

KIC 006067057

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})
006067057-01	OBS	No	484.172833	154.624876	476.8	6.564	7.2	7.2	2.32	5750	5.46	3.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006067057-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_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.

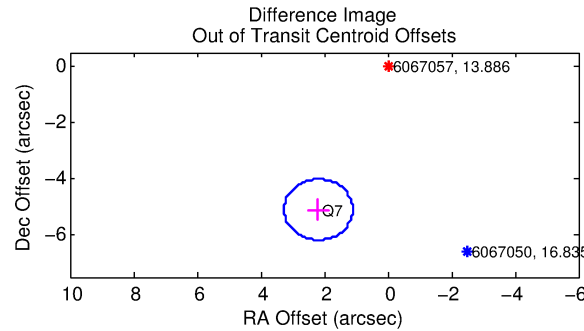
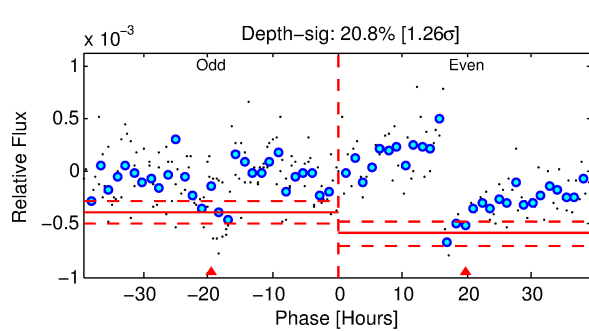
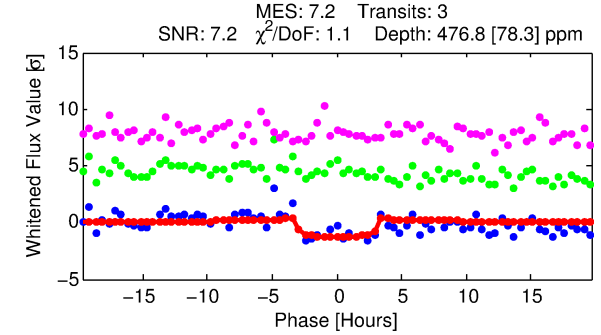
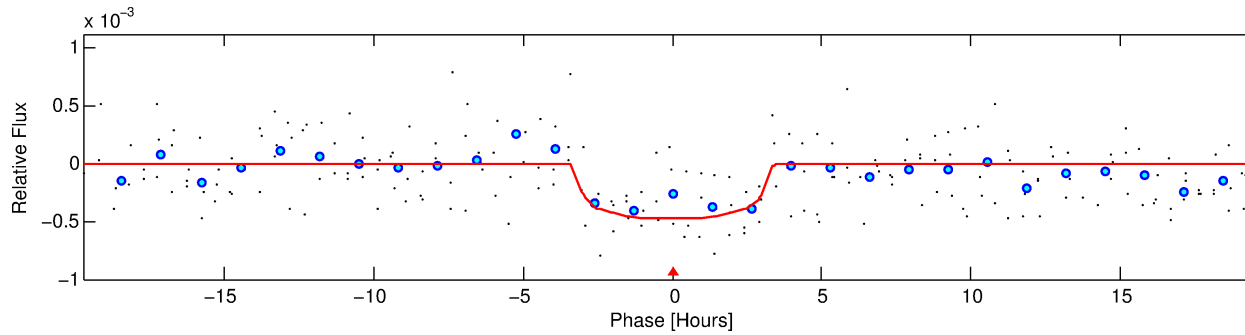
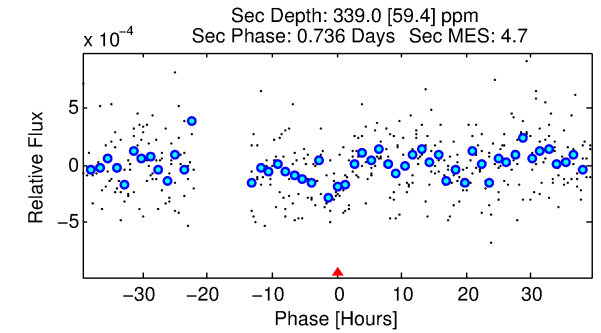
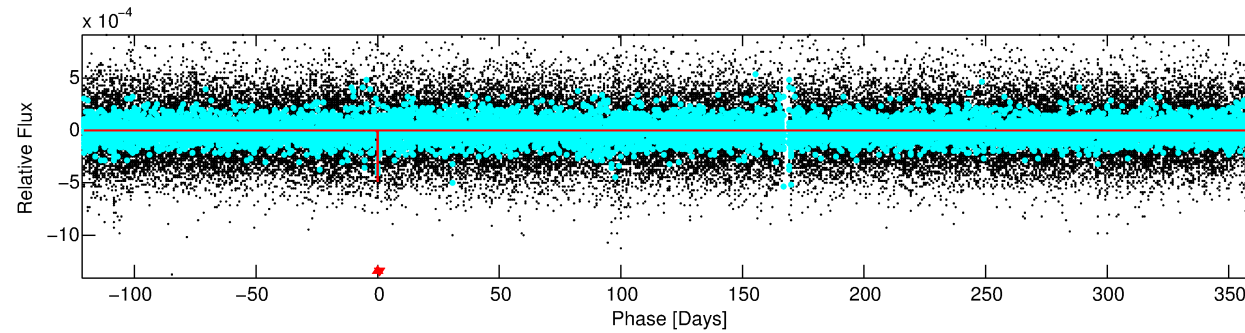
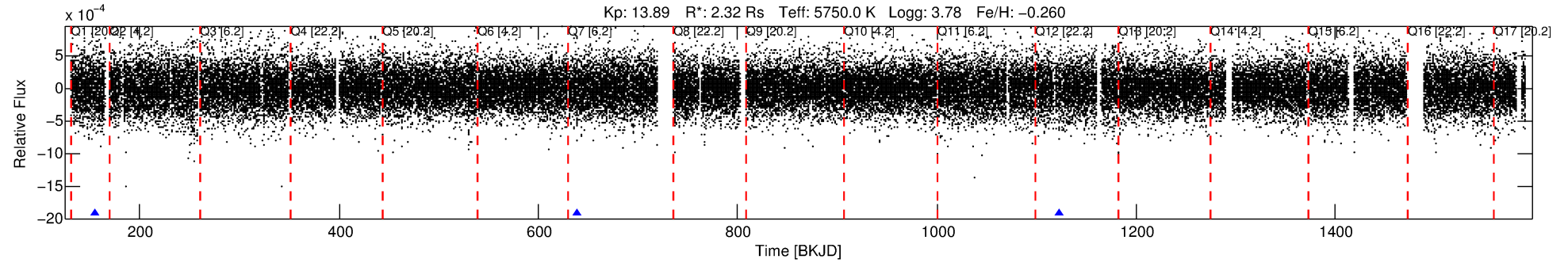
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006067057-01

No Significant Match Found

DV One-Page Summary

KIC: 6067057 Candidate: 1 of 1 Period: 484.173 d



DV Fit Results:

Period = 484.17283 [0.01049] d
Epoch = 154.6249 [0.0139] BKJD
Rp/R* = 0.0215 [0.0120]
a/R* = 406.23 [1037.37]
b = 0.72 [1.68]
Seff = 3.25 [3.36]
Teq = 342 [88] K
Rp = 5.46 [4.27] Re
a = 1.2756 [0.7682] AU
Ag = 10187.52 [15538.80] [0.66σ]
Teffp = 5317 [1512] K [3.29σ]

