

KIC 005217574

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})
005217574-01	OBS	4151.01	0.894853	132.227658	153.0	2.748	13.2	14.0	0.86	5764	1.28	2291.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005217574-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—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.

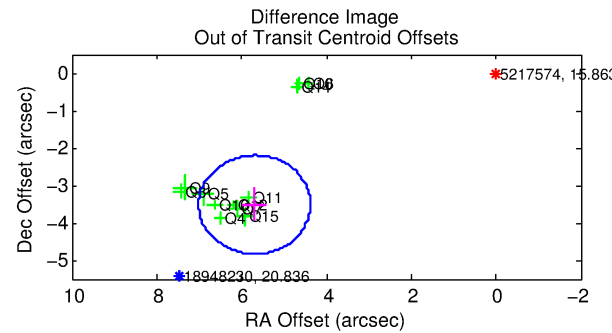
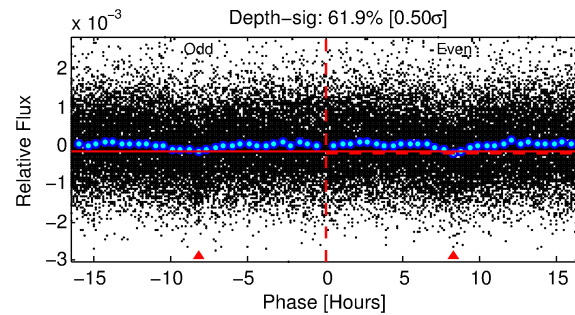
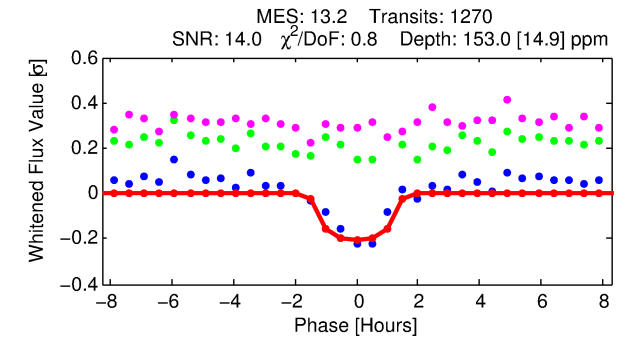
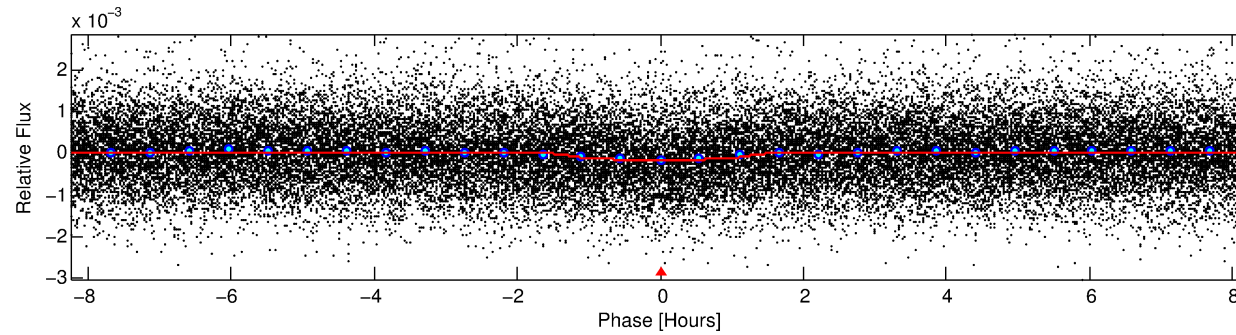
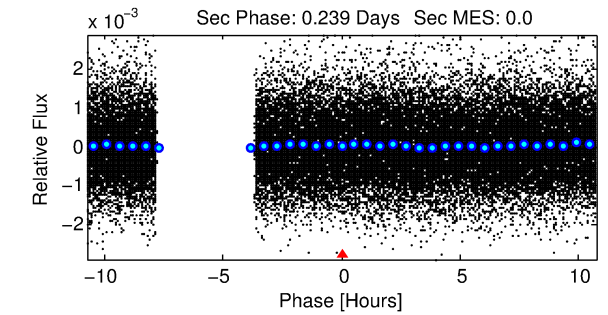
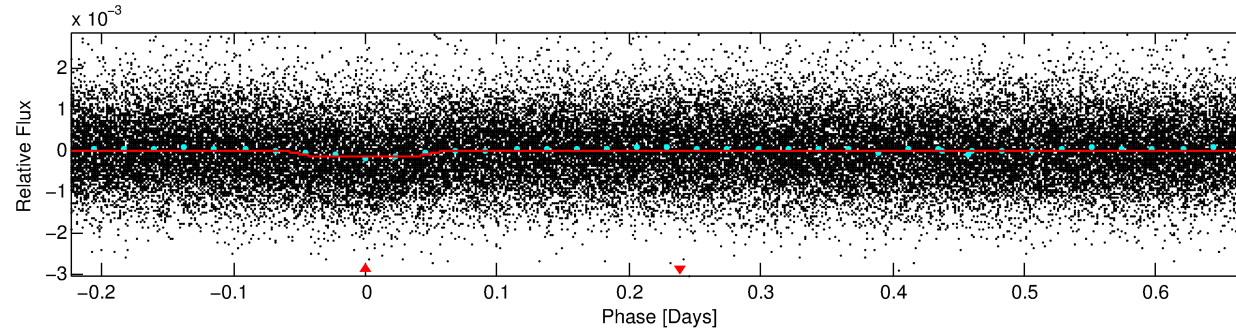
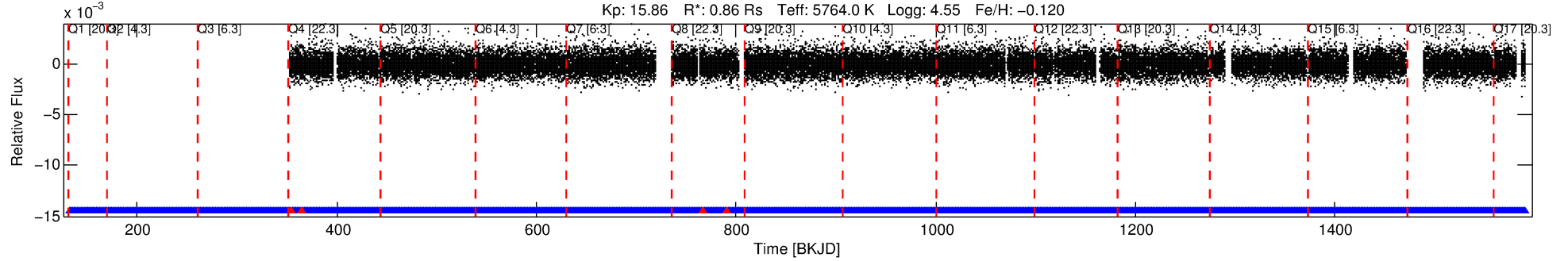
Ephemeris Match Information For 005217574-01

No Significant Match Found

DV One-Page Summary

KIC: 5217574 Candidate: 1 of 1 Period: 0.895 d
KOI: K04151.01 Corr: 0.816

Kp: 15.86 R*: 0.86 Rs Teff: 5764.0 K Logg: 4.55 Fe/H: -0.120



DV Fit Results:

Period = 0.89485 [0.00001] d
Epoch = 132.2277 [0.0026] BKJD
Rp/R* = 0.0136 [0.0063]
a/R* = 1.47 [1.80]
b = 0.91 [0.46]
Seff = 2291.55 [867.51]
Teq = 1764 [167] K
Rp = 1.28 [0.70] Re
a = 0.0179 [0.0043] AU
Ag = N/A
Teffp = N/A

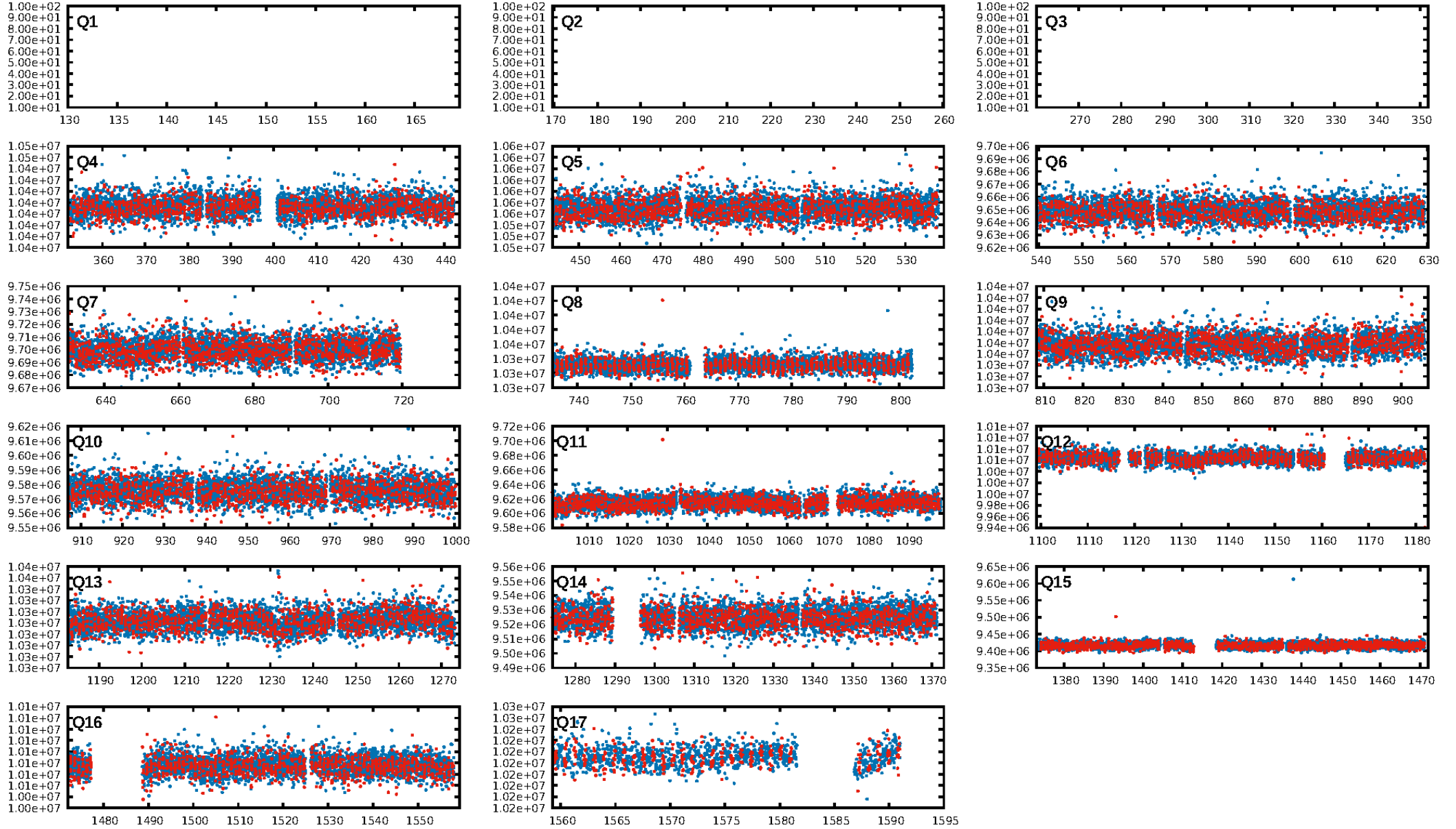
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.30e-39
RollingBand-fgt: 1.00 [1236/1240]
GhostDiagnostic-chr: 0.169
Centroid-sig: 0.0%
Centroid-so: 12.113 arcsec [12.36σ]
OotOffset-rm: 6.692 arcsec [15.24σ]
KicOffset-rm: 6.729 arcsec [15.27σ]
OotOffset-st: 3/3/4/2 [12]
KicOffset-st: 3/3/4/2 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [14/14]

