

KIC 006281147

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})
006281147-01	OBS	No	357.889372	161.667335	1050.6	20.813	9.1	8.6	0.69	5025	4.46	0.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006281147-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

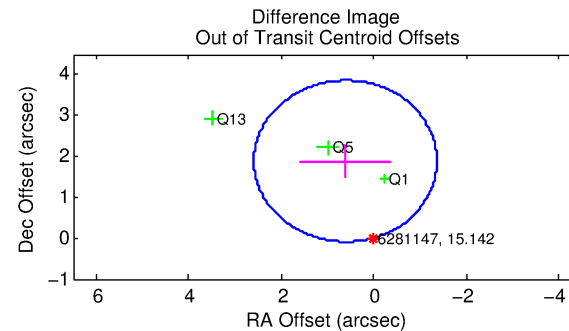
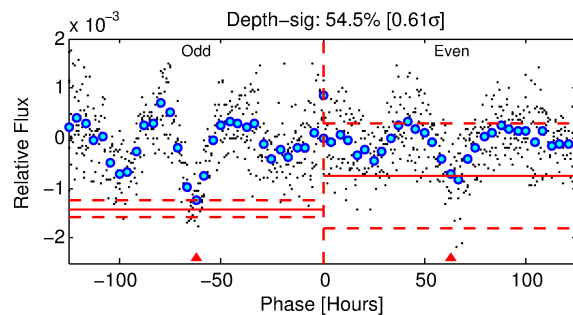
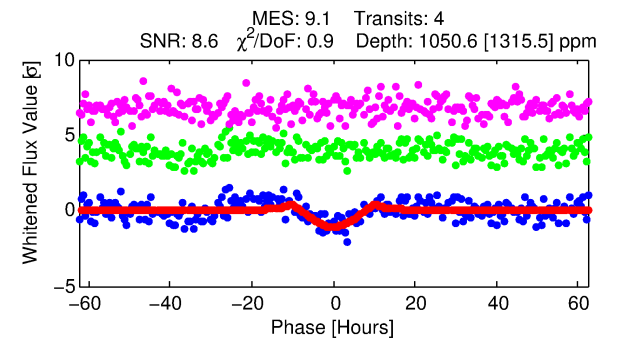
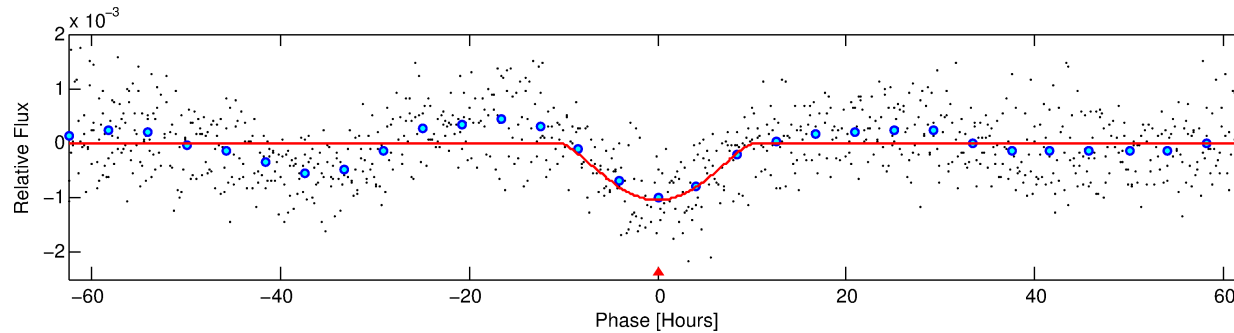
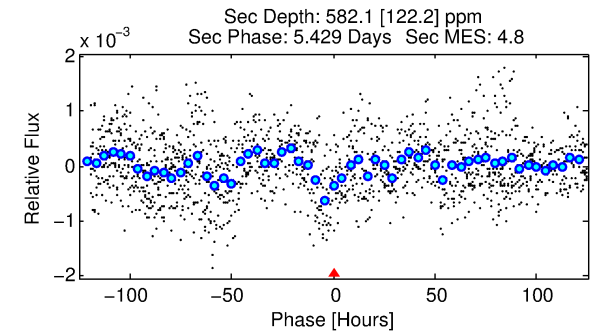
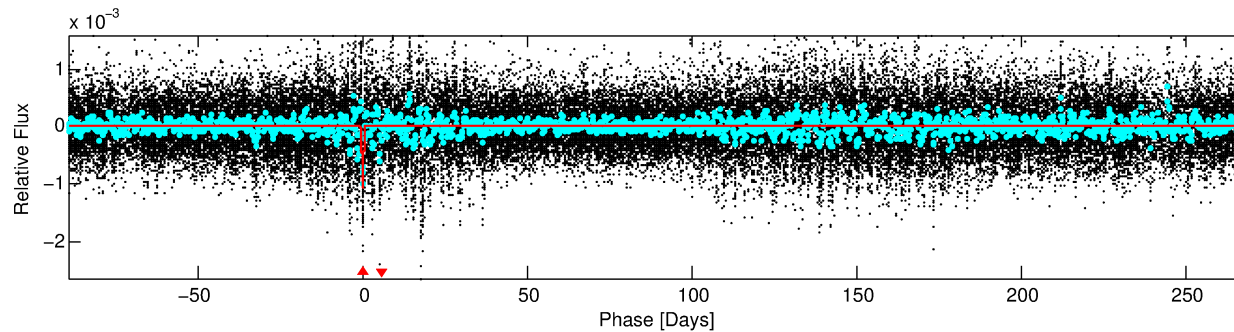
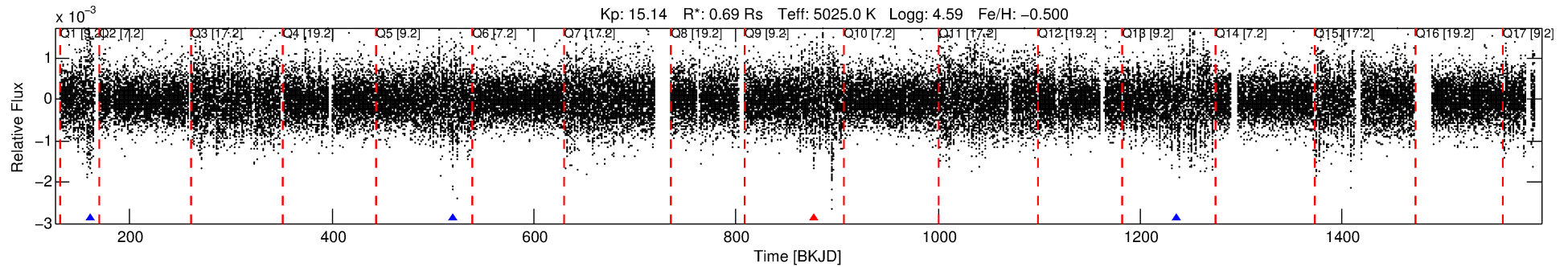
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006281147-01

No Significant Match Found

DV One-Page Summary

KIC: 6281147 Candidate: 1 of 1 Period: 357.889 d



DV Fit Results:

Period = 357.88937 [0.02041] d
Epoch = 161.6673 [0.0400] BKJD
Rp/R* = 0.0596 [0.1503]
a/R* = 46.05 [26.37]
b = 1.00 [0.16]
Seff = 0.36 [0.06]
Teq = 198 [9] K
Rp = 4.46 [11.24] Re
a = 0.8597 [0.0728] AU
Ag = 11907.16 [60070.10] [0.20σ]
Teffp = 3196 [4031] K [0.74σ]

