

KIC 005461501

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})
005461501-01	OBS	No	2.376413	133.179510	89.3	18.337	10.1	13.4	1.96	8340	1.88	9465.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005461501-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

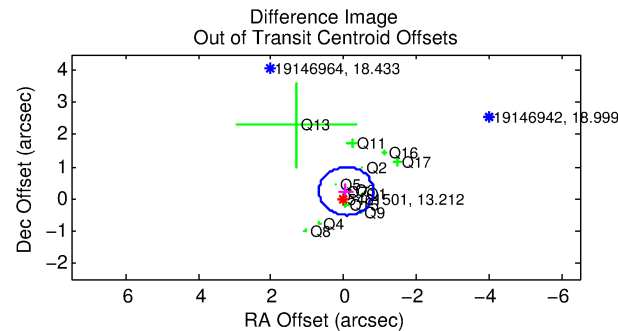
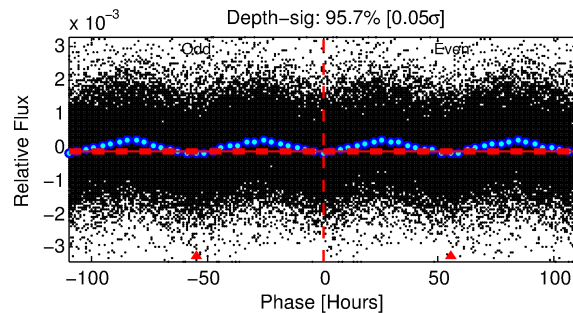
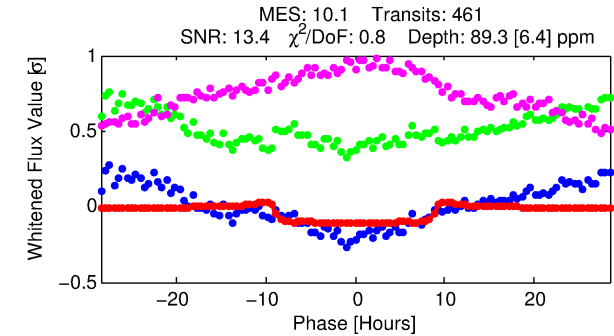
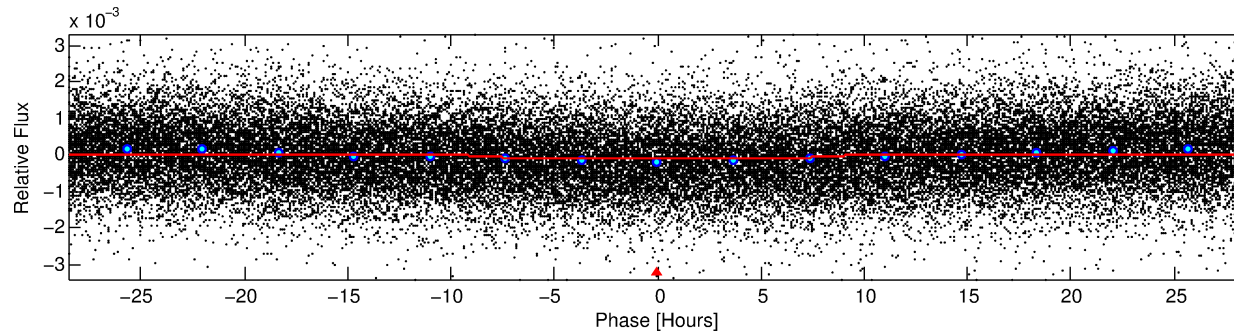
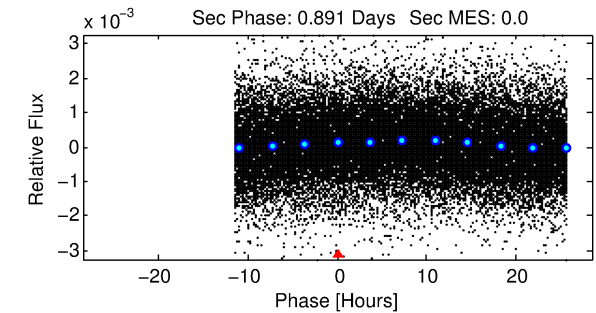
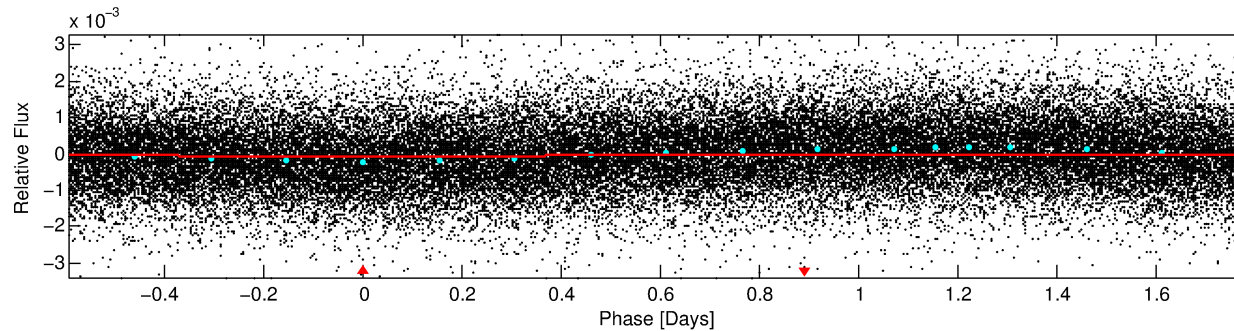
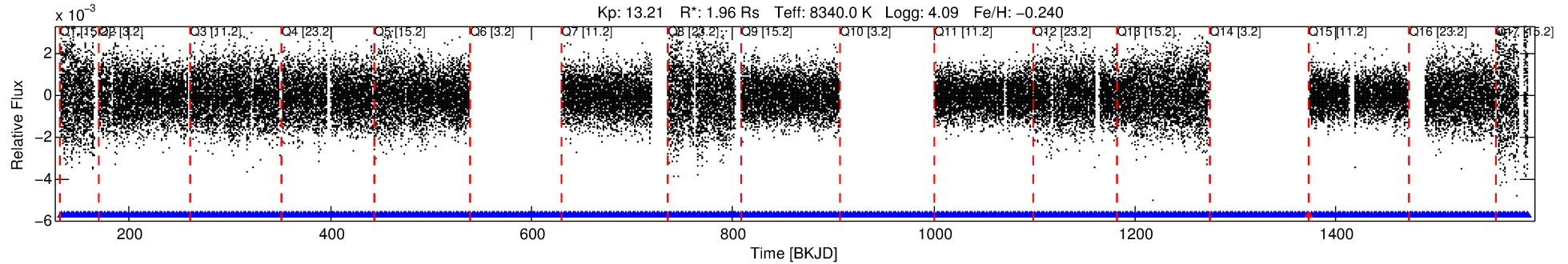
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005461501-01

No Significant Match Found

DV One-Page Summary

KIC: 5461501 Candidate: 1 of 1 Period: 2.376 d



DV Fit Results:

Period = 2.37641 [0.00004] d
Epoch = 133.1795 [0.0111] BKJD
Rp/R* = 0.0088 [0.0070]
a/R* = 1.19 [1.64]
b = 0.05 [104.37]
Seff = 9465.18 [3182.31]
Teq = 2515 [211] K
Rp = 1.88 [1.57] Re
a = 0.0420 [0.0084] AU
Ag = N/A
Teffp = N/A

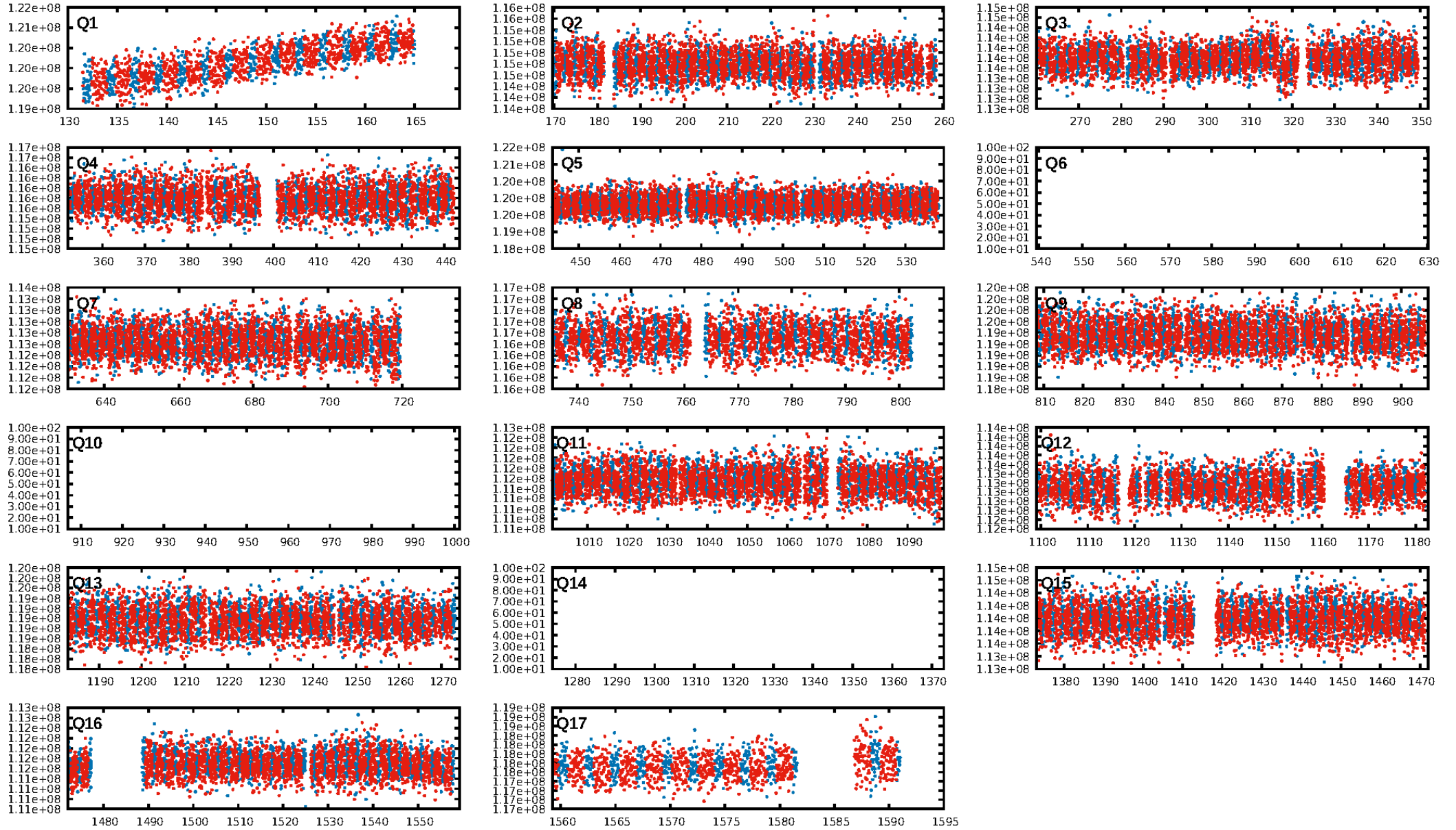
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [434/435]
GhostDiagnostic-chr: 2.066
Centroid-sig: 0.0%
Centroid-so: 0.486 arcsec [2.46σ]
OotOffset-rm: 0.243 arcsec [0.97σ]
KicOffset-rm: 0.305 arcsec [0.98σ]
OotOffset-st: 1/4/3/5 [13]
KicOffset-st: 1/4/3/5 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 1.00 [14/14]

