

KIC 011416506

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})
011416506-01	OBS	No	3.936365	132.822081	0.0	23.181	12.9	0.0	2.72	6606	0.00	4192.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011416506-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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.

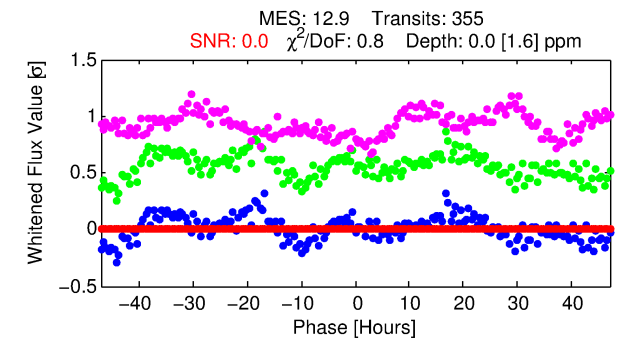
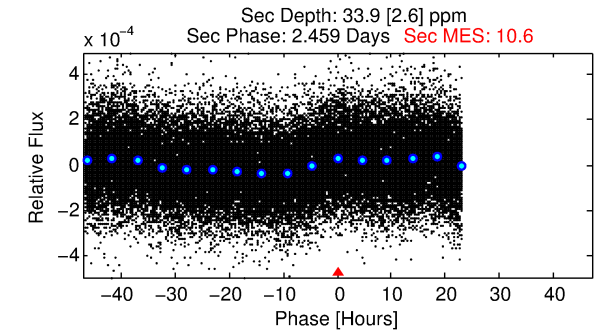
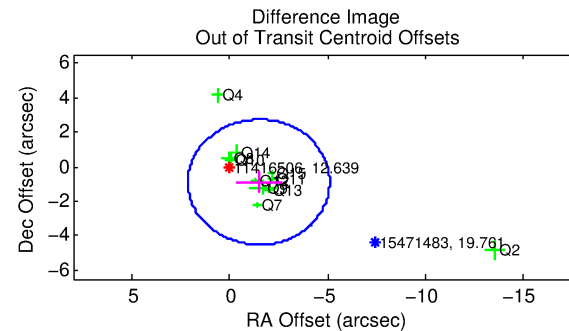
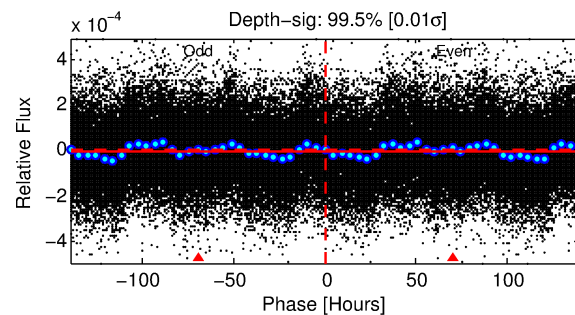
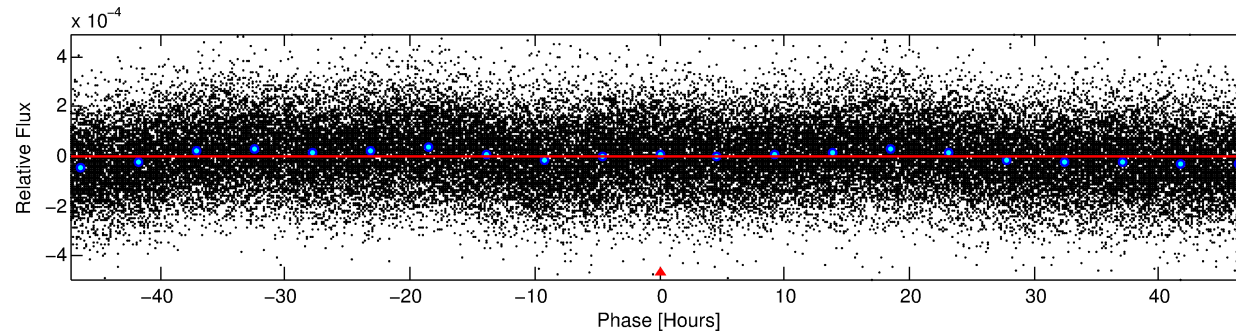
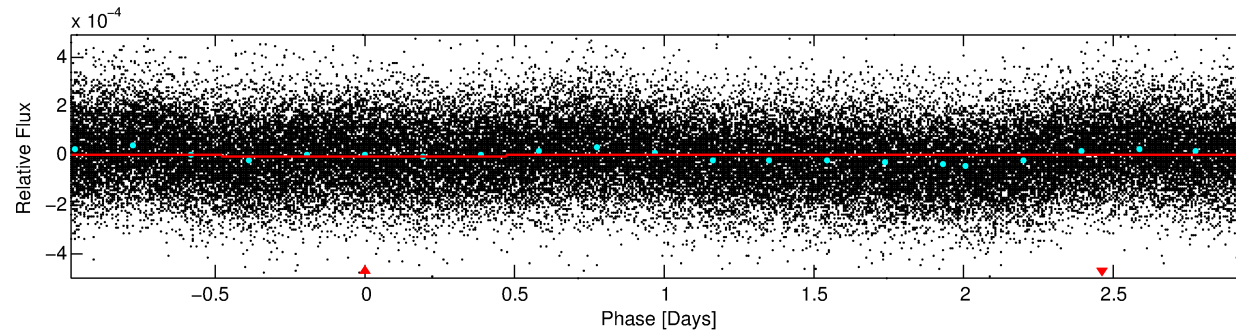
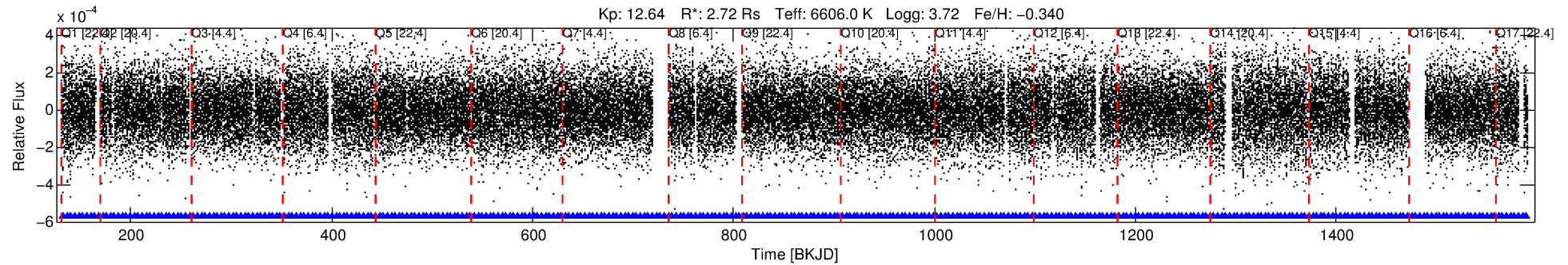
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011416506-01

No Significant Match Found

DV One-Page Summary

KIC: 11416506 Candidate: 1 of 1 Period: 3.936 d



DV Fit Results:

Period = 3.93636 [19.48853] d
Epoch = 132.8221 [3125.6750] BKJD
Rp/R* = 0.0000 [0.1100]
a/R* = 1.12 [438.57]
b = 0.87 [1455.25]
Seff = 4192.25 [27778.88]
Teq = 2052 [3399] K
Rp = 0.00 [32.69] Re
a = 0.0549 [0.1823] AU
Ag = 9383088.24 [250487758888.64] [0.00]
Teff = 175576 [1171805302] K [0.00]

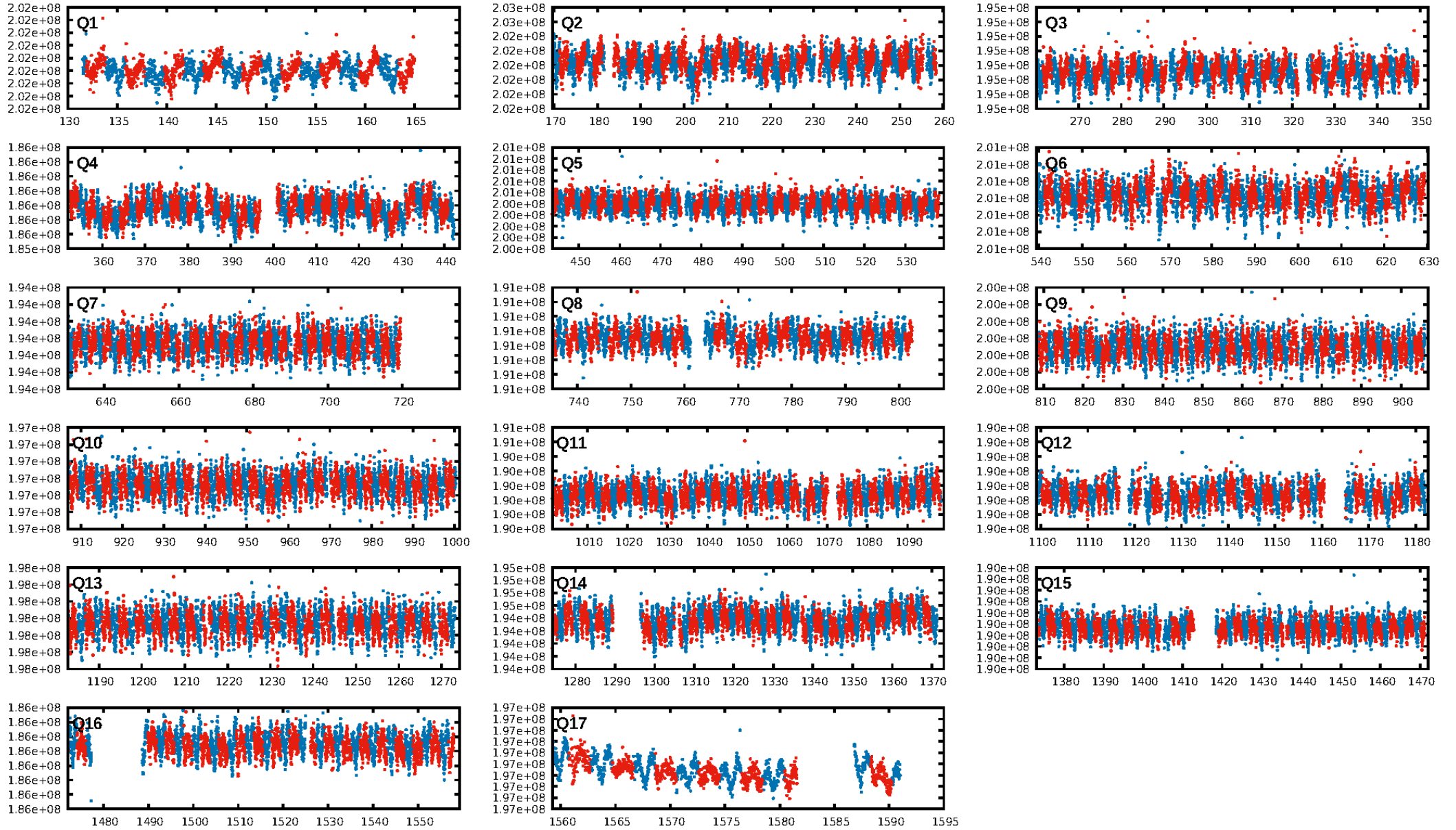
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.16e-30
RollingBand-fgt: 1.00 [339/339]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.732 arcsec [1.43 σ]
OotOffset-rm: 1.869 arcsec [1.65 σ]
OotOffset-st: 3/3/3/2 [11]
KicOffset-st: 3/3/3/2 [11]
DiffImageQuality-fgm: 0.00 [0/11]
DiffImageOverlap-fno: 1.00 [17/17]