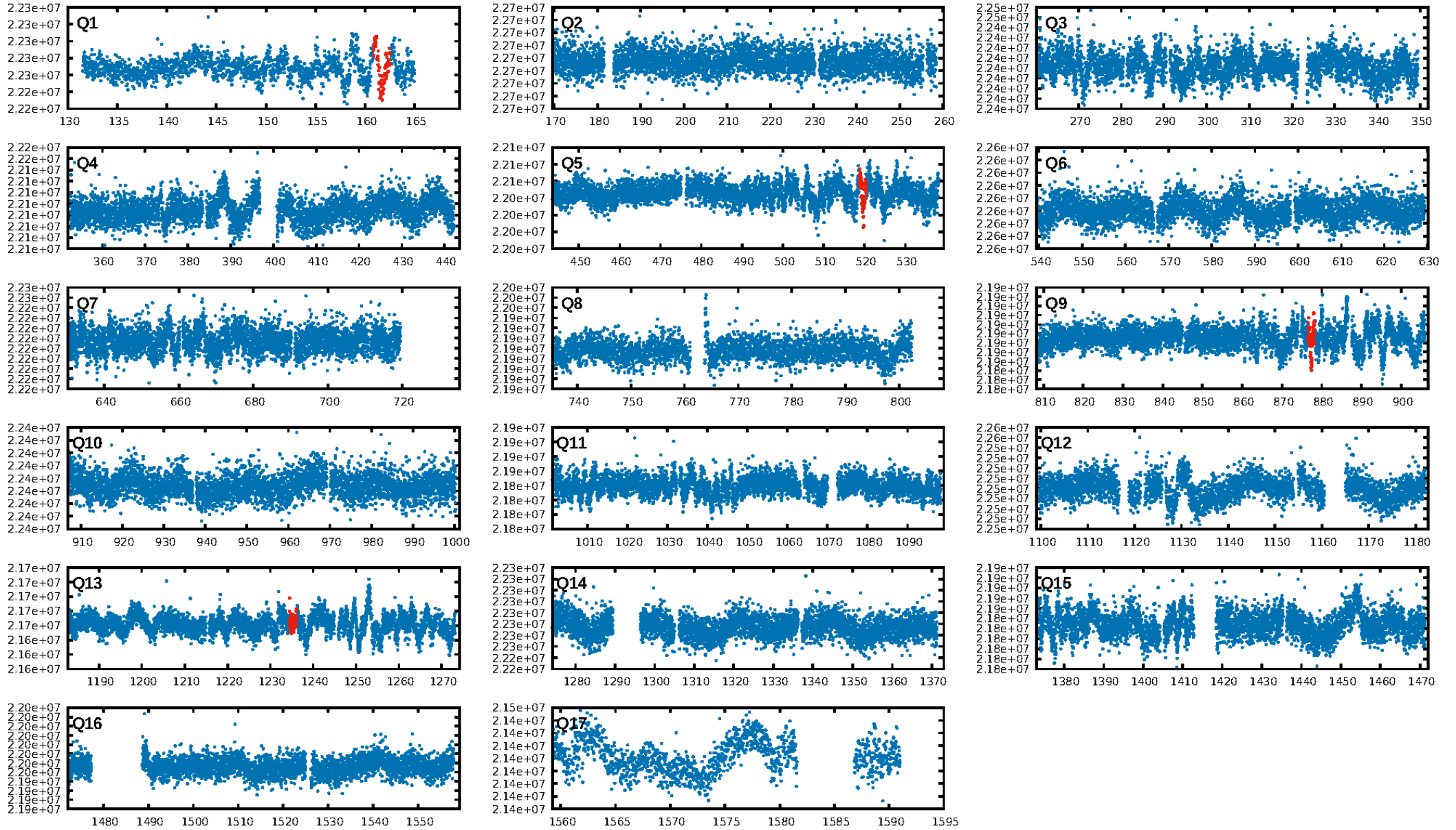
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.72e-11
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: -1.551
Centroid-sig: 44.8%
Centroid-so: 2.167 arcsec [1.09σ]
OotOffset-rm: 1.983 arcsec [3.01σ]
KicOffset-rm: 1.793 arcsec [3.62σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [4/4]

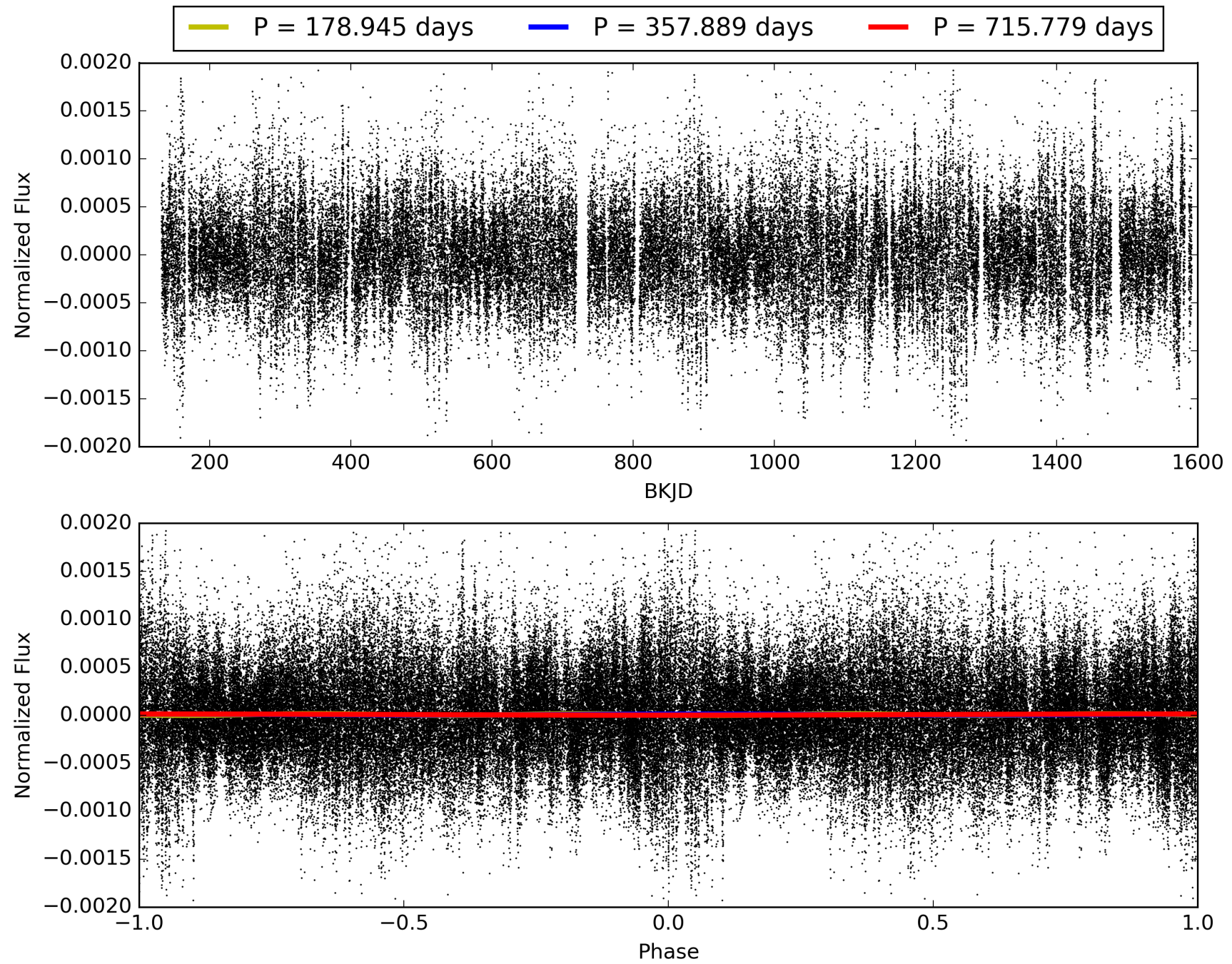
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:37:06 Z

