

KIC 009591503

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})
009591503-01	OBS	No	0.571388	131.921610	1145.0	2.000	397.6	-1.0	1.63	6453	5.57	26536.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009591503-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_NOFITS

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.

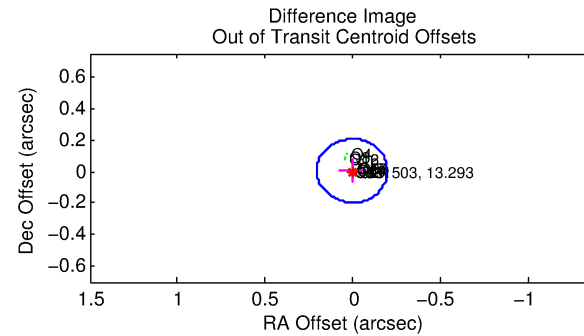
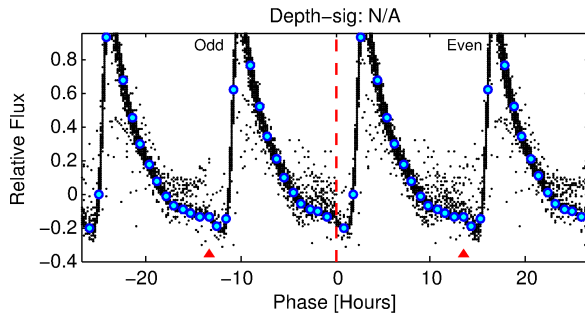
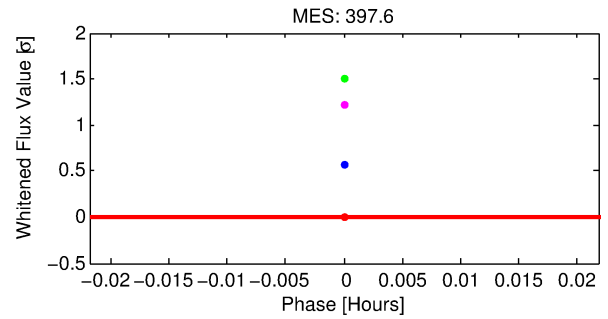
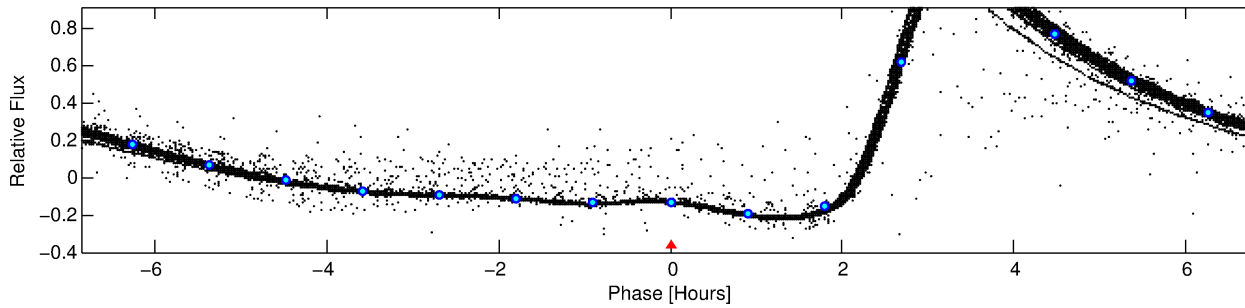
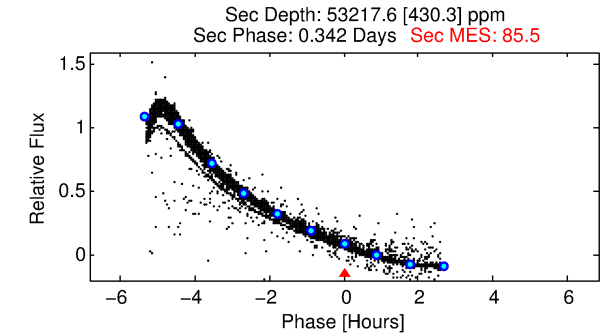
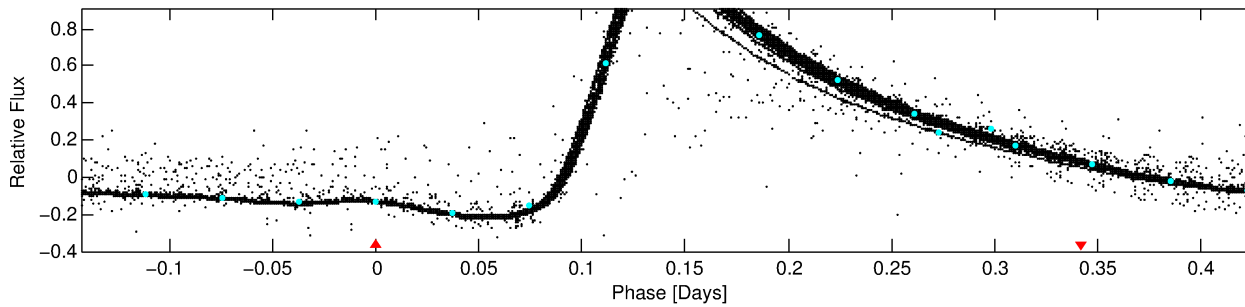
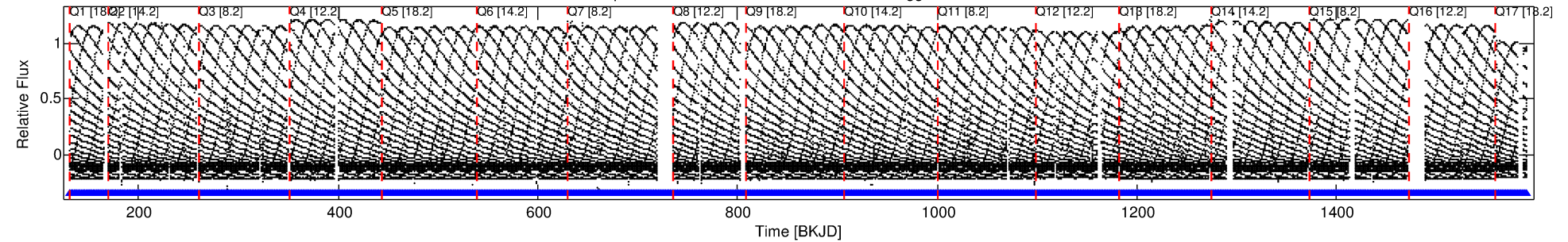
Ephemeris Match Information For 009591503-01

No Significant Match Found

DV One-Page Summary

KIC: 9591503 Candidate: 1 of 1 Period: 0.571 d

Kp: 13.29 R*: 1.63 Rs Teff: 6453.0 K Logg: 3.91 Fe/H: -1.980



TPS TCE Results:

Period = 0.57139 d
Epoch = 131.9216 BKJD

DV fit results are unavailable

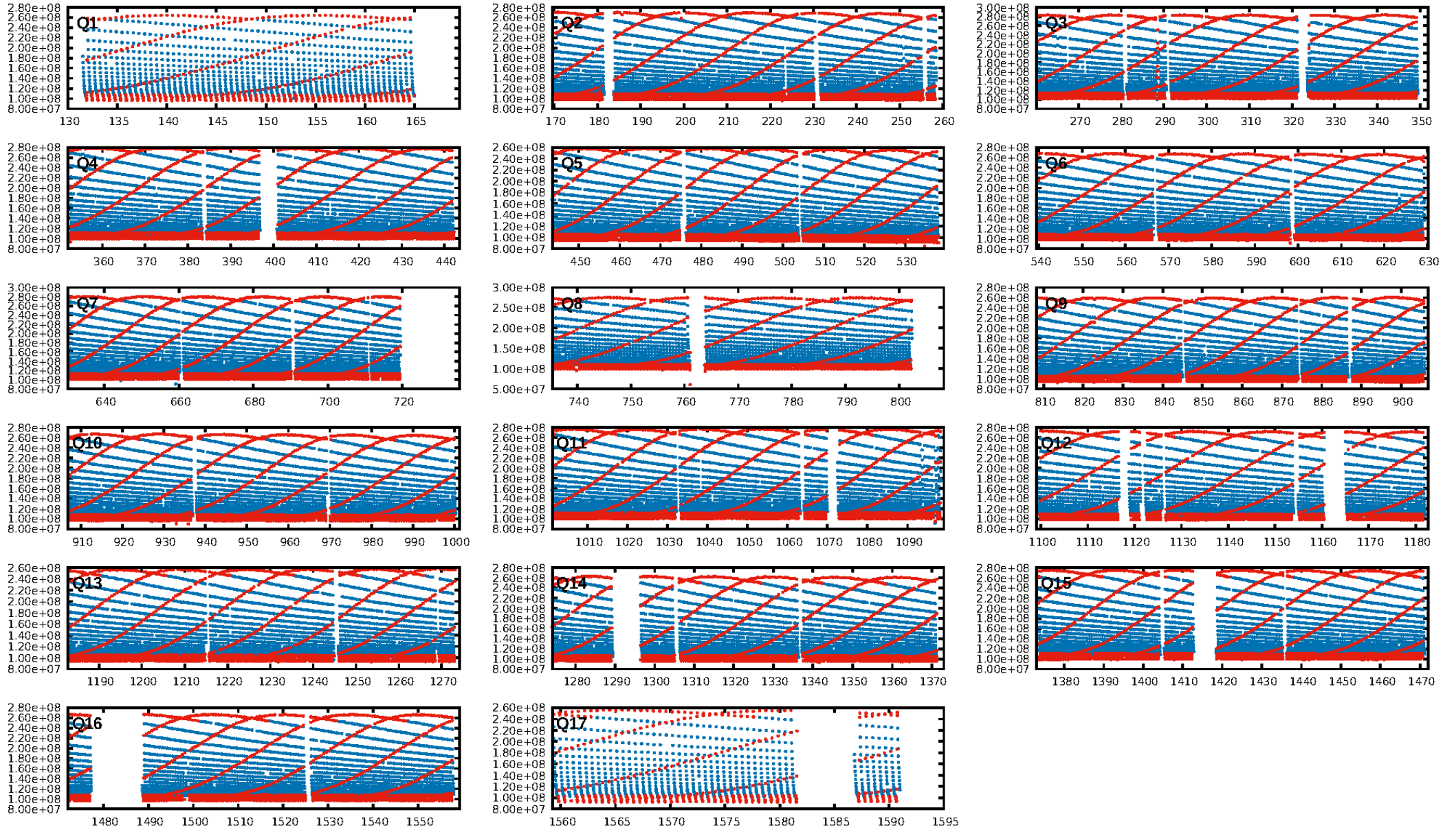
DV Diagnostic Results:

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 [2246/2246]
GhostDiagnostic-chr: 1.448
Centroid-sig: 0.0%
Centroid-so: 0.450 arcsec [501.28σ]
OotOffset-rm: 0.008 arcsec [0.12σ]
KicOffset-rm: 0.225 arcsec [3.29σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

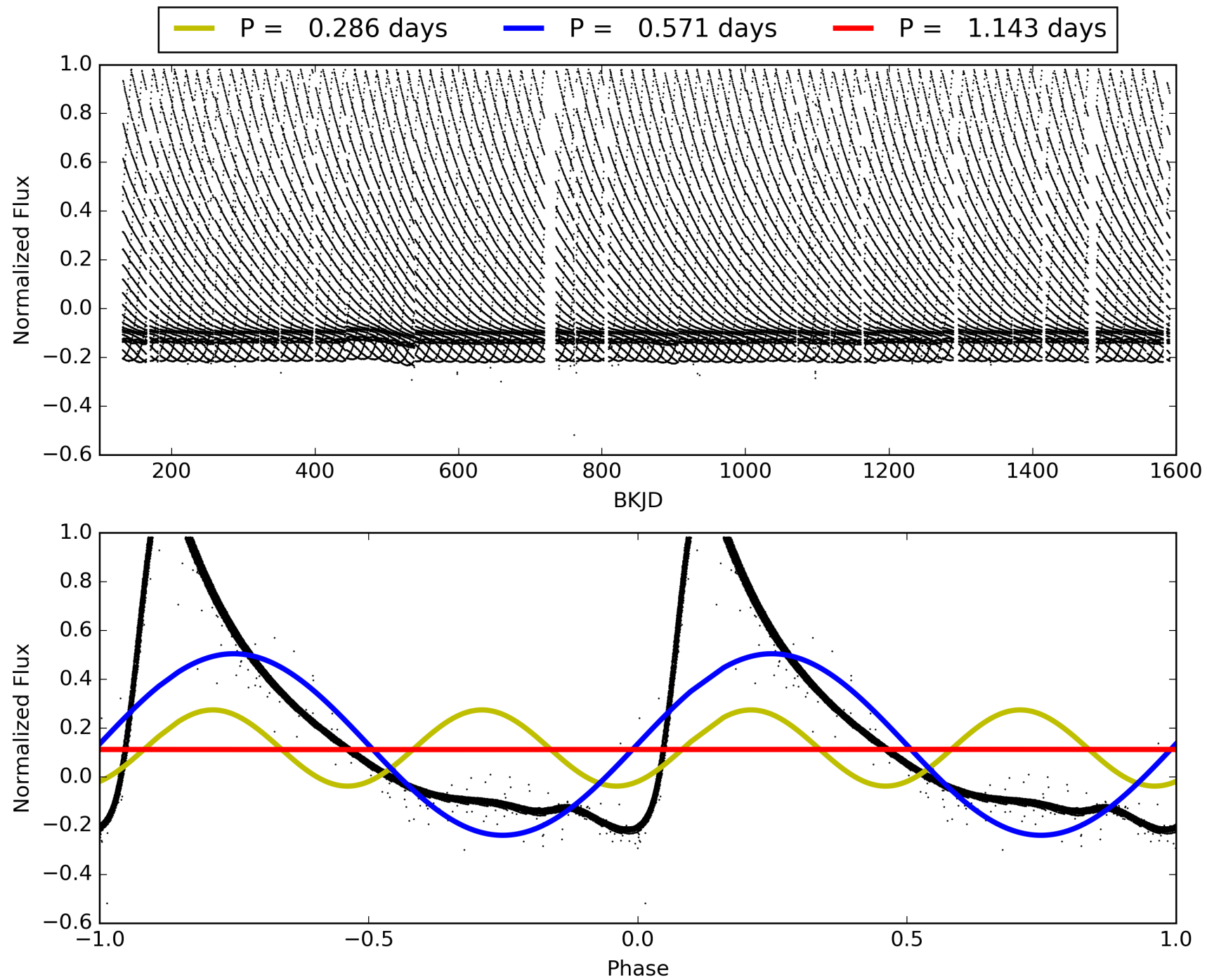
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:33:35 Z