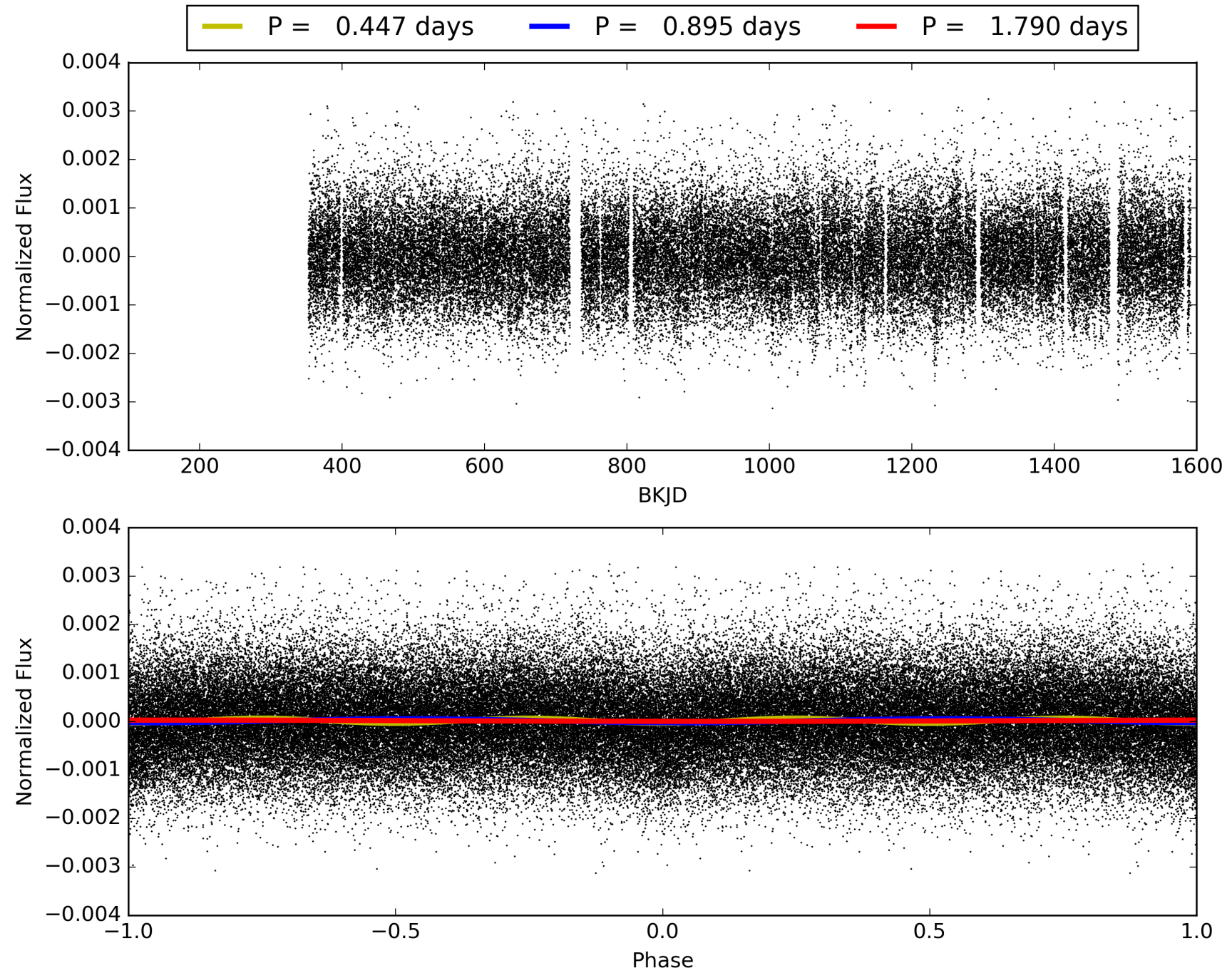
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:05:33 Z

