

KIC 008496834

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})
008496834-01	OBS	No	0.873895	132.372323	133.3	2.444	8.1	7.3	0.65	4860	0.86	891.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008496834-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

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

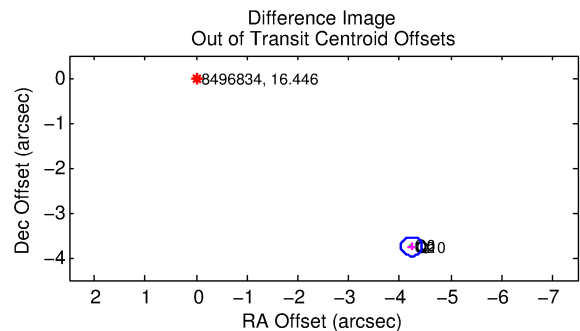
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

Ephemeris Match Information For 008496834-01

No Significant Match Found

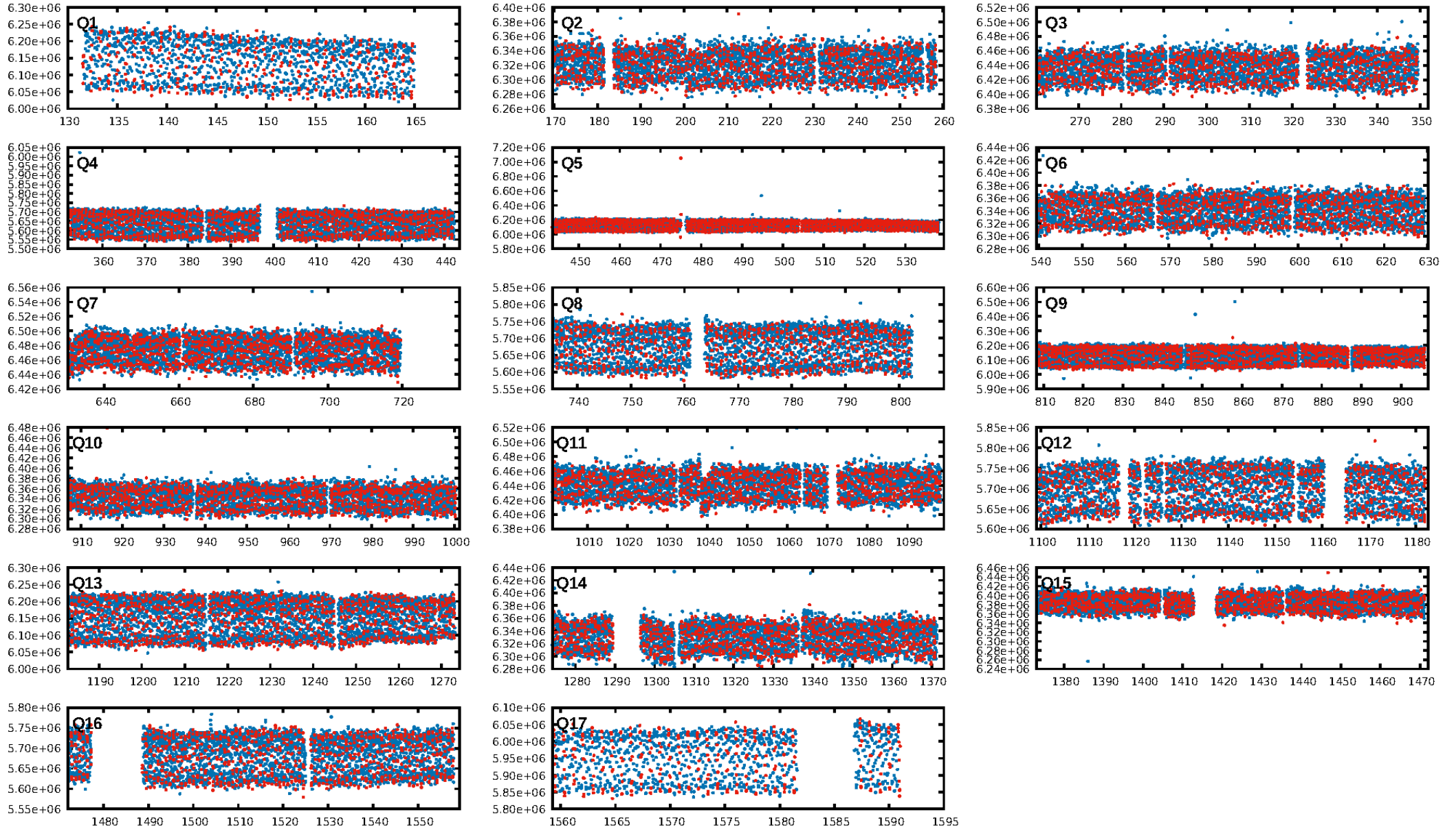
KIC: 8496834 Candidate: 1 of 1 Period: 0.874 d



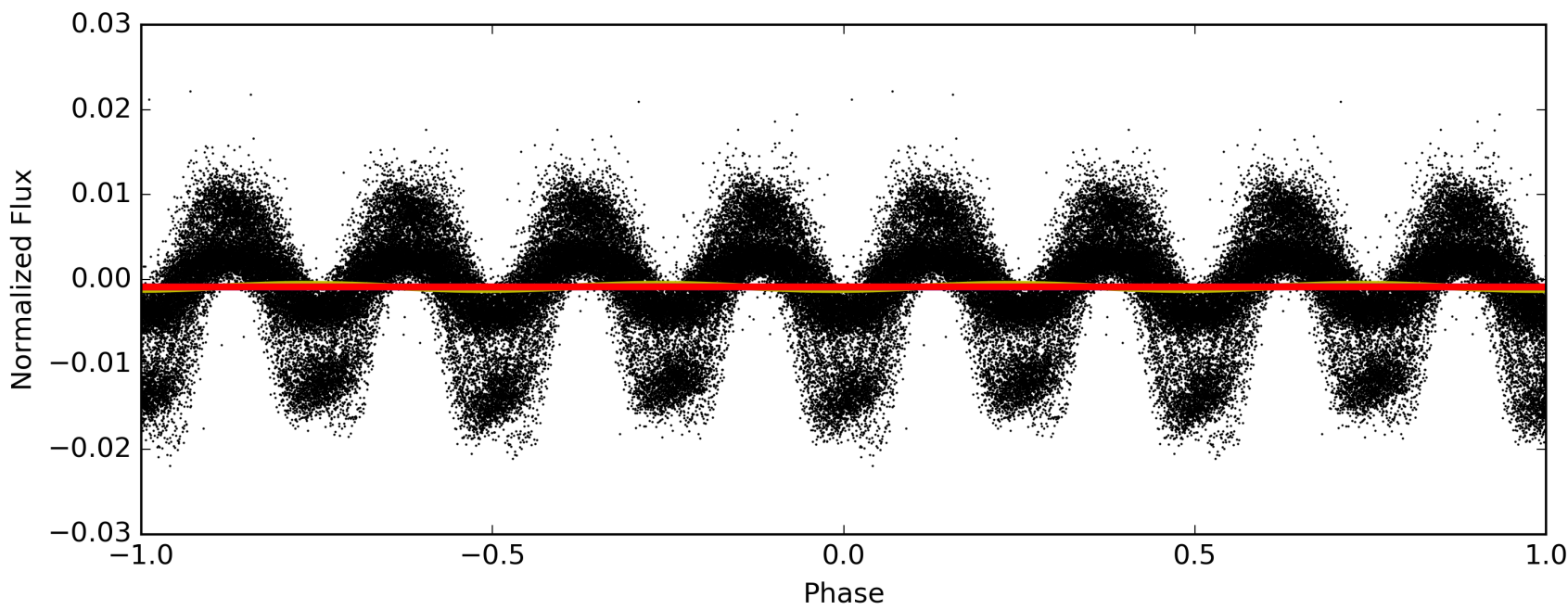
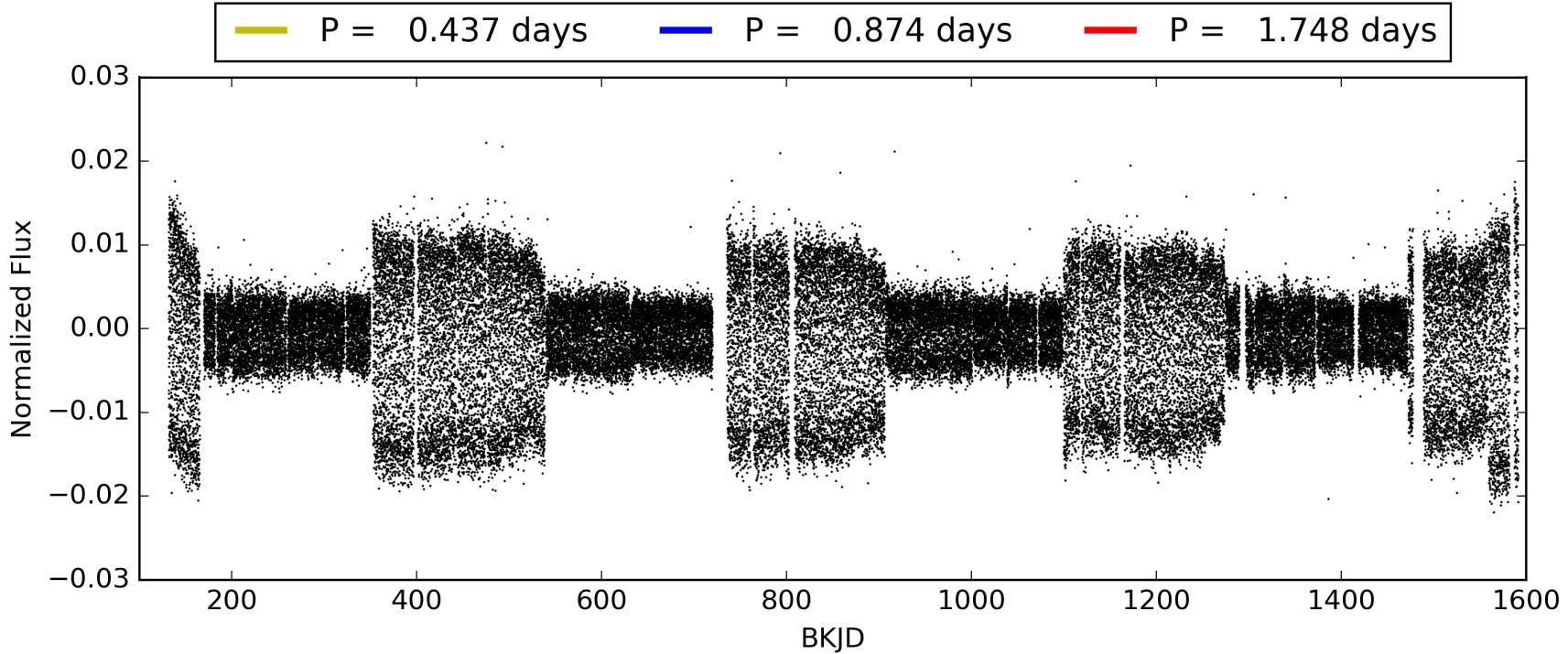
ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.53e-15
RollingBand-fgt: 1.00 [1466/1468]
GhstDiagnostic-chr: -3.331