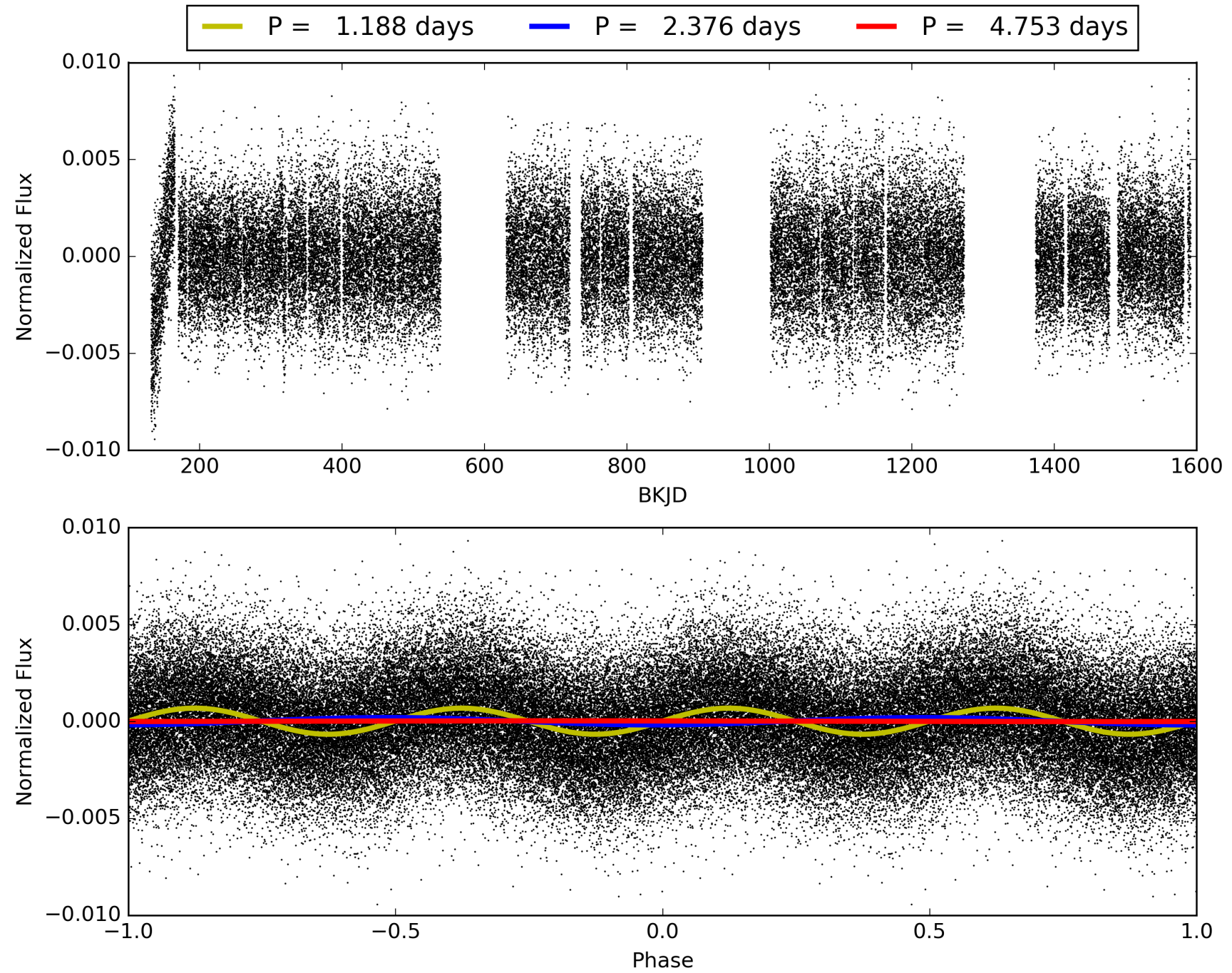
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:57:34 Z