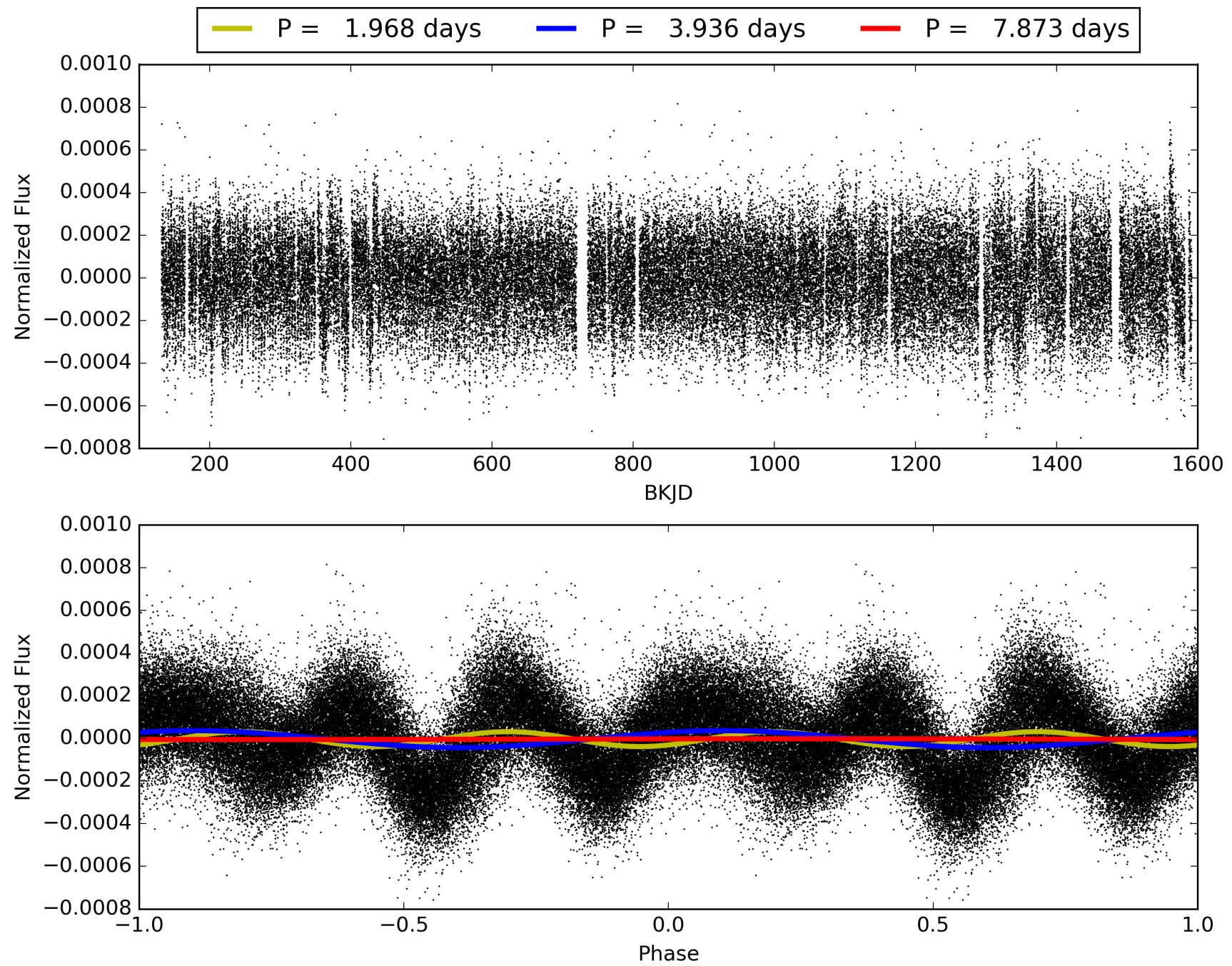
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:23:12 Z