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

TCE 006281147-01, PDC Light Curves

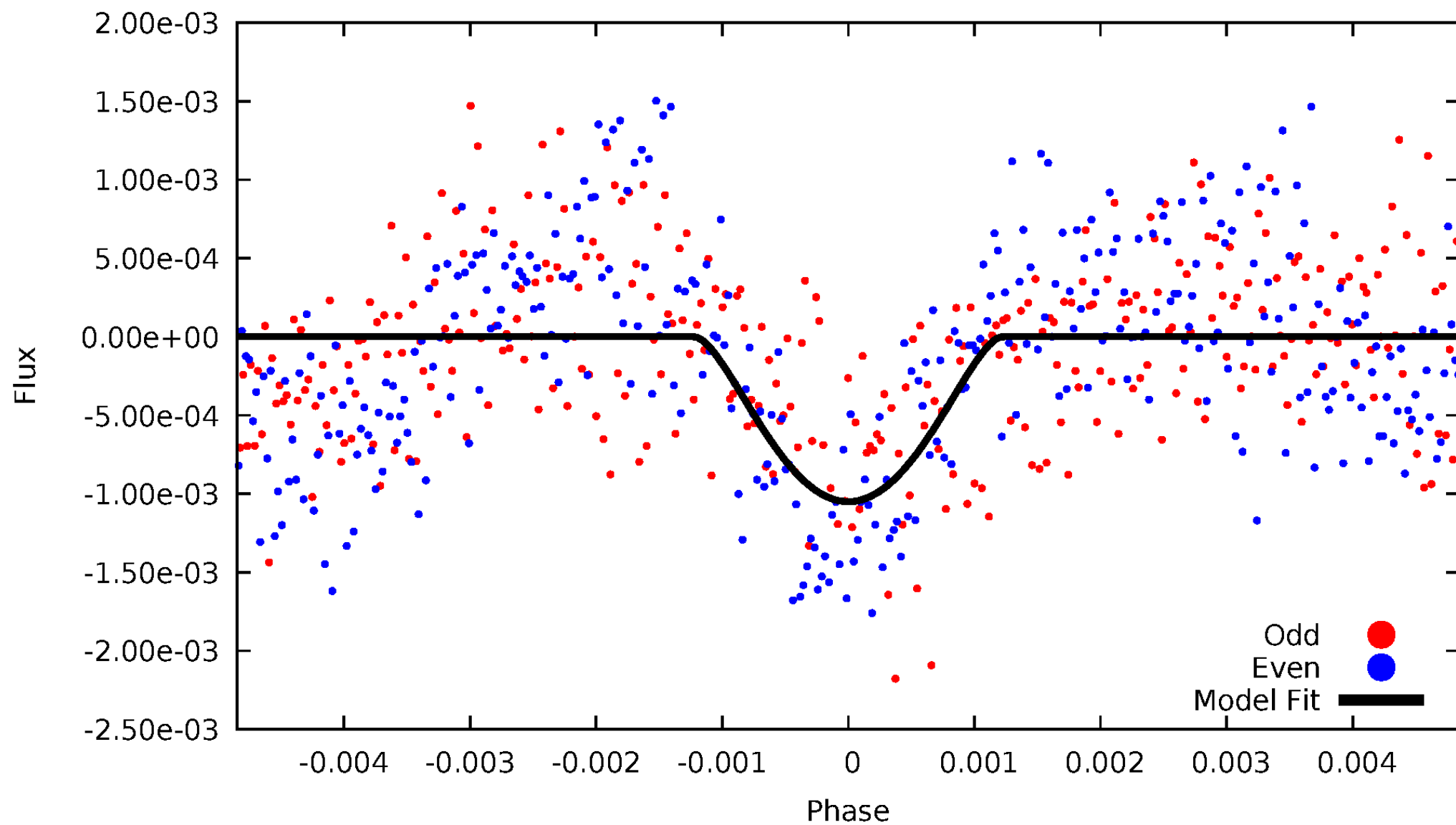


TCE 006281147-01



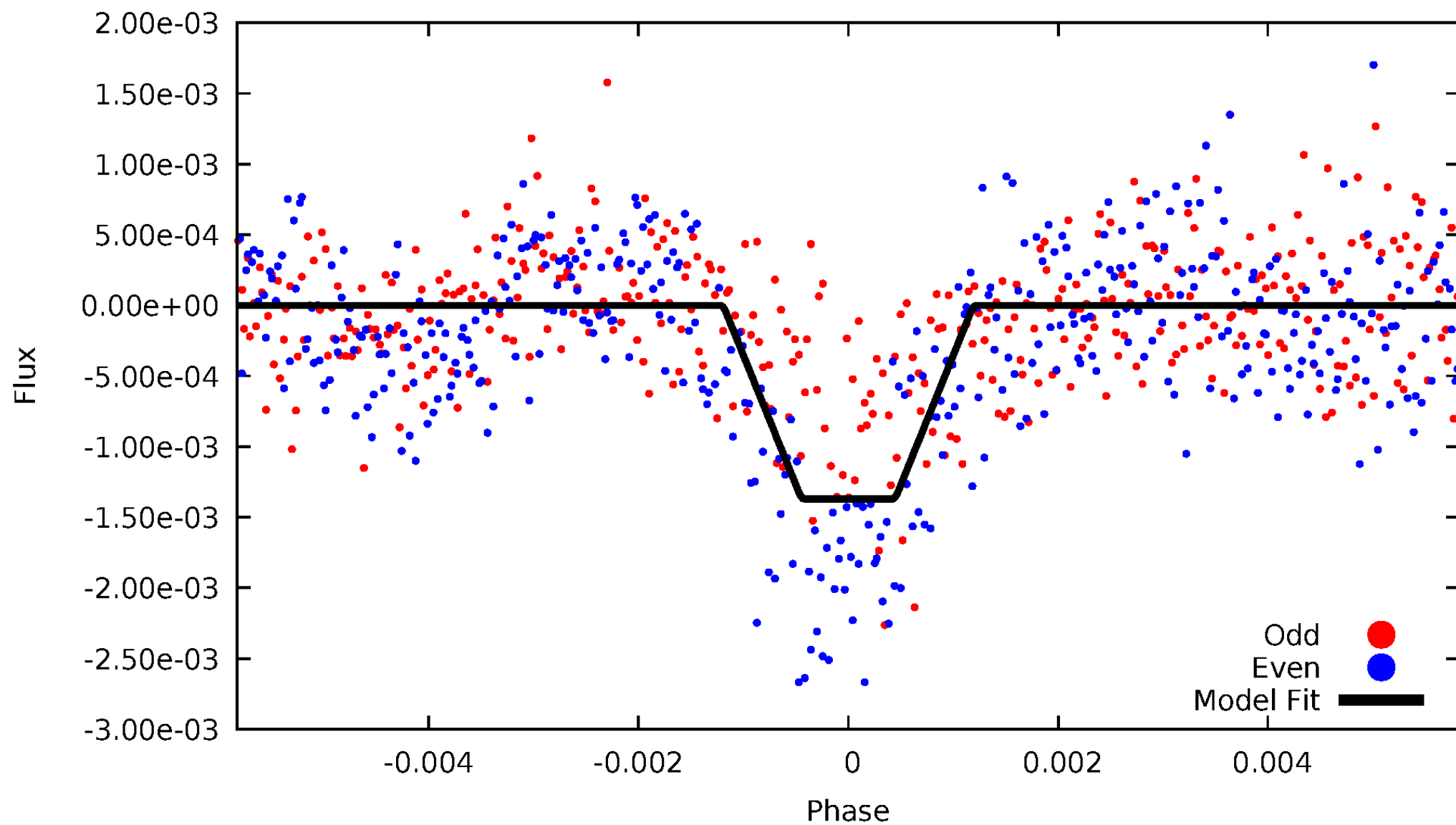
DV Odd/Even

TCE 006281147-01



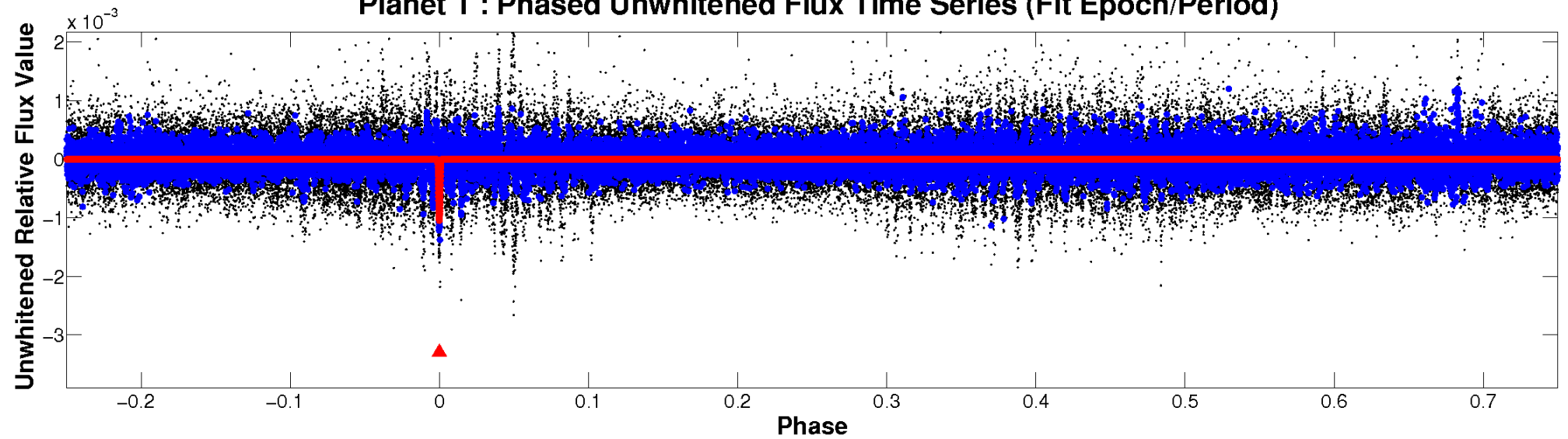
ALT Odd/Even

TCE 006281147-01

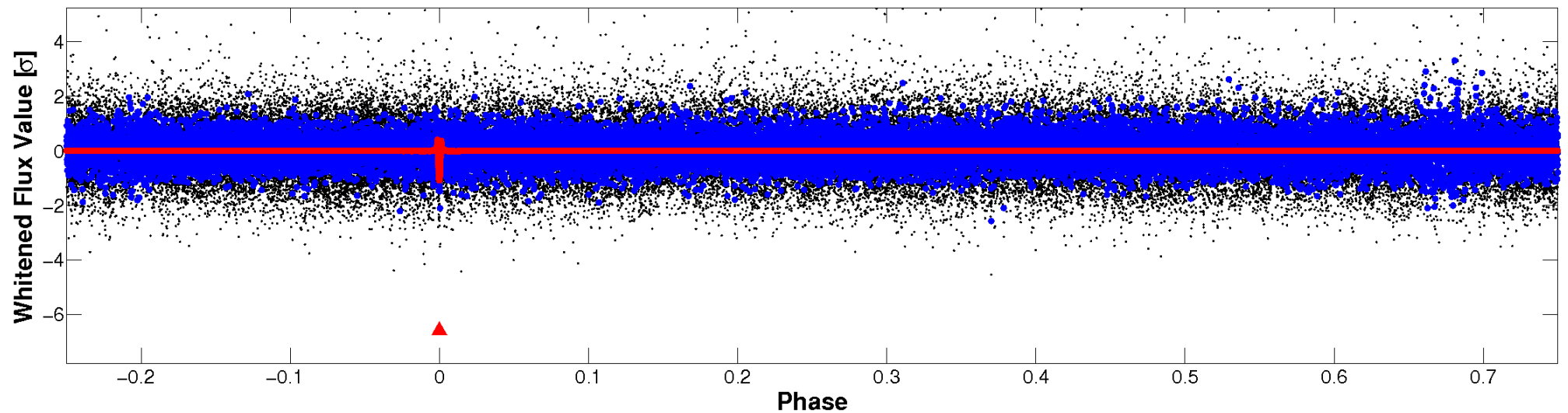


