

KIC 006067956

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})
006067956-01	OBS	No	490.345469	154.854236	565.6	8.679	10.3	5.8	0.81	5644	1.98	0.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006067956-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

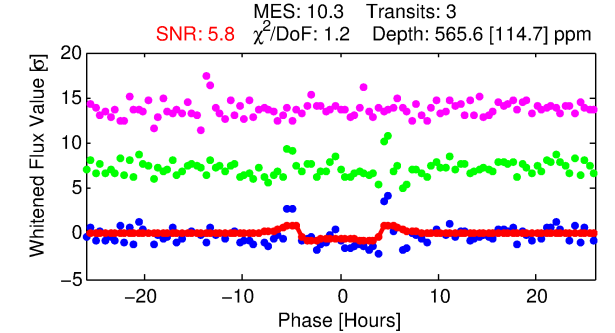
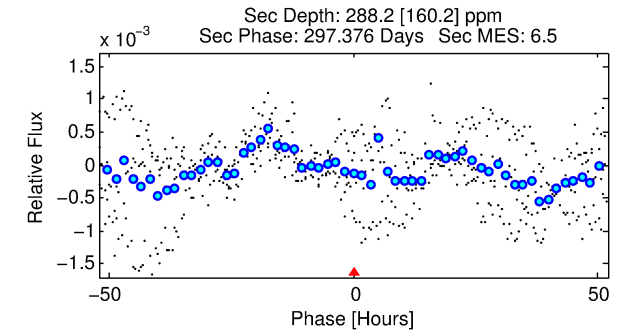
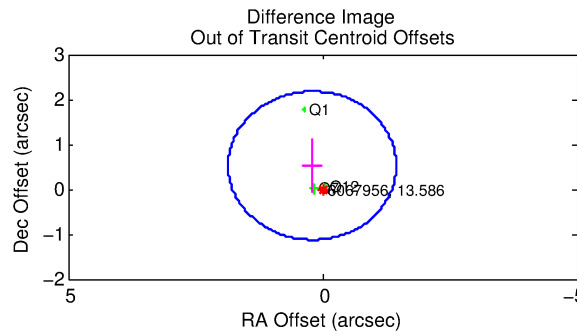
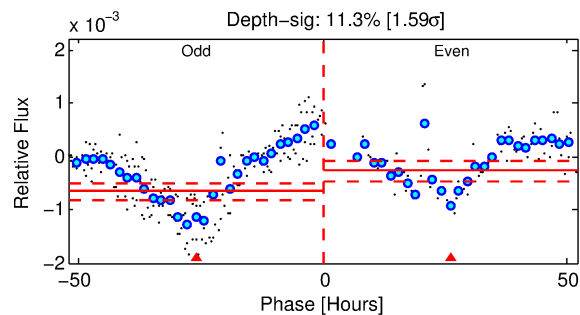
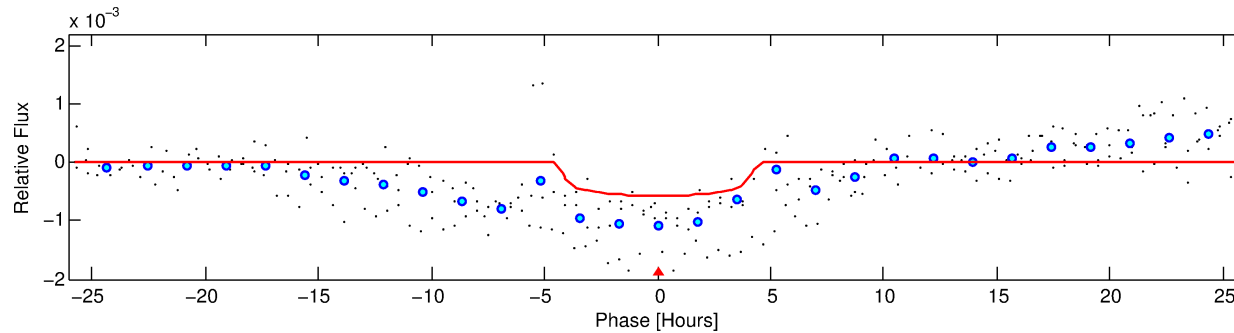
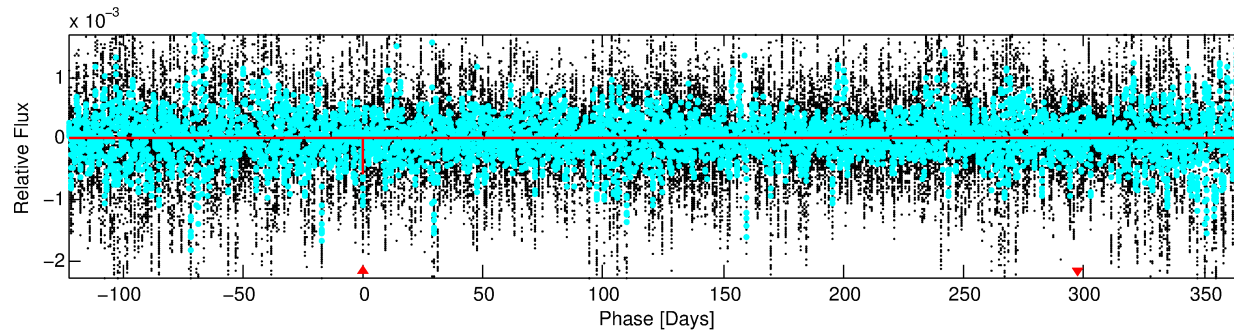
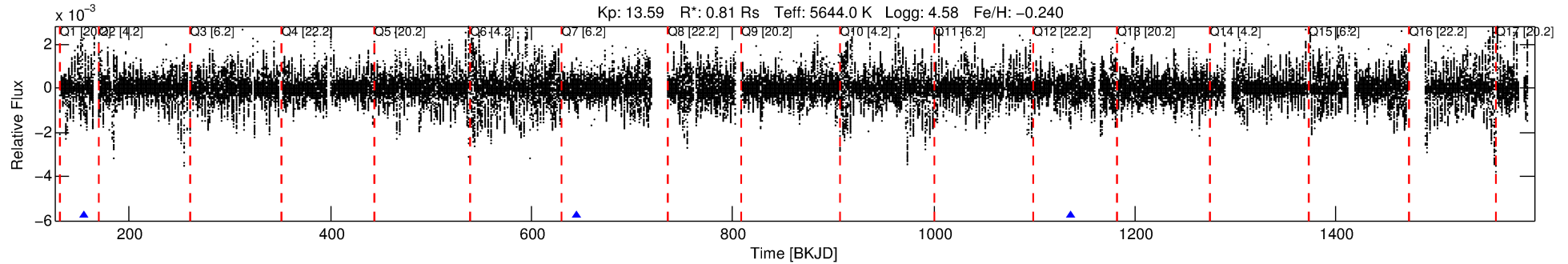
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006067956-01

No Significant Match Found

DV One-Page Summary

KIC: 6067956 Candidate: 1 of 1 Period: 490.345 d



DV Fit Results:

Period = 490.34547 [0.00733] d
Epoch = 154.8542 [0.0100] BKJD
Rp/R* = 0.0225 [0.0312]
a/R* = 367.48 [2238.32]
b = 0.57 [7.37]
Seff = 0.43 [0.12]
Teq = 207 [15] K
Rp = 1.98 [2.78] Re
a = 1.1711 [0.2087] AU
Ag = 55445.09 [157574.41] [0.35 σ]
Teffp = 4901 [3470] K [1.35 σ]

