

KIC 005024146

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})
005024146-01	OBS	No	0.787211	131.585994	72984.2	1.500	1863.8	-1.0	0.88	6147	24.23	4508.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005024146-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

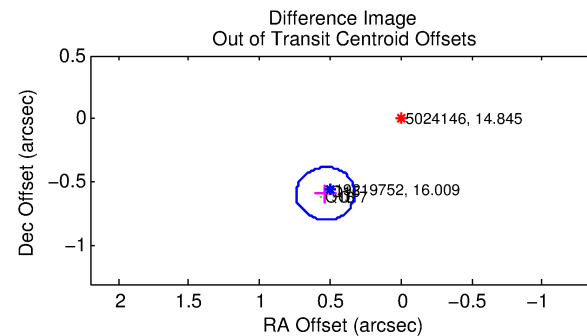
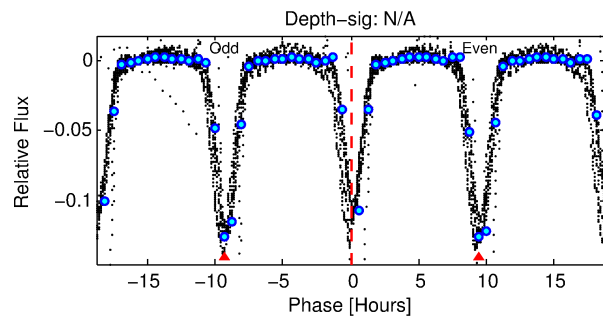
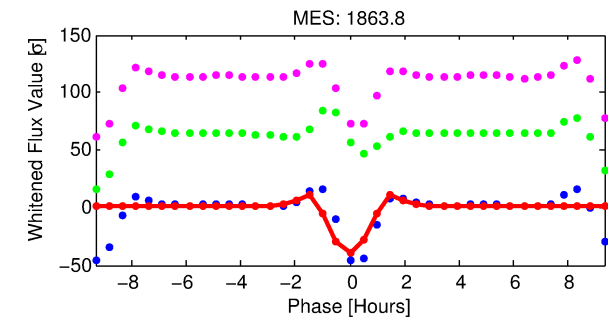
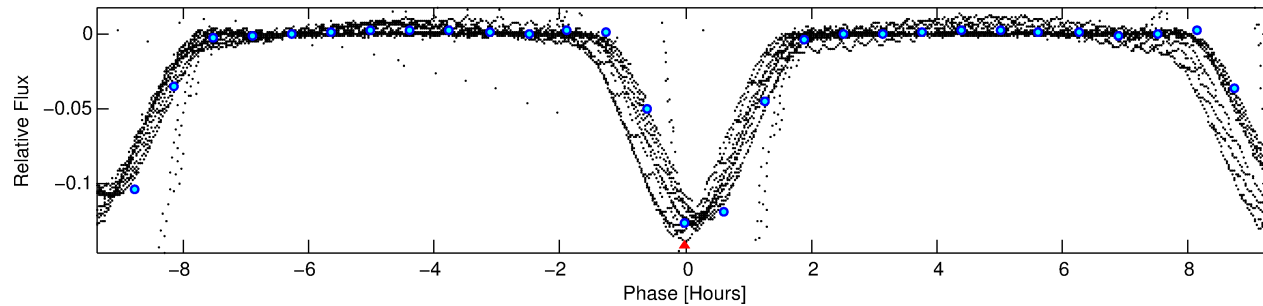
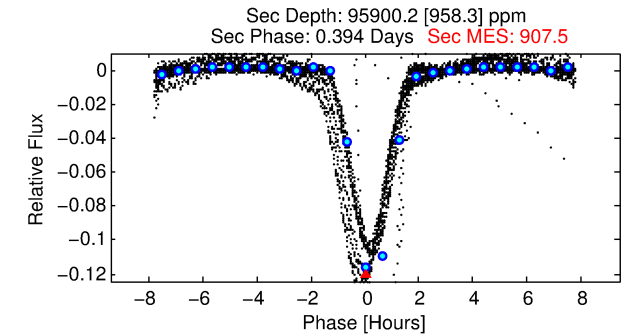
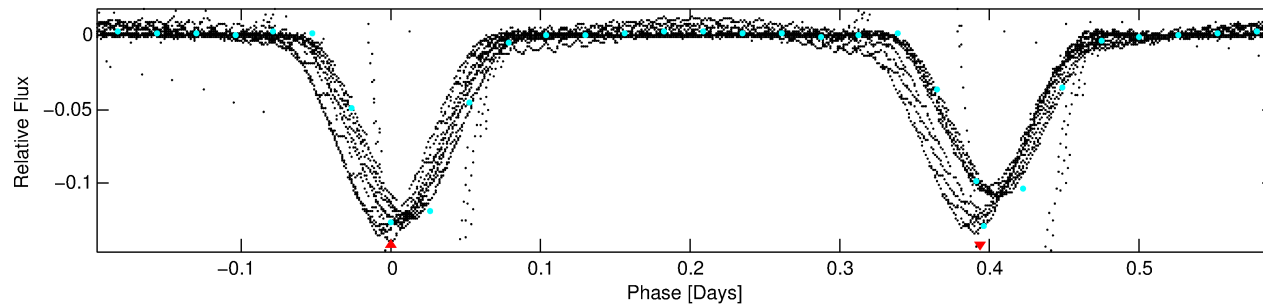
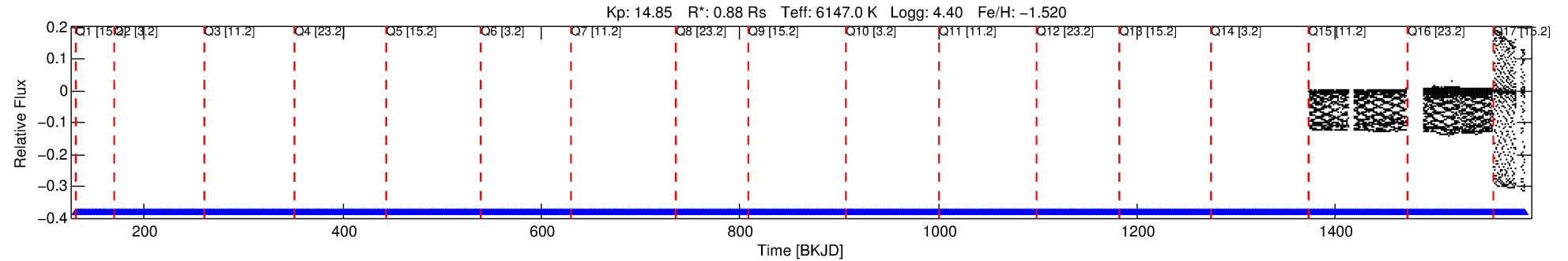
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005024146-01

No Significant Match Found

DV One-Page Summary

KIC: 5024146 Candidate: 1 of 1 Period: 0.787 d



TPS TCE Results:

Period = 0.78721 d
Epoch = 131.5860 BKJD

DV fit results are unavailable

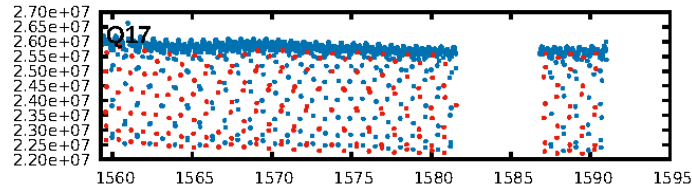
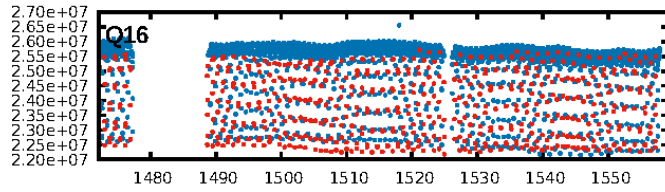
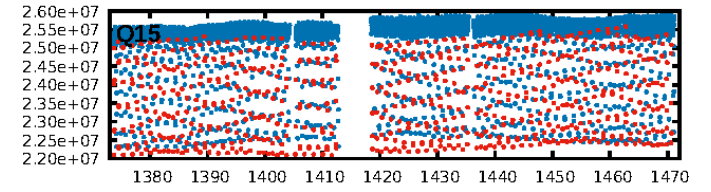
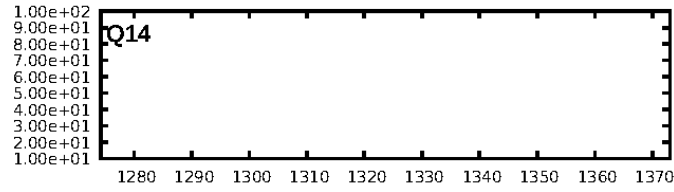
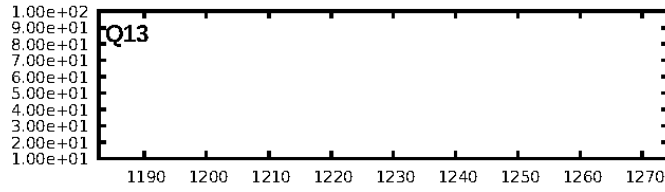
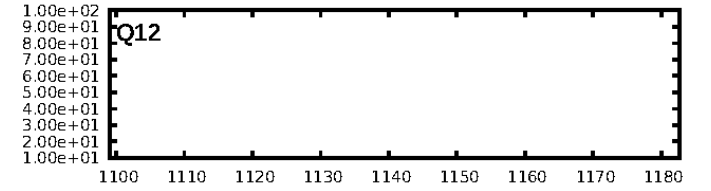
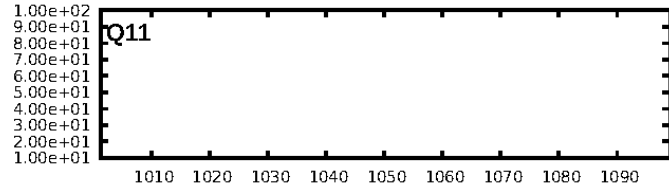
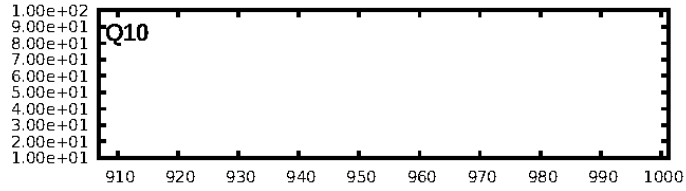
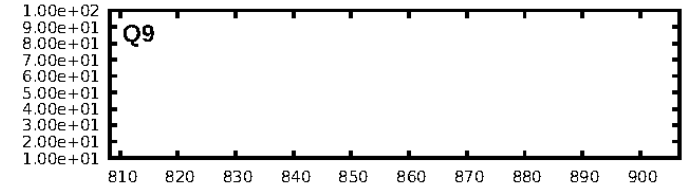
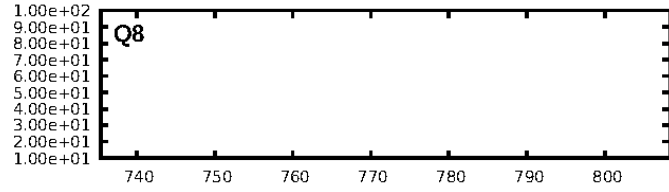
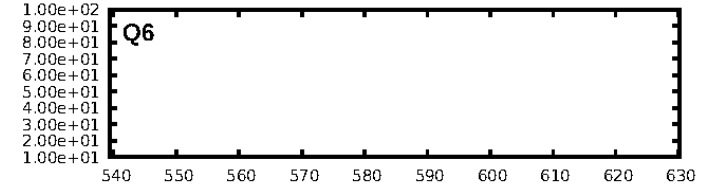
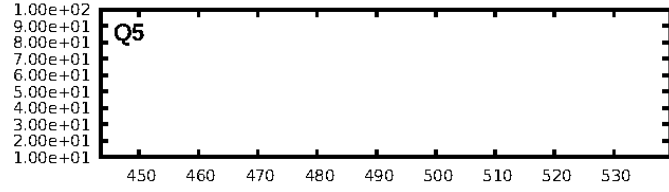
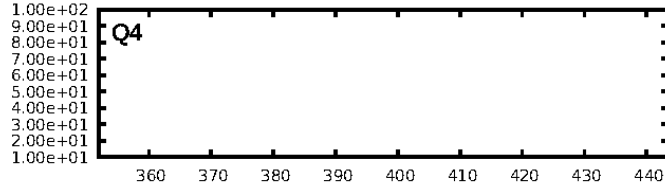
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [203/203]
GhostDiagnostic-chr: 1.975
Centroid-sig: N/A
Centroid-so: 1.052 arcsec [202.08σ]
OotOffset-rm: 0.794 arcsec [11.47σ]
KicOffset-rm: 0.747 arcsec [10.29σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