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

TCE 005217574-01, PDC Light Curves

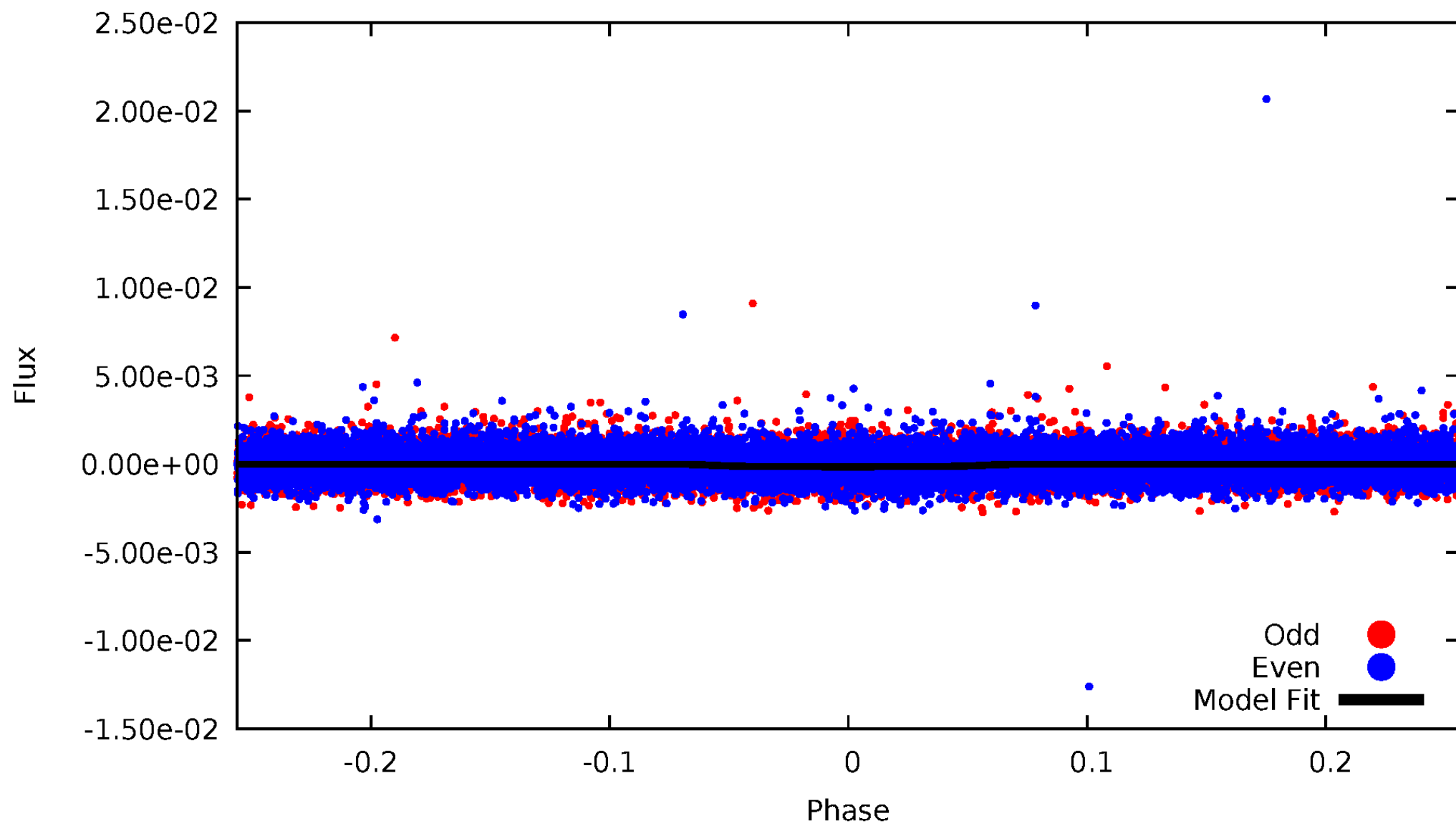


TCE 005217574-01



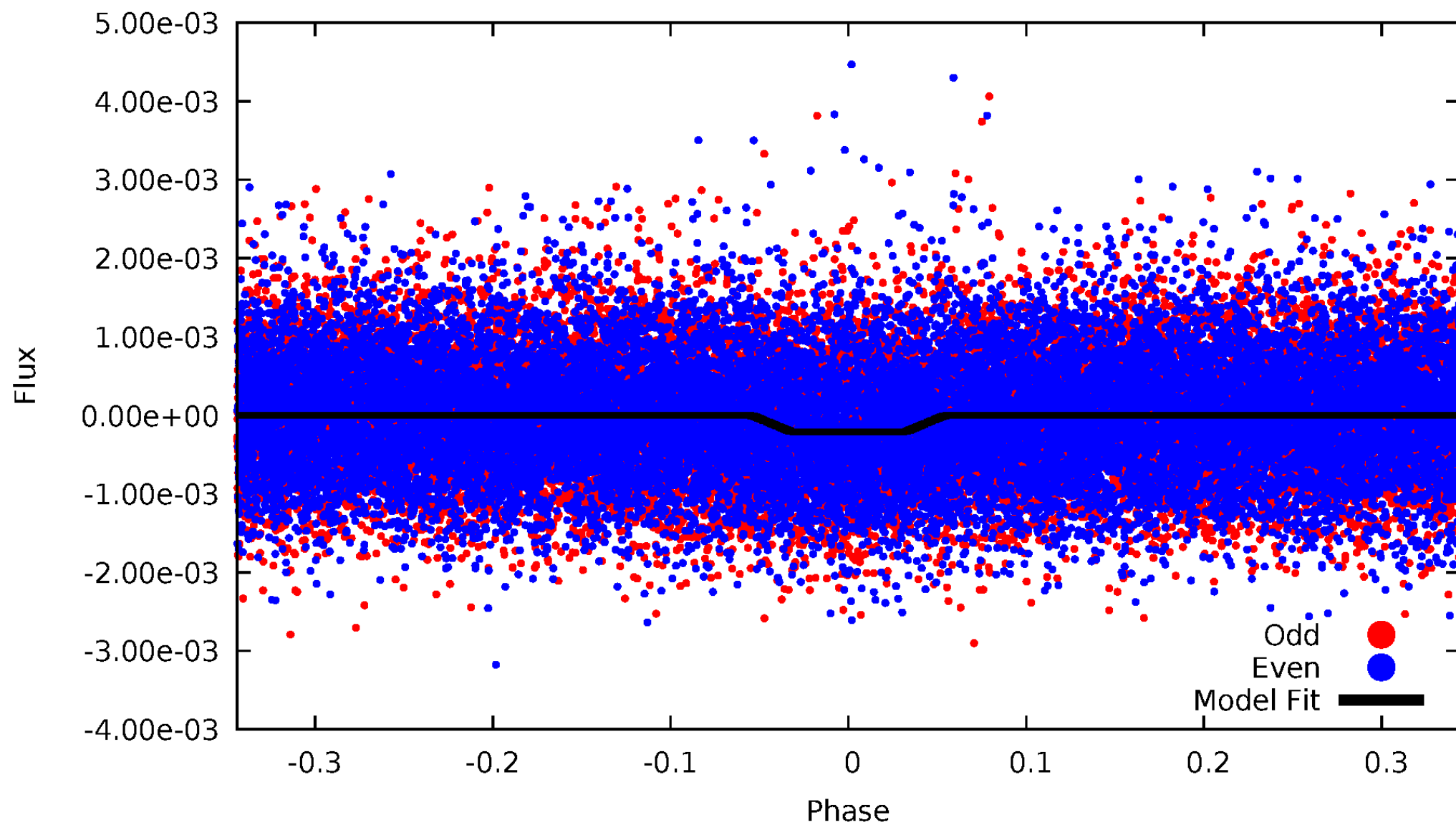
DV Odd/Even

TCE 005217574-01



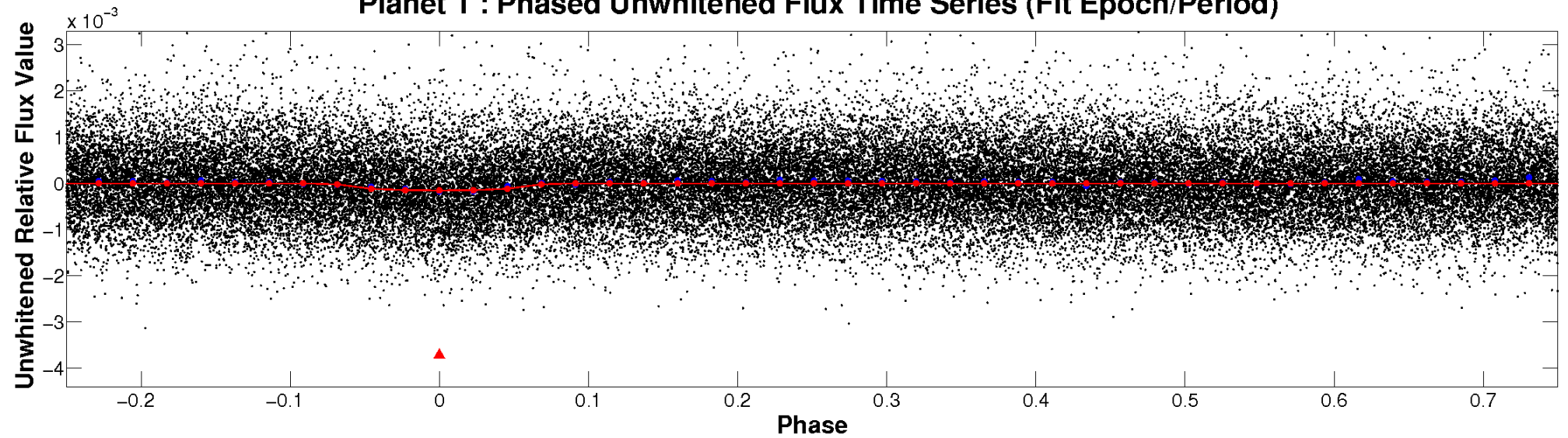
ALT Odd/Even

TCE 005217574-01

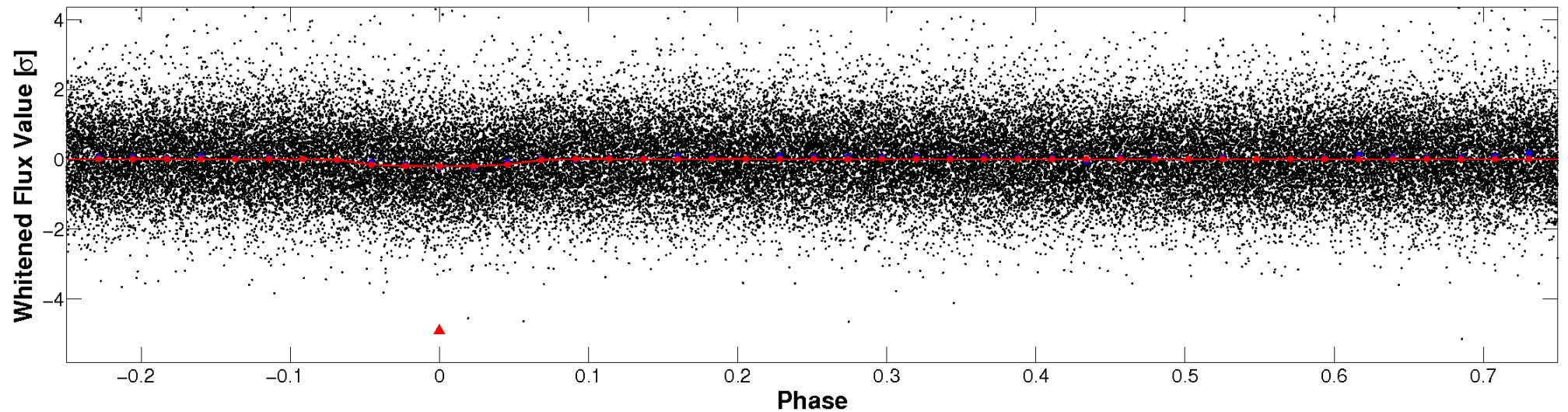


Non-Whitened Vs. Whitened Light Curve

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