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

TCE 005461501-01, PDC Light Curves

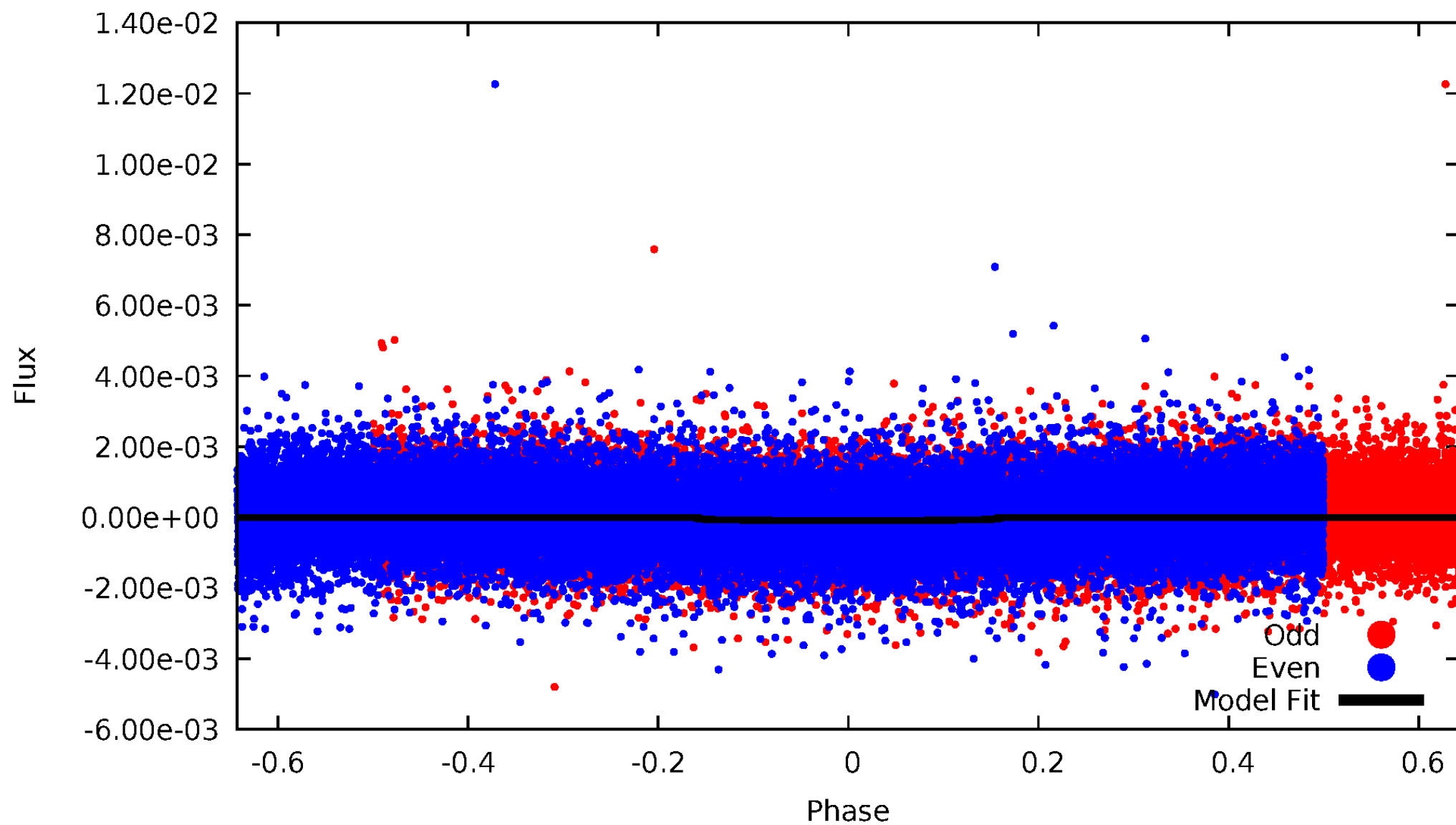


TCE 005461501-01



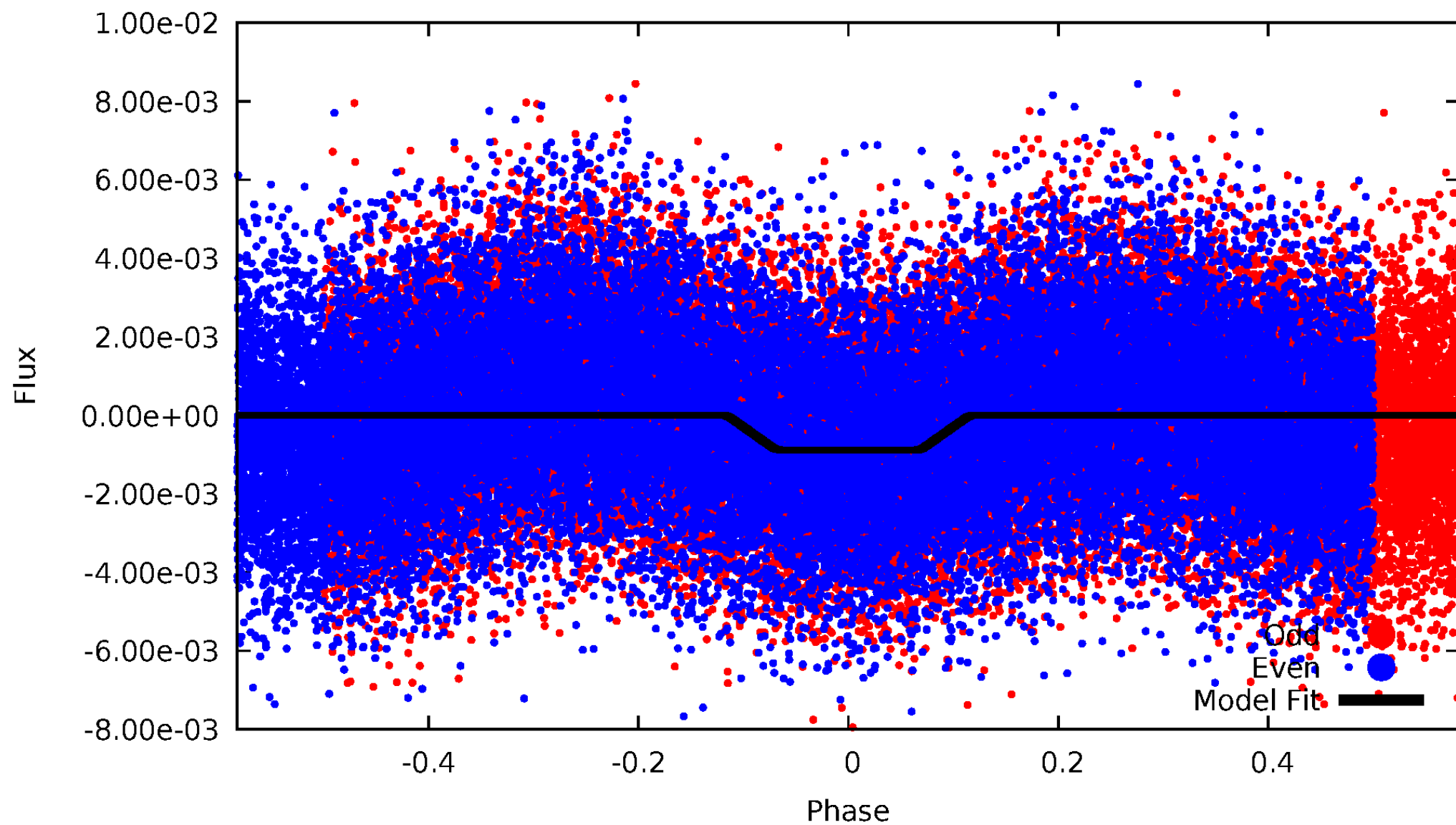
DV Odd/Even

TCE 005461501-01



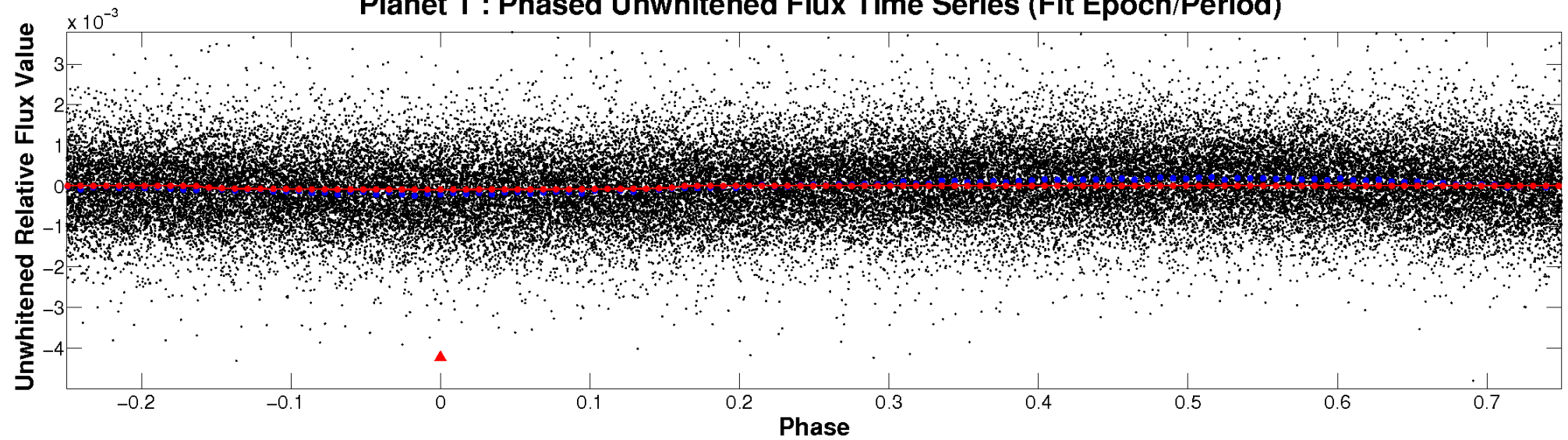
ALT Odd/Even

TCE 005461501-01

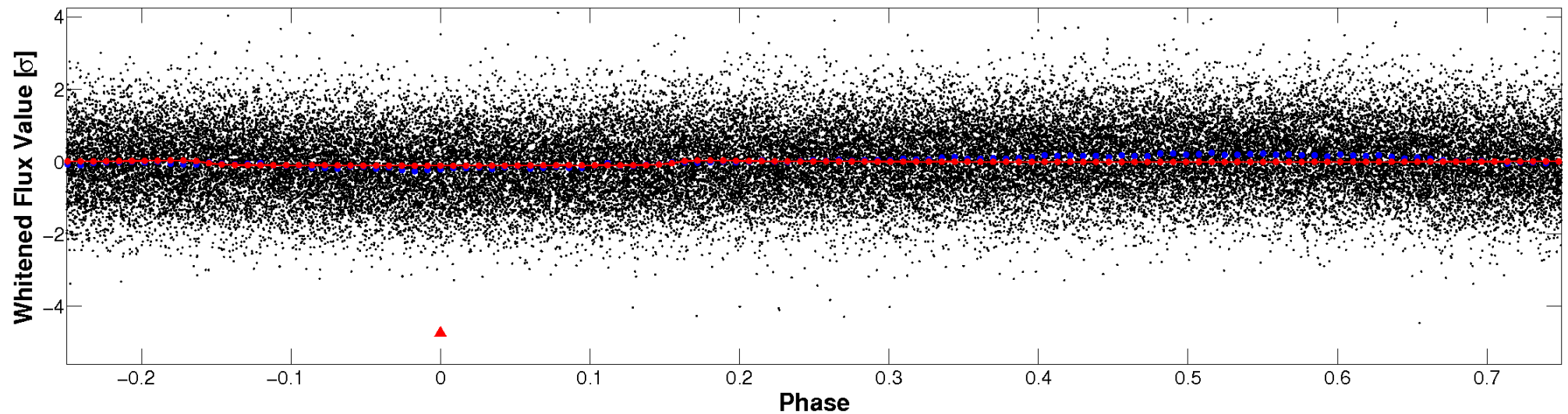


Non-Whitened Vs. Whitened Light Curve

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

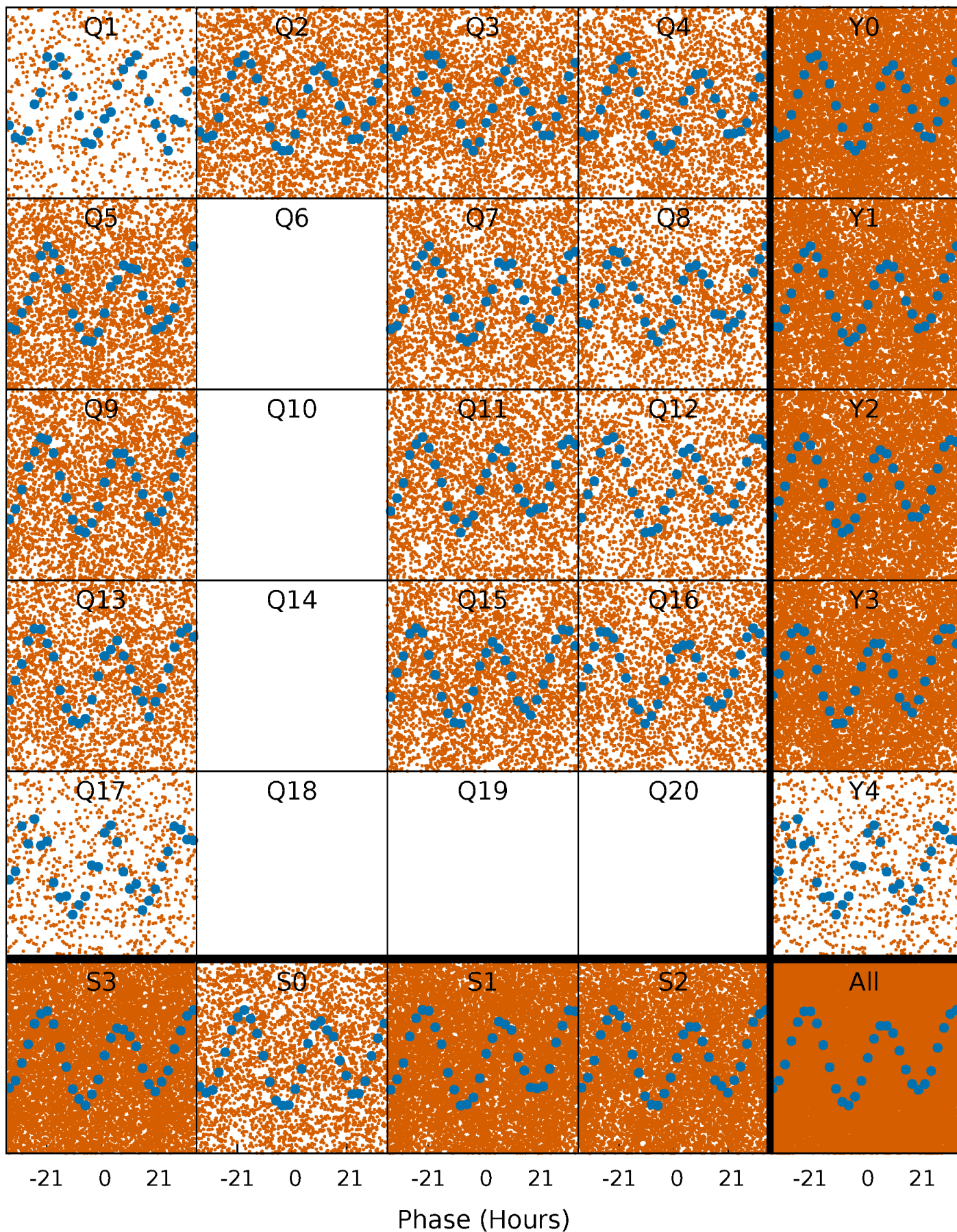