Centroid-sig: 4.8%
Centroid-so: 5.167 arcsec [2.18σ]
OotOffset-rm: 5.655 arcsec [81.79σ]
KicOffset-rm: 5.617 arcsec [81.48σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008496834-01, PDC Light Curves

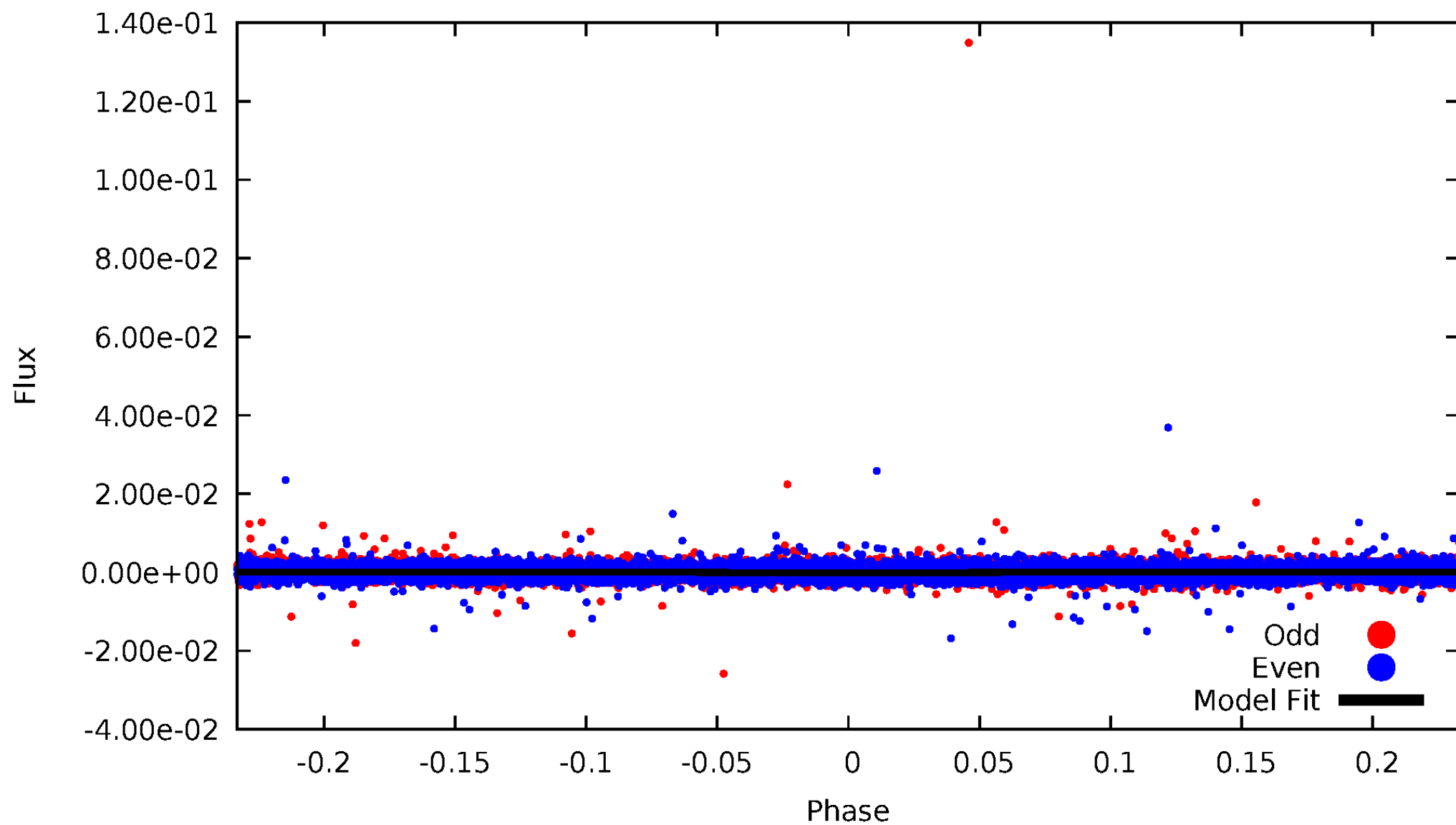


TCE 008496834-01



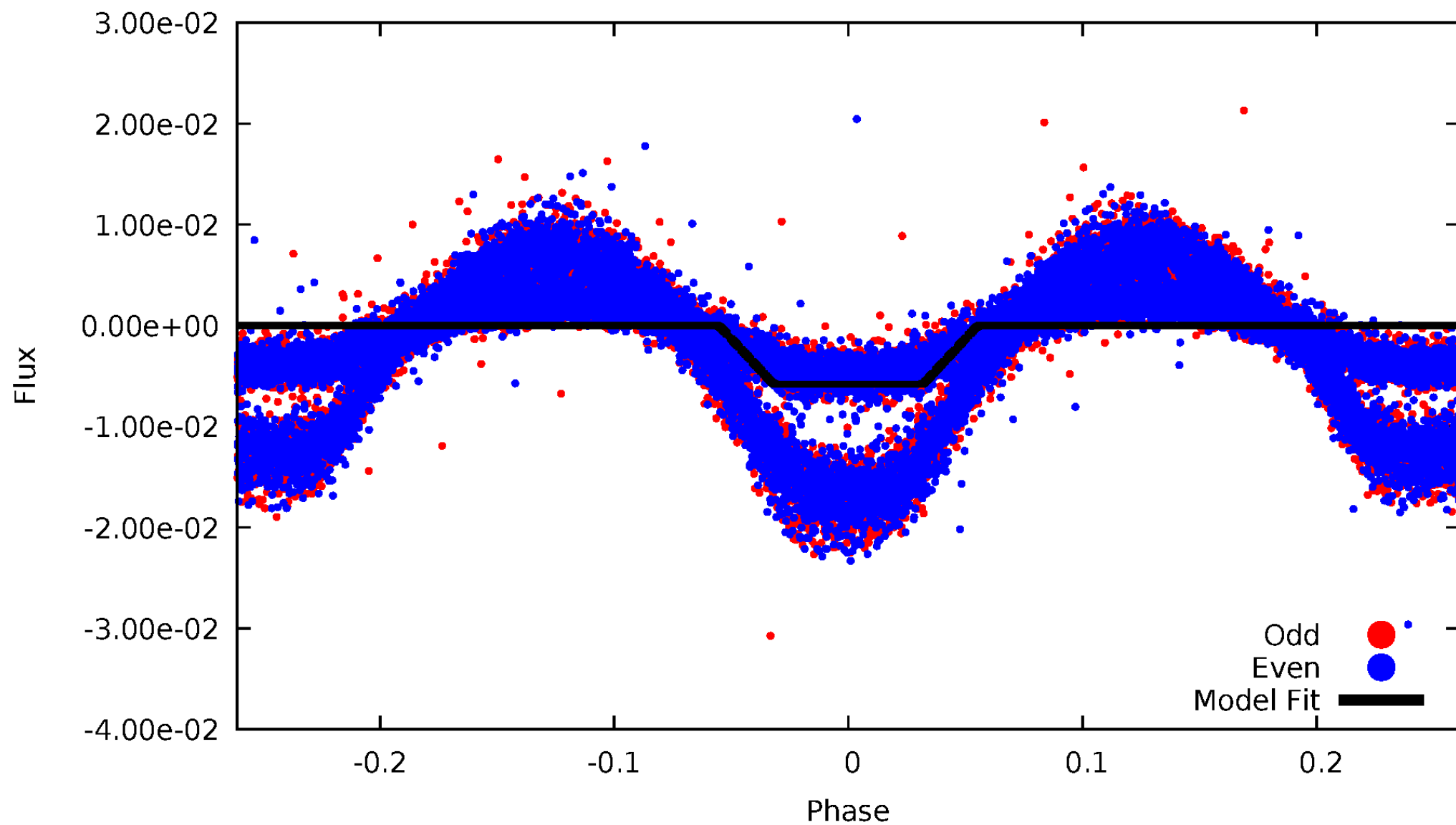
DV Odd/Even

TCE 008496834-01

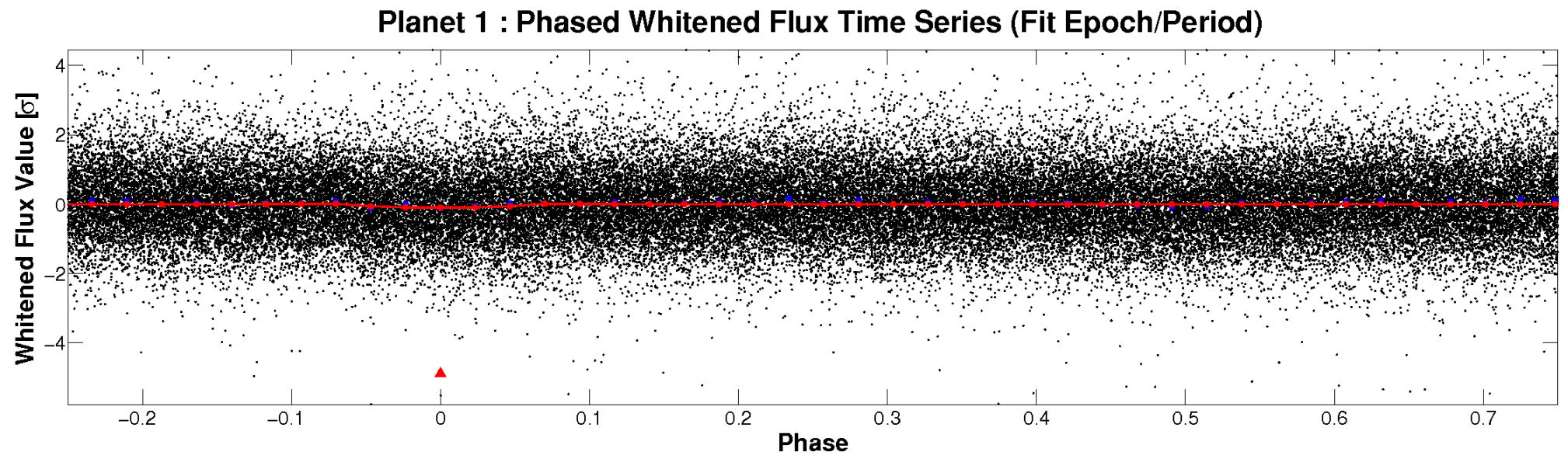
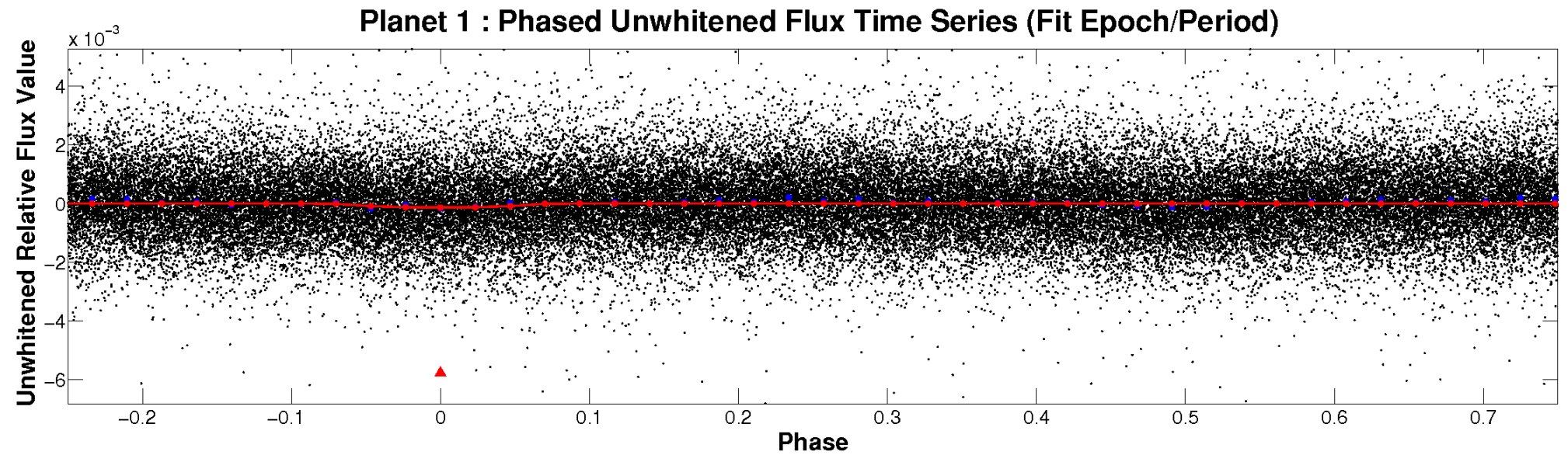


