

KIC 009788457

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})
009788457-01	OBS	No	0.963336	132.184111	3878.9	2.000	1179.5	-1.0	2.18	8139	13.74	34496.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009788457-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS

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

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

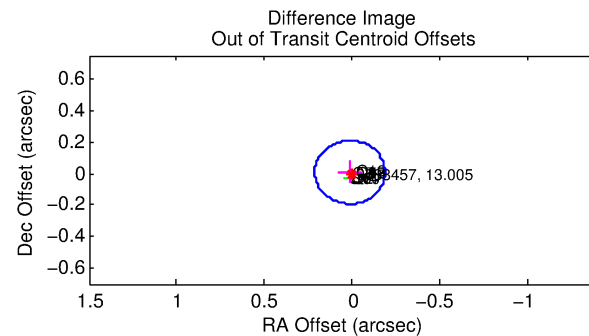
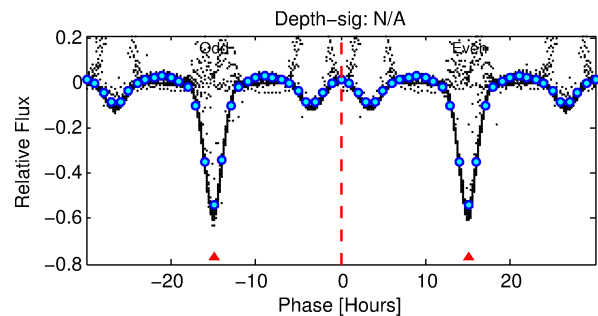
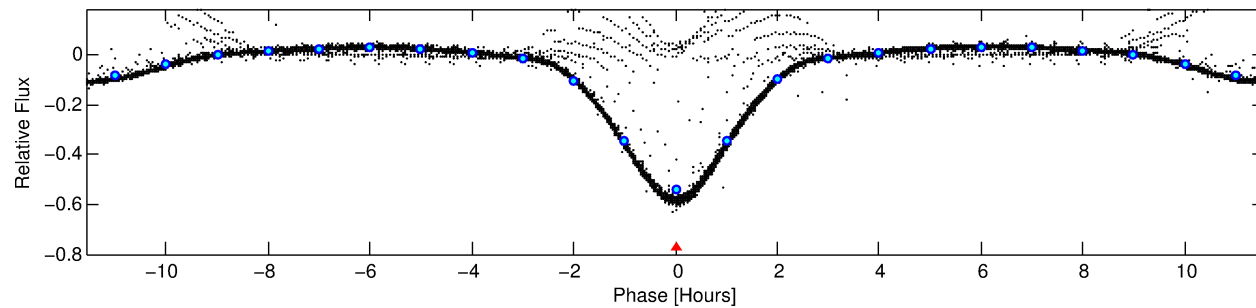
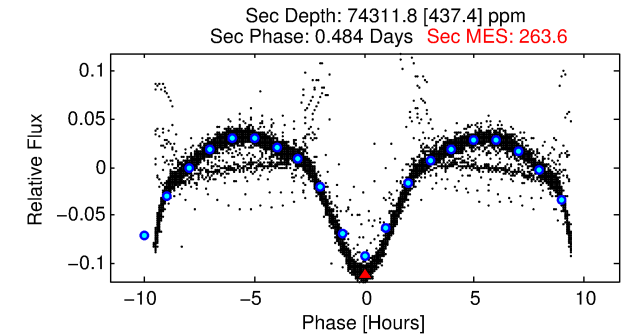
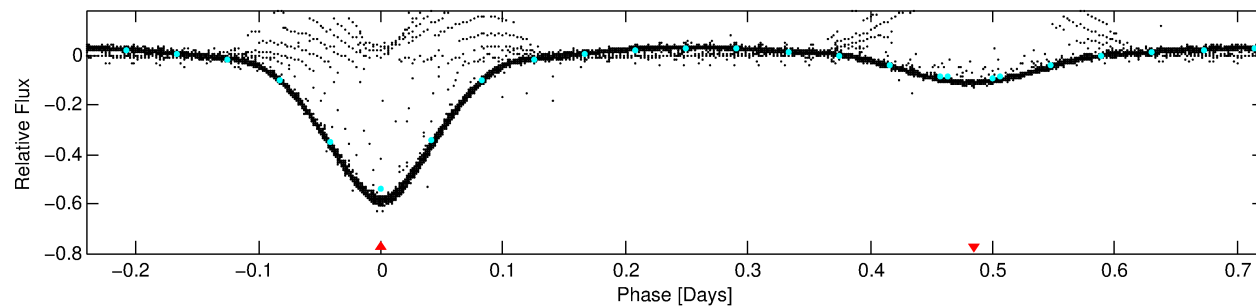
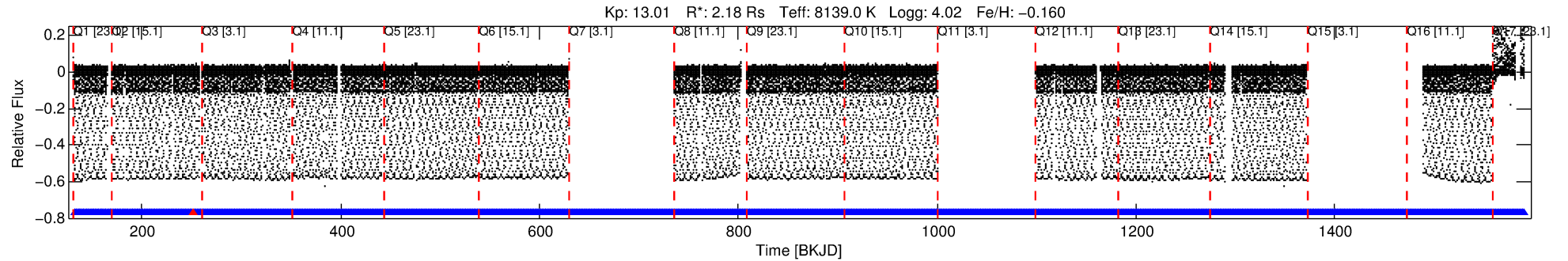
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009788457-01