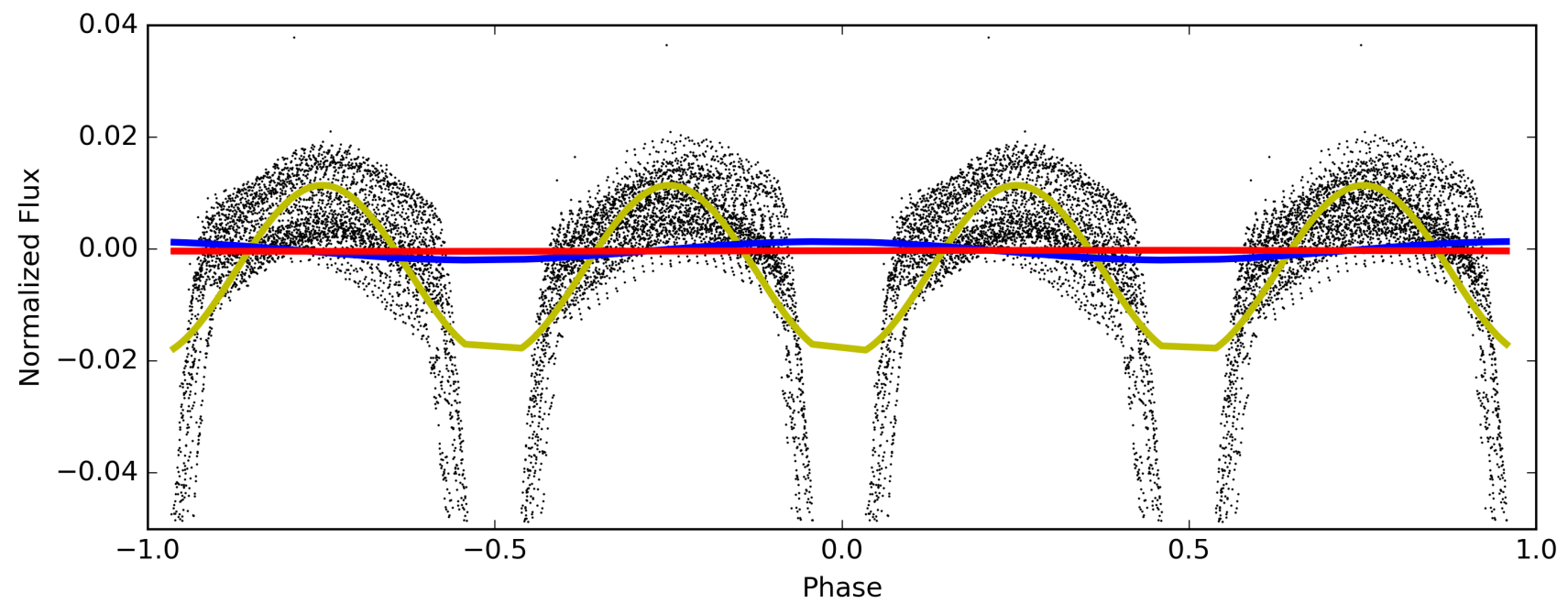
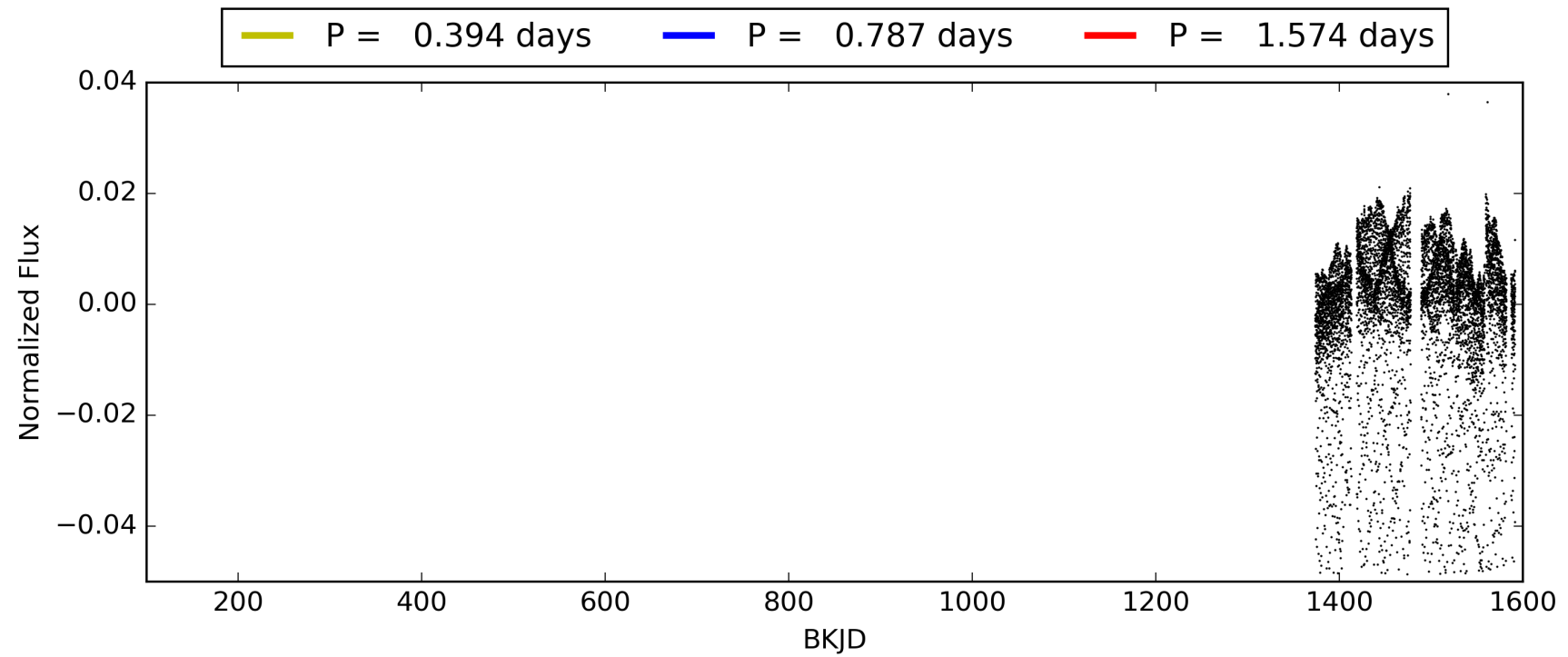
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:46:57 Z