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



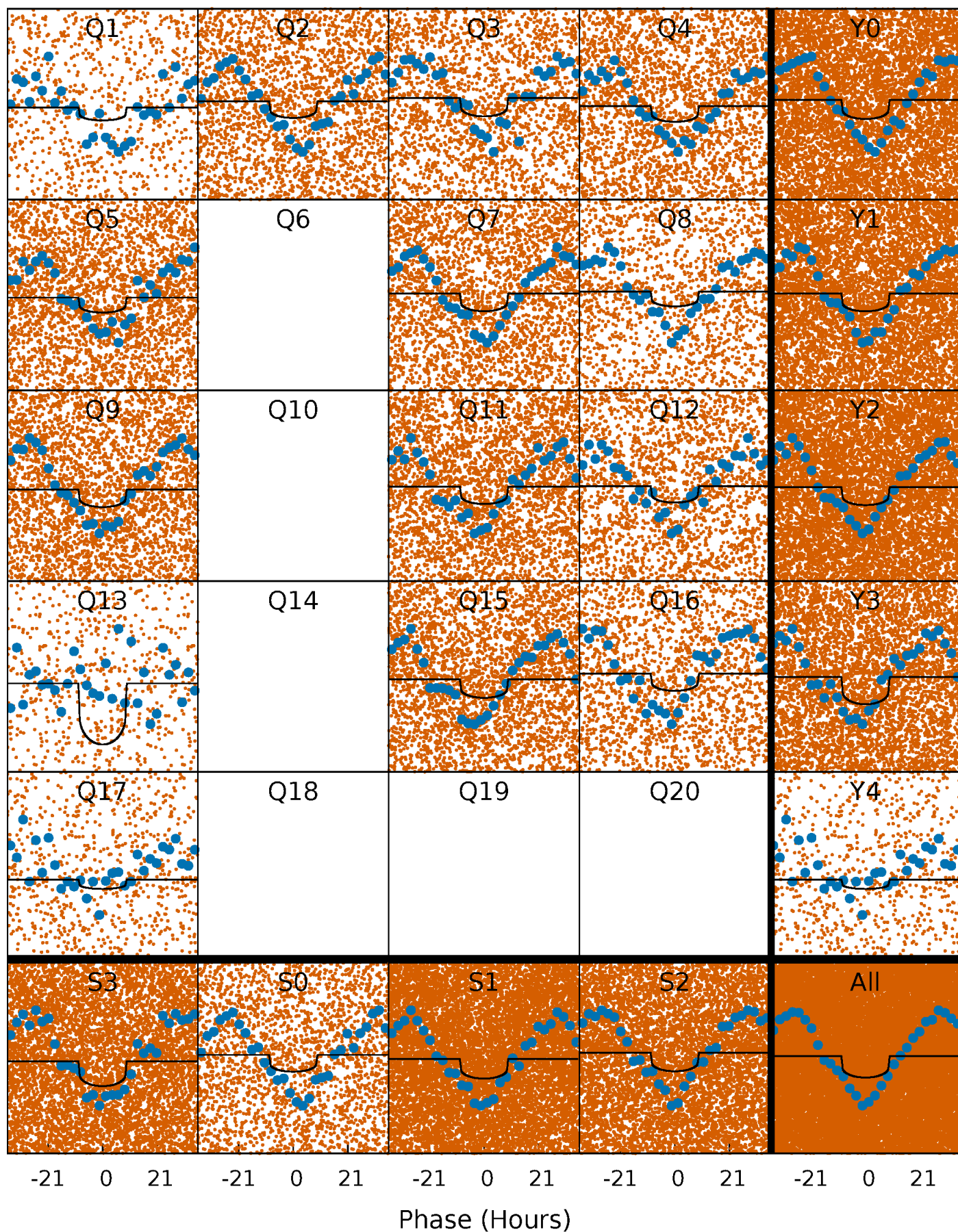
PDC Quarter-Phased Transit Curves

TCE 005461501-01 P= 2.376413 Days $T_0=133.179510$ (BKJD)



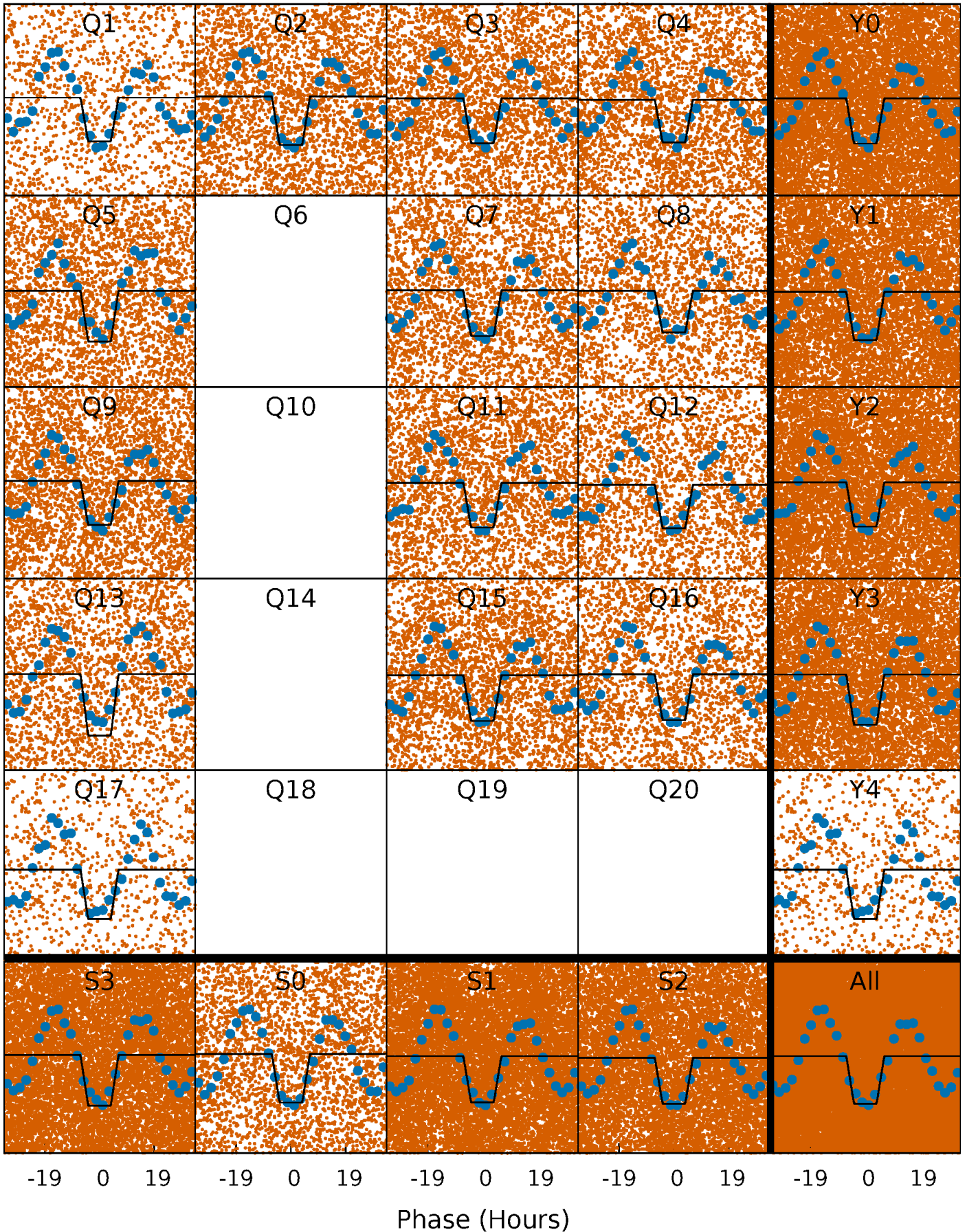
DV Quarter-Phased Transit Curves

TCE 005461501-01 P= 2.376413 Days $T_0=133.179510$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

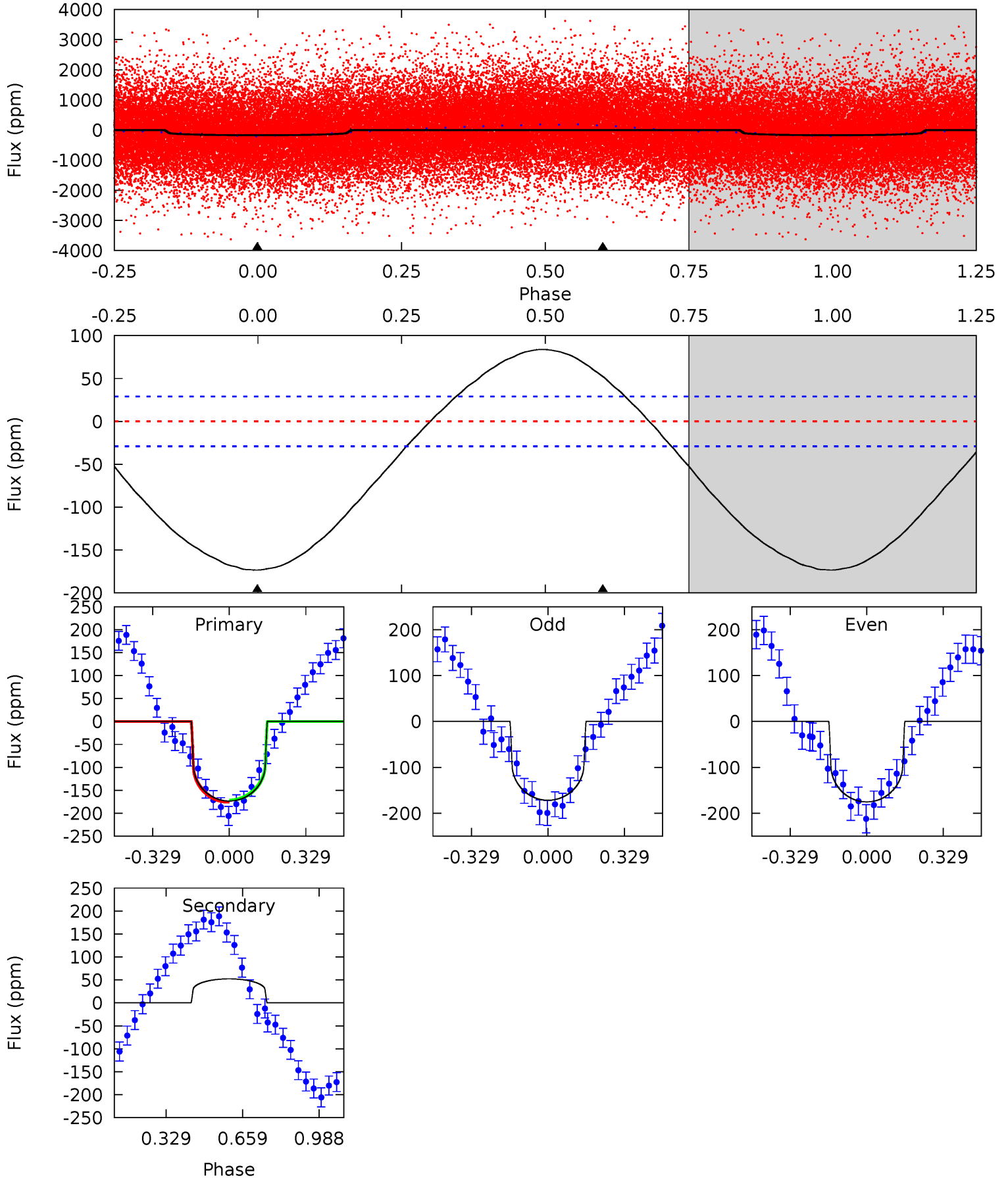
TCE 005461501-01 P= 2.375858 Days $T_0=133.057158$ (BKJD)