Non-Whitened Vs. Whitened Light Curve

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

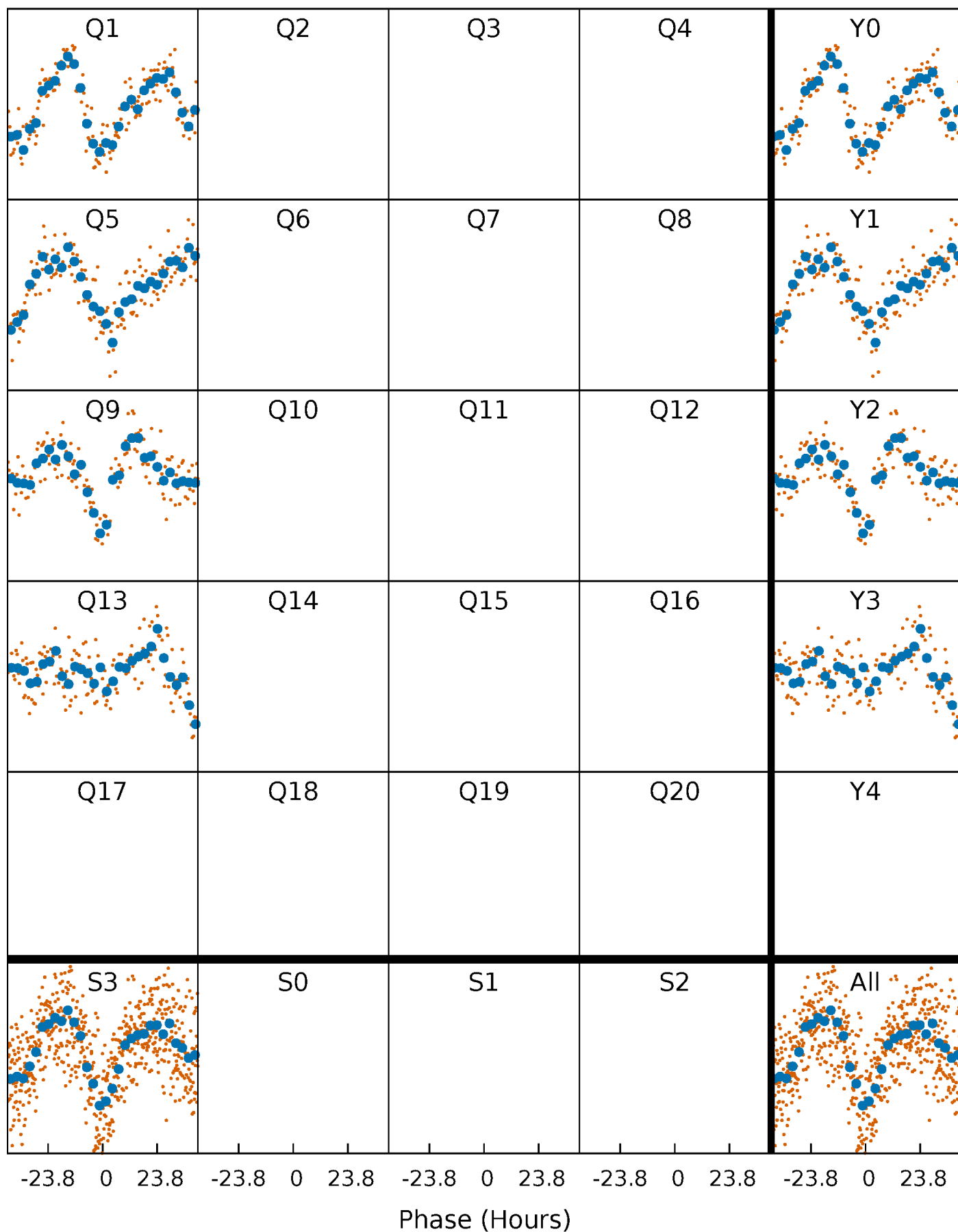


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



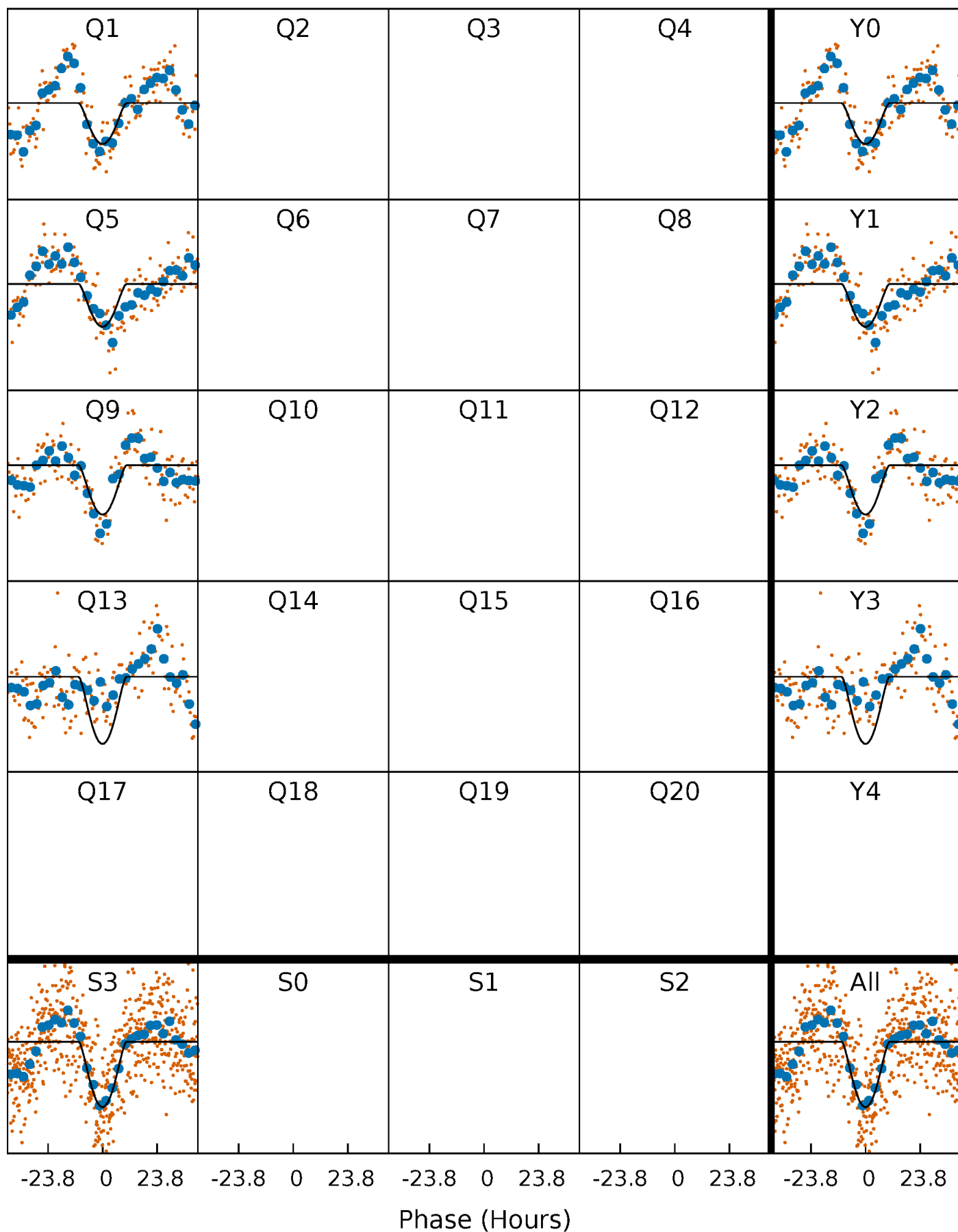
PDC Quarter-Phased Transit Curves

TCE 006281147-01 P=357.889372 Days $T_0=161.667335$ (BKJD)



