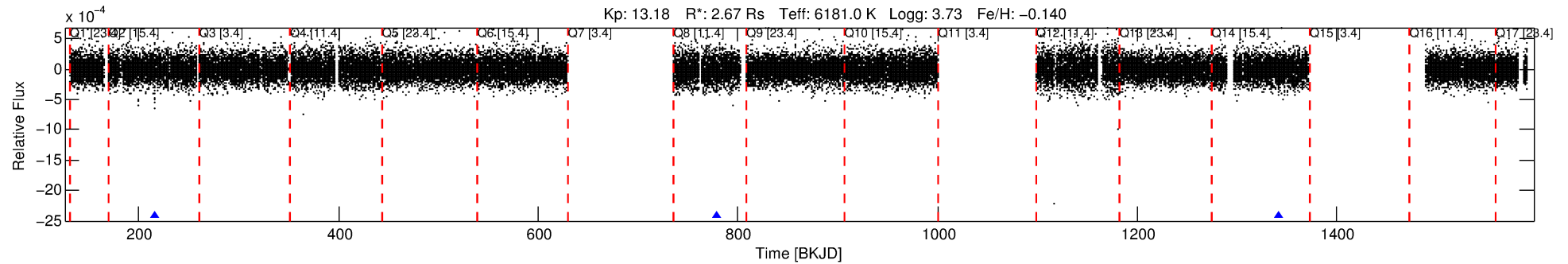
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010555667-01

No Significant Match Found

DV One-Page Summary

KIC: 10555667 Candidate: 1 of 1 Period: 562.775 d



DV Fit Results:

Period = 562.77523 [0.01036] d
Epoch = 216.3352 [0.0132] BKJD
Rp/R* = 0.0156 [0.0110]
a/R* = 390.01 [1438.17]
b = 0.83 [1.42]
Seff = 4.19 [2.35]
Teq = 365 [51] K
Rp = 4.56 [3.62] Re
a = 1.4925 [0.5182] AU
Ag = 7749.52 [11936.01] [0.65 σ]
Teffp = 5294 [1910] K [2.58 σ]

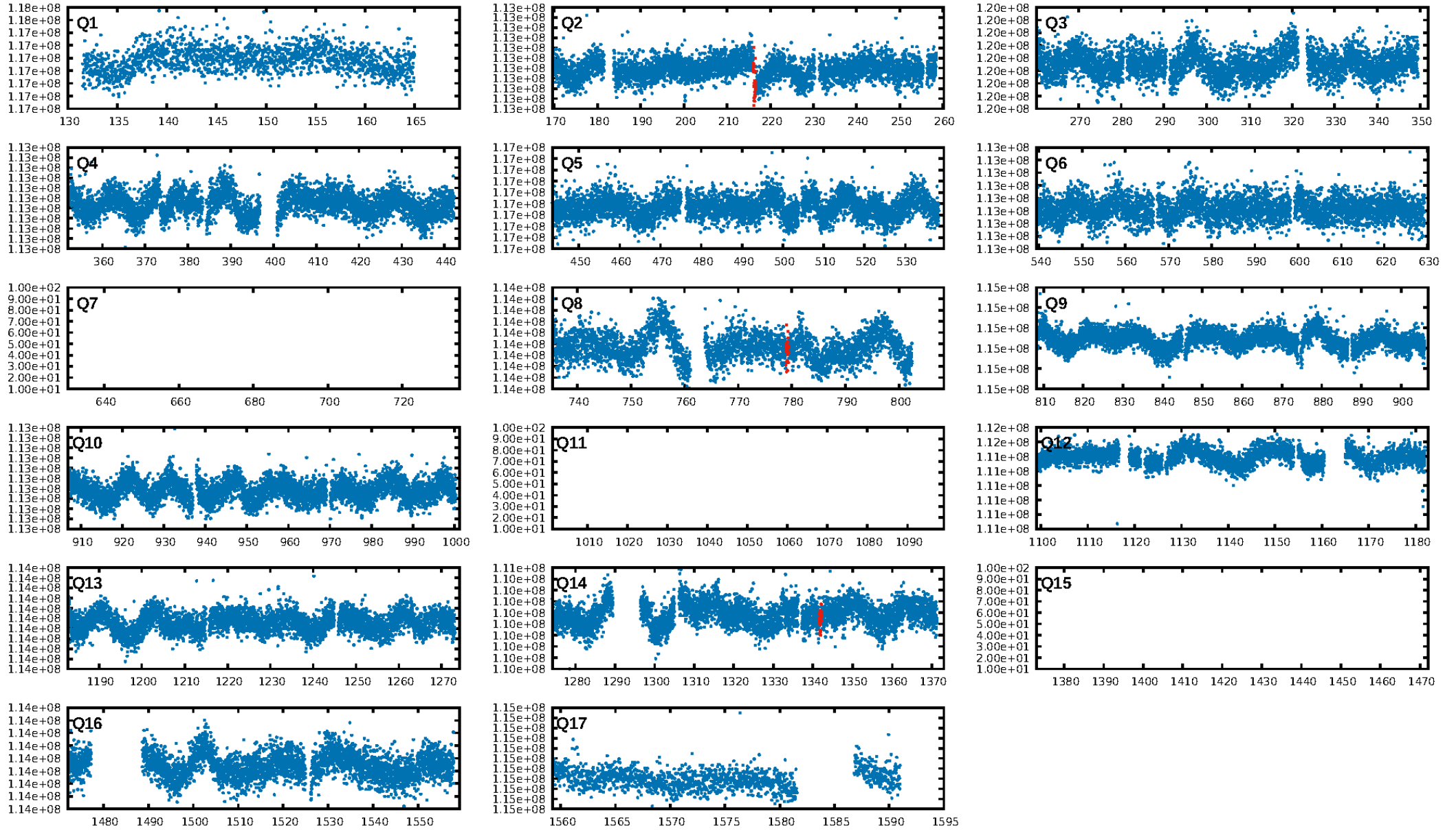
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.4%
ModelChiSquareGof-sig: 78.7%
Bootstrap-pfa: 1.25e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.629
Centroid-sig: 72.3%
Centroid-so: 0.777 arcsec [0.49 σ]
OotOffset-rm: 1.766 arcsec [5.23 σ]
KicOffset-rm: 1.908 arcsec [5.64 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