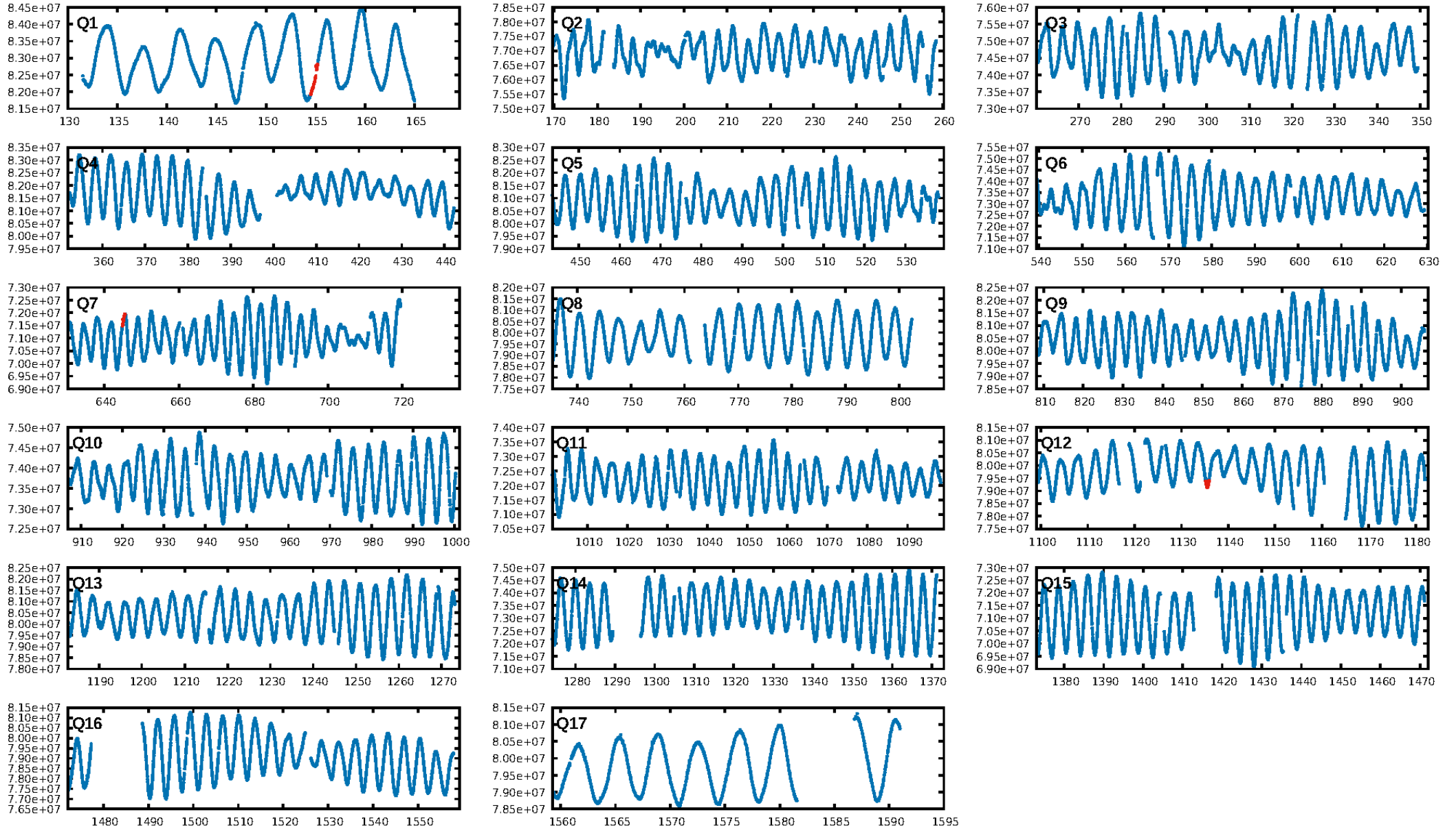
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 44.9%
ModelChiSquareGof-sig: 93.2%
Bootstrap-pfa: 1.02e-10
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.4476
Centroid-sig: 0.0%
Centroid-so: 3.104 arcsec [2.49 σ]
OotOffset-rm: 0.561 arcsec [1.02 σ]
KicOffset-rm: 0.561 arcsec [0.90 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

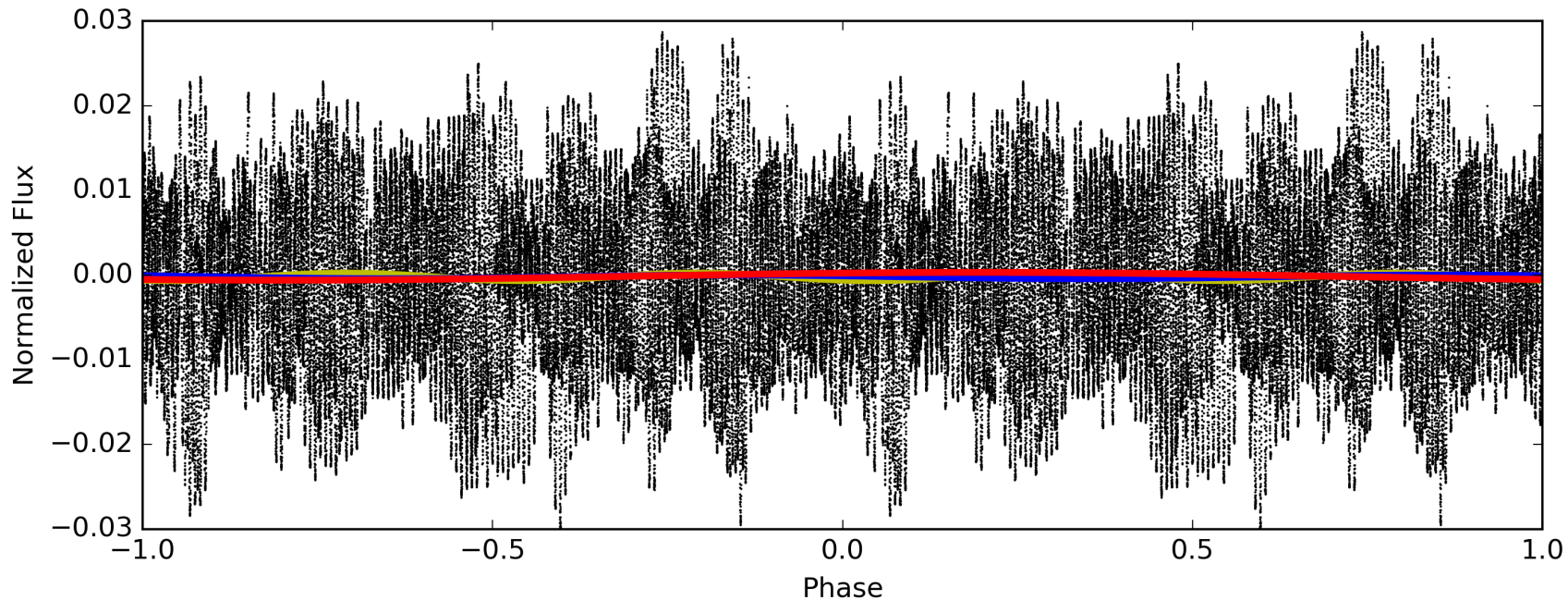
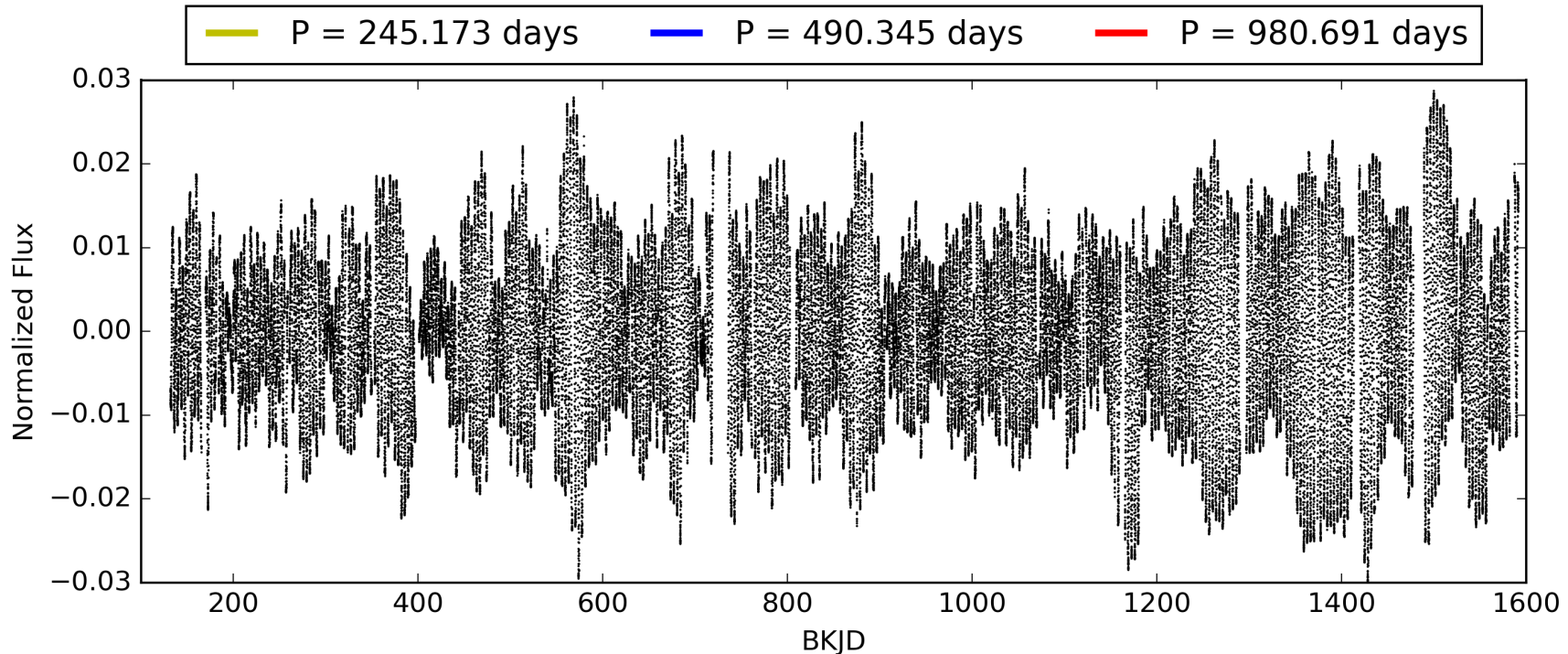
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:33:34 Z

