

KIC 012505154

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})
012505154-01	OBS	No	0.850246	132.309251	42.9	3.143	8.5	8.3	1.42	7022	1.08	11088.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012505154-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

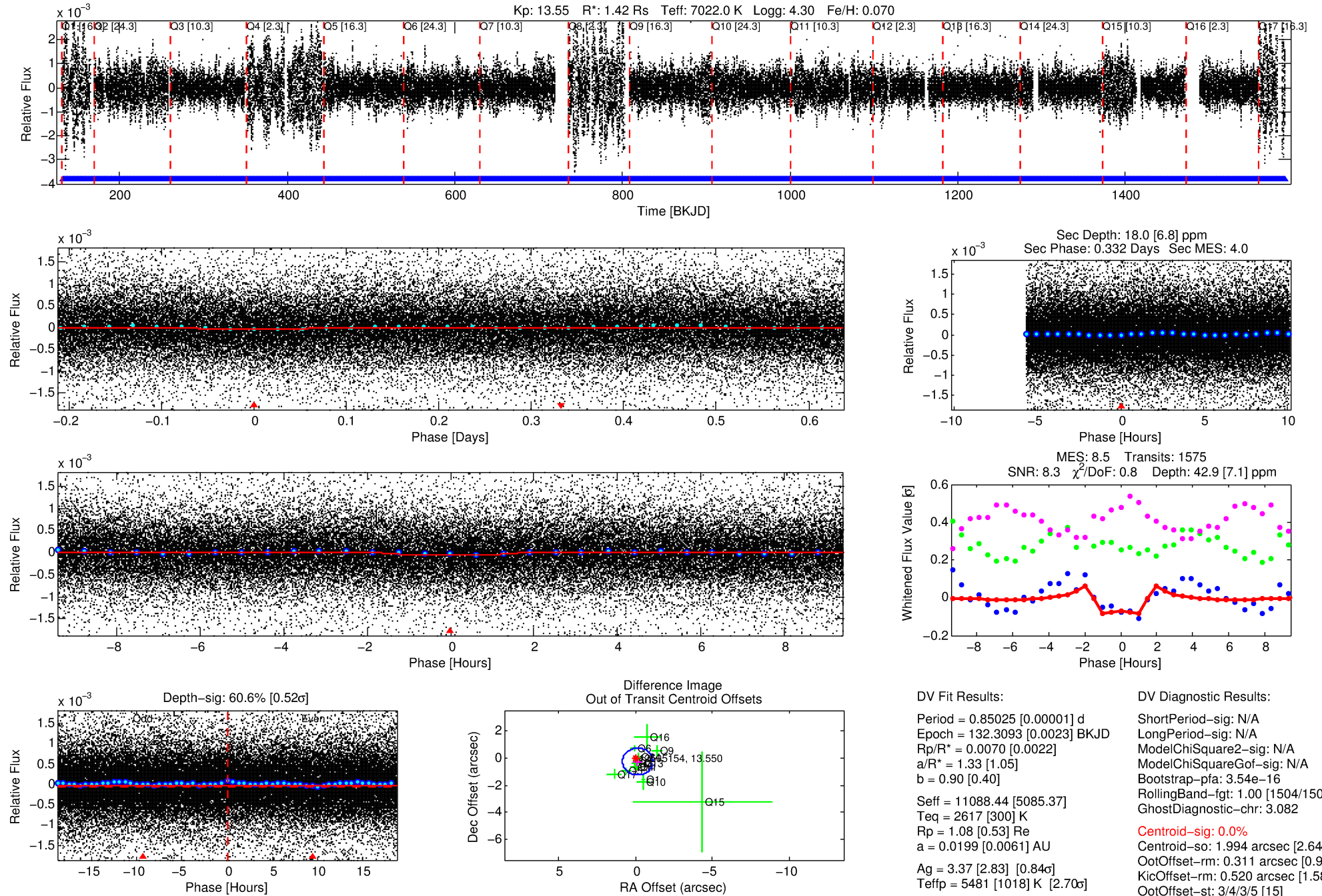
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012505154-01

No Significant Match Found

DV One-Page Summary

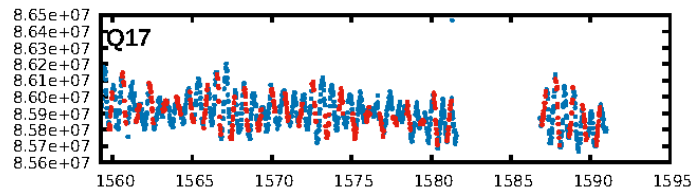
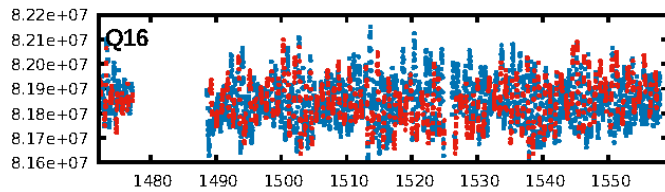
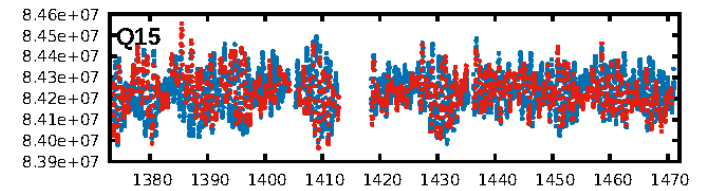
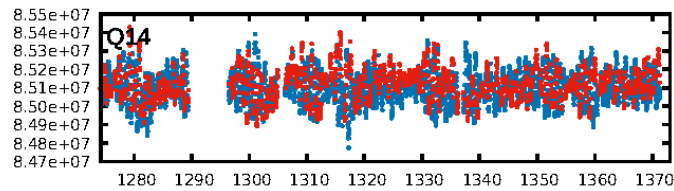
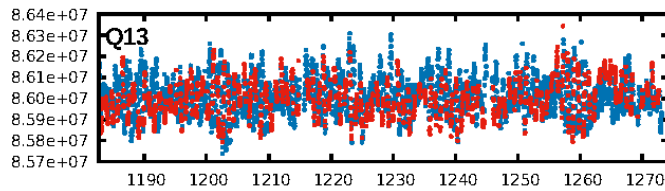
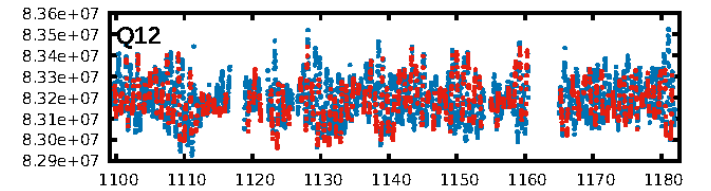
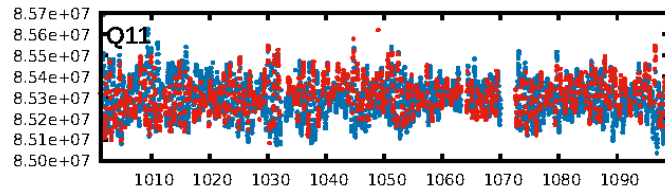
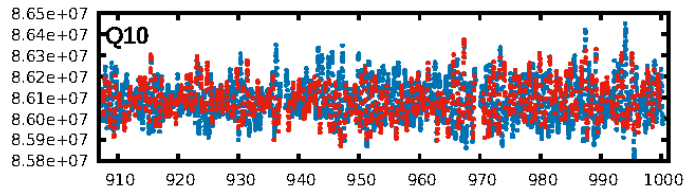
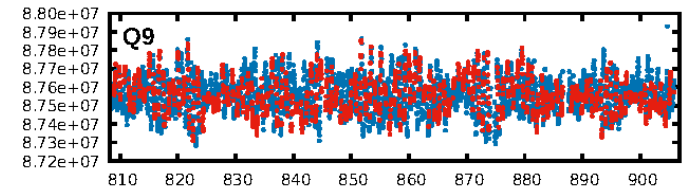
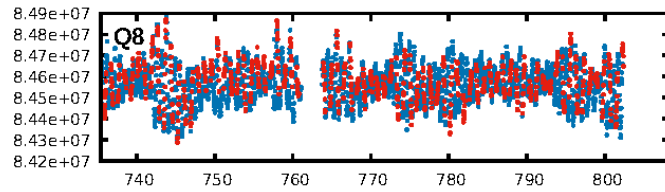
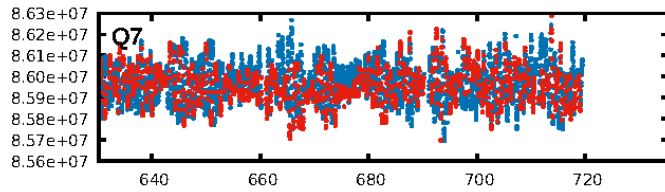
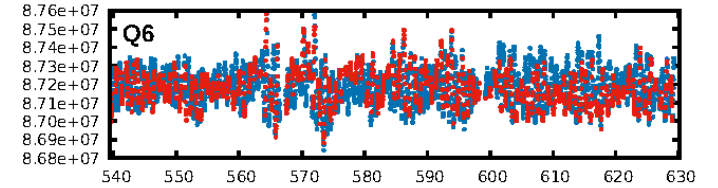
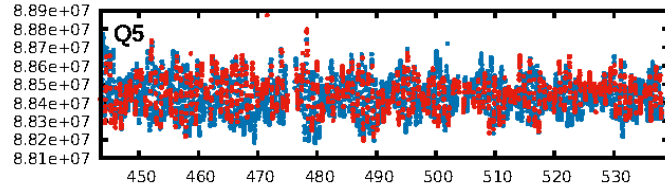
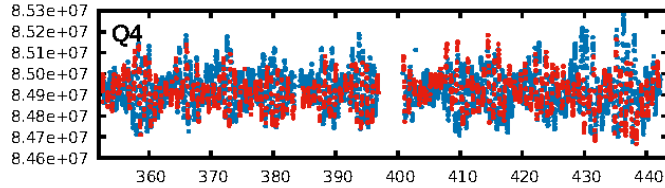
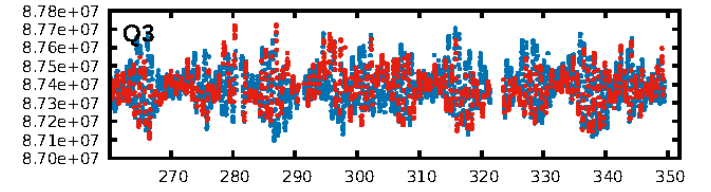
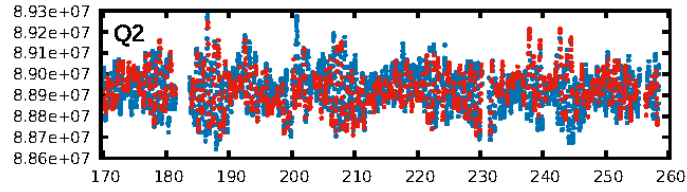
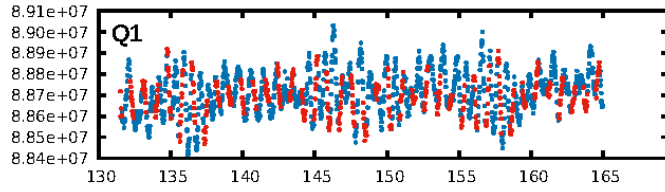
KIC: 12505154 Candidate: 1 of 1 Period: 0.850 d



