

KIC 006196054

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})
006196054-01	OBS	No	381.562794	355.717203	291.8	16.258	10.6	9.2	1.37	5945	2.45	2.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006196054-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

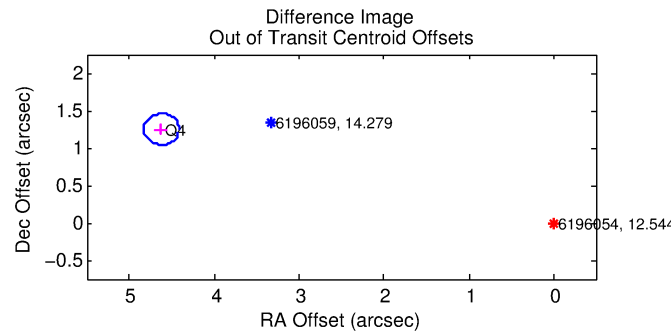
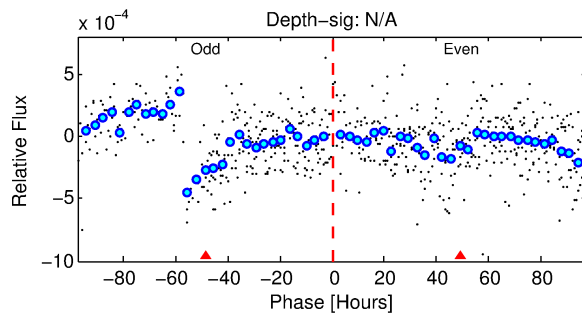
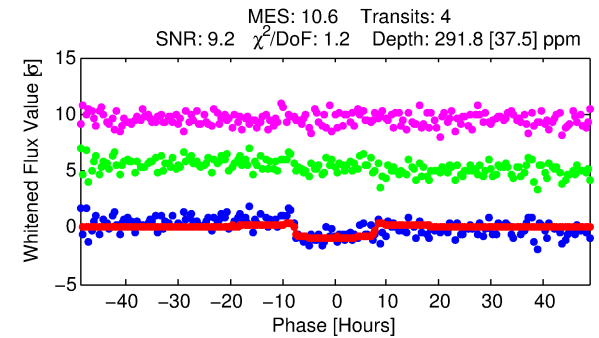
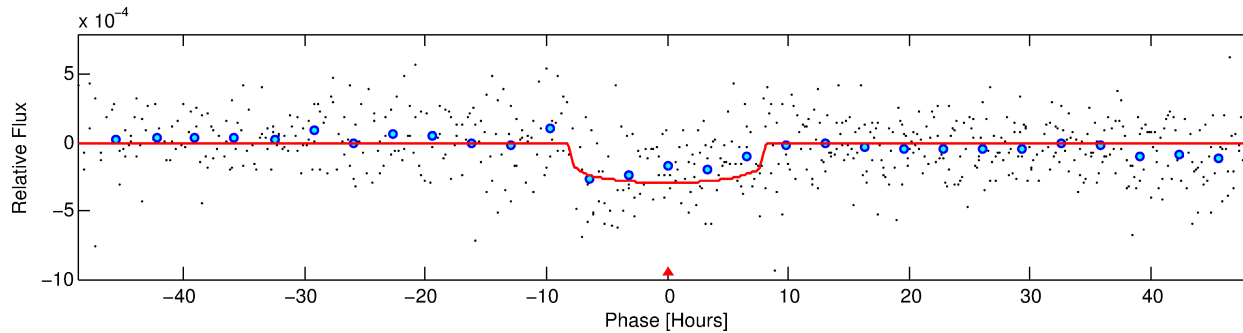
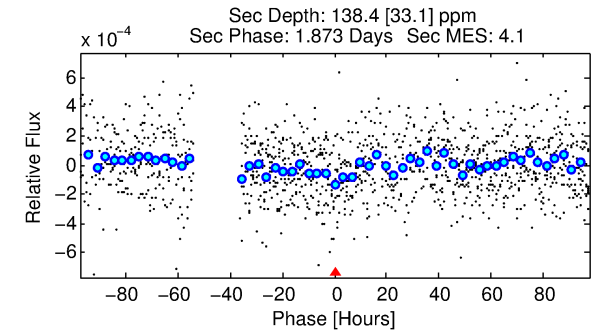
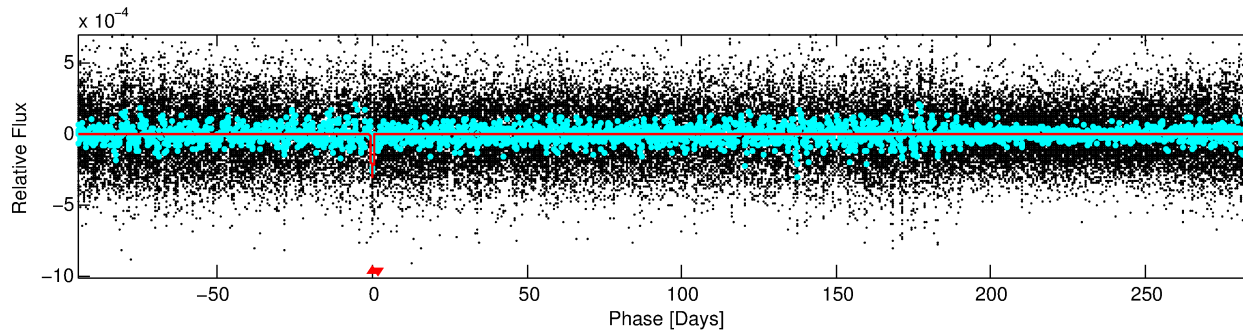
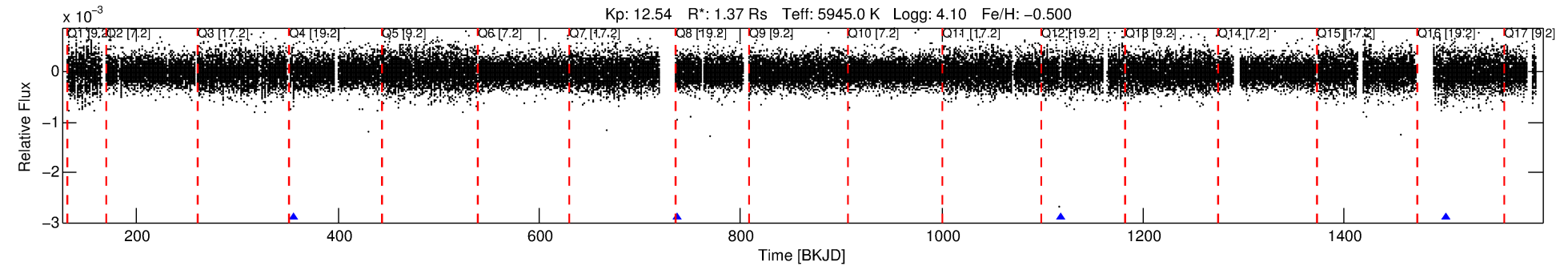
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006196054-01

No Significant Match Found

DV One-Page Summary

KIC: 6196054 Candidate: 1 of 1 Period: 381.563 d



DV Fit Results:

Period = 381.56279 [0.01110] d
Epoch = 355.7172 [0.0185] BKJD
Rp/R* = 0.0163 [0.0072]
a/R* = 148.42 [320.79]
b = 0.59 [2.41]
Seff = 2.18 [1.44]
Teff = 310 [51] K
Rp = 2.45 [1.38] Re
a = 0.9844 [0.3773] AU
Ag = 12333.60 [13789.81] [0.89σ]
Teffp = 5047 [1162] K [4.07σ]