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

TCE 006067956-01, PDC Light Curves

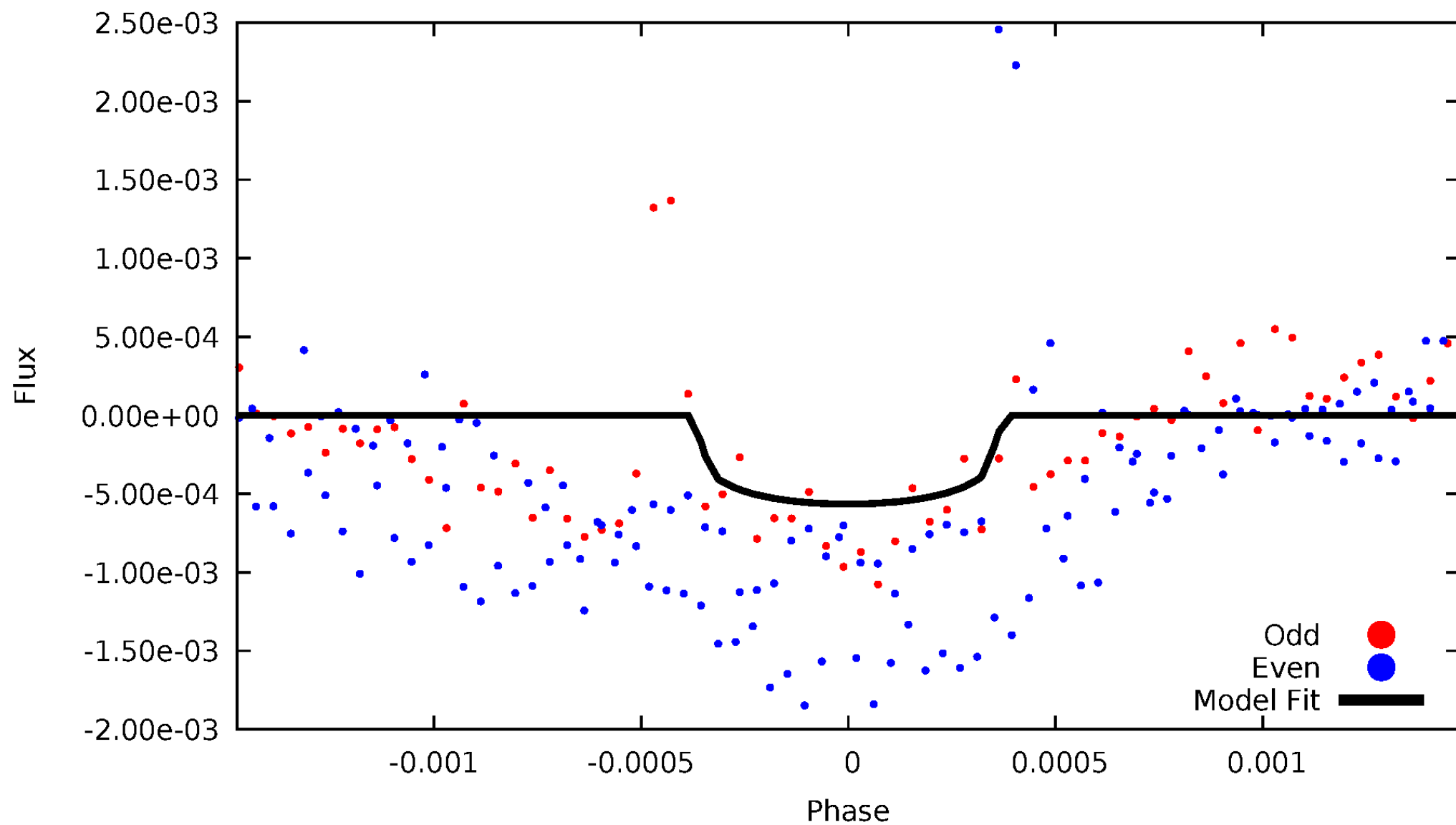


TCE 006067956-01



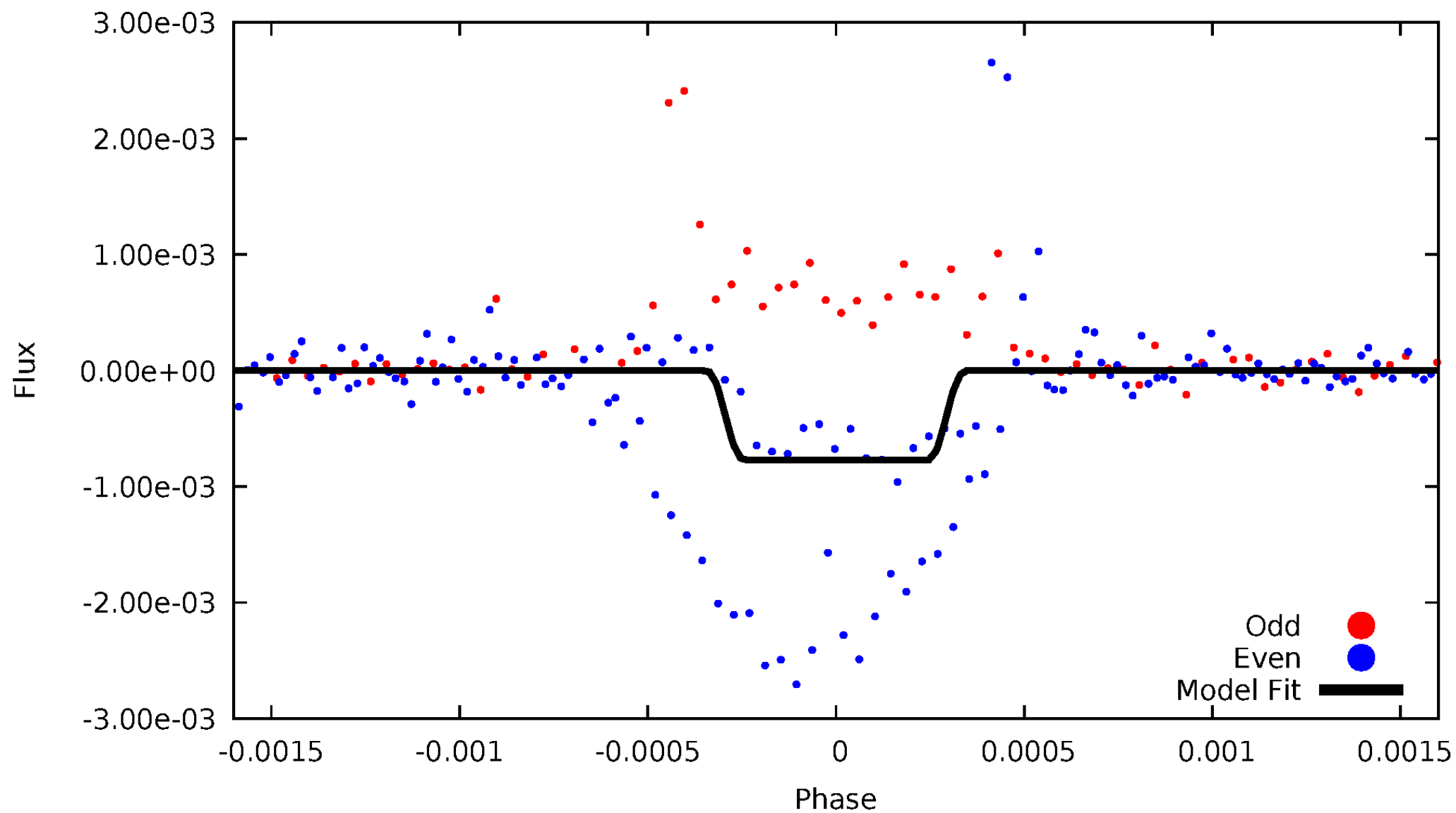
DV Odd/Even

TCE 006067956-01



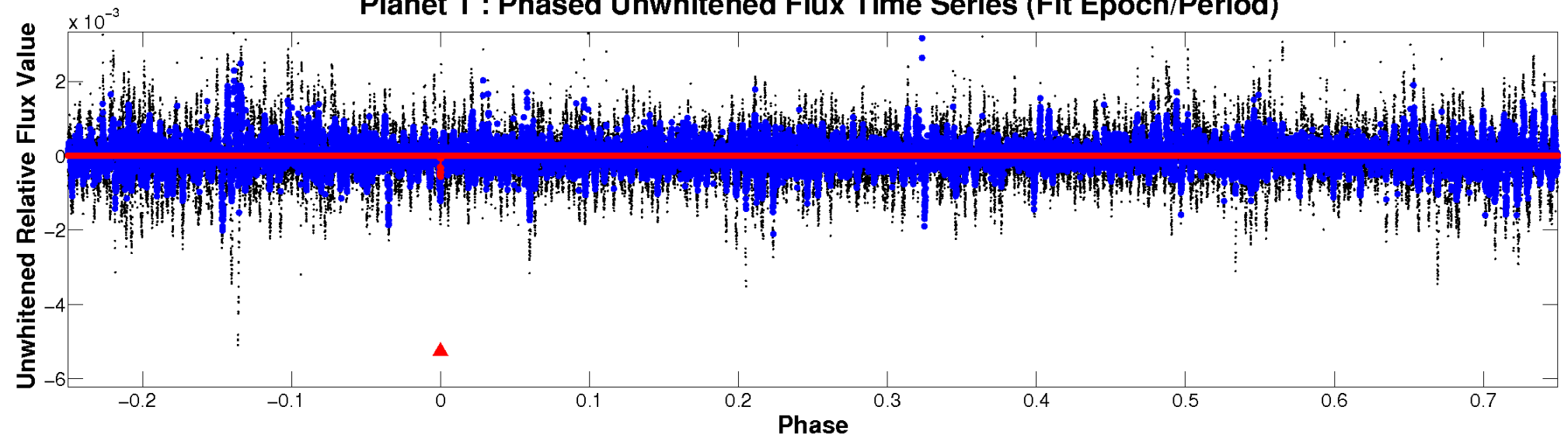
ALT Odd/Even