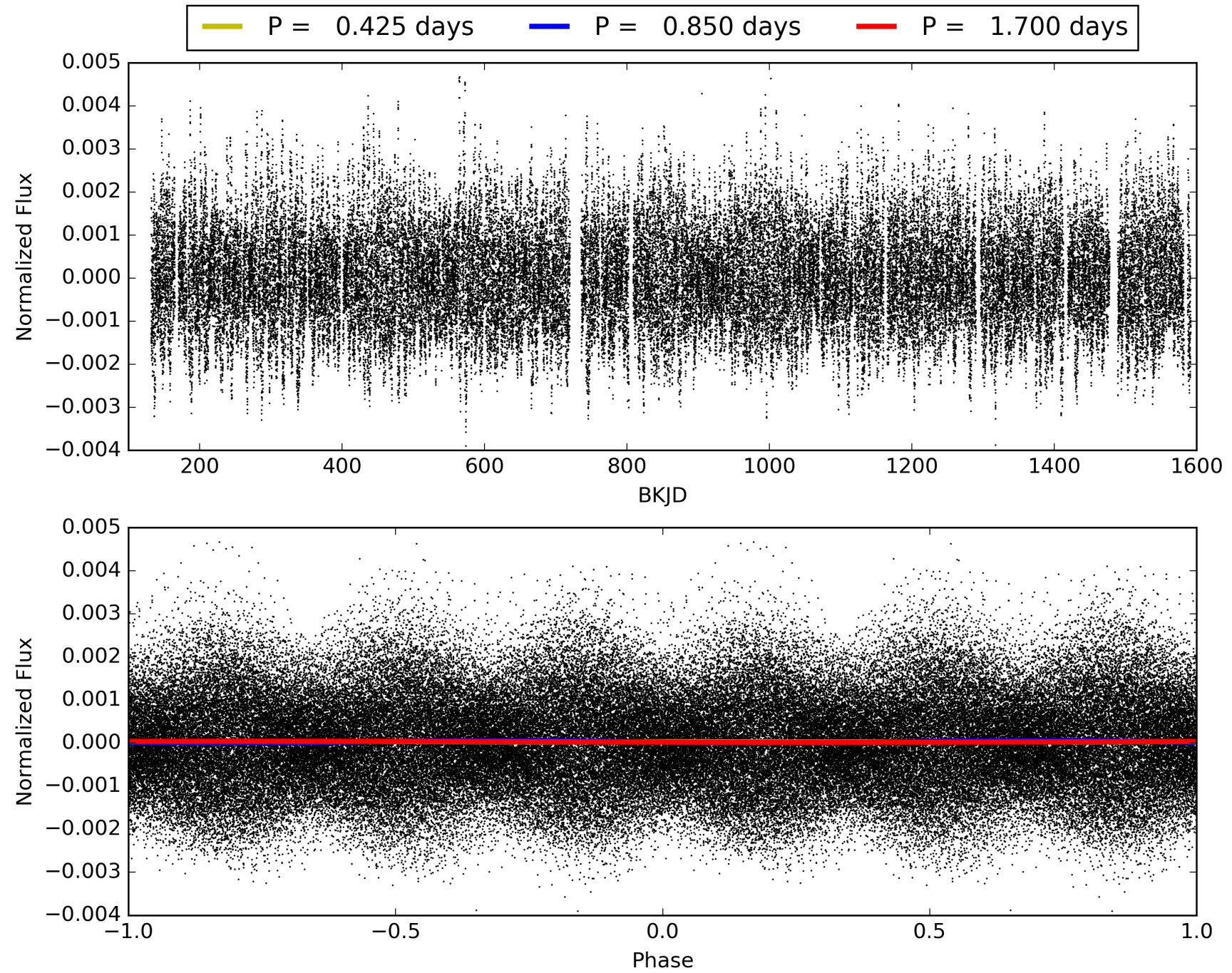
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:56:21 Z