No Significant Match Found

DV One-Page Summary

KIC: 9788457 Candidate: 1 of 1 Period: 0.963 d



TPS TCE Results:

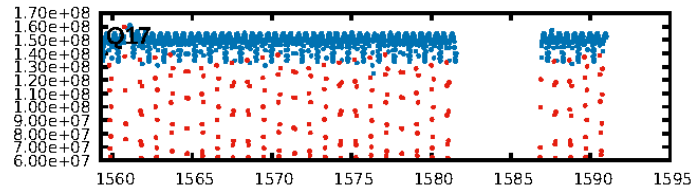
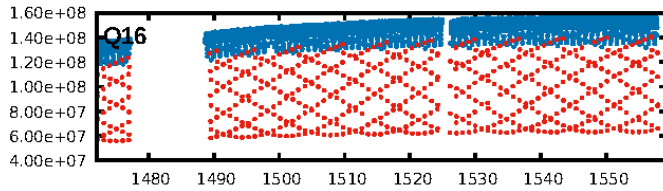
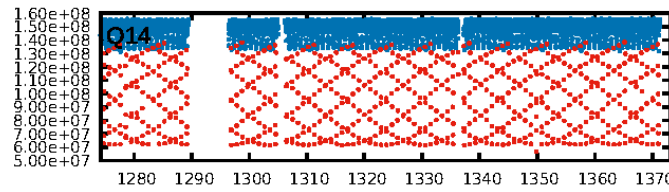
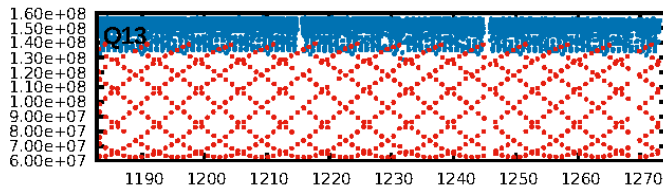
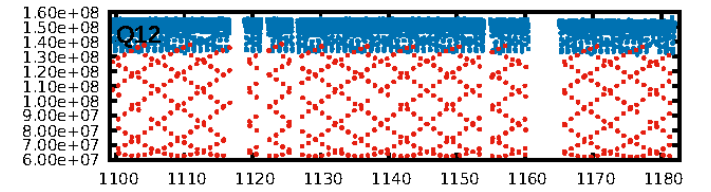
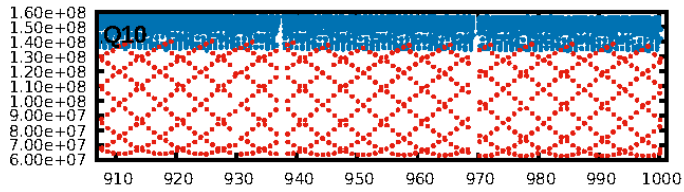
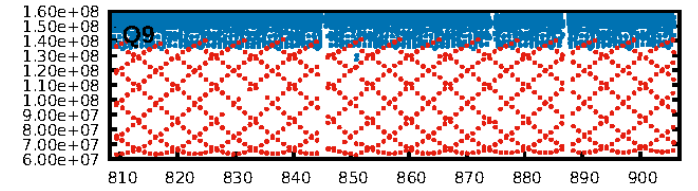
