

KIC 008817487

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})
008817487-01	OBS	No	374.220218	134.405748	625.4	12.500	9.5	-1.0	0.94	5942	2.33	0.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008817487-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS—HALO_GHOST

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

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

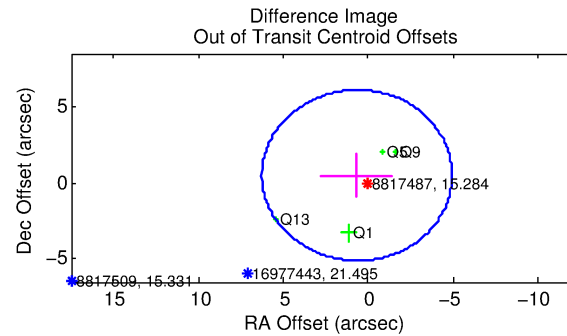
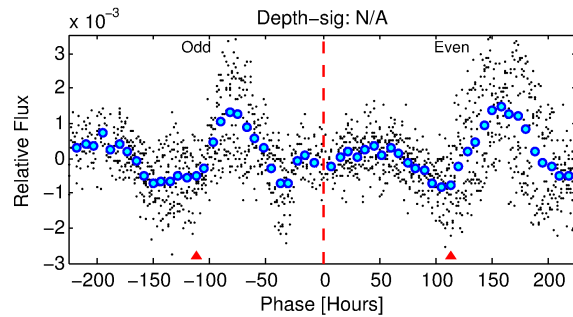
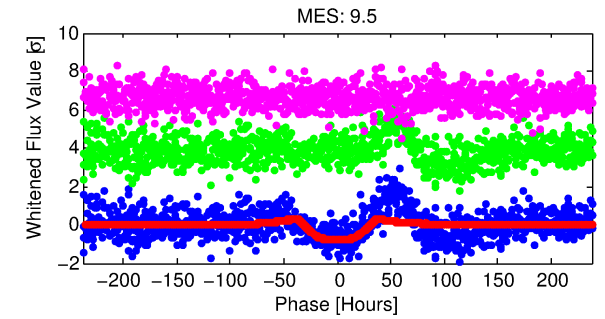
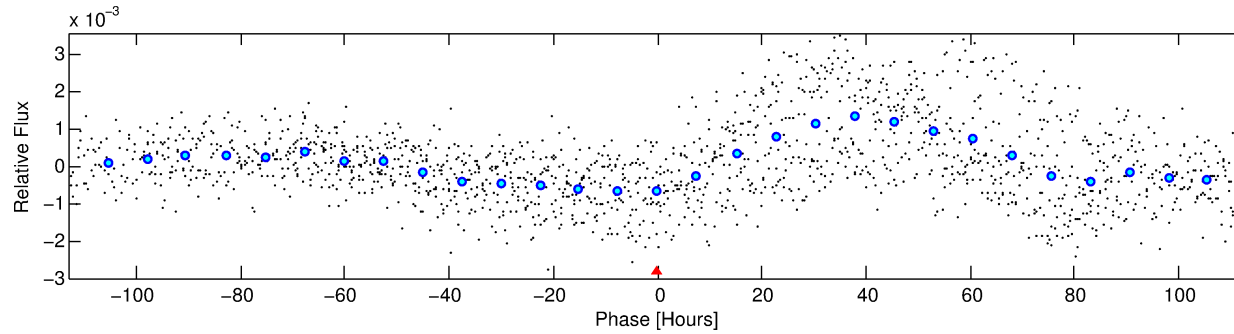
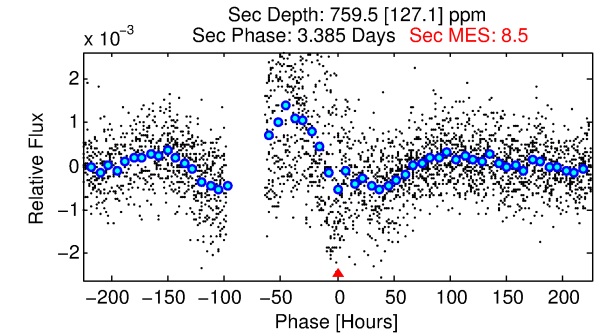
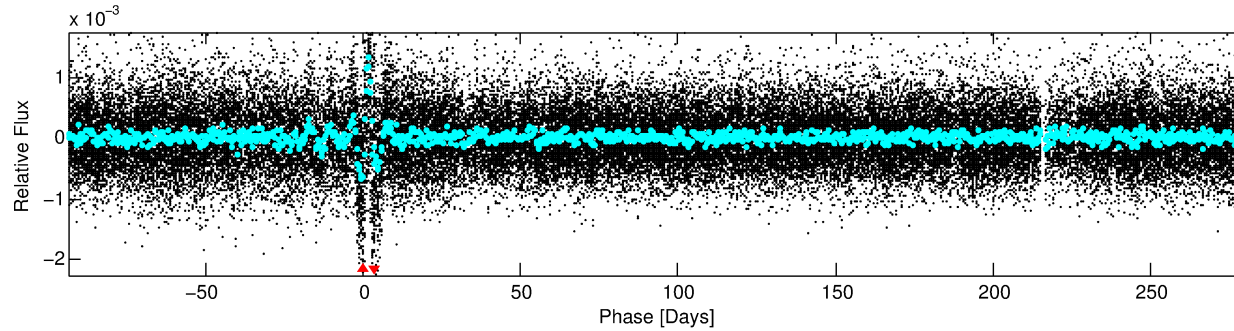
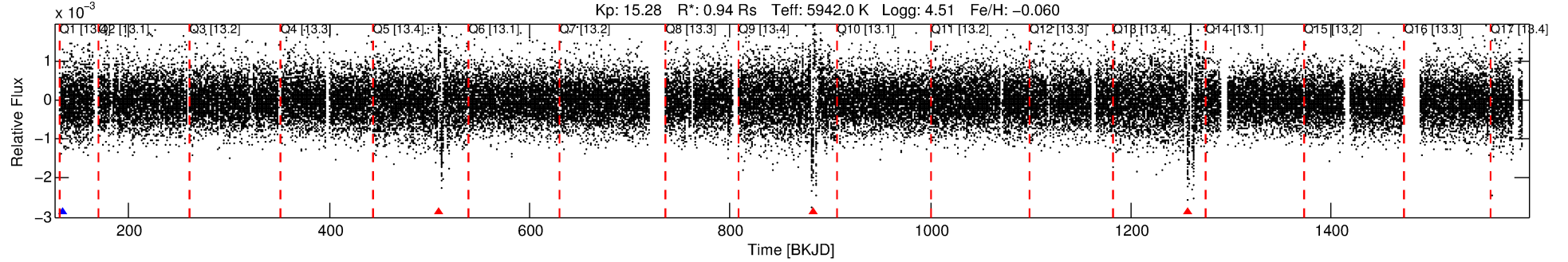
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008817487-01

No Significant Match Found

DV One-Page Summary

KIC: 8817487 Candidate: 1 of 1 Period: 374.220 d



TPS TCE Results:

Period = 374.22022 d
Epoch = 134.4057 BKJD

DV fit results are unavailable

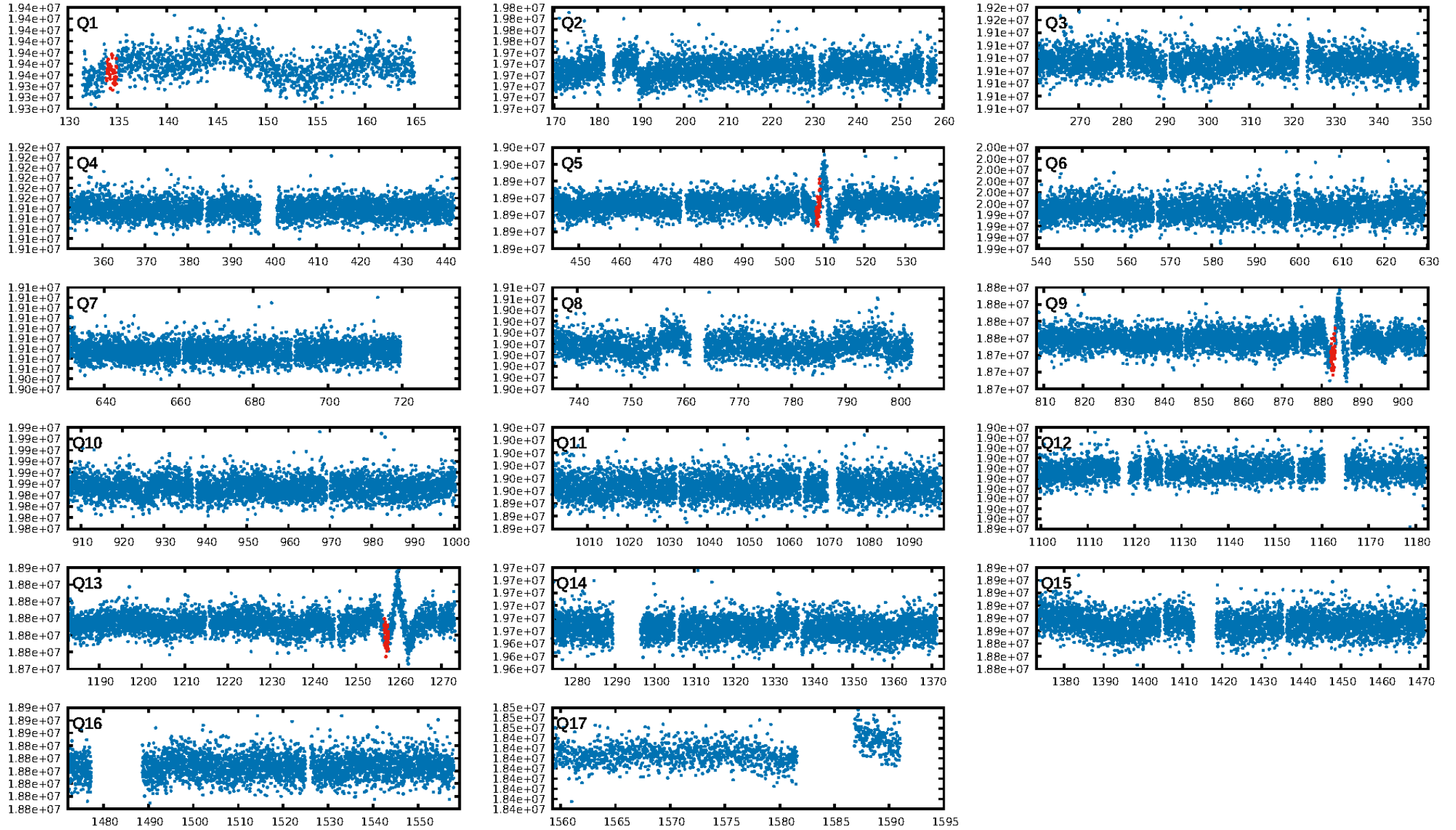
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.90e-12
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 0.02597
Centroid-sig: 48.1%
Centroid-so: 1.454 arcsec [0.68σ]
OotOffset-rm: 0.818 arcsec [0.44σ]
KicOffset-rm: 0.852 arcsec [0.45σ]
OotOffset-st: 0/0/0/4 [4]
KicOffset-st: 0/0/0/4 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [4/4]

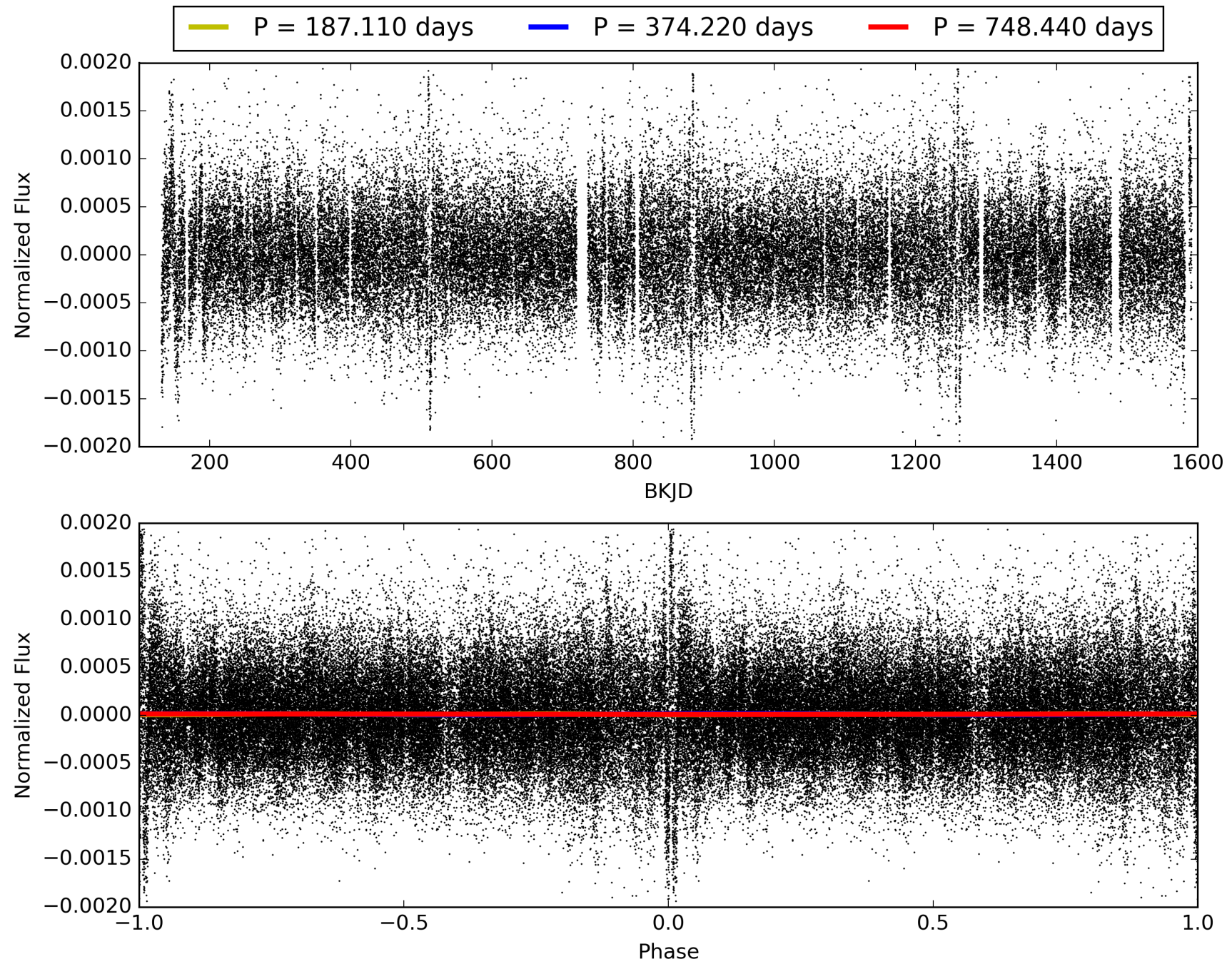
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:38:05 Z