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

TCE 012505154-01, PDC Light Curves

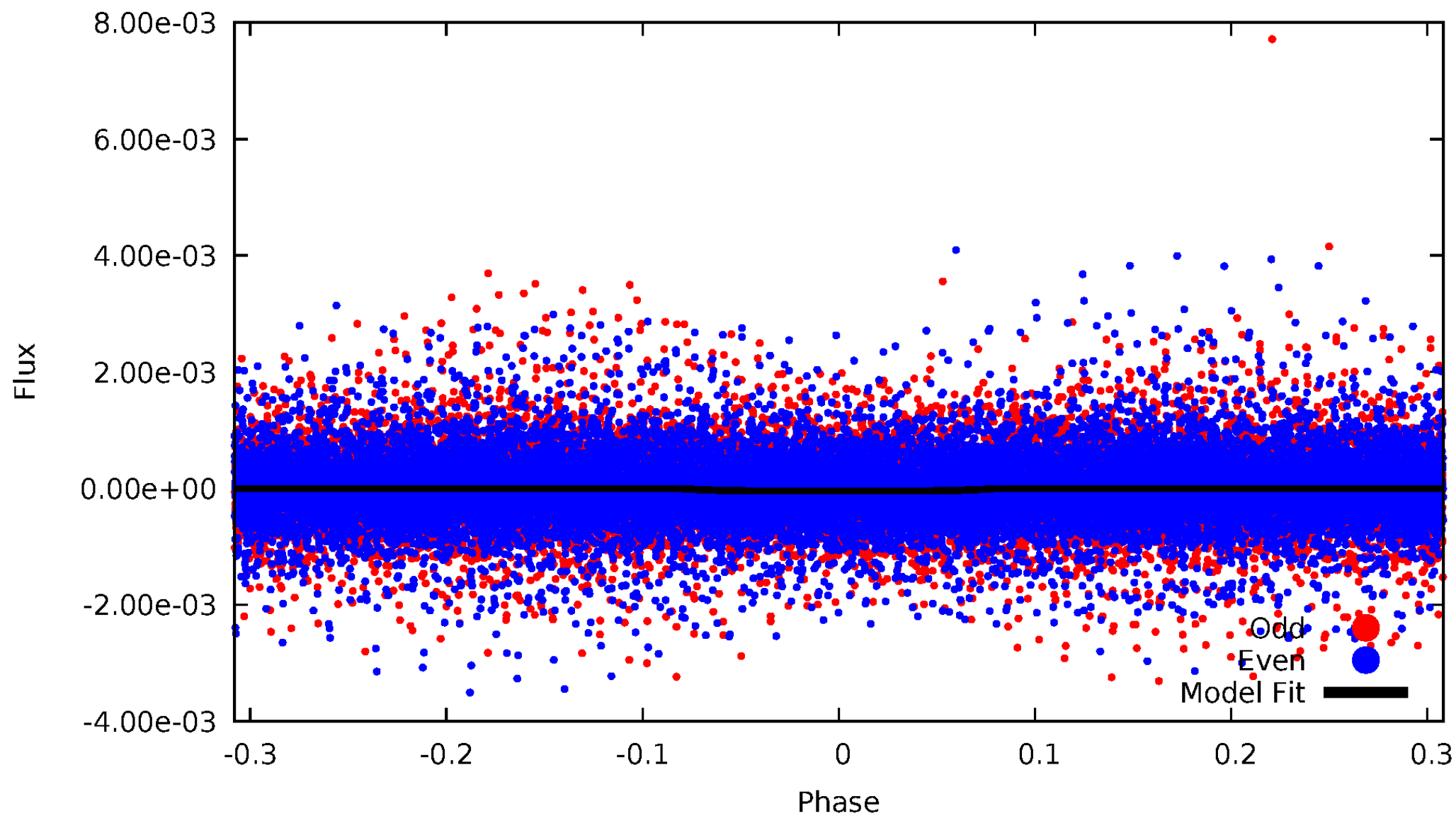


TCE 012505154-01



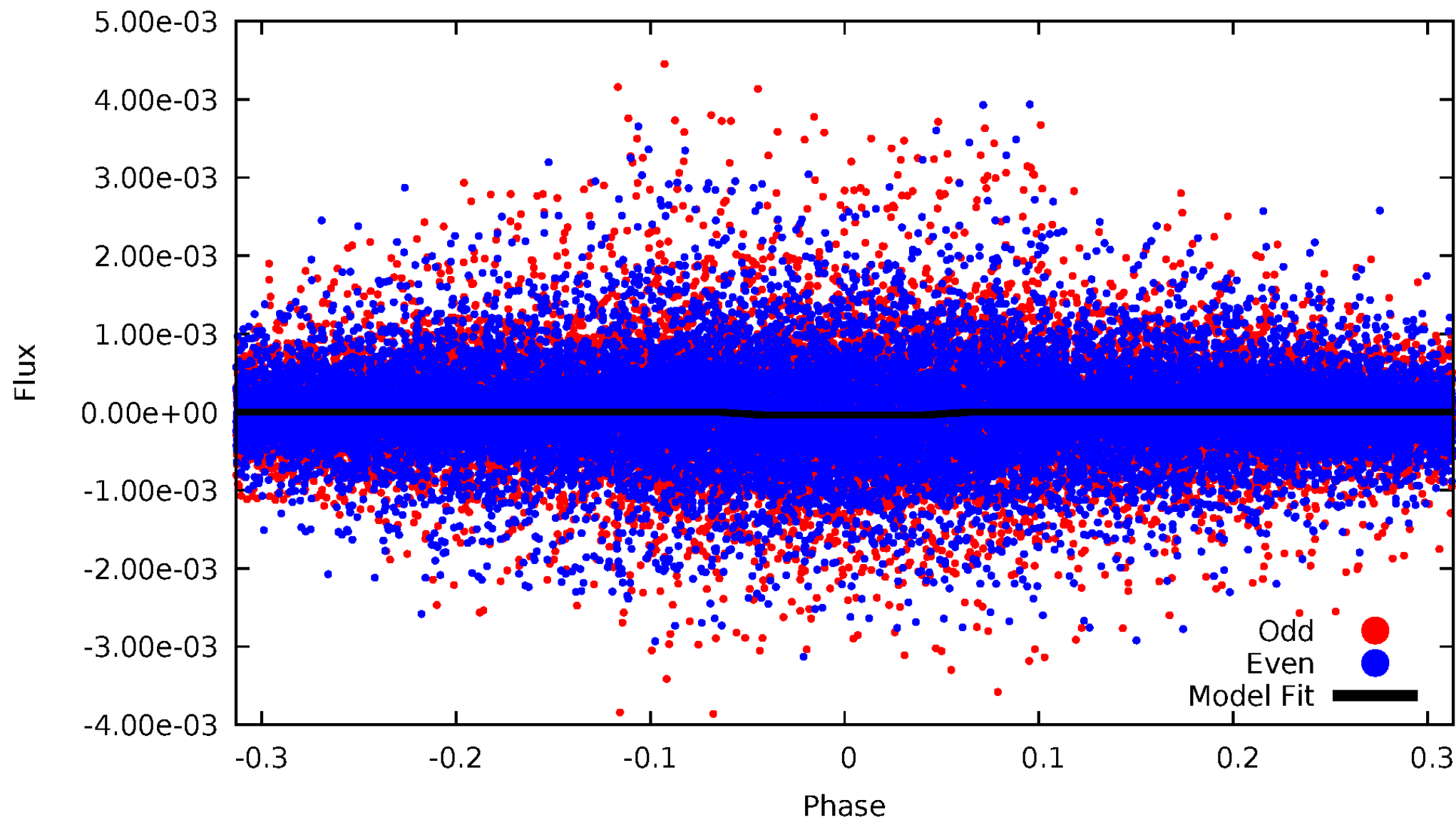
DV Odd/Even

TCE 012505154-01



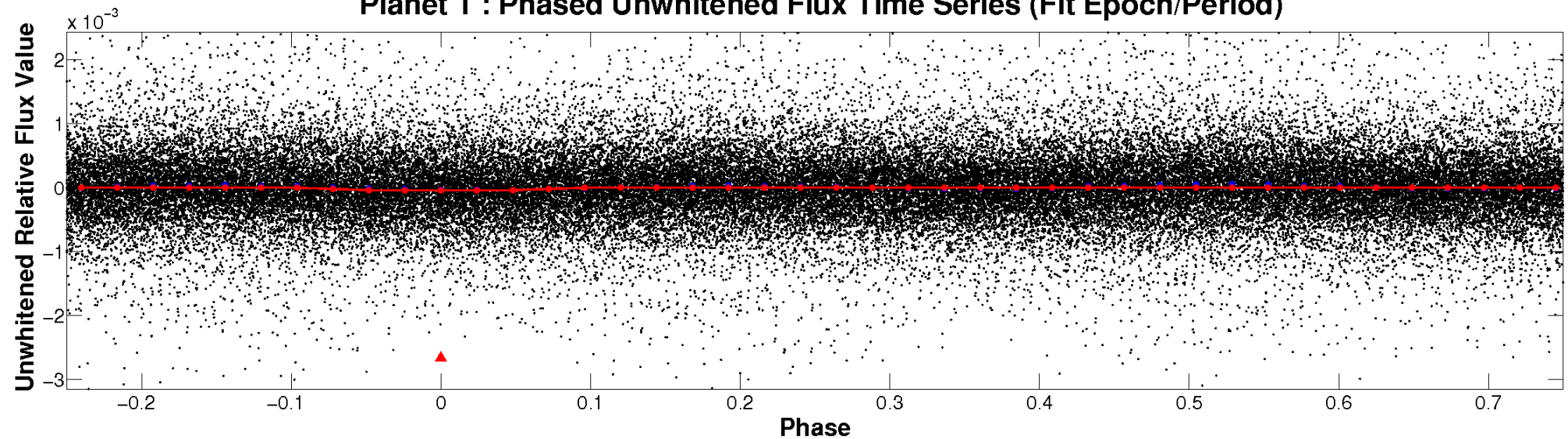
ALT Odd/Even

TCE 012505154-01

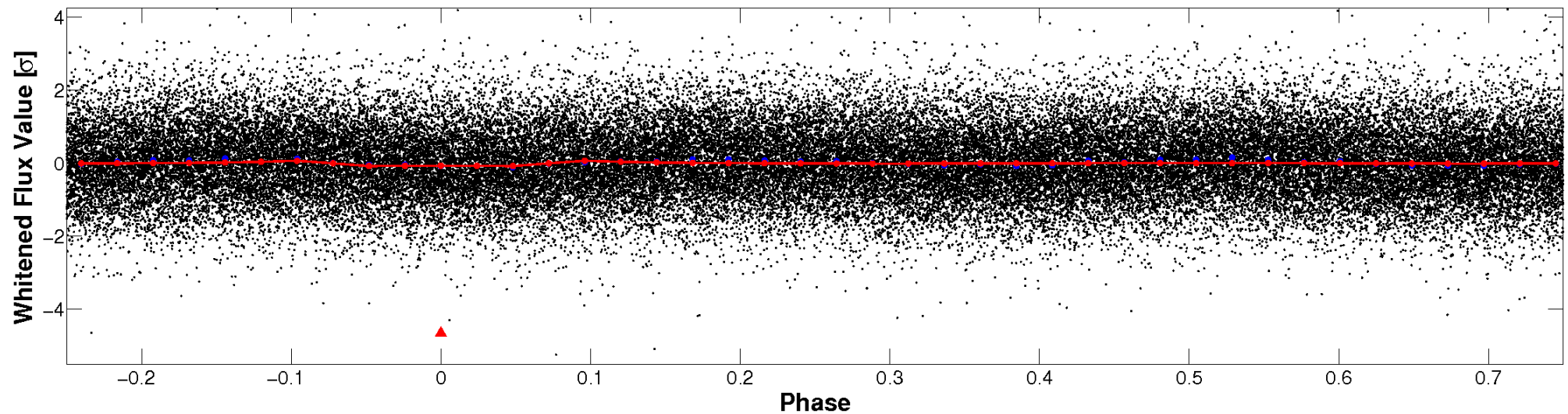


Non-Whitened Vs. Whitened Light Curve

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