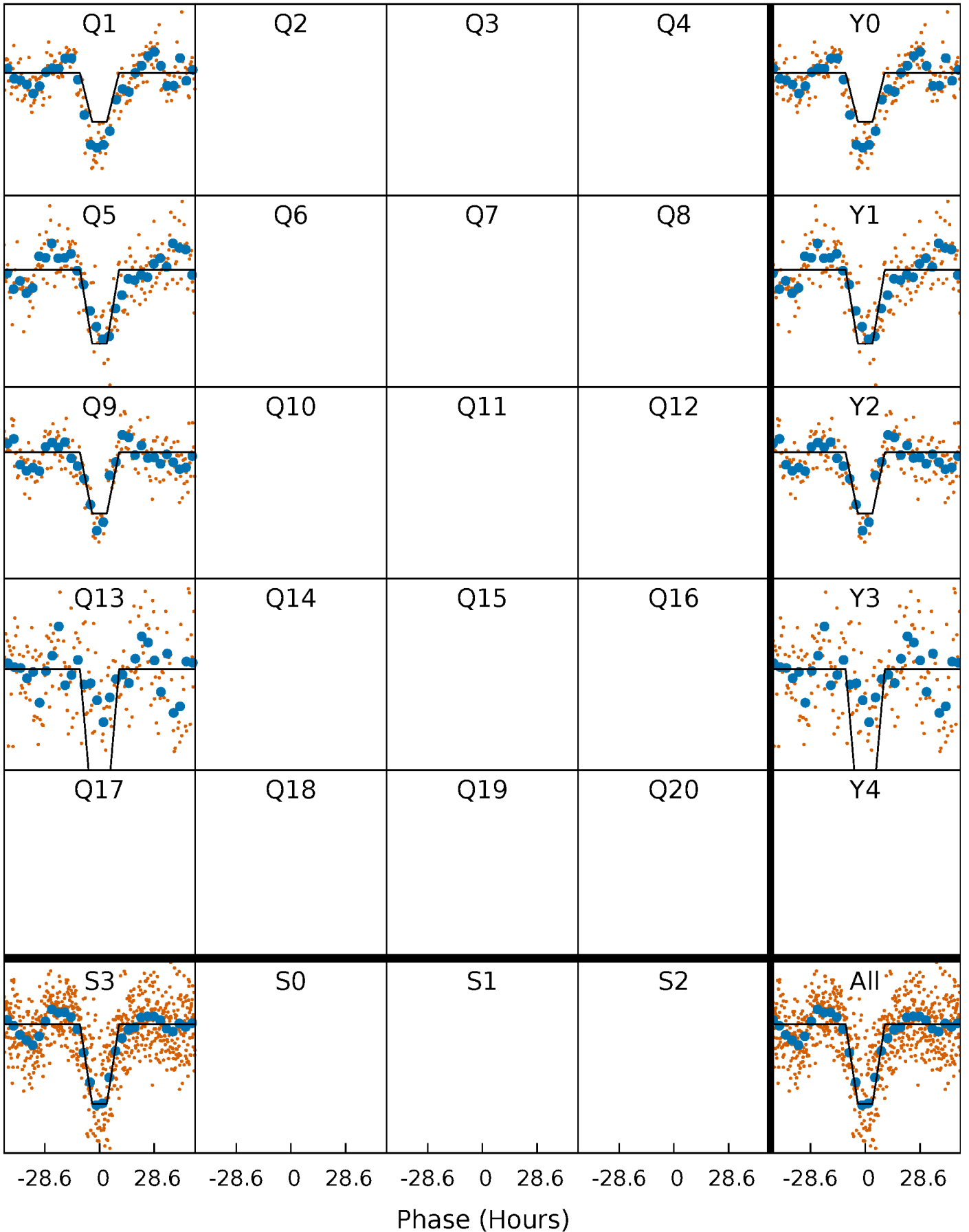
DV Quarter-Phased Transit Curves

TCE 006281147-01 P=357.889372 Days $T_0=161.667335$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

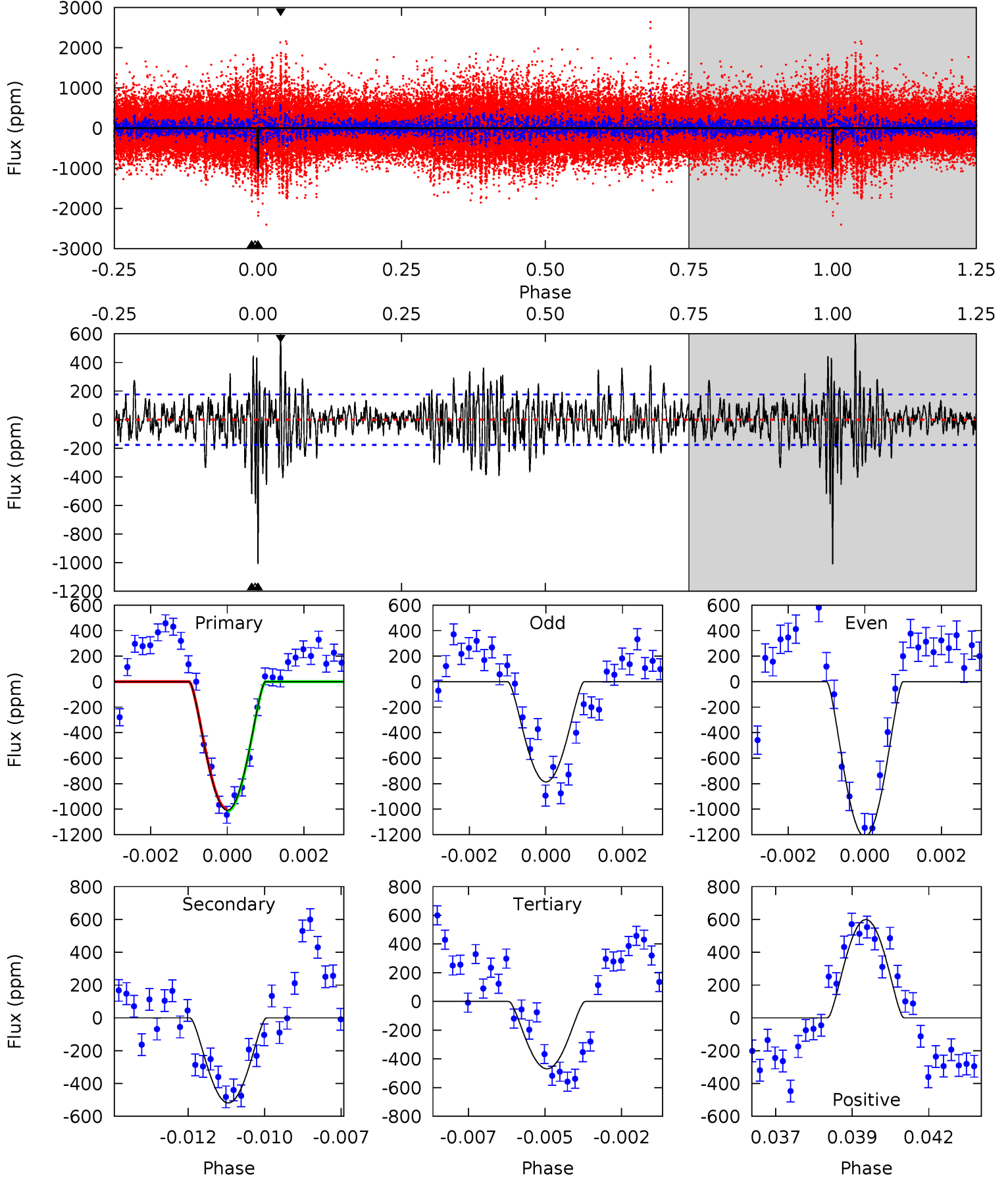
TCE 006281147-01 $P=357.886992$ Days $T_0=161.679139$ (BKJD)