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

TCE 008817487-01, PDC Light Curves

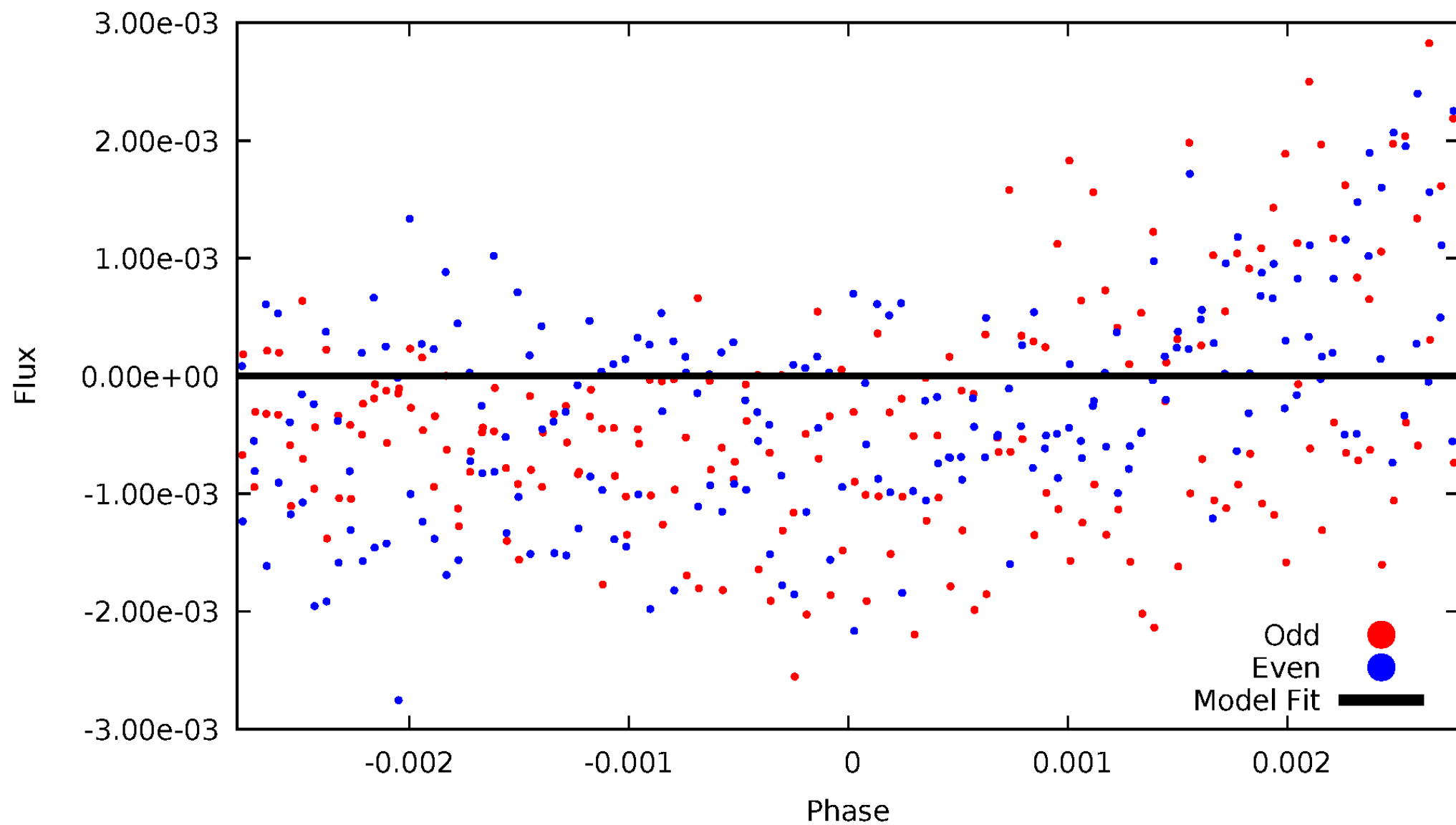


TCE 008817487-01



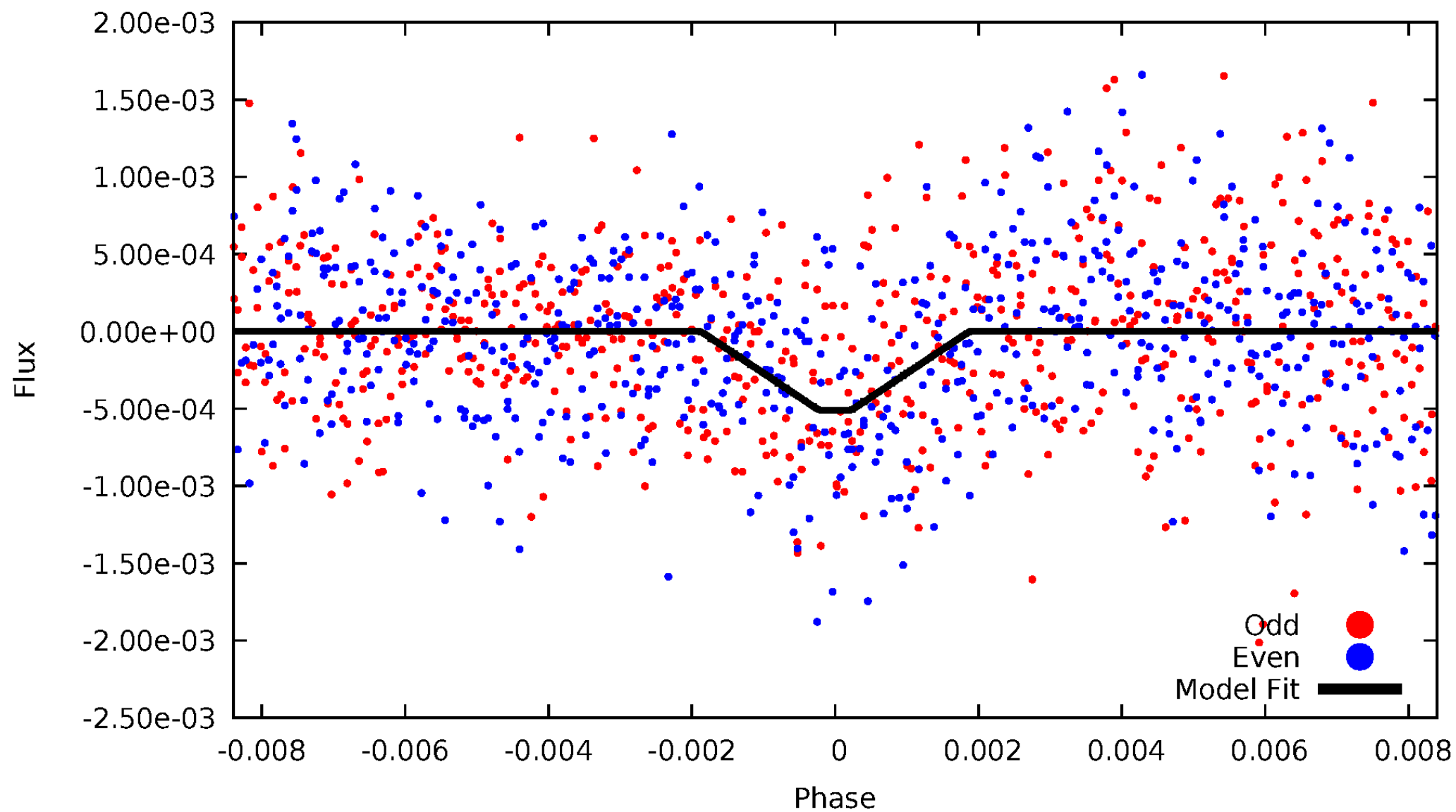
DV Odd/Even

TCE 008817487-01



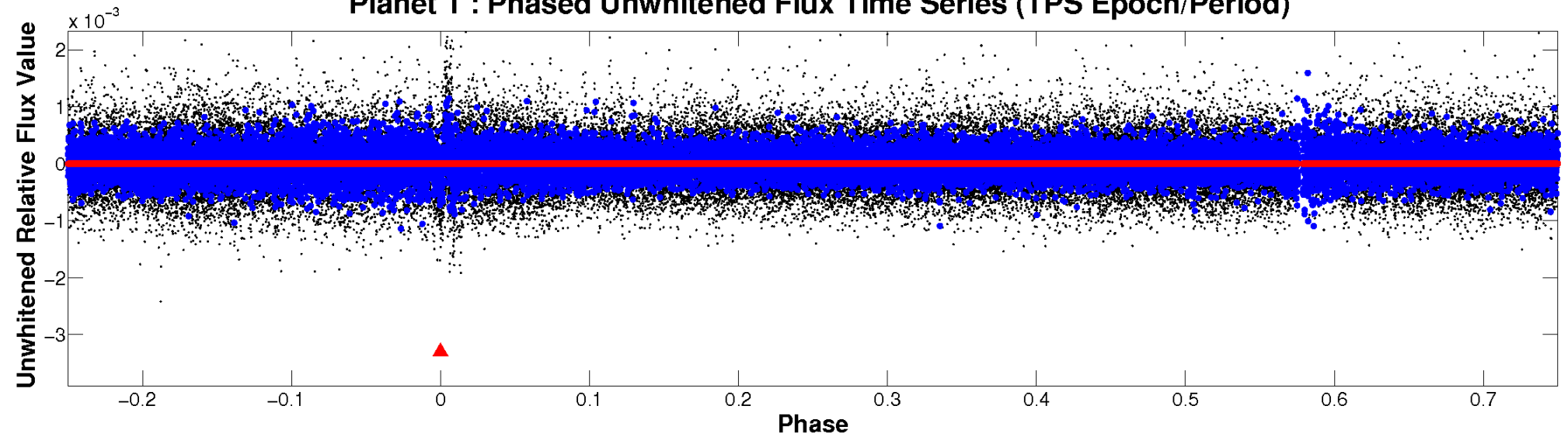
ALT Odd/Even

TCE 008817487-01