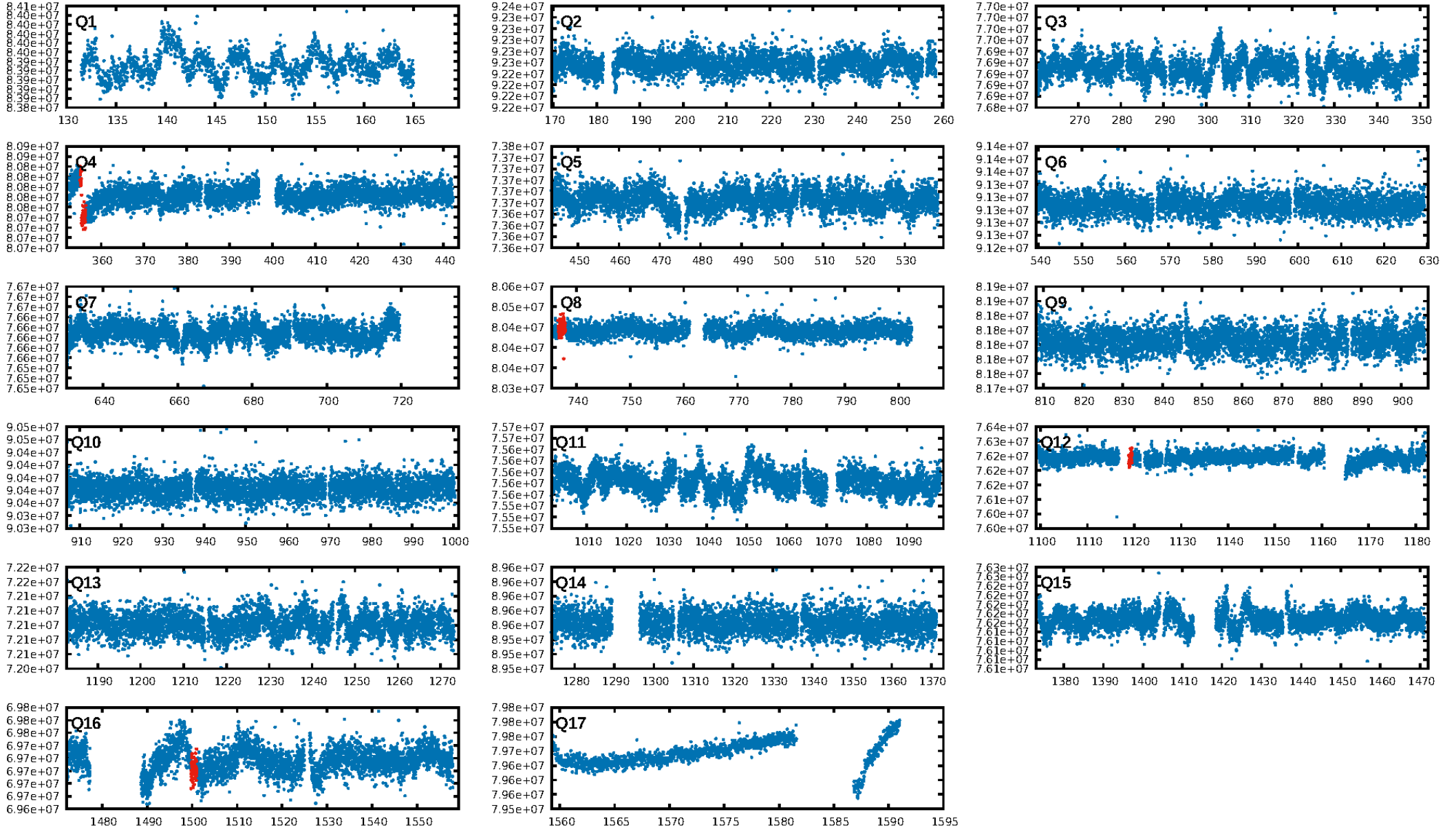
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 95.9%
Bootstrap-pfa: 1.31e-15
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.4519
Centroid-sig: 6.3%
Centroid-so: 0.643 arcsec [0.90σ]
OotOffset-rm: 4.788 arcsec [68.99σ]
KicOffset-rm: 5.327 arcsec [76.73σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

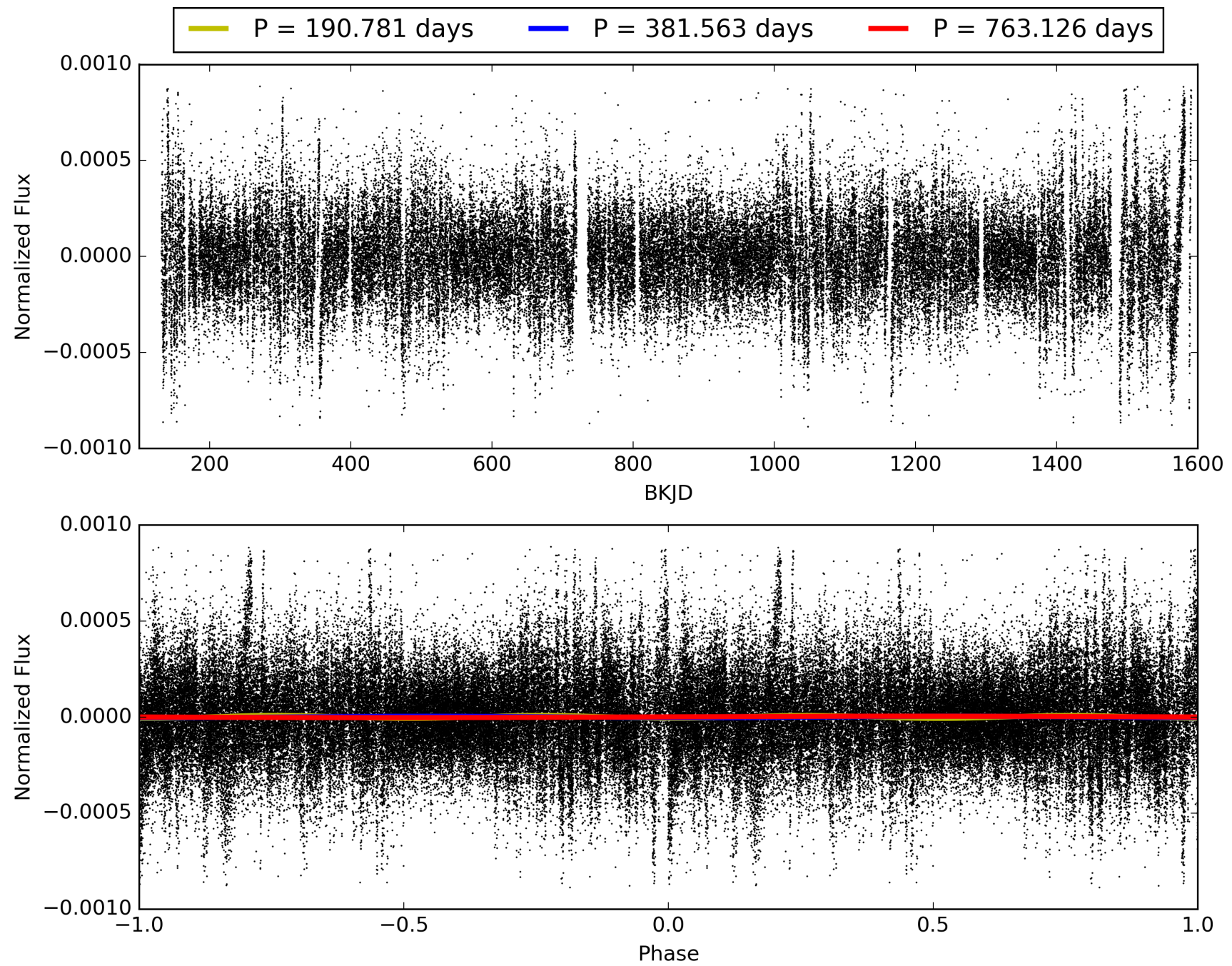
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:19:59 Z