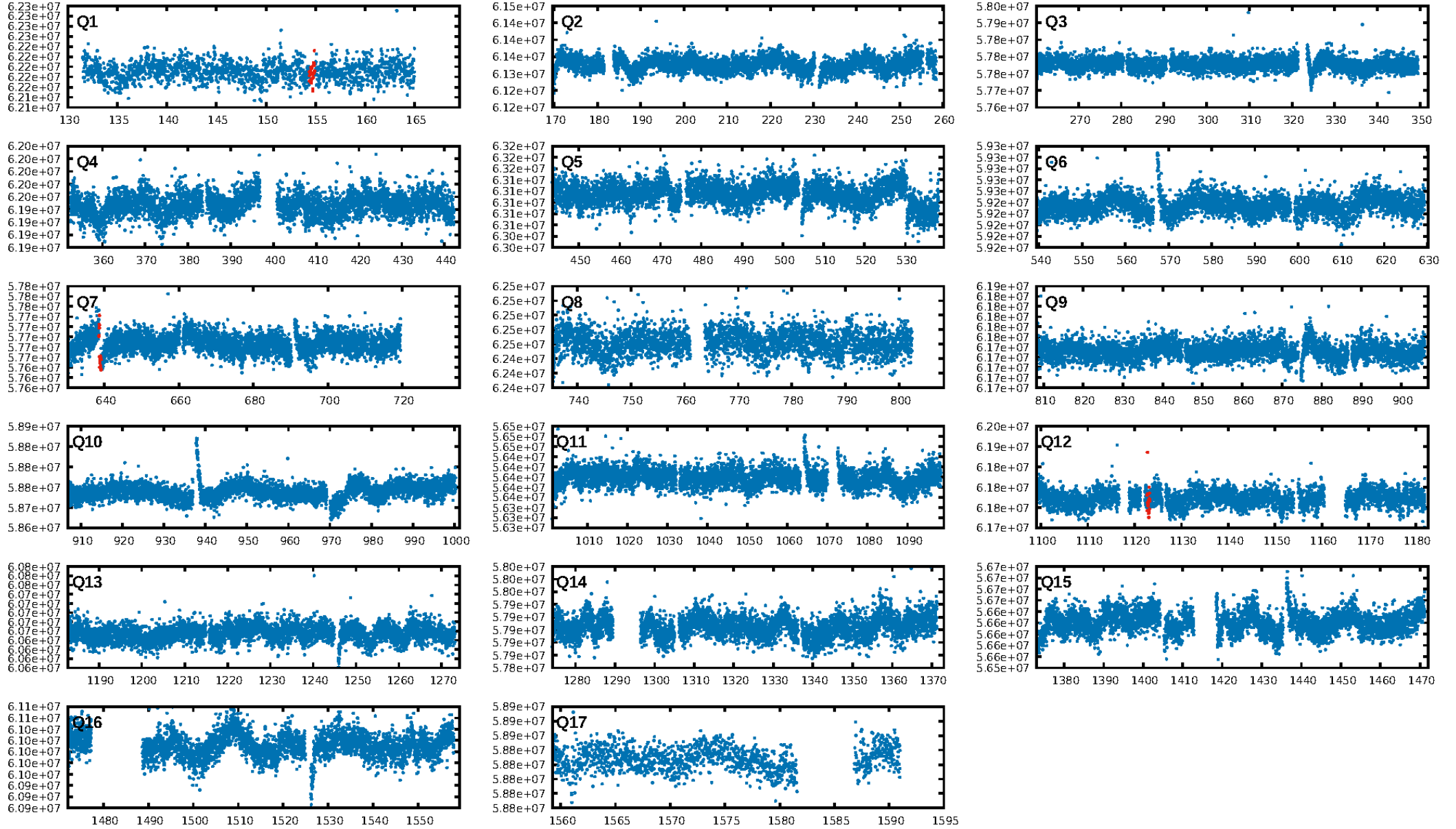
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 21.4%
ModelChiSquareGof-sig: 98.9%
Bootstrap-pfa: 4.34e-09
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 6.189
Centroid-sig: 13.1%
Centroid-so: 0.712 arcsec [1.04σ]
OotOffset-rm: 5.548 arcsec [15.38σ]
KicOffset-rm: 4.156 arcsec [11.40σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

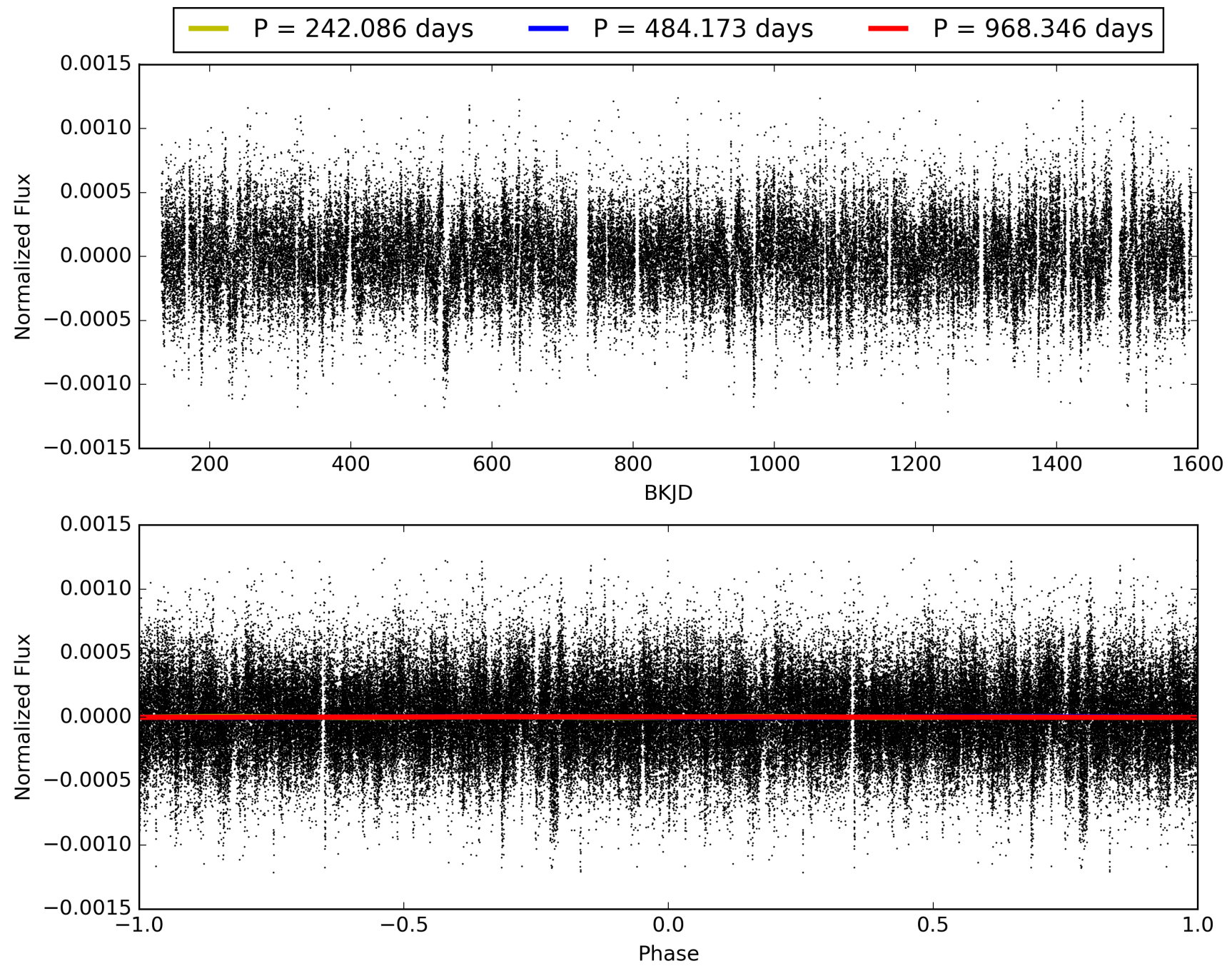
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:58:57 Z