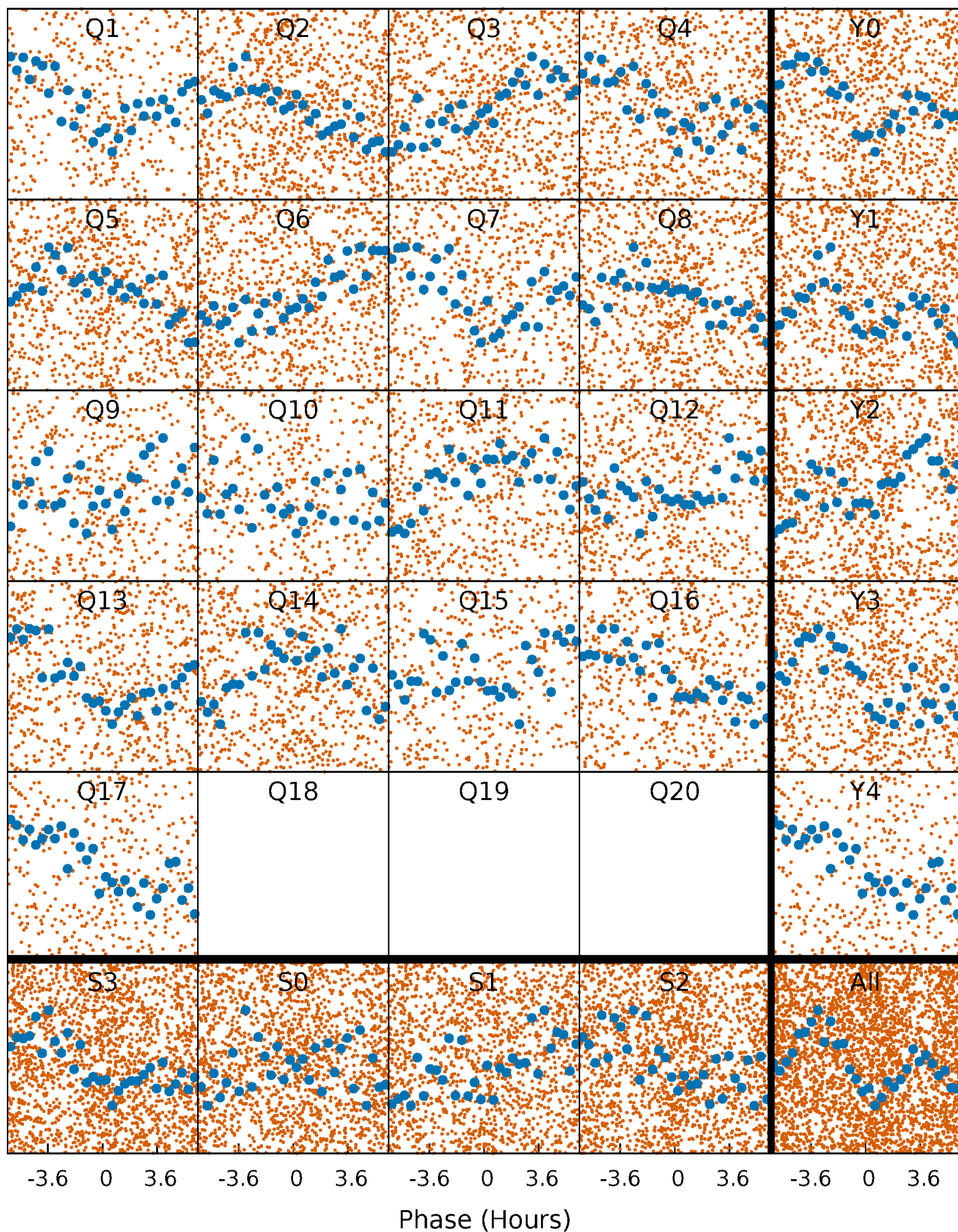


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



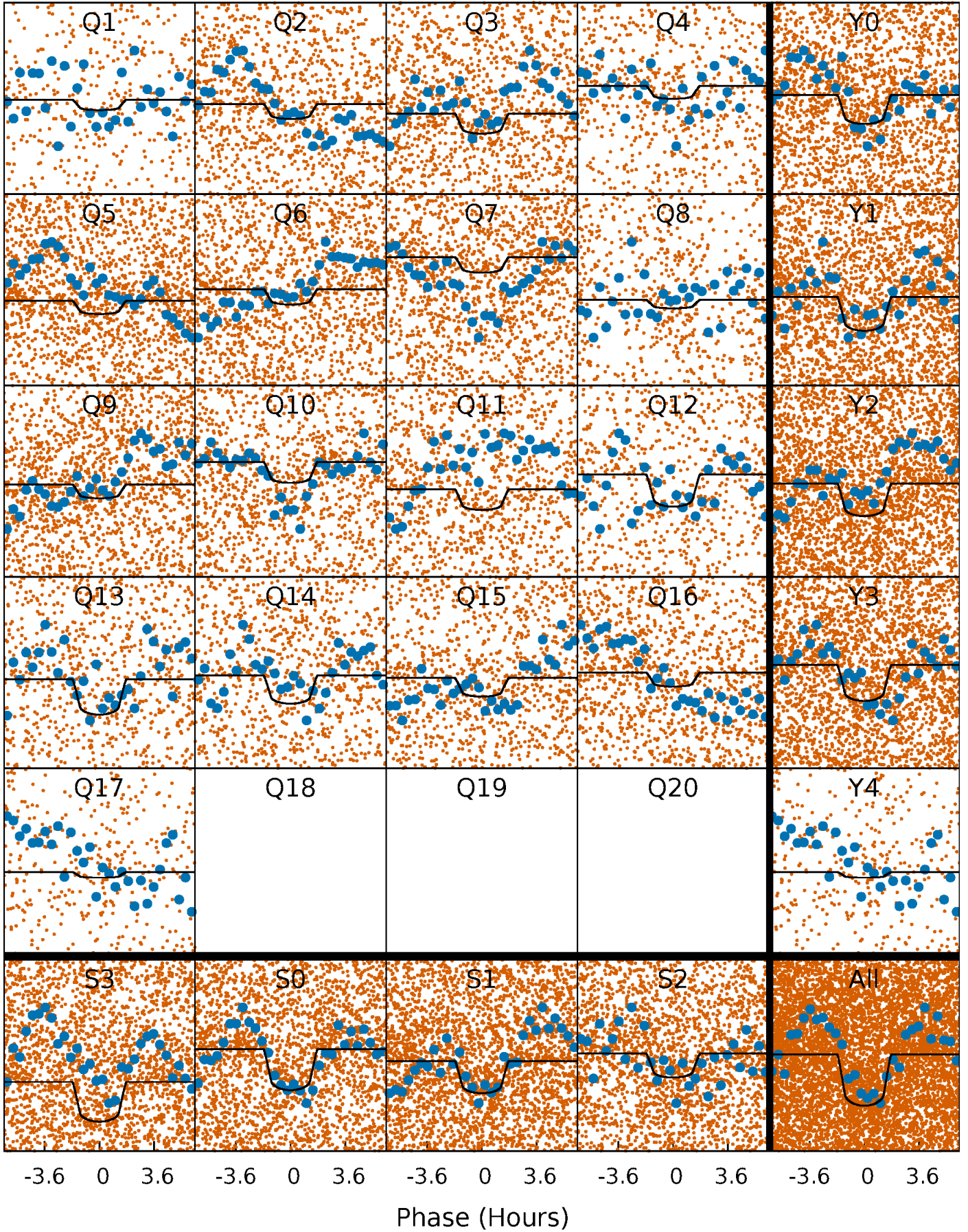
PDC Quarter-Phased Transit Curves

TCE 012505154-01 P= 0.850246 Days $T_0=132.309251$ (BKJD)



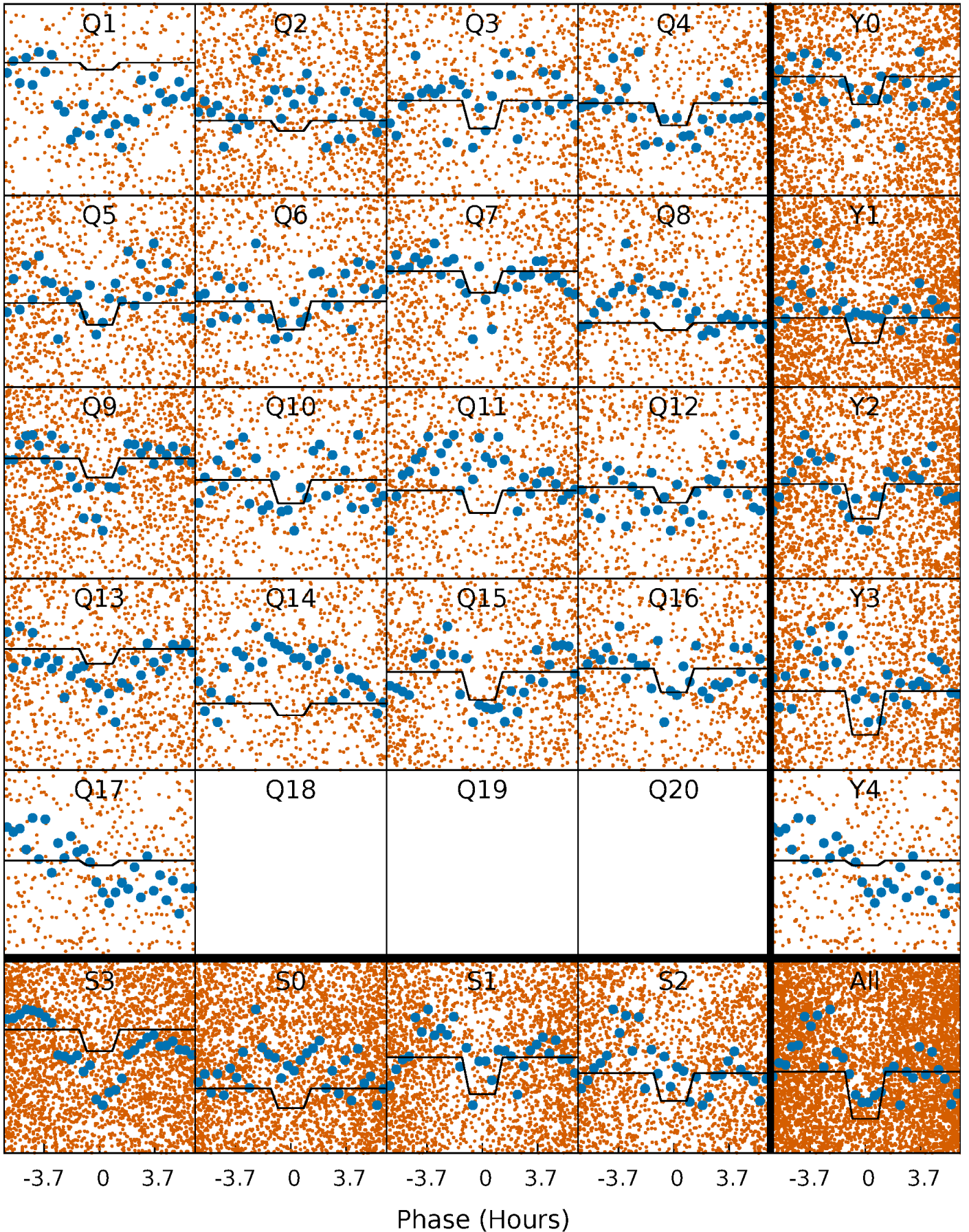
DV Quarter-Phased Transit Curves

TCE 012505154-01 P= 0.850246 Days $T_0=132.309251$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