TCE 006067956-01

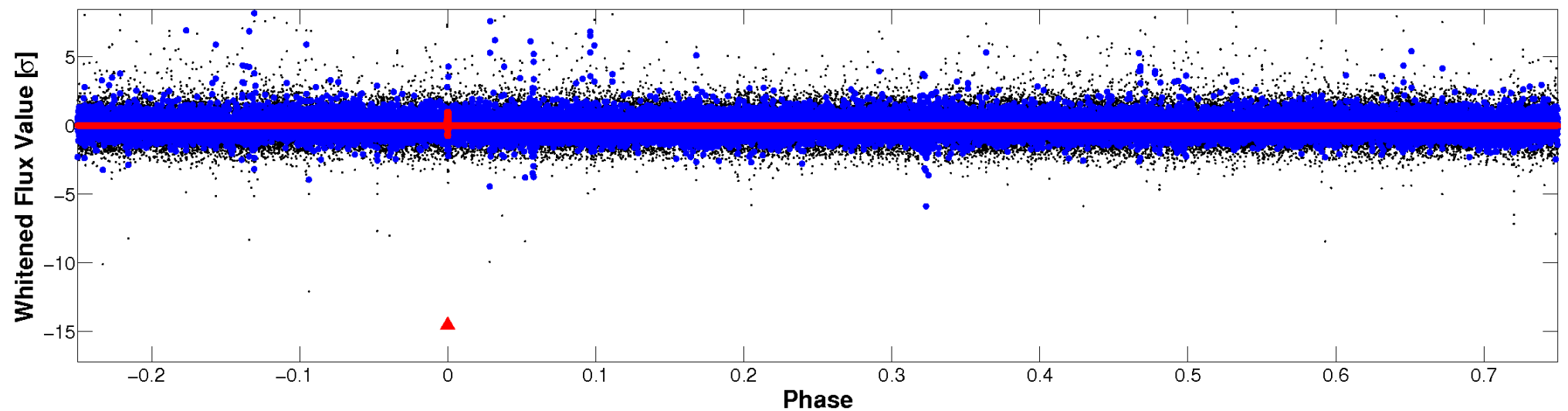


Non-Whitened Vs. Whitened Light Curve

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

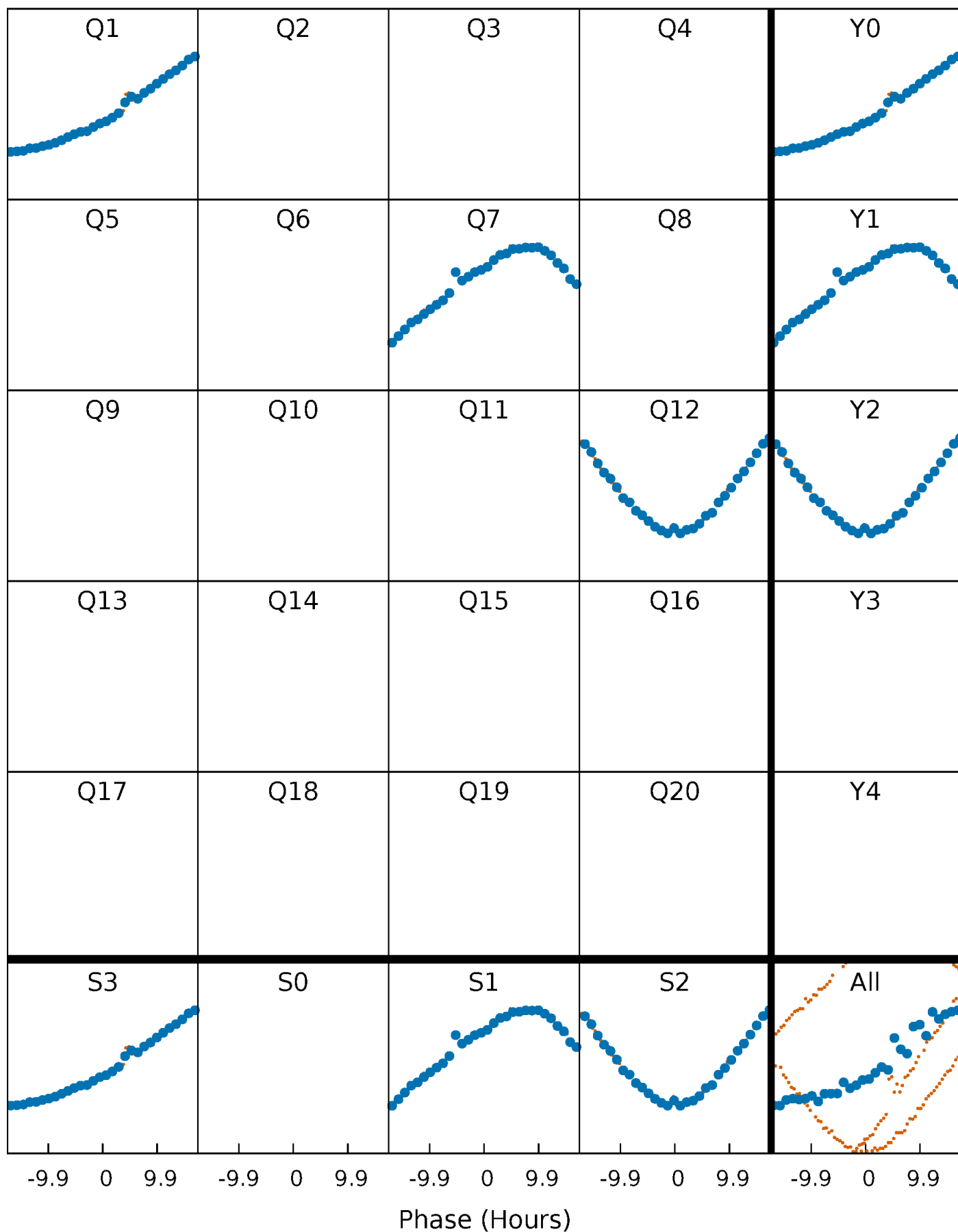


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



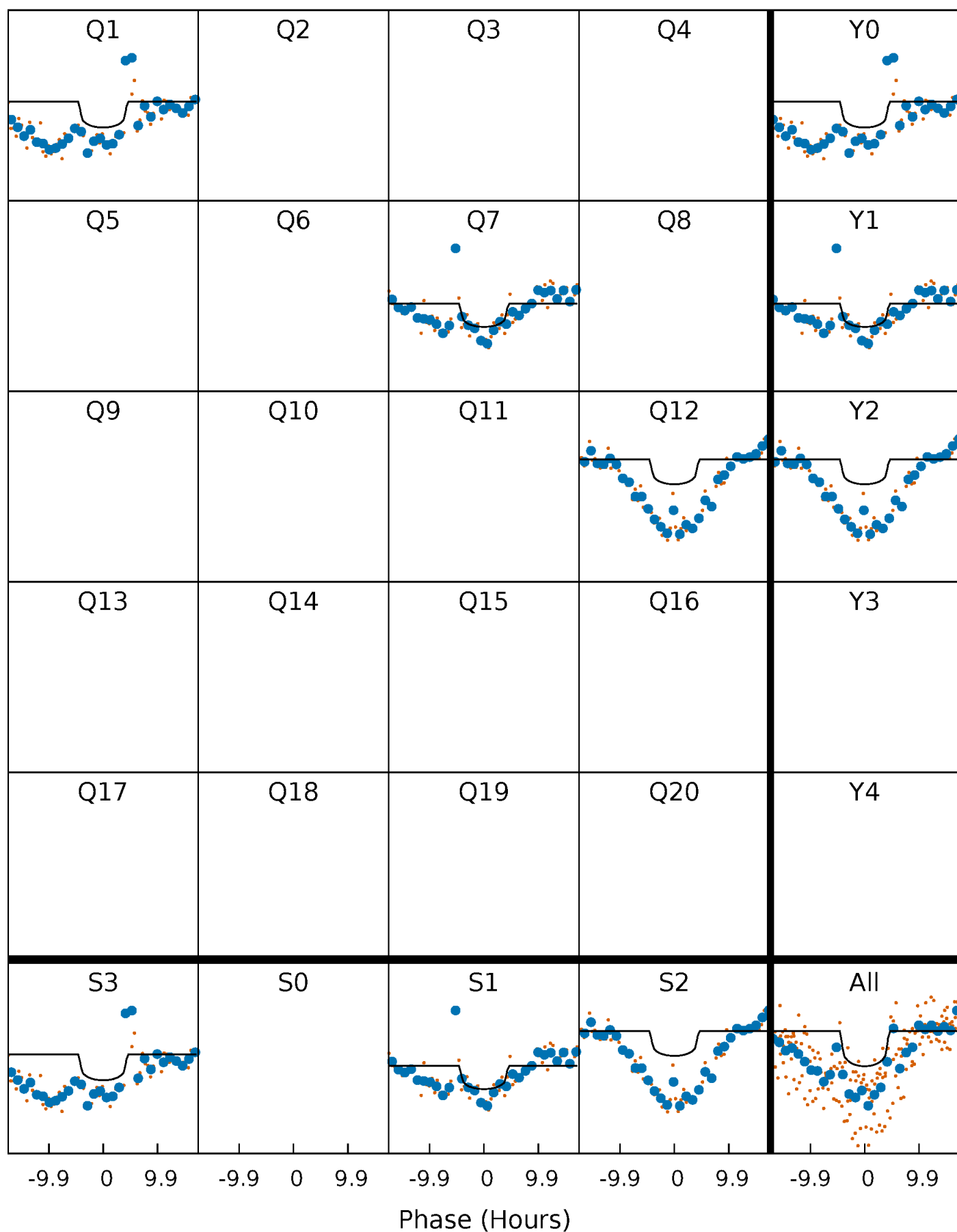