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

TCE 006067057-01, PDC Light Curves

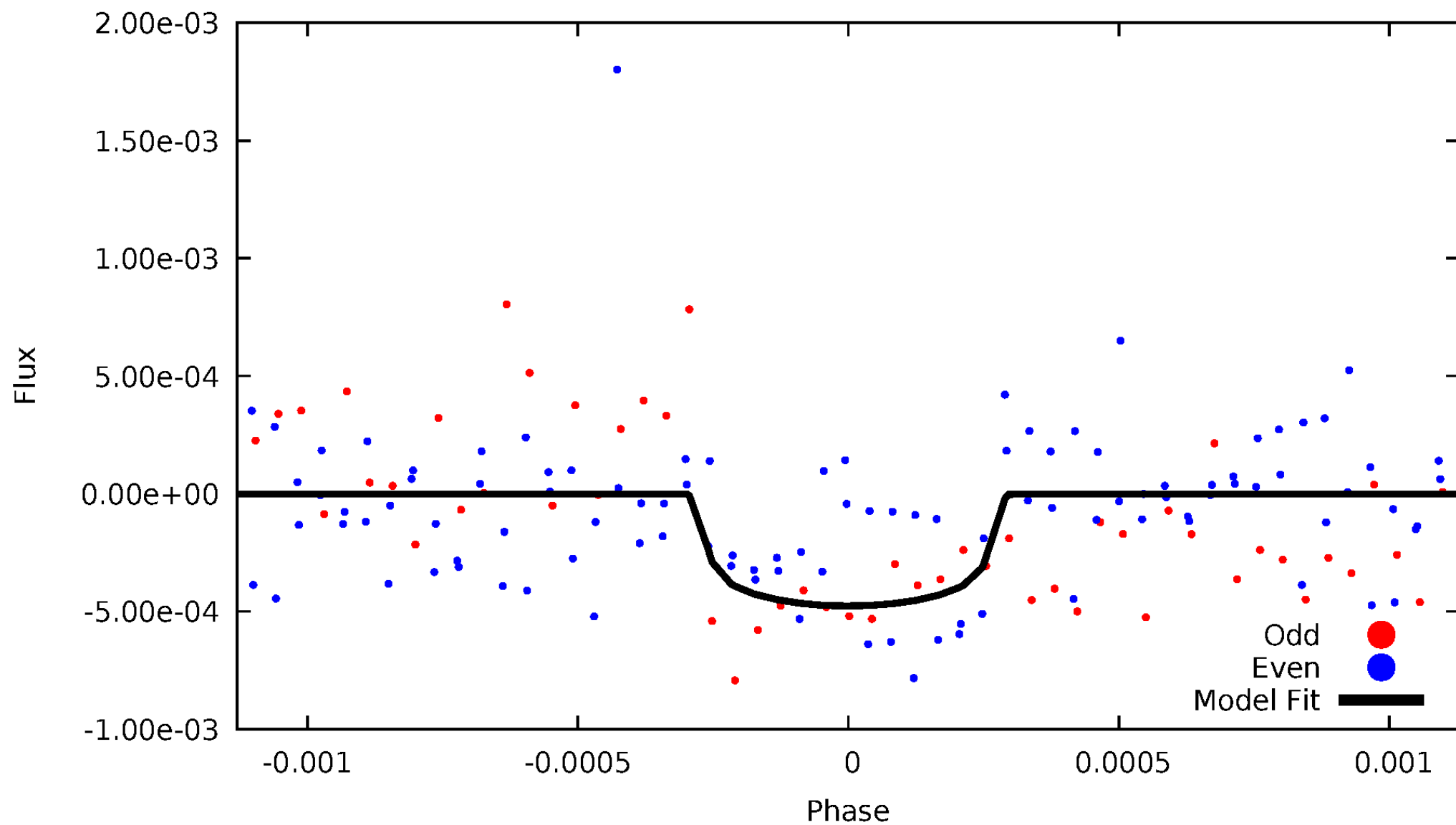


TCE 006067057-01



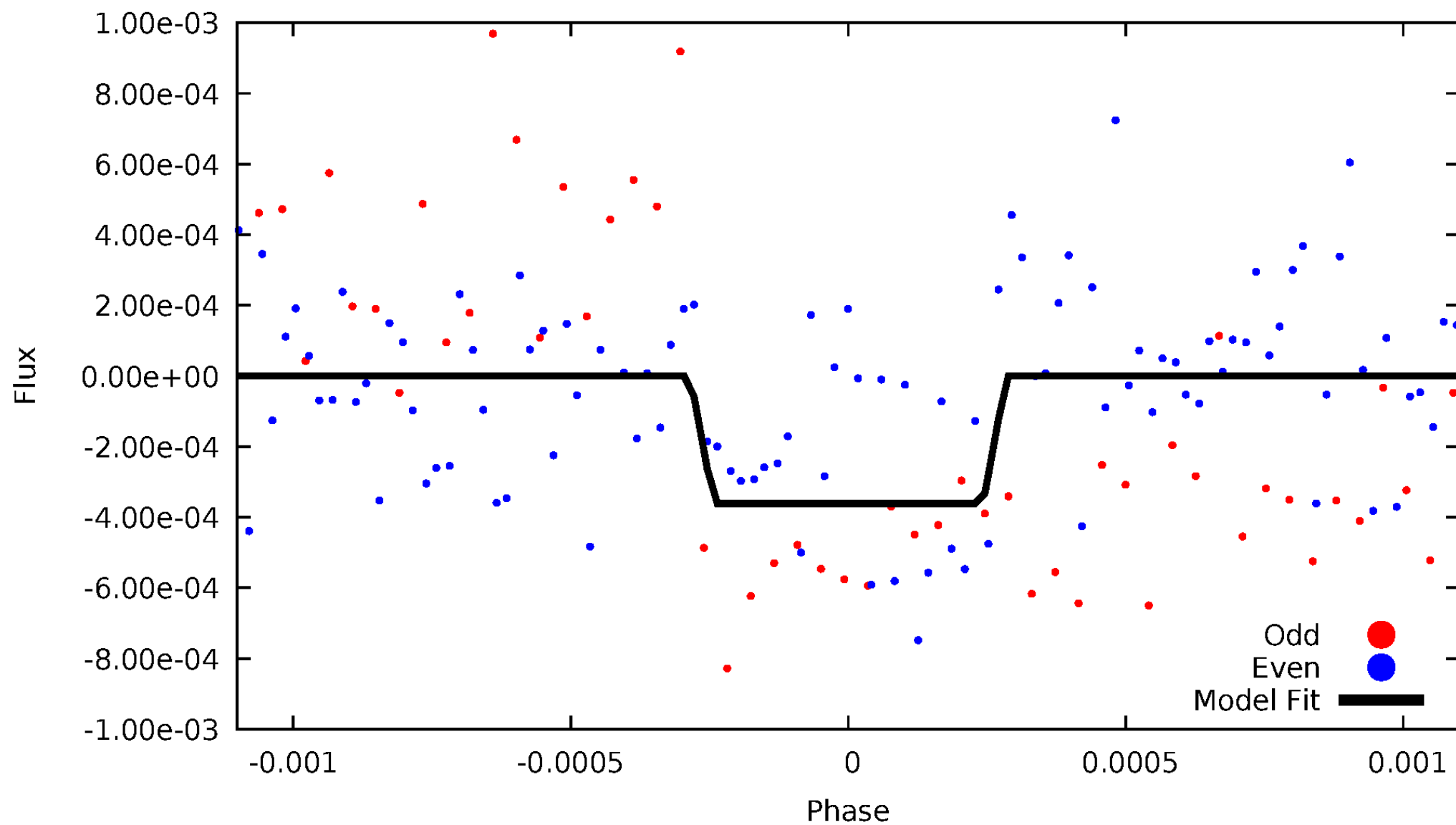
DV Odd/Even

TCE 006067057-01

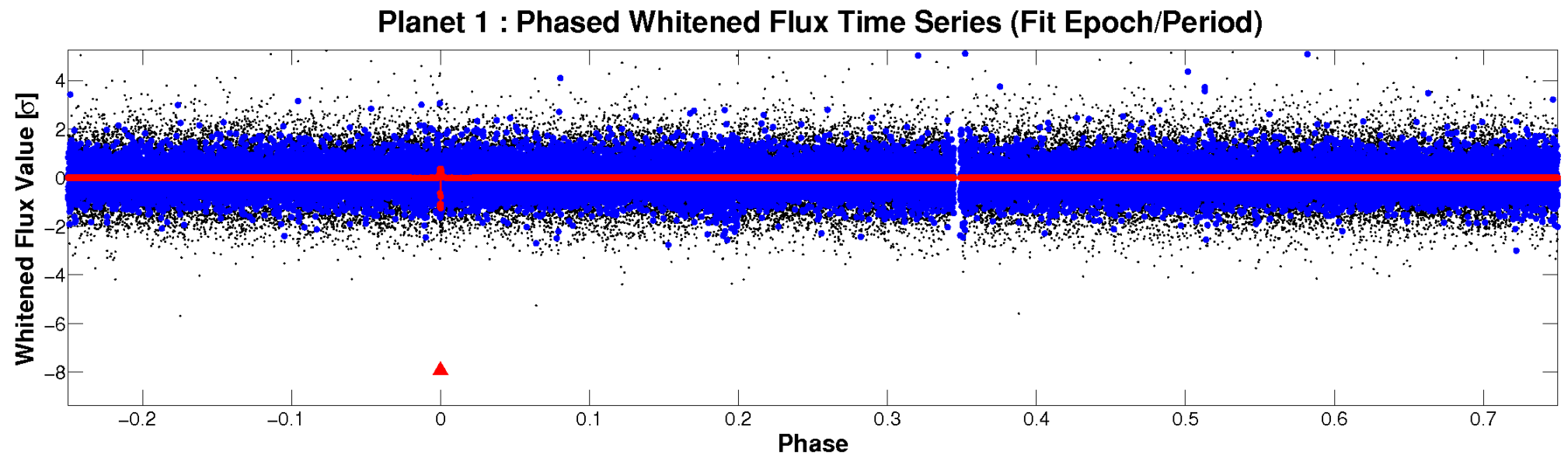
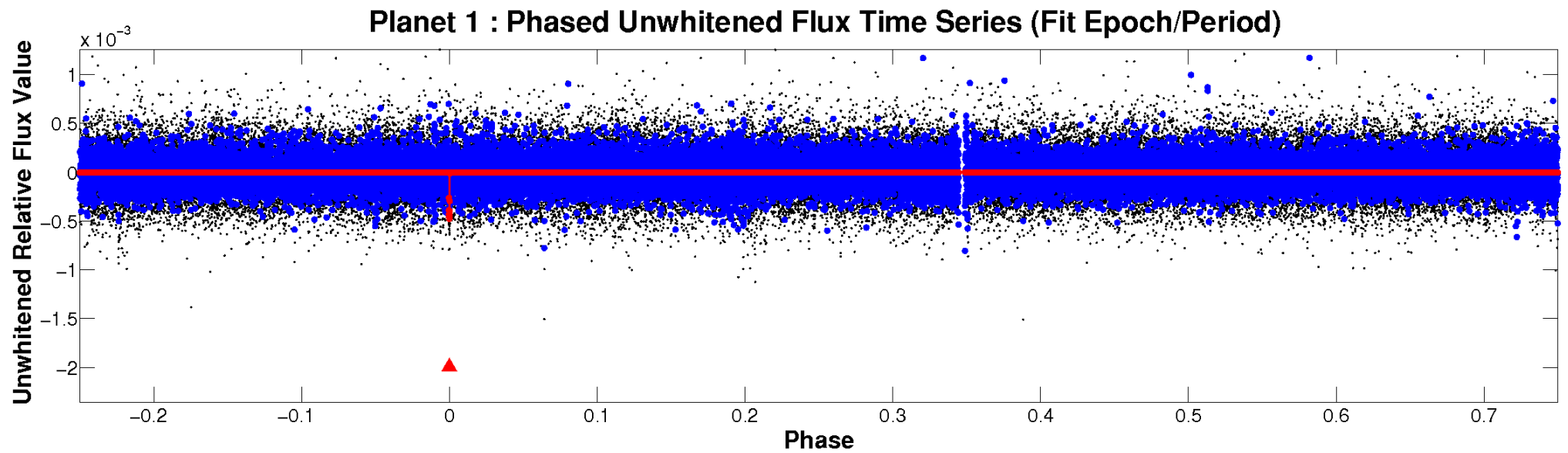