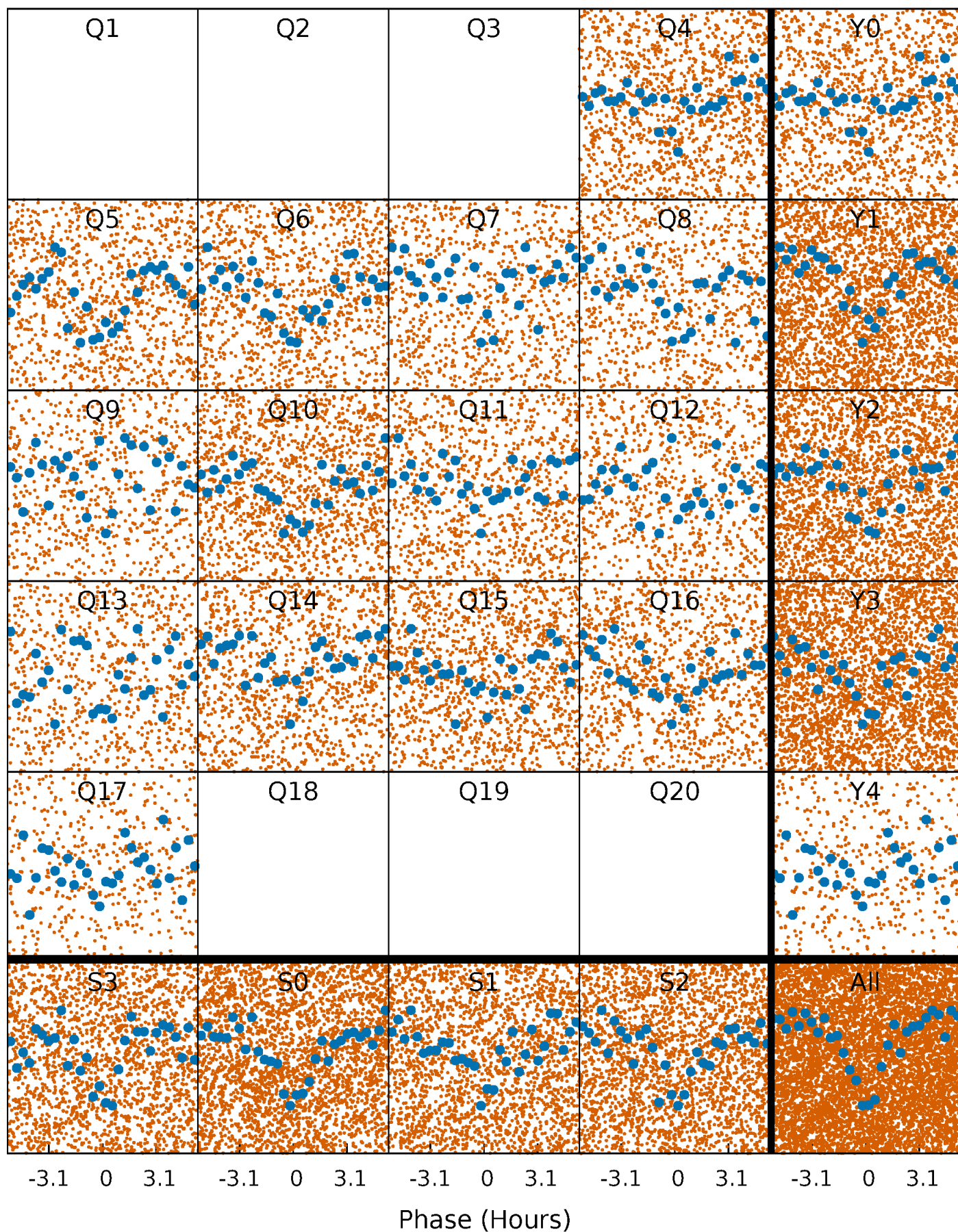


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



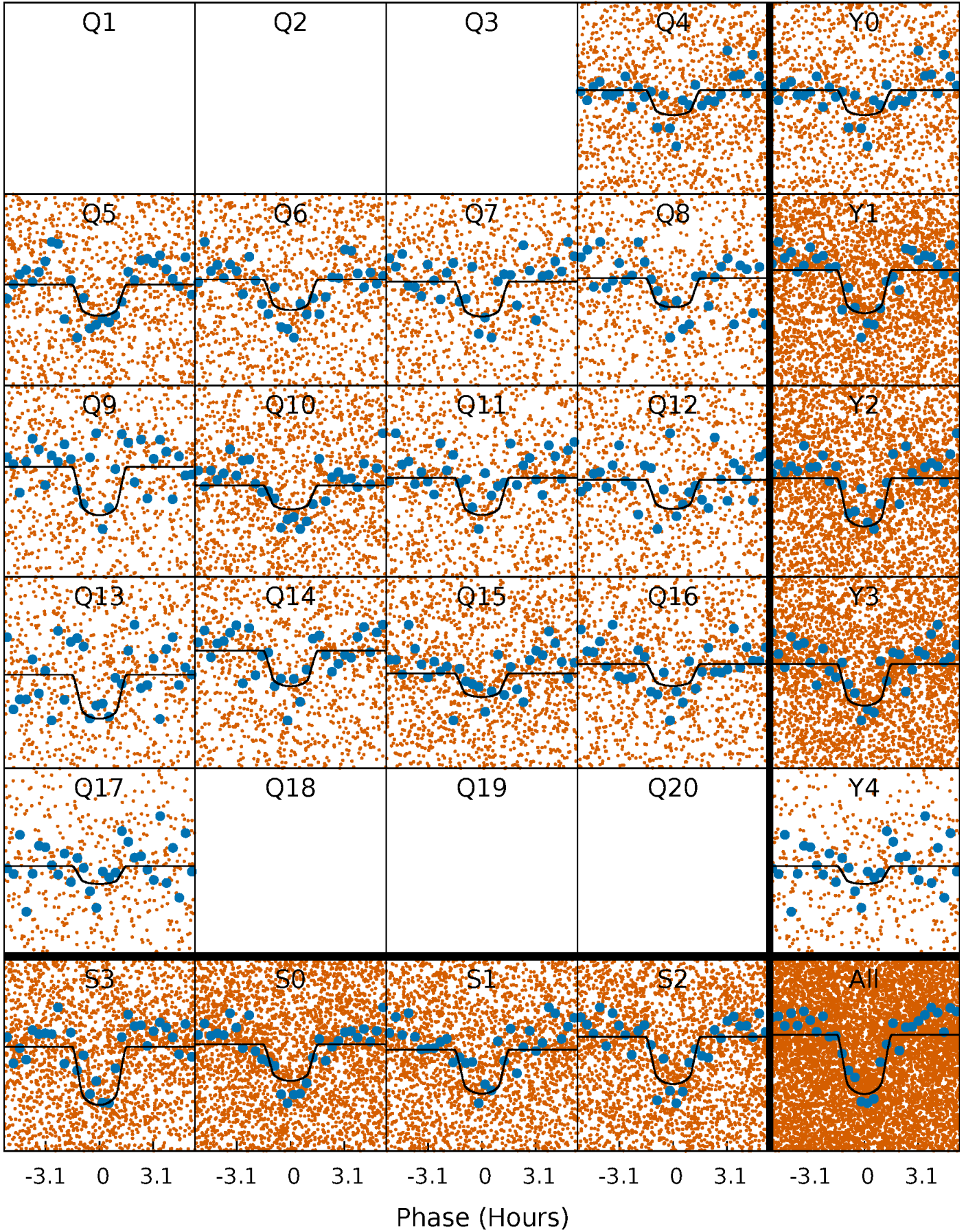
PDC Quarter-Phased Transit Curves

TCE 005217574-01 P= 0.894853 Days $T_0=132.227658$ (BKJD)



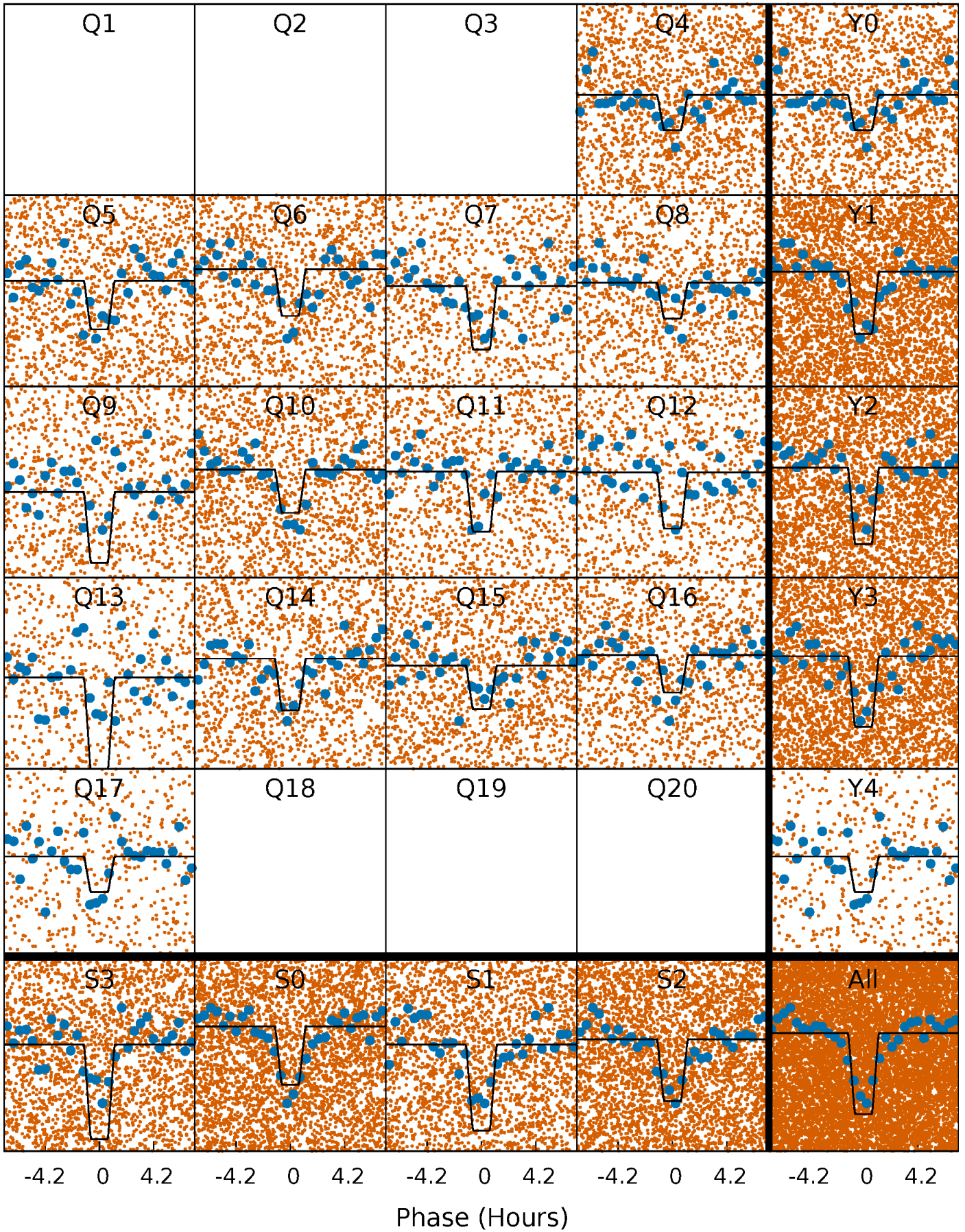
DV Quarter-Phased Transit Curves

TCE 005217574-01 P= 0.894853 Days $T_0=132.227658$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