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

TCE 011416506-01, PDC Light Curves

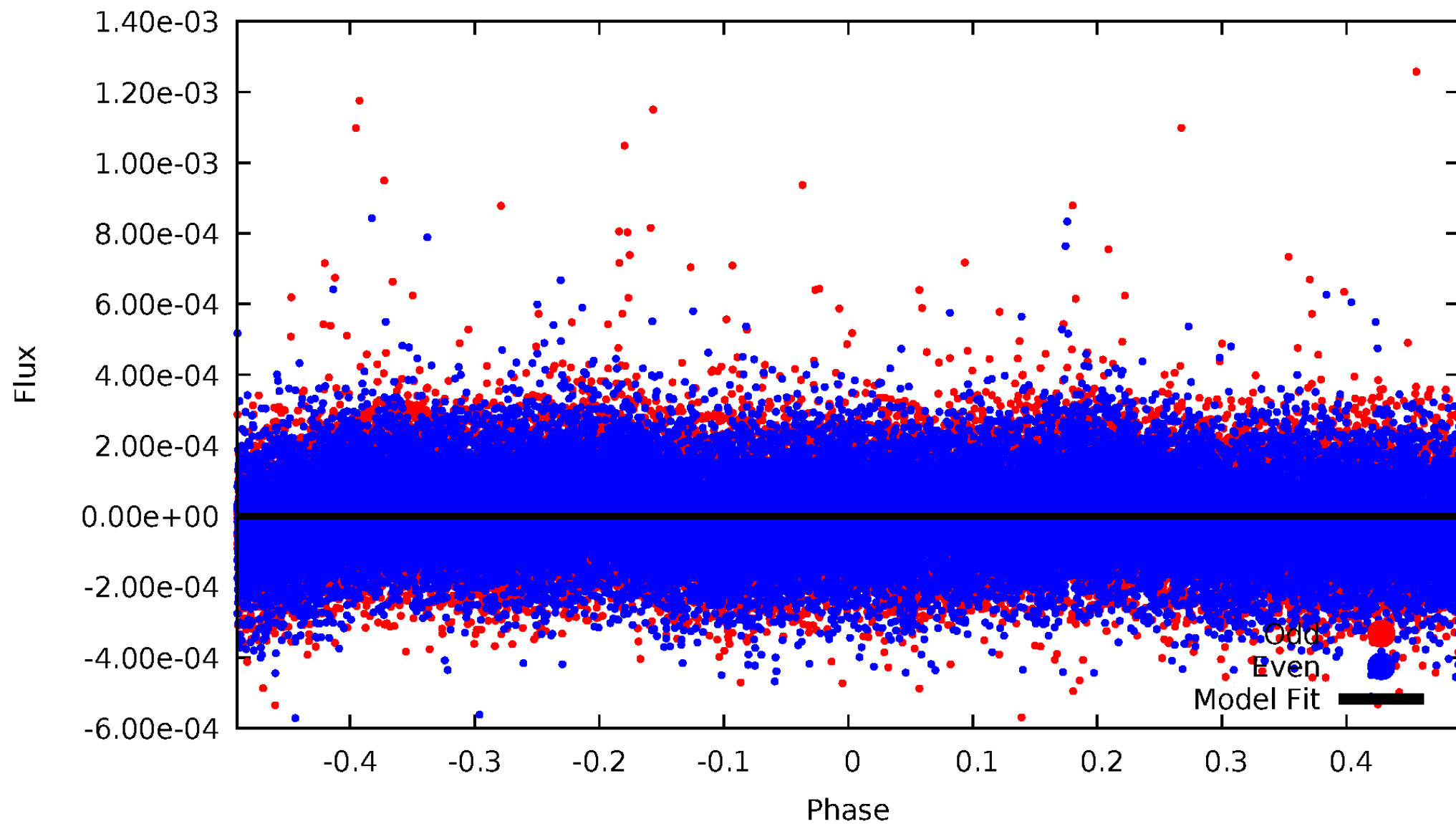


TCE 011416506-01



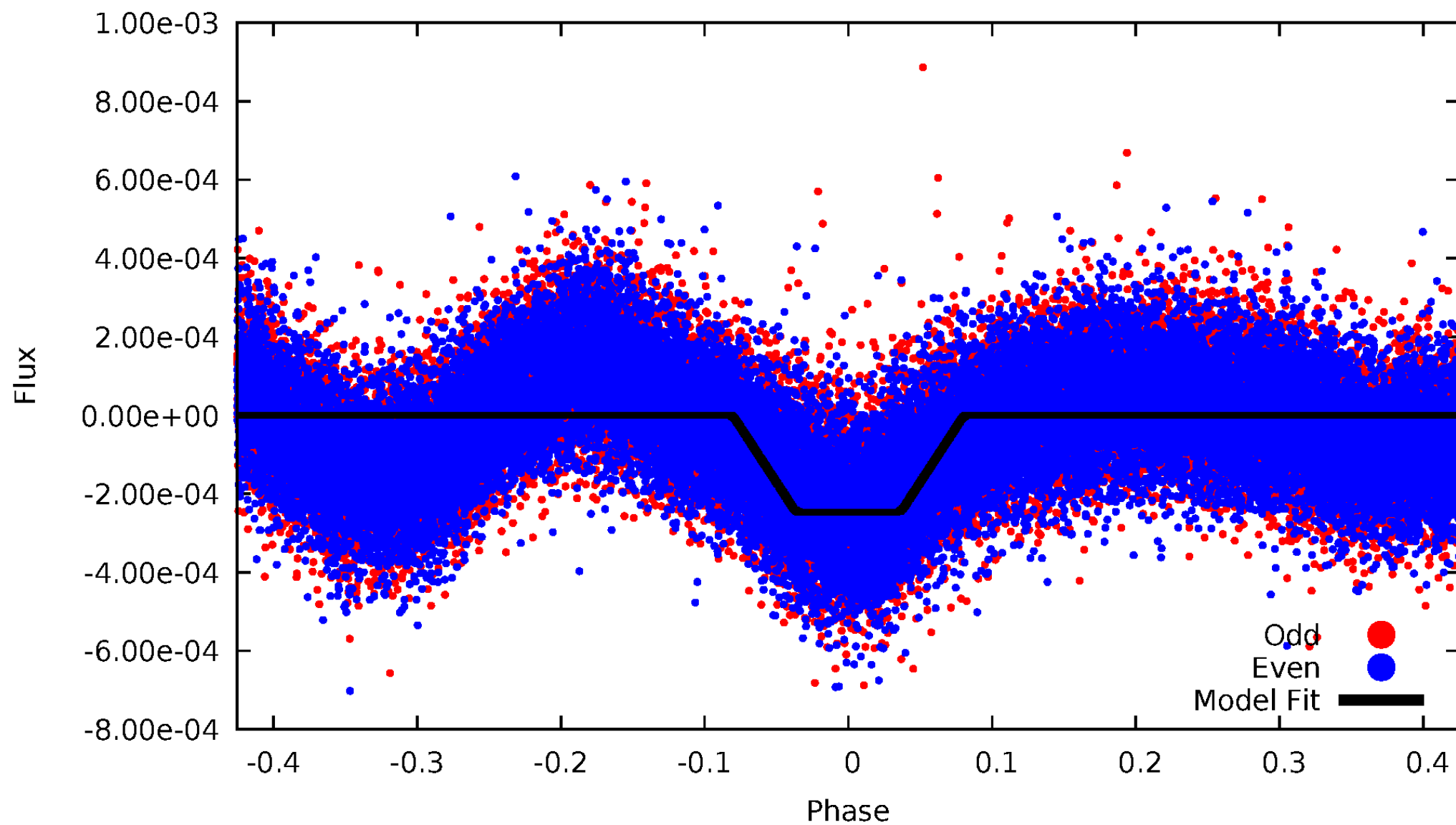
DV Odd/Even

TCE 011416506-01



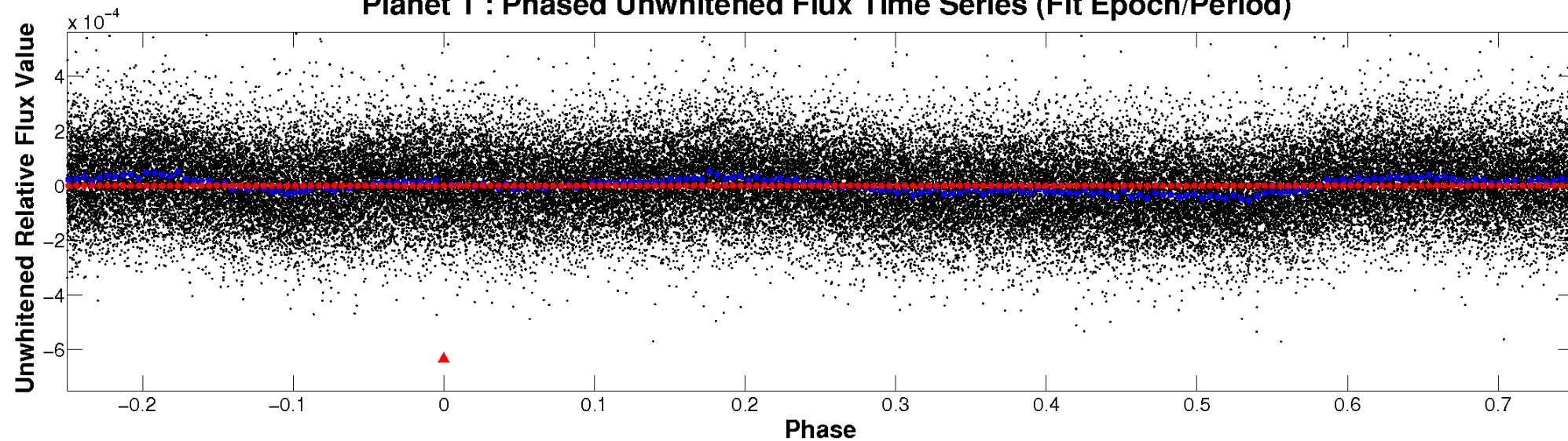
ALT Odd/Even

TCE 011416506-01

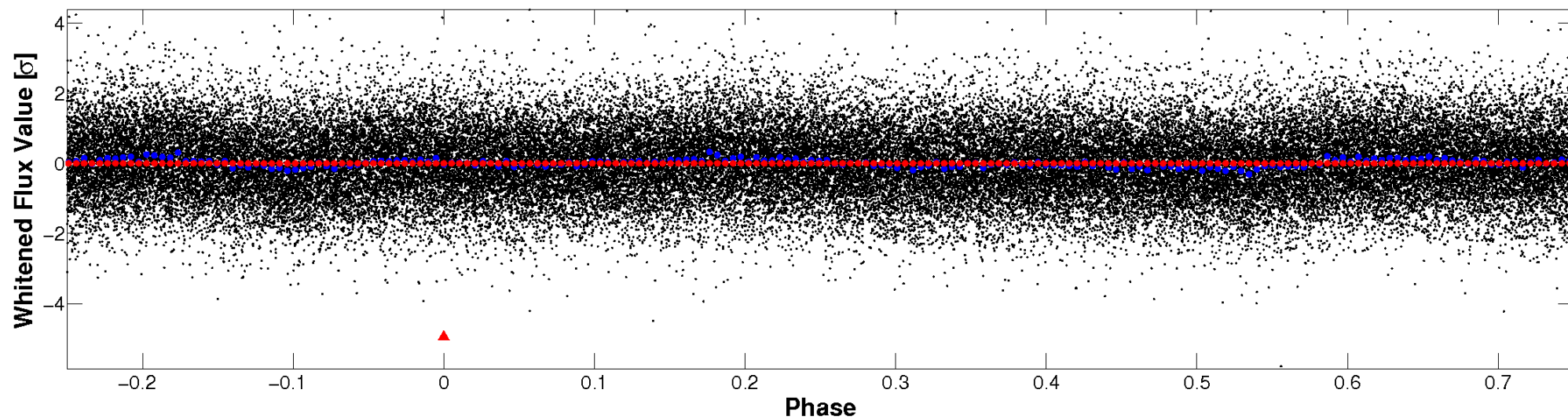


Non-Whitened Vs. Whitened Light Curve

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