ALT Odd/Even

TCE 006067057-01

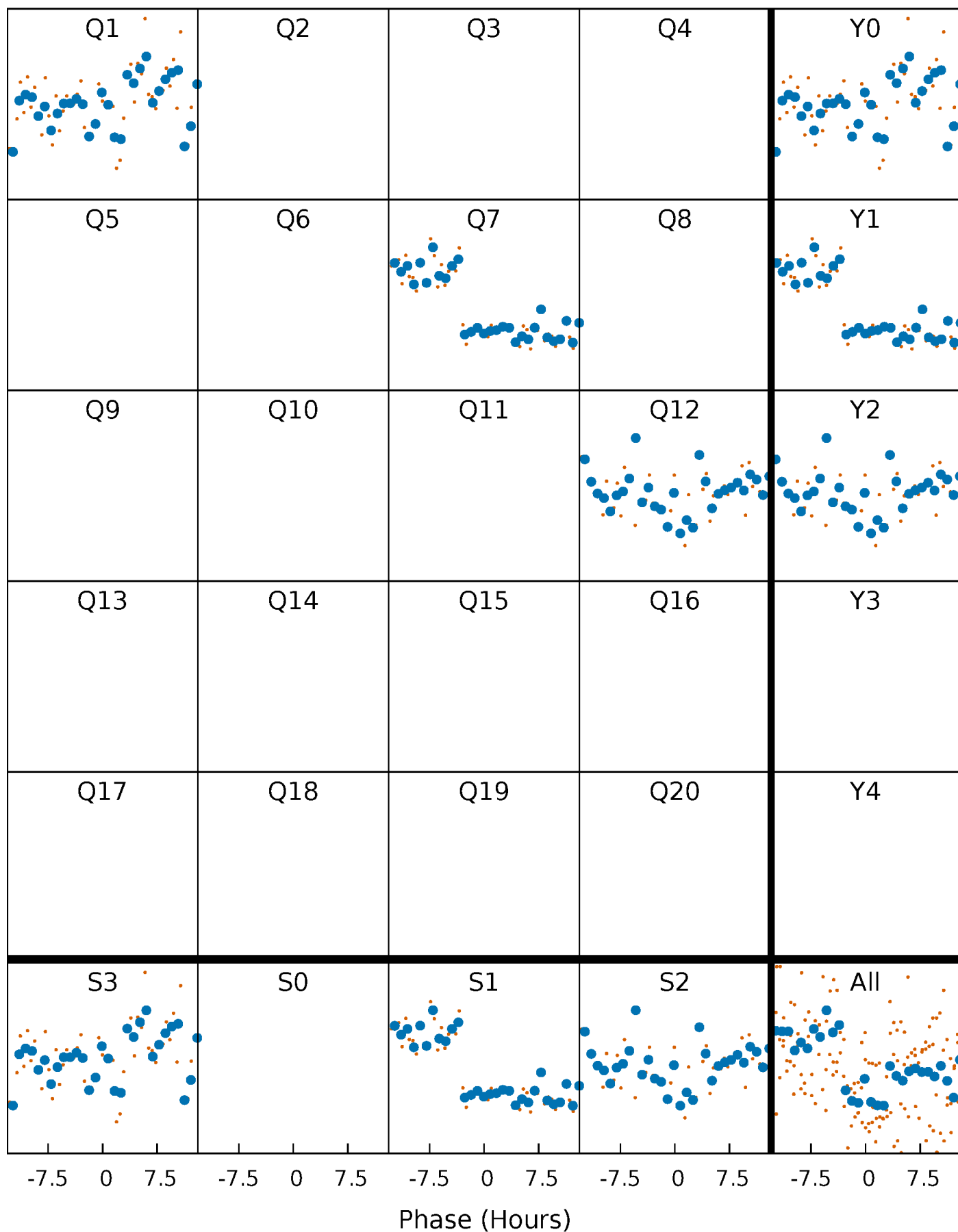


Non-Whitened Vs. Whitened Light Curve



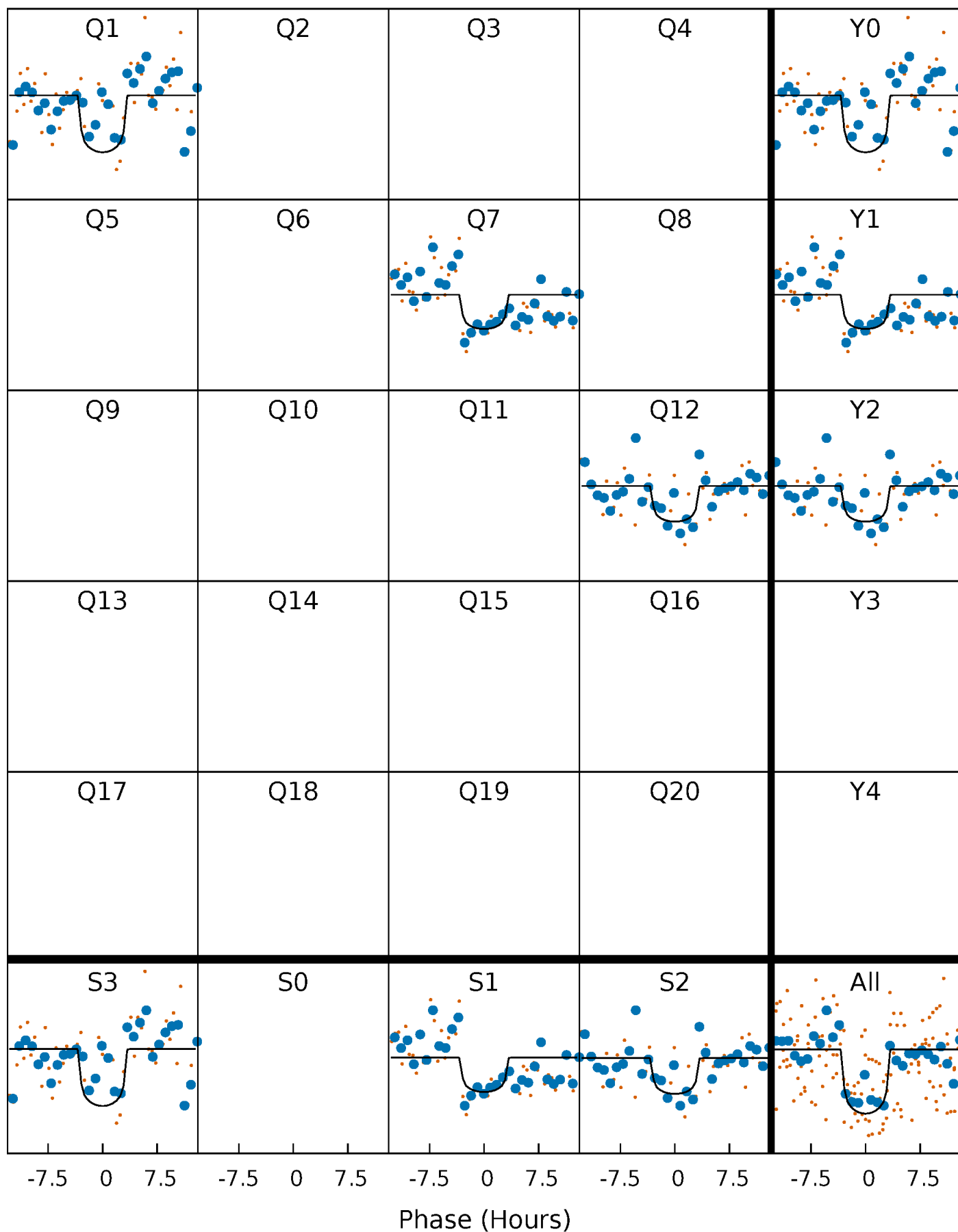
PDC Quarter-Phased Transit Curves

TCE 006067057-01 P=484.172834 Days $T_0=154.624876$ (BKJD)