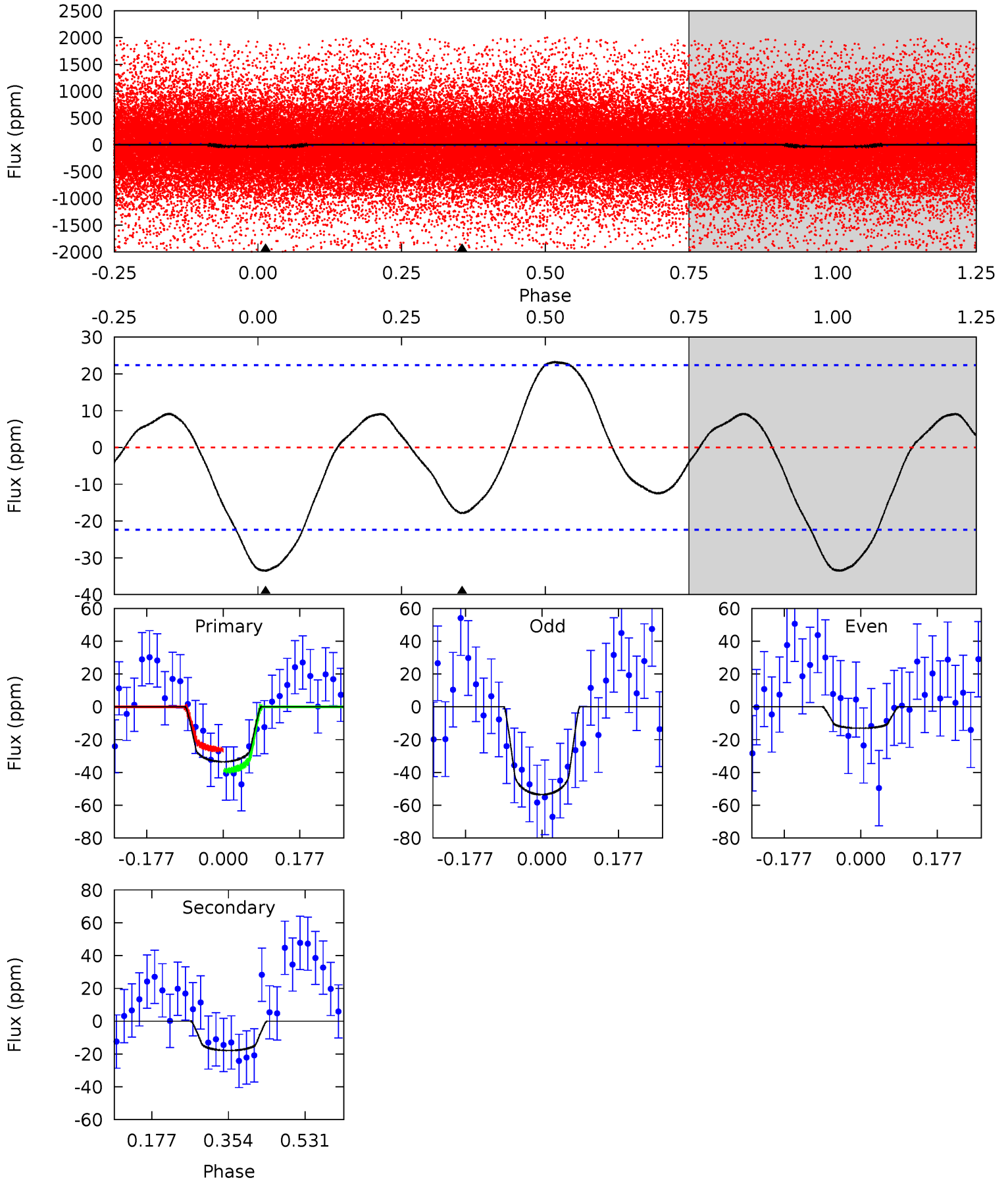
TCE 012505154-01 P= 0.850258 Days $T_0=132.314994$ (BKJD)



DV Model-Shift Uniqueness Test

012505154-01, P = 0.850246 Days, E = 131.459005 Days

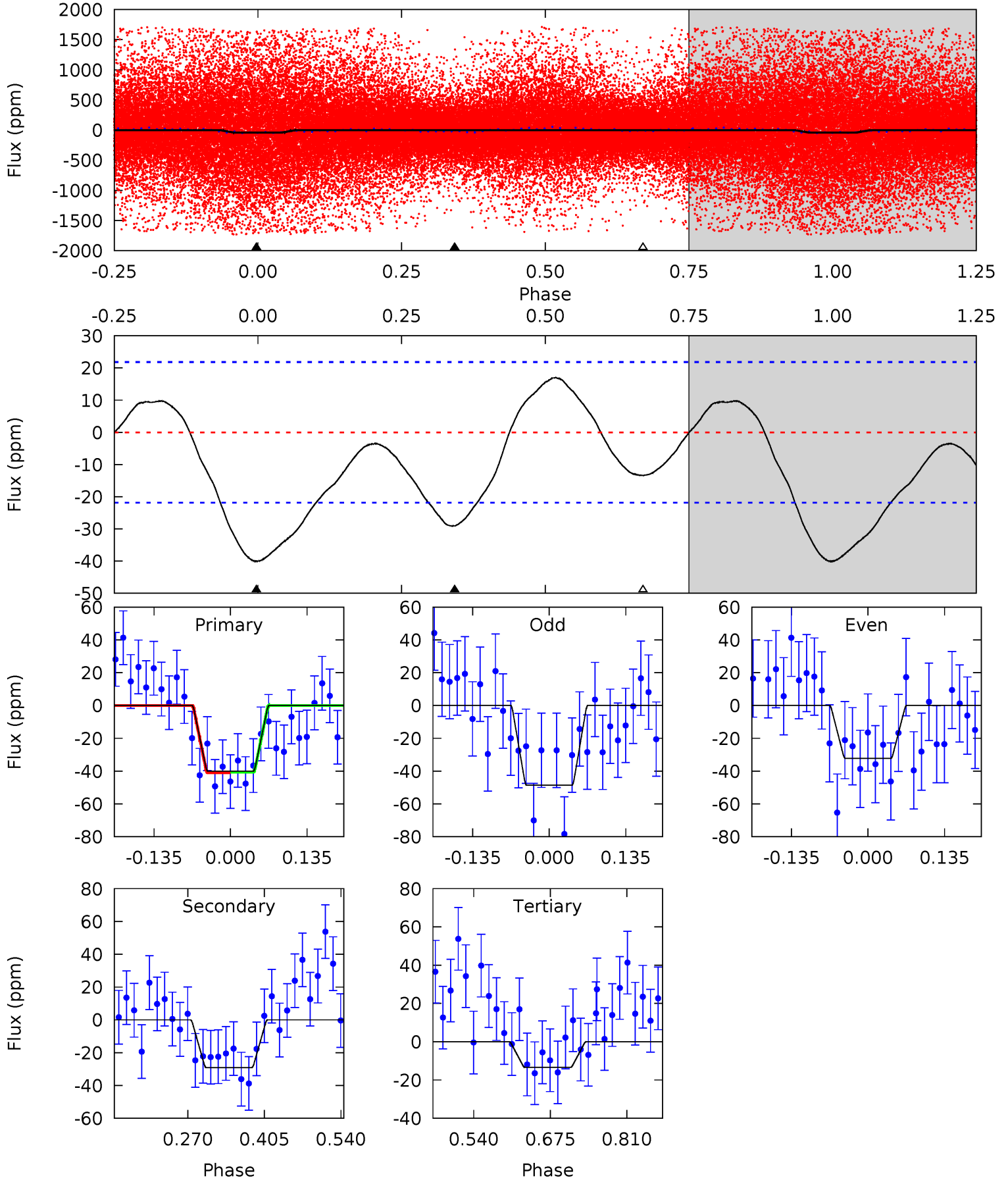
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.66	3.55	0	0	4.44	1.35	2.15	6.66	6.66	3.55	3.55	4.08	0.94	0.41	1.30



Alt Model-Shift Uniqueness Test

012505154-01, P = 0.850258 Days, E = 131.464736 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.25	6.00	2.76	0	4.50	1.49	2.07	5.49	8.25	3.24	6.00	1.70	0.55	0.30	0.05



Stellar Parameters For KIC 012505154

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7022^{+194}_{-291}	$4.296^{+0.060}_{-0.225}$	$0.070^{+0.200}_{-0.350}$	$1.420^{+0.537}_{-0.179}$	$1.451^{+0.202}_{-0.202}$	$0.714^{+0.236}_{-0.414}$
	+3%/-4%	+1%/-5%	+286%/-500%	+38%/-13%	+14%/-14%	+33%/-58%
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 012505154-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18 ± 5	$1.15^{+0.45}_{-0.35}$	3742^{+316}_{-208}	5261^{+1112}_{-827}	$2.781^{+3.082}_{-1.392}$
Alt.	-29 ± 5	$0.97^{+0.39}_{-0.34}$	3731^{+290}_{-203}	6594^{+1736}_{-1072}	$6.793^{+8.388}_{-3.426}$

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

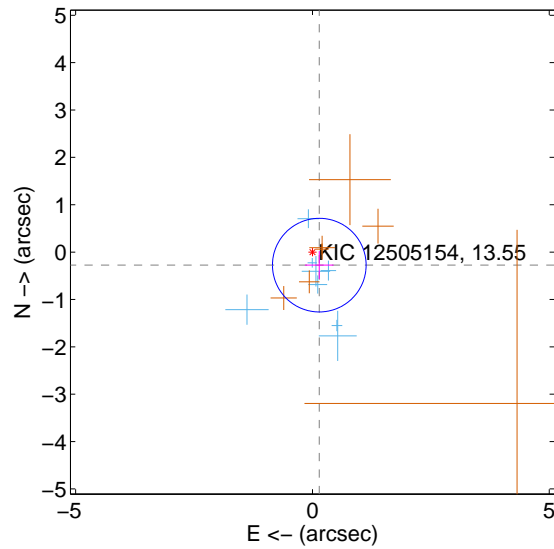
Supplemental centroid analysis for 012505154-01. Kepler magnitude: 13.55. Transit SNR 8.28

There are 8 quarters with good PRF difference image offsets

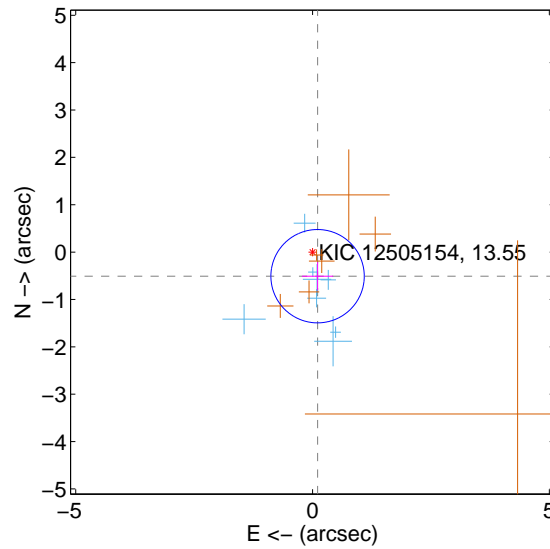
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.311 ± 0.329	0.94	-0.145 ± 0.302	-0.275 ± 0.295
PRF-fit source offset from KIC position	0.520 ± 0.329	1.58	-0.106 ± 0.330	-0.509 ± 0.297
photometric centroid source offset	1.99 ± 0.75	2.64	-0.56 ± 0.83	1.91 ± 0.75