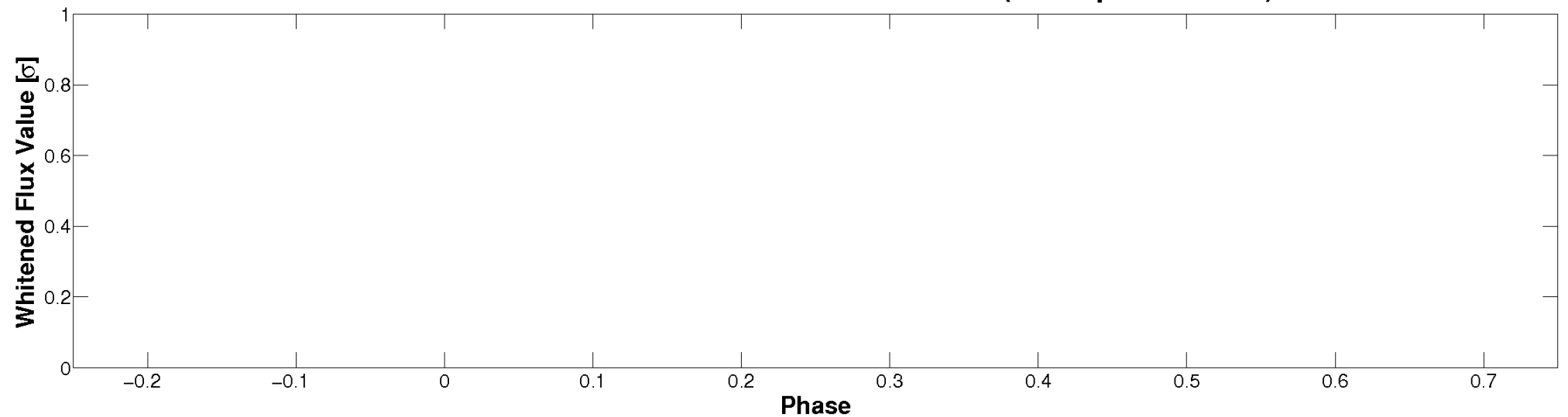


Non-Whitened Vs. Whitened Light Curve

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

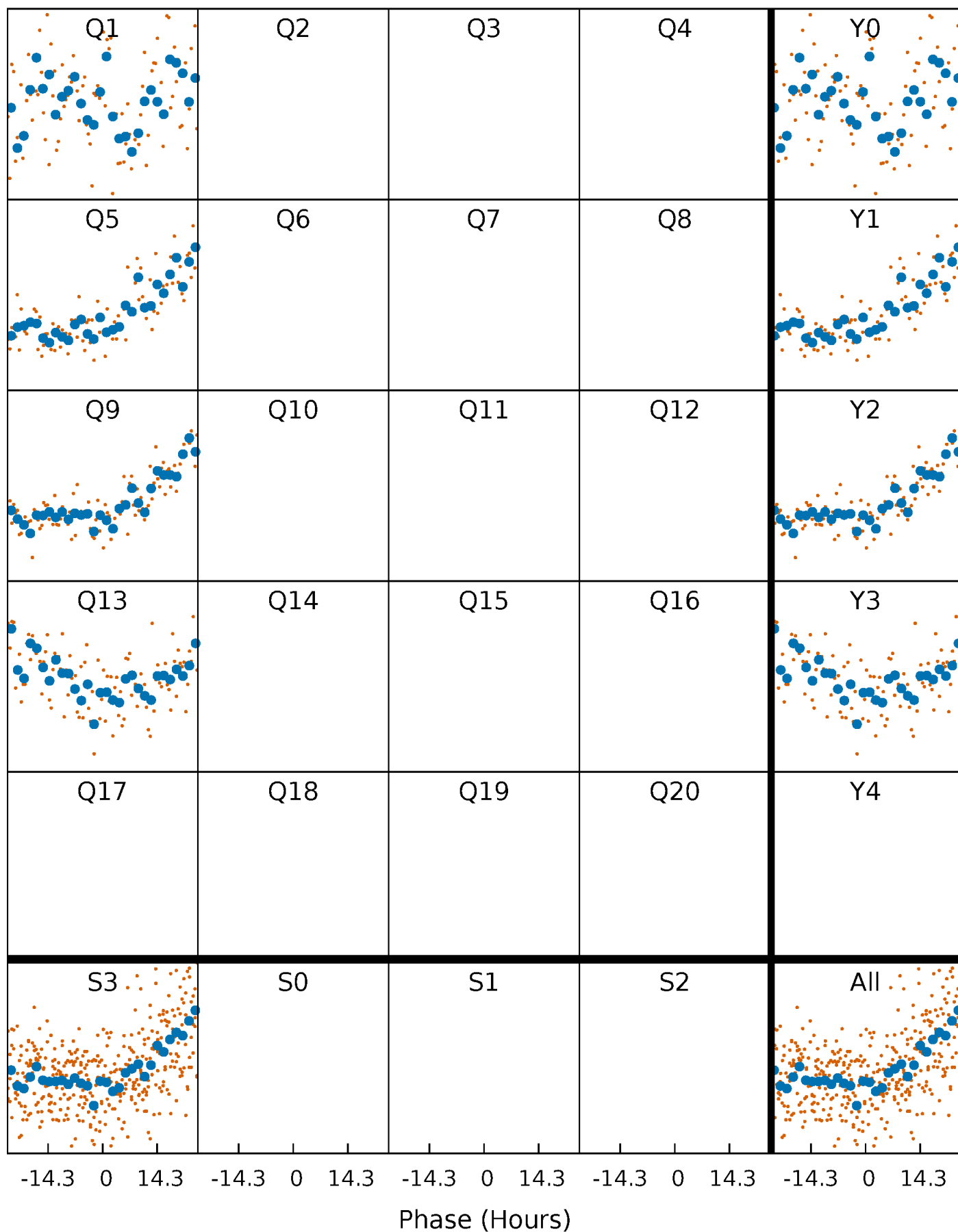


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



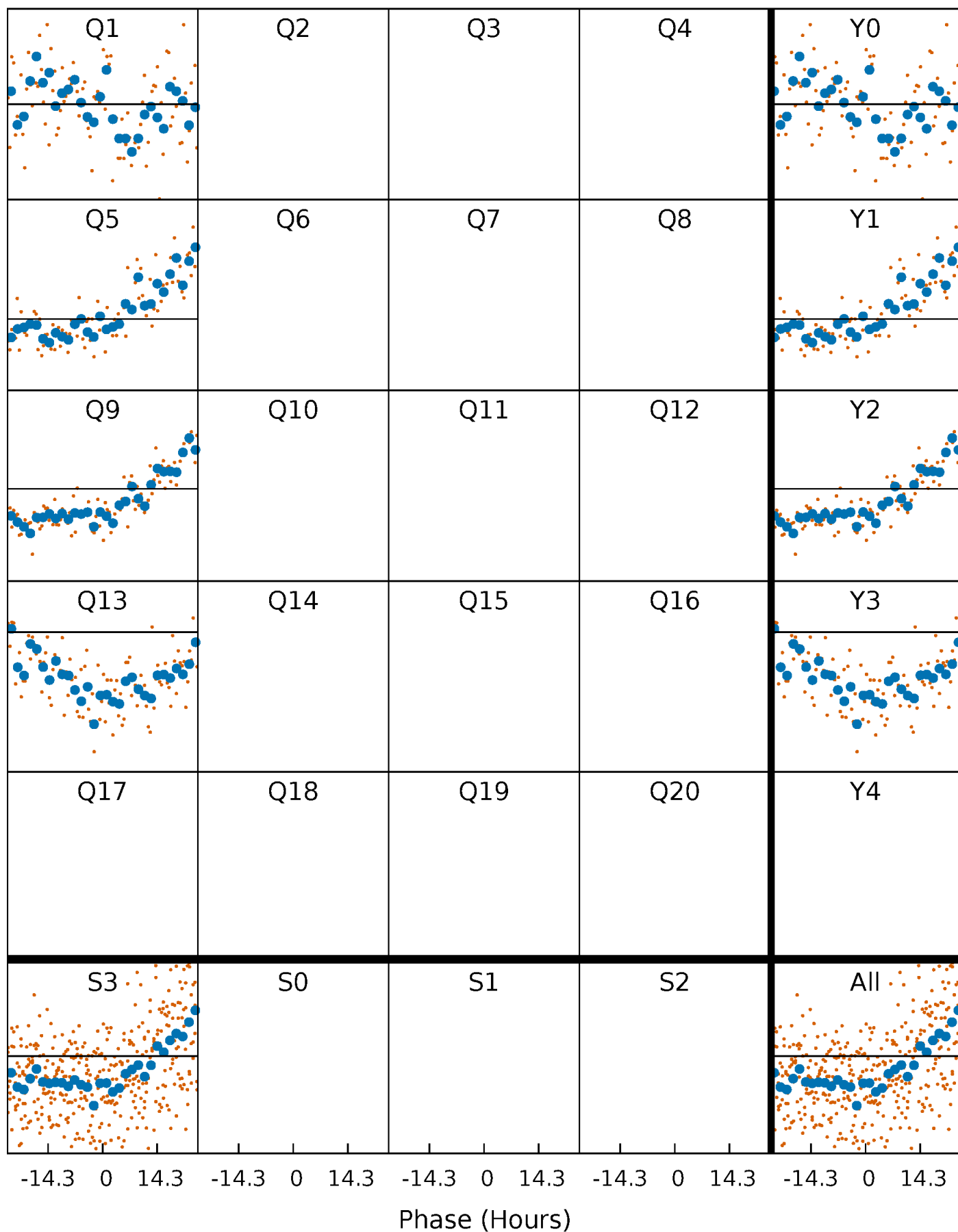
PDC Quarter-Phased Transit Curves