DV Model-Shift Uniqueness Test

006281147-01, P = 357.889372 Days, E = 161.667335 Days

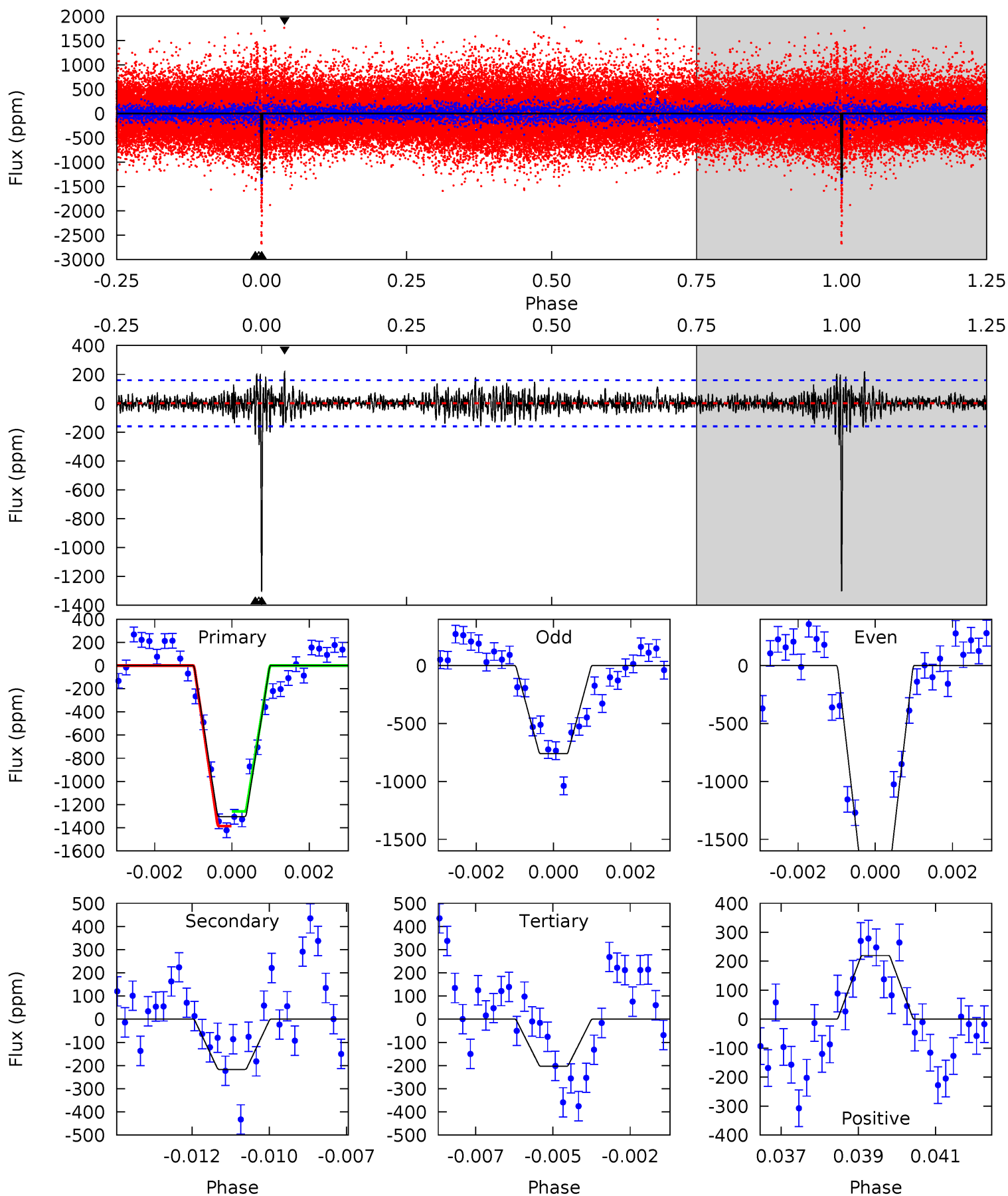
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.3	15.6	14.1	18.0	5.29	3.03	3.64	16.2	12.3	1.48	-2.41	6.41	0.86	0.37	0.24



Alt Model-Shift Uniqueness Test

006281147-01, P = 357.886992 Days, E = 161.679139 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.2	7.18	6.72	7.28	5.29	3.03	1.50	36.5	35.9	0.45	-0.10	17.1	0.99	0.14	2.11



Stellar Parameters For KIC 006281147

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5025^{+150}_{-135}	$4.587^{+0.072}_{-0.044}$	$-0.500^{+0.300}_{-0.300}$	$0.685^{+0.066}_{-0.066}$	$0.661^{+0.086}_{-0.037}$	$2.896^{+0.877}_{-0.469}$
	+3%/-3%	+2%/-1%	+60%/-60%	+10%/-10%	+13%/-6%	+30%/-16%
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 006281147-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-519 ± 33	$9.42^{+9.37}_{-6.39}$	275^{+11}_{-9}	2822^{+1190}_{-453}	2380^{+21588}_{-1793}
Alt.	-217 ± 30	$8.54^{+8.82}_{-5.76}$	275^{+11}_{-10}	2584^{+978}_{-396}	1229^{+10474}_{-935}

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

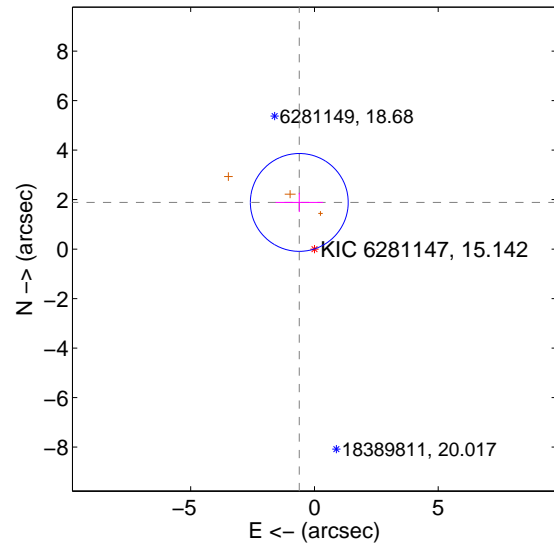
Supplemental centroid analysis for 006281147-01. Kepler magnitude: 15.14. Transit SNR 8.63

There are 0 quarters with good PRF difference image offsets

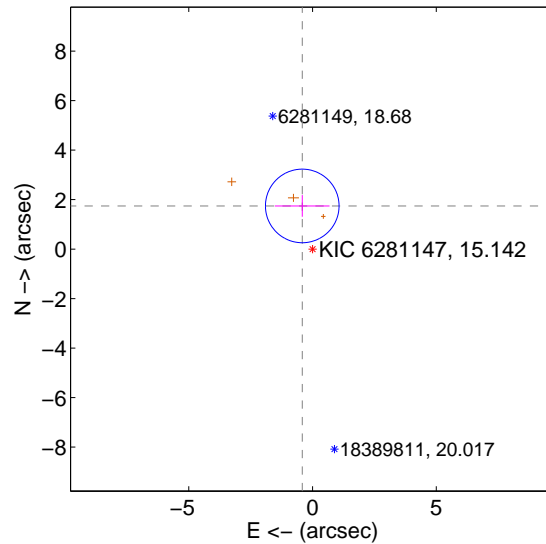
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.983 ± 0.659	3.01	0.613 ± 0.960	1.886 ± 0.389
PRF-fit source offset from KIC position	1.793 ± 0.496	3.62	0.415 ± 1.103	1.744 ± 0.437
photometric centroid source offset	2.17 ± 1.99	1.09	-2.13 ± 2.01	-0.37 ± 1.53

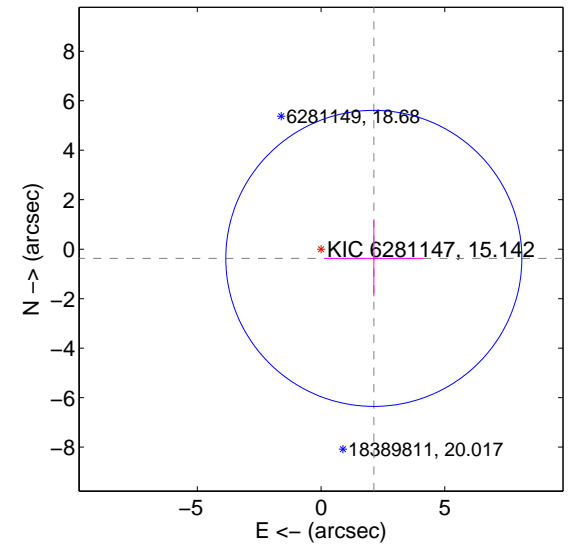
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