DV Model-Shift Uniqueness Test

005461501-01, P = 2.376413 Days, E = 130.803097 Days

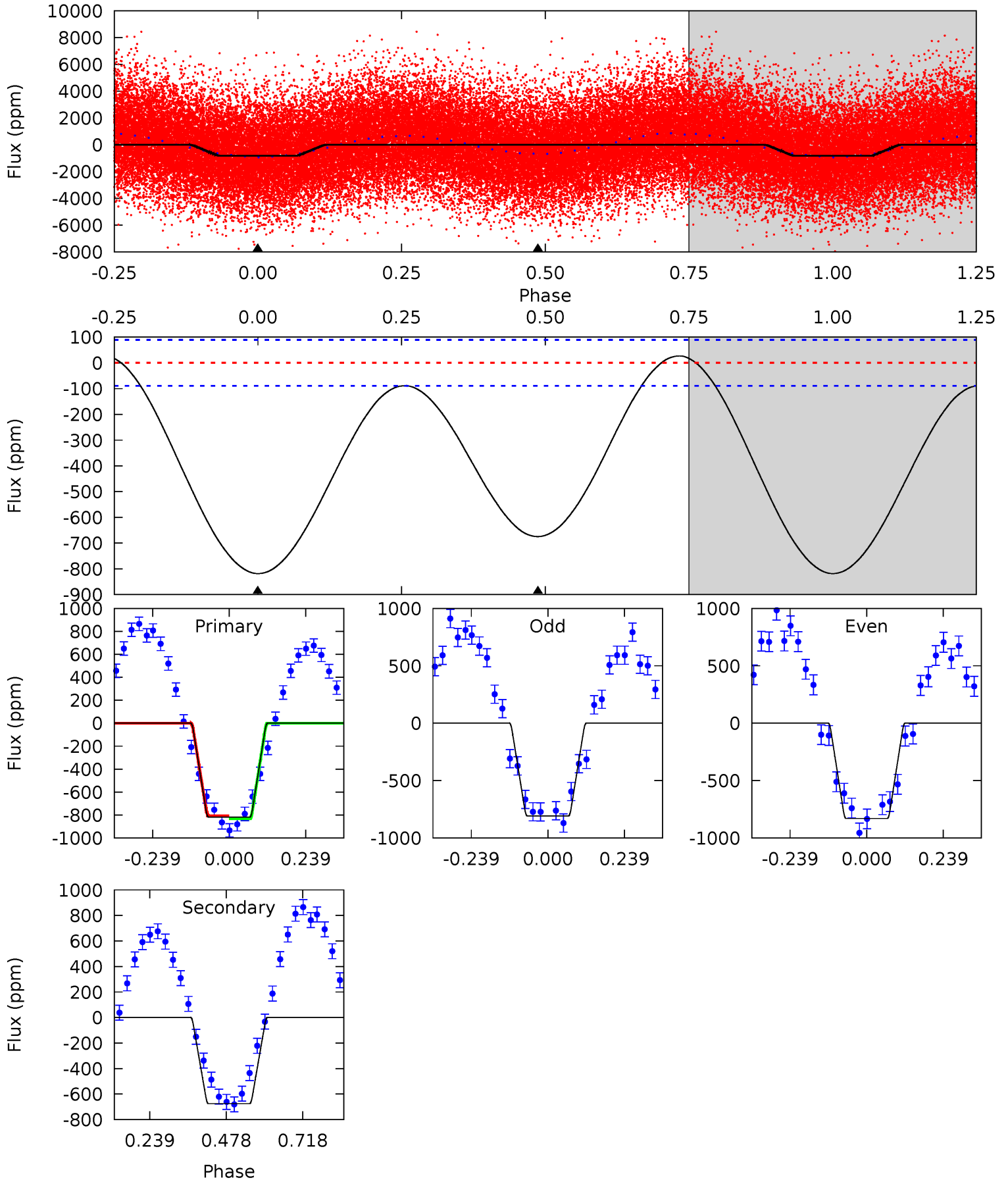
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.8	-7.78	0	0	4.31	0.98	2.91	25.8	25.8	-7.78	-7.78	0.26	0.93	0.33	0.34



Alt Model-Shift Uniqueness Test

005461501-01, P = 2.375858 Days, E = 130.681300 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.3	33.2	0	0	4.38	1.18	2.67	40.3	40.3	33.2	33.2	0.56	0.98	0.03	0.65



Stellar Parameters For KIC 005461501

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8340^{+233}_{-350}	$4.095^{+0.159}_{-0.145}$	$-0.240^{+0.250}_{-0.300}$	$1.962^{+0.426}_{-0.468}$	$1.746^{+0.146}_{-0.271}$	$0.326^{+0.282}_{-0.129}$
	+3%/-4%	+4%/-4%	+104%/-125%	+22%/-24%	+8%/-16%	+87%/-40%
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 005461501-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	52 ± 7	$2.00^{+1.41}_{-1.24}$	3491^{+234}_{-233}	-7128^{+1646}_{-6668}	$-12.614^{+8.331}_{-70.904}$
Alt.	-675 ± 20	$6.32^{+1.74}_{-1.69}$	3499^{+225}_{-243}	7607^{+1503}_{-930}	16^{+13}_{-6}

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 $A_{obs} \gg 1.0$

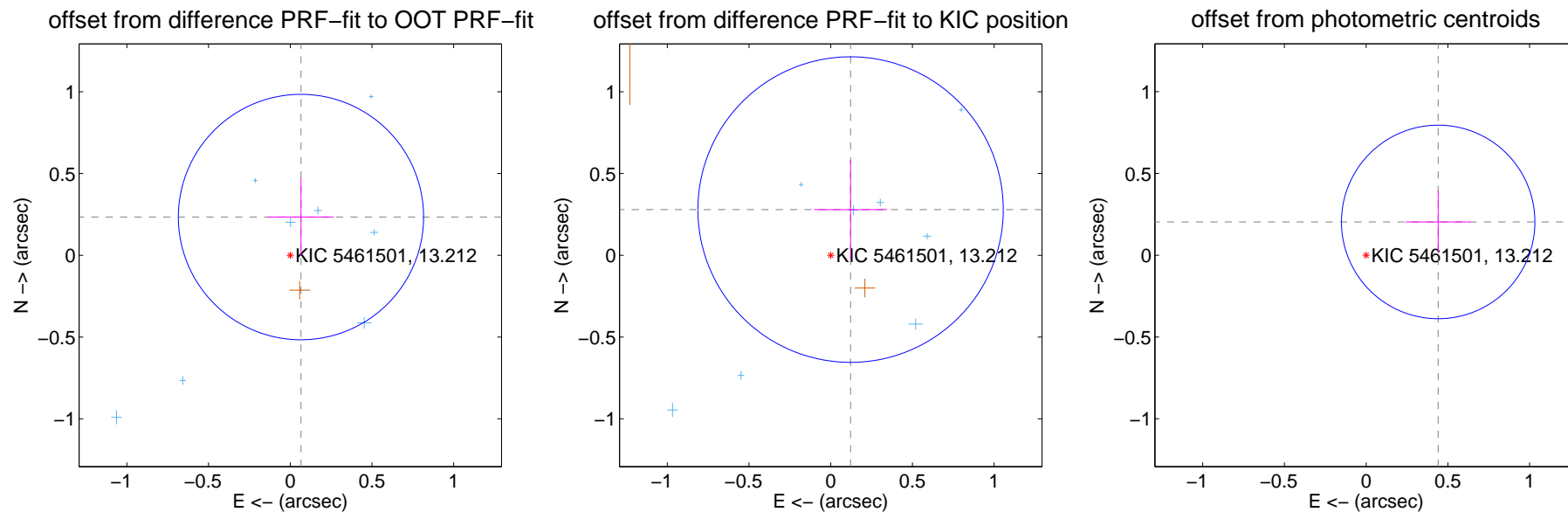
DV Centroid Data

Supplemental centroid analysis for 005461501-01. Kepler magnitude: 13.21. Transit SNR 13.45

There are 9 quarters with good PRF difference image offsets

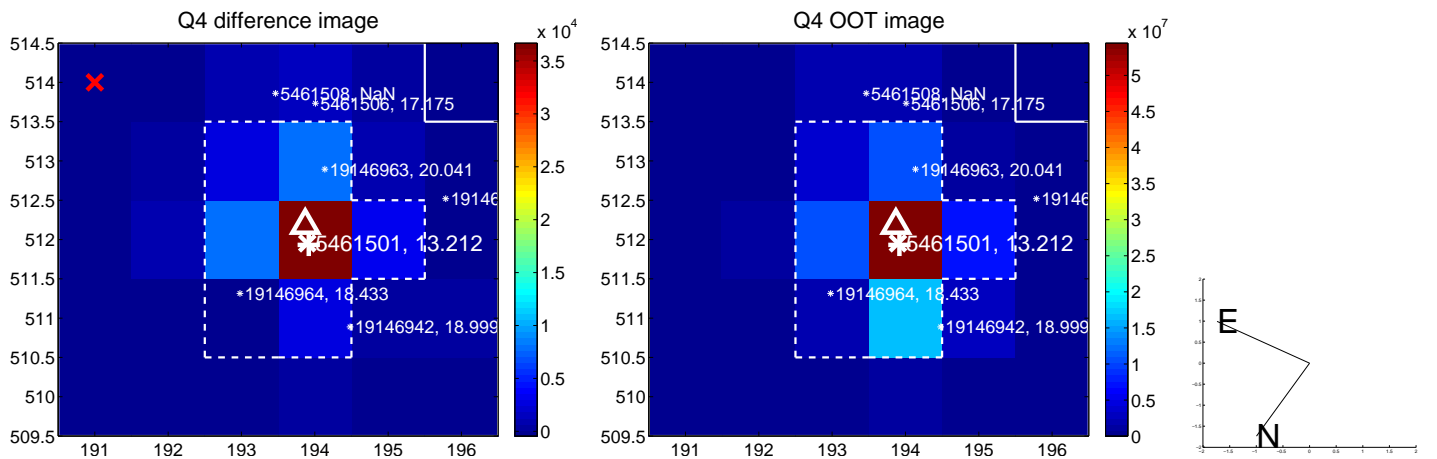
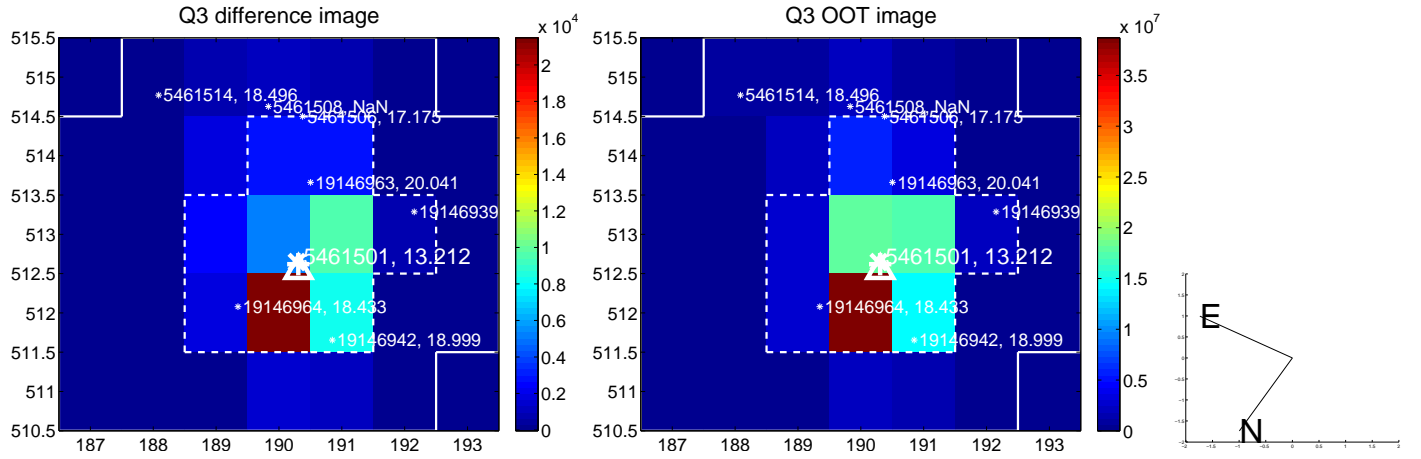
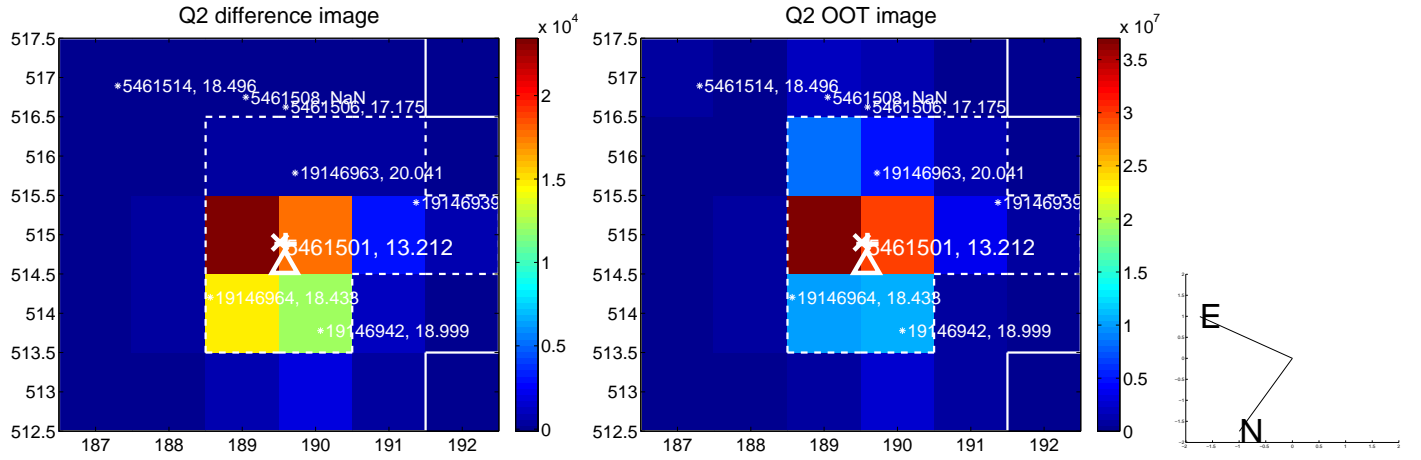
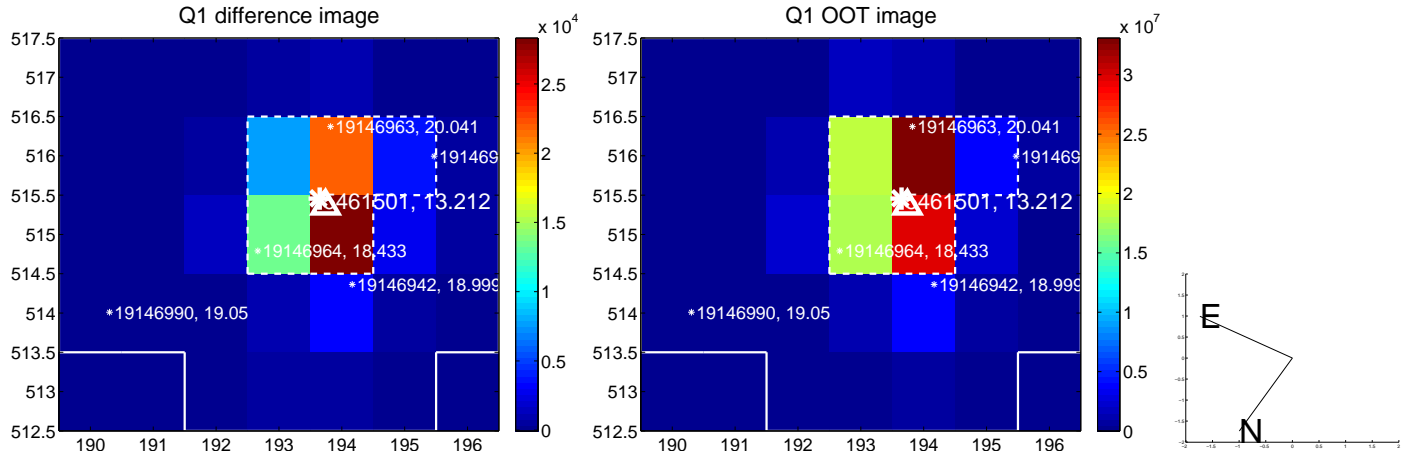
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.243 ± 0.250	0.97	-0.066 ± 0.201	0.234 ± 0.239
PRF-fit source offset from KIC position	0.305 ± 0.311	0.98	-0.122 ± 0.222	0.279 ± 0.304
photometric centroid source offset	0.49 ± 0.20	2.46	-0.44 ± 0.20	0.20 ± 0.19