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

TCE 009591503-01, PDC Light Curves

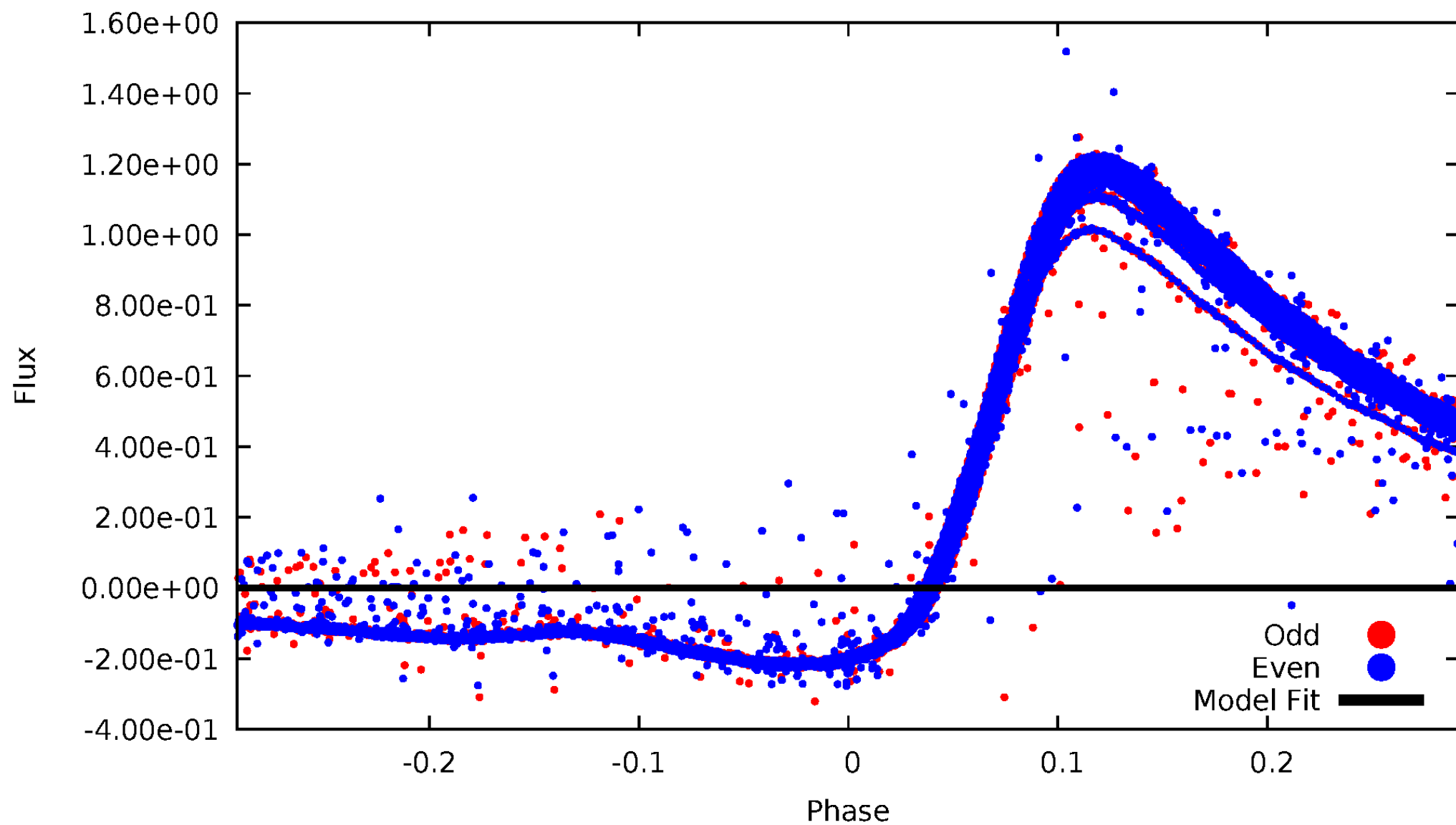


TCE 009591503-01



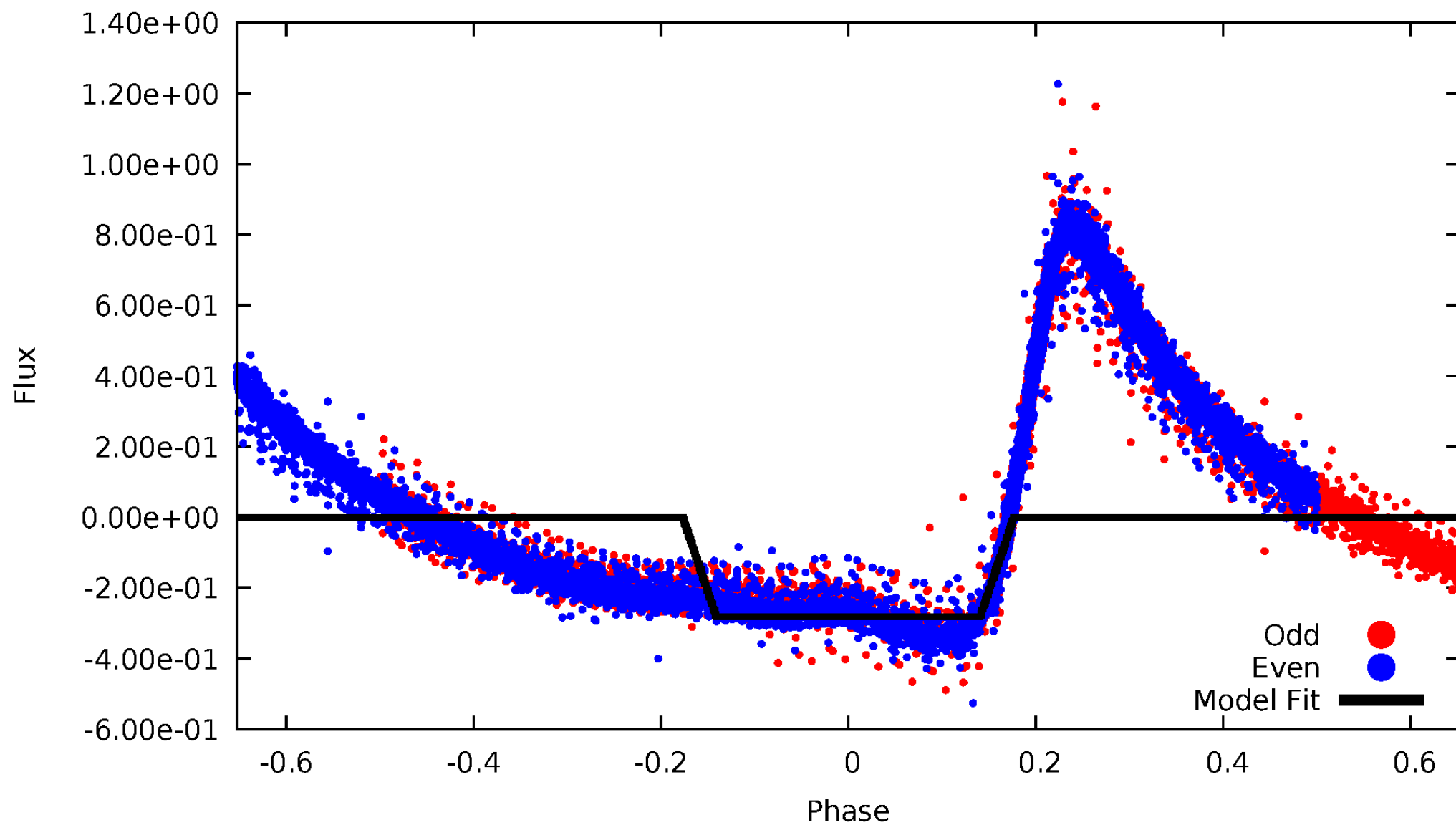
DV Odd/Even

TCE 009591503-01



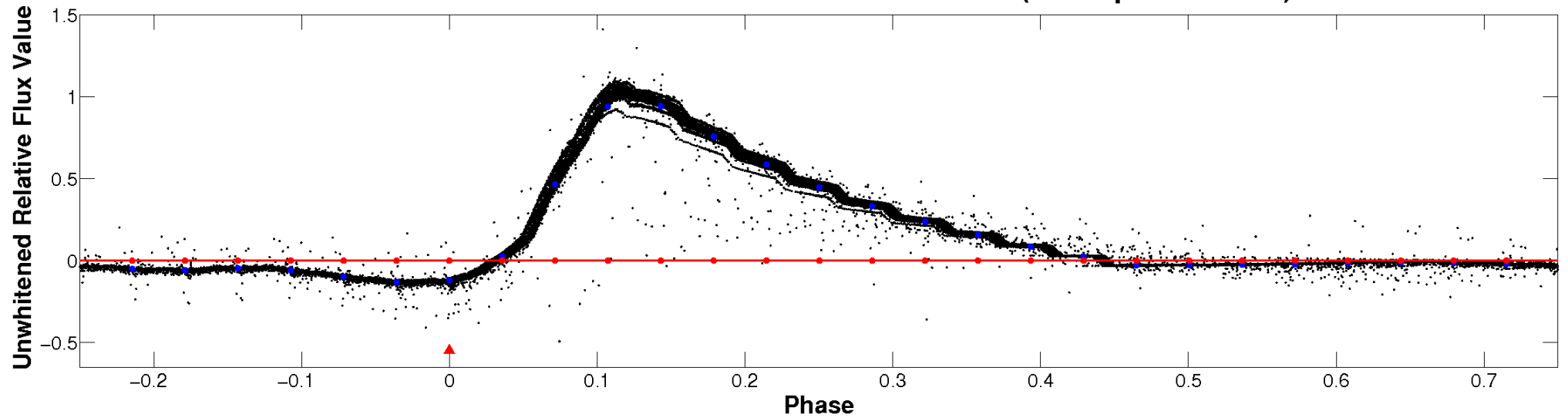
ALT Odd/Even

TCE 009591503-01



Non-Whitened Vs. Whitened Light Curve

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

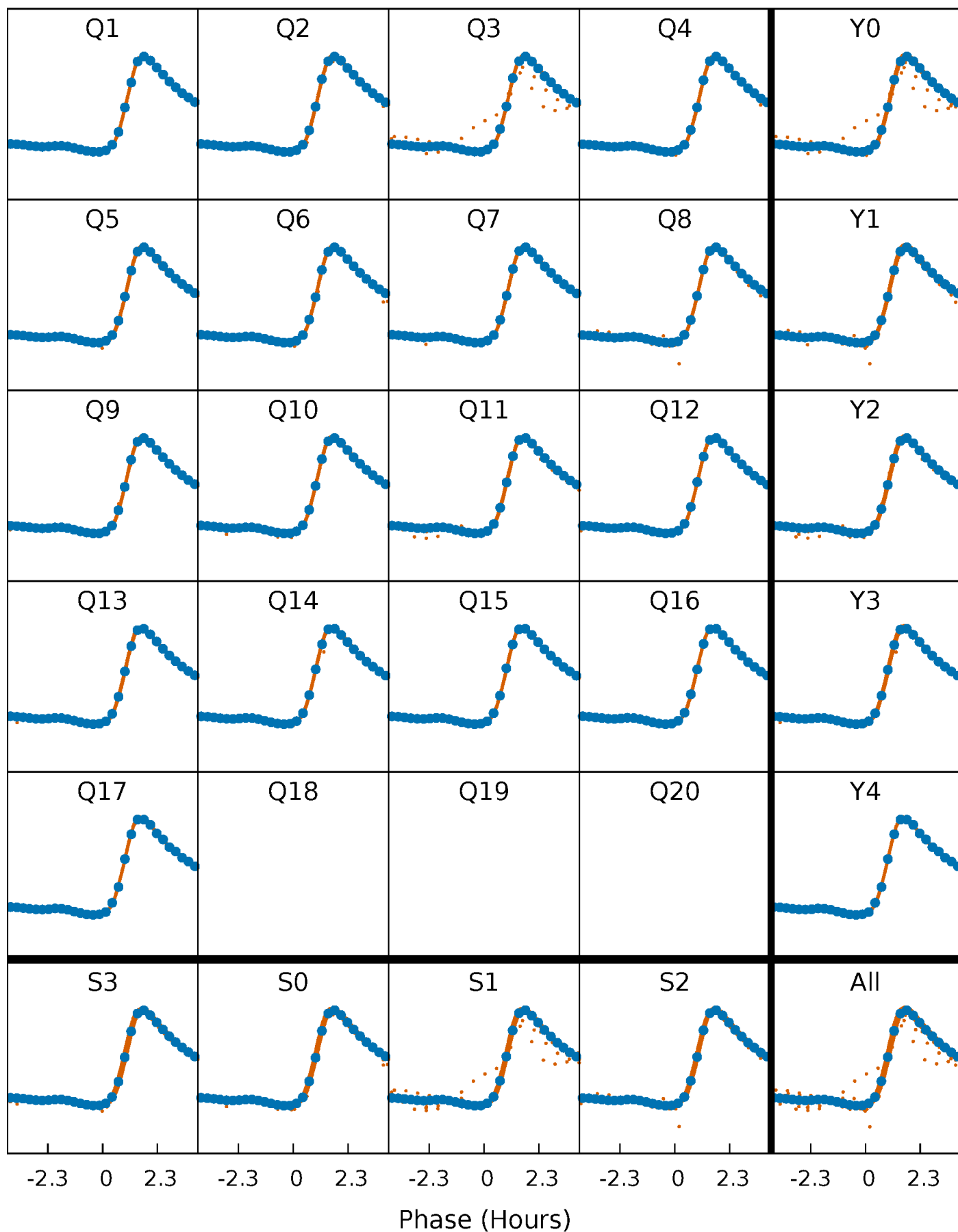