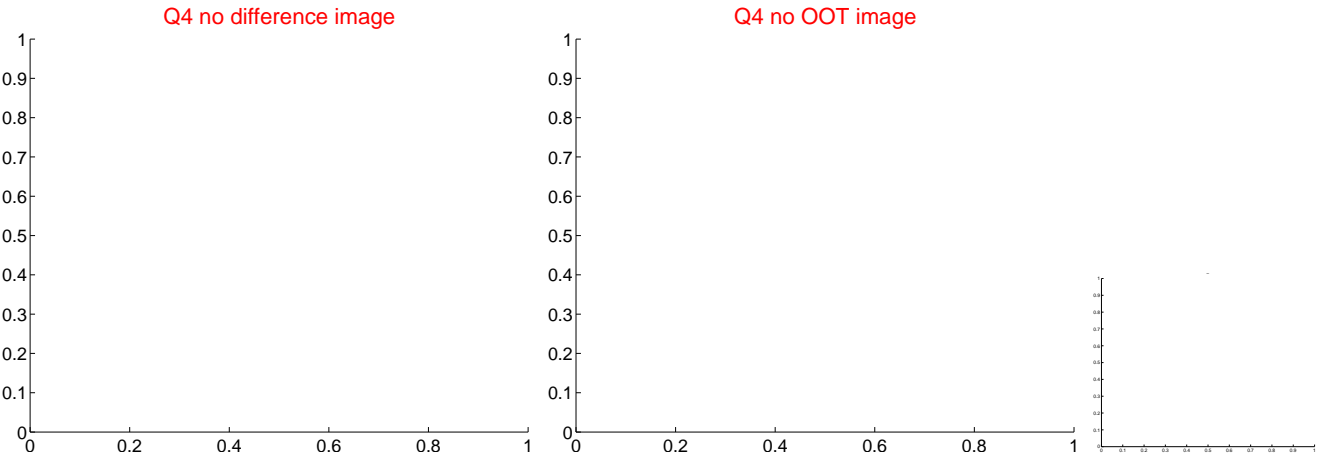
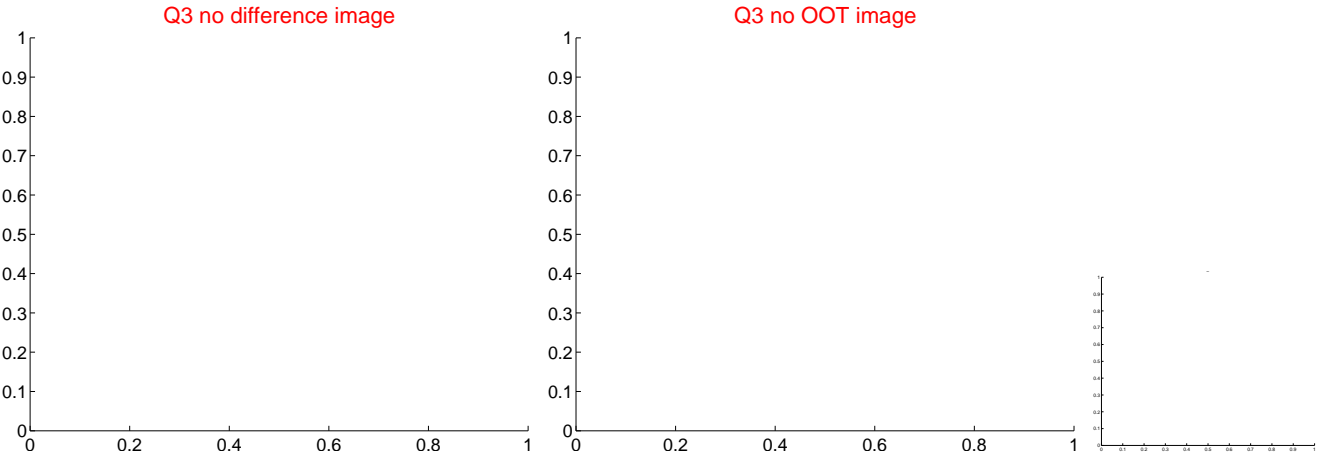
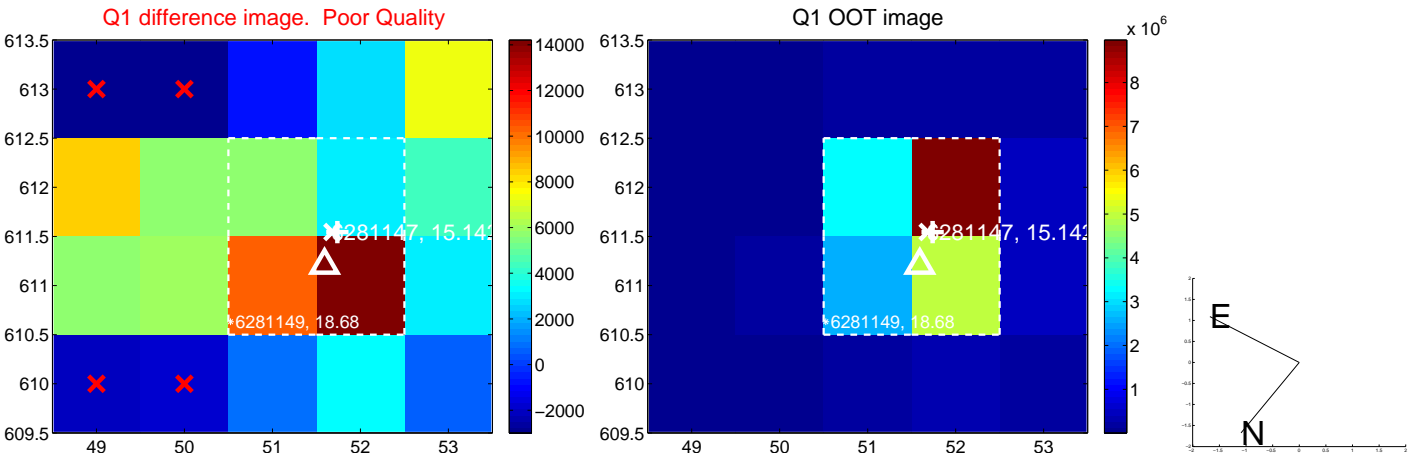


offset from photometric centroids

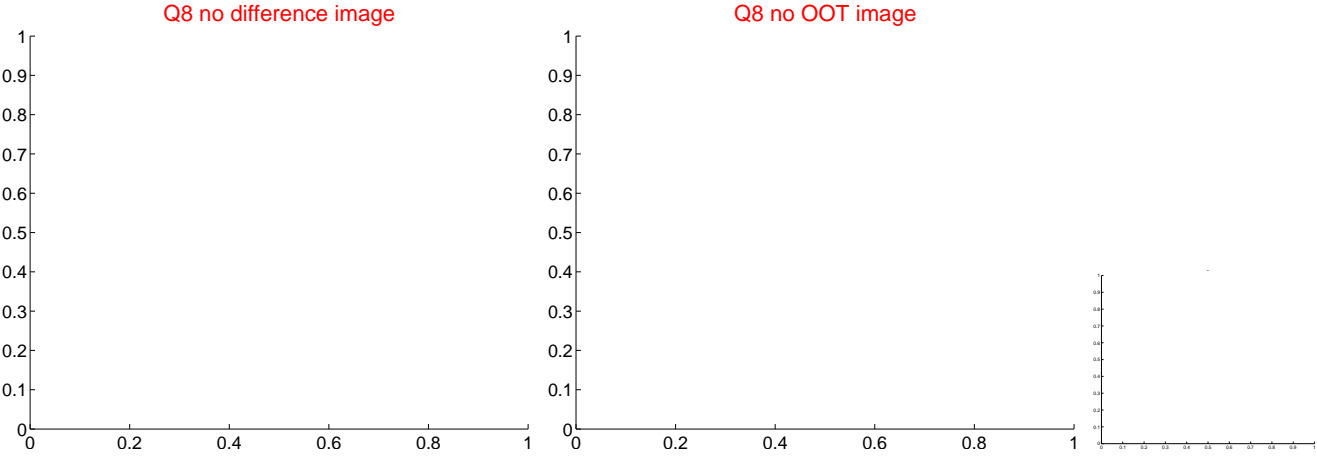
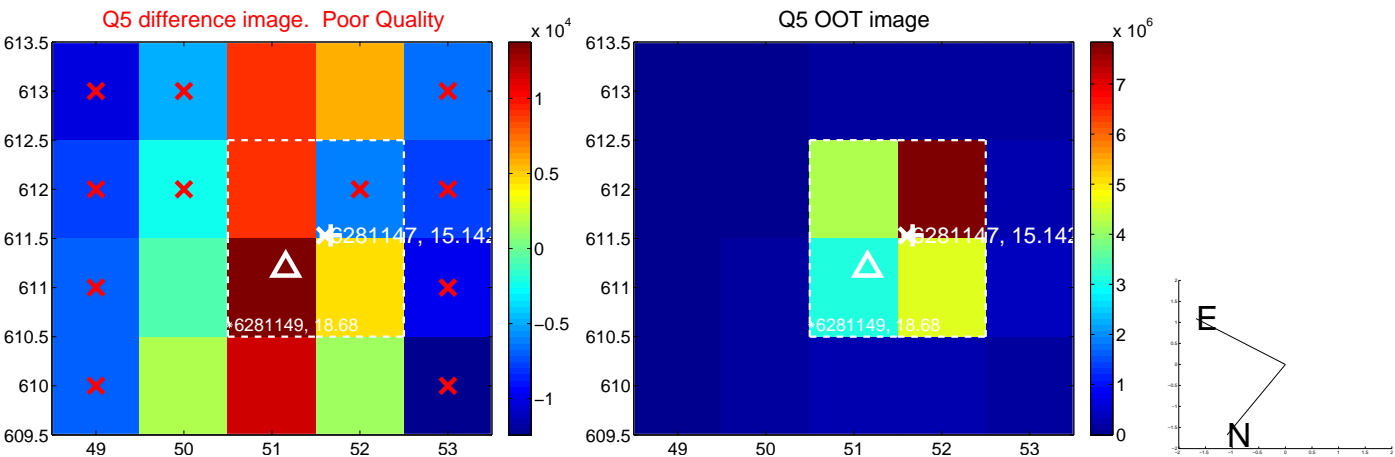