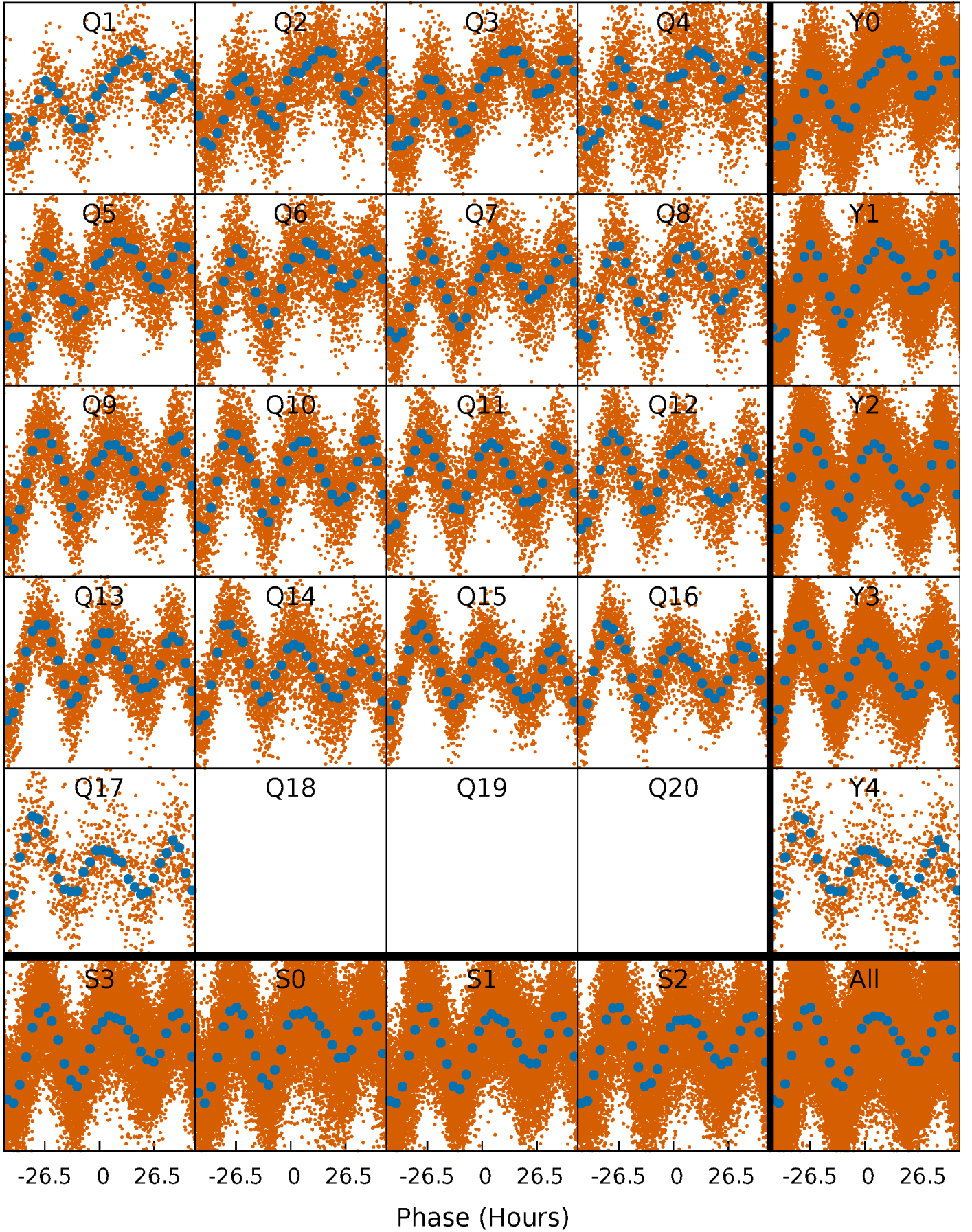


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



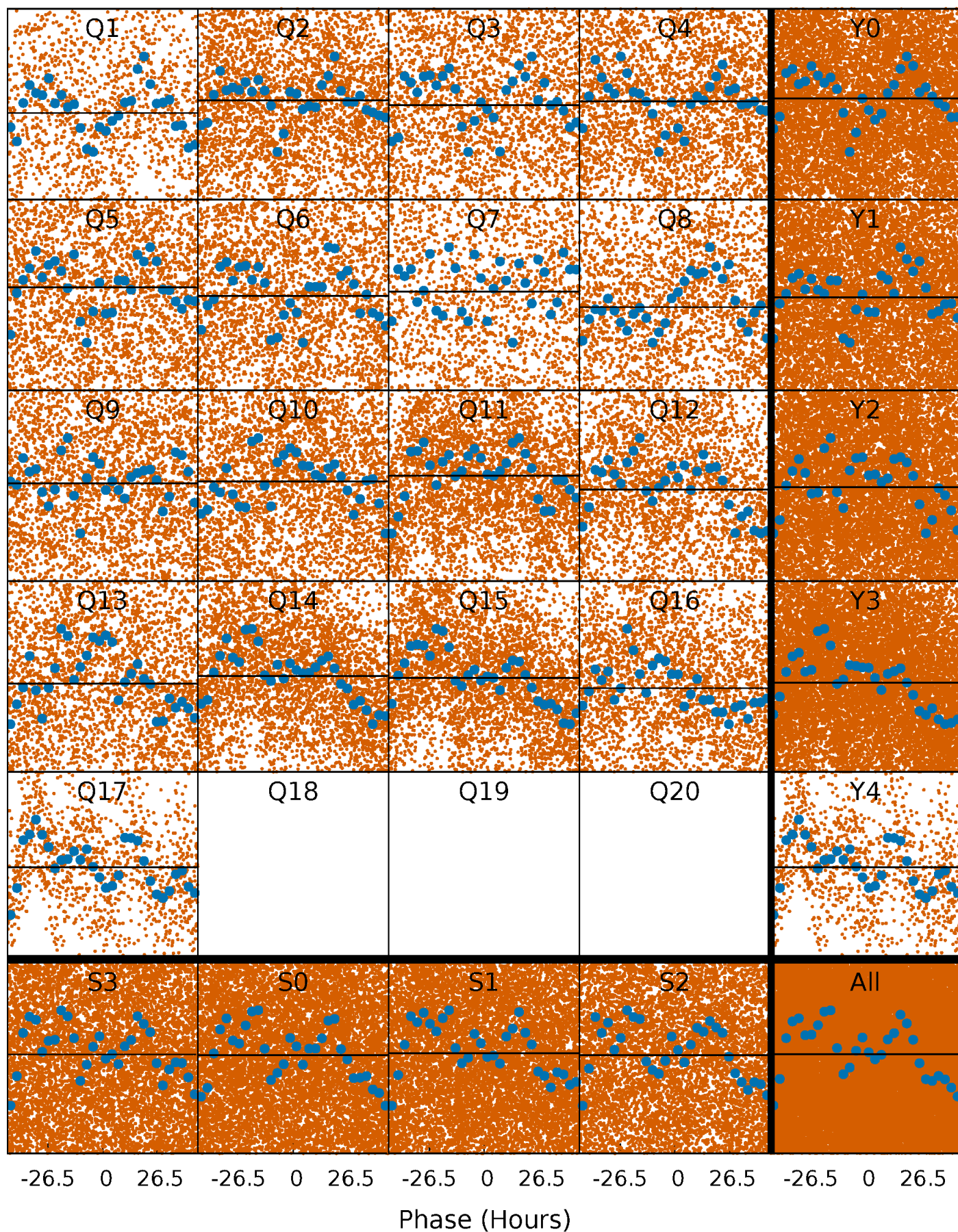
PDC Quarter-Phased Transit Curves

TCE 011416506-01 P= 3.936365 Days $T_0=132.822081$ (BKJD)



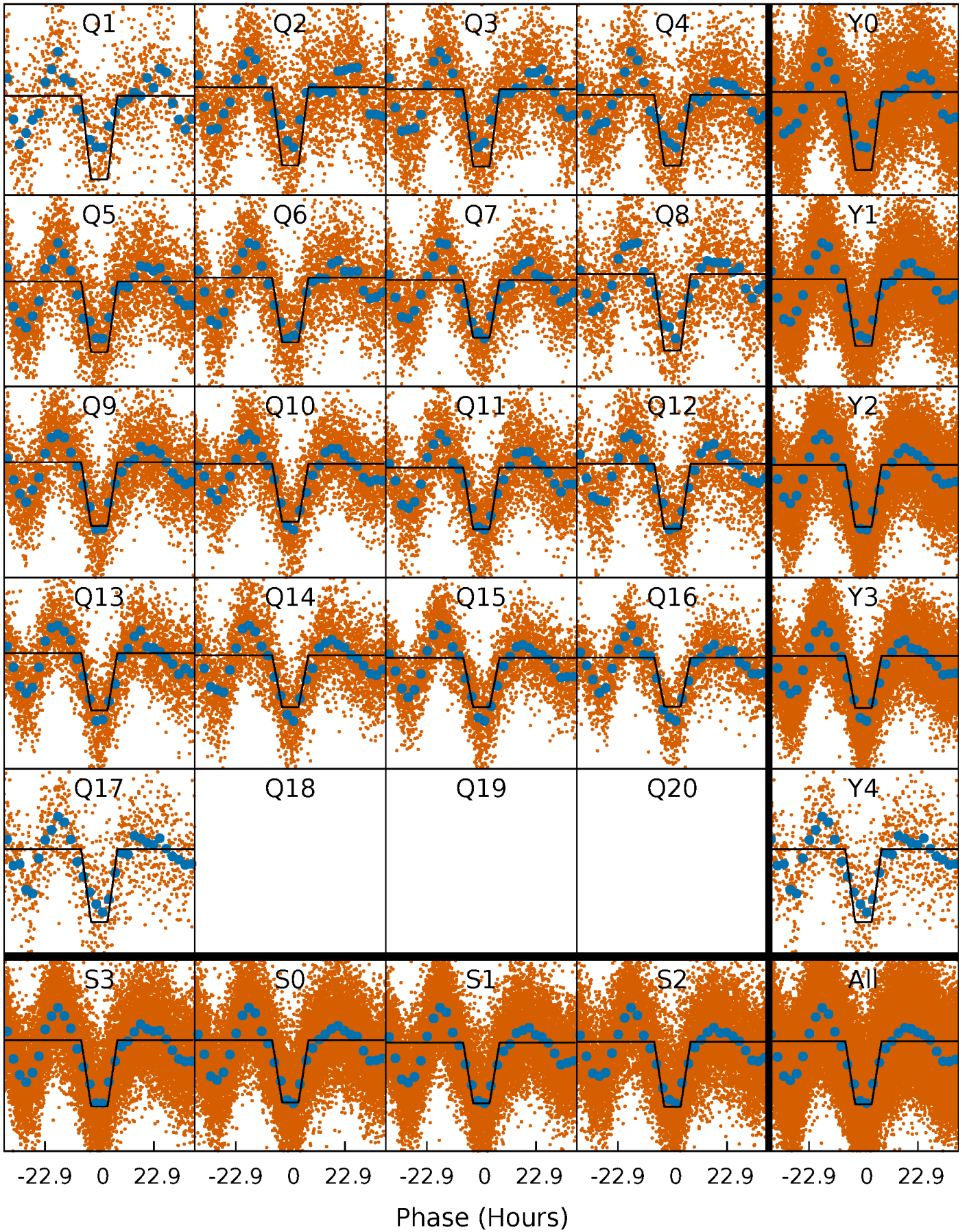
DV Quarter-Phased Transit Curves

TCE 011416506-01 P= 3.936365 Days $T_0=132.822081$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