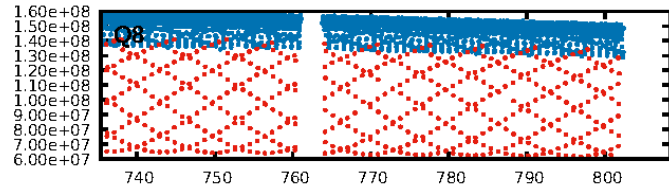
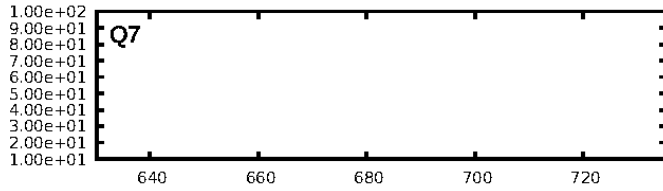
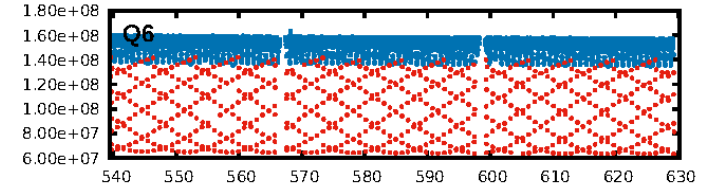
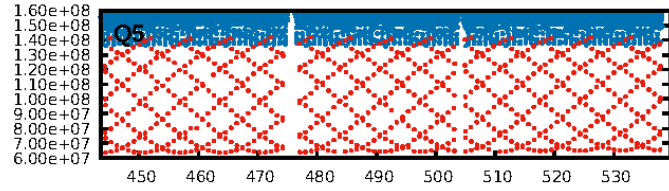
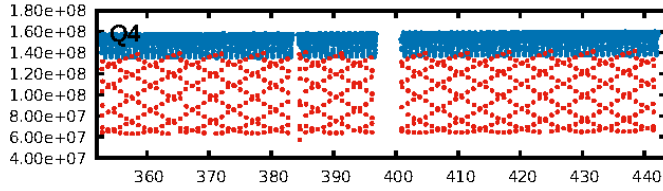
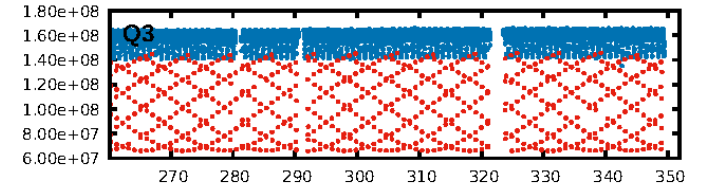
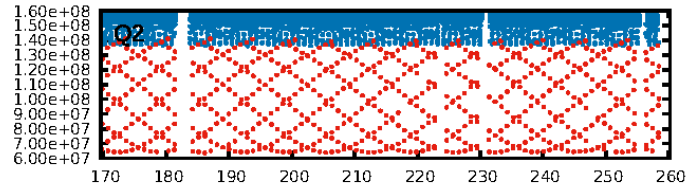
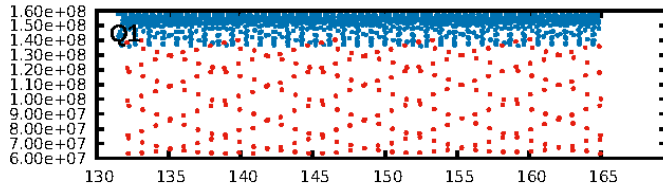
Period = 0.96334 d
Epoch = 132.1841 BKJD