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



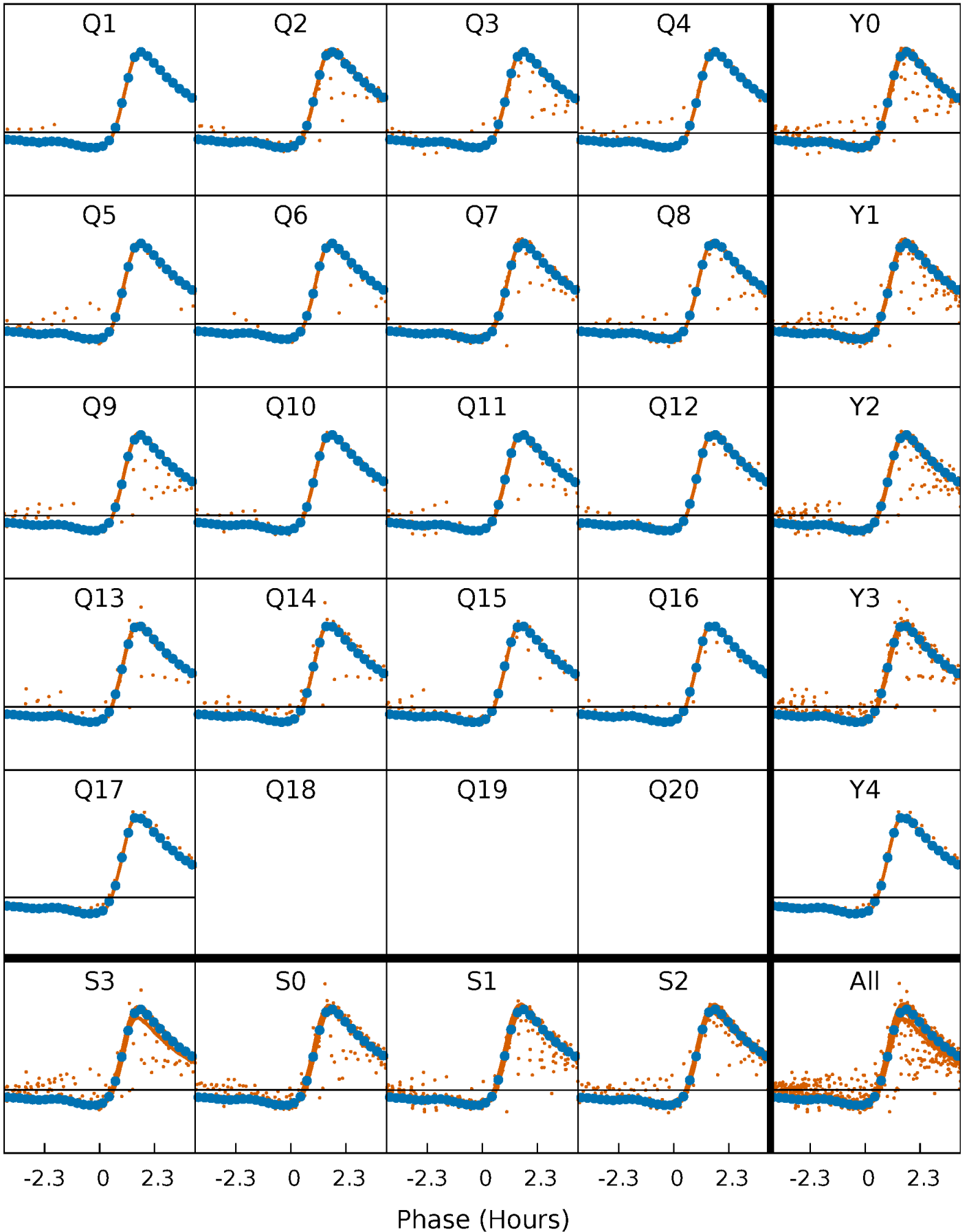
PDC Quarter-Phased Transit Curves

TCE 009591503-01 P= 0.571388 Days $T_0=131.921611$ (BKJD)



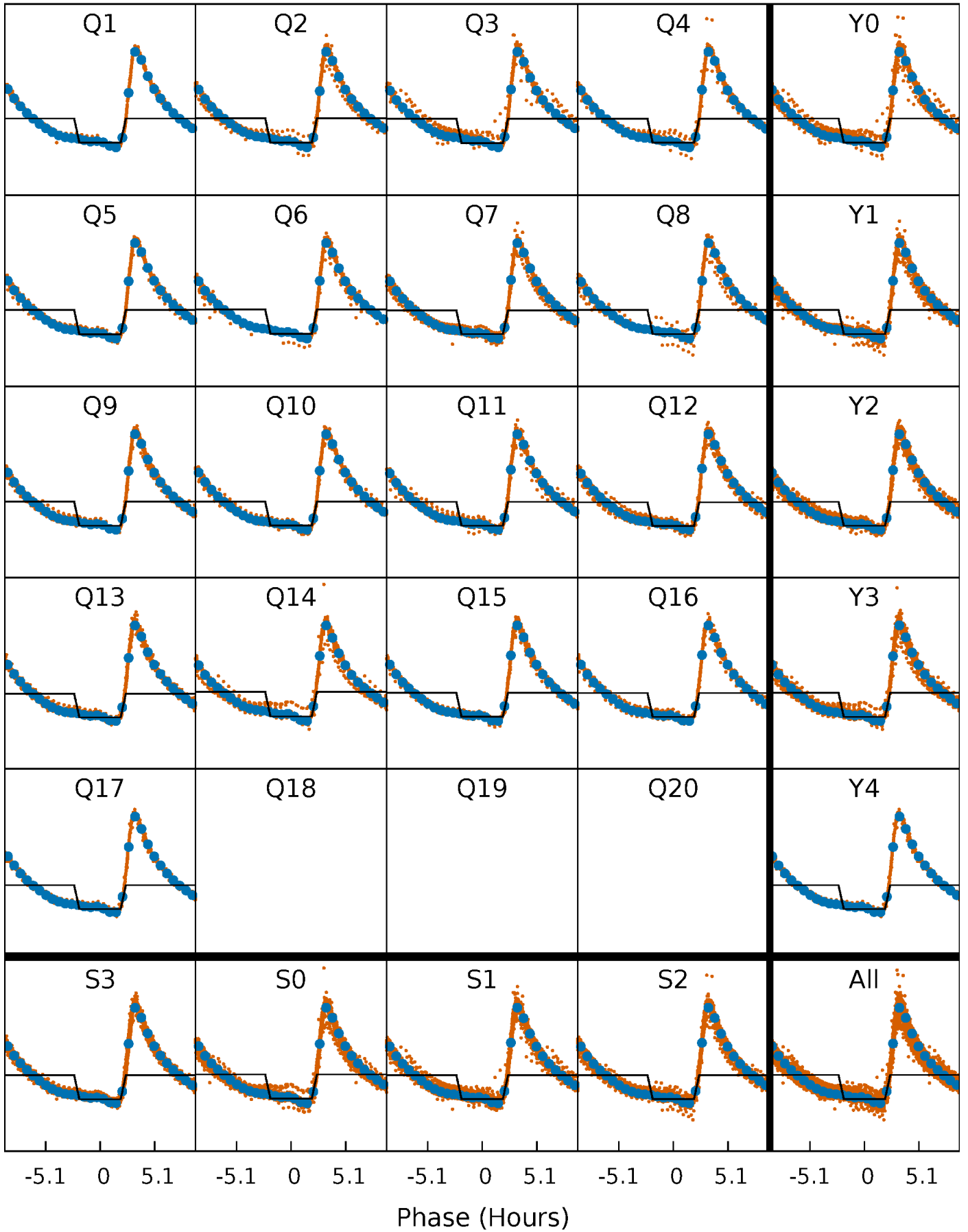
DV Quarter-Phased Transit Curves

TCE 009591503-01 P= 0.571388 Days $T_0=131.921611$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

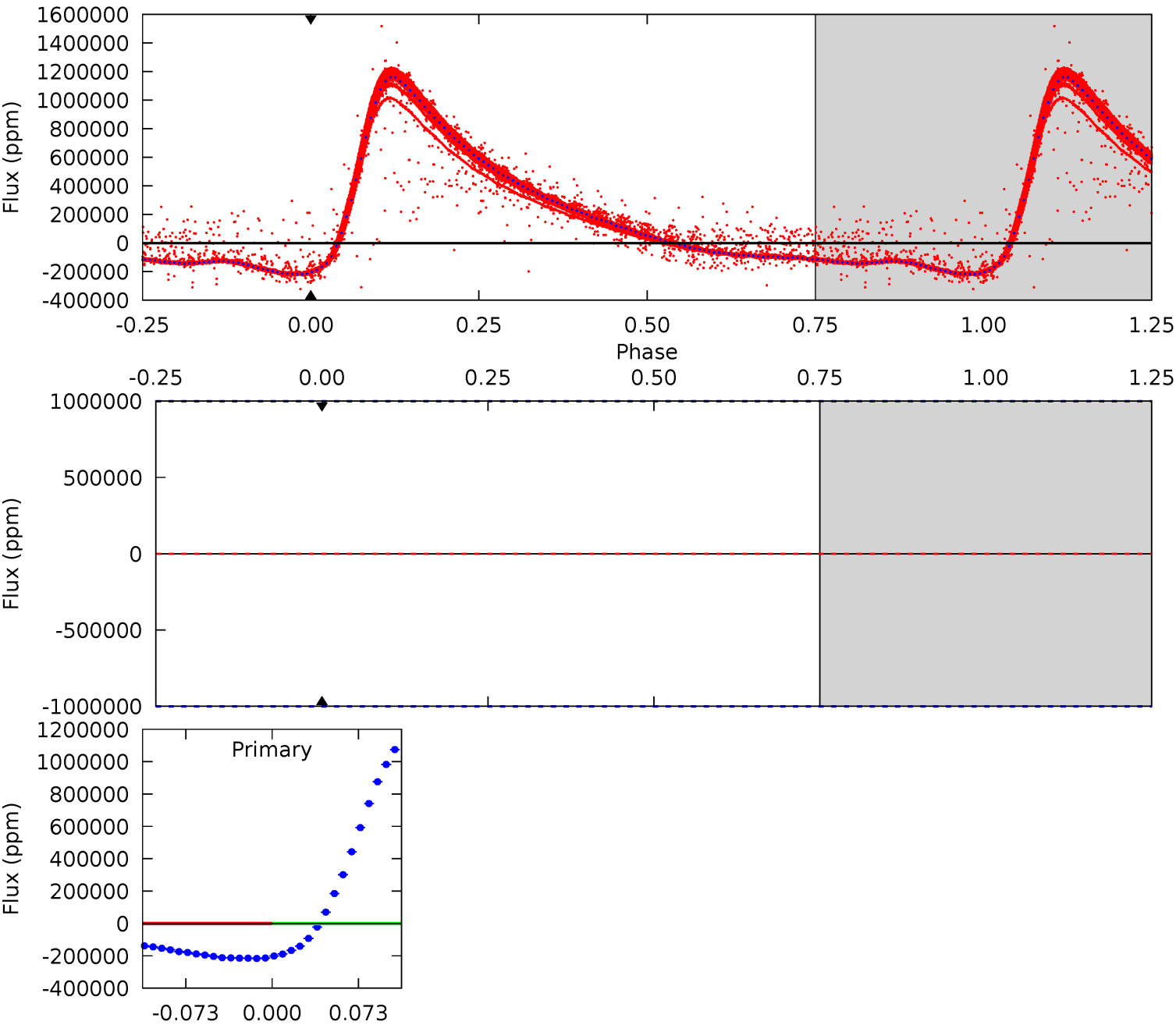
TCE 009591503-01 $P = 0.571388$ Days $T_0 = 131.853107$ (BKJD)