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

TCE 005024146-01, PDC Light Curves

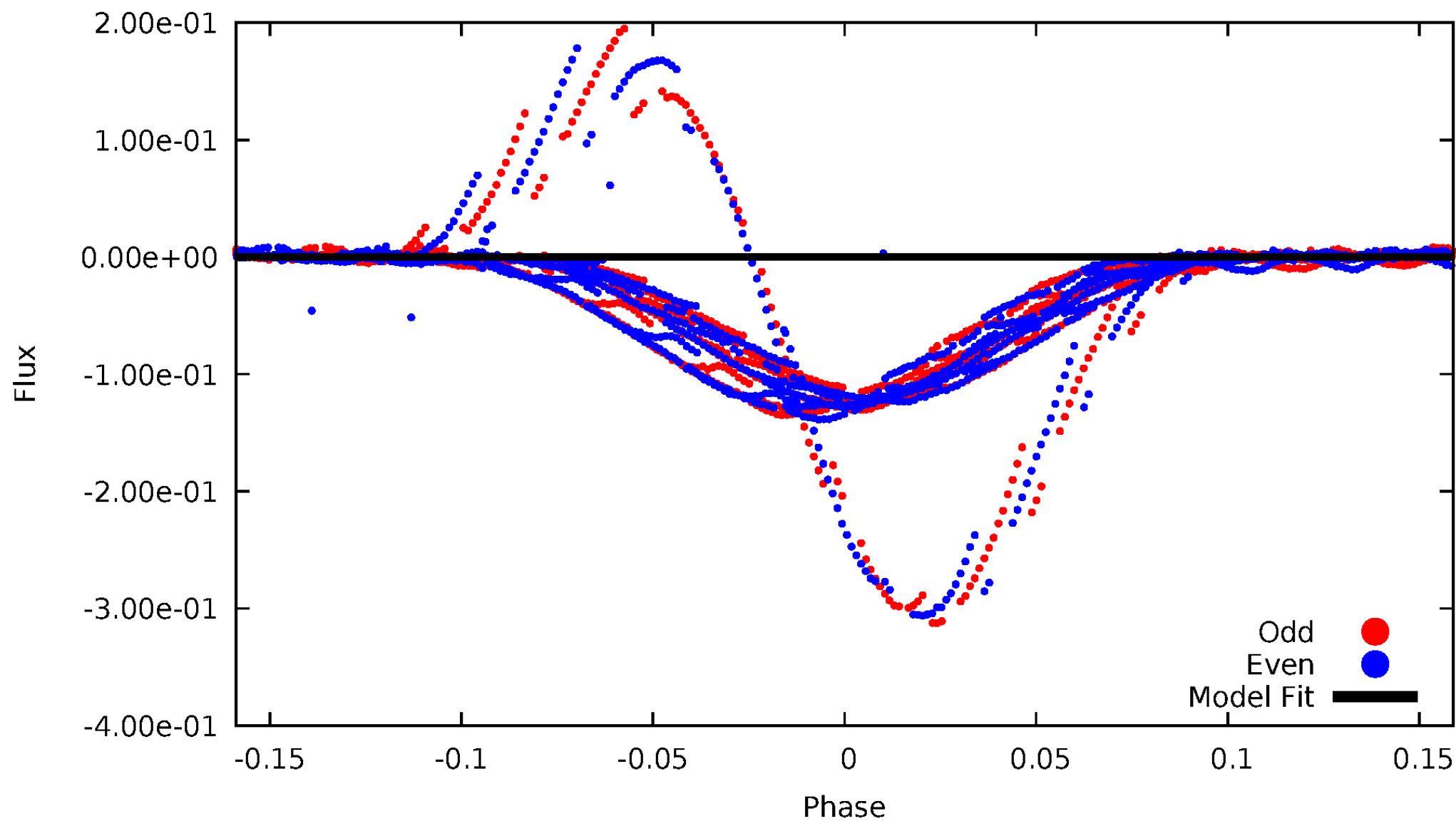


TCE 005024146-01



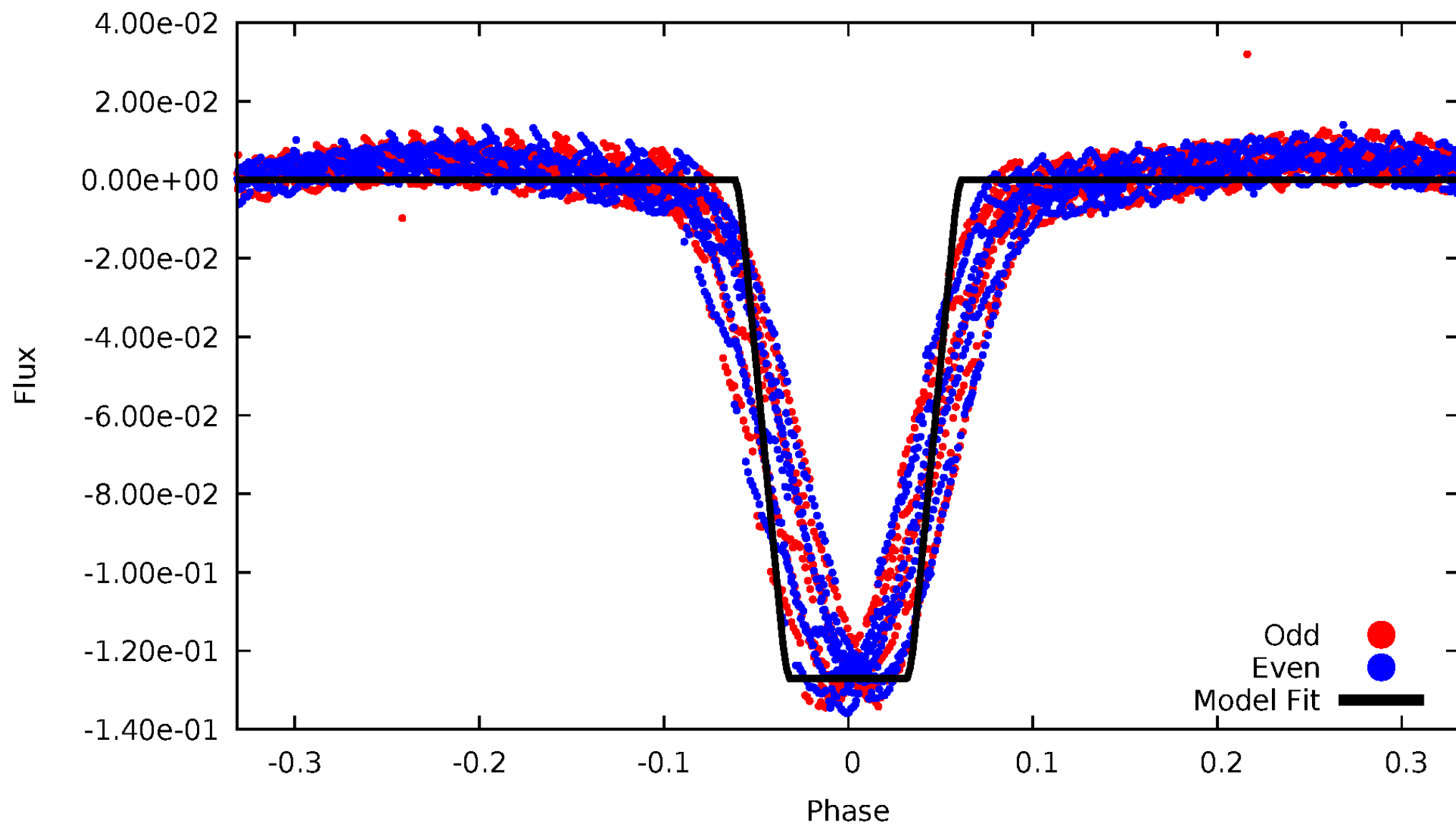
DV Odd/Even

TCE 005024146-01



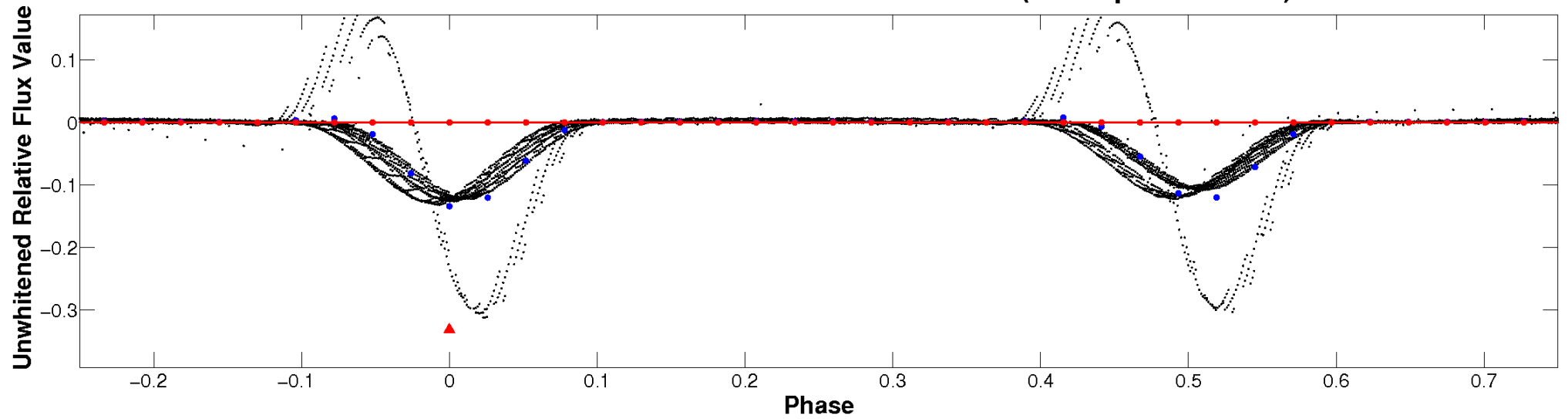
ALT Odd/Even

TCE 005024146-01