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

TCE 006196054-01, PDC Light Curves

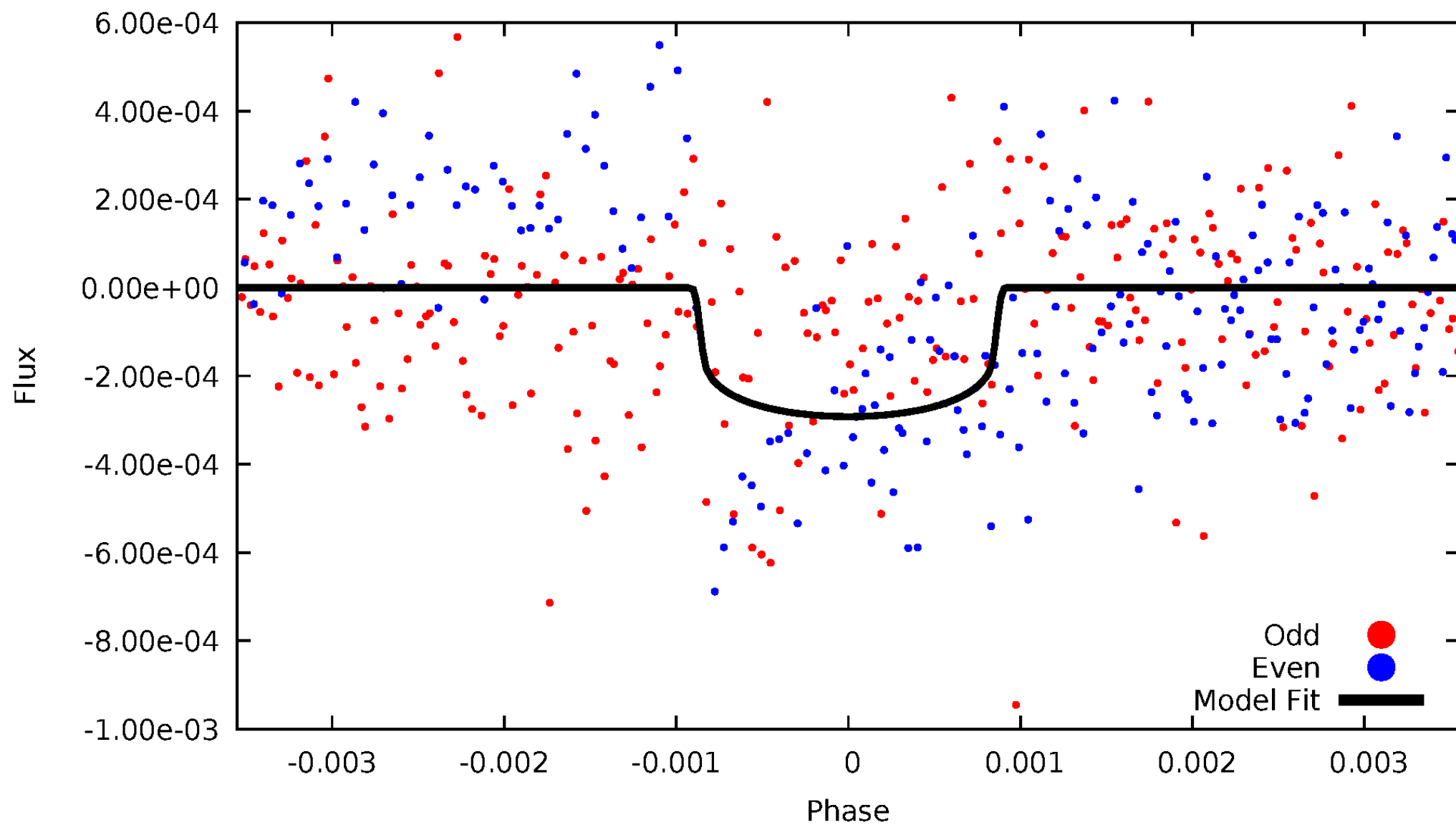


TCE 006196054-01