ALT Odd/Even

TCE 008496834-01

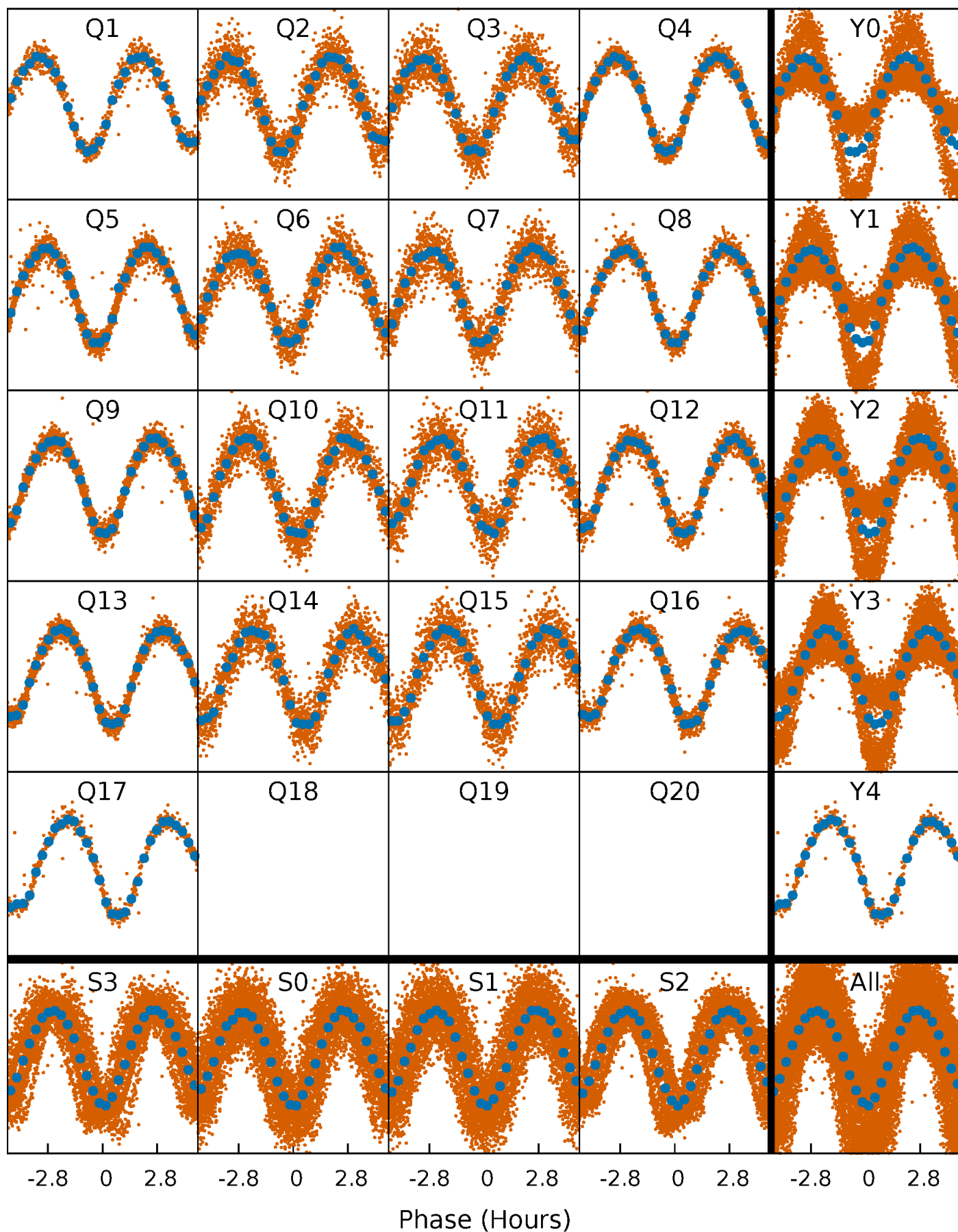


Non-Whitened Vs. Whitened Light Curve



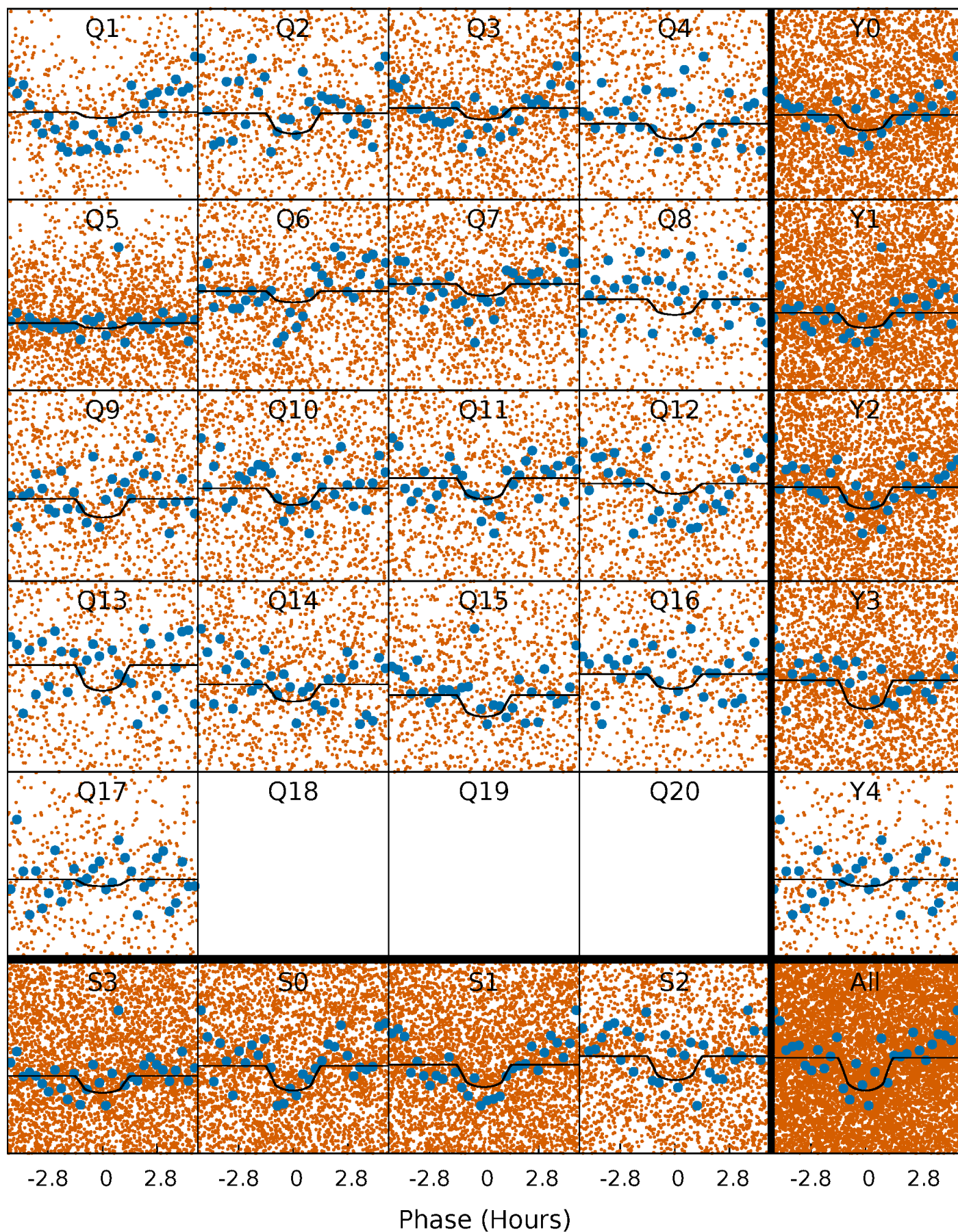
PDC Quarter-Phased Transit Curves

TCE 008496834-01 P= 0.873895 Days $T_0=132.372323$ (BKJD)