TCE 008817487-01 P=374.220218 Days $T_0=134.405748$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008817487-01 $P=374.220218$ Days $T_0=134.405748$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

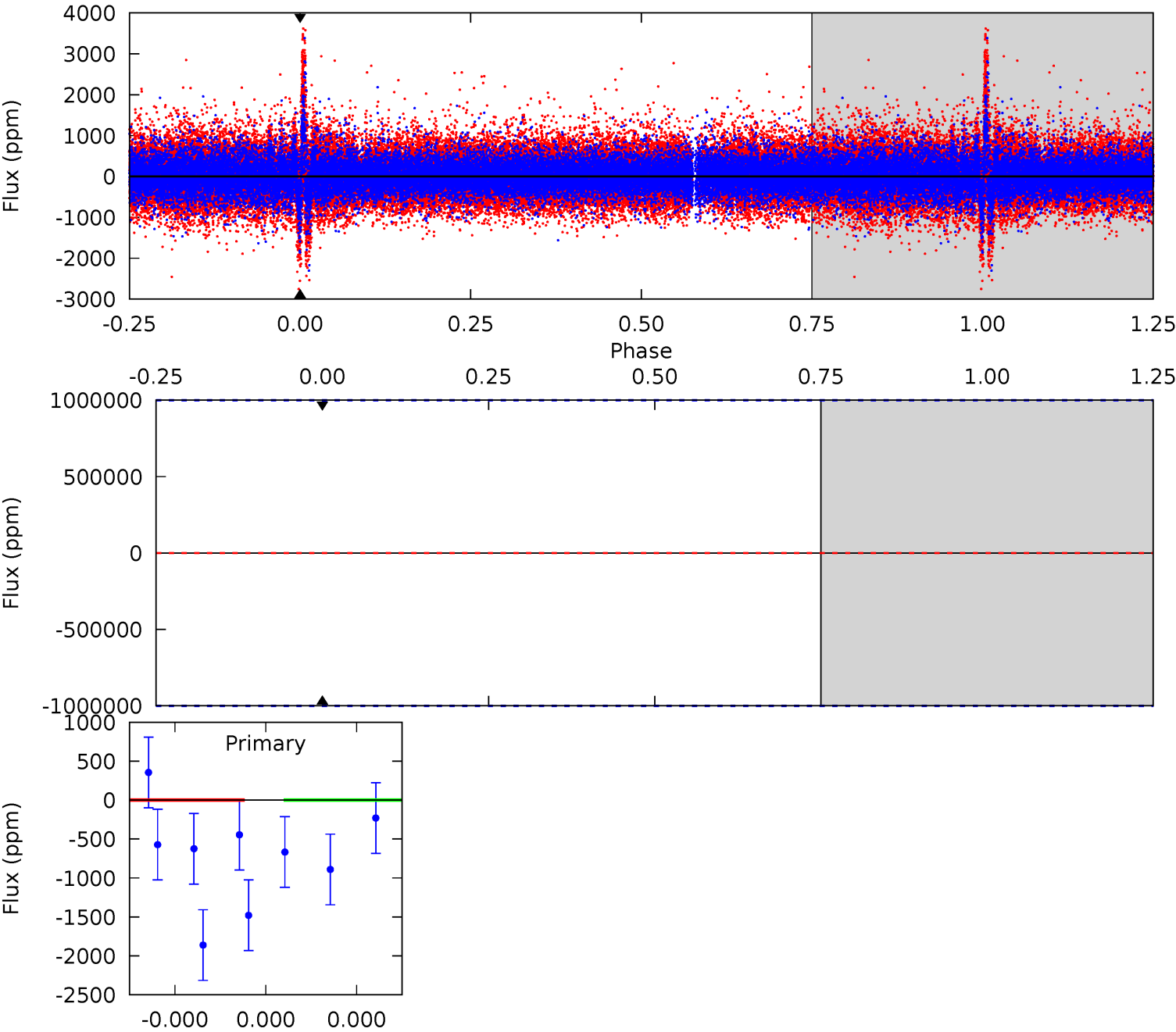
TCE 008817487-01 P=374.220218 Days $T_0=134.510179$ (BKJD)