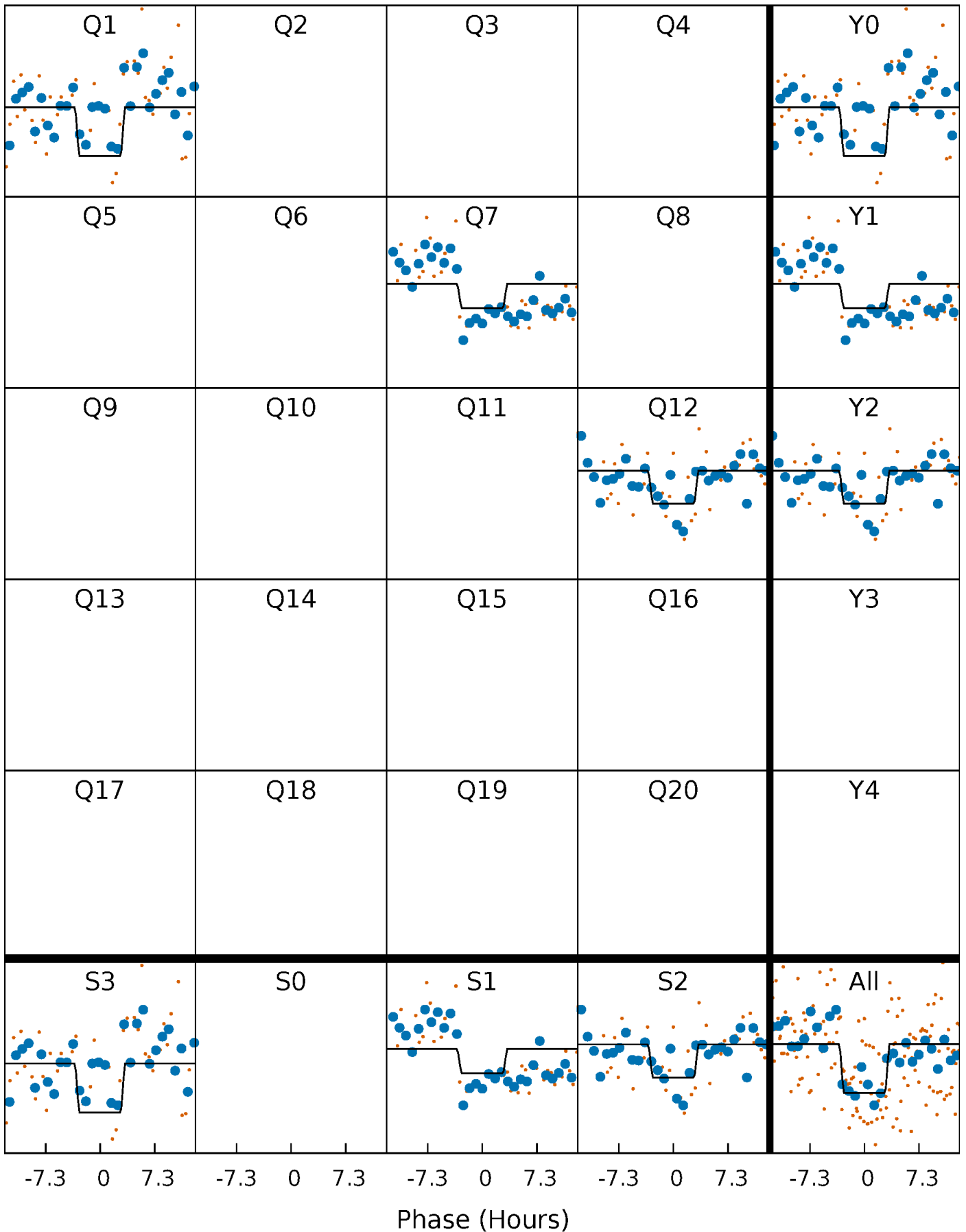
DV Quarter-Phased Transit Curves

TCE 006067057-01 P=484.172834 Days $T_0=154.624876$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

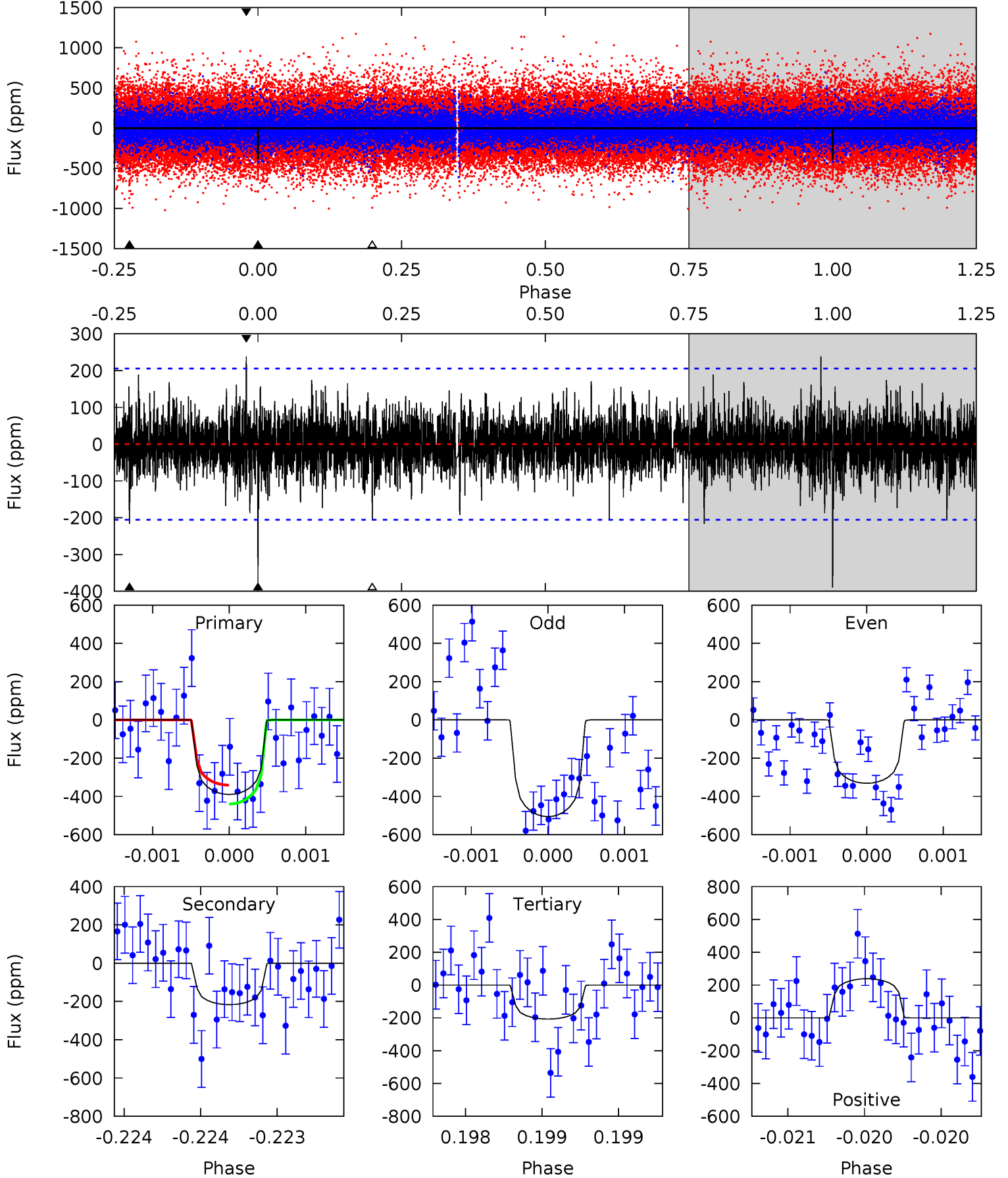
TCE 006067057-01 P=484.166393 Days $T_0=154.635476$ (BKJD)



DV Model-Shift Uniqueness Test

006067057-01, P = 484.172834 Days, E = 154.624876 Days

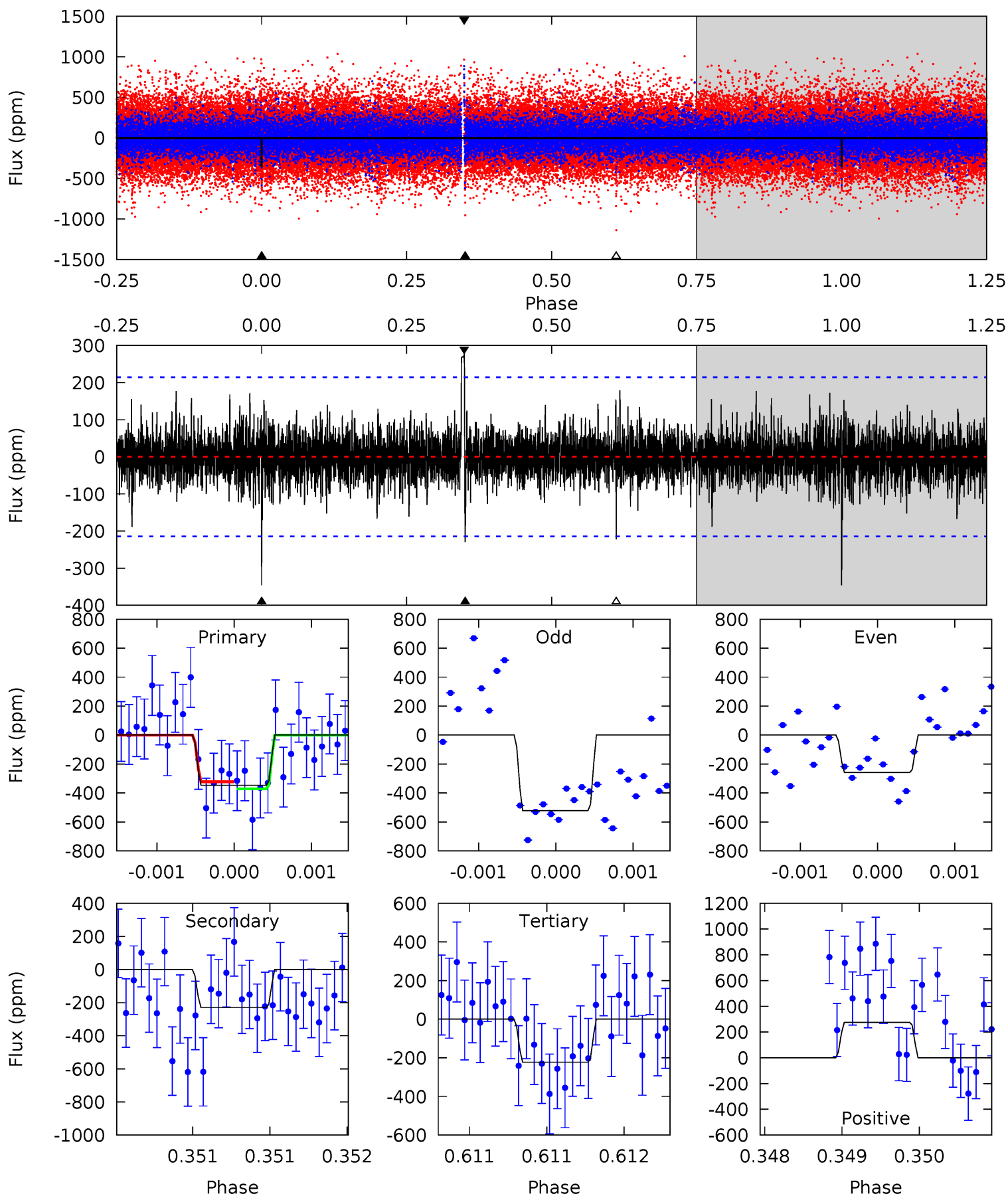
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	5.84	5.59	6.43	5.54	3.43	1.34	4.91	4.07	0.25	-0.59	2.24	0.89	0.38	1.33