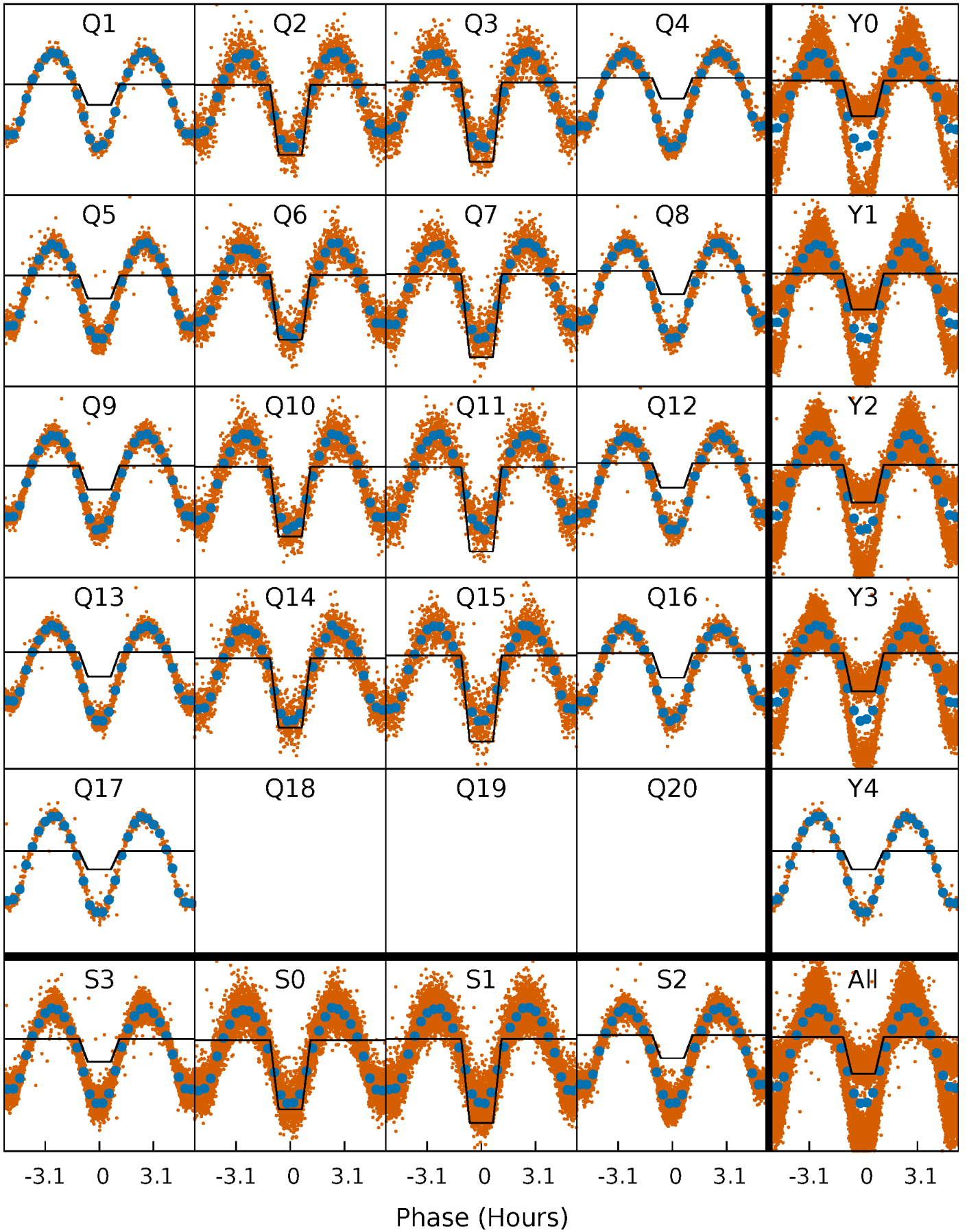
DV Quarter-Phased Transit Curves

TCE 008496834-01 P= 0.873895 Days $T_0=132.372323$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

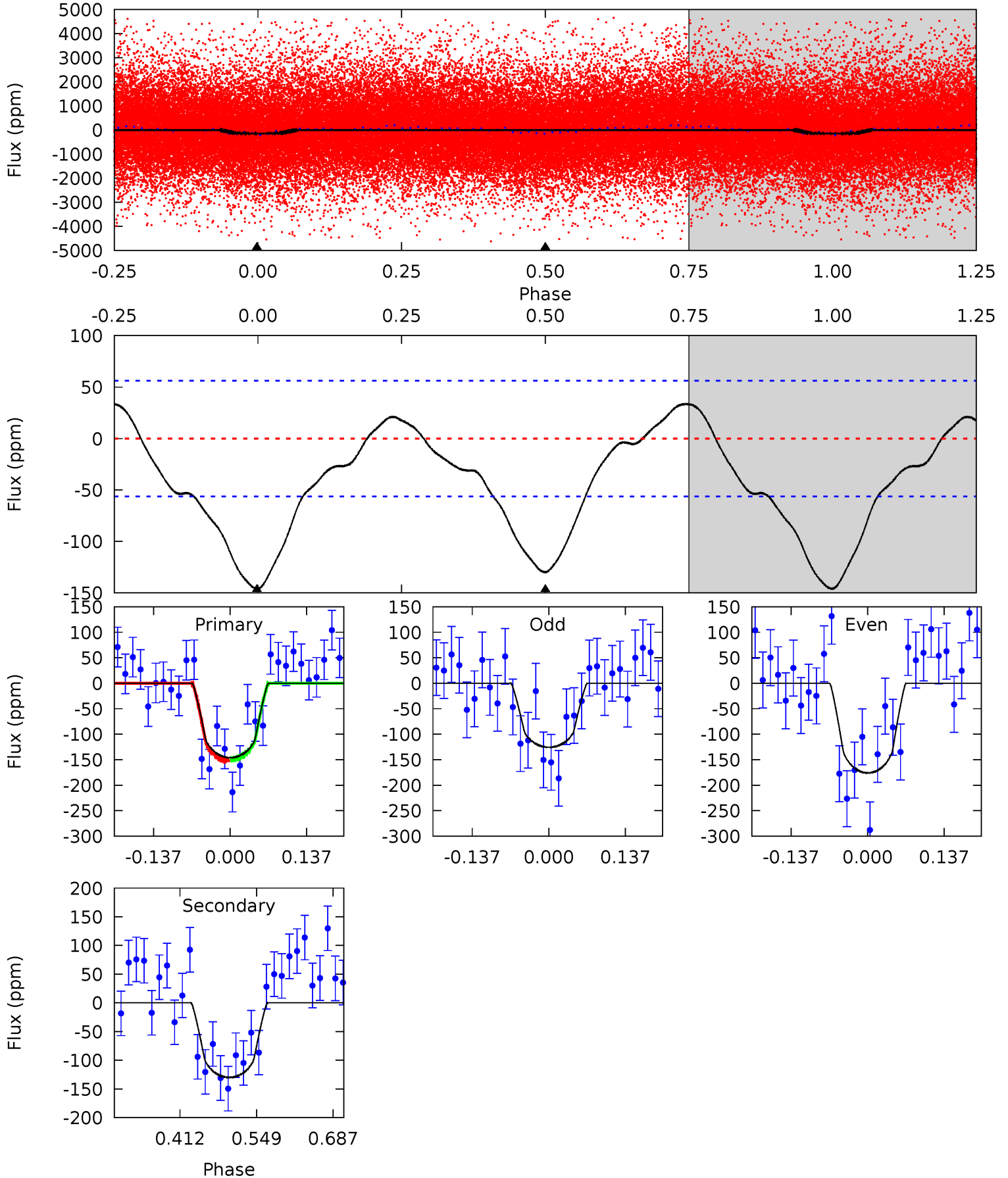
TCE 008496834-01 P= 0.873933 Days $T_0=132.345053$ (BKJD)



DV Model-Shift Uniqueness Test

008496834-01, P = 0.873895 Days, E = 131.498428 Days

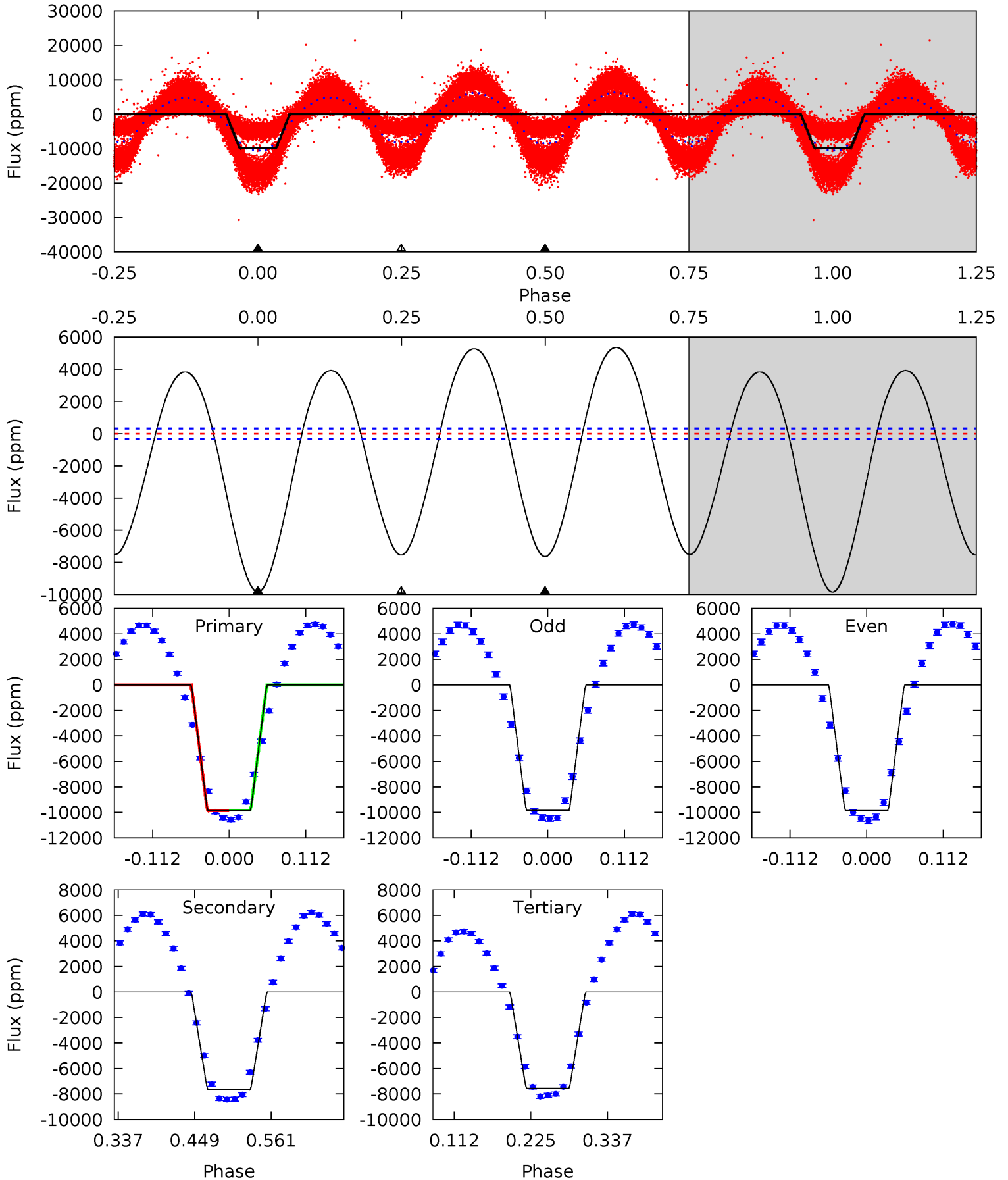
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	10.4	0	0	4.50	1.49	1.78	11.7	11.7	10.4	10.4	2.02	0.92	0.19	0.12