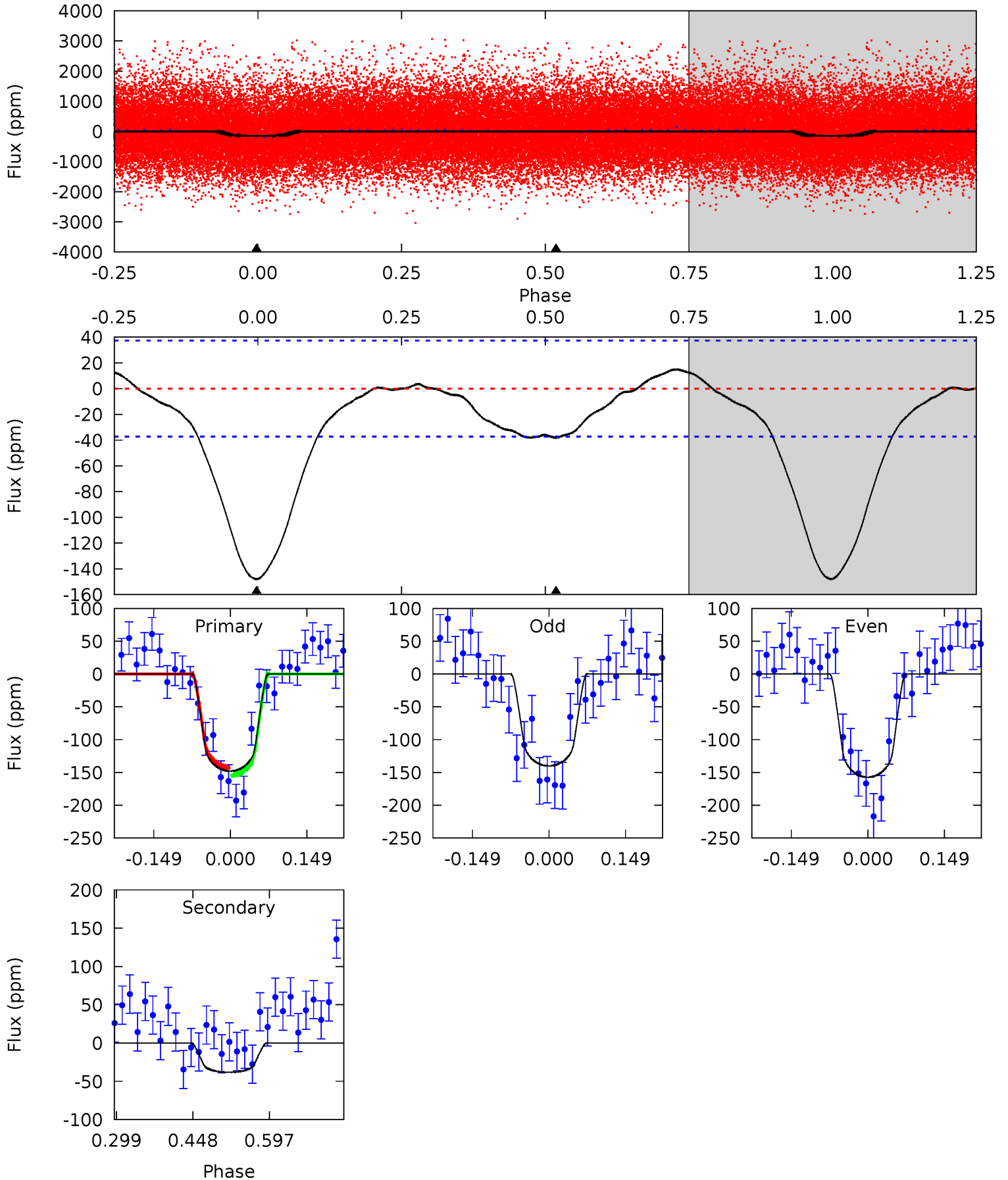
TCE 005217574-01 P= 0.894854 Days $T_0=132.226801$ (BKJD)



DV Model-Shift Uniqueness Test

005217574-01, P = 0.894853 Days, E = 132.227658 Days

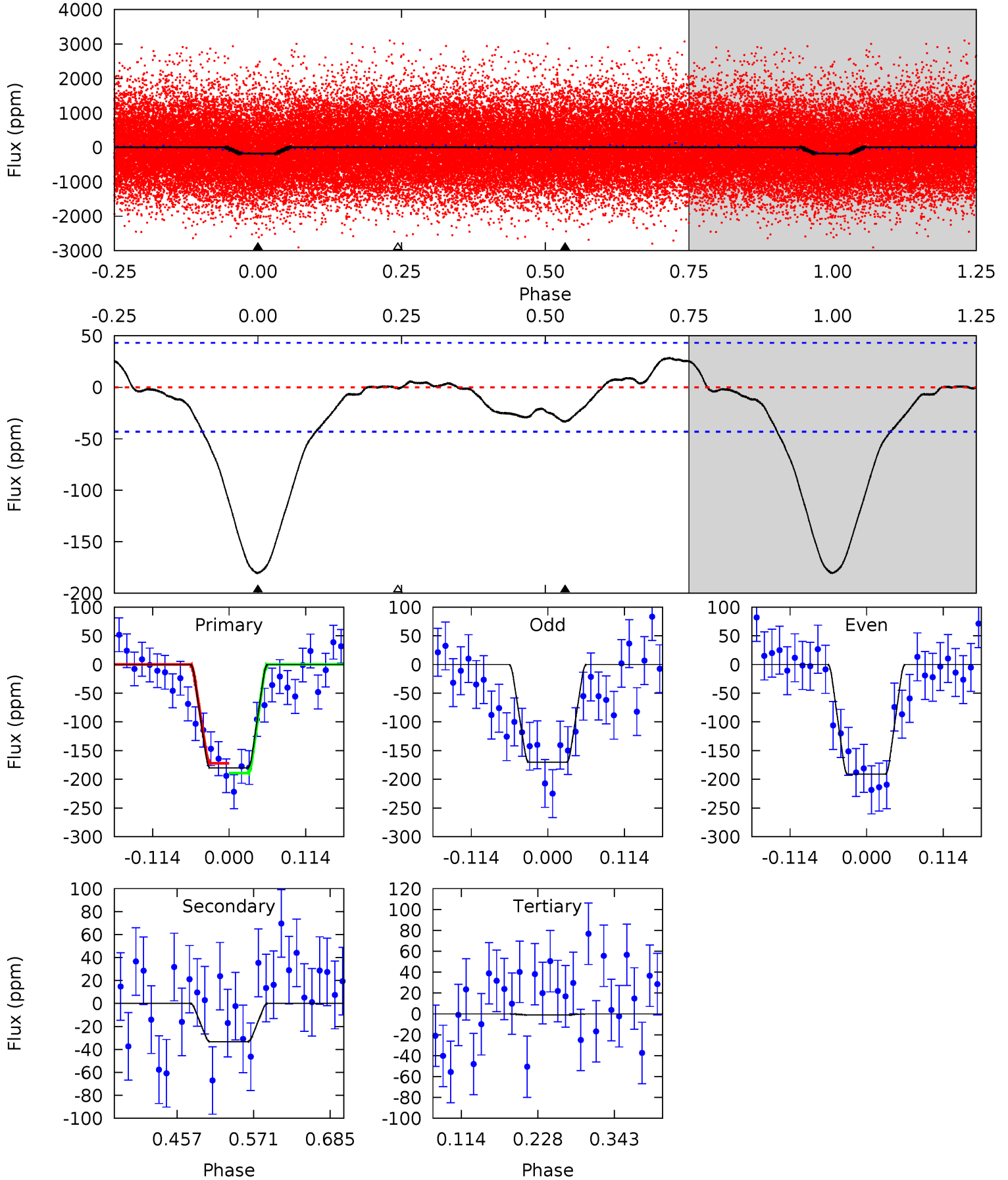
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.8	4.59	0	0	4.48	1.44	0.92	17.8	17.8	4.59	4.59	1.04	0.88	0.09	0.66



Alt Model-Shift Uniqueness Test

005217574-01, P = 0.894854 Days, E = 132.226801 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.0	3.50	0.11	0	4.54	1.58	1.42	18.9	19.0	3.39	3.50	1.11	0.92	0.14	0.90



Stellar Parameters For KIC 005217574

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5764^{+170}_{-204}	$4.548^{+0.036}_{-0.192}$	$-0.120^{+0.300}_{-0.300}$	$0.863^{+0.247}_{-0.082}$	$0.959^{+0.104}_{-0.115}$	$2.100^{+0.417}_{-1.087}$
	+3%/-4%	+1%/-4%	+250%/-250%	+29%/-10%	+11%/-12%	+20%/-52%
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 005217574-01 / KOI 4151.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-38 ± 8	$1.38^{+0.63}_{-0.61}$	2538^{+162}_{-131}	4041^{+1081}_{-559}	$3.432^{+7.554}_{-1.860}$
Alt.	-33 ± 10	$1.46^{+0.67}_{-0.61}$	2524^{+178}_{-126}	3851^{+963}_{-564}	$2.675^{+5.475}_{-1.536}$

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 $A_{obs} \gg 1.0$

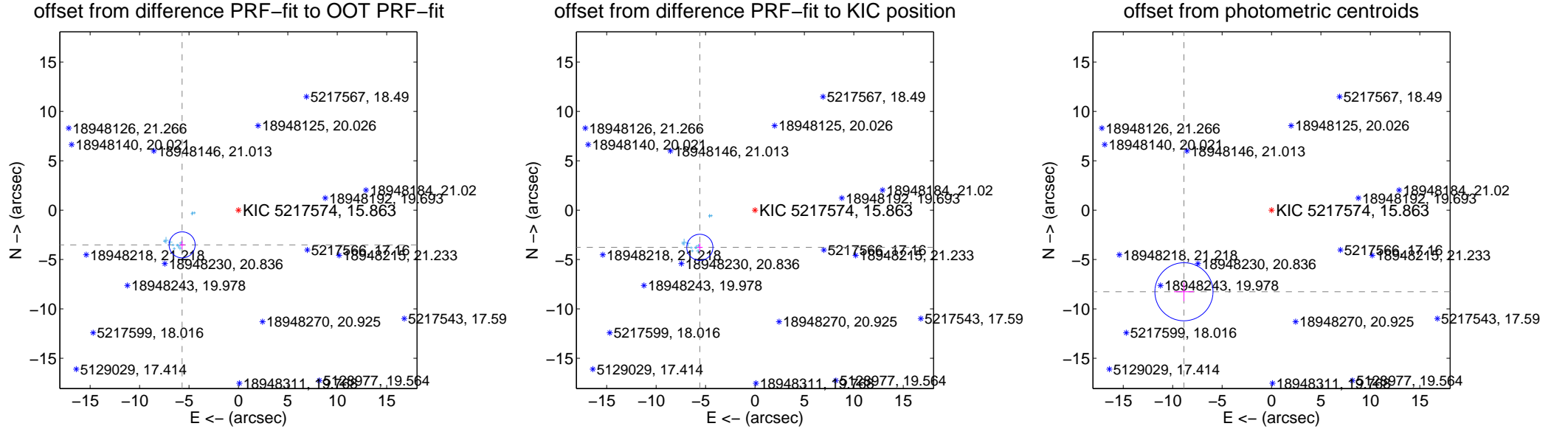
DV Centroid Data

Supplemental centroid analysis for 005217574-01. Kepler magnitude: 15.86. Transit SNR 14.02