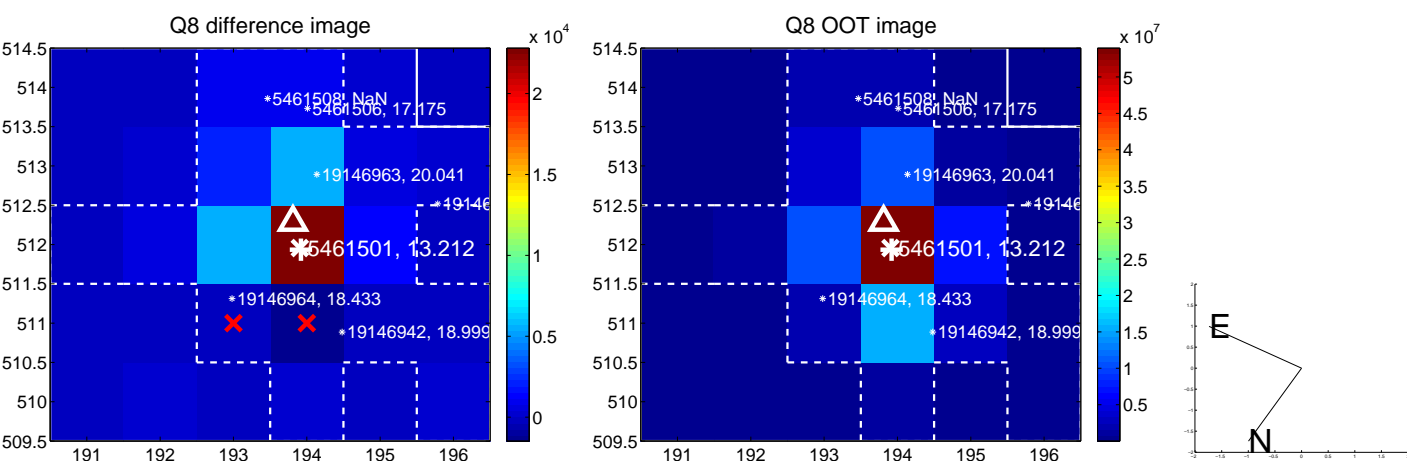
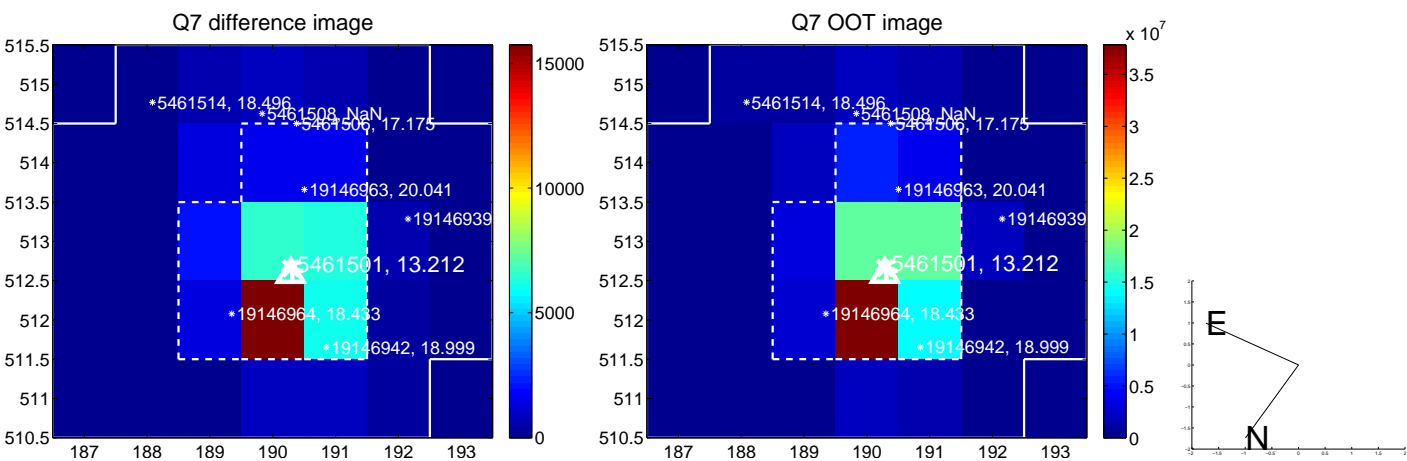
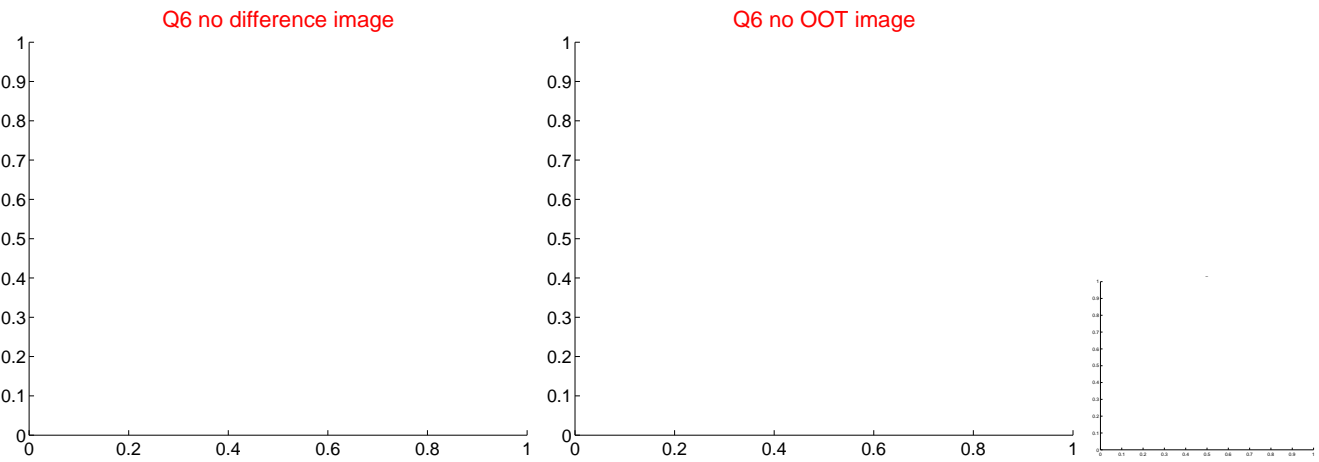
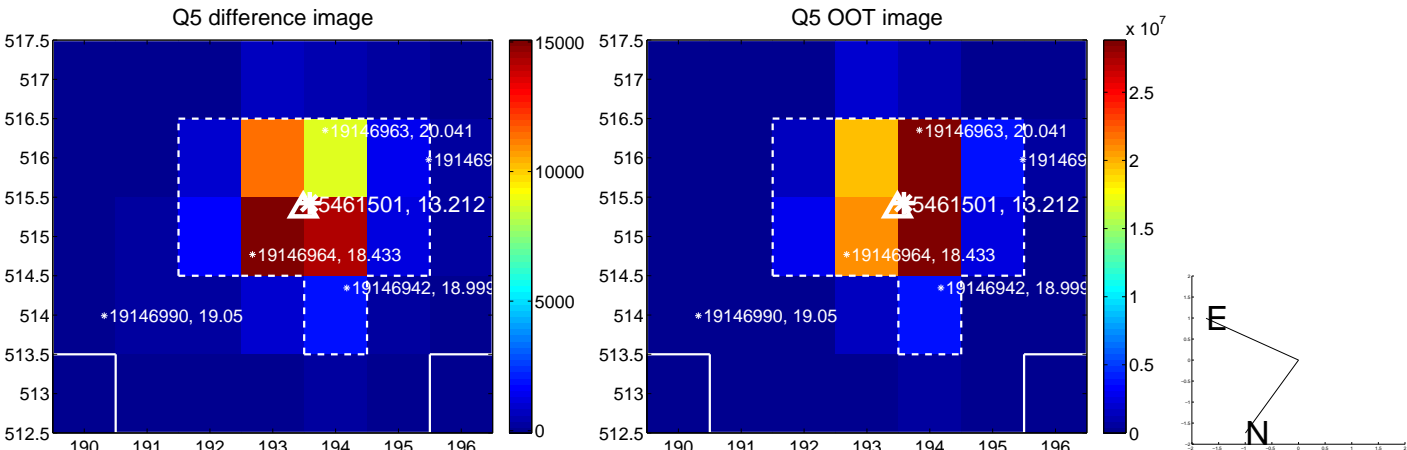