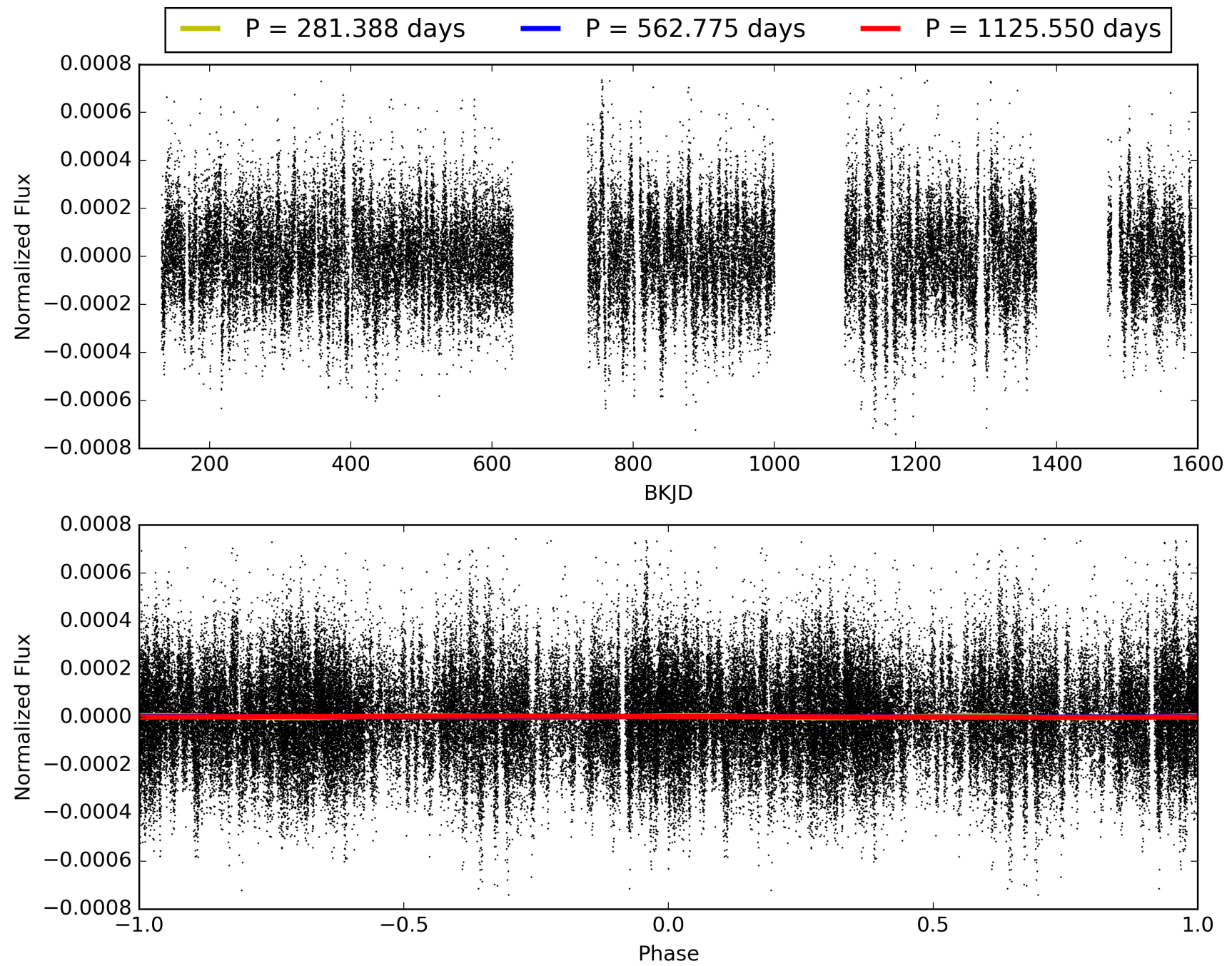
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:16:23 Z