There are 12 quarters with good PRF difference image offsets

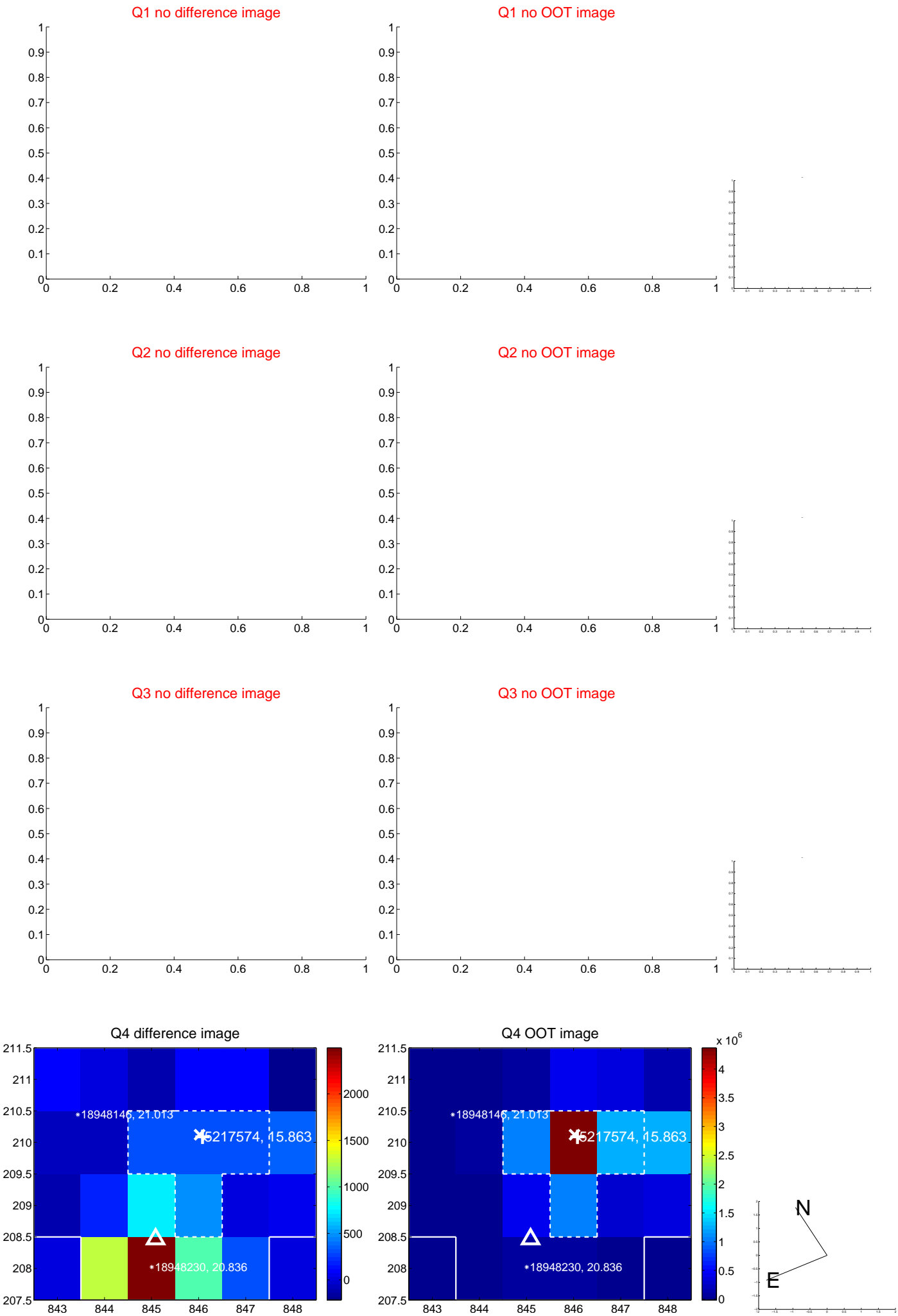
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.692 ± 0.439	15.24	5.694 ± 0.282	-3.516 ± 0.421
PRF-fit source offset from KIC position	6.729 ± 0.441	15.27	5.576 ± 0.282	-3.766 ± 0.415
photometric centroid source offset	12.11 ± 0.98	12.36	8.86 ± 1.01	-8.26 ± 0.95