PDC Quarter-Phased Transit Curves

TCE 006067956-01 P=490.345468 Days $T_0=154.854236$ (BKJD)



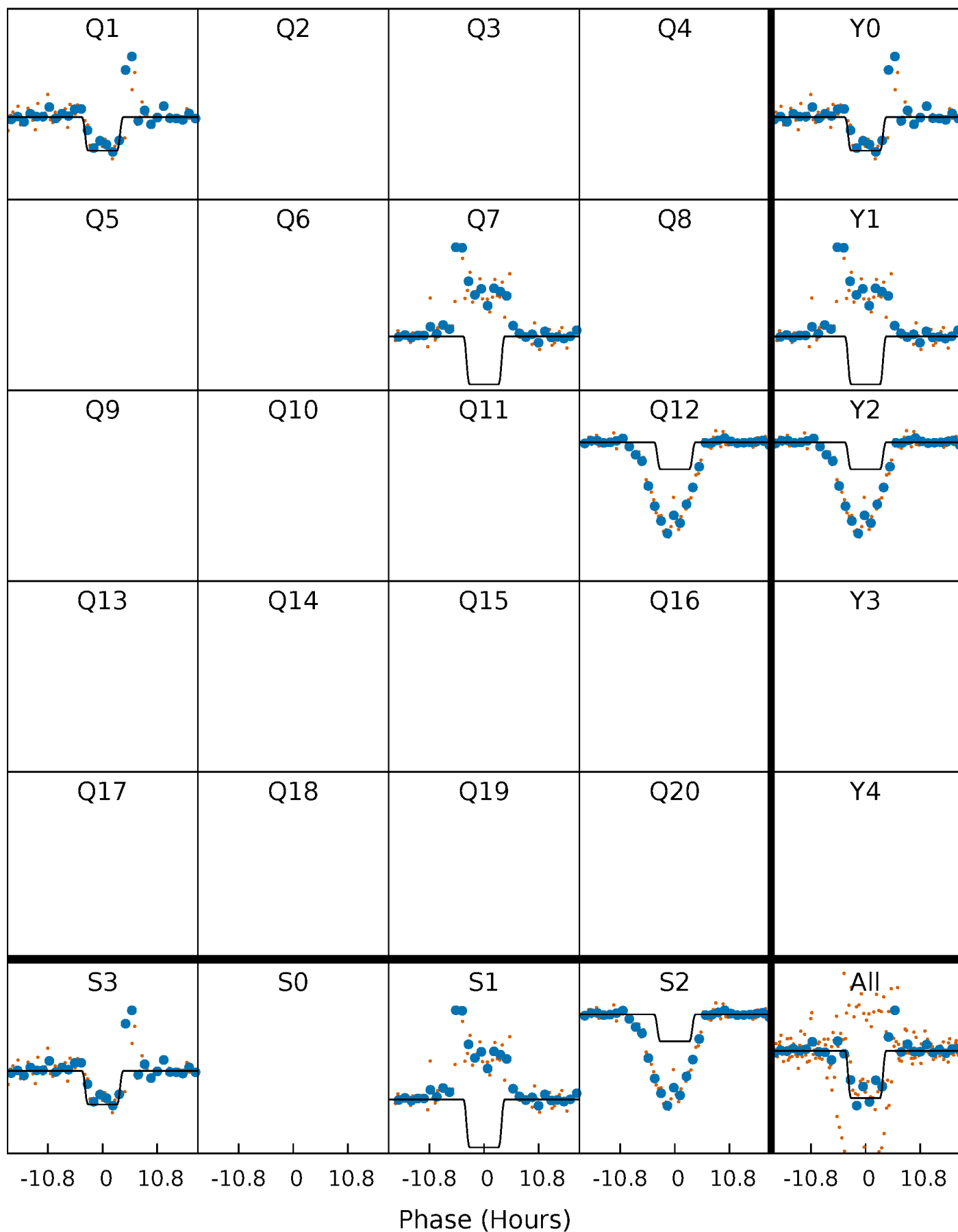
DV Quarter-Phased Transit Curves

TCE 006067956-01 P=490.345468 Days $T_0=154.854236$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