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

TCE 010555667-01, PDC Light Curves

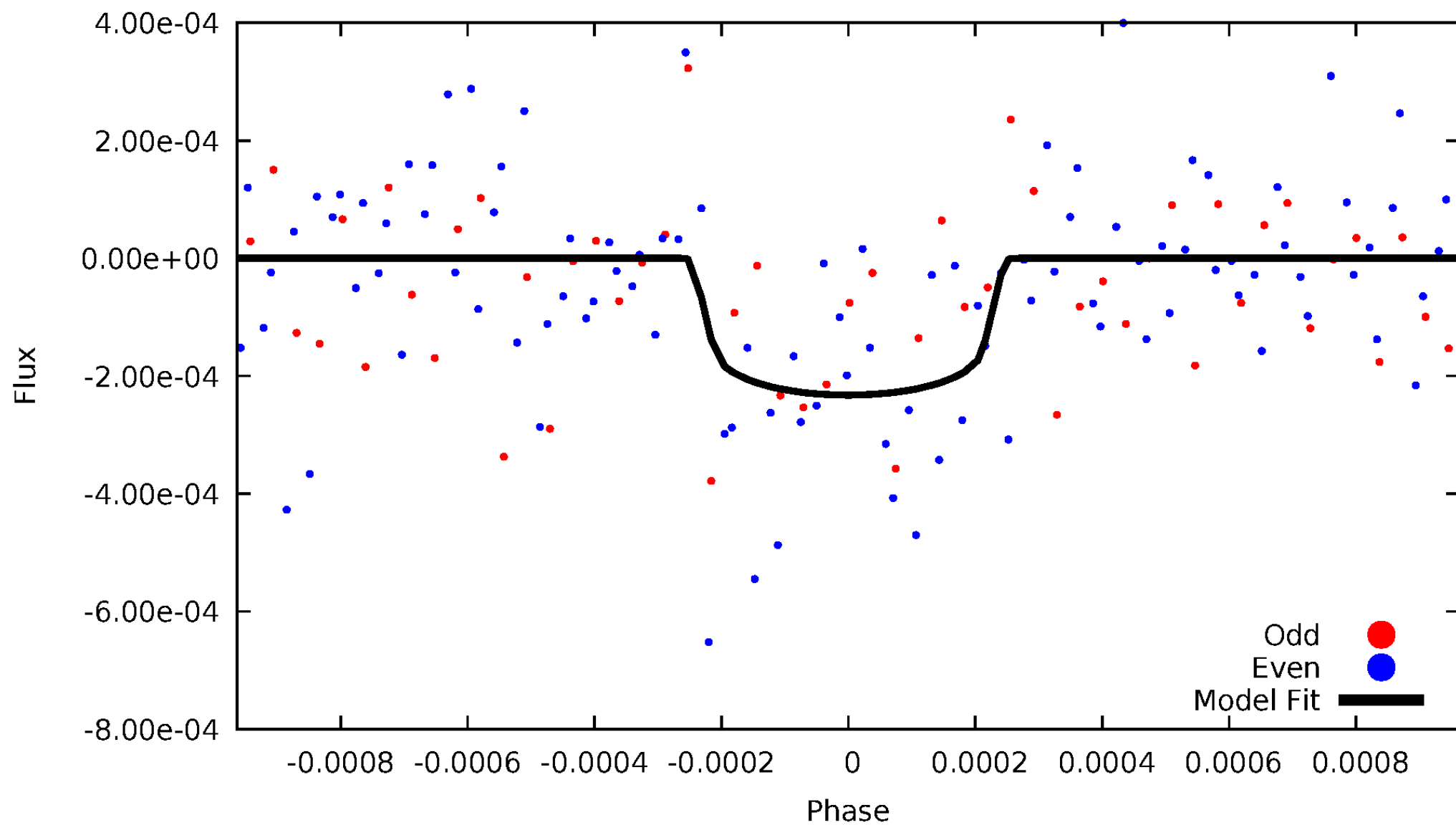


TCE 010555667-01



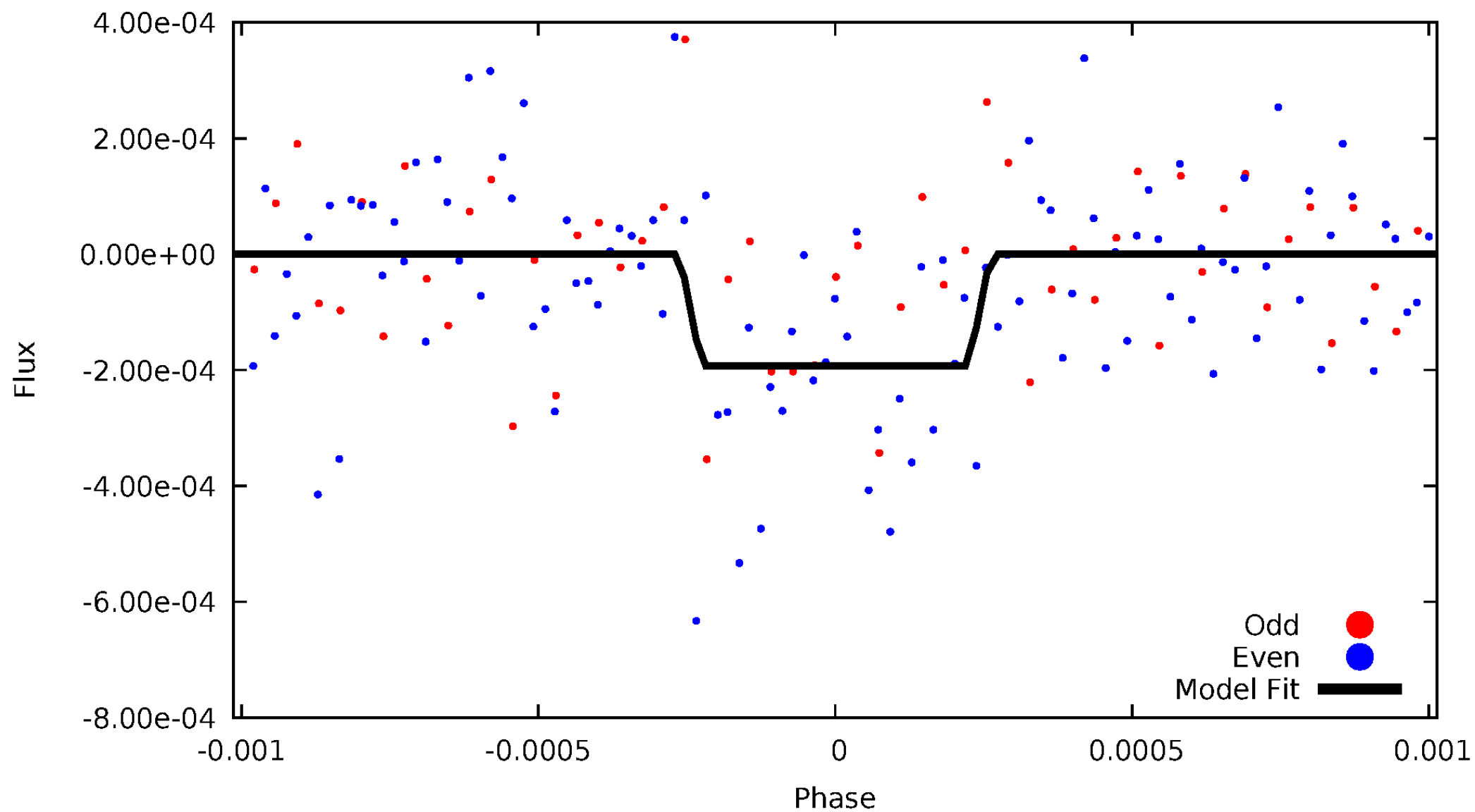
DV Odd/Even

TCE 010555667-01



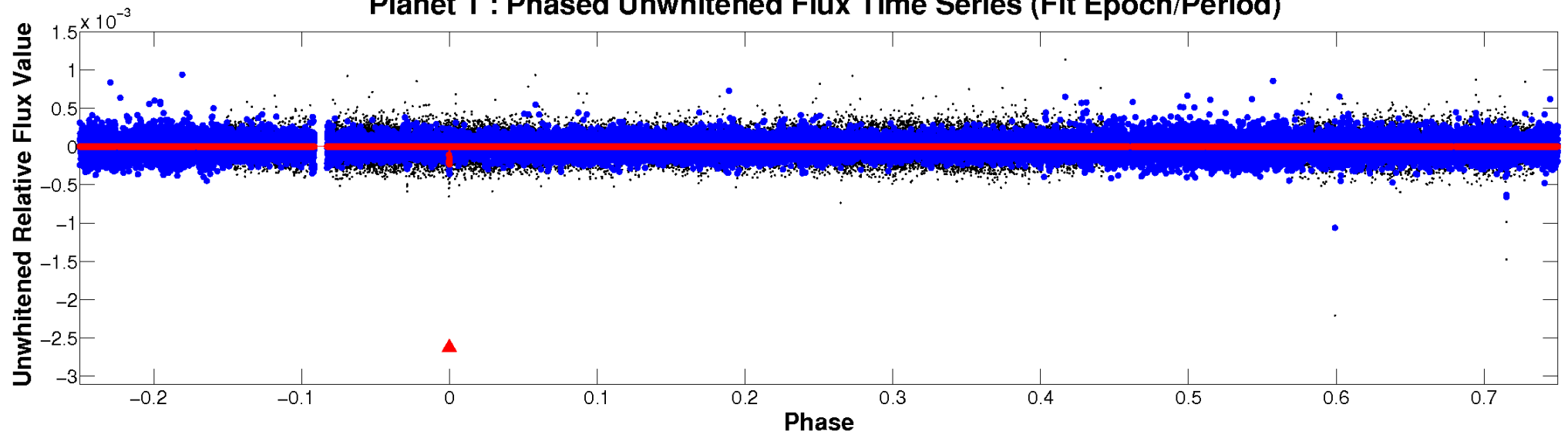
ALT Odd/Even

TCE 010555667-01

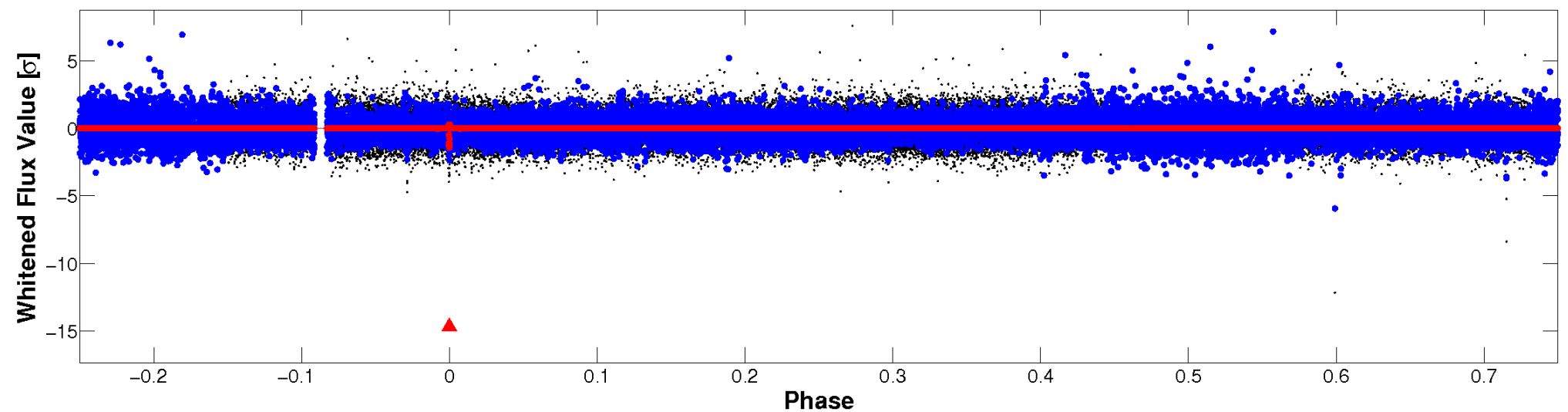