Alt Model-Shift Uniqueness Test

006067057-01, P = 484.166393 Days, E = 154.635476 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.97	5.94	5.76	7.15	5.56	3.46	1.13	3.21	1.81	0.18	-1.21	3.25	0.94	0.44	0.63



Stellar Parameters For KIC 006067057

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5750^{+191}_{-156}	$3.778^{+0.624}_{-0.156}$	$-0.260^{+0.350}_{-0.250}$	$2.323^{+0.587}_{-1.272}$	$1.181^{+0.160}_{-0.320}$	$0.133^{+1.274}_{-0.061}$
	+3%/-3%	+17%/-4%	+135%/-96%	+25%/-55%	+14%/-27%	+959%/-46%
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 006067057-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-217 ± 37	$4.63^{+3.31}_{-2.48}$	468^{+40}_{-71}	4887^{+1996}_{-789}	8650^{+31009}_{-5624}
Alt.	-229 ± 39	$4.28^{+3.29}_{-2.28}$	465^{+45}_{-72}	5155^{+2069}_{-941}	11068^{+38817}_{-7471}

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 $A_{obs} \gg 1.0$

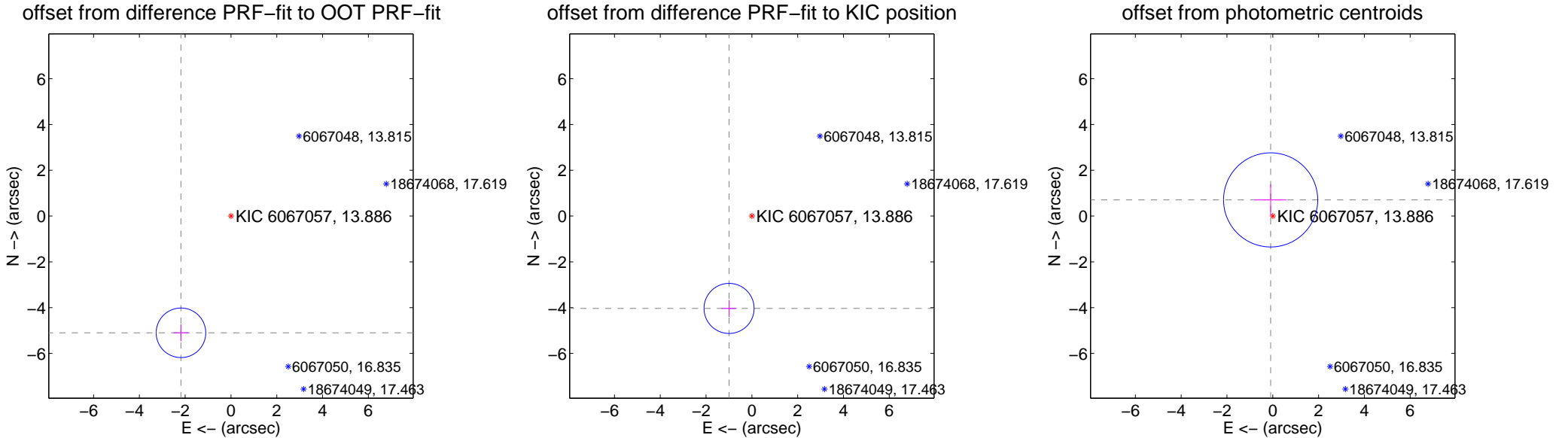
DV Centroid Data

Supplemental centroid analysis for 006067057-01. Kepler magnitude: 13.89. Transit SNR 7.22