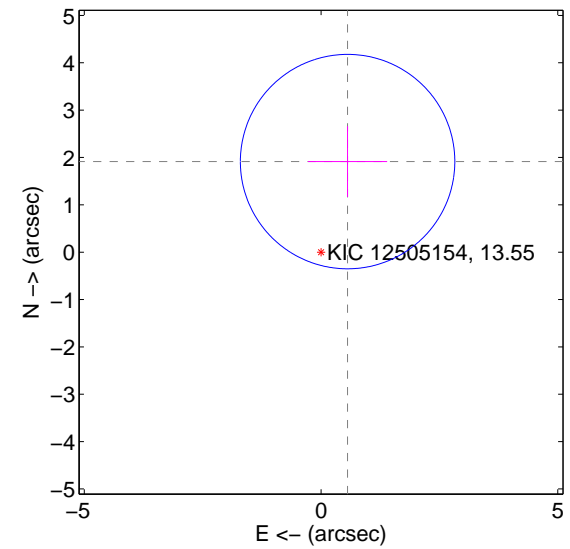
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

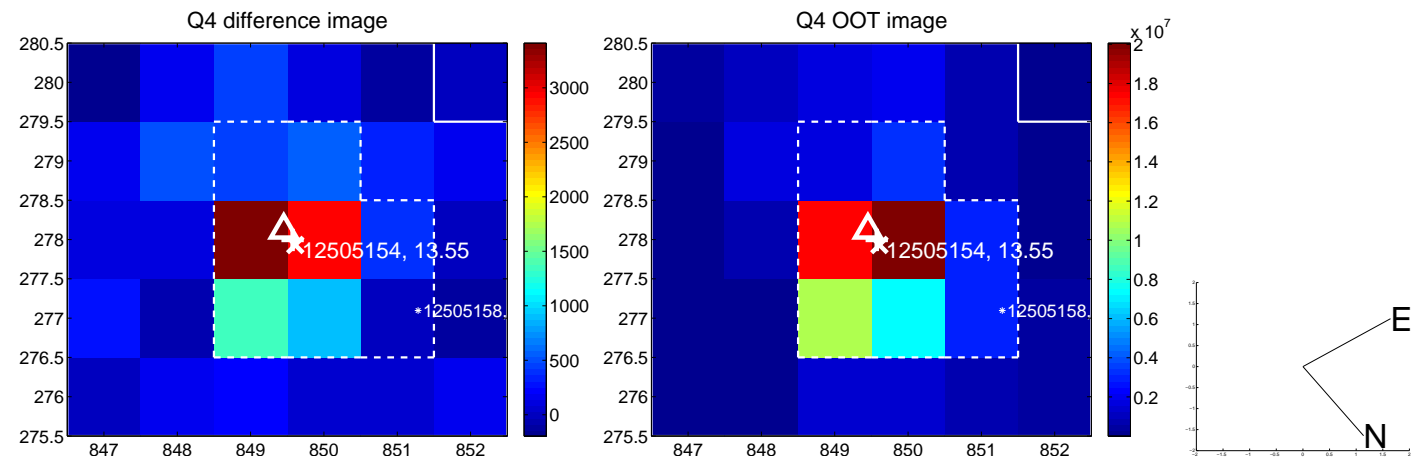
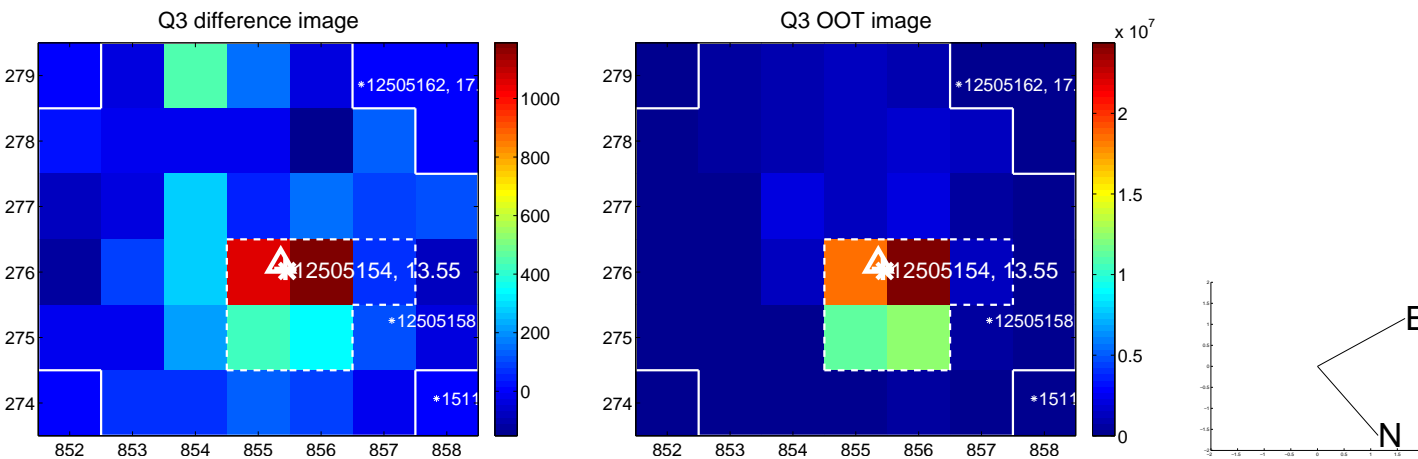
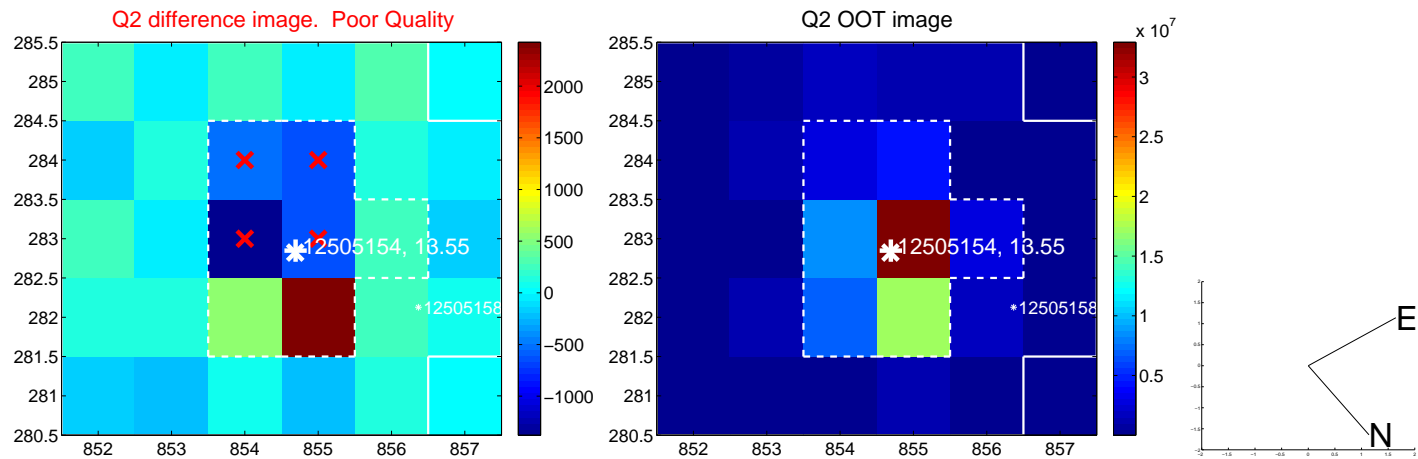
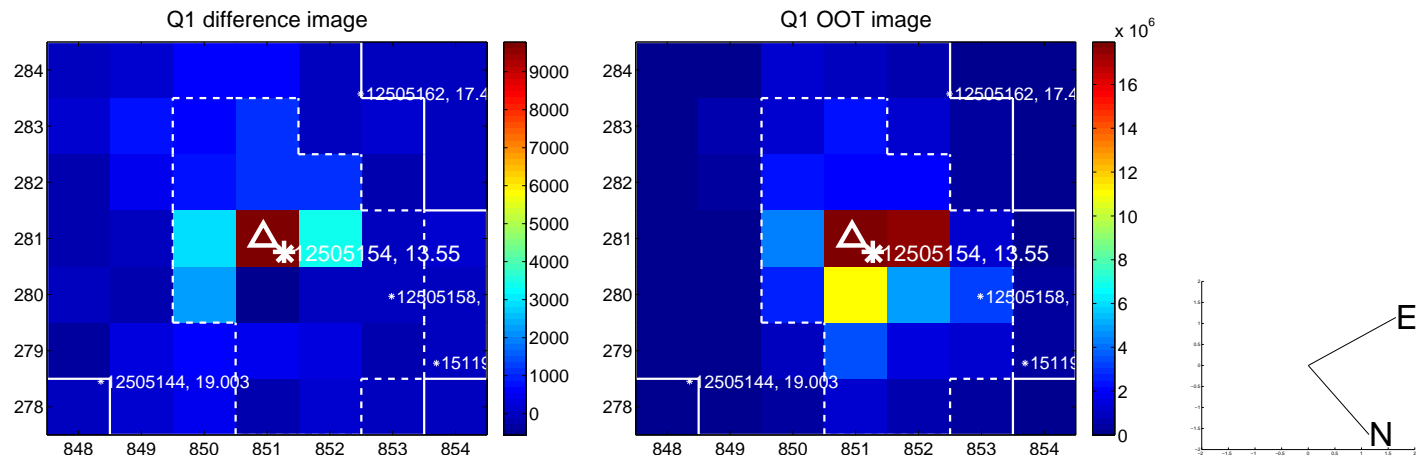