Non-Whitened Vs. Whitened Light Curve

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

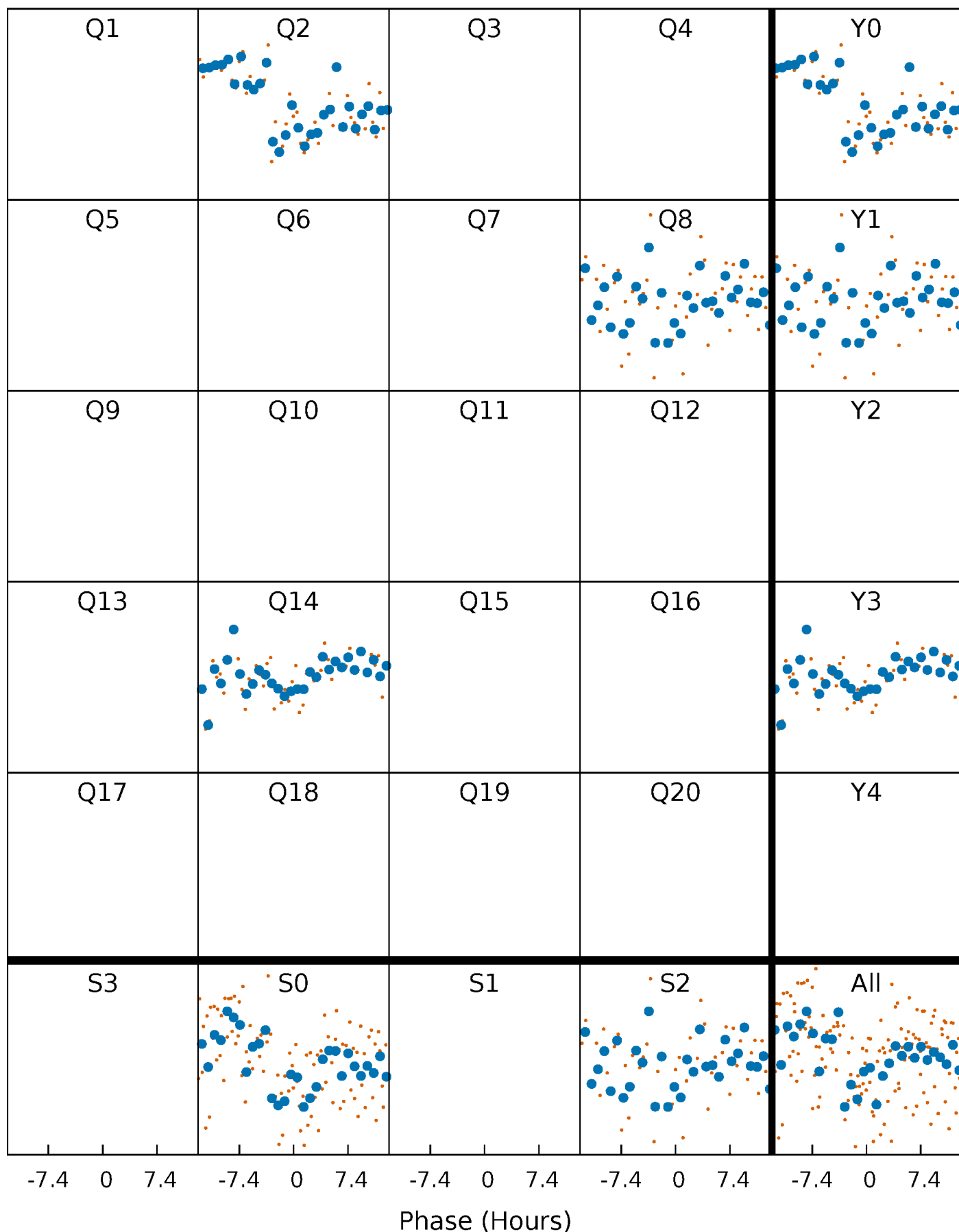


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



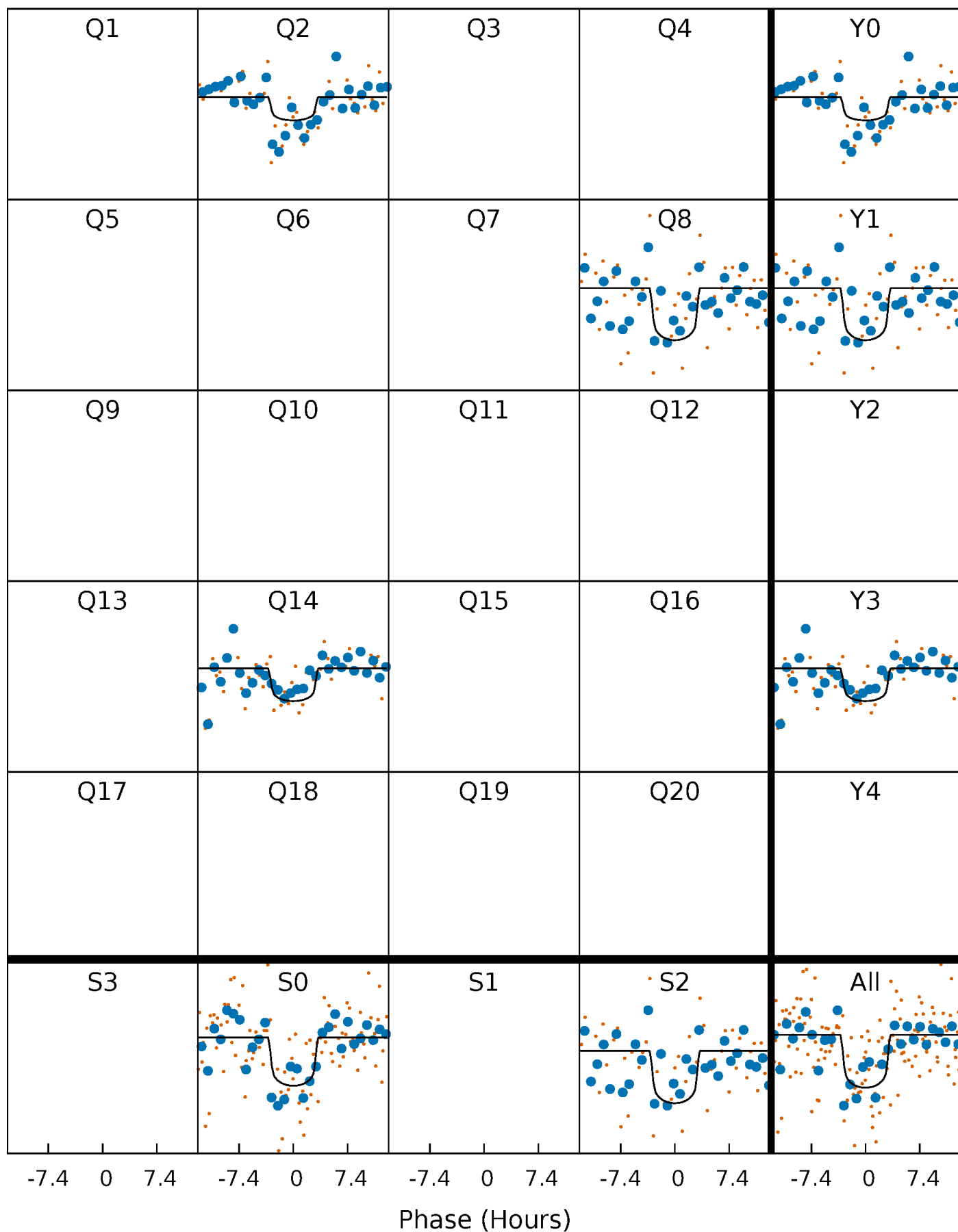
PDC Quarter-Phased Transit Curves

TCE 010555667-01 P=562.775227 Days $T_0=216.335167$ (BKJD)