Alt Model-Shift Uniqueness Test

008496834-01, P = 0.873933 Days, E = 131.471120 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
140.7	109.2	107.8	0	4.54	1.59	63.0	32.8	140.7	1.34	109.2	0.18	1.64	0.35	0.42



Stellar Parameters For KIC 008496834

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4860^{+160}_{-145}	$4.615^{+0.060}_{-0.035}$	$-0.540^{+0.350}_{-0.300}$	$0.649^{+0.058}_{-0.058}$	$0.632^{+0.078}_{-0.036}$	$3.263^{+0.861}_{-0.471}$
	+3%/-3%	+1%/-1%	+65%/-56%	+9%/-9%	+12%/-6%	+26%/-14%
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 008496834-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-130 ± 12	$1.10^{+0.85}_{-0.70}$	1940^{+72}_{-69}	4324^{+2431}_{-861}	15^{+97}_{-10}
Alt.	-7640 ± 70	$5.43^{+1.01}_{-0.98}$	1937^{+79}_{-71}	5139^{+500}_{-373}	34^{+17}_{-9}

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 $A_{obs} \gg 1.0$

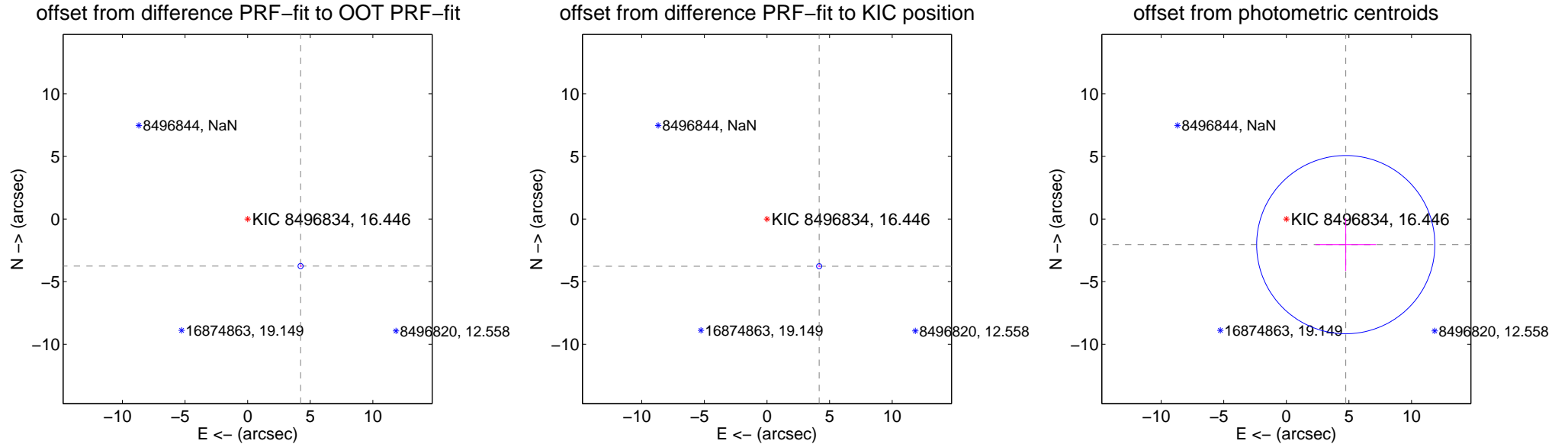
DV Centroid Data

Supplemental centroid analysis for 008496834-01. Kepler magnitude: 16.45. Transit SNR 7.28

There are 3 quarters with good PRF difference image offsets

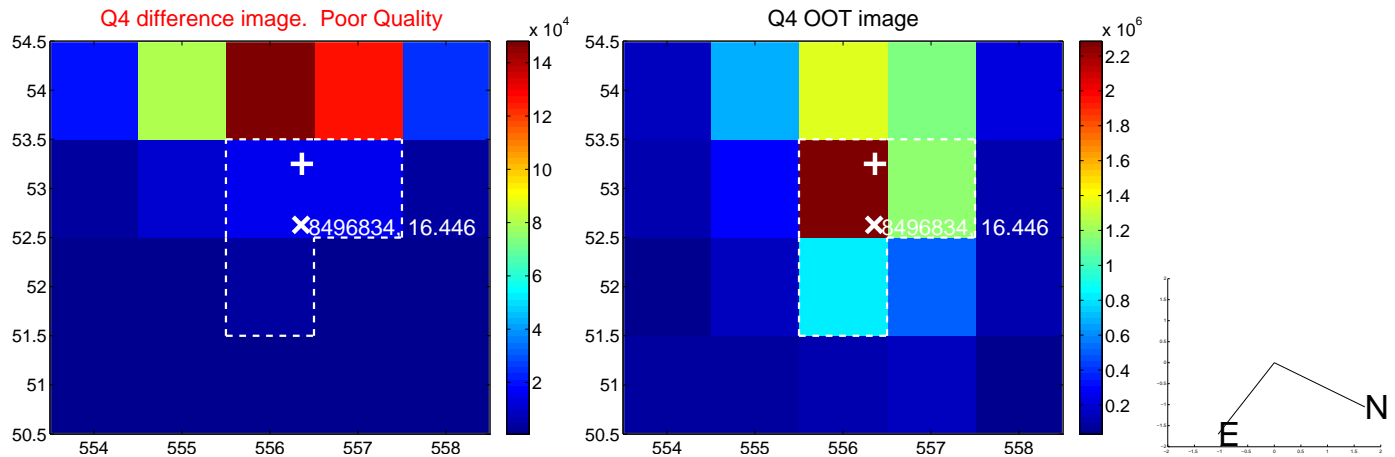
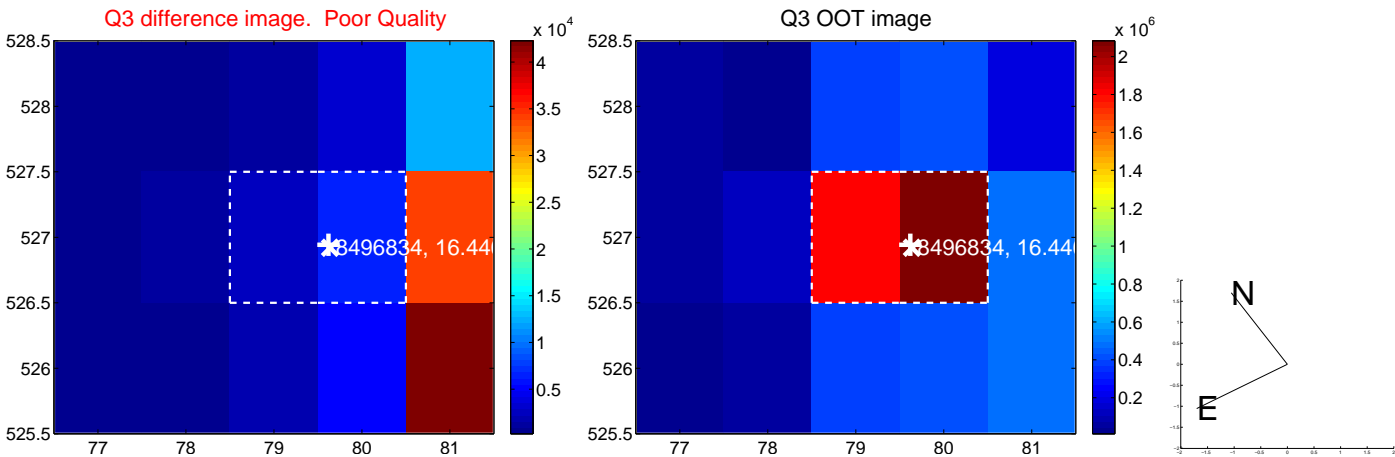
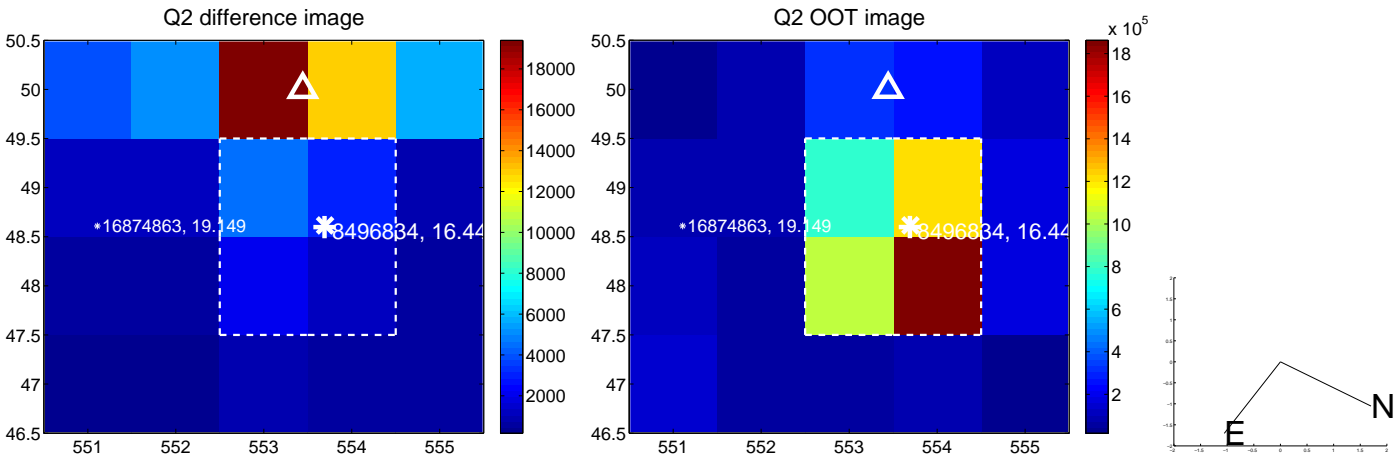
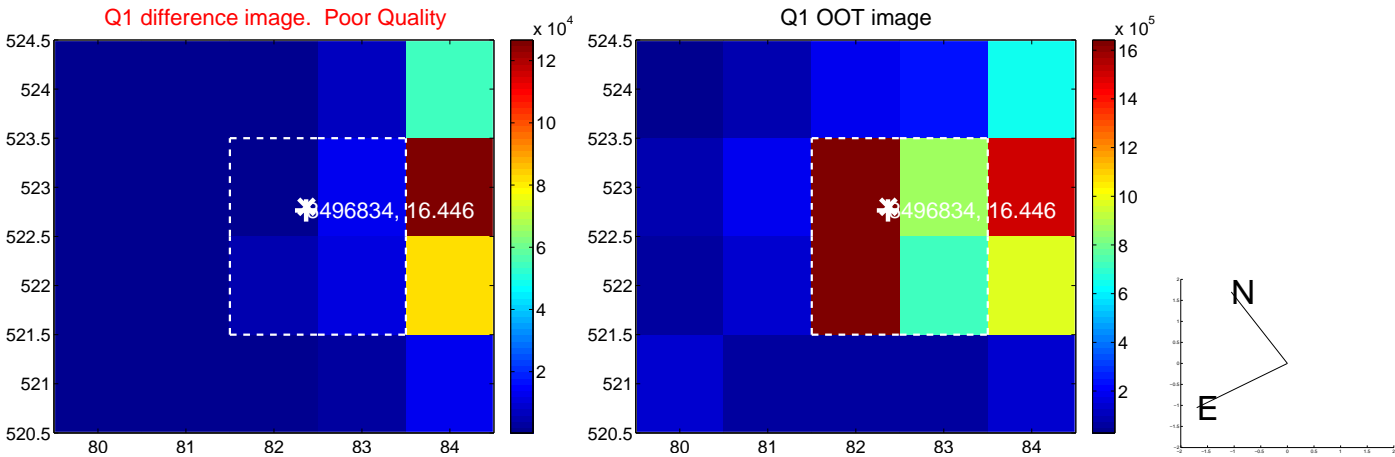
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.655 ± 0.069	81.79	-4.228 ± 0.070	-3.755 ± 0.068
PRF-fit source offset from KIC position	5.617 ± 0.069	81.48	-4.166 ± 0.070	-3.768 ± 0.067
photometric centroid source offset	5.17 ± 2.37	2.18	-4.75 ± 2.42	-2.04 ± 2.10