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

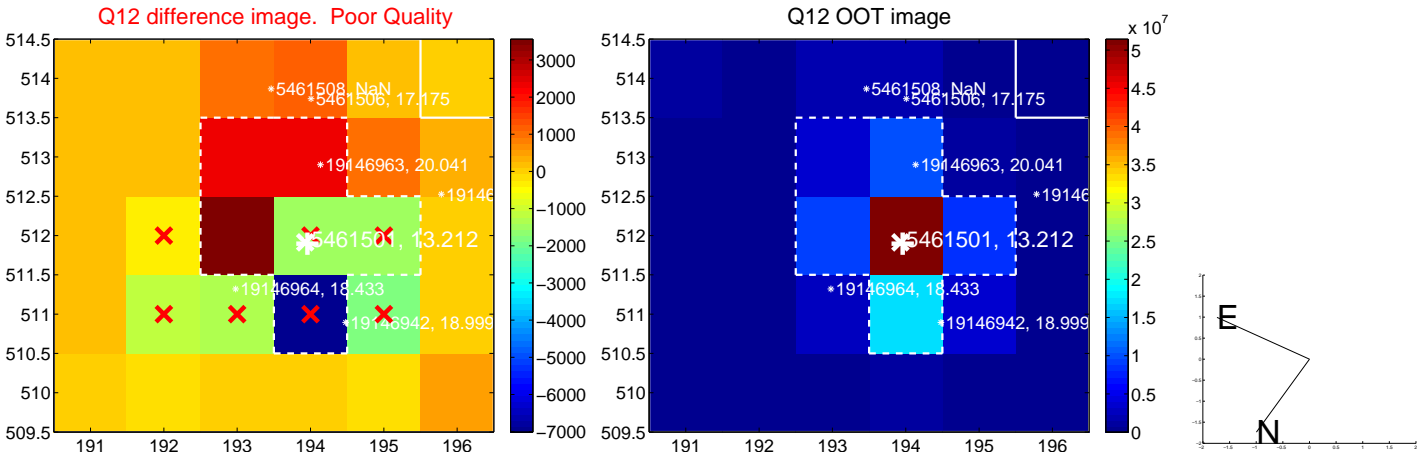
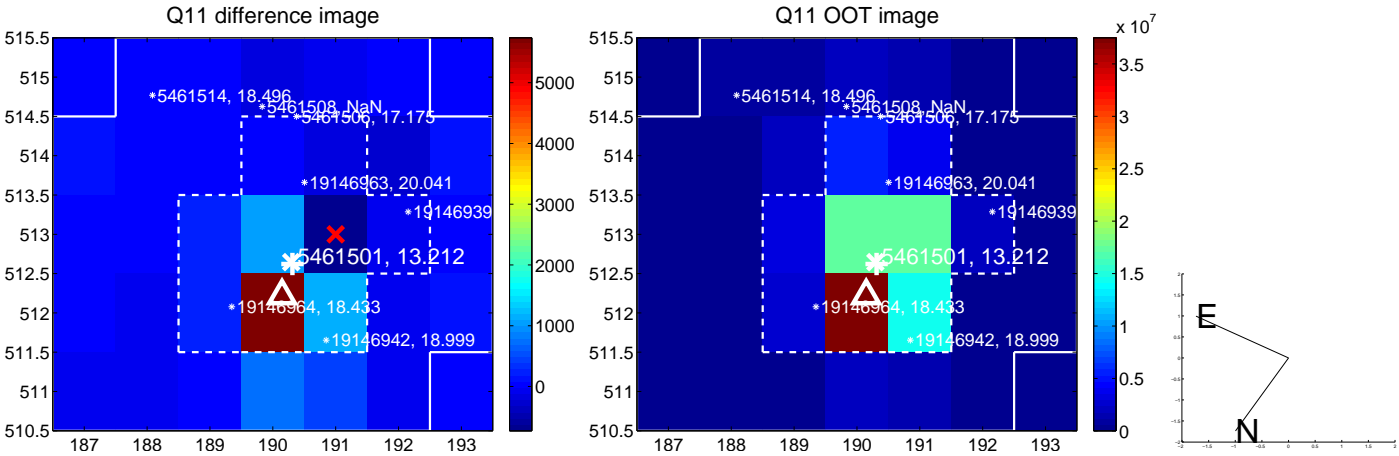
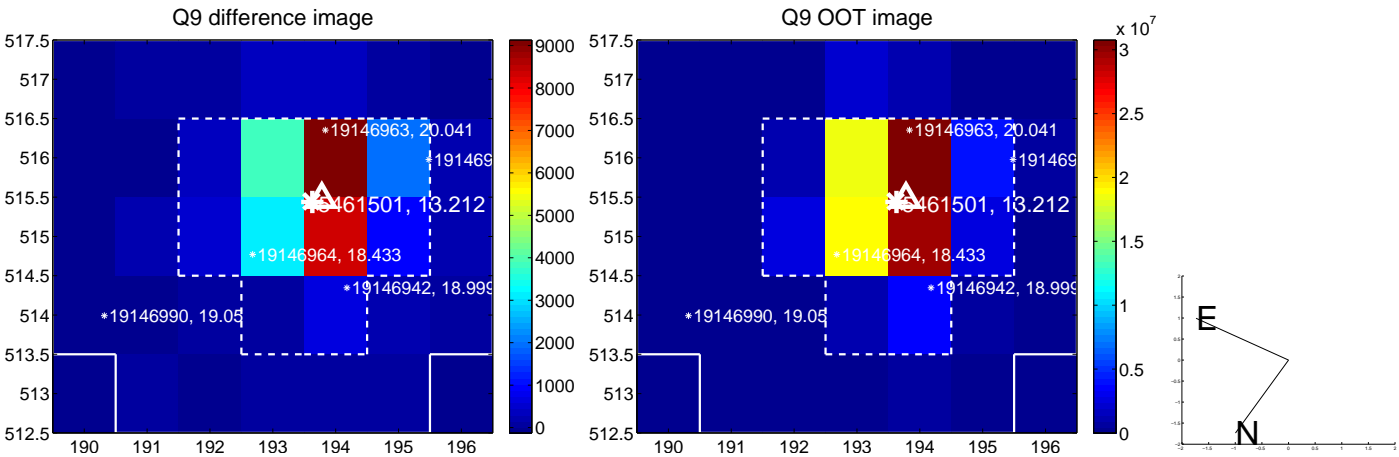
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