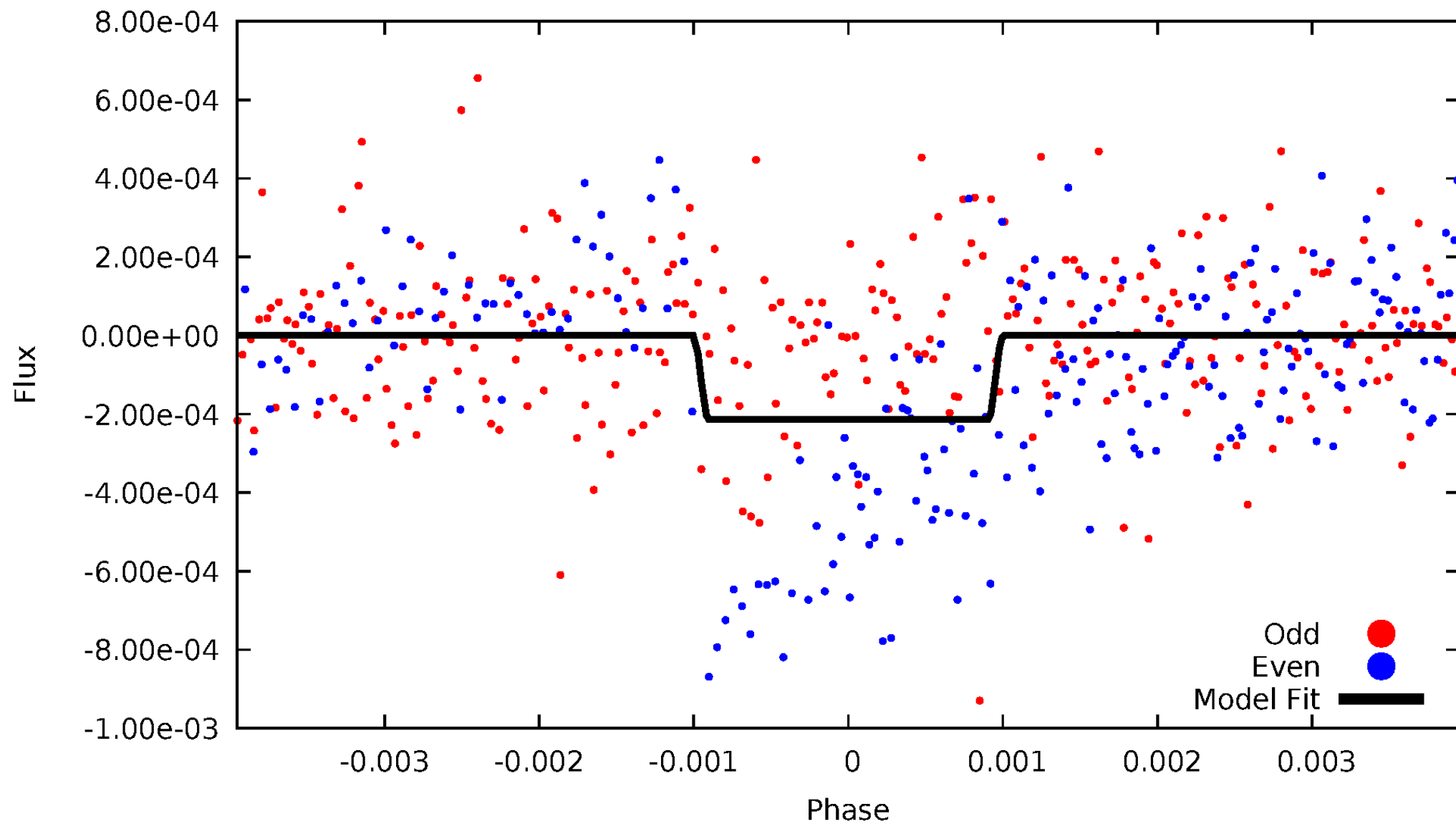
DV Odd/Even

TCE 006196054-01

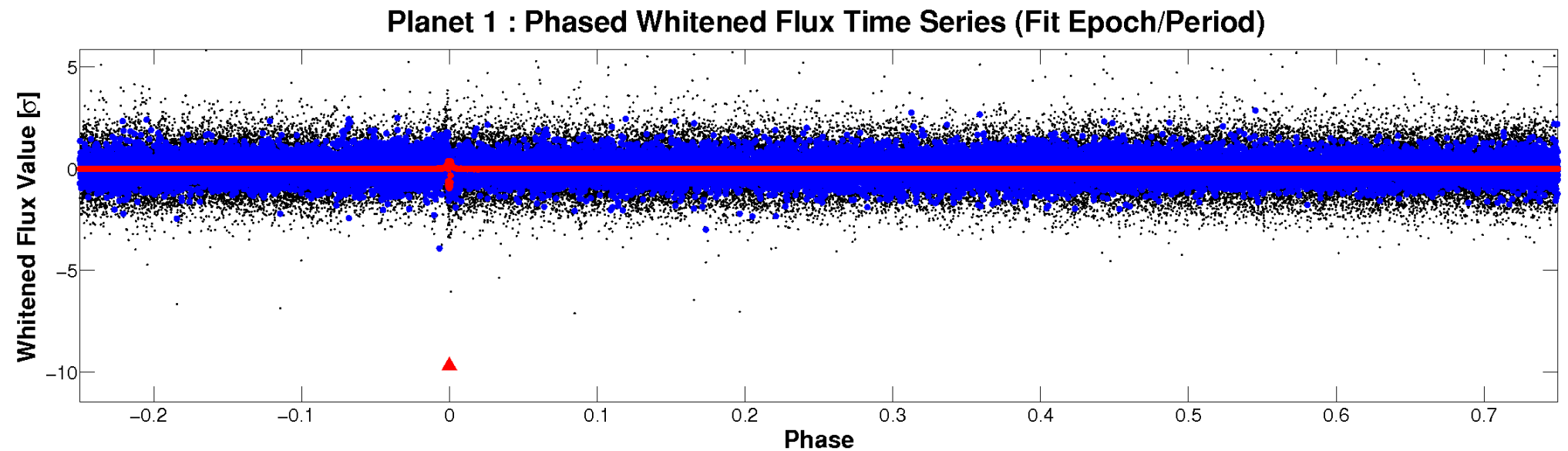
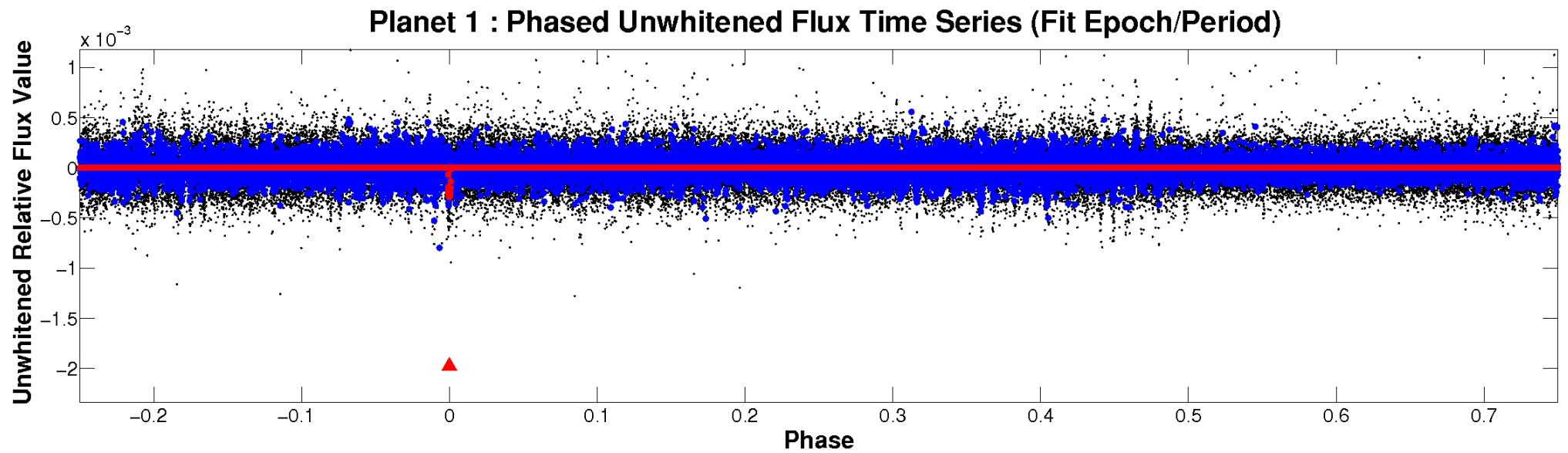