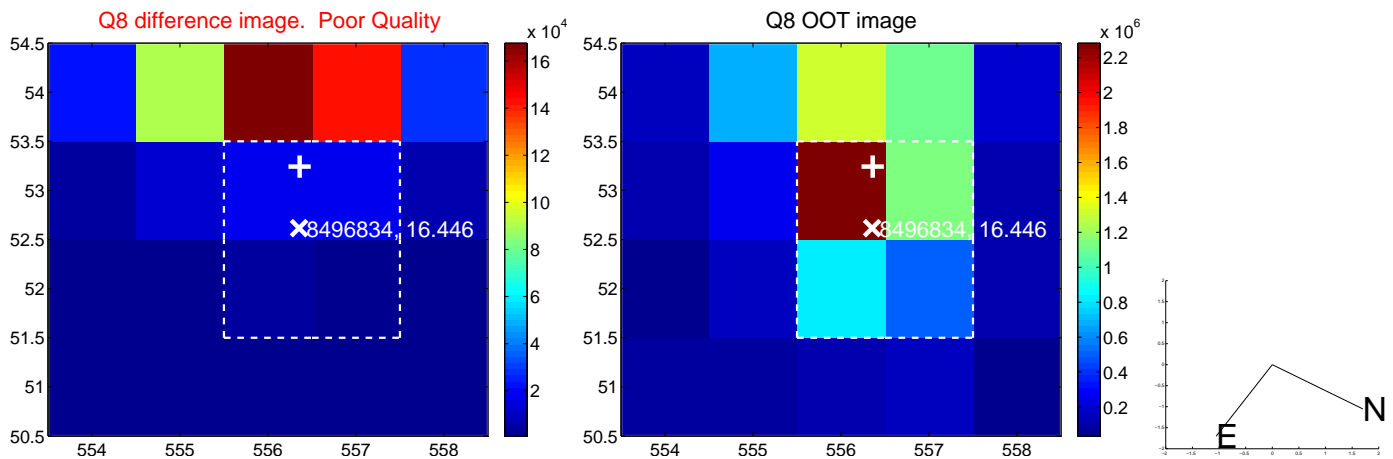
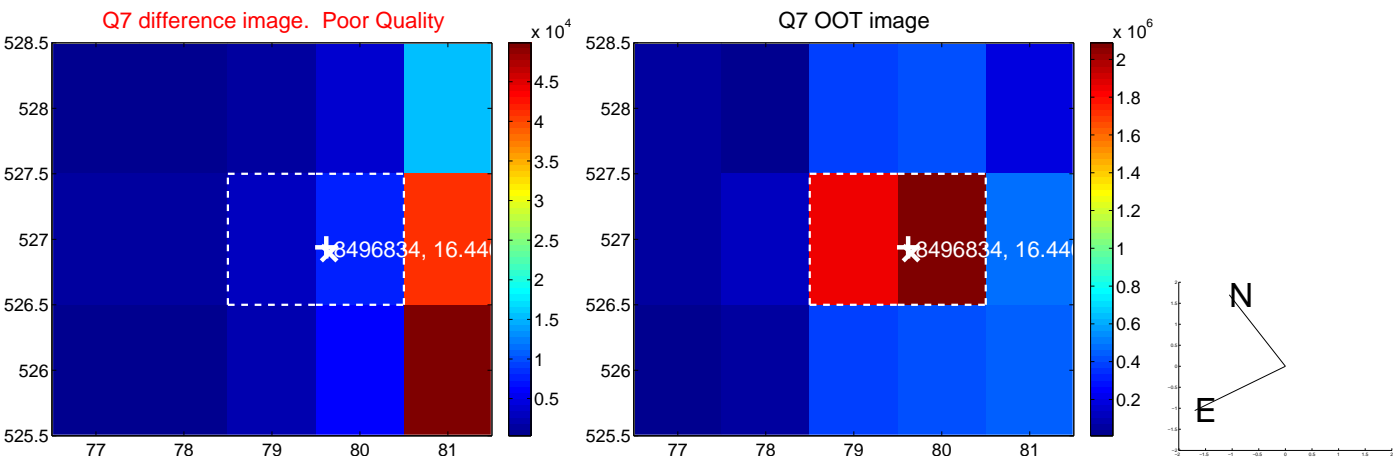
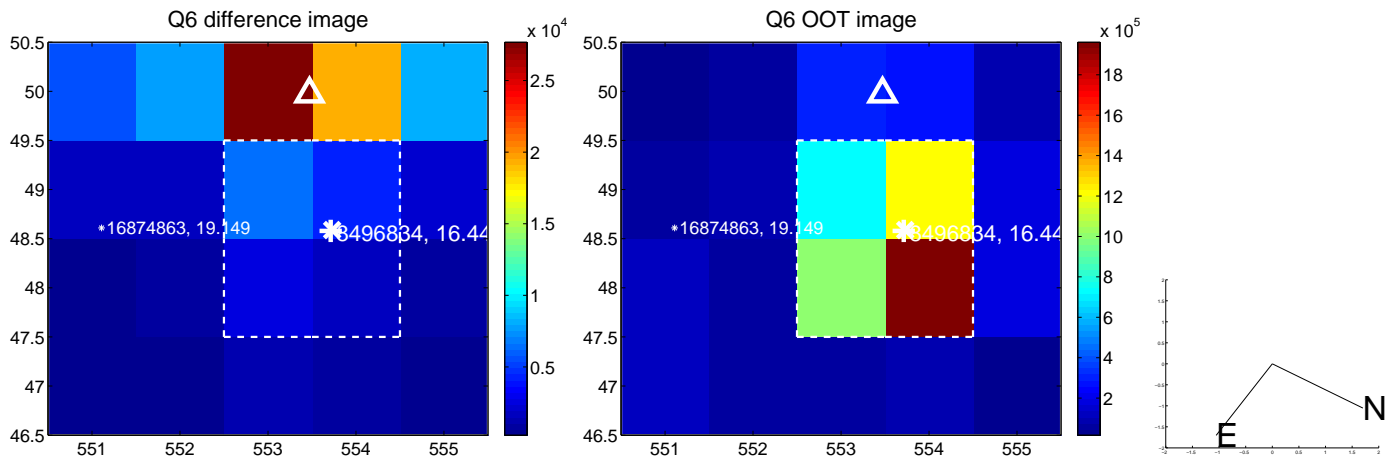
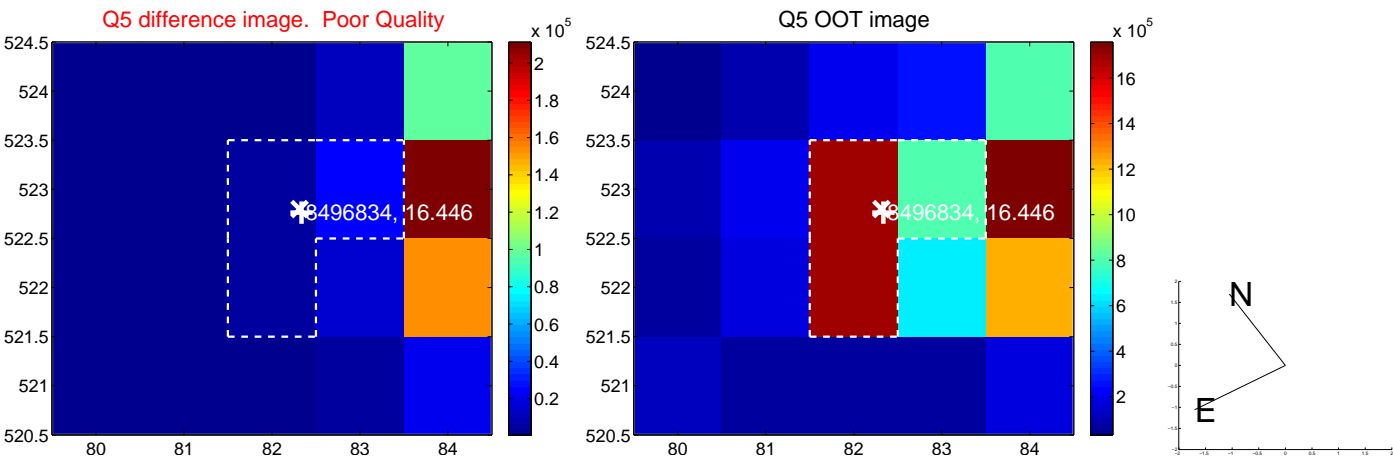