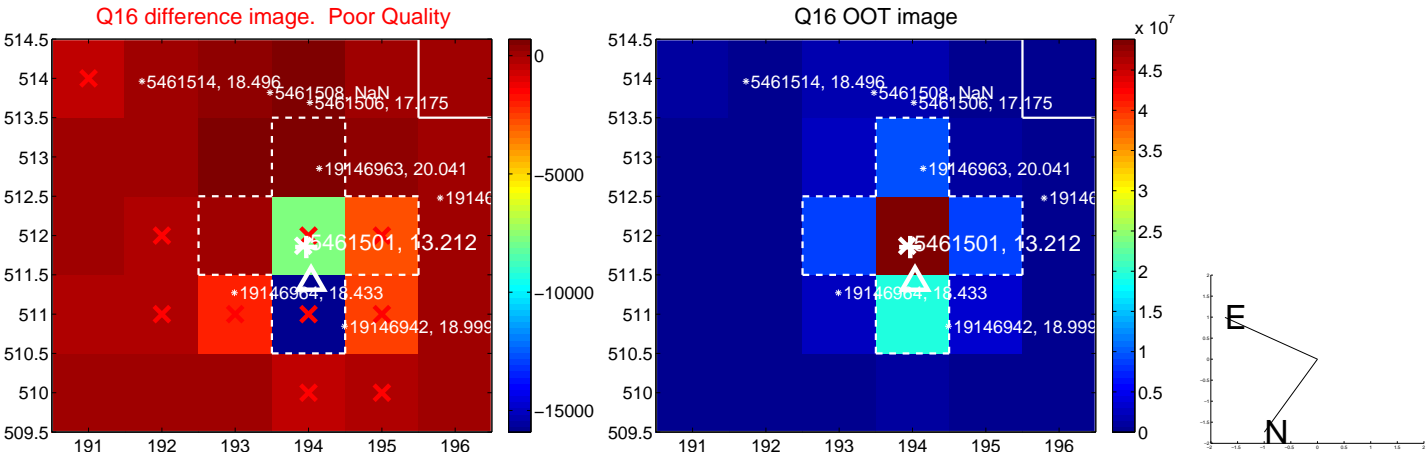
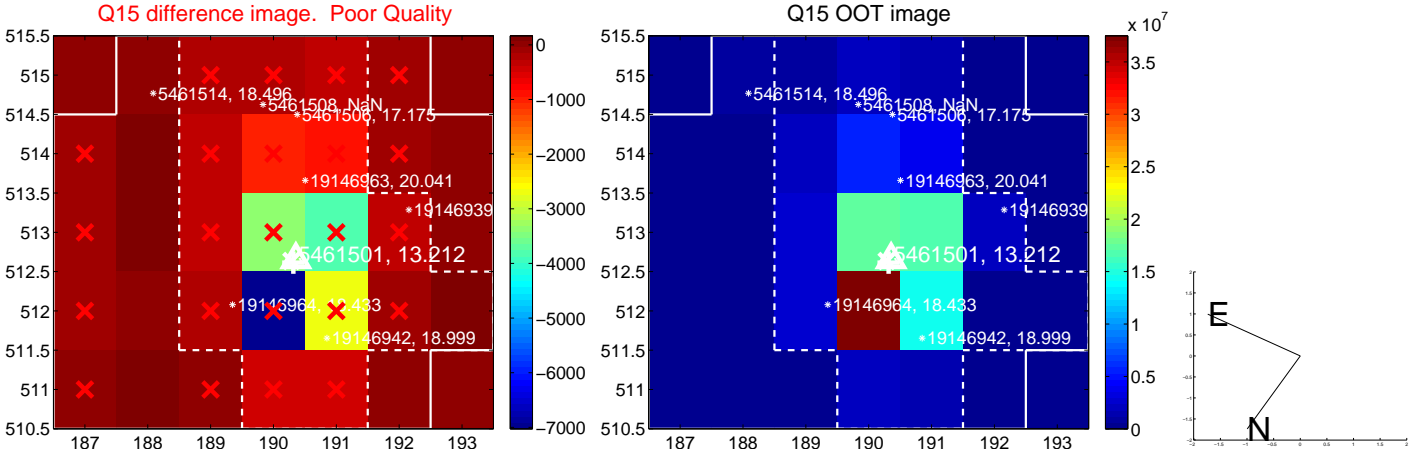
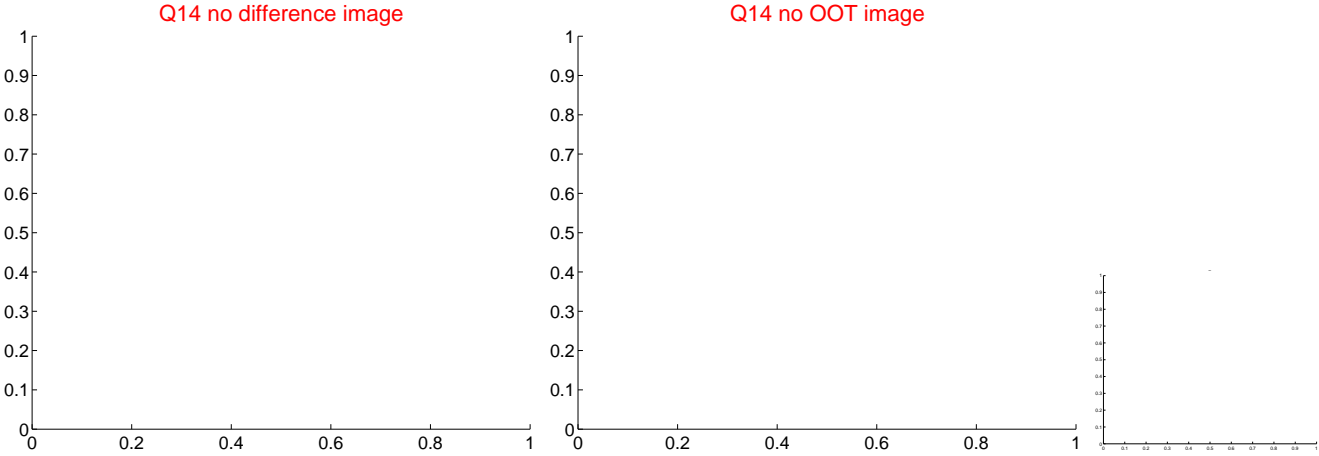
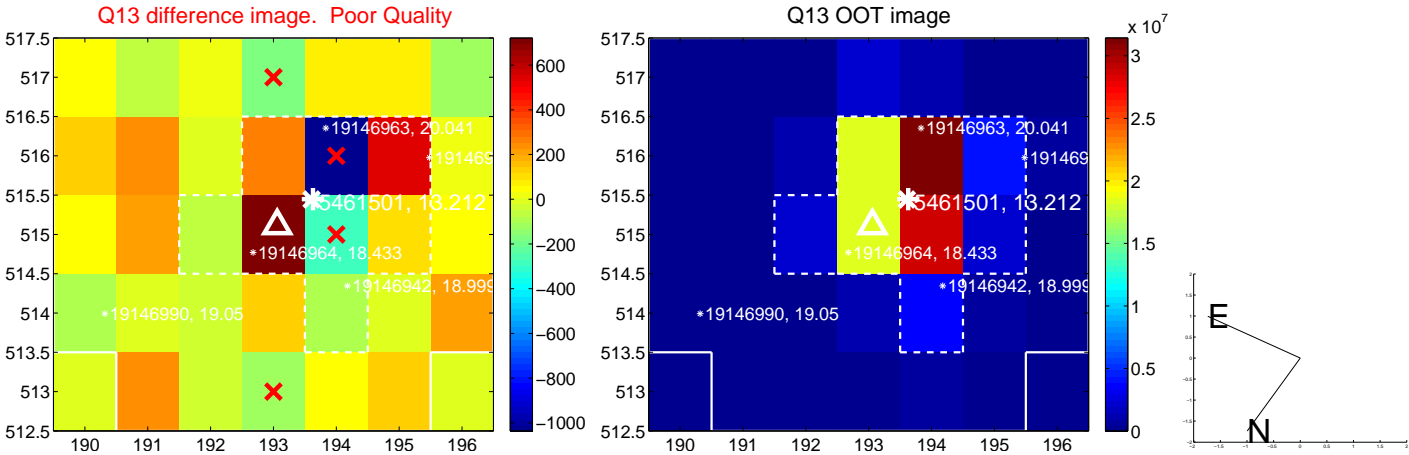
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



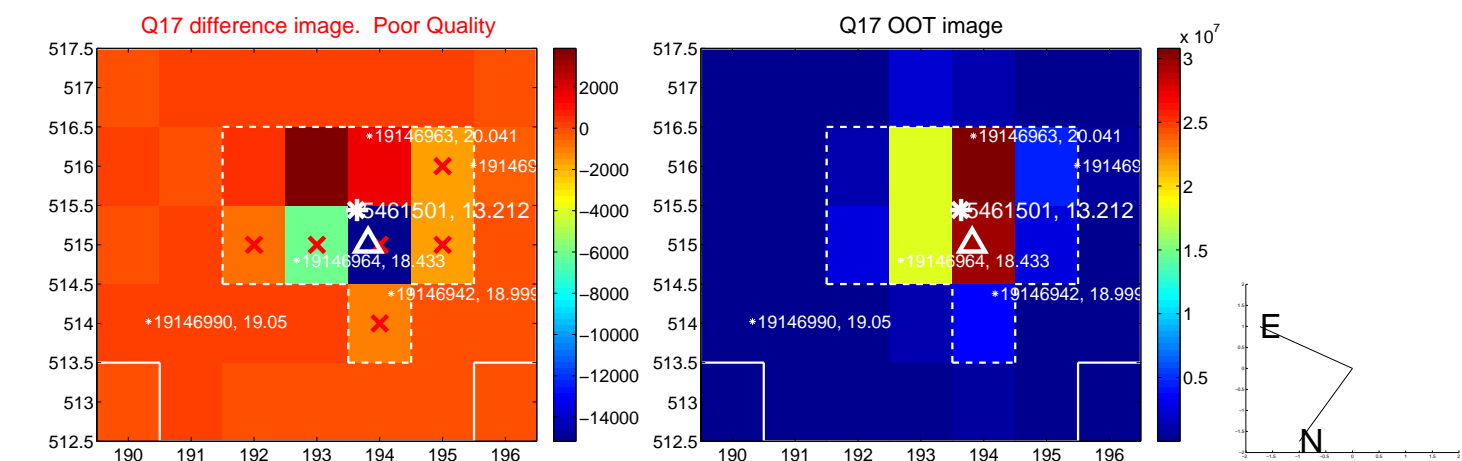
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



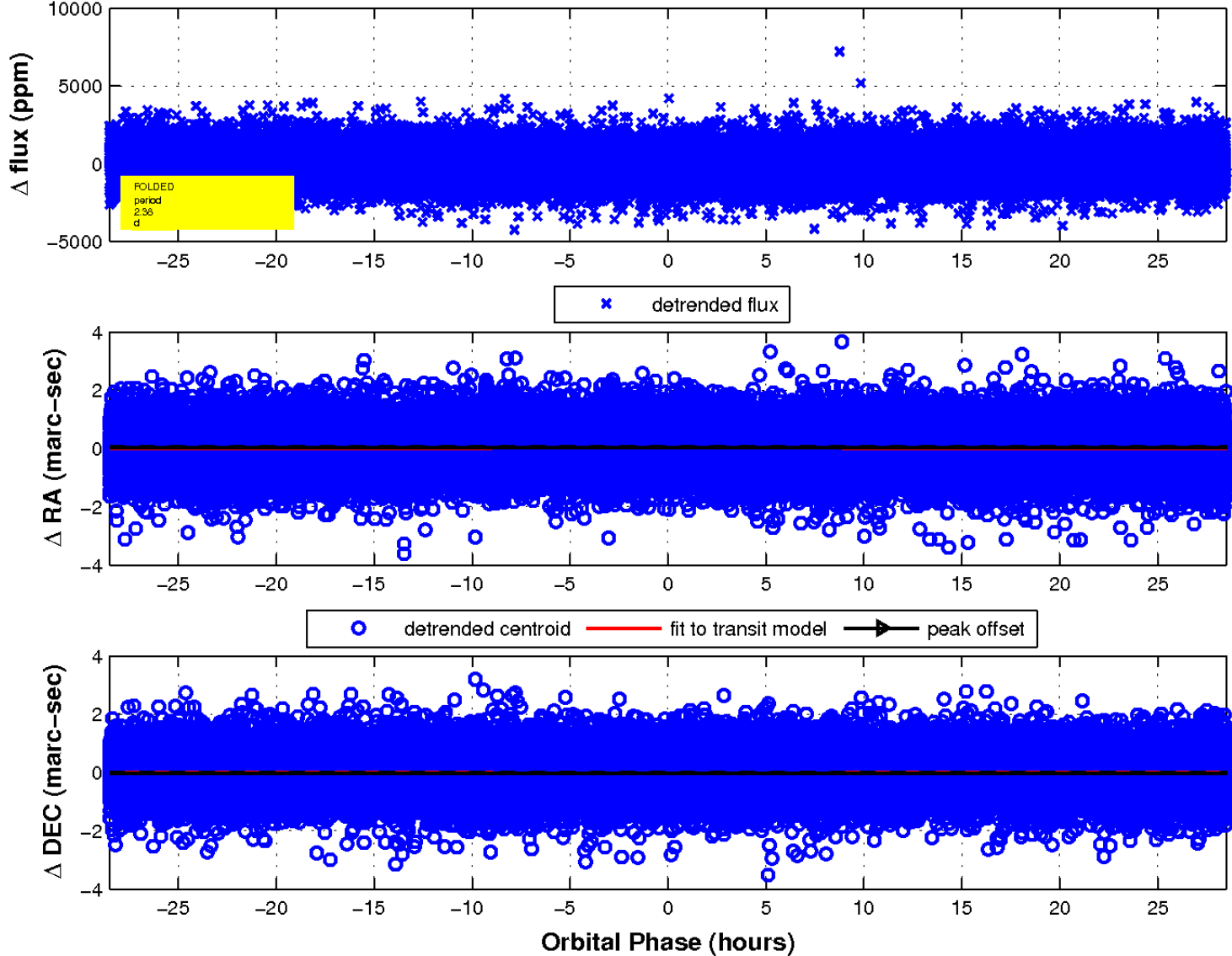
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