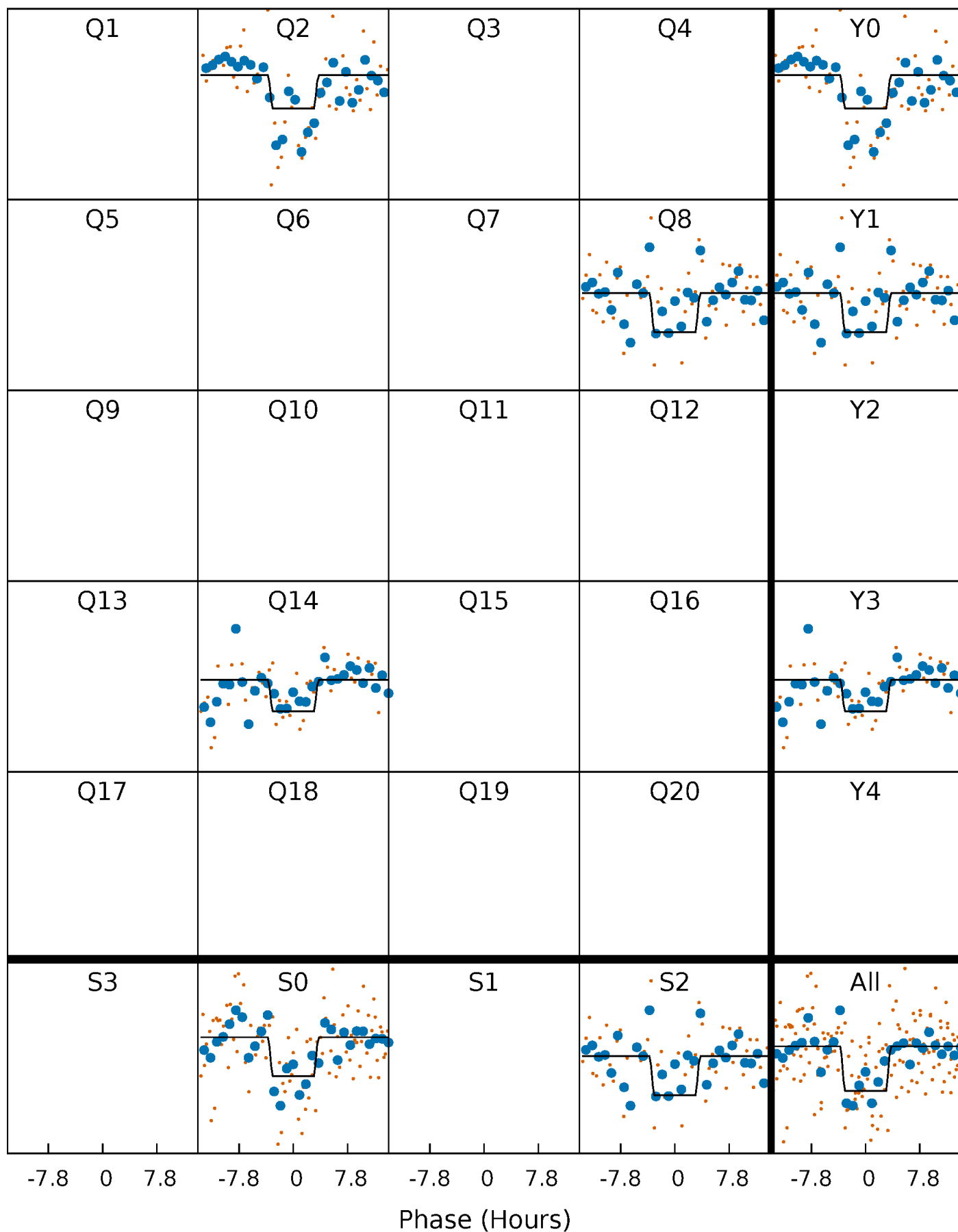
DV Quarter-Phased Transit Curves

TCE 010555667-01 P=562.775227 Days $T_0=216.335167$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

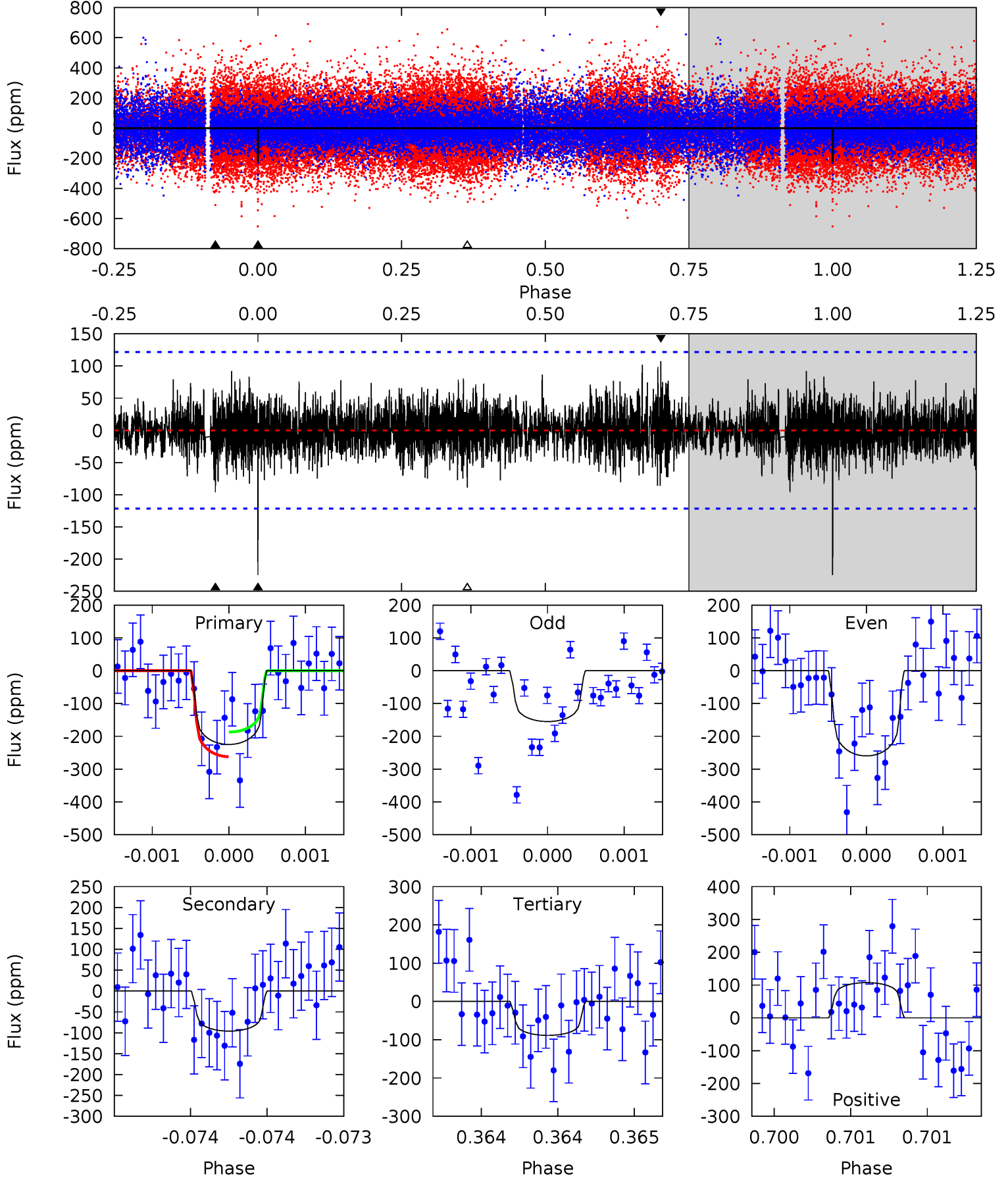
TCE 010555667-01 P=562.767487 Days $T_0=216.343063$ (BKJD)



DV Model-Shift Uniqueness Test

010555667-01, P = 562.775227 Days, E = 216.335167 Days

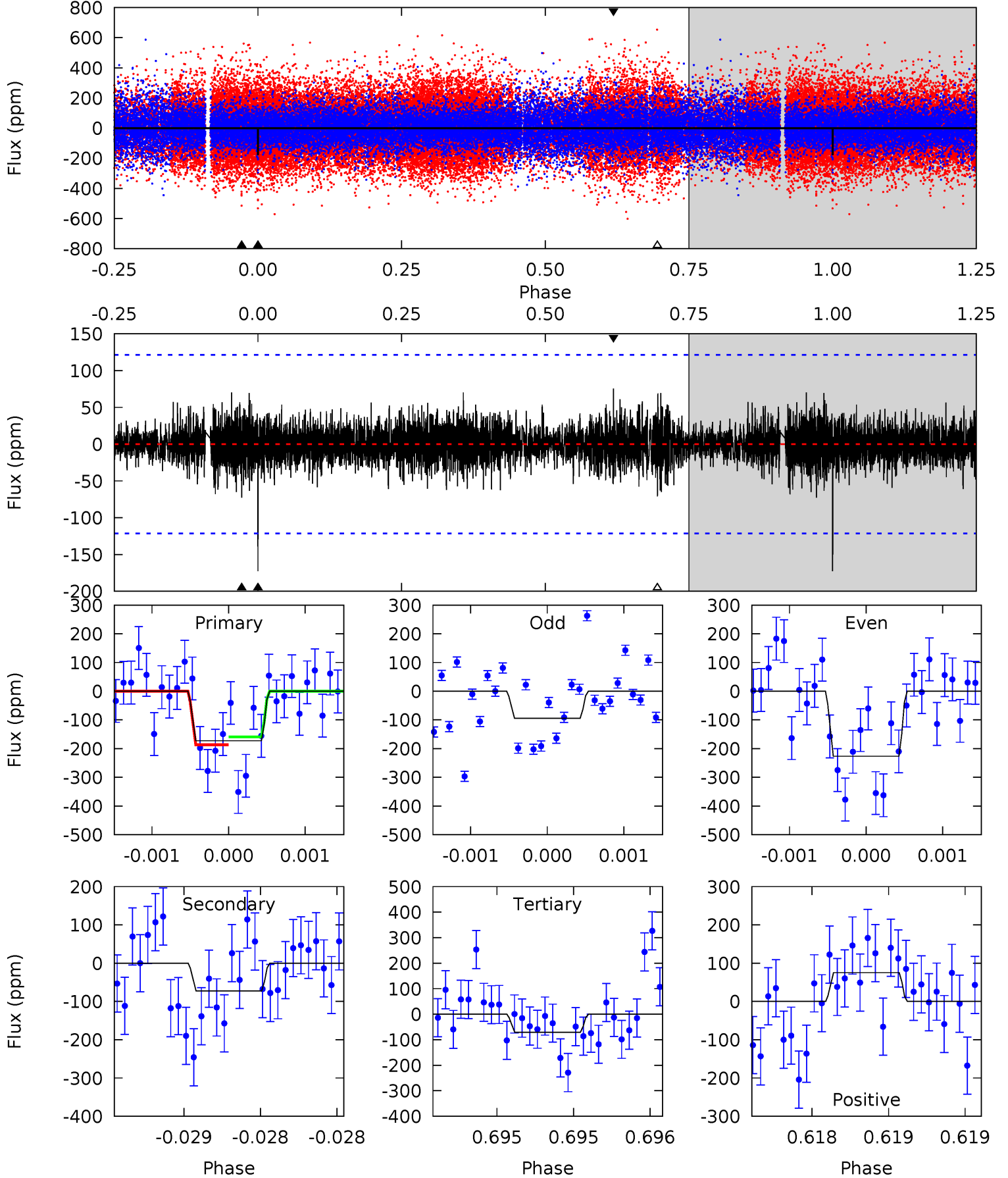
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	4.40	4.06	4.92	5.57	3.47	1.15	6.24	5.38	0.34	-0.52	2.28	1.34	0.32	1.72