Non-Whitened Vs. Whitened Light Curve

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

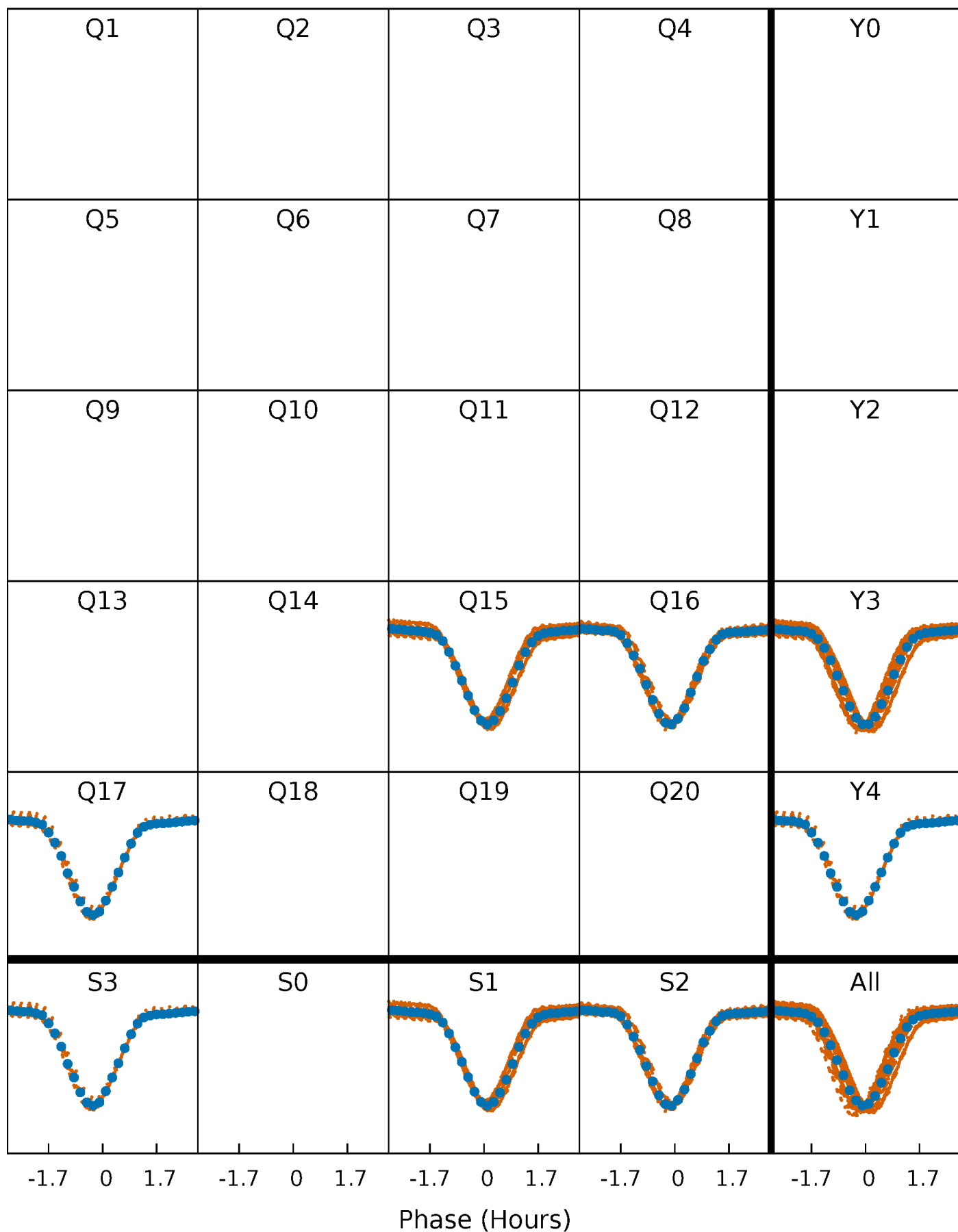


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



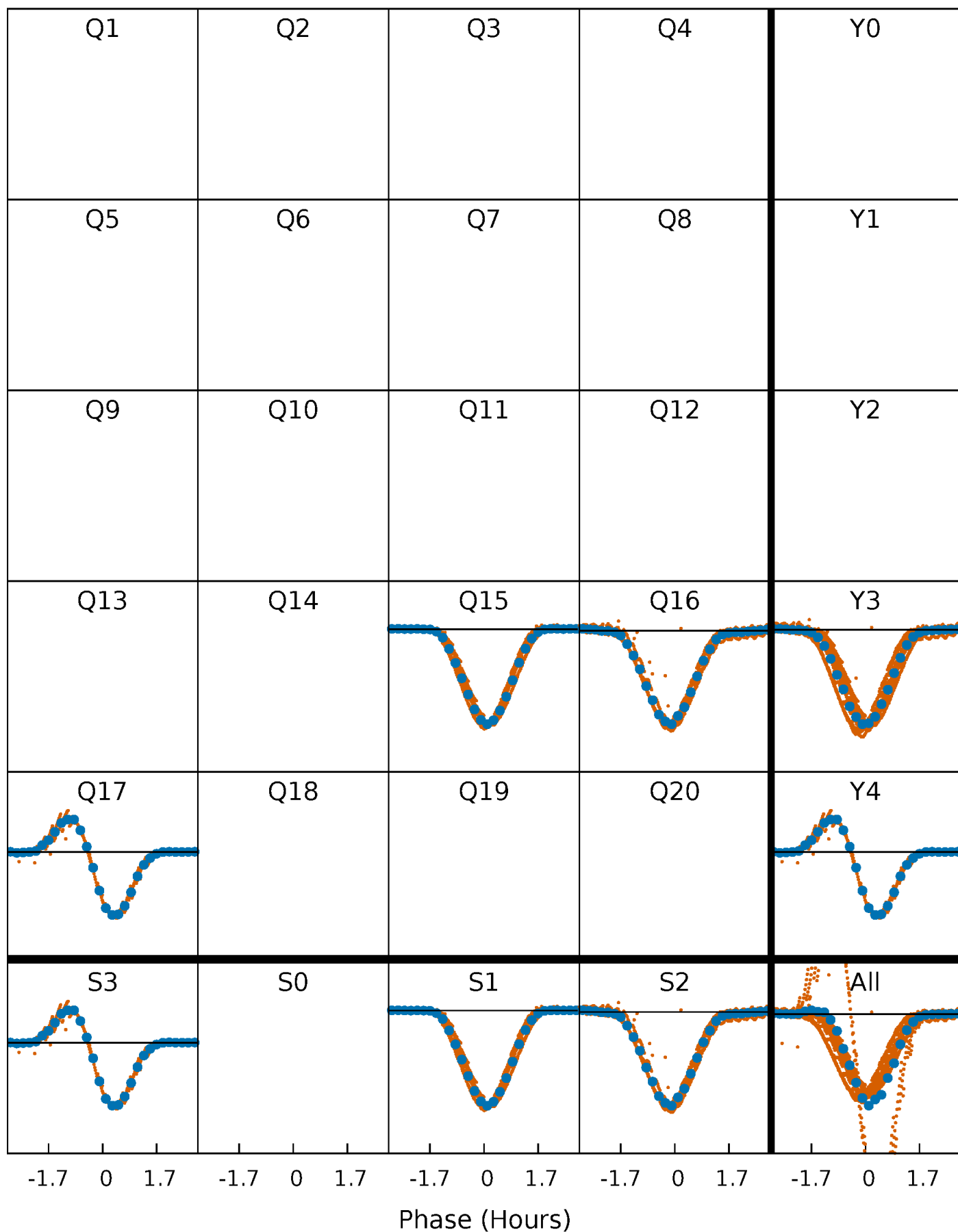
PDC Quarter-Phased Transit Curves

TCE 005024146-01 P= 0.787211 Days $T_0=131.585994$ (BKJD)