DV Model-Shift Uniqueness Test

009591503-01, P = 0.571388 Days, E = 131.350223 Days

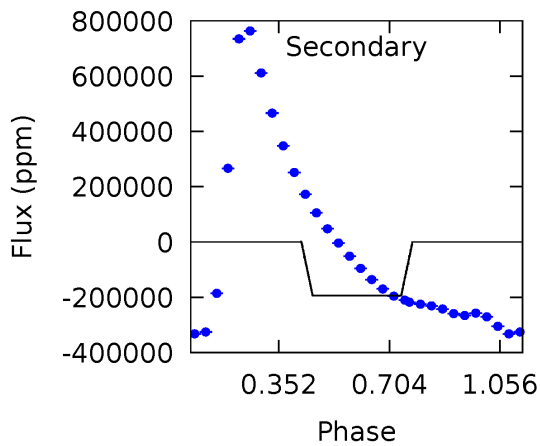
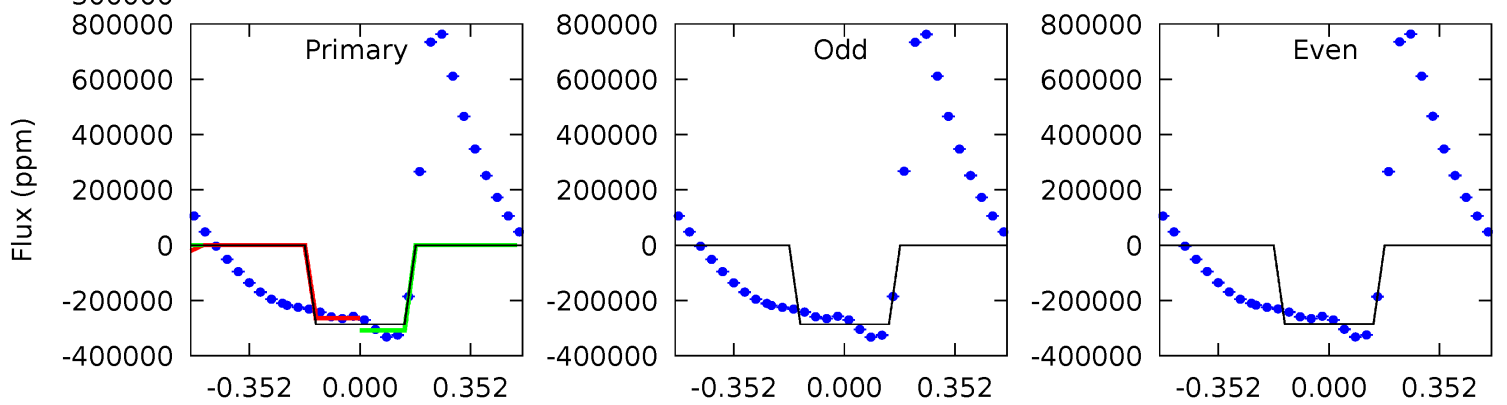
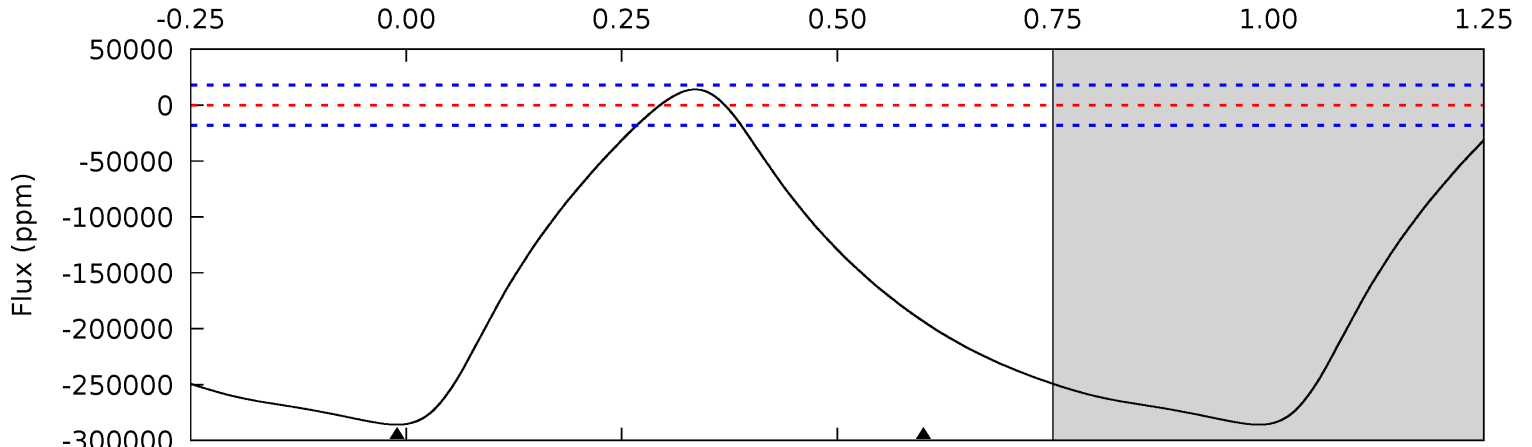
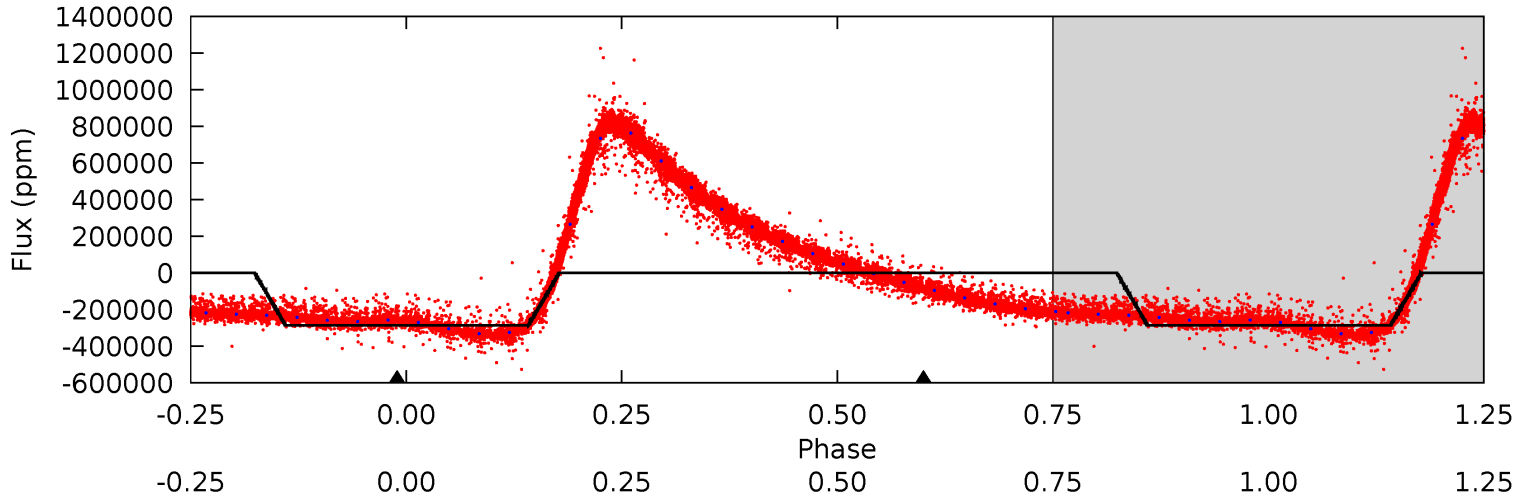
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009591503-01, P = 0.571388 Days, E = 131.281719 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.2	46.1	0	0	4.29	0.93	3.72	68.2	68.2	46.1	46.1	0.04	1.00	0.05	22.0



Stellar Parameters For KIC 009591503

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6453^{+226}_{-203}	$3.913^{+0.623}_{-0.208}$	$-1.980^{+0.150}_{-0.050}$	$1.632^{+0.557}_{-0.836}$	$0.795^{+0.053}_{-0.058}$	$0.258^{+1.976}_{-0.131}$
	+4%/-3%	+16%/-5%	+8%/-3%	+34%/-51%	+7%/-7%	+767%/-51%
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 009591503-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$12.34^{+15.20}_{-8.88}$	4469^{+487}_{-747}	-4810^{+31674}_{-22563}	$-0.888^{+99.440}_{-104.067}$
Alt.	-193510 ± 4194	$88.85^{+27.09}_{-27.57}$	4473^{+440}_{-656}	6022^{+744}_{-632}	$2.600^{+2.951}_{-1.052}$