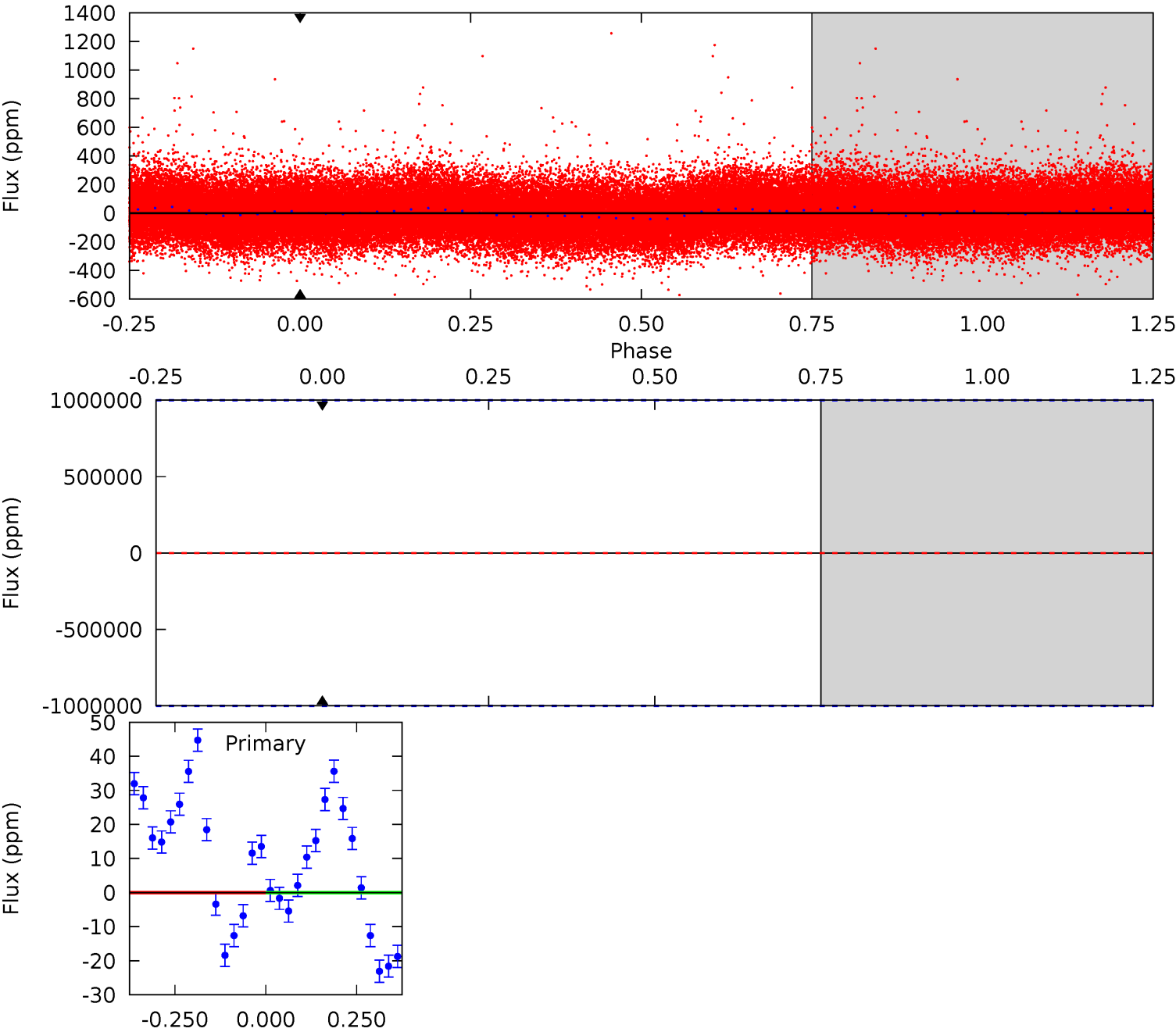
TCE 011416506-01 P= 3.935521 Days $T_0=132.505648$ (BKJD)



DV Model-Shift Uniqueness Test

011416506-01, P = 3.936365 Days, E = 128.885716 Days

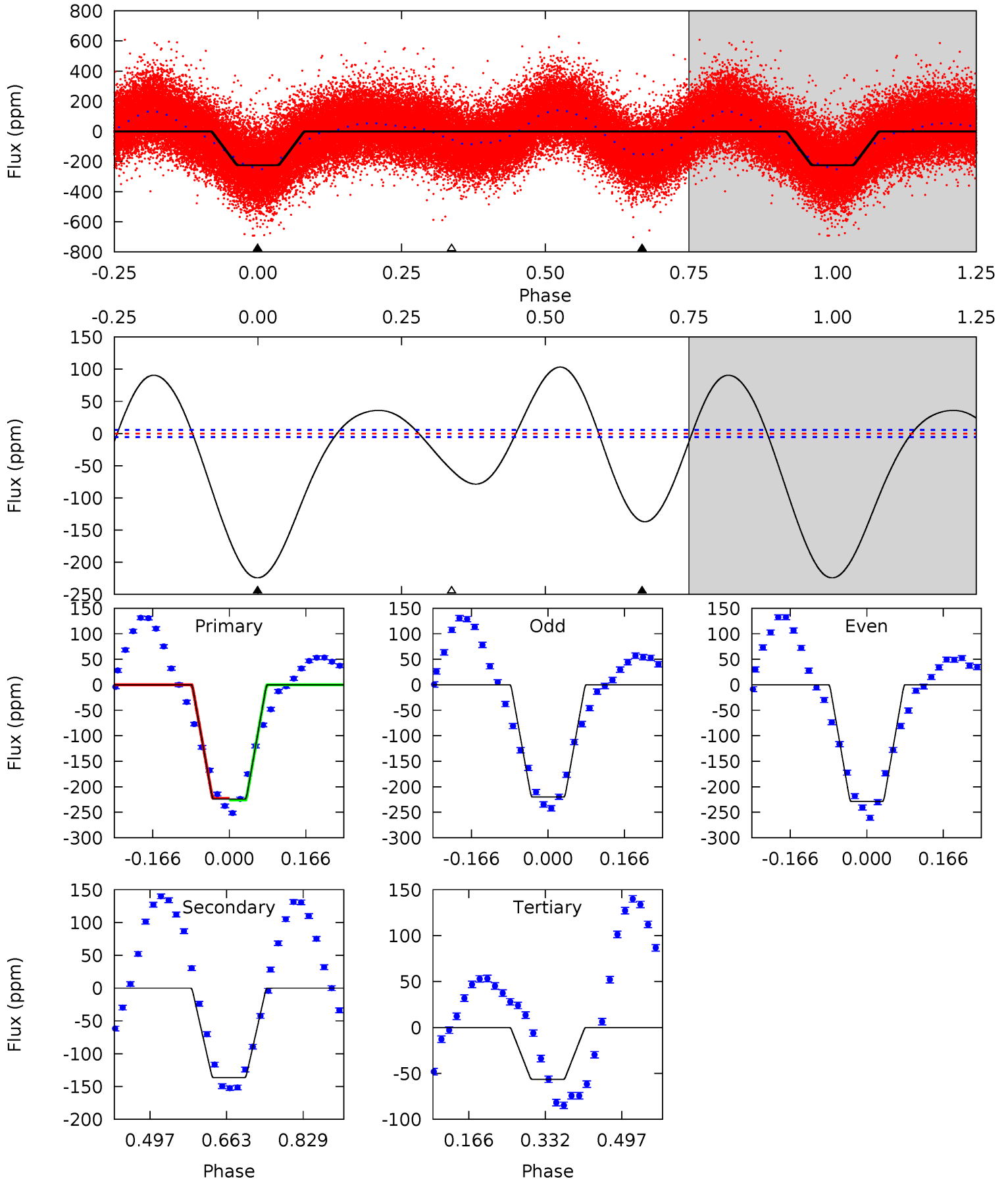
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011416506-01, P = 3.935521 Days, E = 128.570127 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
179.8	109.3	45.3	0	4.46	1.39	37.6	134.5	179.8	64.1	109.3	3.41	1.04	0.32	1.18



Stellar Parameters For KIC 011416506

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6606^{+182}_{-182}	$3.722^{+0.328}_{-0.082}$	$-0.340^{+0.300}_{-0.250}$	$2.722^{+0.449}_{-1.047}$	$1.426^{+0.239}_{-0.293}$	$0.100^{+0.234}_{-0.025}$
	+3%/-3%	+9%/-2%	+88%/-74%	+16%/-38%	+17%/-21%	+235%/-26%
Source	PHO1	FLK73	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 011416506-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$19.35^{+24.11}_{-14.35}$	1778^{+836}_{-404}	-4782^{+36404}_{-25978}	$-5.228^{+5327.150}_{-5078.664}$
Alt.	-136 ± 1	$21.63^{+25.06}_{-15.19}$	1785^{+753}_{-406}	2985^{+1691}_{-1032}	$2.680^{+29.975}_{-2.350}$