ALT Odd/Even

TCE 006196054-01



Non-Whitened Vs. Whitened Light Curve



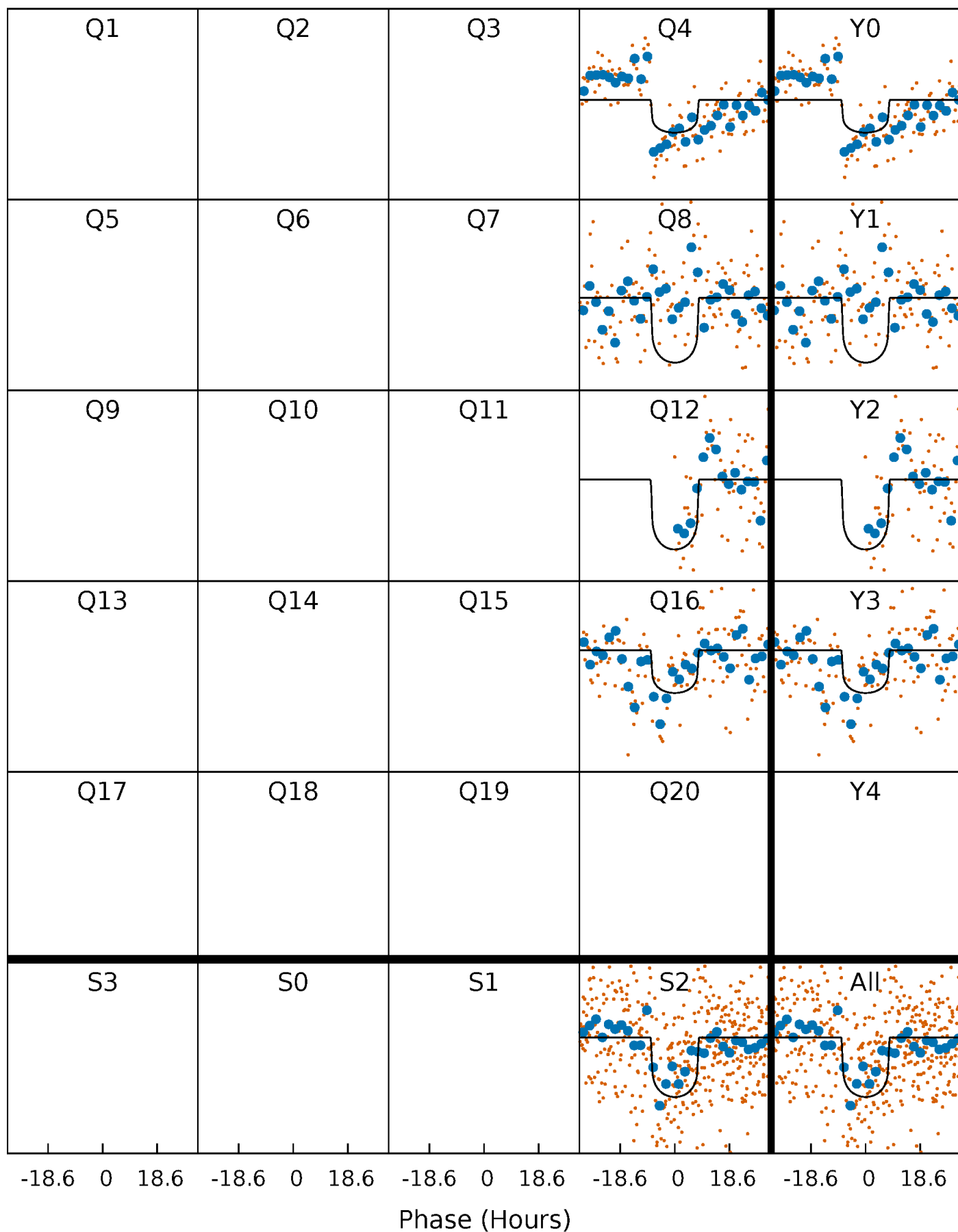
PDC Quarter-Phased Transit Curves

TCE 006196054-01 P=381.562794 Days $T_0=355.717203$ (BKJD)



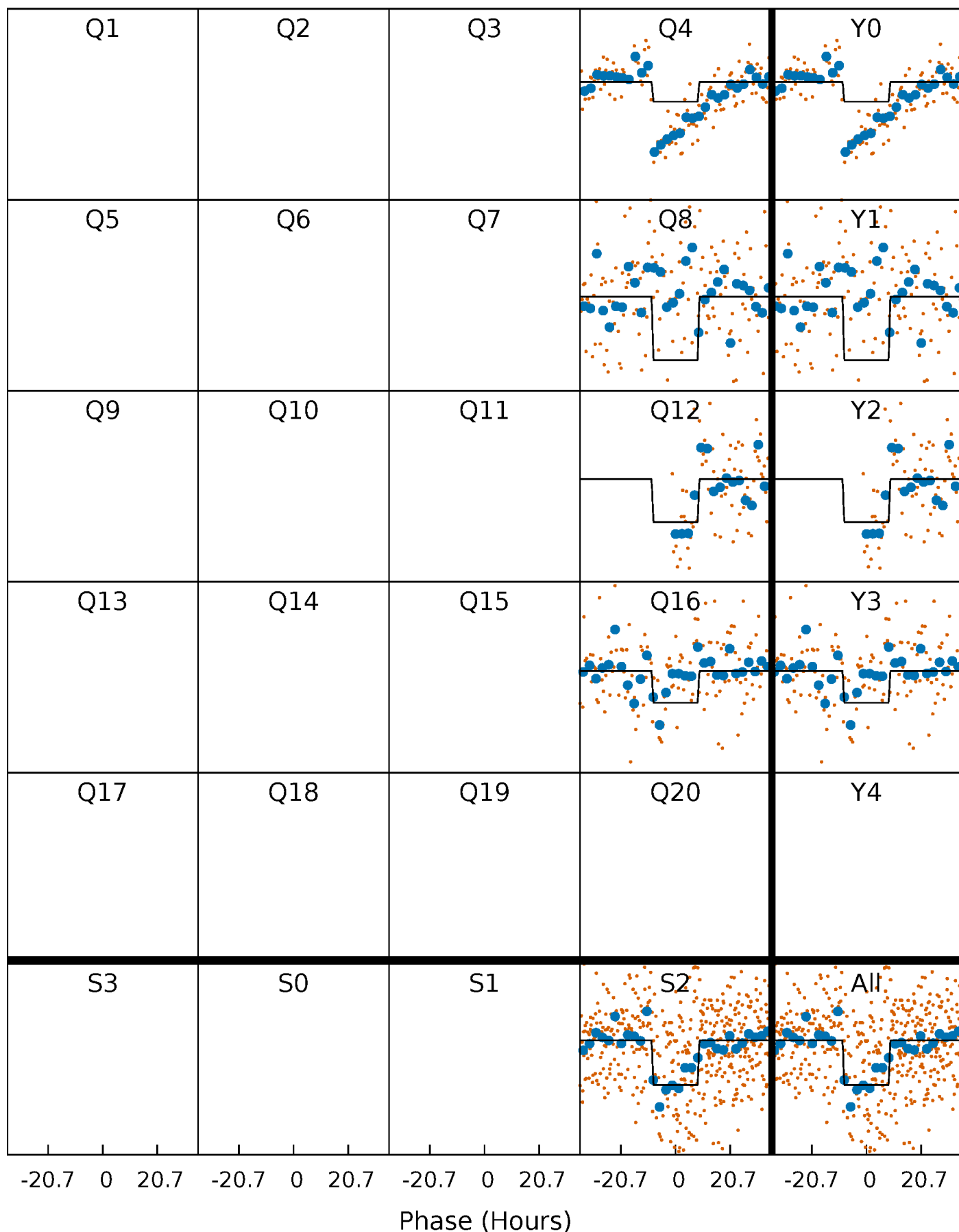
DV Quarter-Phased Transit Curves

TCE 006196054-01 P=381.562794 Days $T_0=355.717203$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

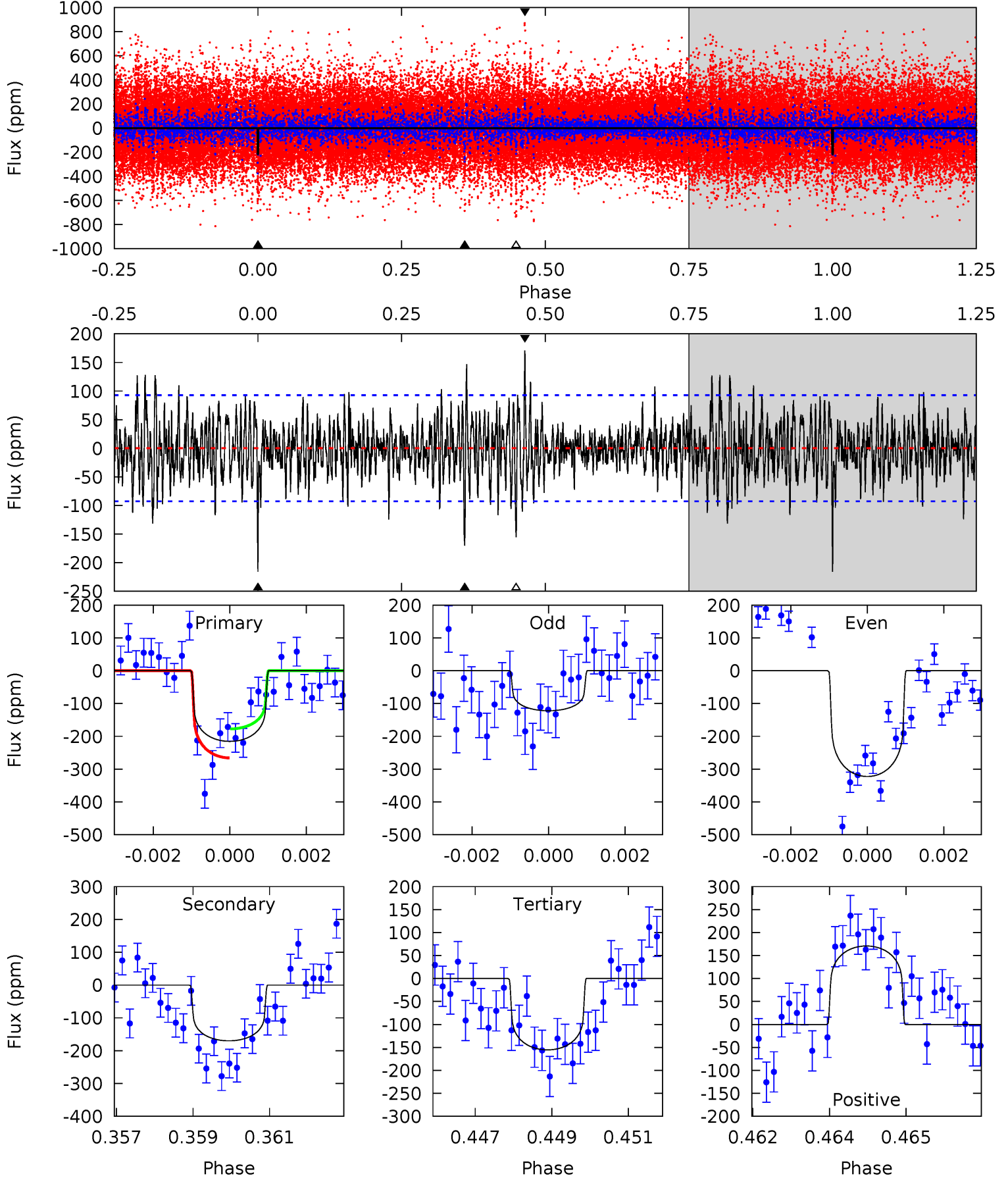
TCE 006196054-01 P=381.562677 Days $T_0=355.764924$ (BKJD)