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

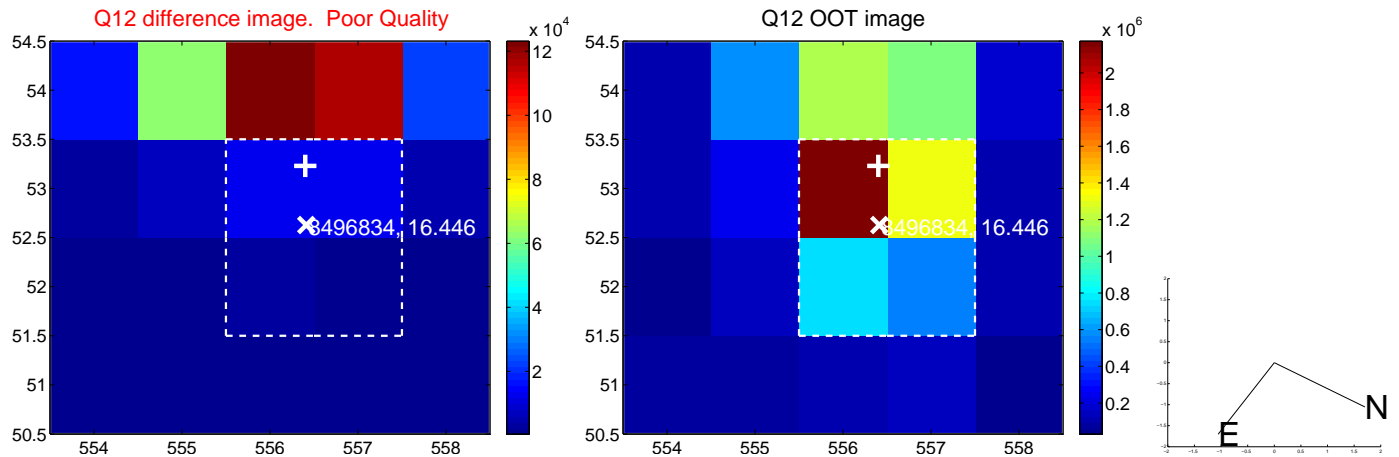
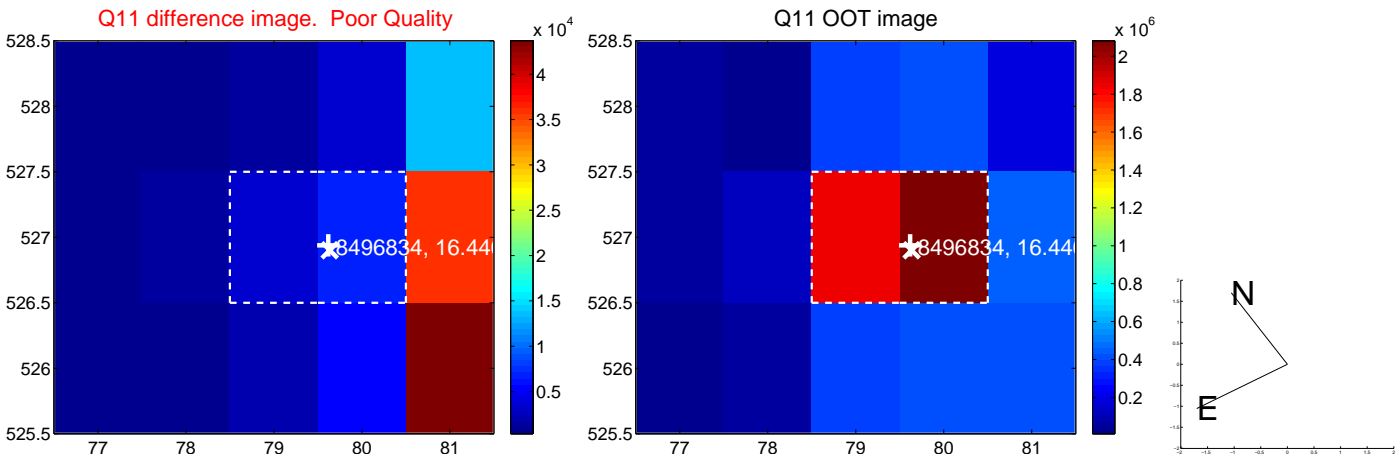
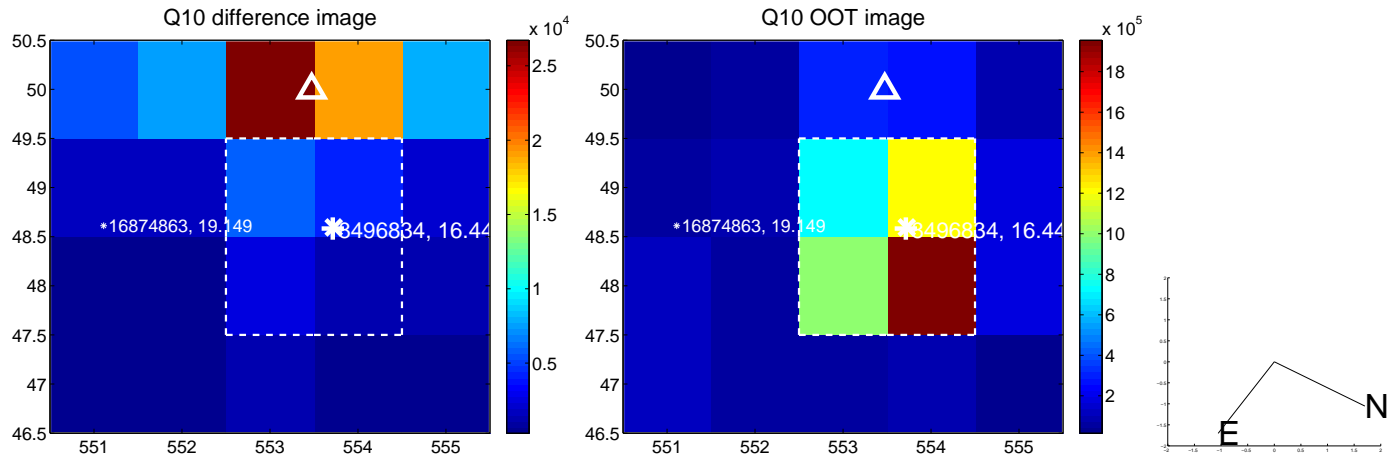
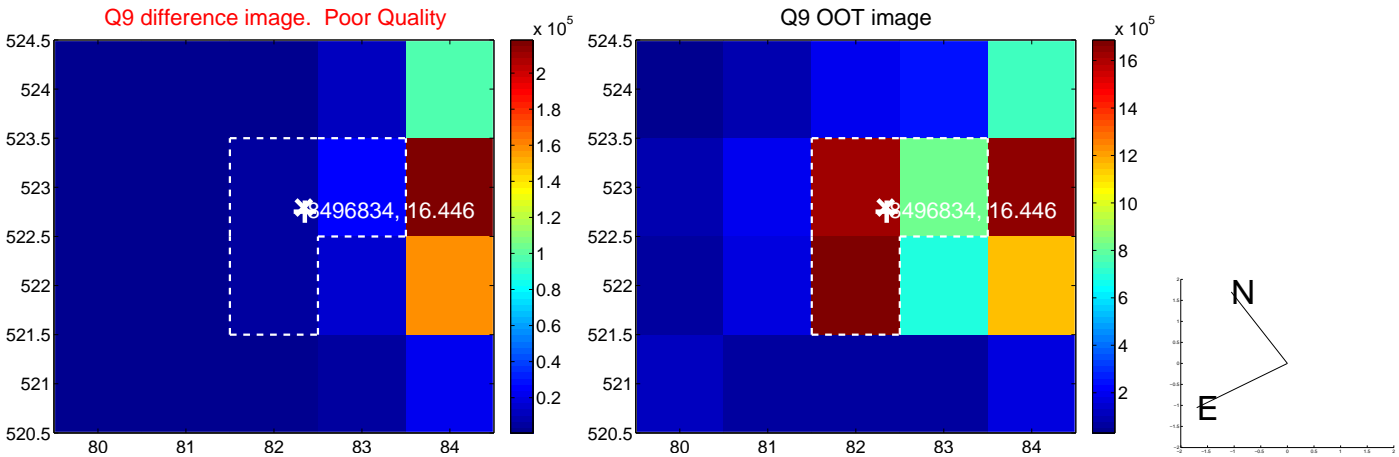
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