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 $A_{obs} \gg 1.0$

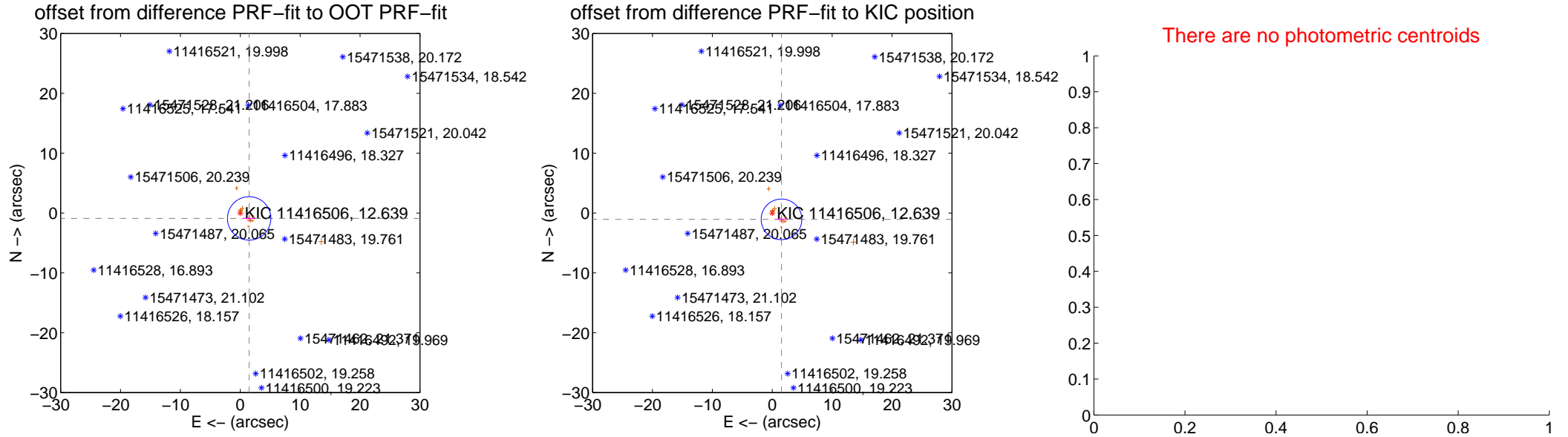
DV Centroid Data

Supplemental centroid analysis for 011416506-01. Kepler magnitude: 12.64. Transit SNR 0.00

There are 0 quarters with good PRF difference image offsets

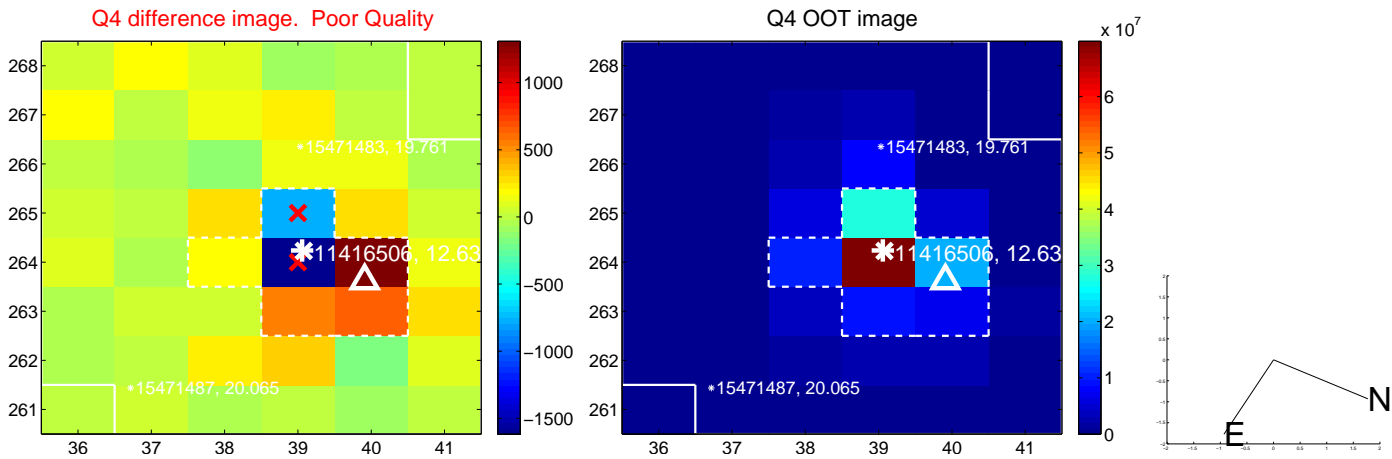
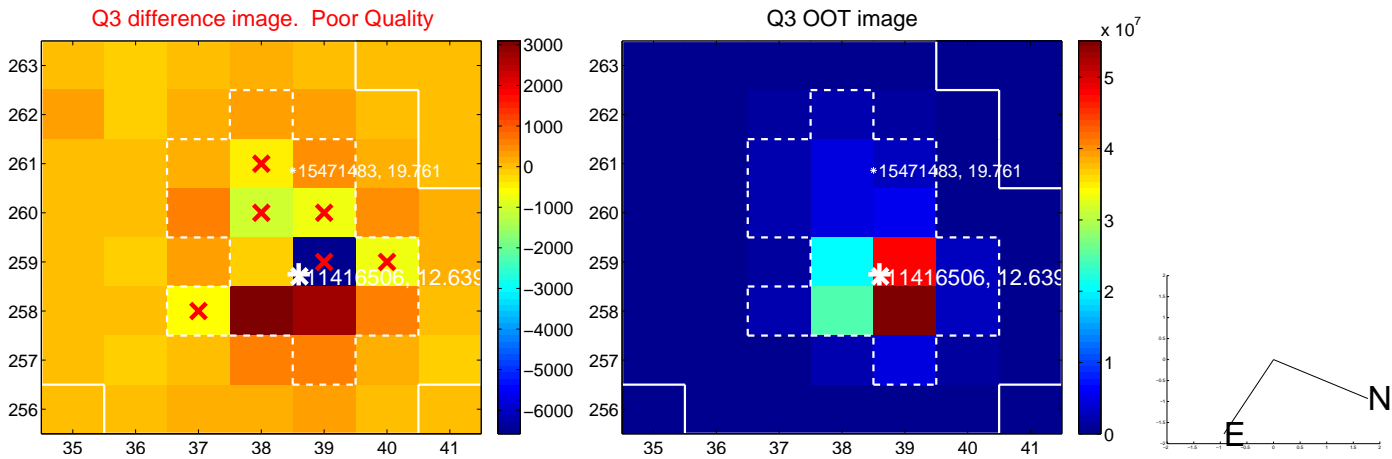
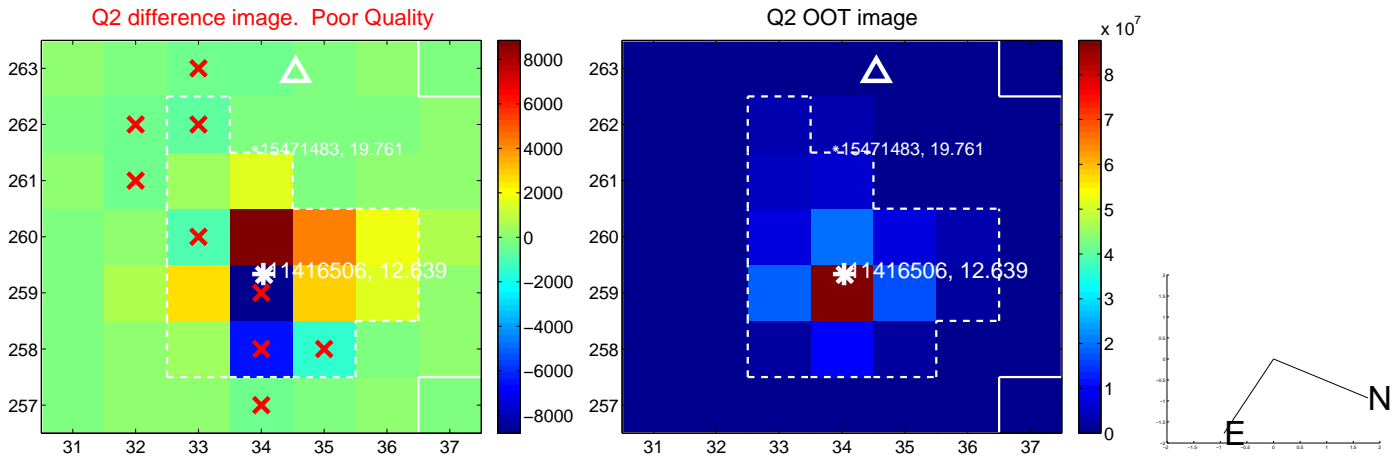
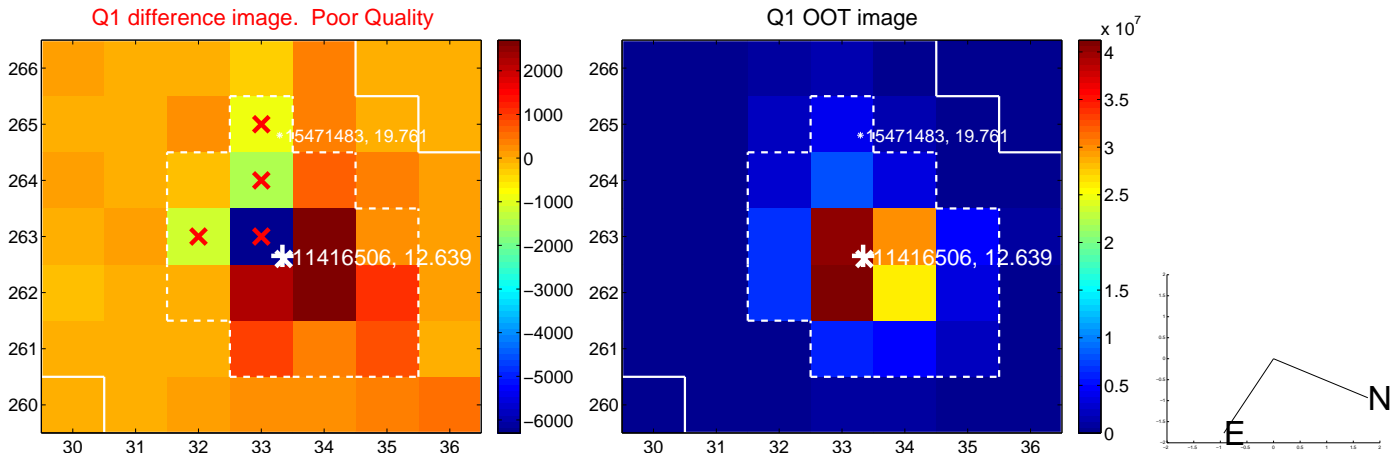
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.732 ± 1.209	1.43	-1.482 ± 1.139	-0.896 ± 0.571
PRF-fit source offset from KIC position	1.869 ± 1.131	1.65	-1.541 ± 1.038	-1.057 ± 0.592
photometric centroid source offset	—	—	—	—