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

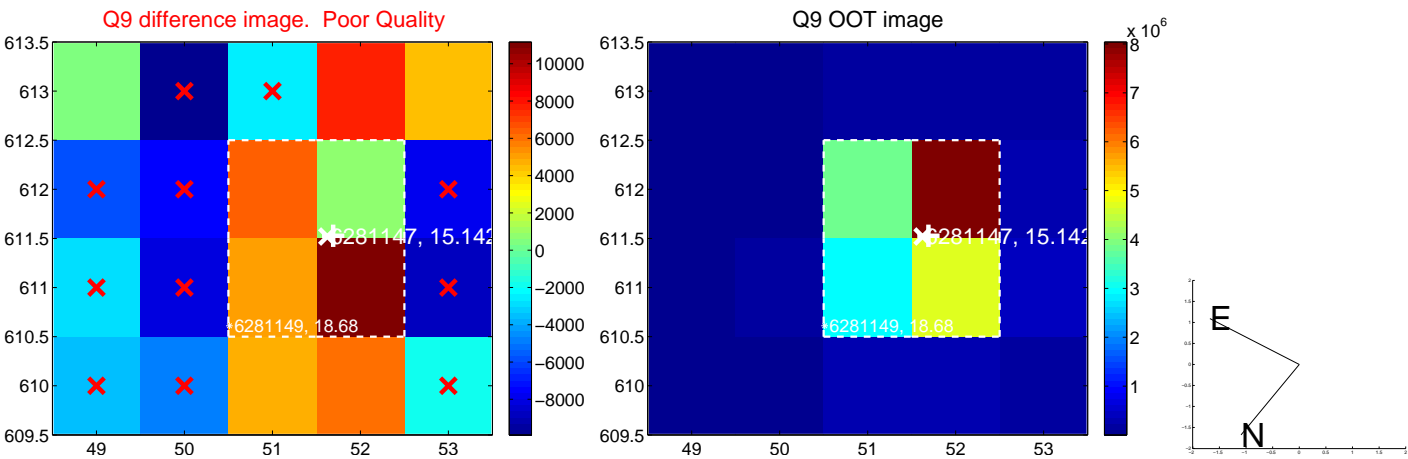
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



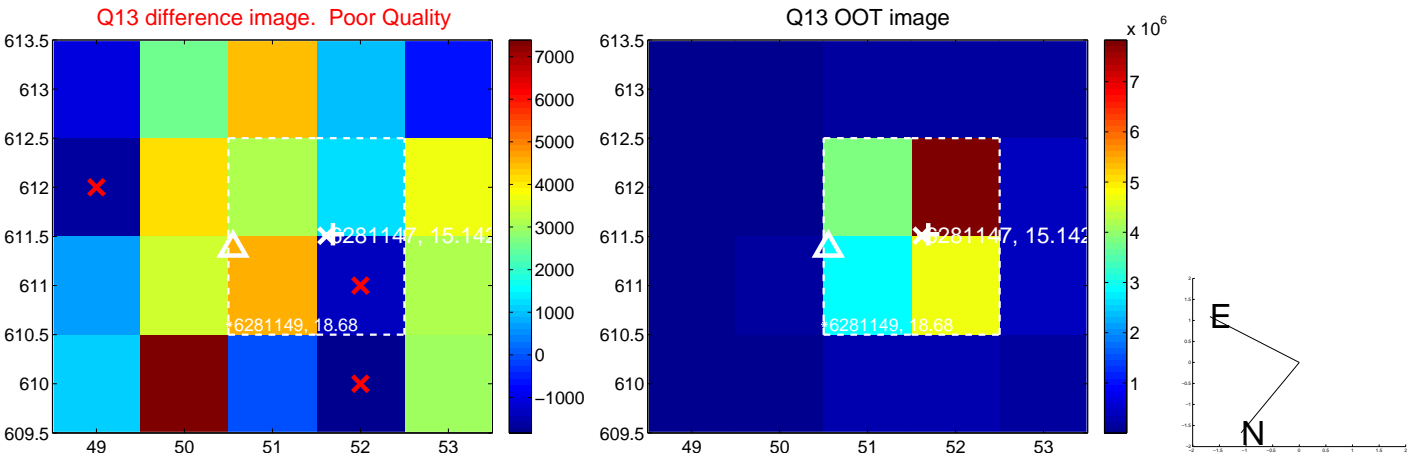
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



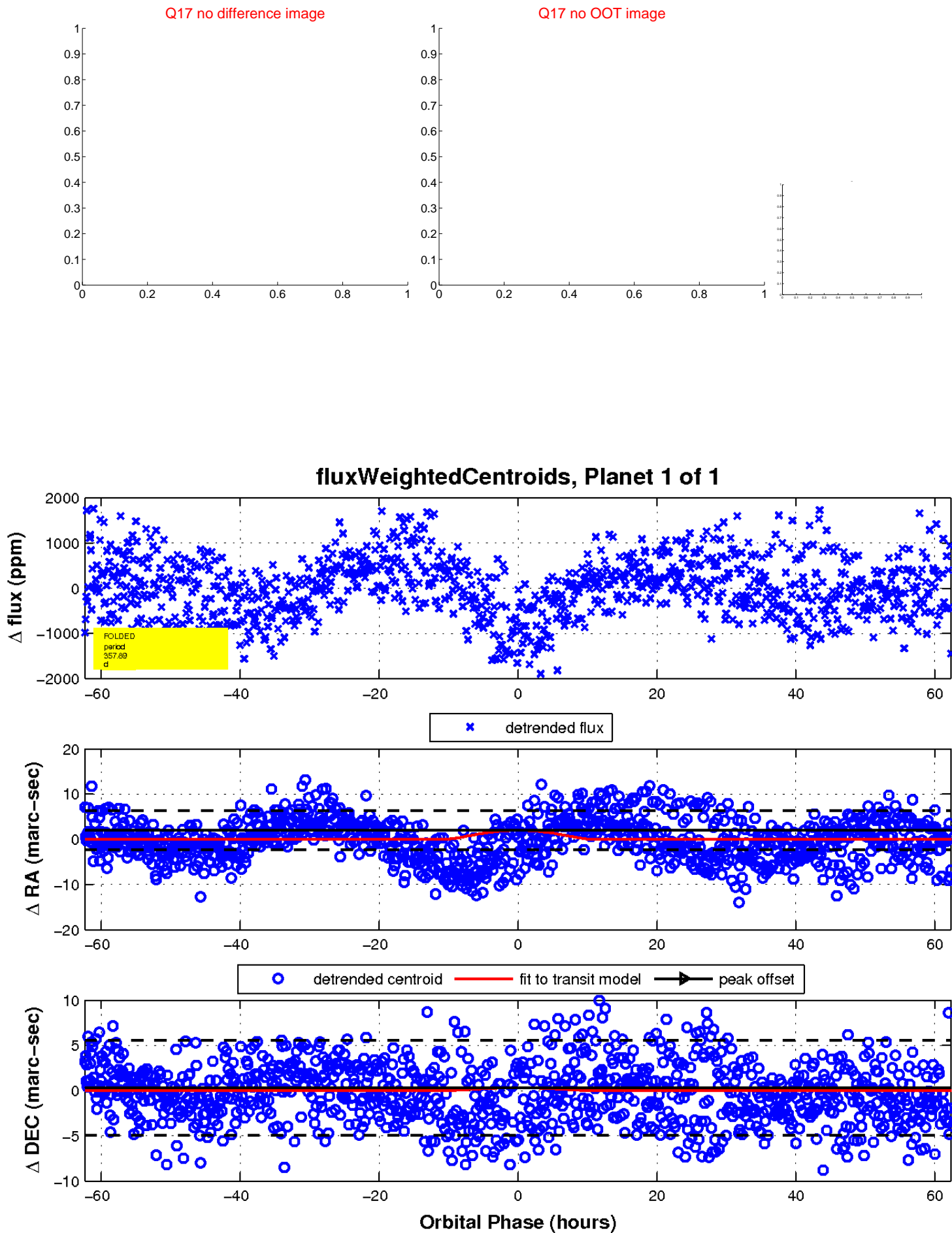
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