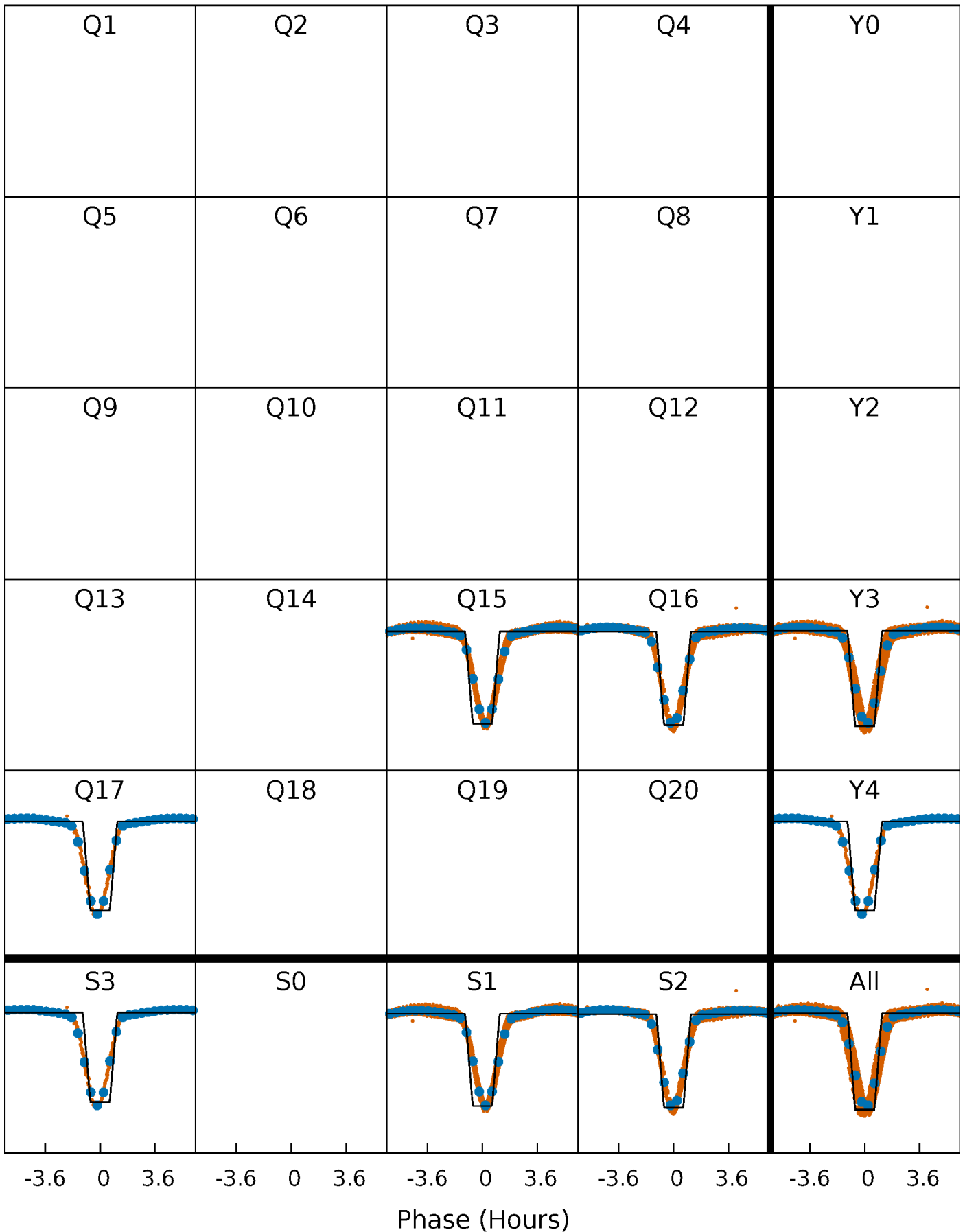
DV Quarter-Phased Transit Curves

TCE 005024146-01 P= 0.787211 Days $T_0=131.585994$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

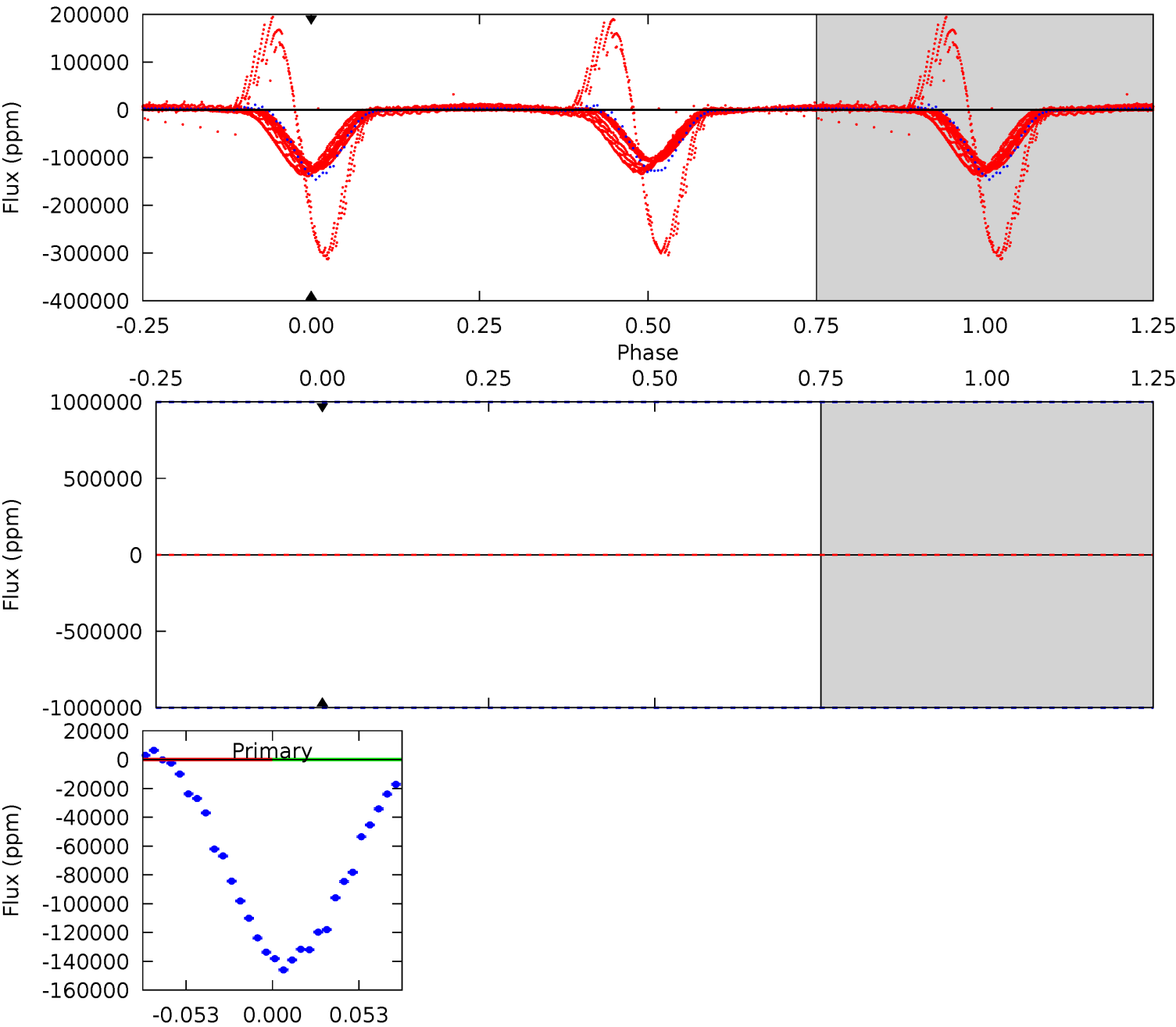
TCE 005024146-01 P= 0.787211 Days $T_0=131.581601$ (BKJD)



DV Model-Shift Uniqueness Test

005024146-01, P = 0.787211 Days, E = 131.585994 Days

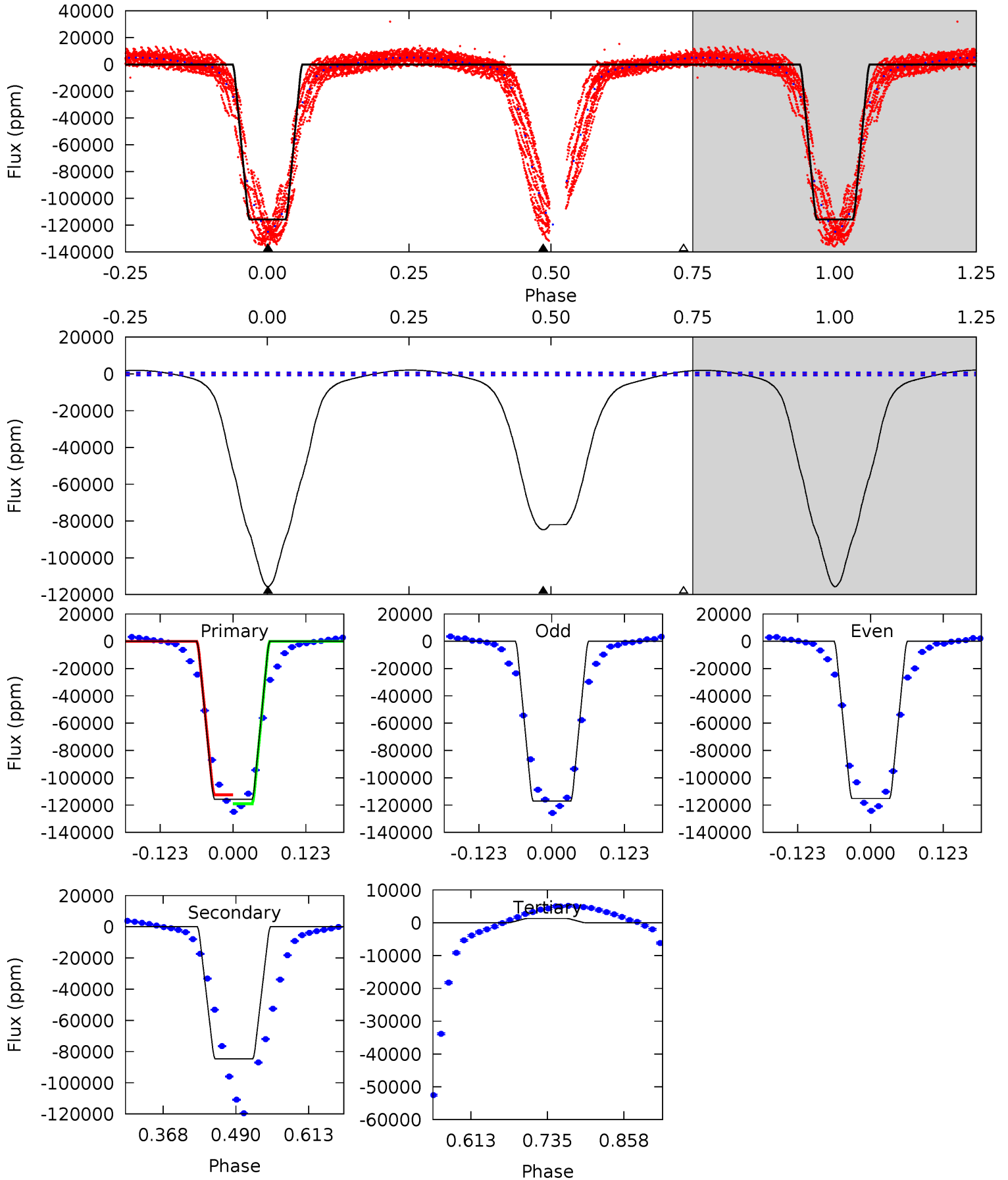
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005024146-01, P = 0.787211 Days, E = 131.581601 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
729.8	534.3	-8.22	0	4.52	1.54	16.0	738.1	729.8	542.6	534.3	5.79	1.01	0.02	20.1