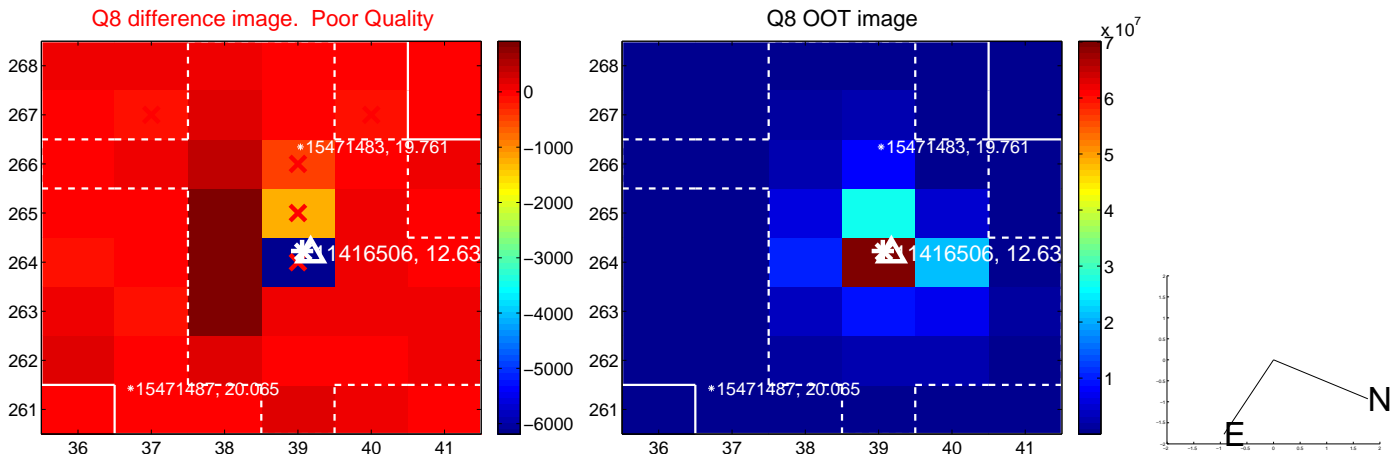
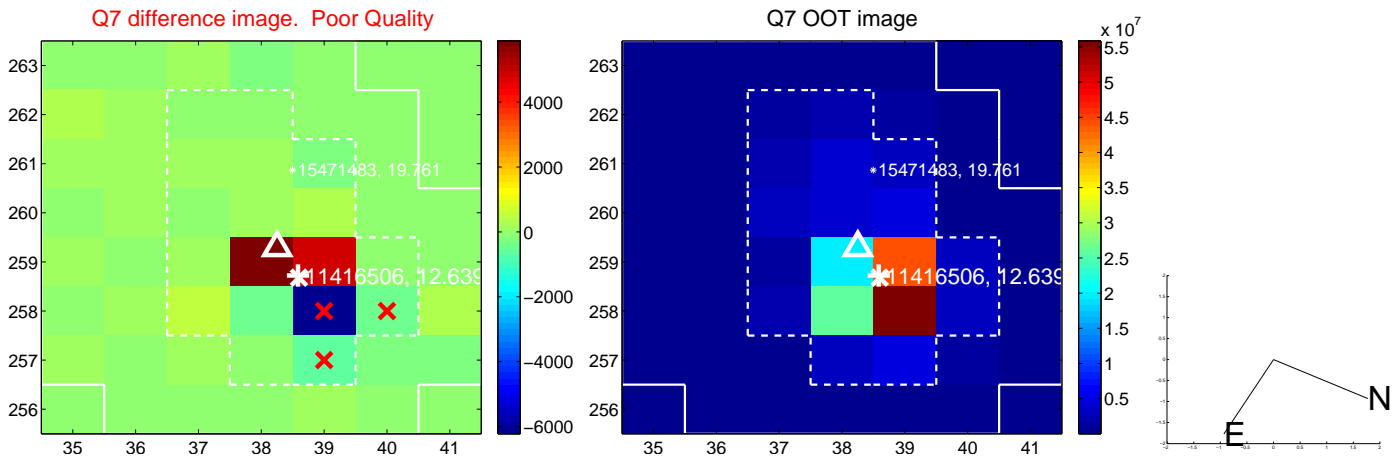
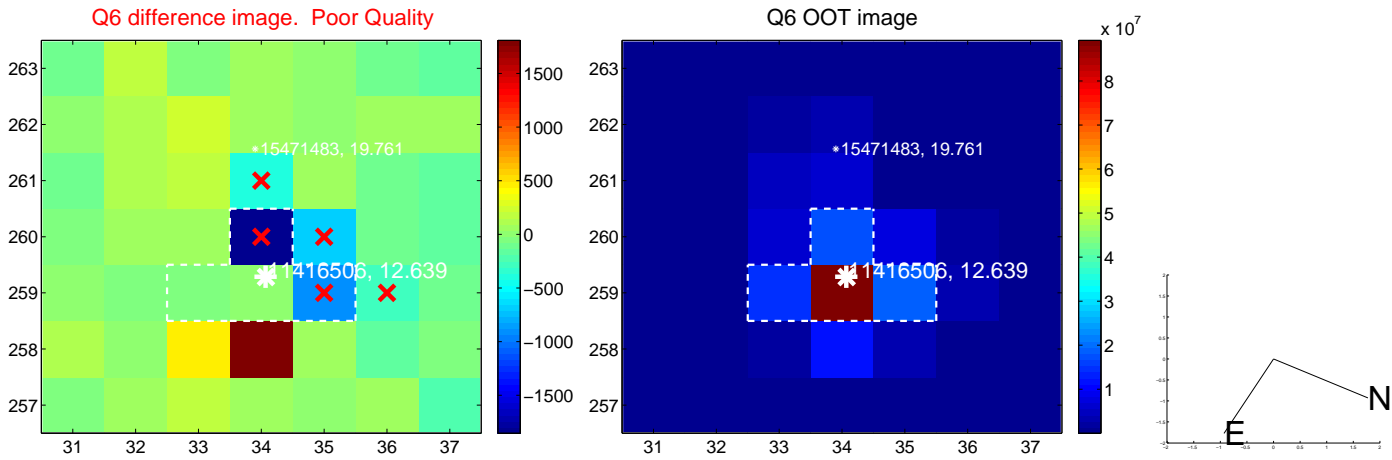
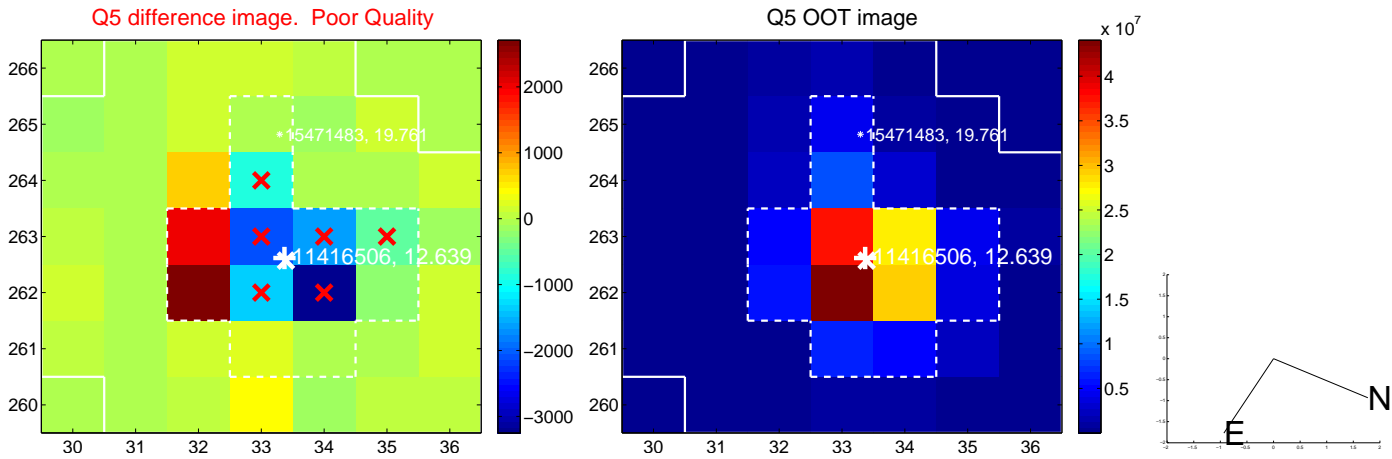