offset from photometric centroids

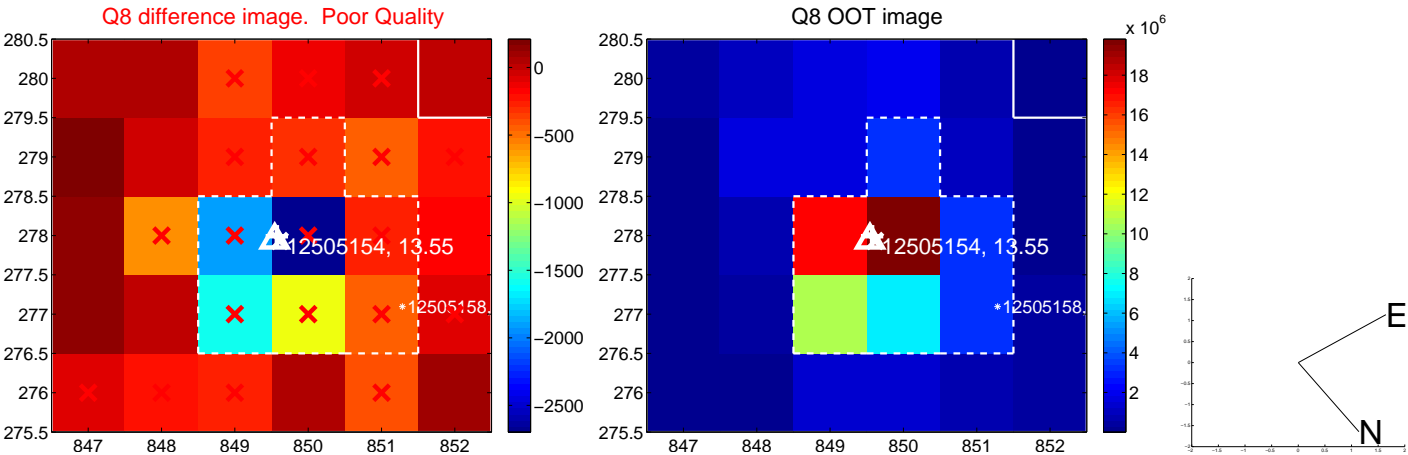
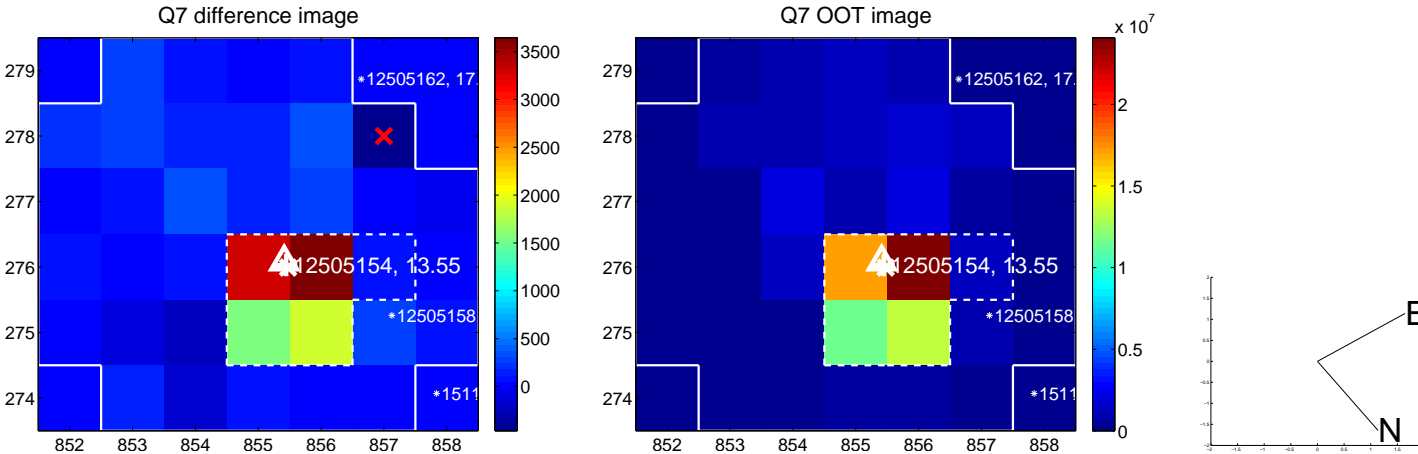
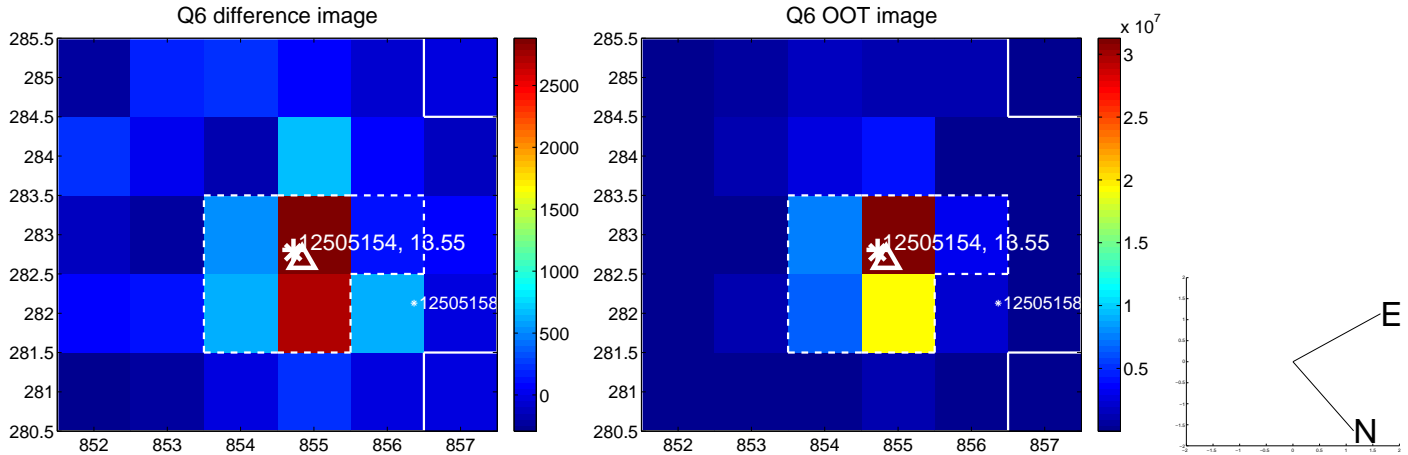
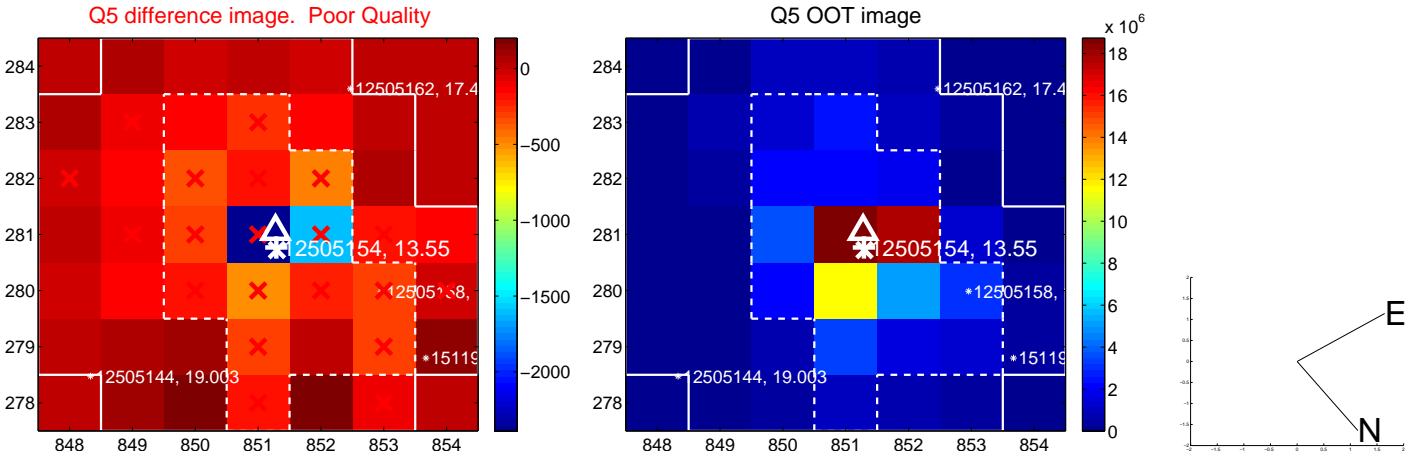