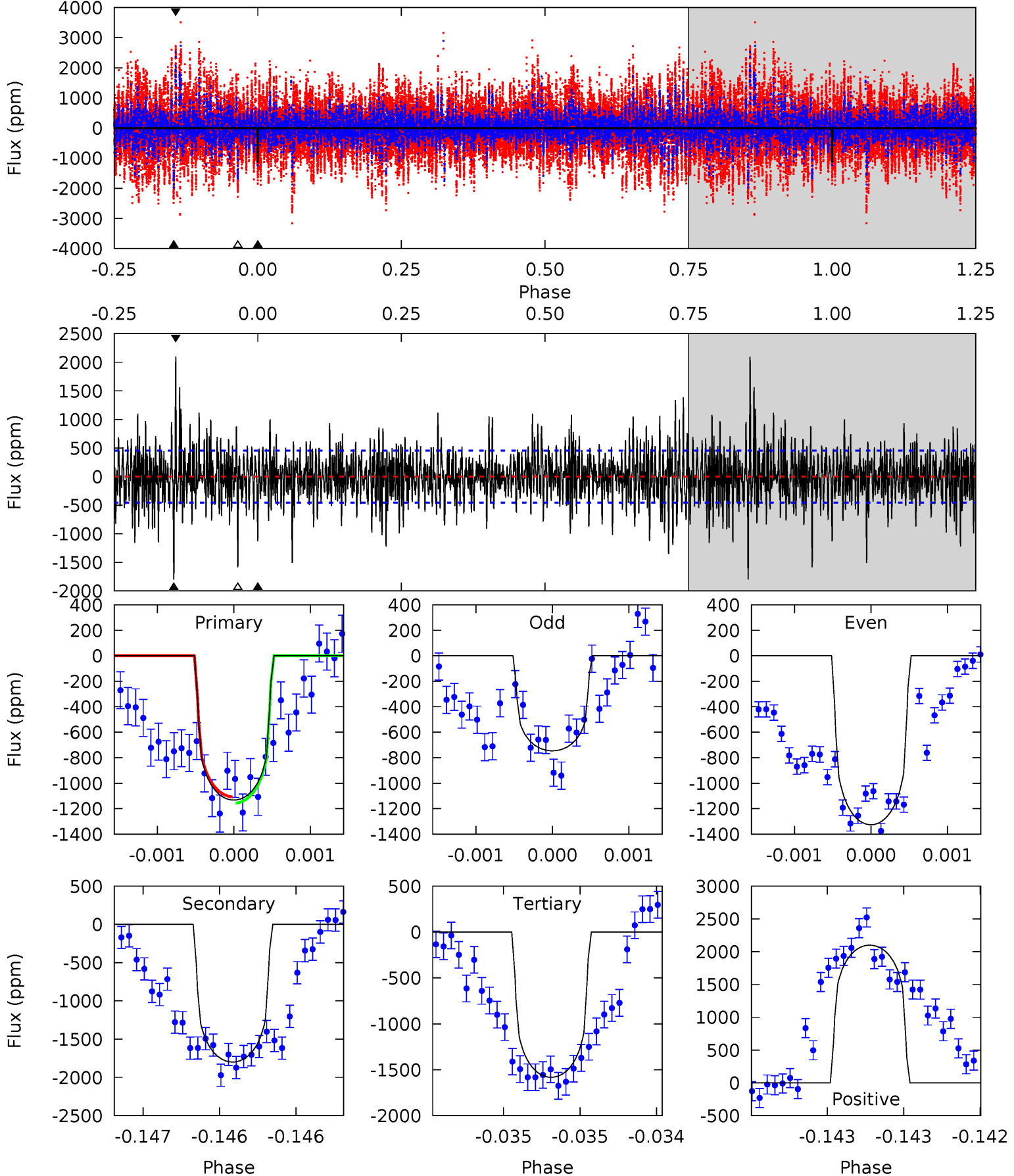
TCE 006067956-01 P=490.357762 Days $T_0=154.829325$ (BKJD)



DV Model-Shift Uniqueness Test

006067956-01, P = 490.345468 Days, E = 154.854236 Days

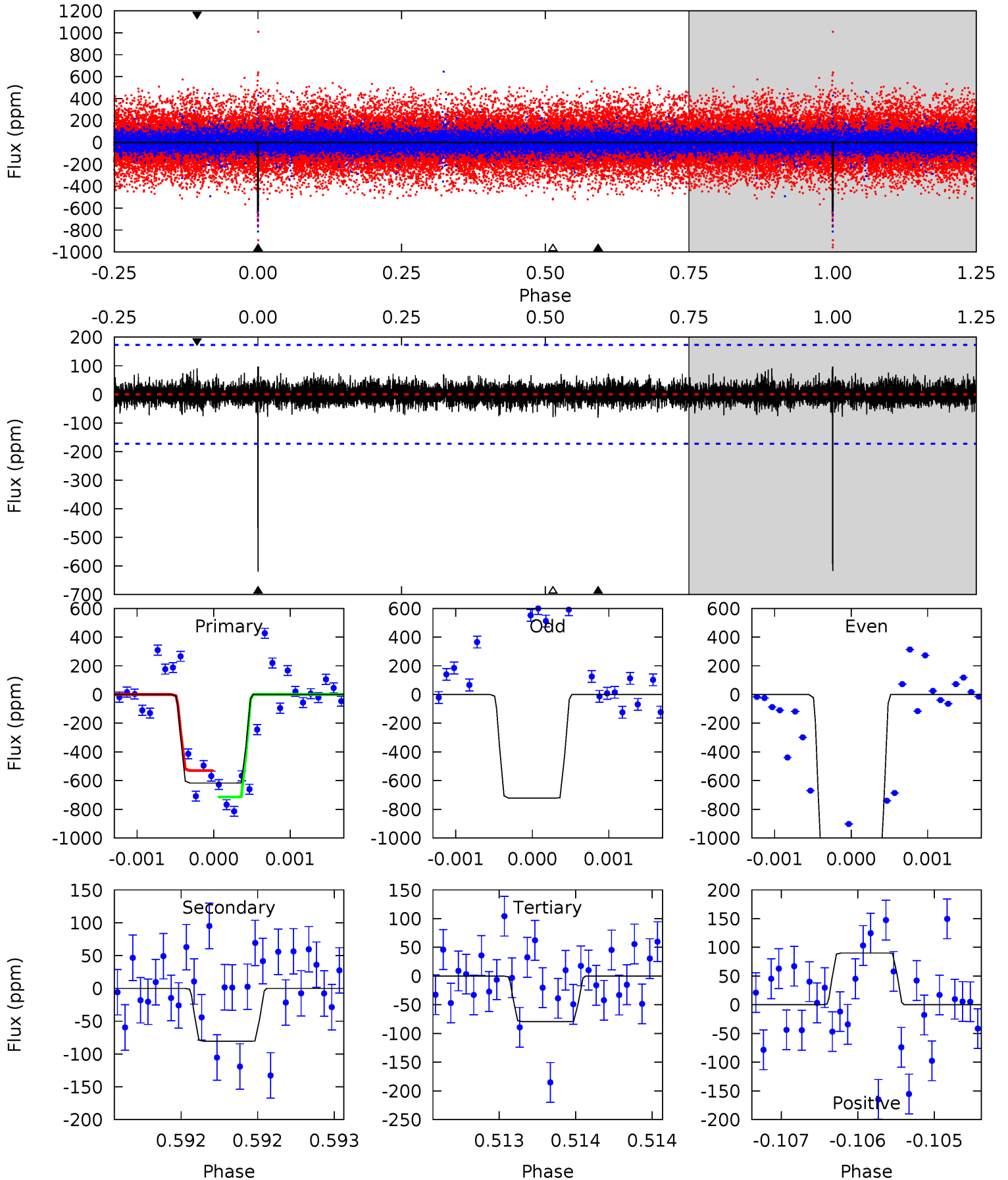
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	21.7	19.1	25.3	5.50	3.37	4.36	-5.43	-11.7	2.61	-3.63	3.12	1.21	0.54	0.30