There are 1 quarters with good PRF difference image offsets

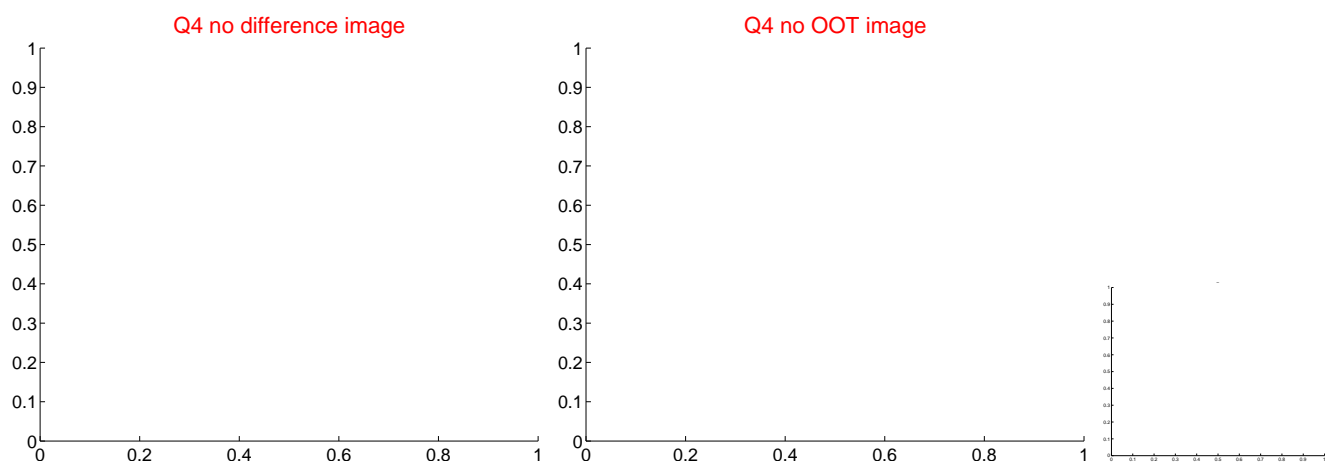
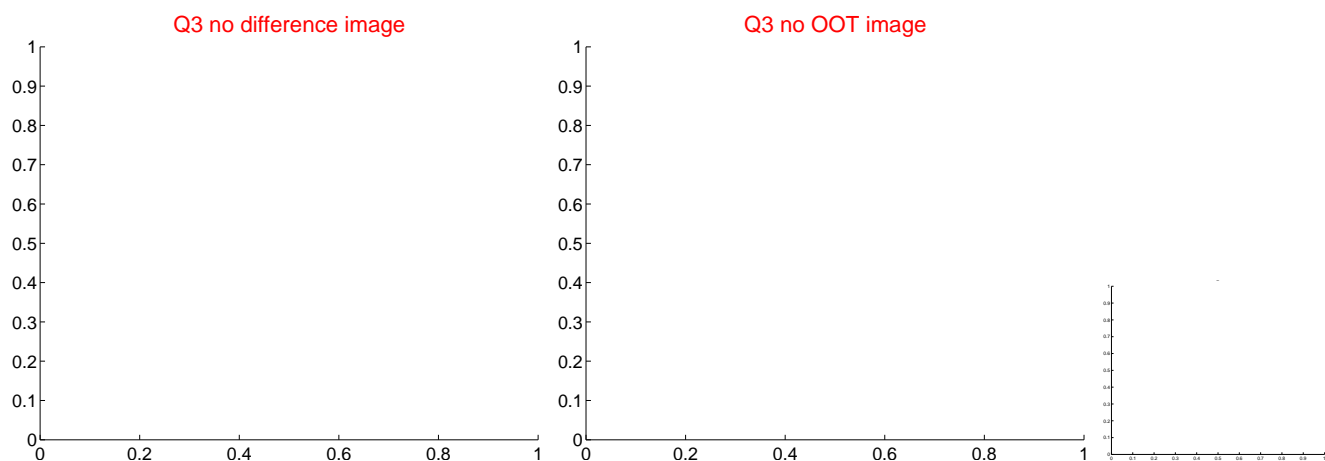
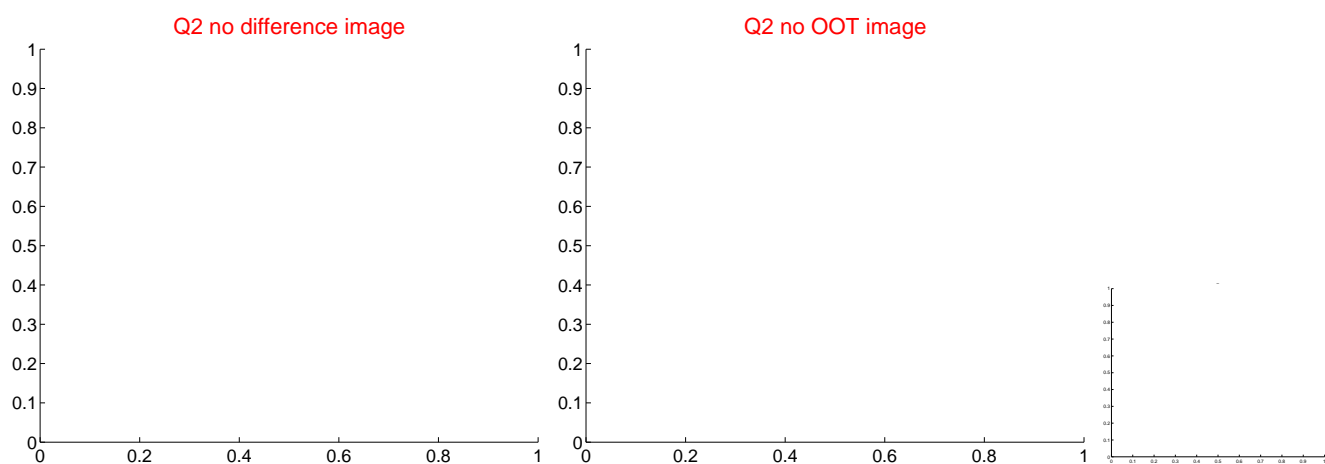
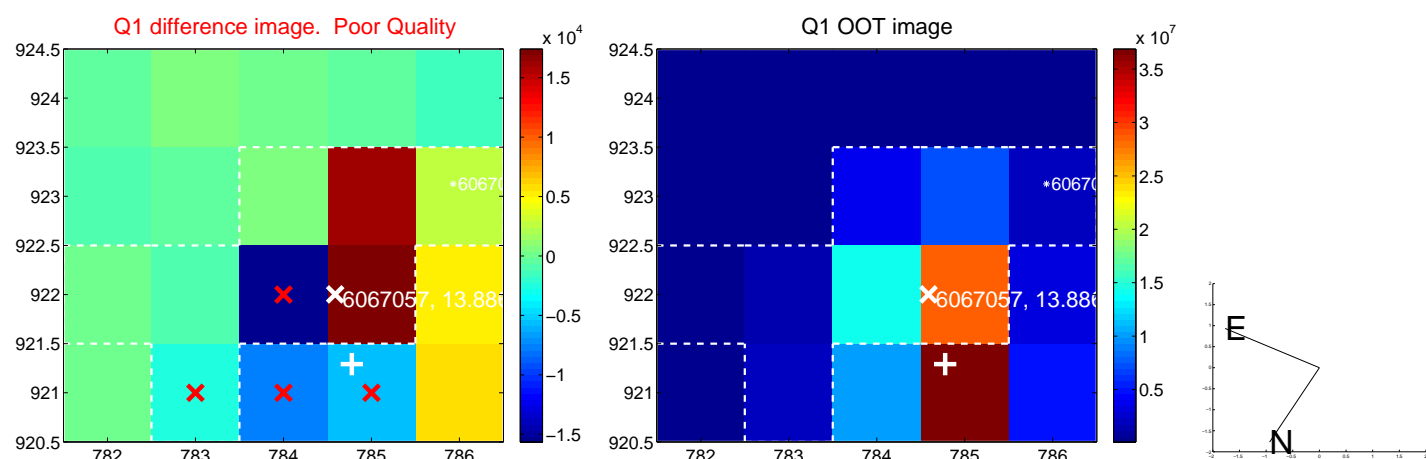
The direct PRF centroid is offset from the target star catalog position by about 1.60 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.548 ± 0.361	15.38	2.184 ± 0.327	-5.100 ± 0.367
PRF-fit source offset from KIC position	4.156 ± 0.365	11.40	0.996 ± 0.327	-4.035 ± 0.367
photometric centroid source offset	0.71 ± 0.69	1.04	0.09 ± 0.71	0.71 ± 0.69



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.