DV Model-Shift Uniqueness Test

006196054-01, P = 381.562794 Days, E = 355.717203 Days

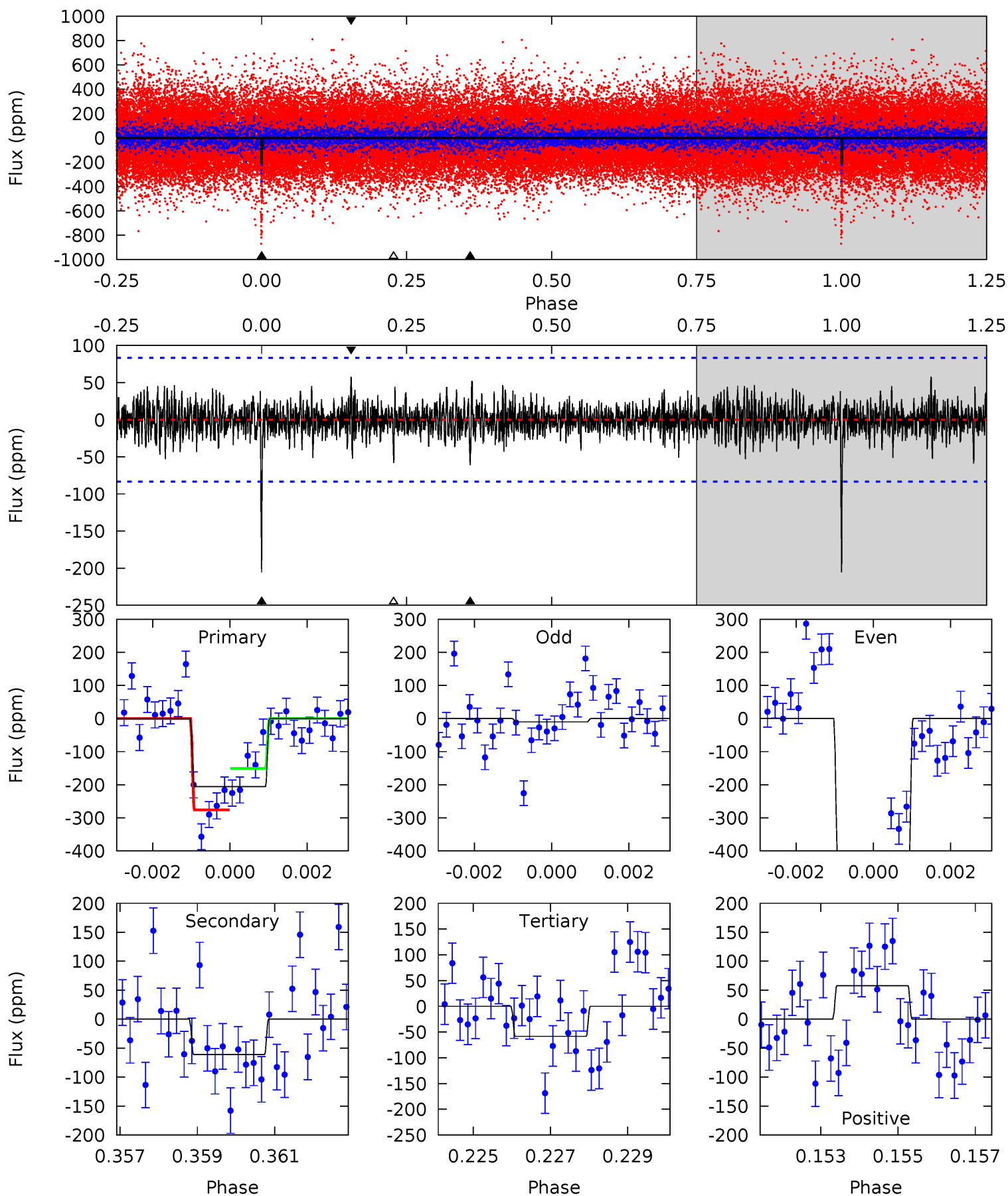
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	9.81	8.96	9.85	5.35	3.12	2.22	3.47	2.58	0.84	-0.04	5.75	0.87	0.44	2.53



Alt Model-Shift Uniqueness Test

006196054-01, P = 381.562677 Days, E = 355.764924 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	3.90	3.73	3.71	5.33	3.10	0.94	9.42	9.44	0.17	0.19	13.6	1.39	0.22	3.96



Stellar Parameters For KIC 006196054

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5945^{+195}_{-195}	$4.104^{+0.392}_{-0.168}$	$-0.500^{+0.300}_{-0.300}$	$1.373^{+0.400}_{-0.489}$	$0.874^{+0.116}_{-0.084}$	$0.476^{+1.248}_{-0.238}$
	+3%/-3%	+10%/-4%	+60%/-60%	+29%/-36%	+13%/-10%	+262%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006196054-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-170 ± 17	$2.28^{+1.29}_{-1.00}$	425^{+39}_{-43}	5393^{+1816}_{-817}	17853^{+37060}_{-10619}
Alt.	-61 ± 16	$2.05^{+1.23}_{-1.06}$	425^{+39}_{-43}	4567^{+1565}_{-741}	7751^{+22713}_{-4720}

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

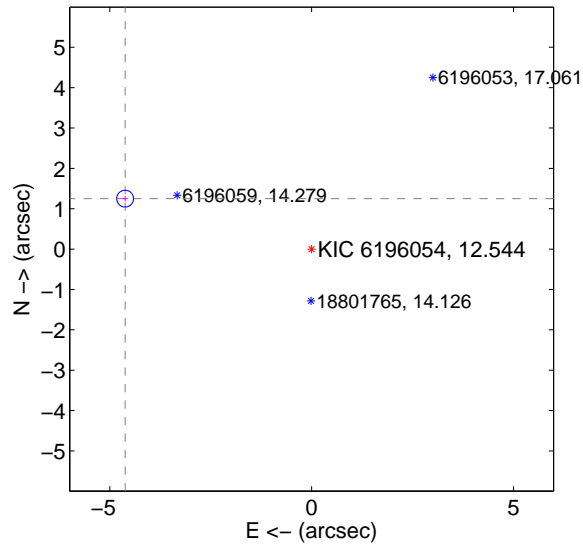
Supplemental centroid analysis for 006196054-01. Kepler magnitude: 12.54. Transit SNR 9.20