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 $A_{obs} \gg 1.0$

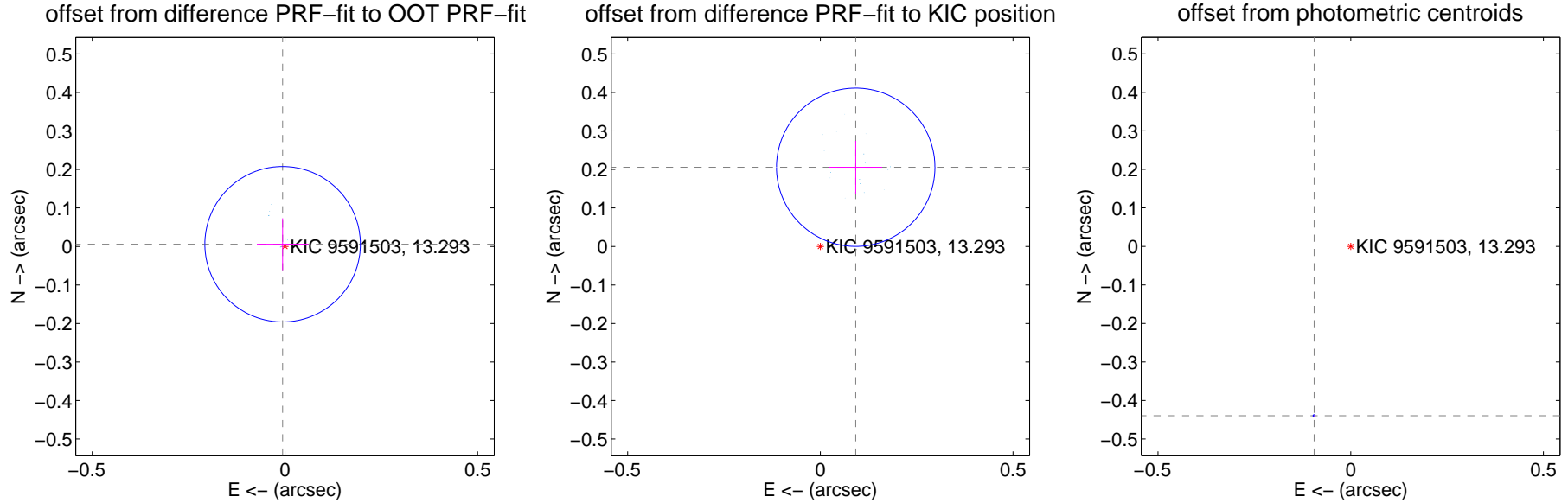
DV Centroid Data

Supplemental centroid analysis for 009591503-01. Kepler magnitude: 13.29. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

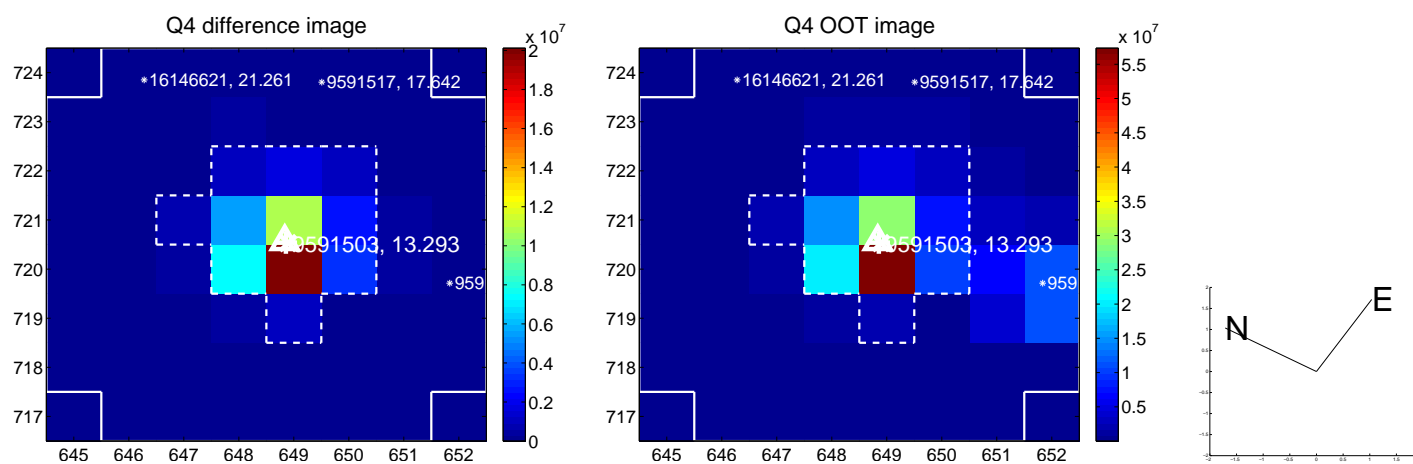
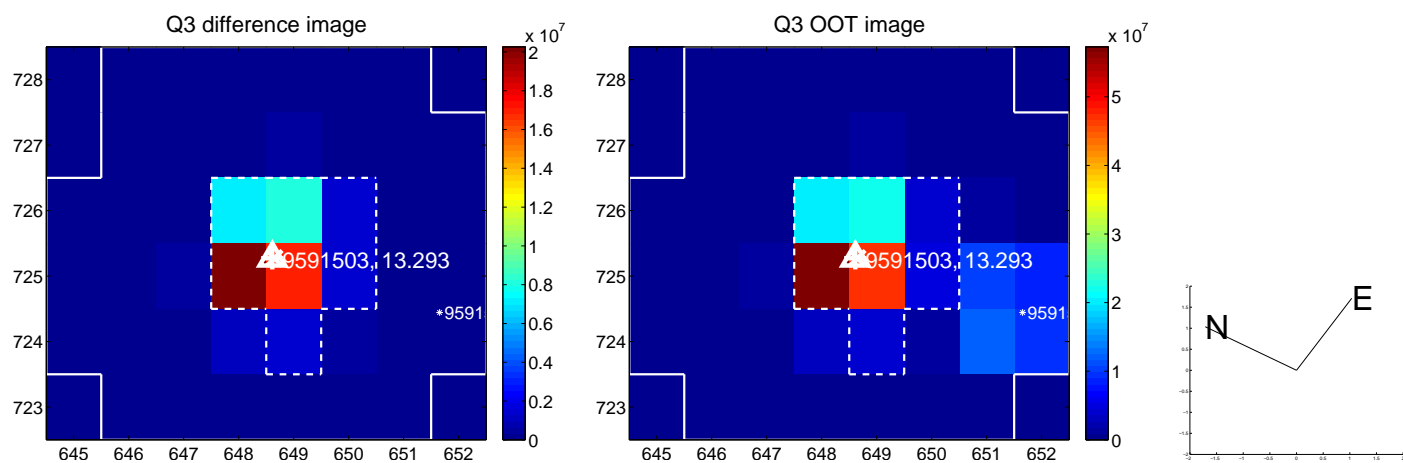
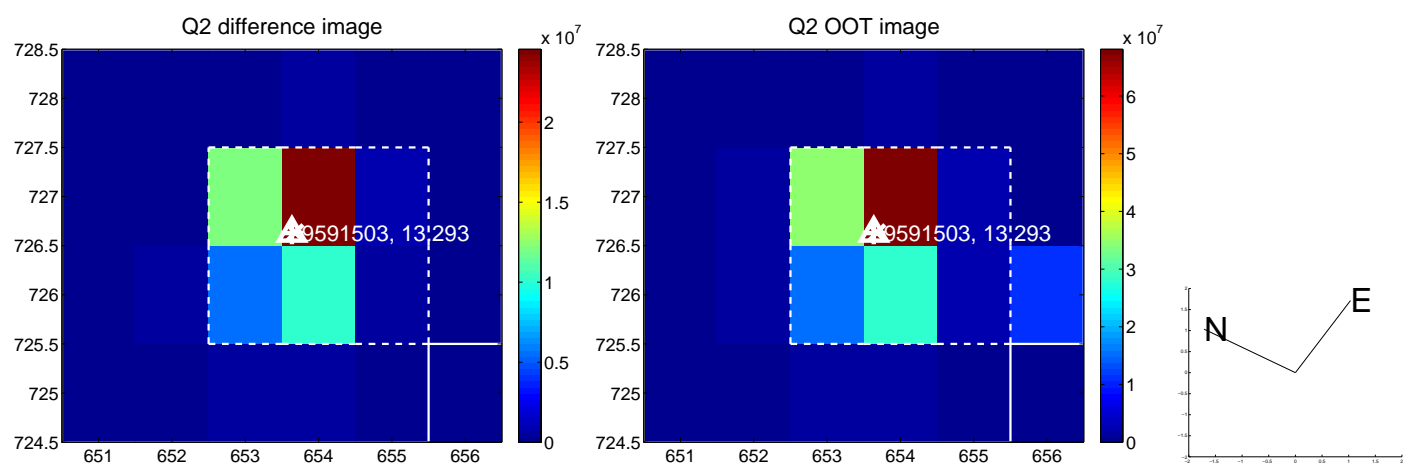
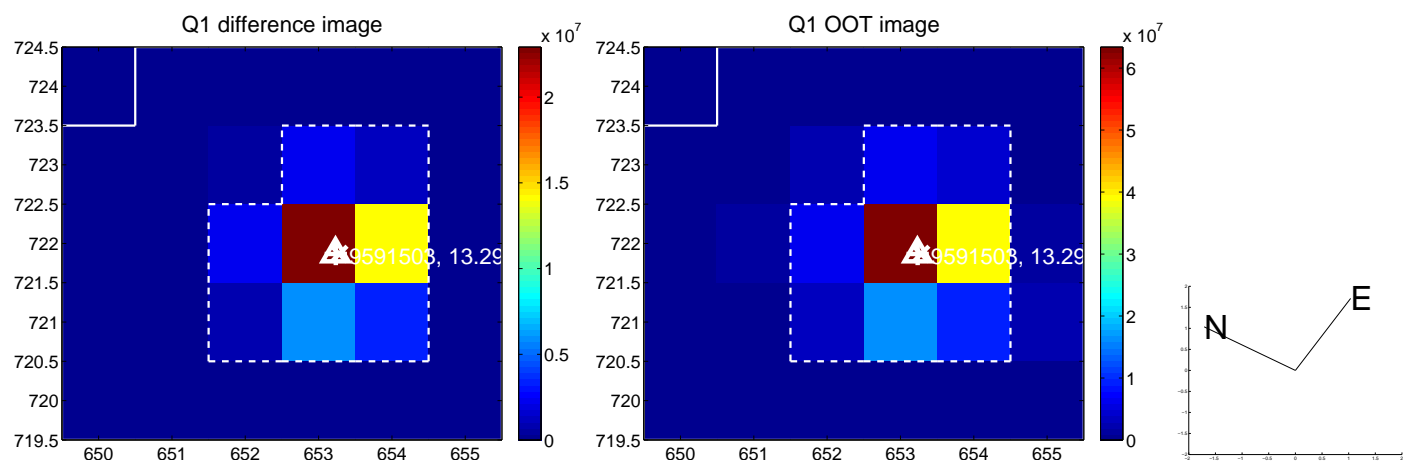
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.008 ± 0.067	0.12	0.006 ± 0.067	0.006 ± 0.067
PRF-fit source offset from KIC position	0.225 ± 0.069	3.29	-0.092 ± 0.069	0.206 ± 0.069
photometric centroid source offset	0.45 ± 0.00	501.28	0.10 ± 0.00	-0.44 ± 0.00