DV Model-Shift Uniqueness Test

008817487-01, P = 374.220218 Days, E = 134.405748 Days

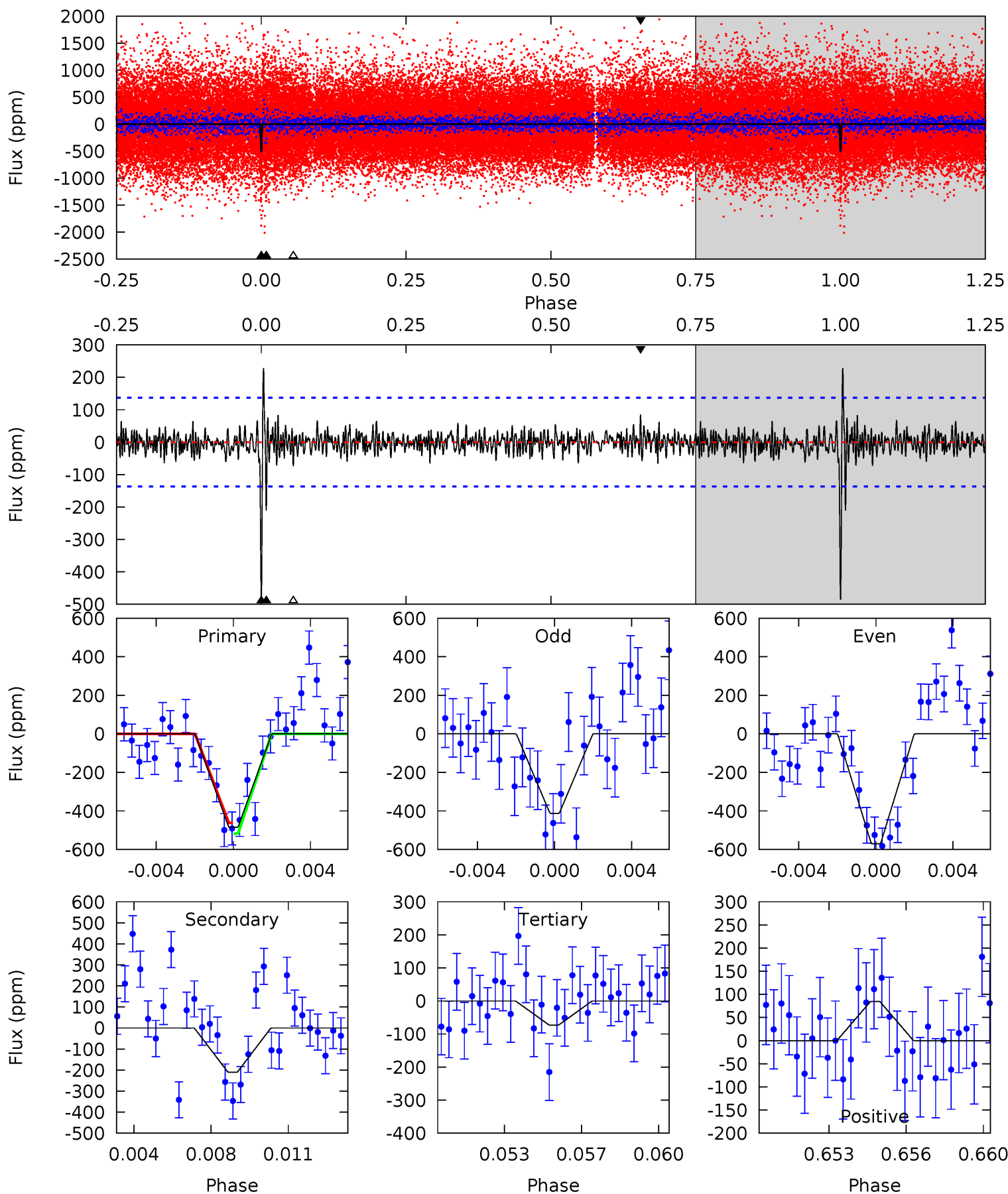
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008817487-01, P = 374.220218 Days, E = 134.510179 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	8.02	2.79	3.23	5.21	2.90	0.92	15.7	15.2	5.23	4.79	2.99	1.17	0.32	1.05



Stellar Parameters For KIC 008817487

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5942^{+160}_{-177}	$4.506^{+0.044}_{-0.176}$	$-0.060^{+0.300}_{-0.300}$	$0.938^{+0.239}_{-0.096}$	$1.028^{+0.116}_{-0.129}$	$1.756^{+0.398}_{-0.799}$
	+3%/-3%	+1%/-4%	+500%/-500%	+25%/-10%	+11%/-13%	+23%/-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 008817487-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$8.68^{+8.54}_{-5.88}$	357^{+24}_{-15}	-3256^{+23814}_{-16603}	$-2353.604^{+1616429.650}_{-1151716.007}$
Alt.	-211 ± 26	$8.50^{+8.25}_{-5.90}$	357^{+22}_{-16}	3165^{+1547}_{-544}	1639^{+14127}_{-1216}

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

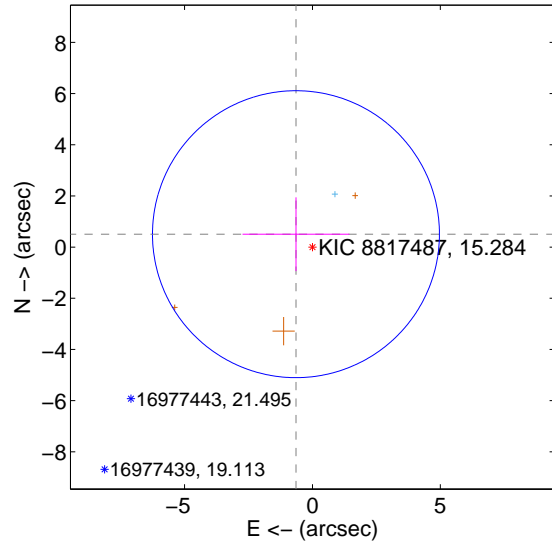
Supplemental centroid analysis for 008817487-01. Kepler magnitude: 15.28. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

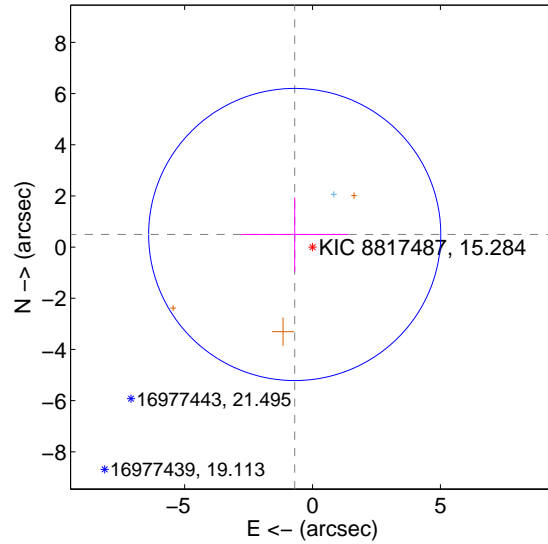
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.818 ± 1.869	0.44	0.644 ± 2.089	0.505 ± 1.442
PRF-fit source offset from KIC position	0.852 ± 1.903	0.45	0.696 ± 2.094	0.493 ± 1.448
photometric centroid source offset	1.45 ± 2.14	0.68	-0.98 ± 2.18	-1.07 ± 2.11

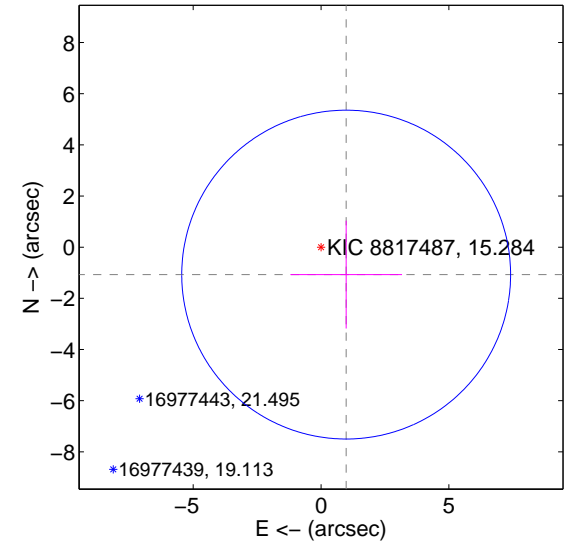
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