There are 1 quarters with good PRF difference image offsets

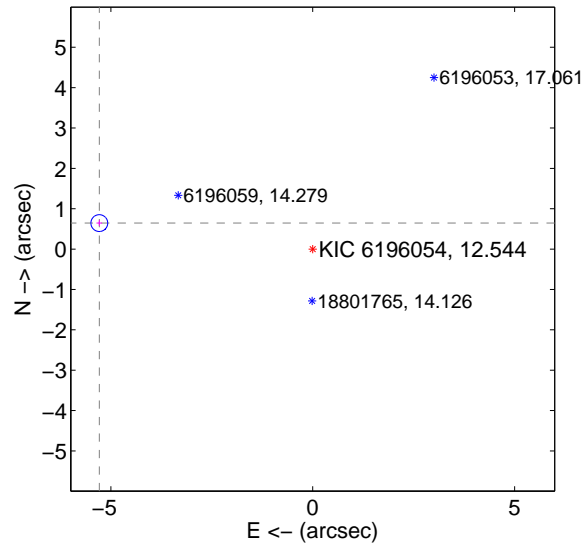
The direct PRF centroid is offset from the target star catalog position by about 0.90 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.788 ± 0.069	68.99	4.622 ± 0.069	1.250 ± 0.069
PRF-fit source offset from KIC position	5.327 ± 0.069	76.73	5.288 ± 0.069	0.644 ± 0.069
photometric centroid source offset	0.64 ± 0.72	0.90	0.44 ± 0.79	0.46 ± 0.64

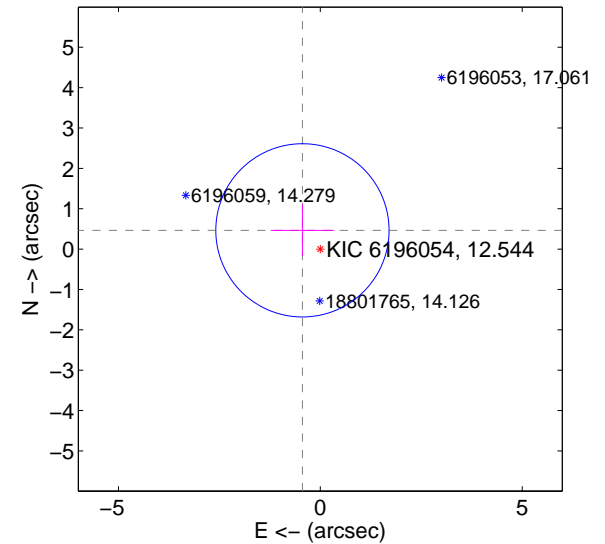
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

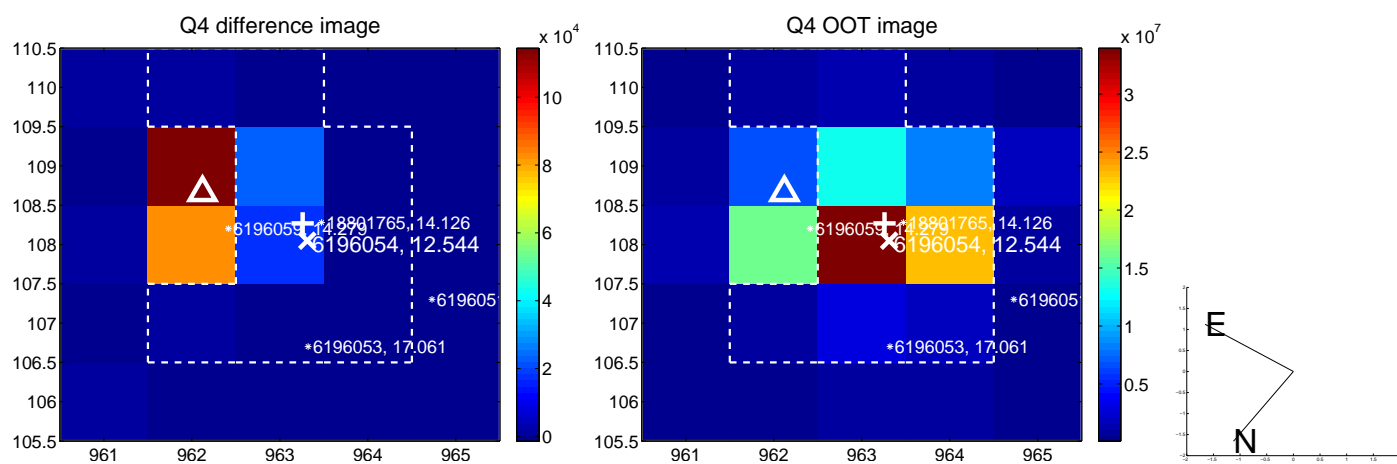


offset from photometric centroids



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.