Stellar Parameters For KIC 005024146

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6147^{+213}_{-213}	$4.396^{+0.193}_{-0.215}$	$-1.520^{+0.300}_{-0.250}$	$0.883^{+0.233}_{-0.175}$	$0.707^{+0.076}_{-0.024}$	$1.445^{+1.484}_{-0.744}$
	+3%/-3%	+4%/-5%	+20%/-16%	+26%/-20%	+11%/-3%	+103%/-51%
Source	KIC0	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 005024146-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$24.66^{+11.00}_{-10.11}$	2927^{+243}_{-203}	-3577^{+10991}_{-3376}	$-0.654^{+26.678}_{-19.632}$
Alt.	-84704 ± 159	$34.97^{+11.78}_{-9.70}$	2941^{+232}_{-236}	5639^{+956}_{-651}	$9.388^{+8.645}_{-4.150}$

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

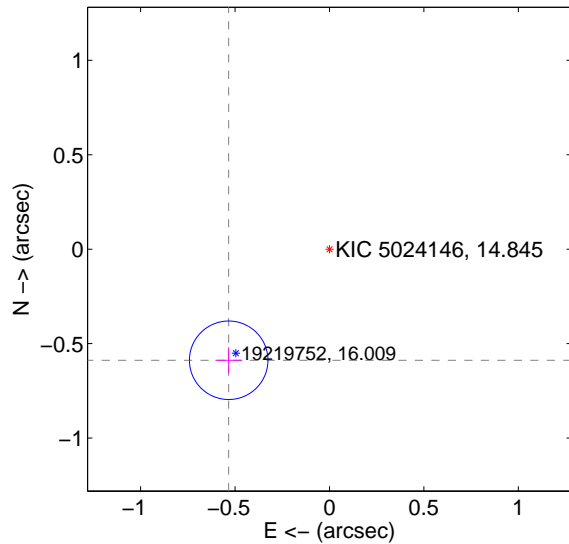
Supplemental centroid analysis for 005024146-01. Kepler magnitude: 14.85. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

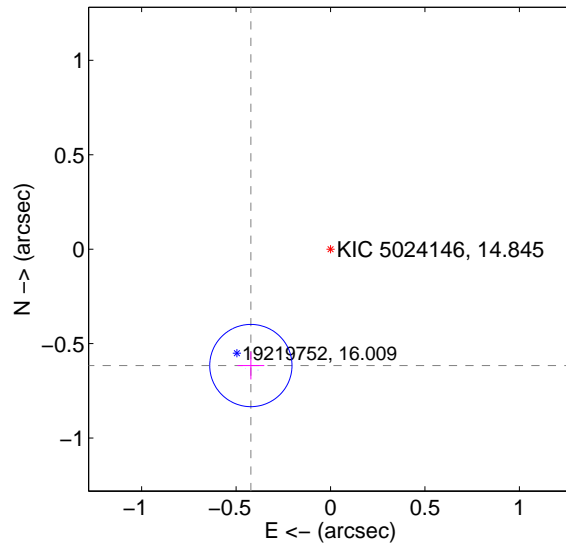
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.794 ± 0.069	11.47	0.534 ± 0.070	-0.588 ± 0.069
PRF-fit source offset from KIC position	0.747 ± 0.073	10.29	0.422 ± 0.071	-0.616 ± 0.073
photometric centroid source offset	1.05 ± 0.01	202.08	-0.05 ± 0.01	-1.05 ± 0.01

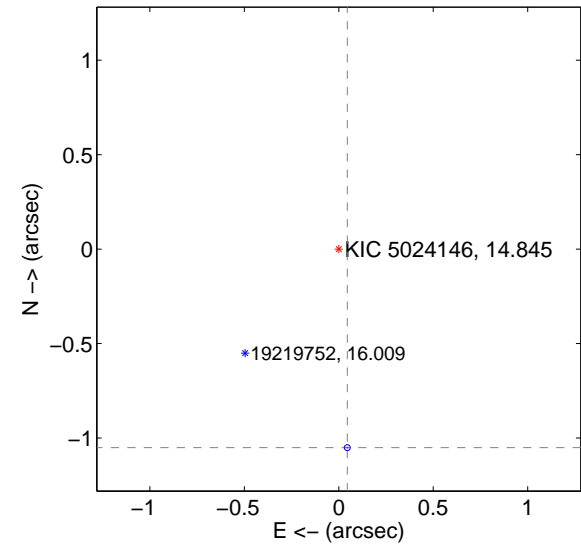
offset from difference PRF-fit to OOT PRF-fit



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.



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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



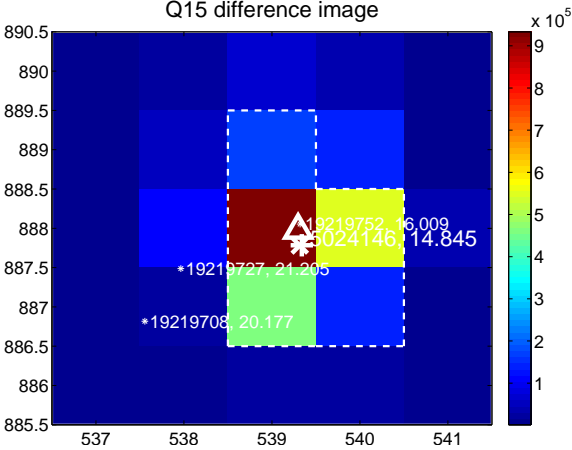
Q14 no difference image



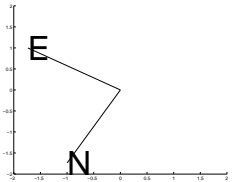
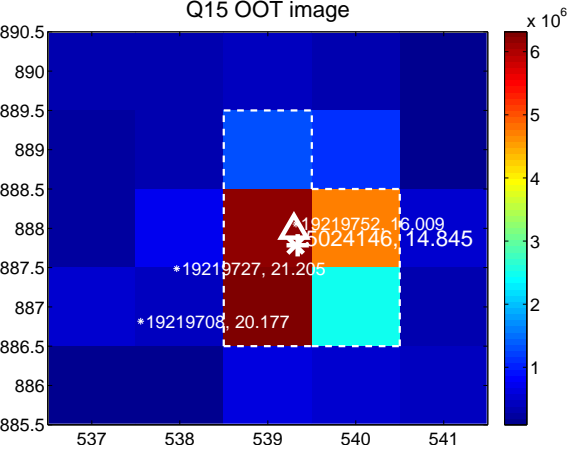
Q14 no OOT image