Alt Model-Shift Uniqueness Test

006067956-01, P = 490.357762 Days, E = 154.829325 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.7	2.58	2.54	2.89	5.52	3.40	0.58	17.2	16.8	0.04	-0.31	16.7	1.13	0.14	2.96



Stellar Parameters For KIC 006067956

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5644^{+152}_{-152}	$4.575^{+0.036}_{-0.144}$	$-0.240^{+0.300}_{-0.300}$	$0.806^{+0.169}_{-0.068}$	$0.900^{+0.078}_{-0.107}$	$2.422^{+0.452}_{-0.969}$
	+3%/-3%	+1%/-3%	+125%/-125%	+21%/-8%	+9%/-12%	+19%/-40%
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 006067956-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1799 ± 83	$2.92^{+2.65}_{-1.85}$	295^{+14}_{-11}	6545^{+5778}_{-1702}	$154882^{+1021283}_{-110379}$
Alt.	-81 ± 31	$3.17^{+2.59}_{-2.03}$	294^{+14}_{-11}	3321^{+1465}_{-545}	5513^{+35630}_{-4027}

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

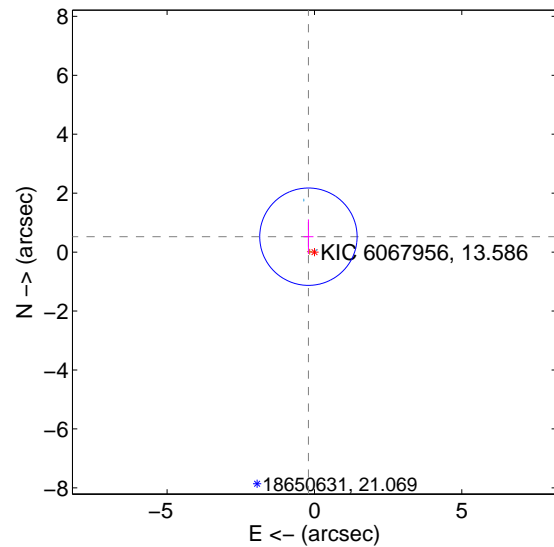
Supplemental centroid analysis for 006067956-01. Kepler magnitude: 13.59. Transit SNR 5.75

There are 2 quarters with good PRF difference image offsets

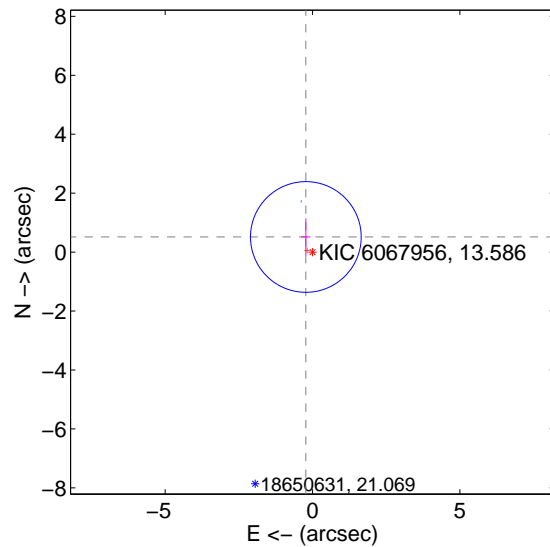
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.561 ± 0.551	1.02	0.204 ± 0.169	0.523 ± 0.587
PRF-fit source offset from KIC position	0.561 ± 0.626	0.90	0.226 ± 0.154	0.513 ± 0.629
photometric centroid source offset	3.10 ± 1.25	2.49	-0.67 ± 1.12	-3.03 ± 1.25

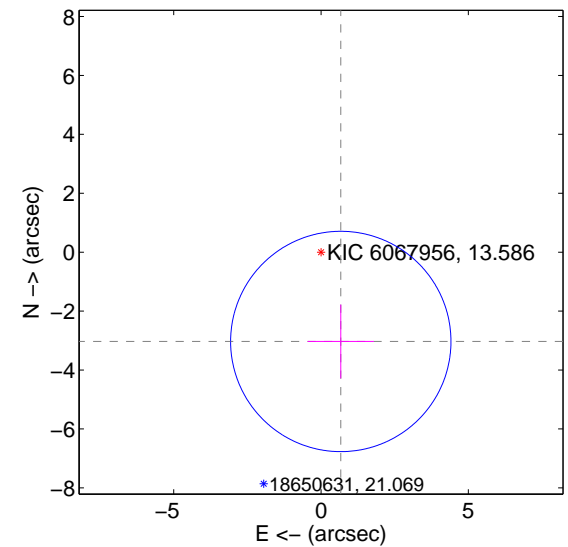
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