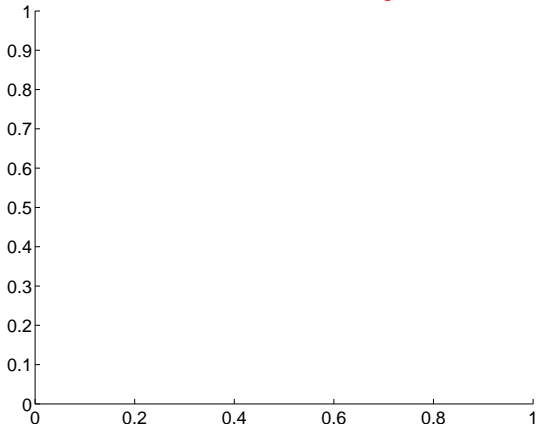


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

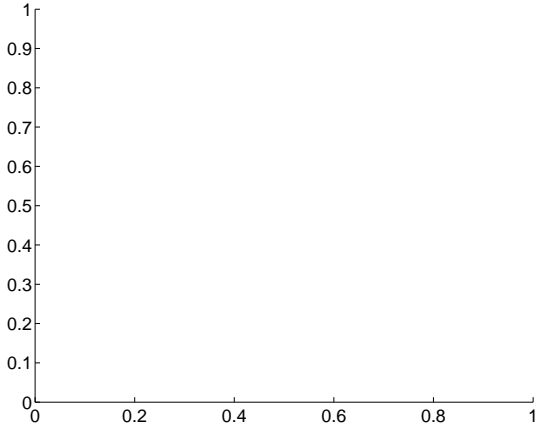
Q13 no difference image



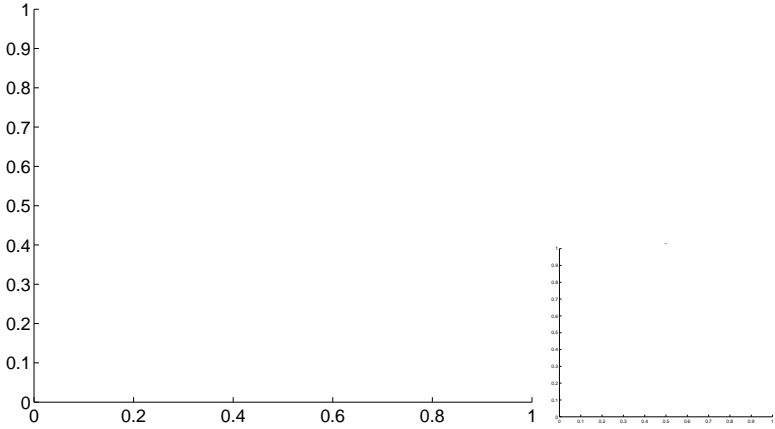
Q13 no OOT image



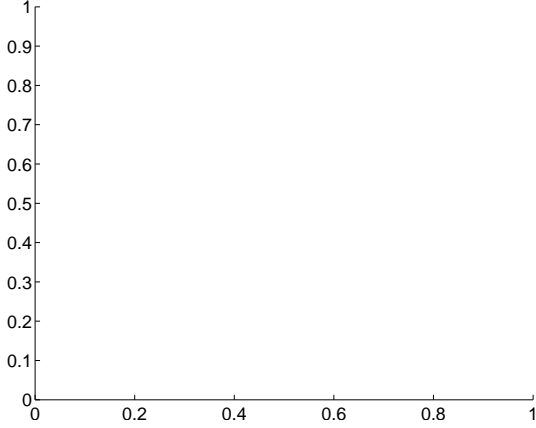
Q14 no difference image



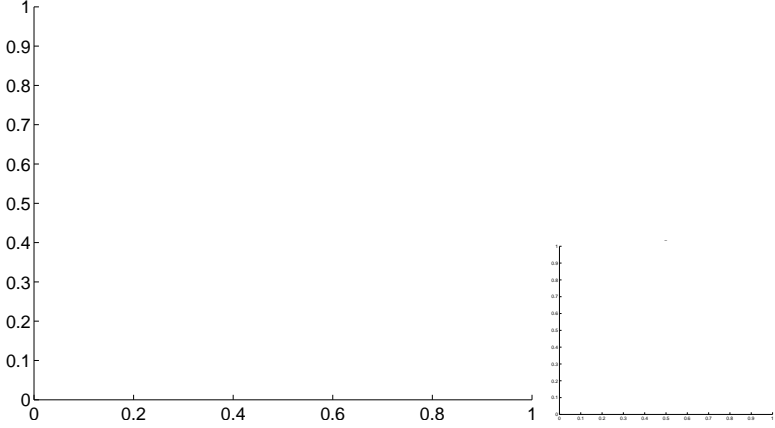
Q14 no OOT image



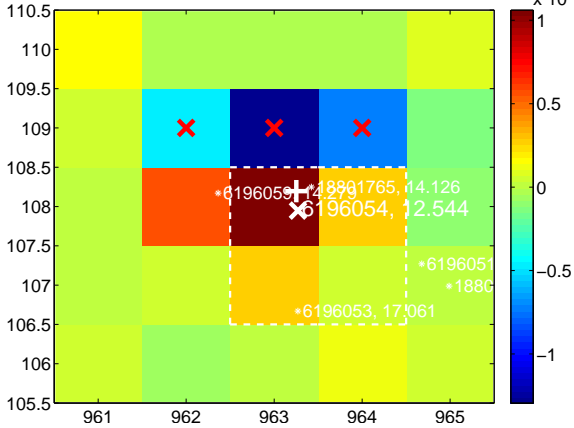
Q15 no difference image



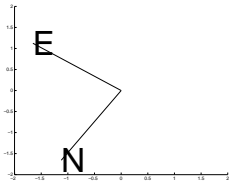
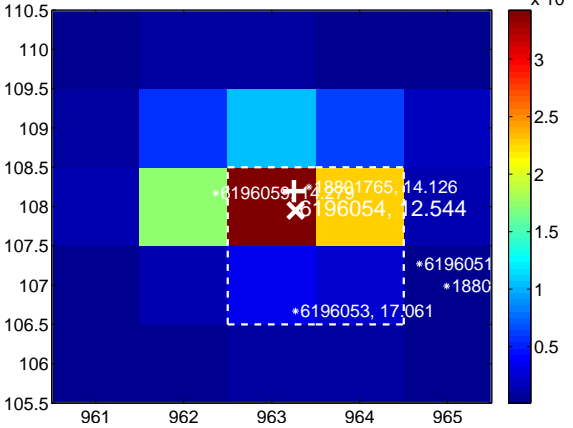
Q15 no OOT image



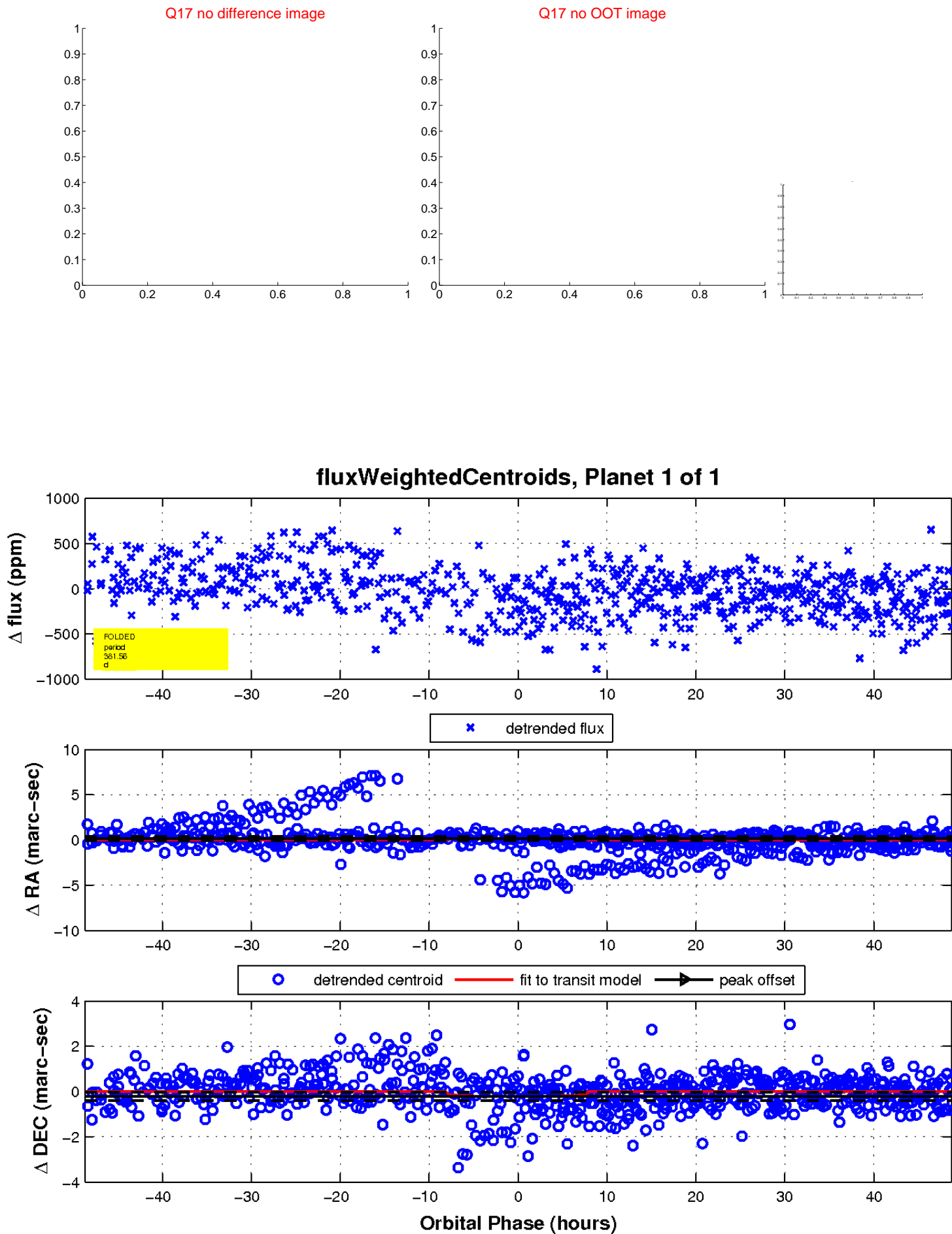
Q16 difference image. Poor Quality



Q16 OOT image



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



UKIRT Image

Declination