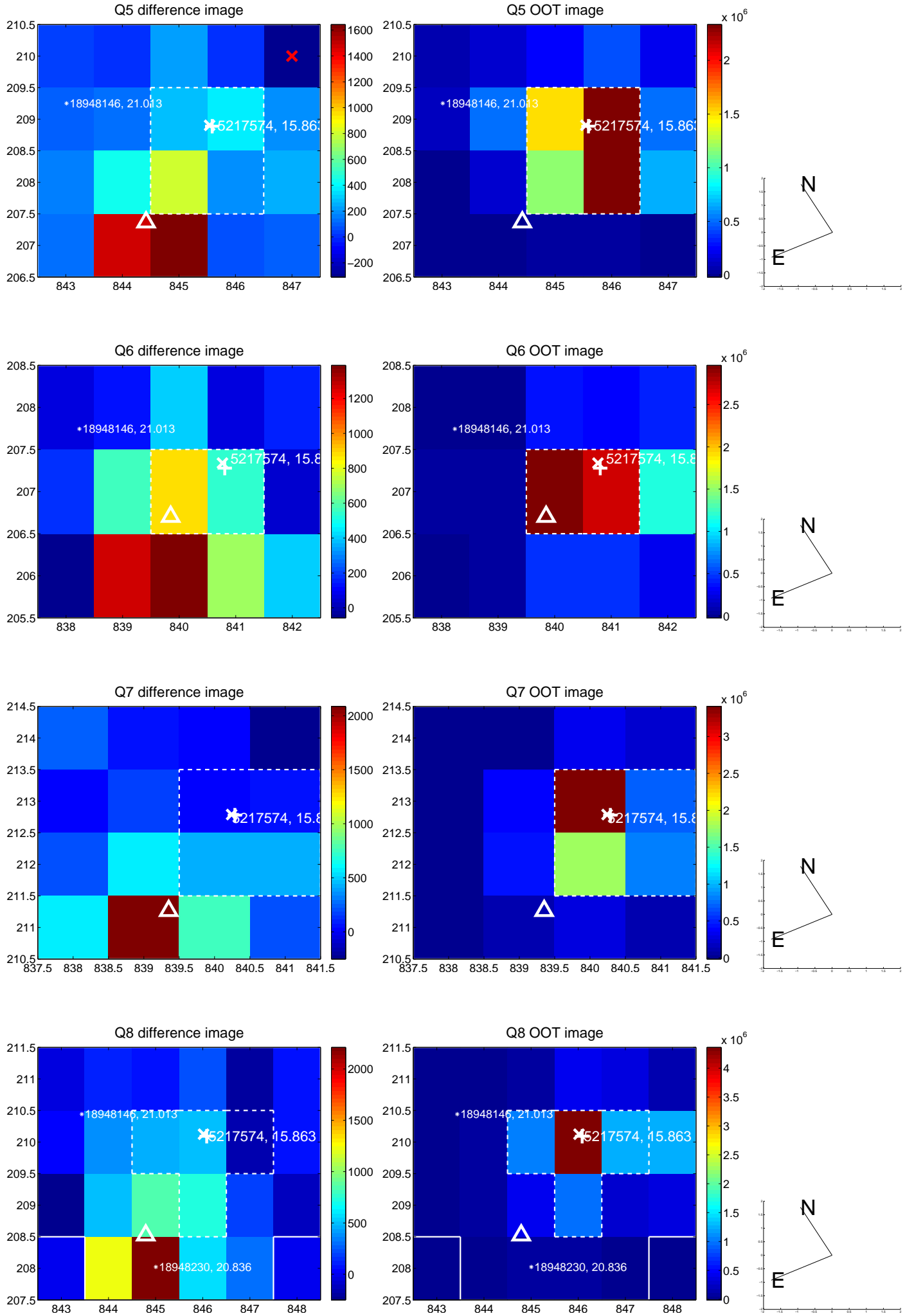


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

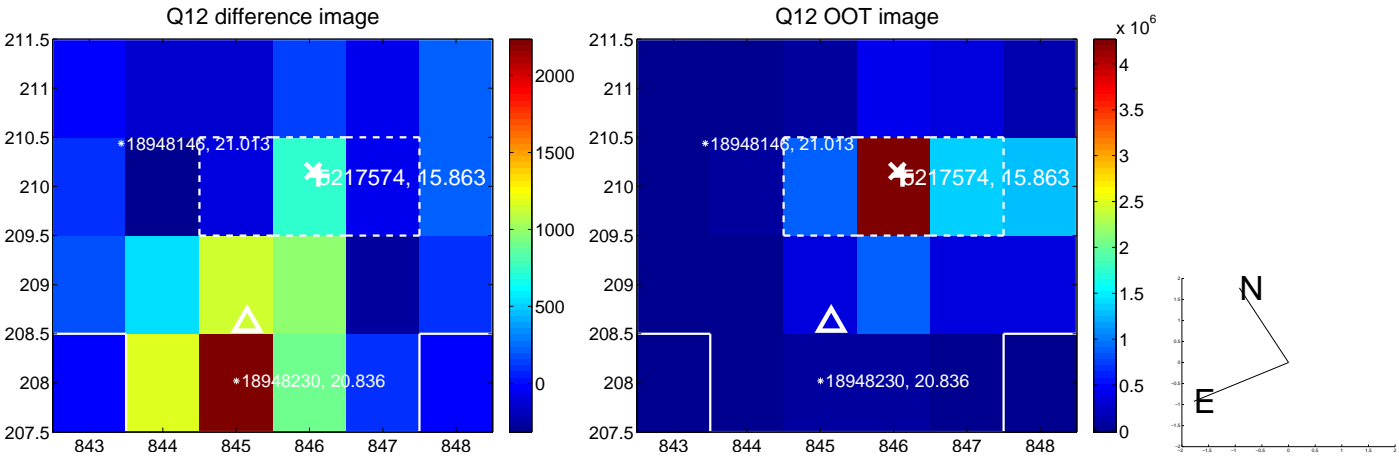
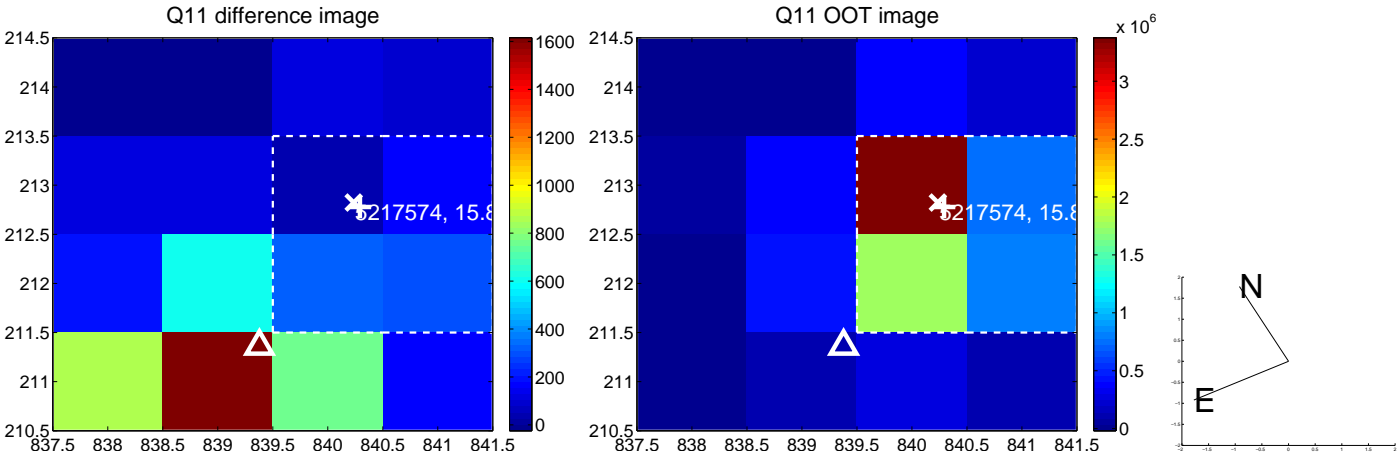
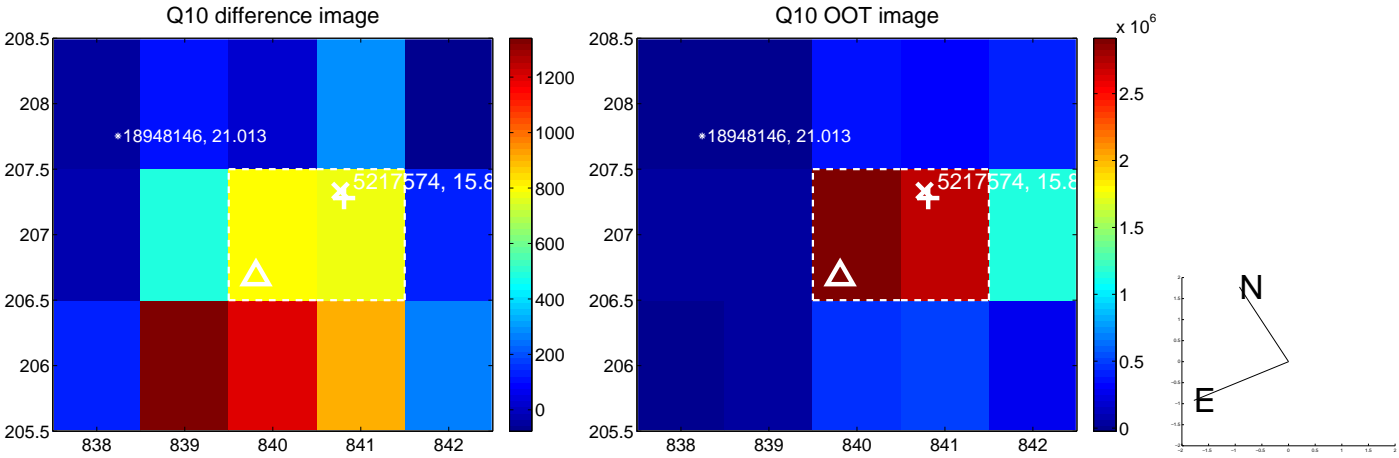
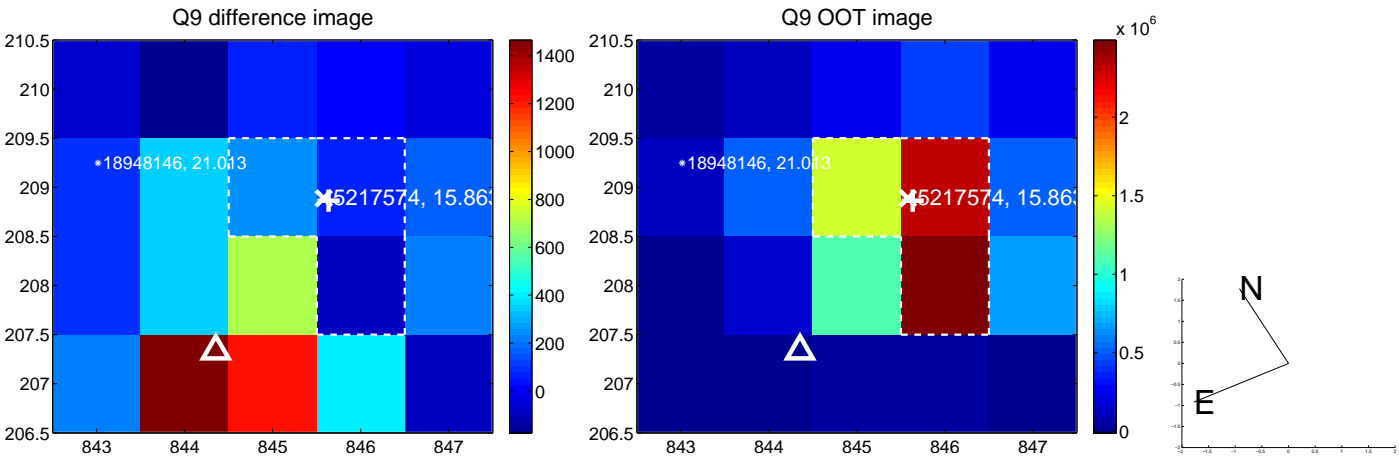
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