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

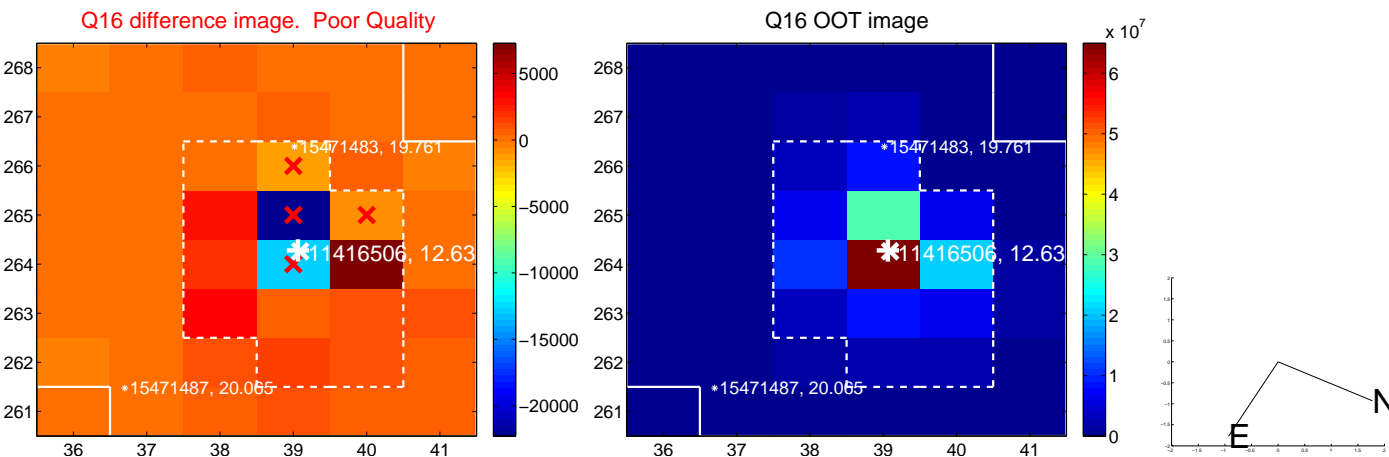
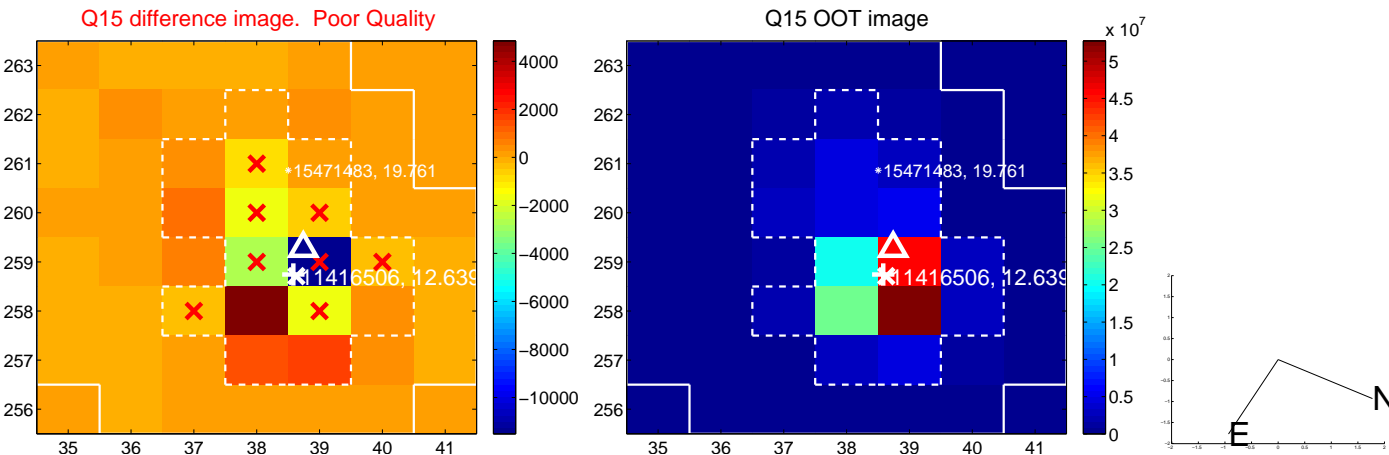
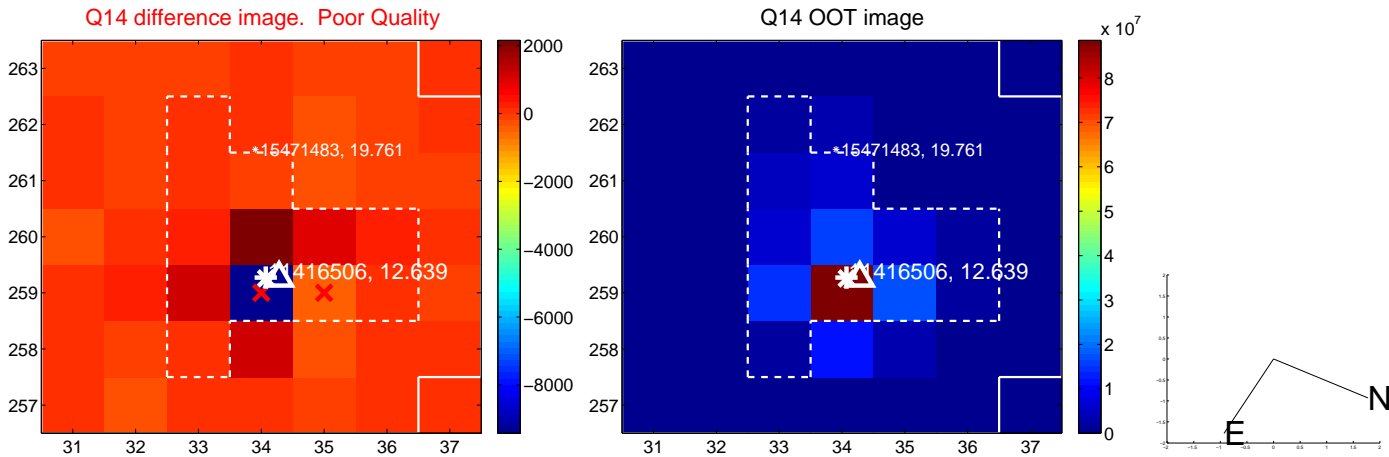
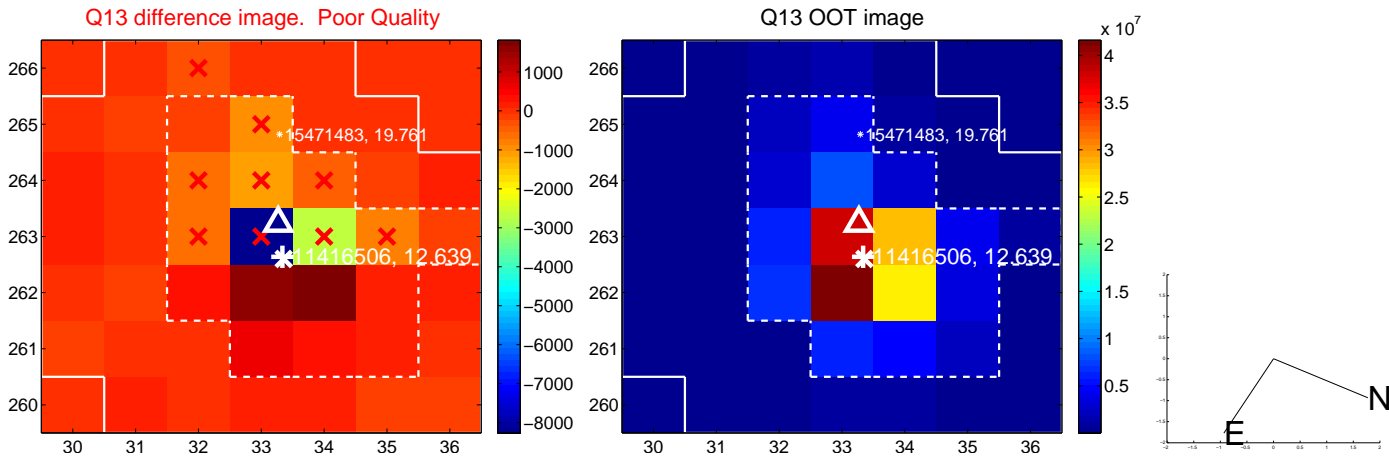
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



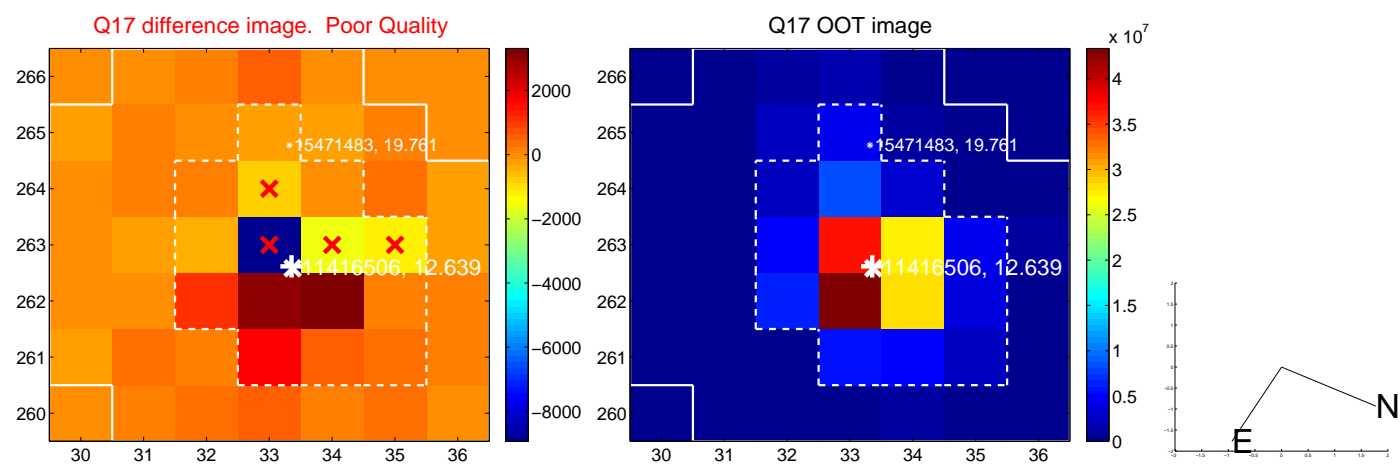
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