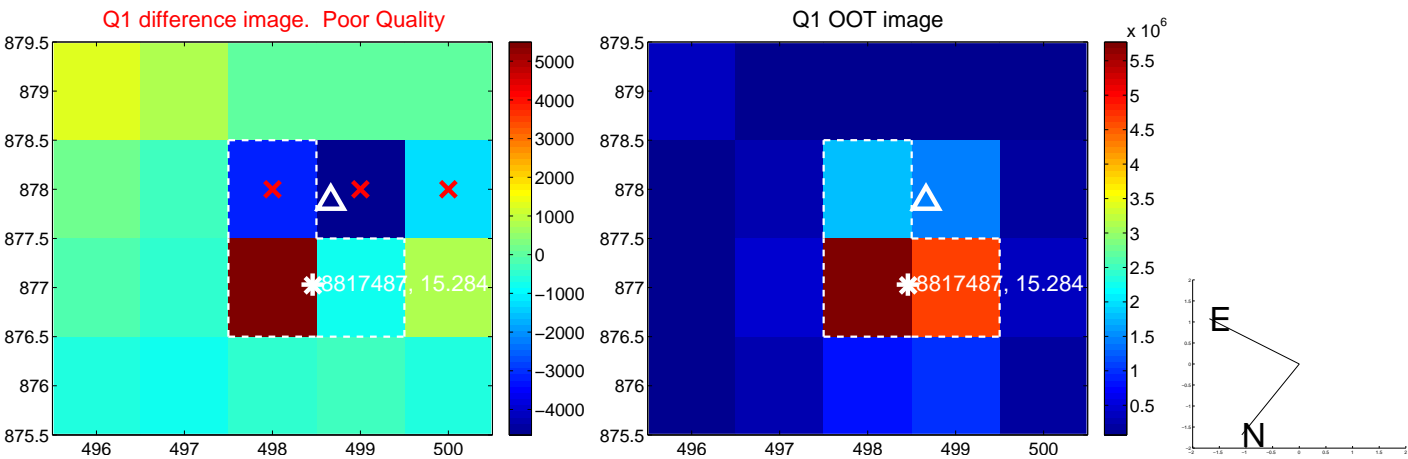


offset from photometric centroids

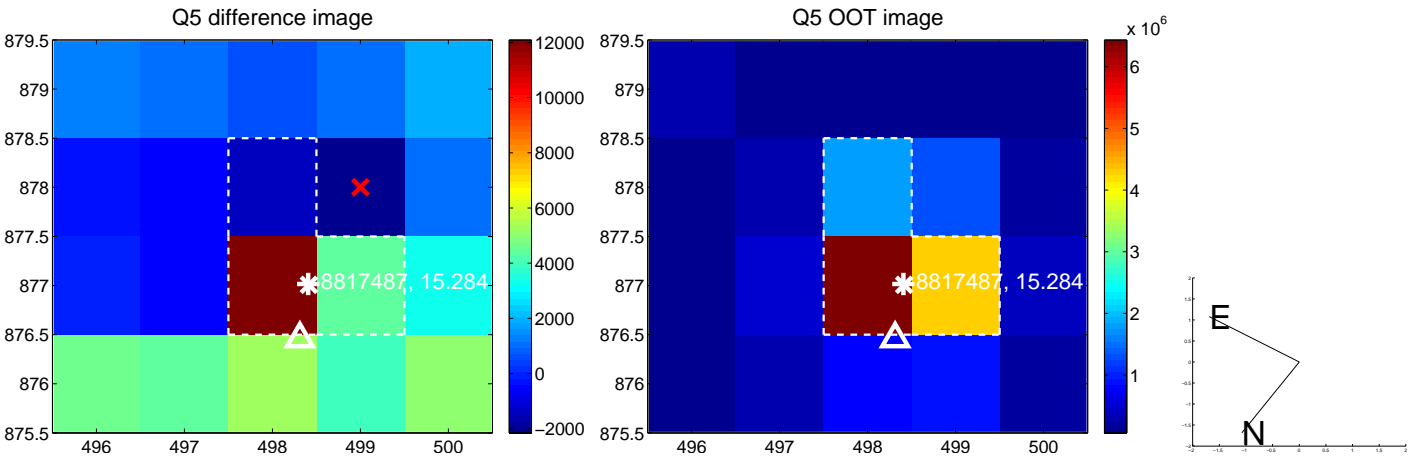


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

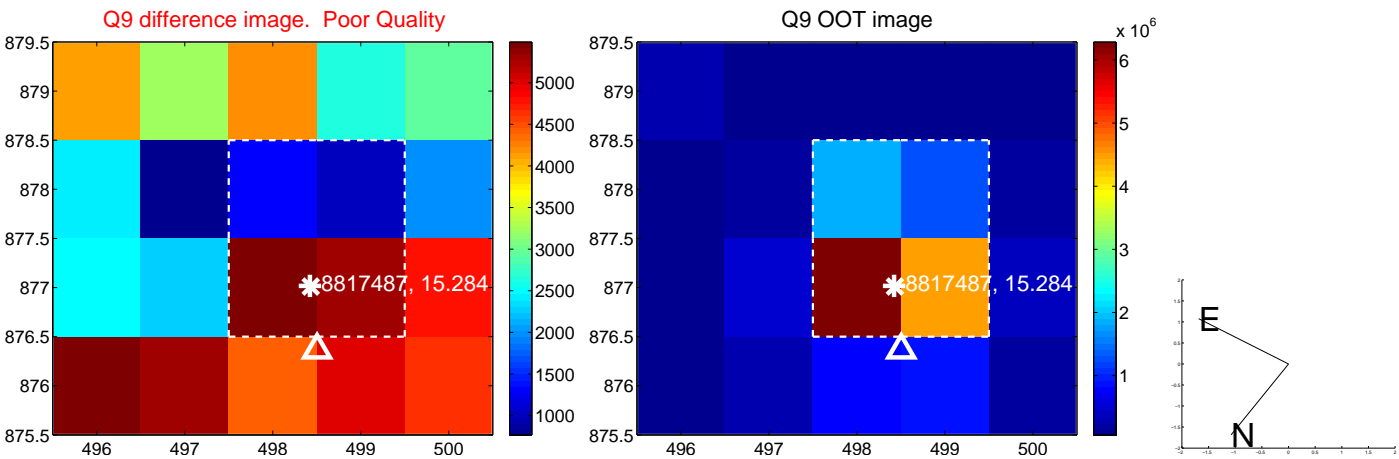
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