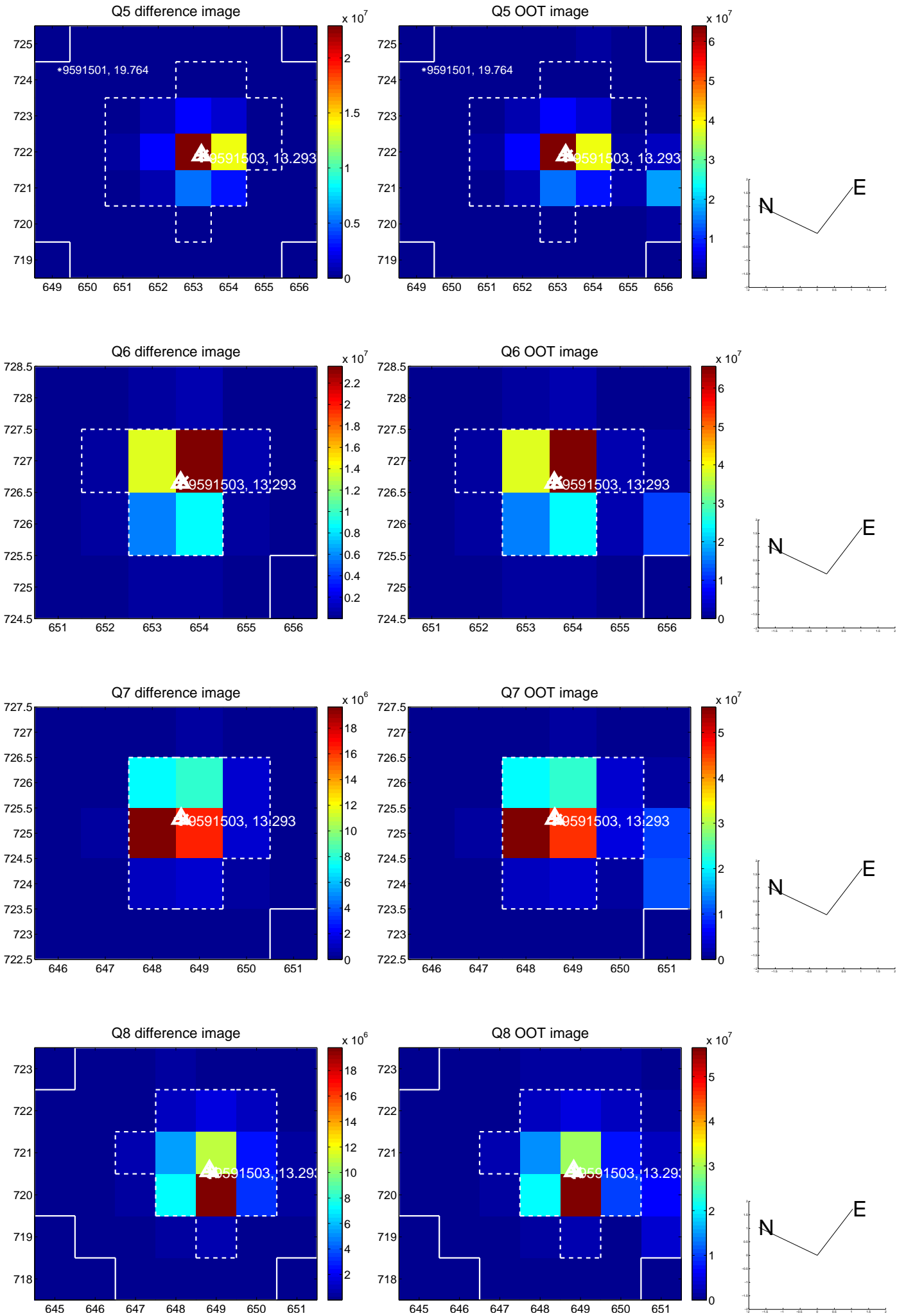


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

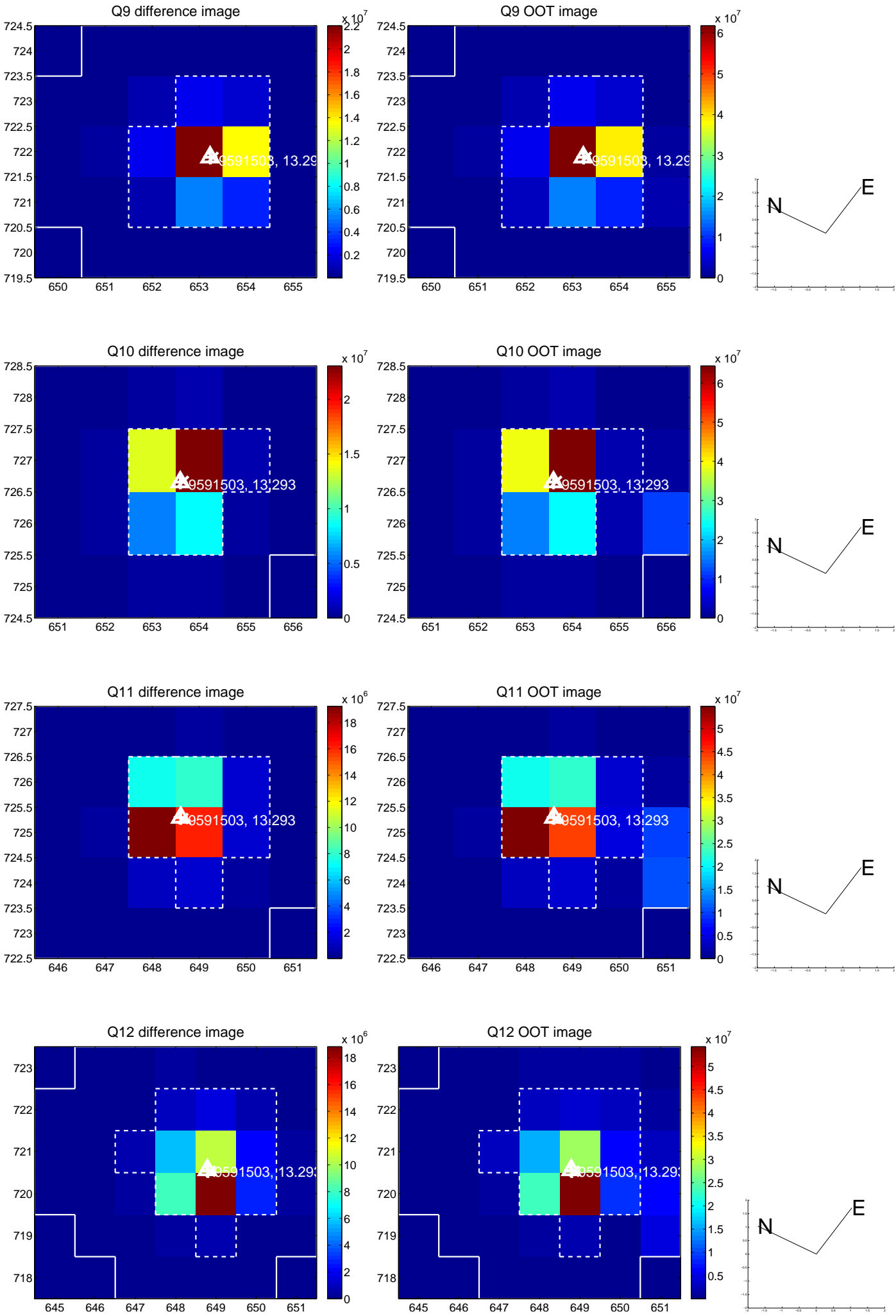
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