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

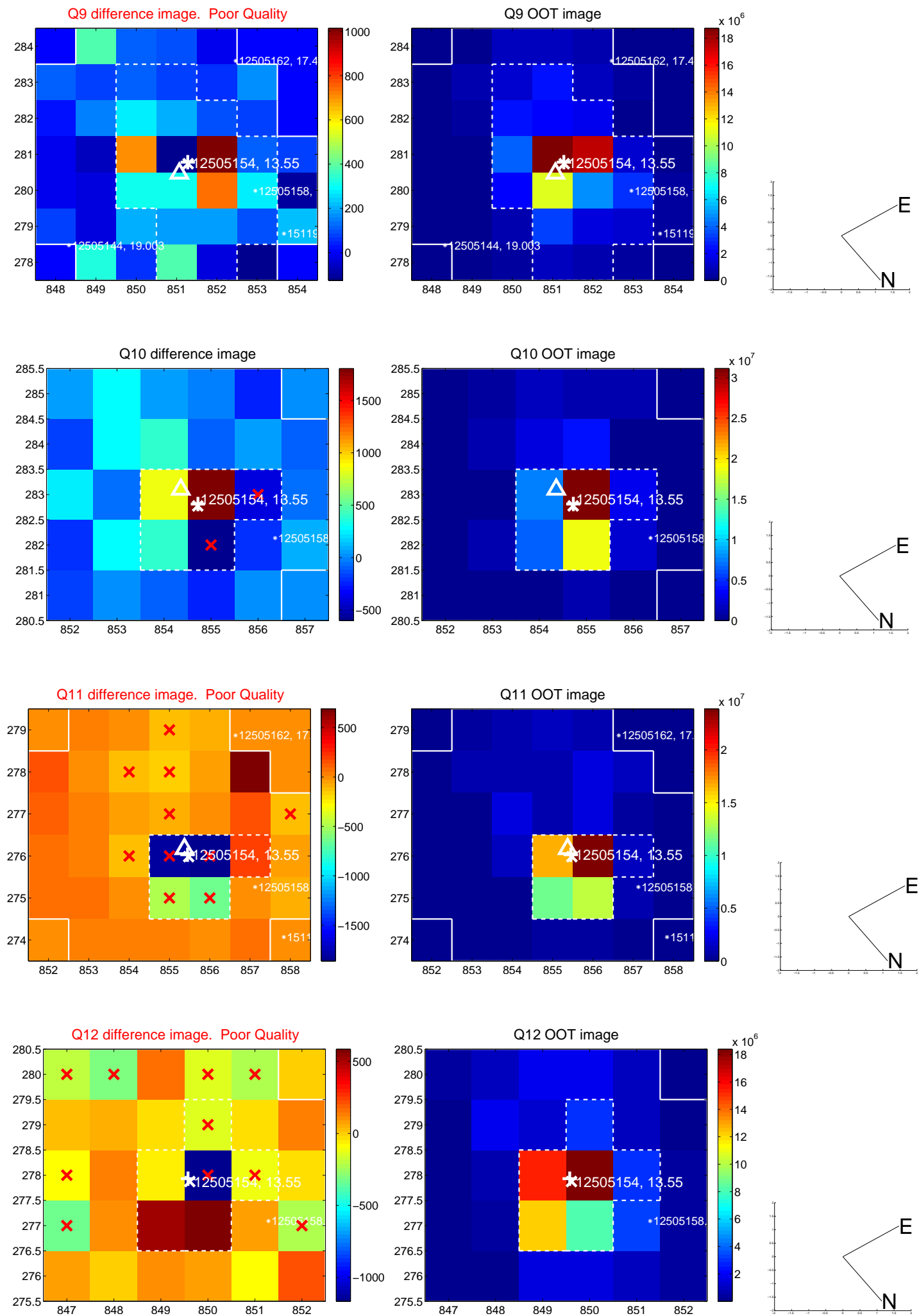
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



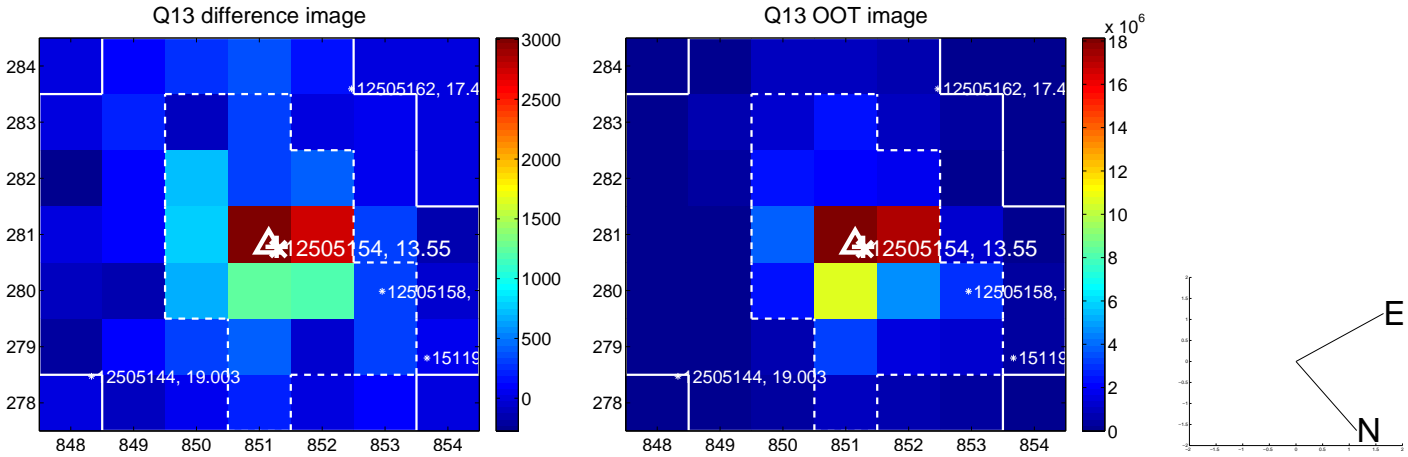
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



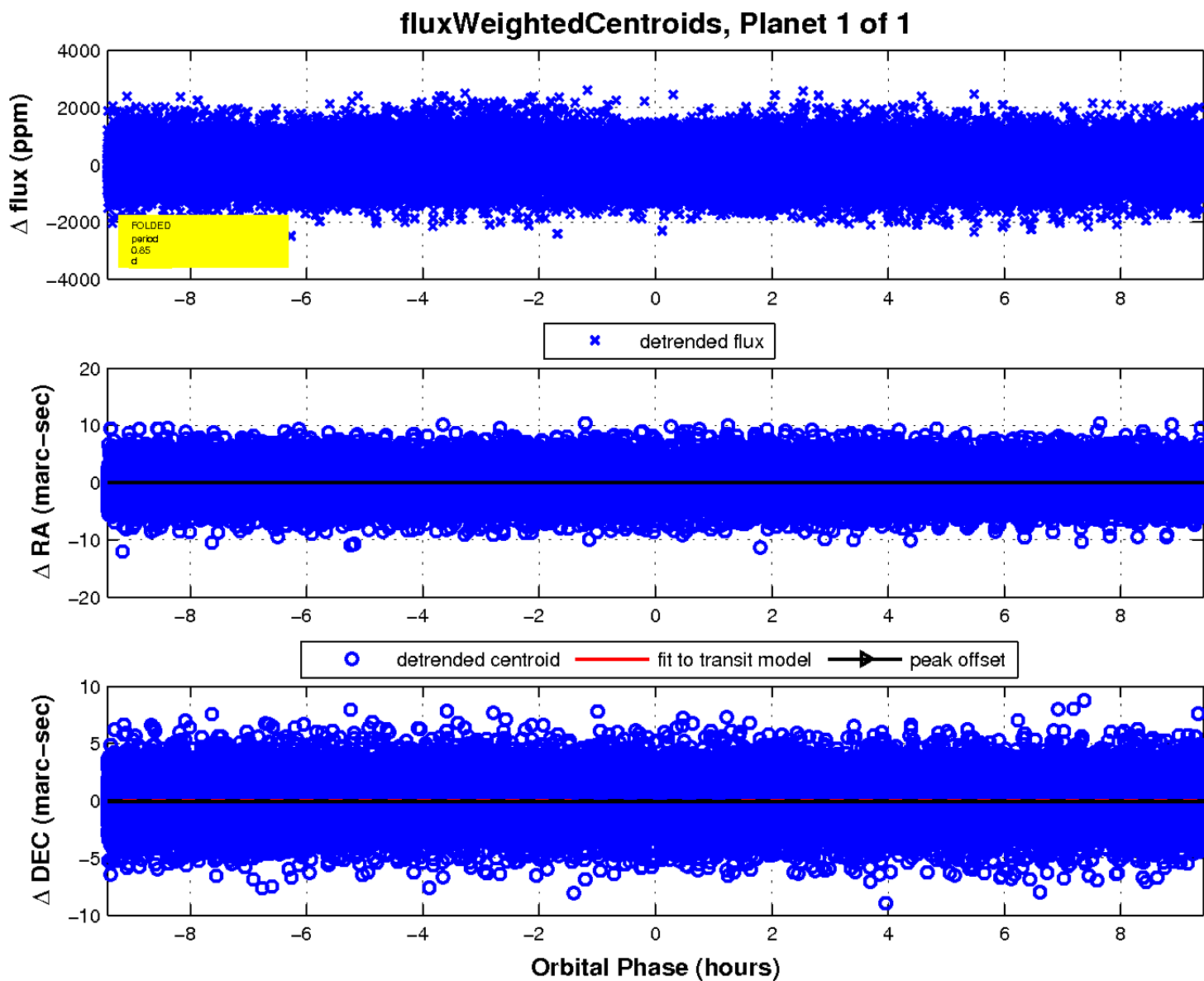
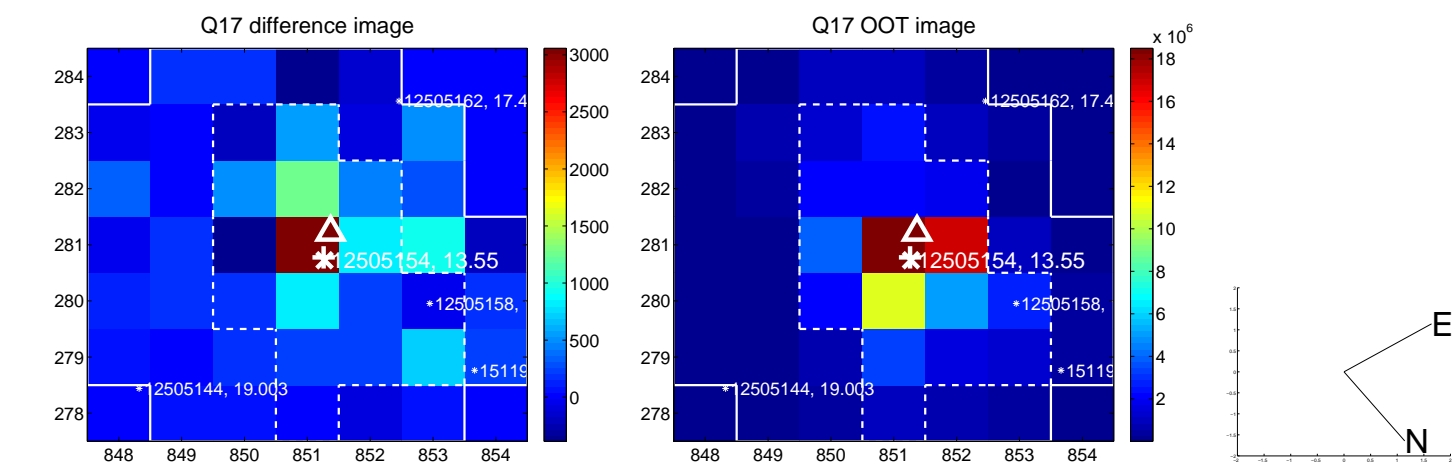
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UKIRT Image

Declination