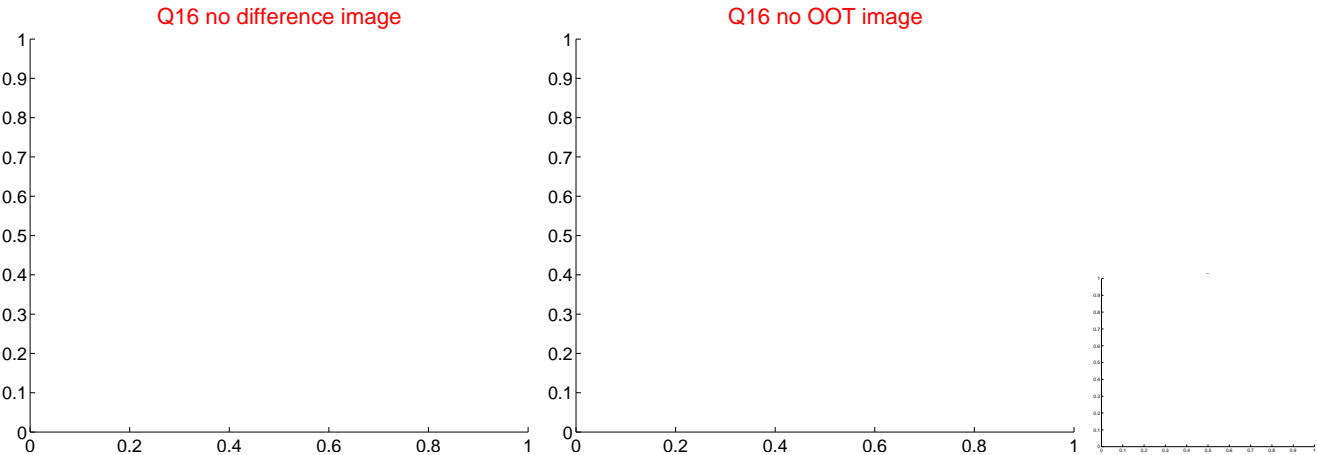
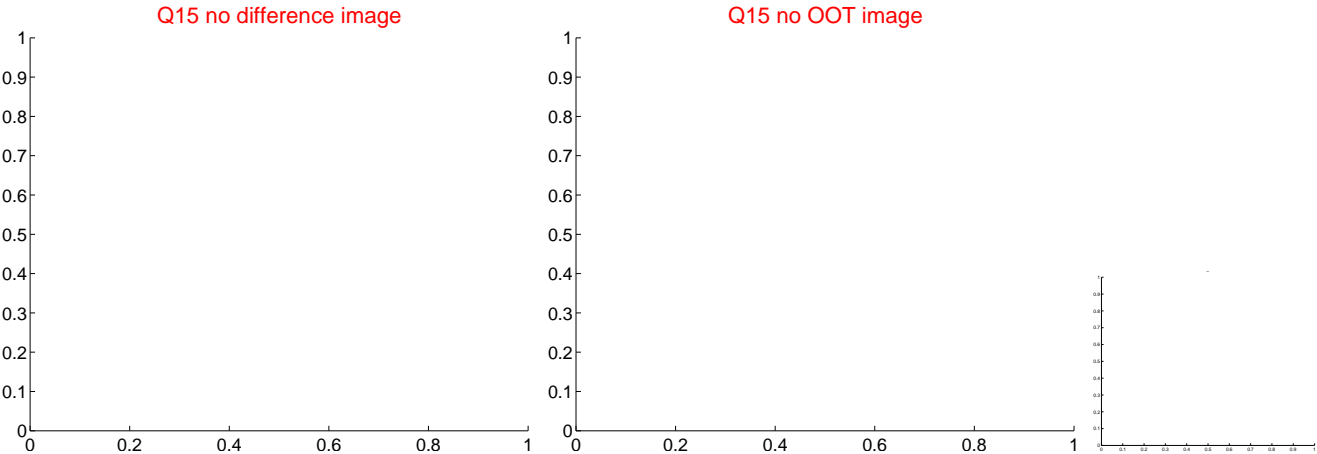
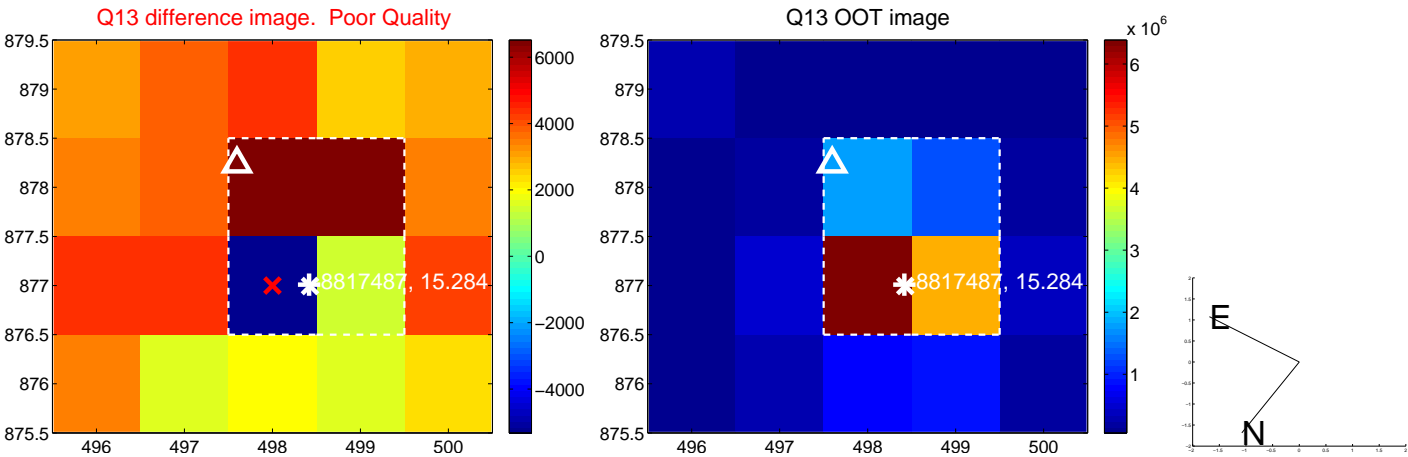
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



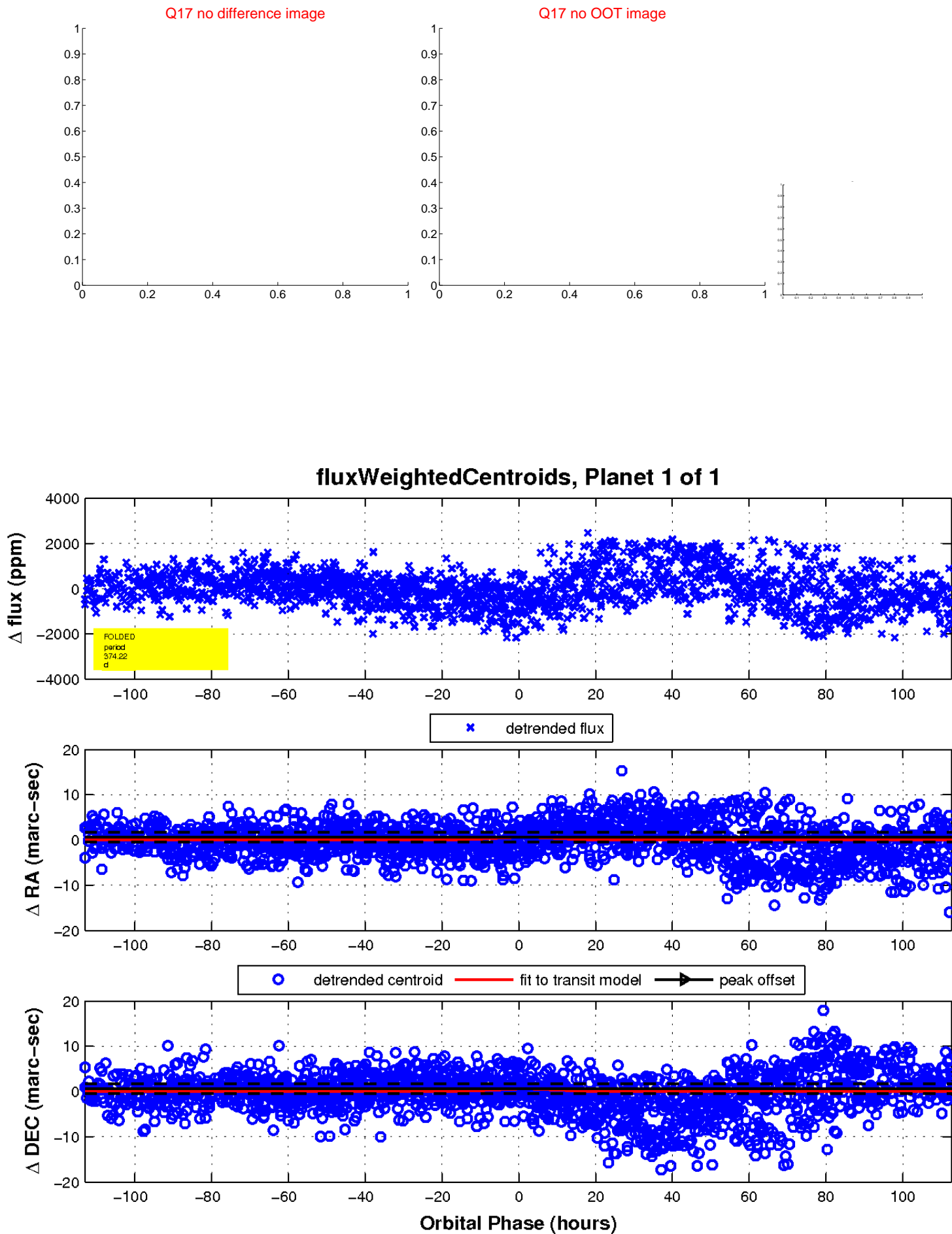
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