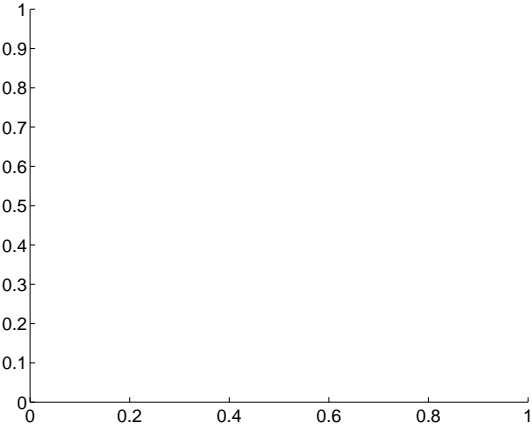
Q5 no difference image



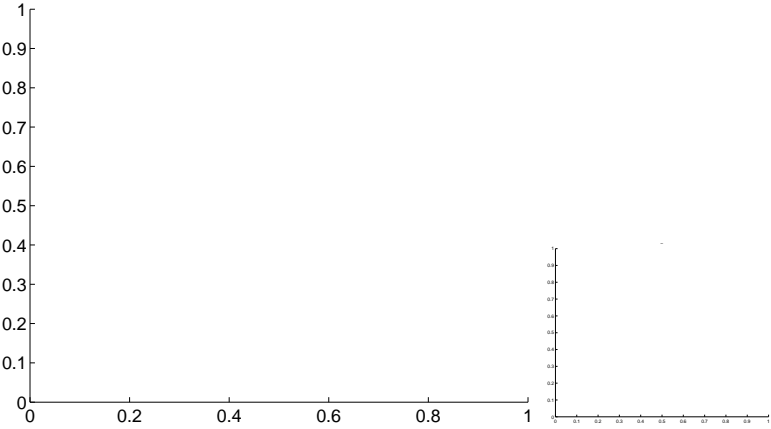
Q5 no OOT image



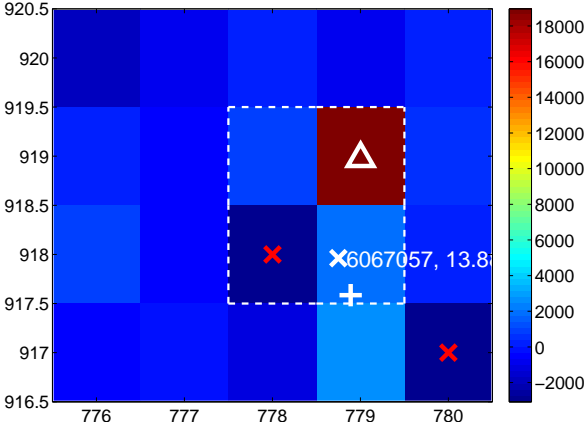
Q6 no difference image



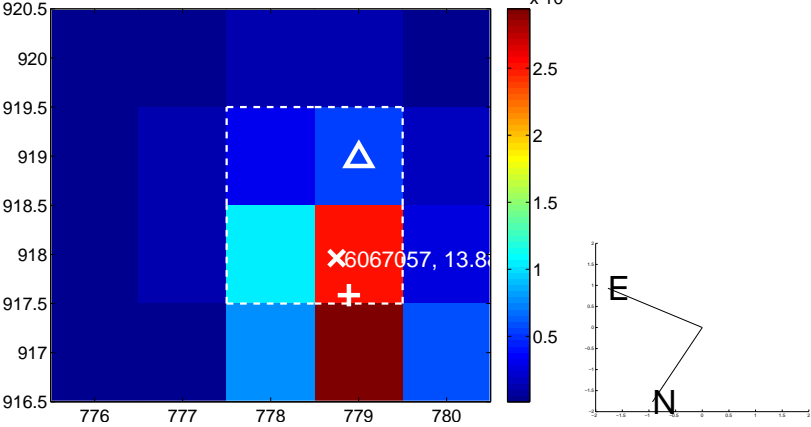
Q6 no OOT image



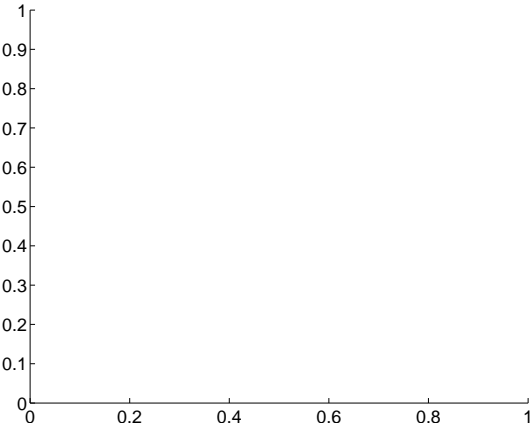
Q7 difference image



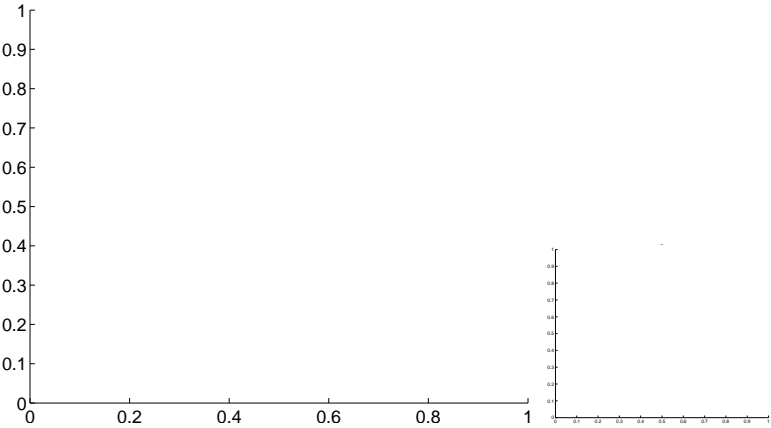
Q7 OOT image



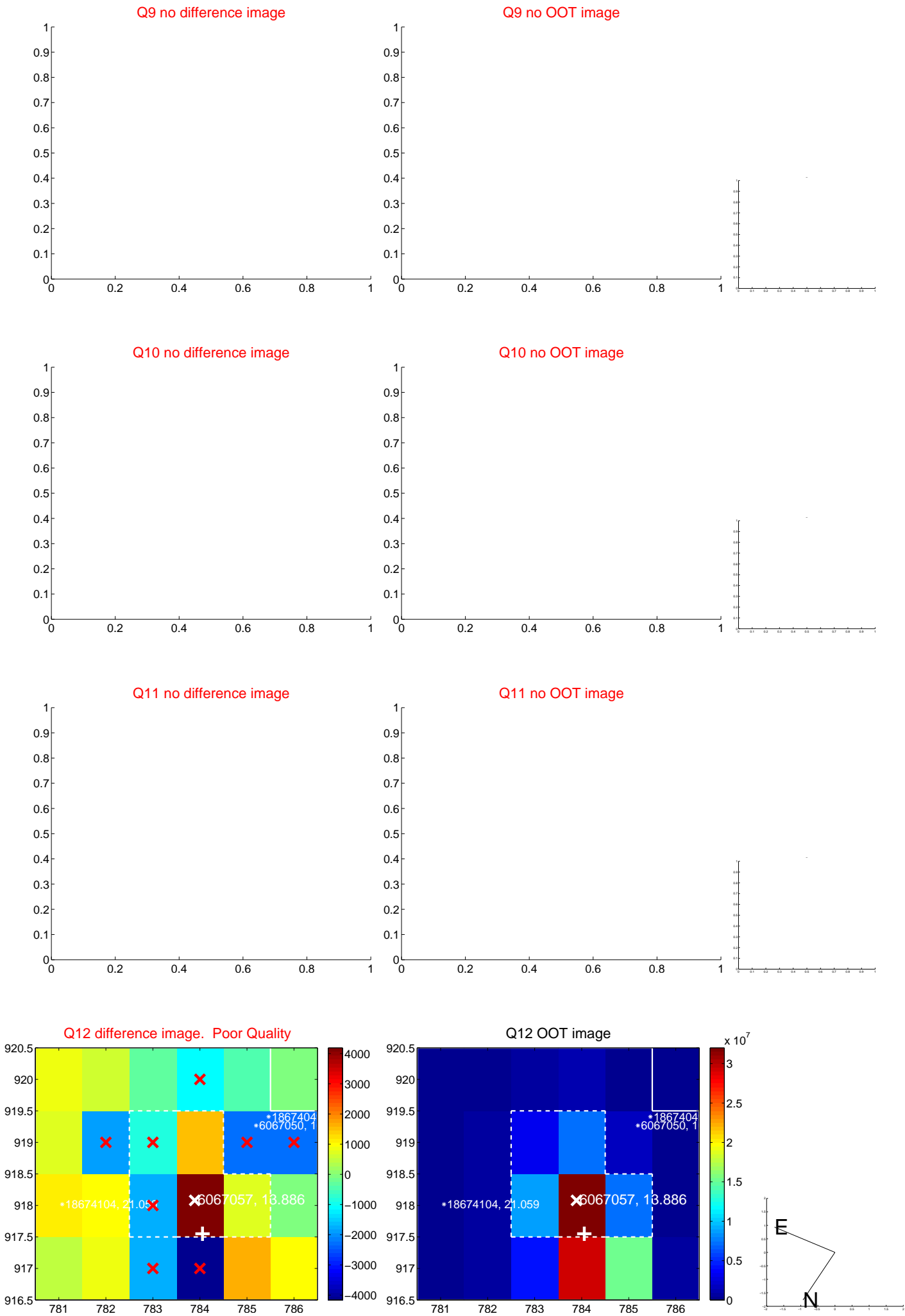
Q8 no difference image



Q8 no OOT image



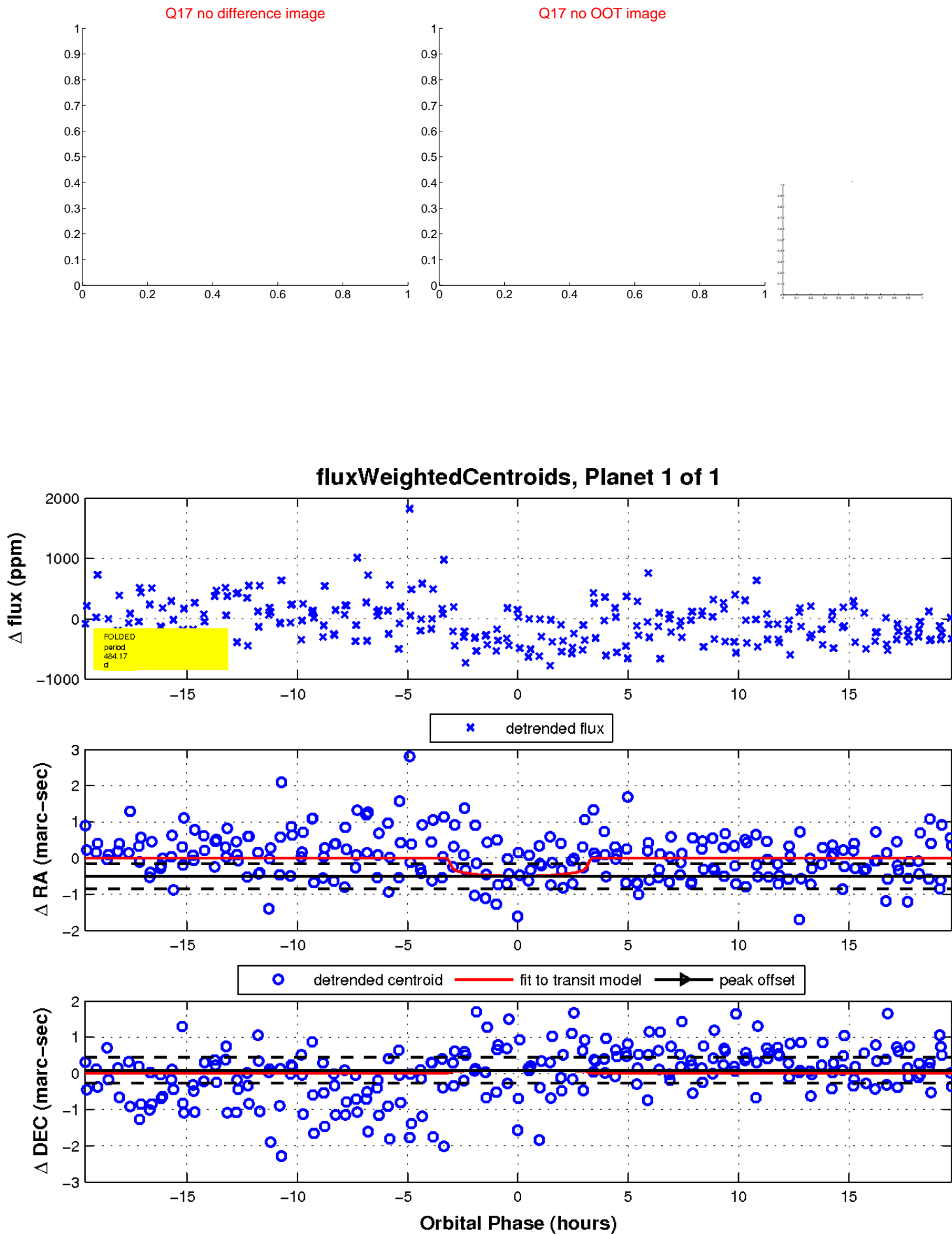
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