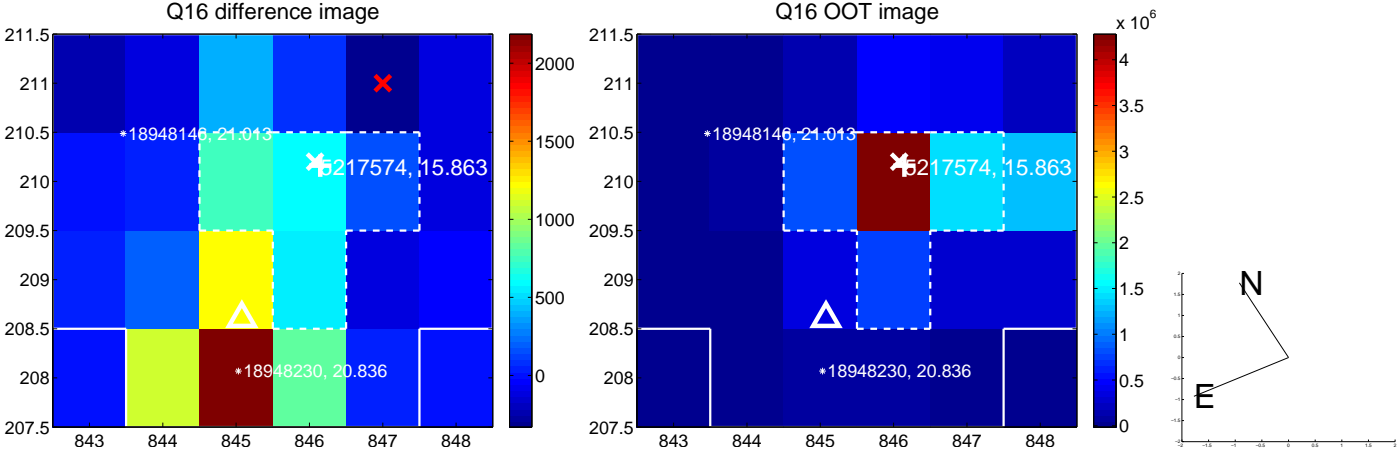
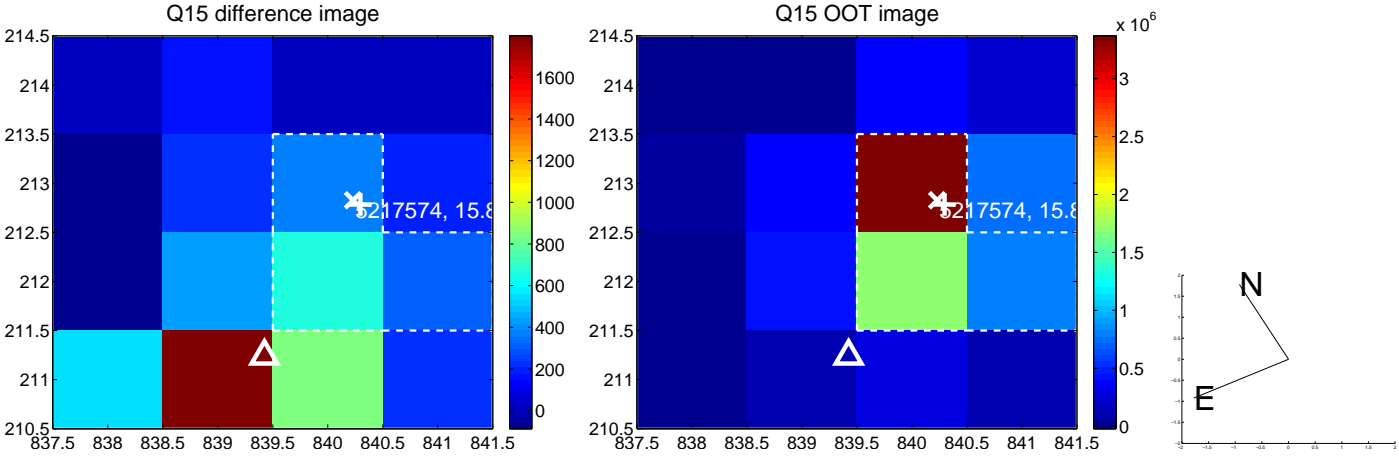
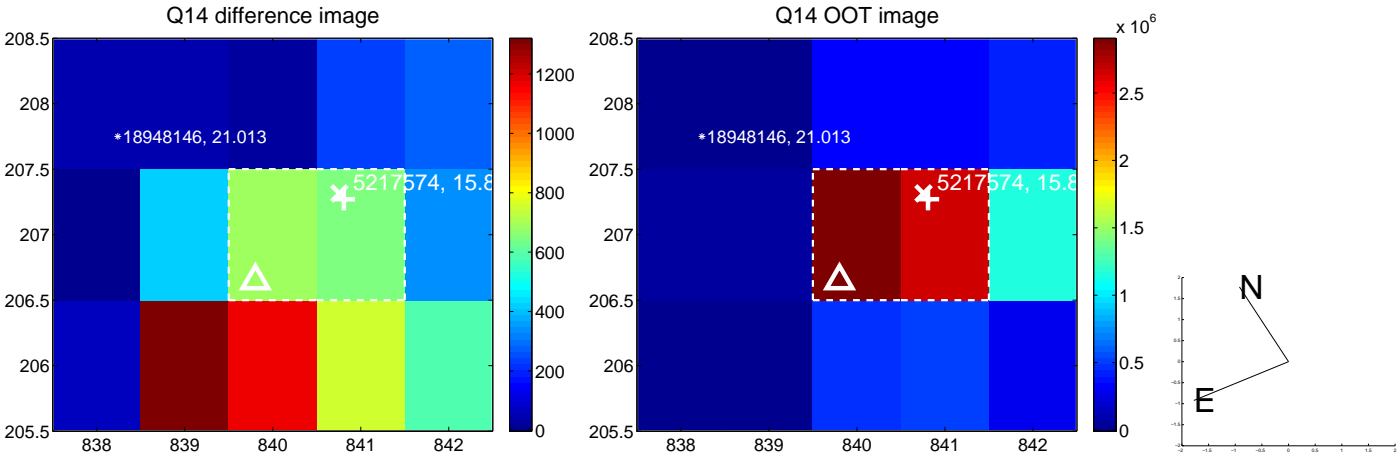
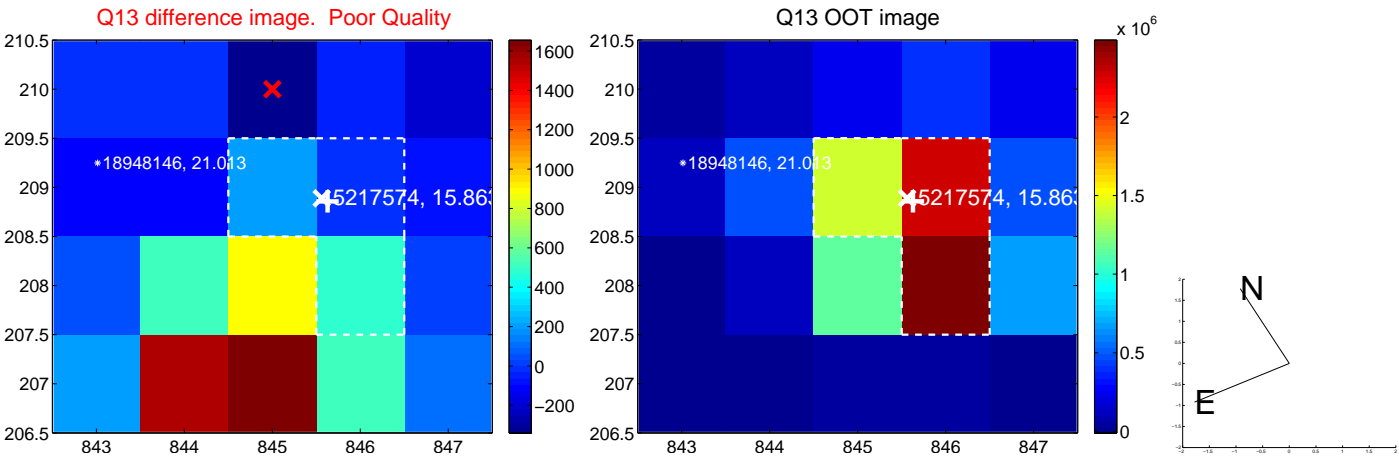
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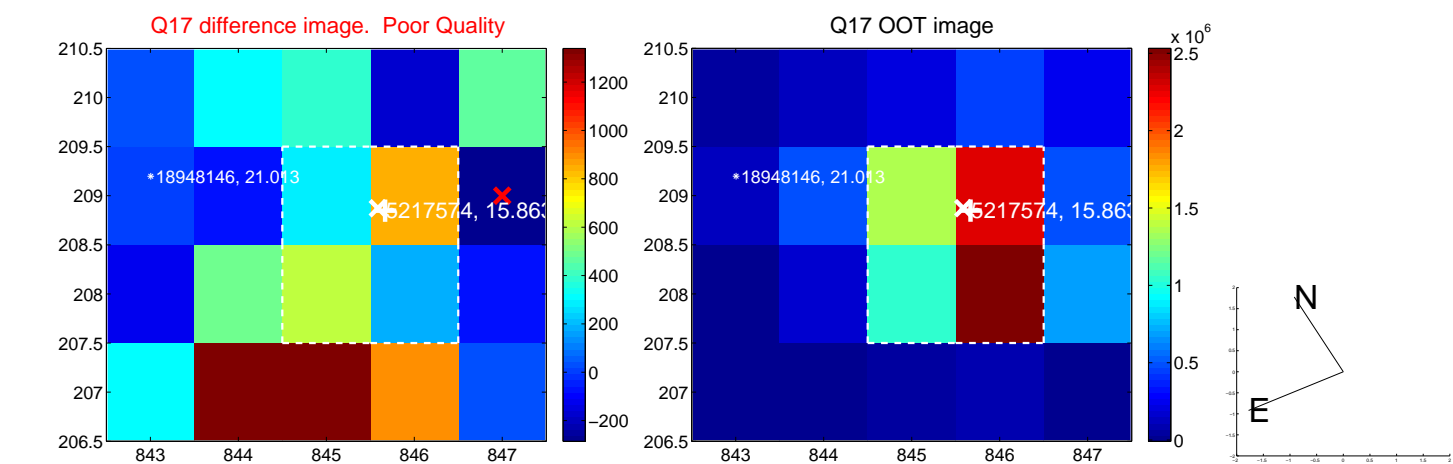
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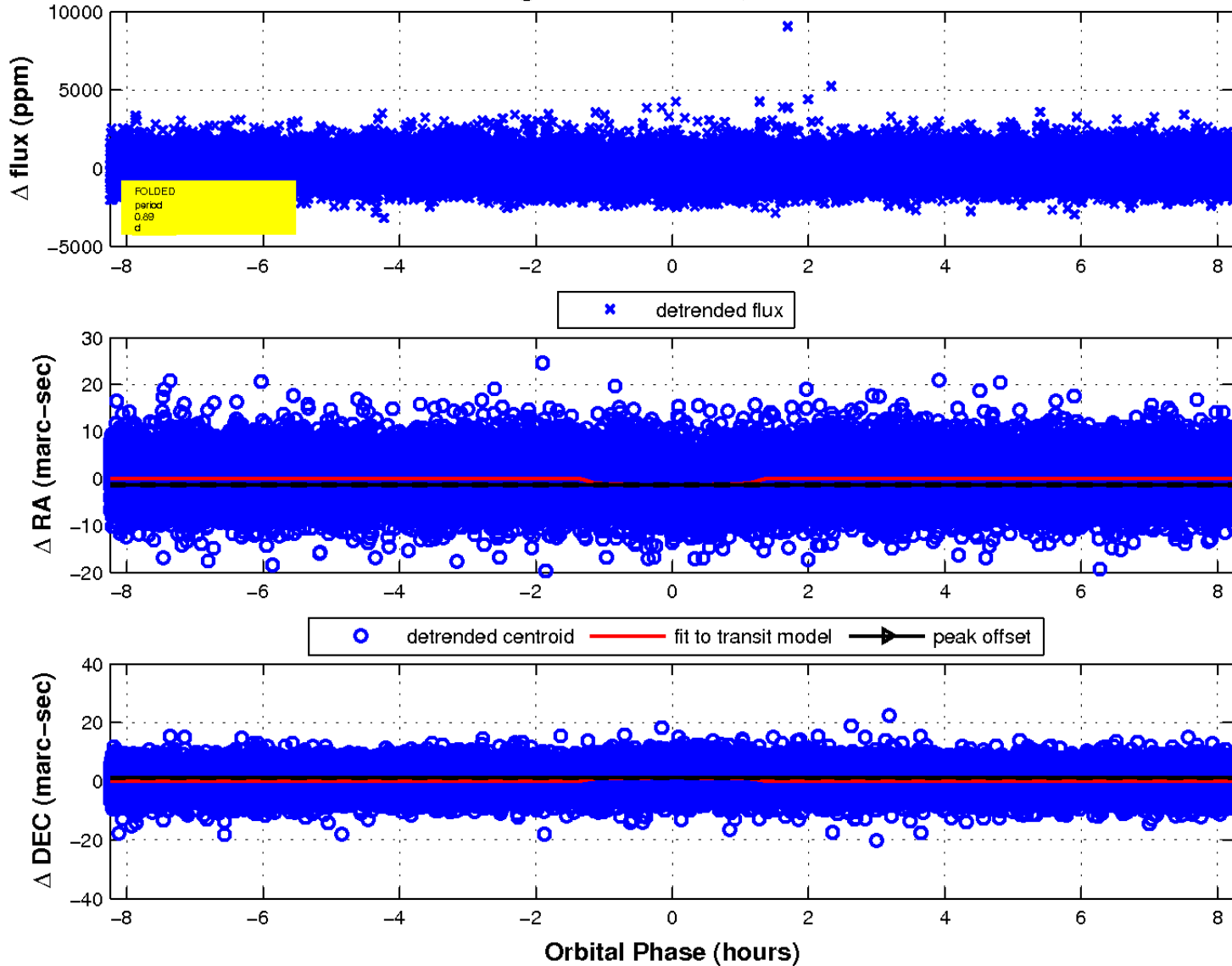
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