Alt Model-Shift Uniqueness Test

010555667-01, P = 562.767487 Days, E = 216.343063 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.92	3.32	3.26	3.46	5.57	3.48	0.86	4.67	4.46	0.07	-0.14	2.94	1.52	0.30	0.62



Stellar Parameters For KIC 010555667

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6181^{+171}_{-171}	$3.730^{+0.320}_{-0.080}$	$-0.140^{+0.300}_{-0.300}$	$2.673^{+0.422}_{-0.984}$	$1.400^{+0.232}_{-0.309}$	$0.103^{+0.232}_{-0.031}$
	+3%/-3%	+9%/-2%	+214%/-214%	+16%/-37%	+17%/-22%	+224%/-30%
Source	PHO1	FLK73	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 010555667-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-96 ± 22	$4.43^{+3.10}_{-2.54}$	502^{+26}_{-52}	4860^{+2677}_{-849}	6085^{+28753}_{-4030}
Alt.	-72 ± 22	$4.12^{+3.00}_{-2.43}$	499^{+31}_{-46}	4759^{+2402}_{-870}	5407^{+27933}_{-3757}

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

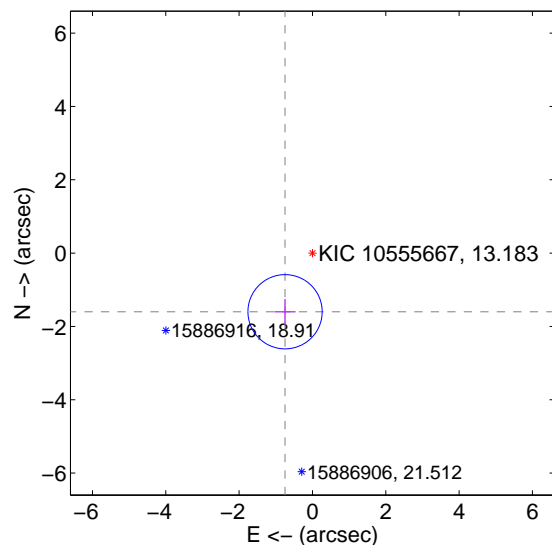
Supplemental centroid analysis for 010555667-01. Kepler magnitude: 13.18. Transit SNR 7.68

There are 1 quarters with good PRF difference image offsets

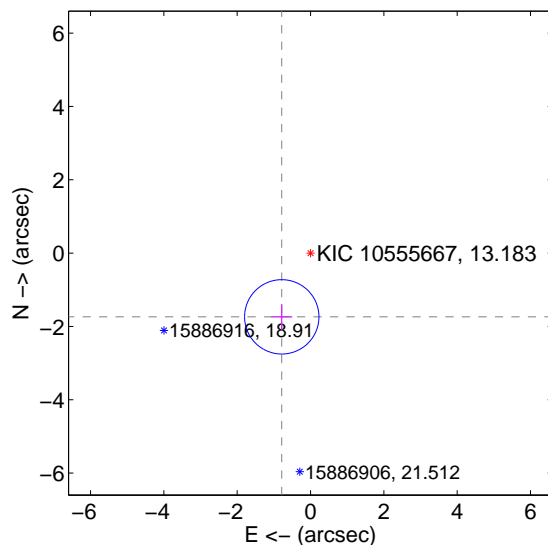
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.766 ± 0.337	5.23	0.747 ± 0.287	-1.600 ± 0.348
PRF-fit source offset from KIC position	1.908 ± 0.338	5.64	0.785 ± 0.287	-1.739 ± 0.348
photometric centroid source offset	0.78 ± 1.57	0.49	-0.60 ± 1.57	0.49 ± 1.58

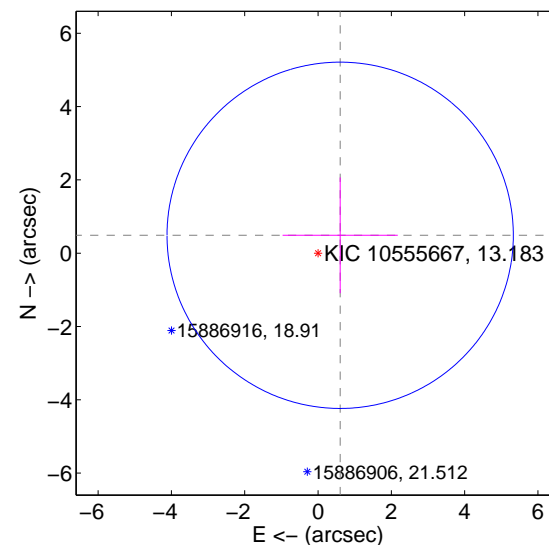
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