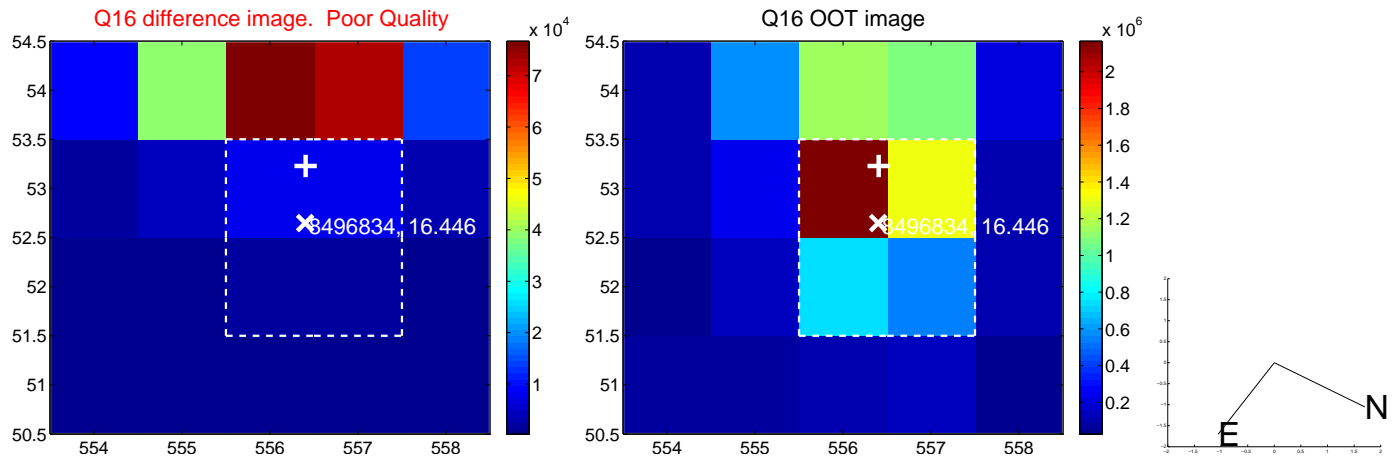
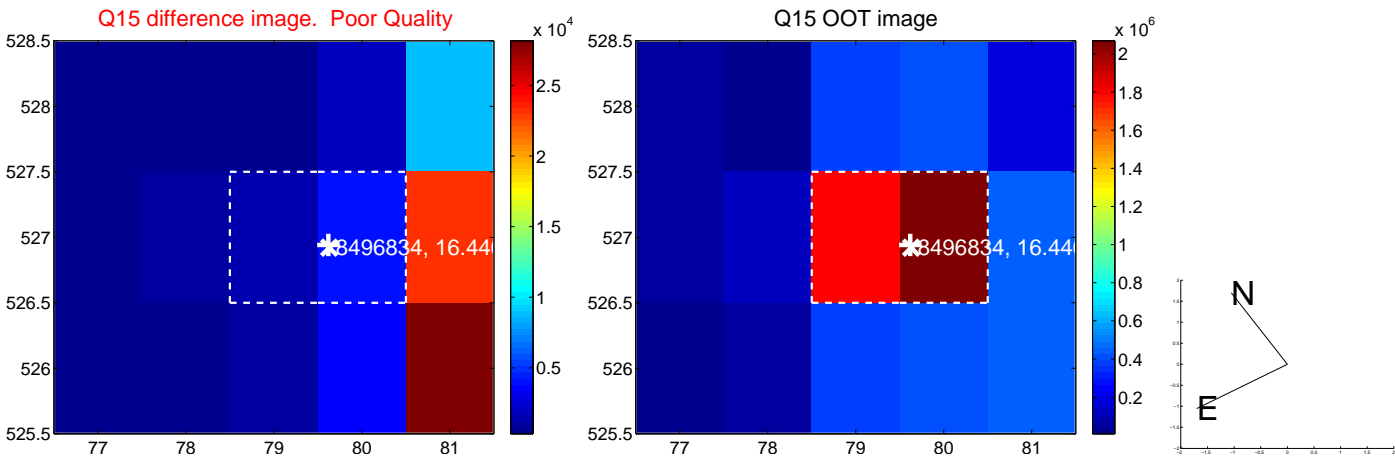
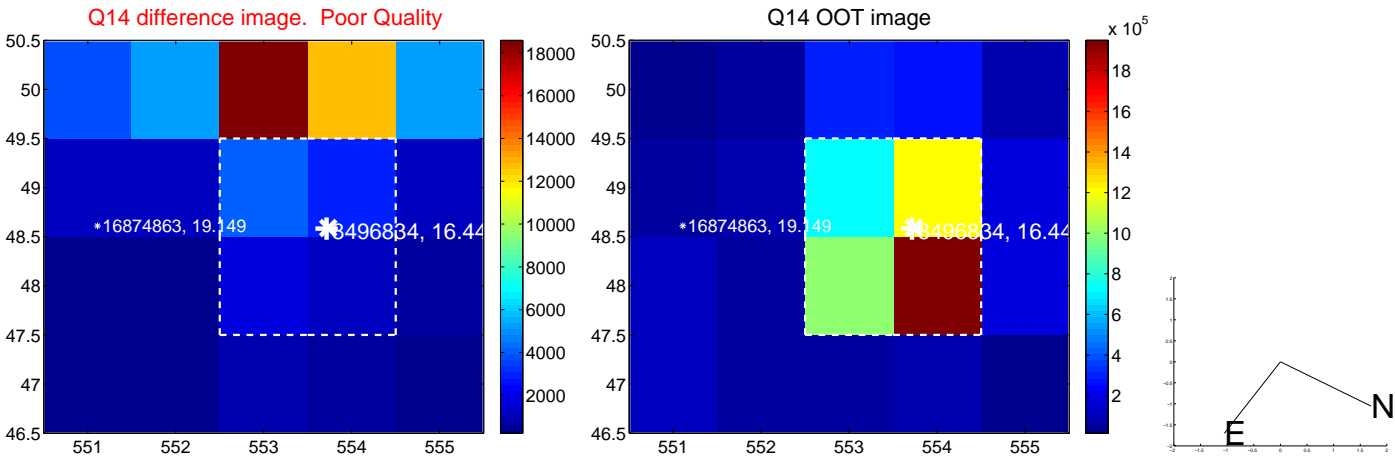
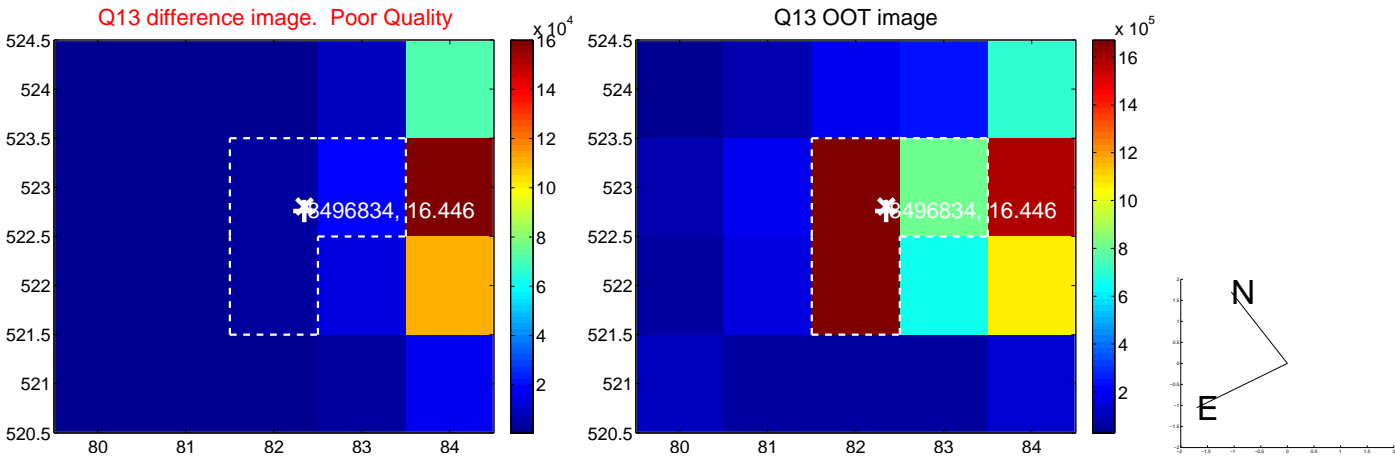
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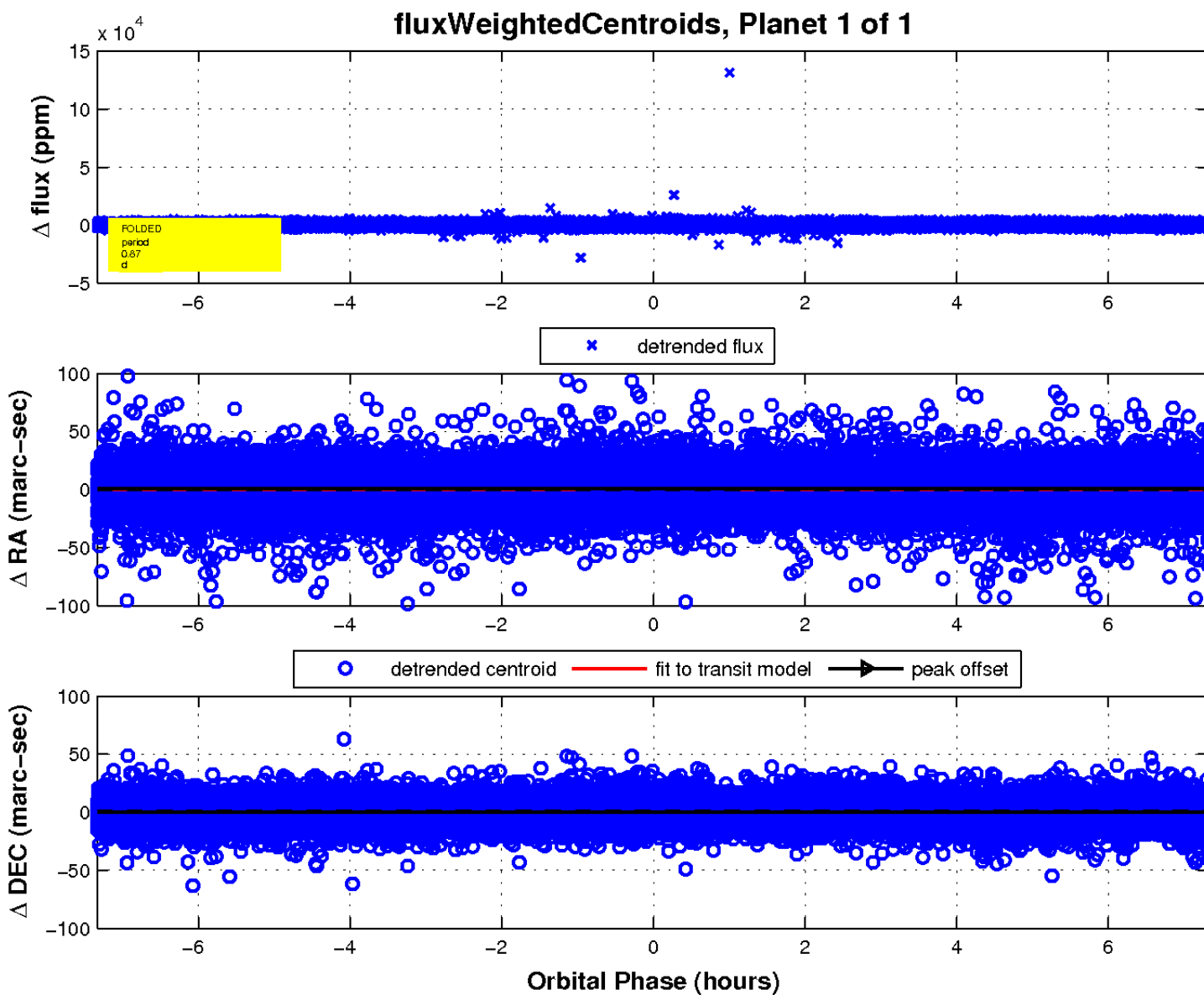
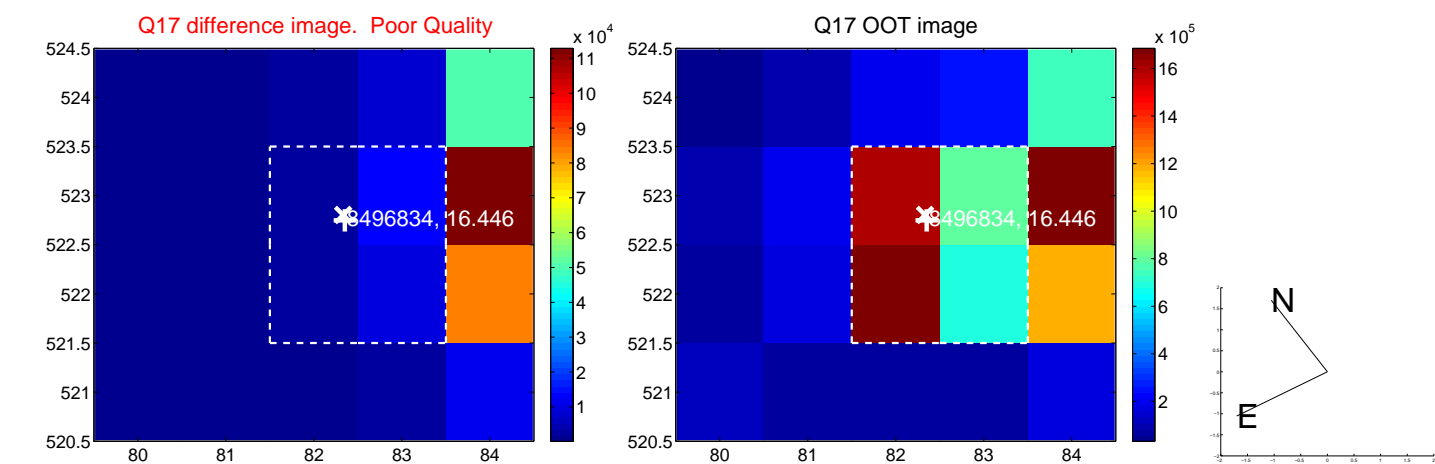
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UKIRT Image

Declination