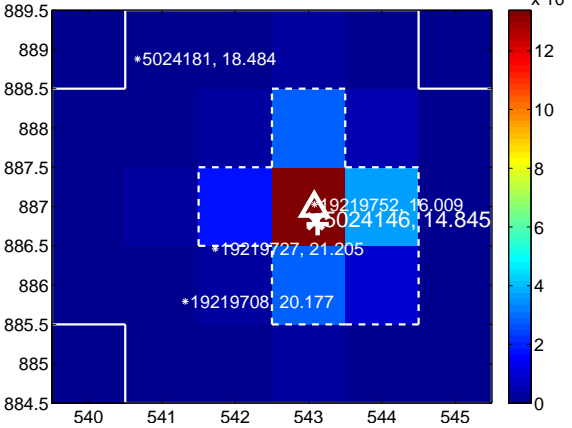
Q15 difference image



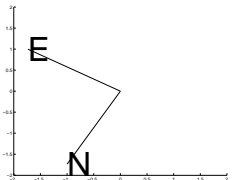
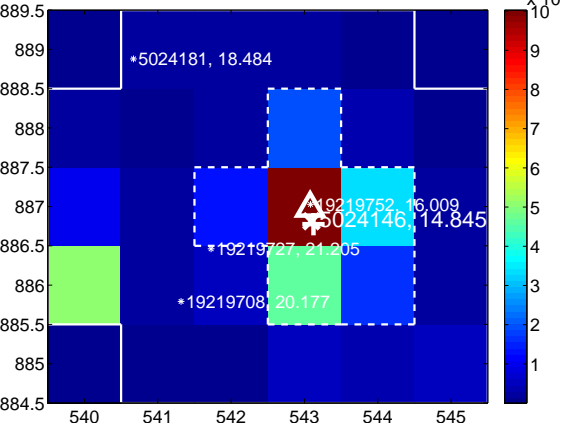
Q15 OOT image



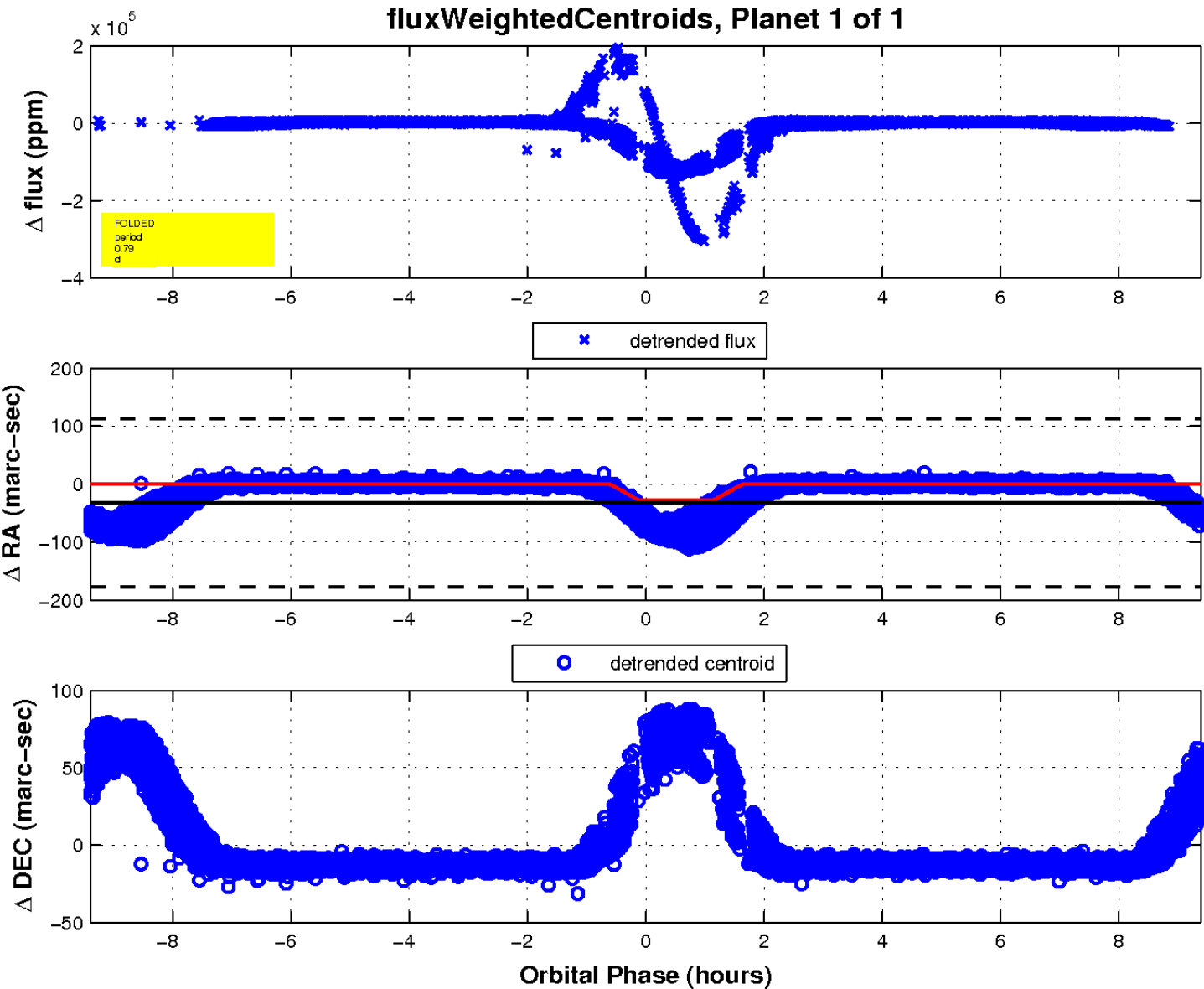
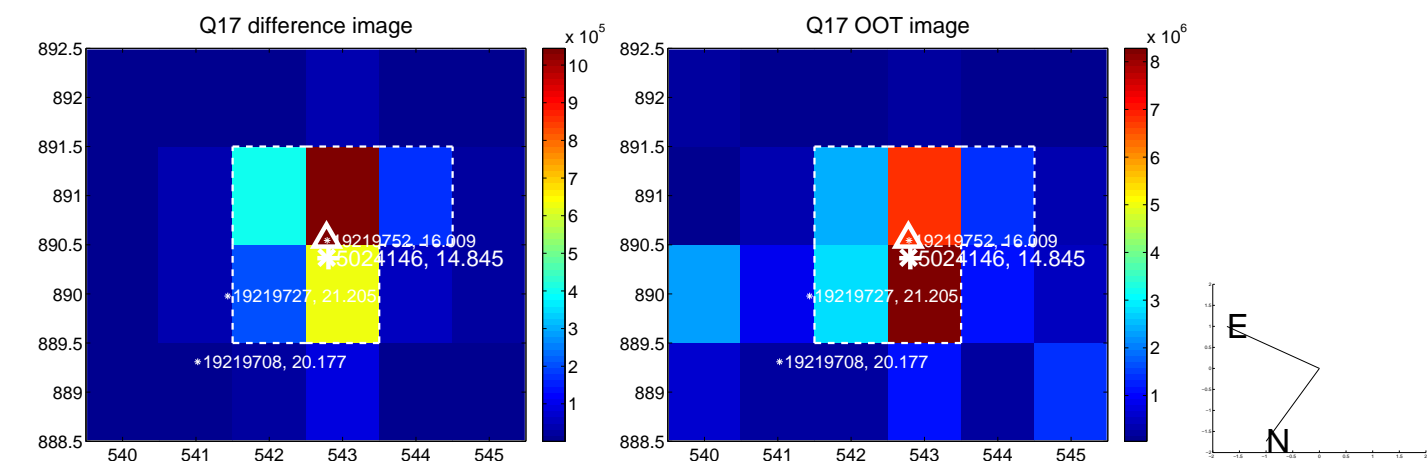
Q16 difference image



Q16 OOT image



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



UKIRT Image