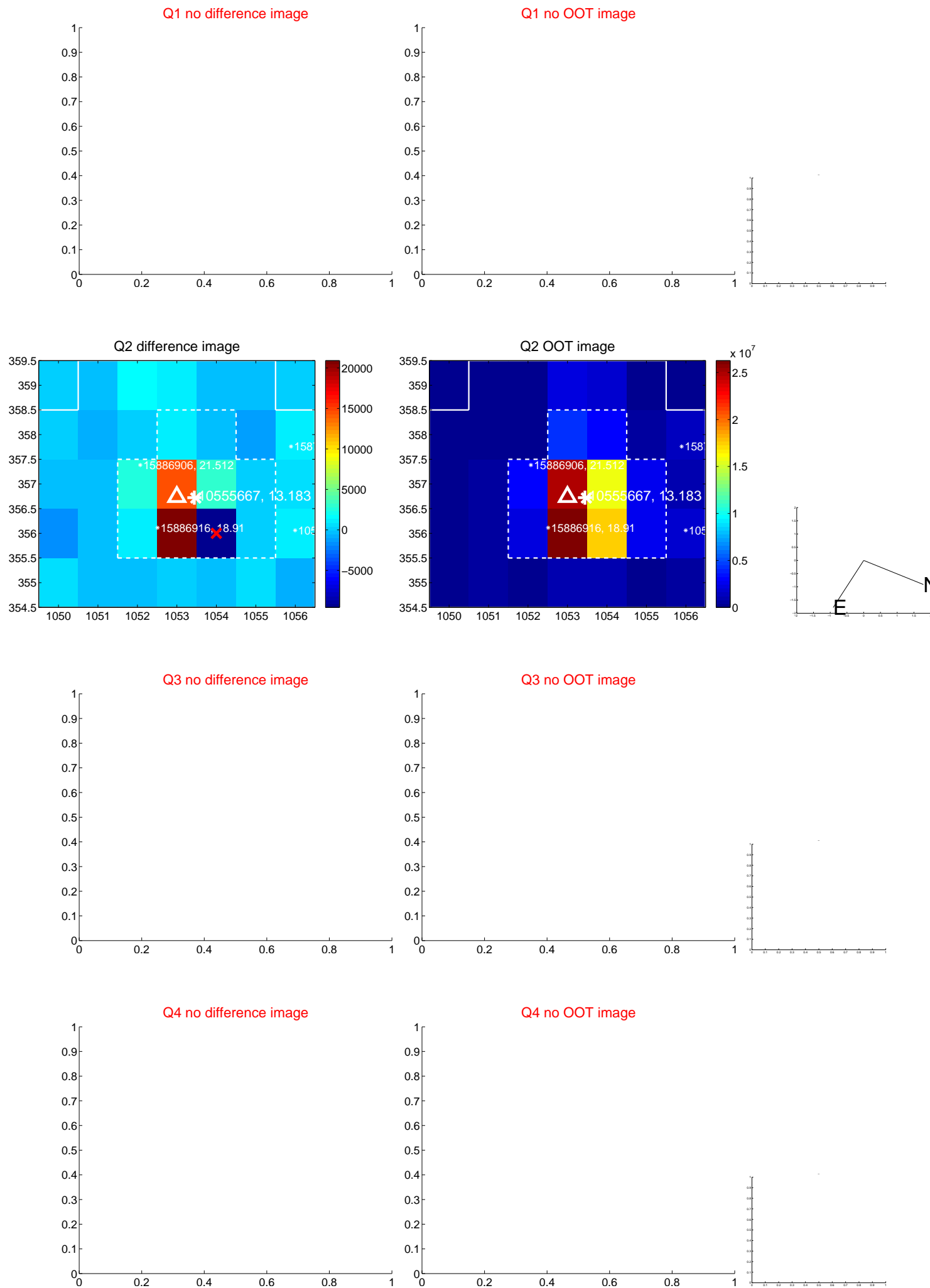


offset from photometric centroids

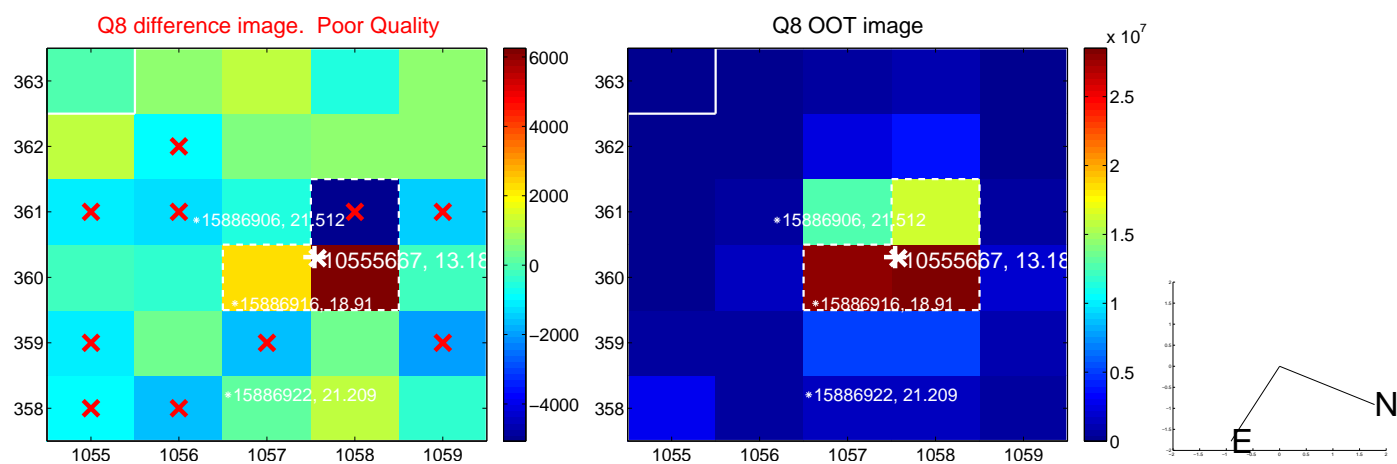


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



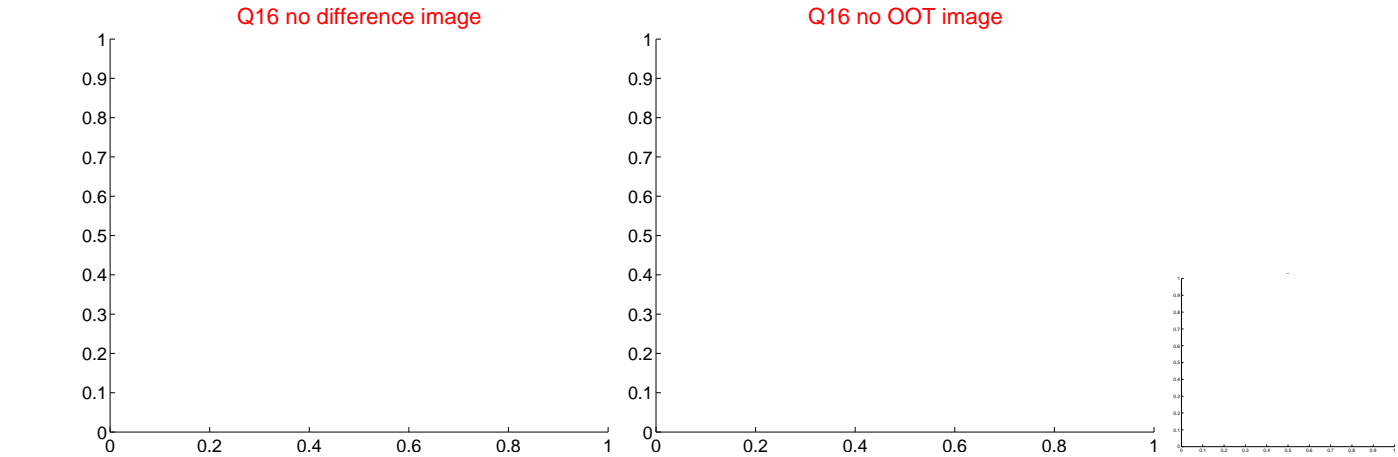
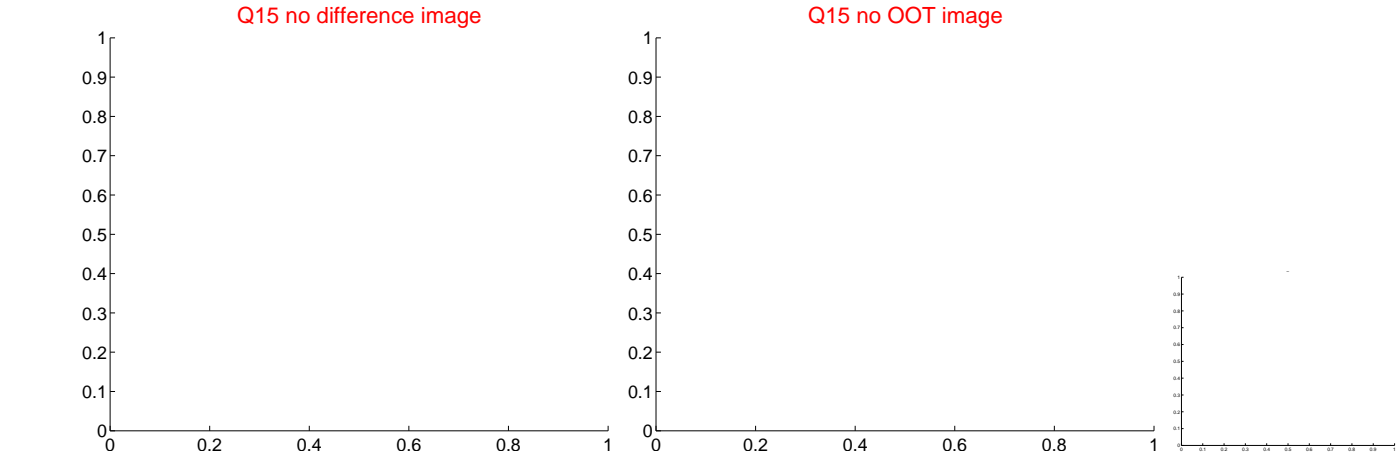