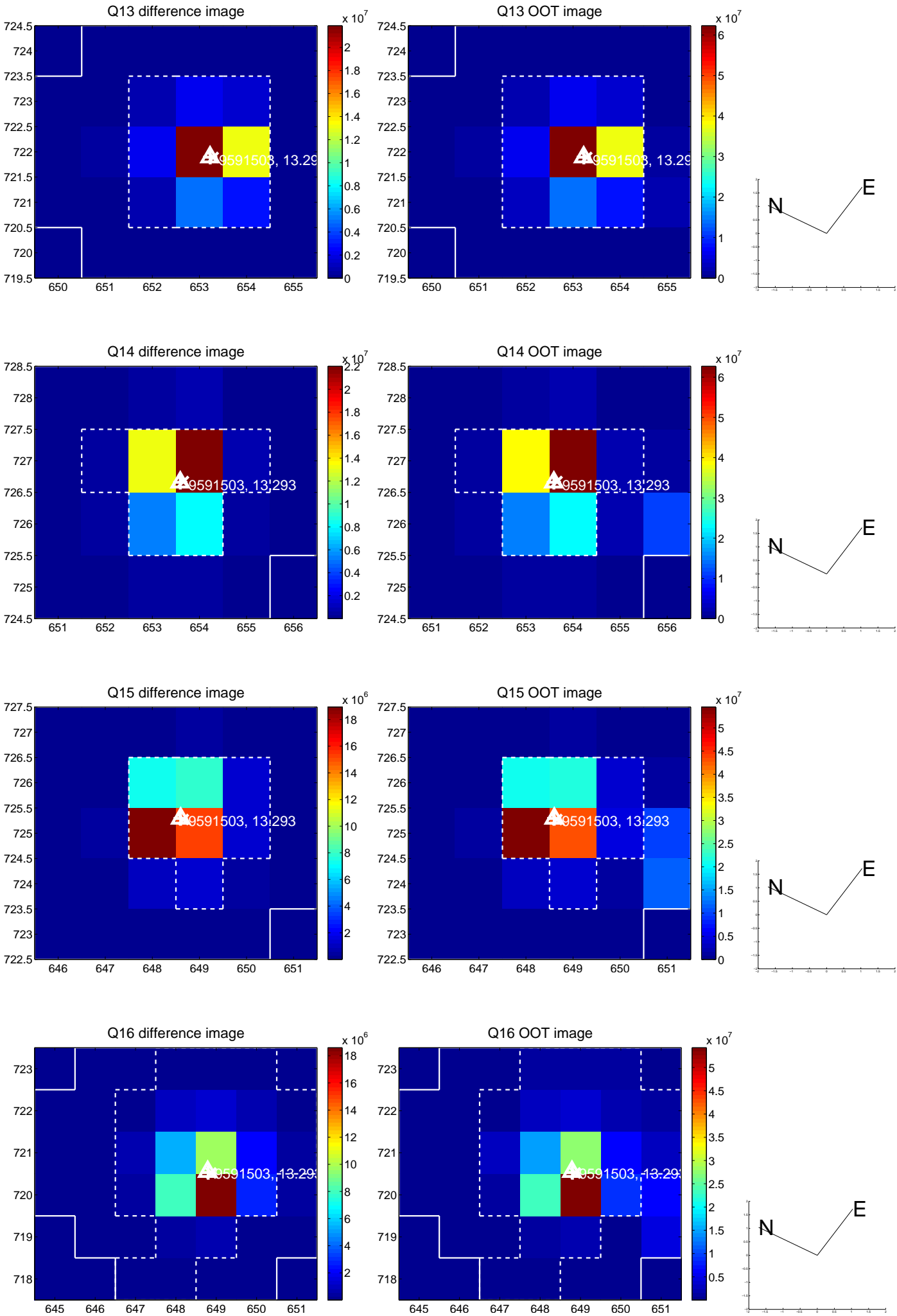
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



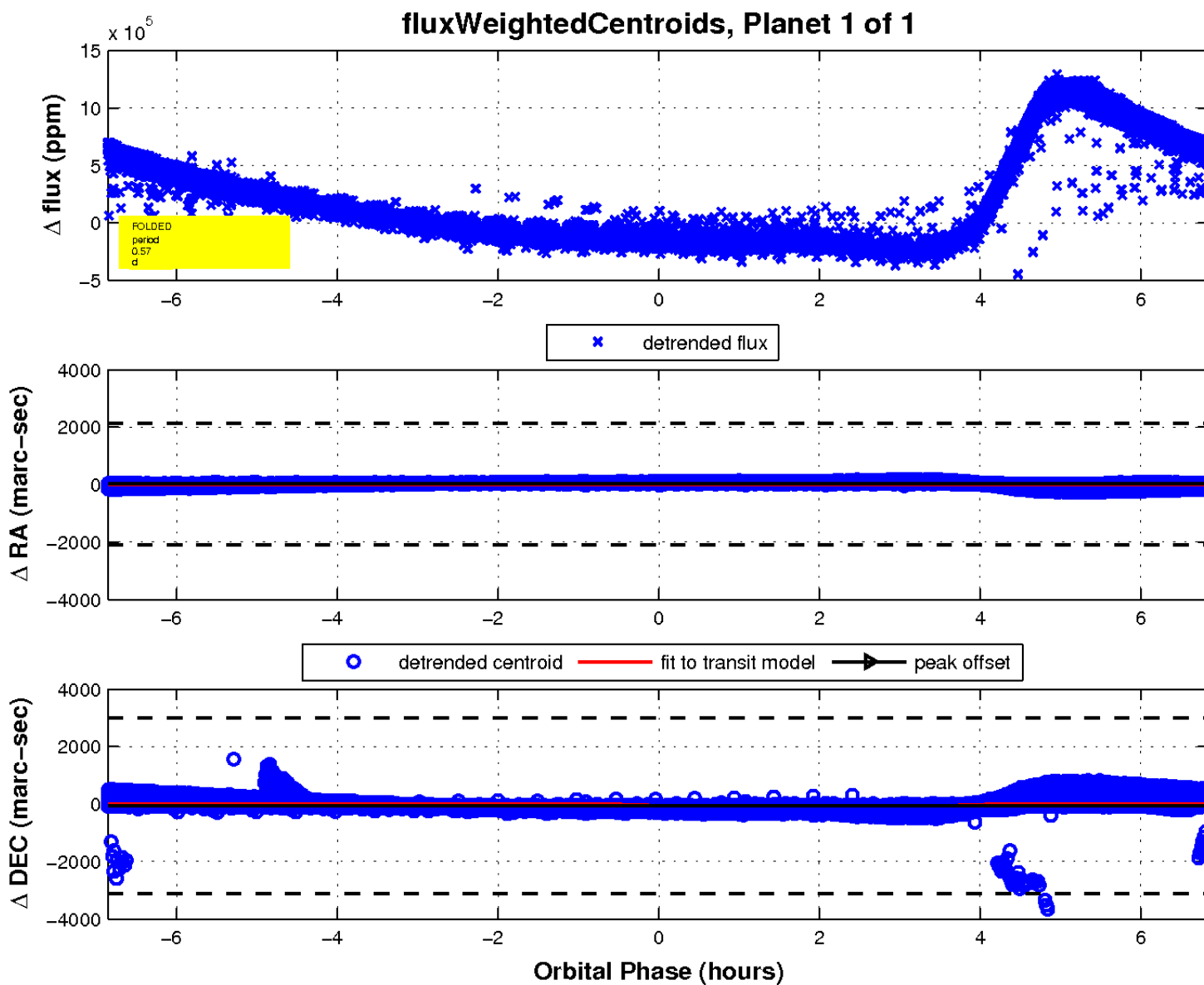
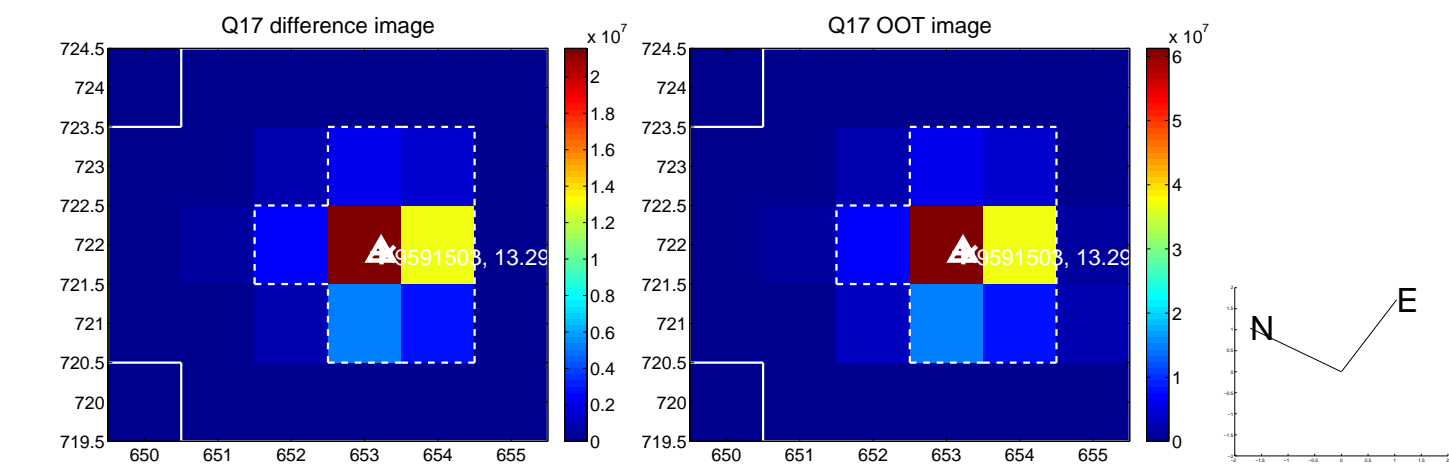
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