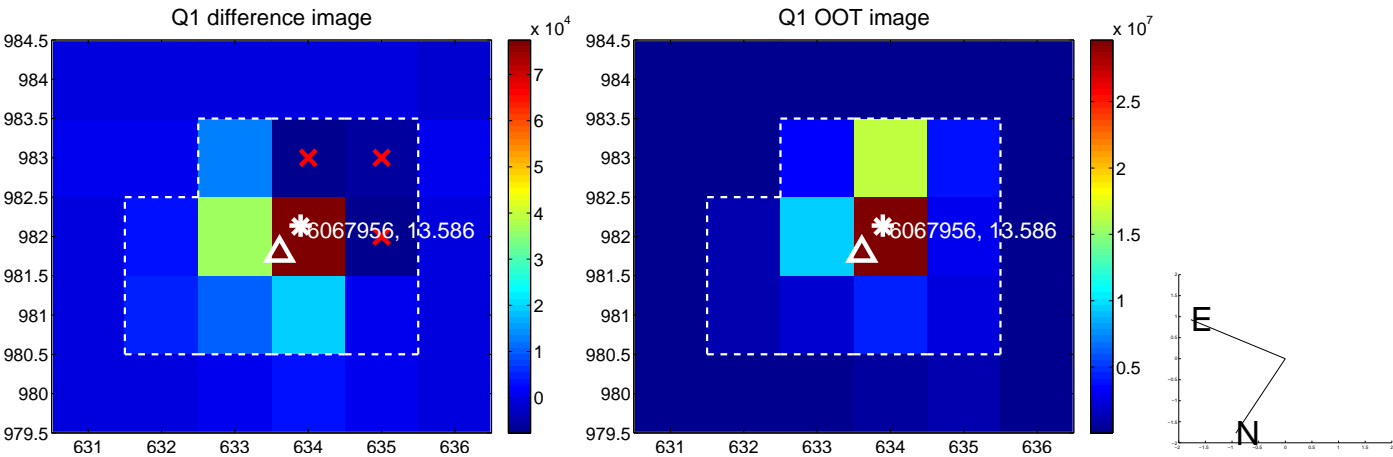


offset from photometric centroids

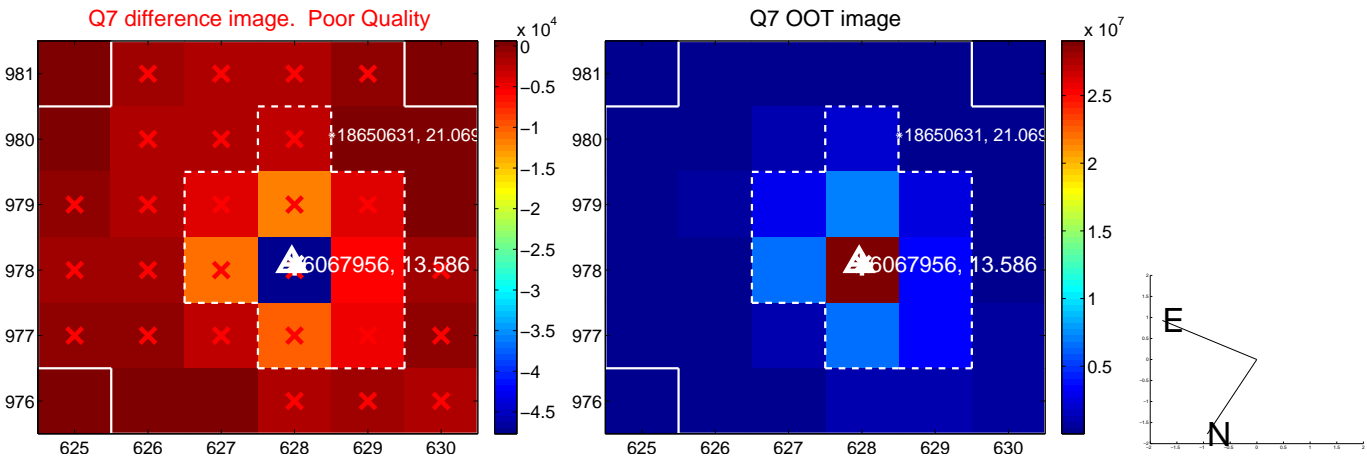


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

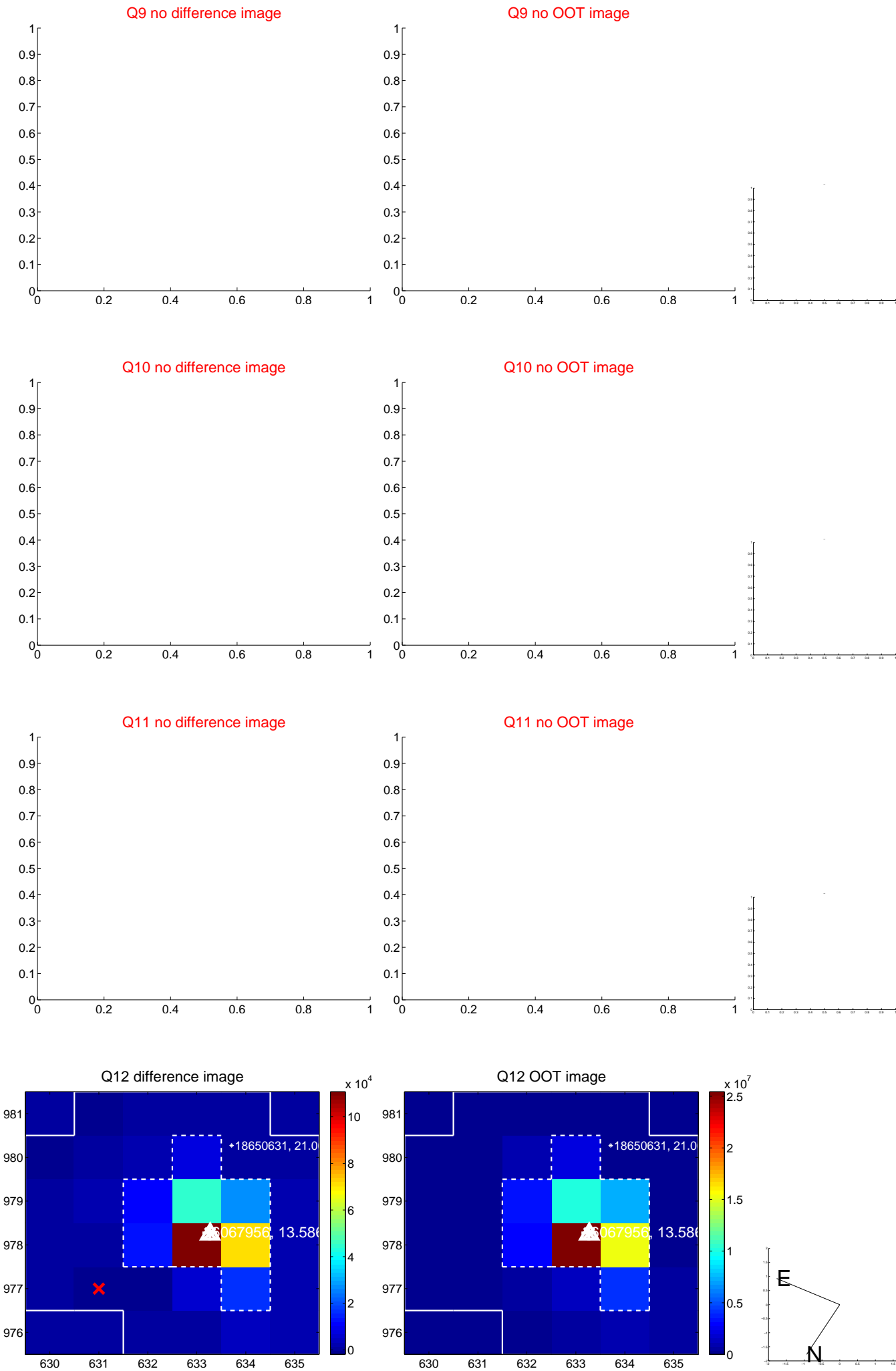
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



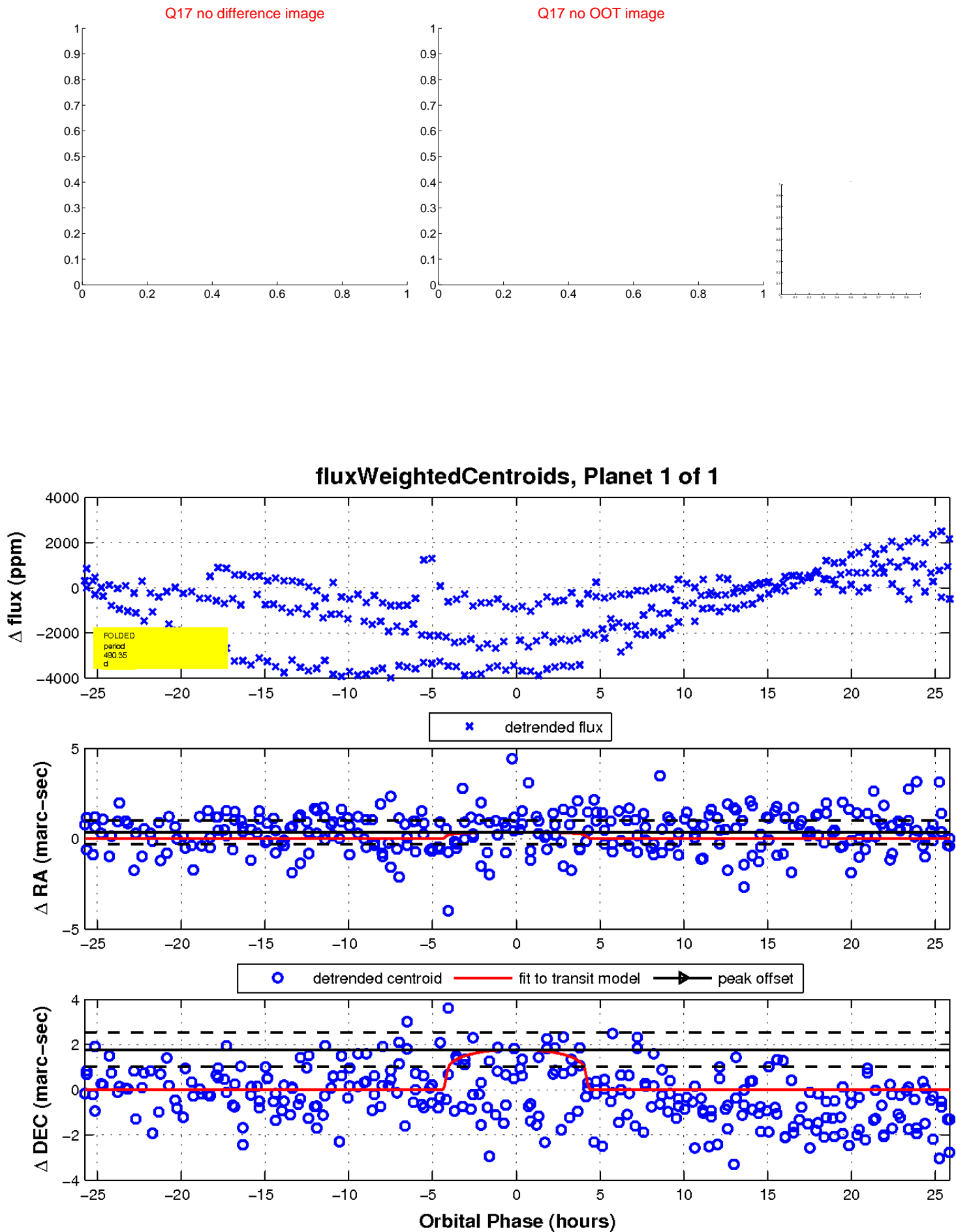
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