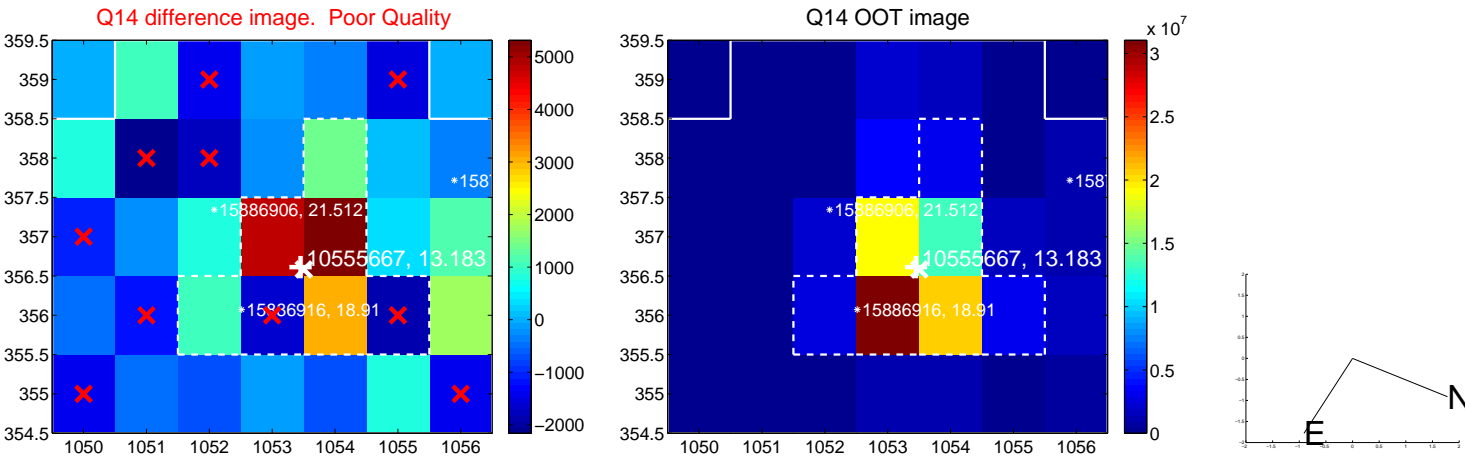
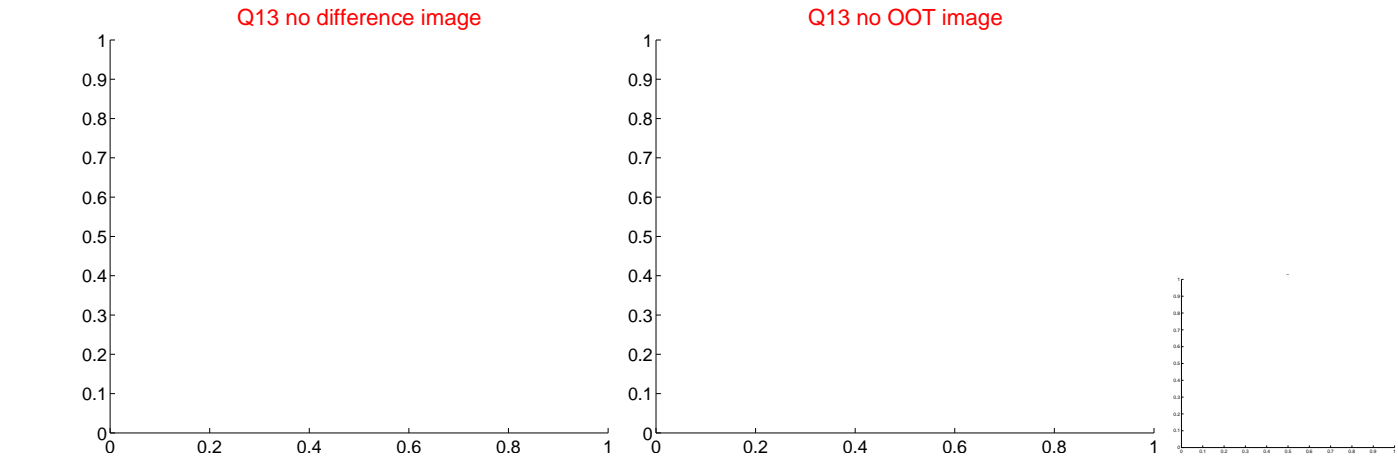
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



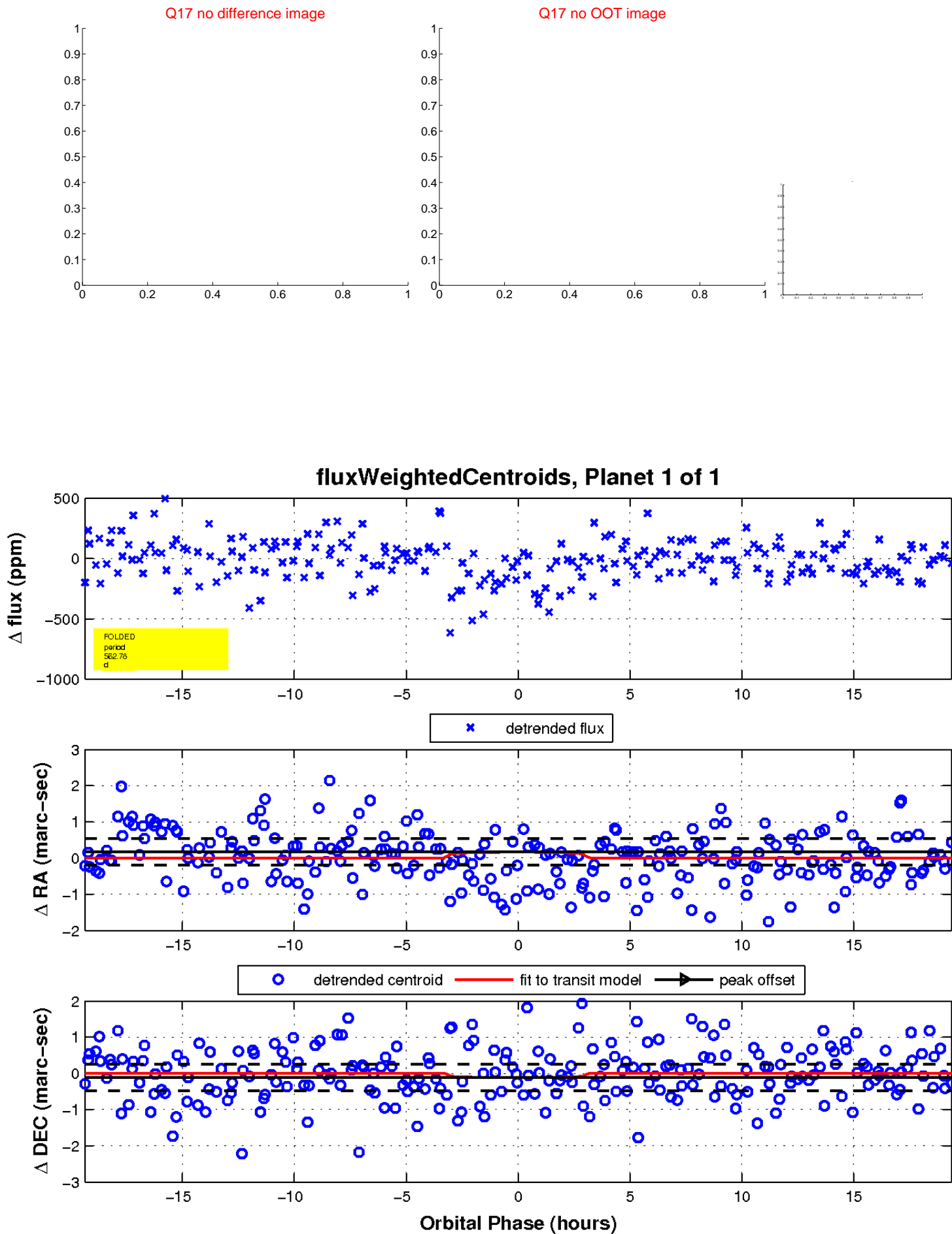
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UKIRT Image