DV fit results are unavailable

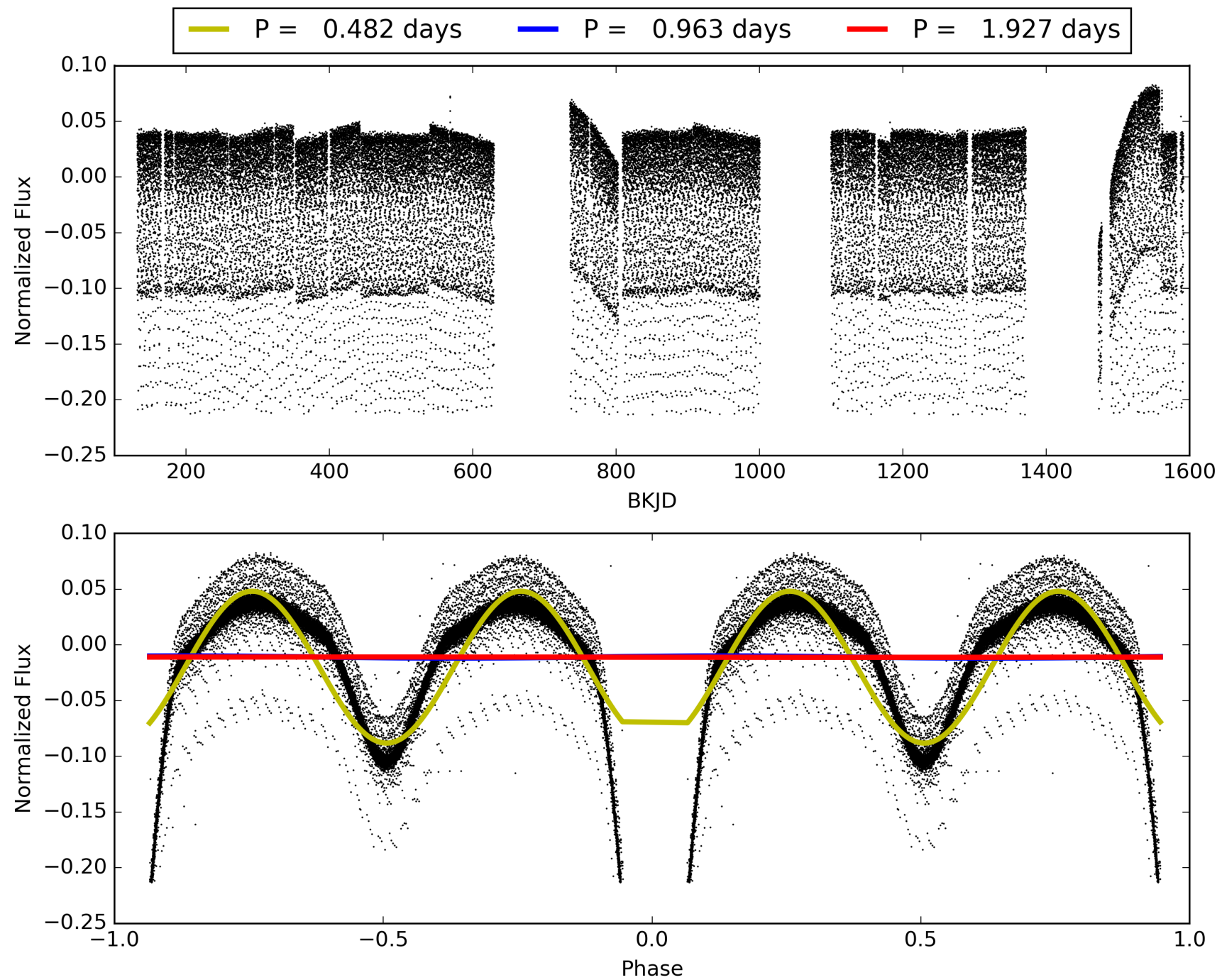
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1048/1049]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.016 arcsec [0.24 σ]
KicOffset-rm: 0.079 arcsec [1.15 σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 009788457-01, PDC Light Curves

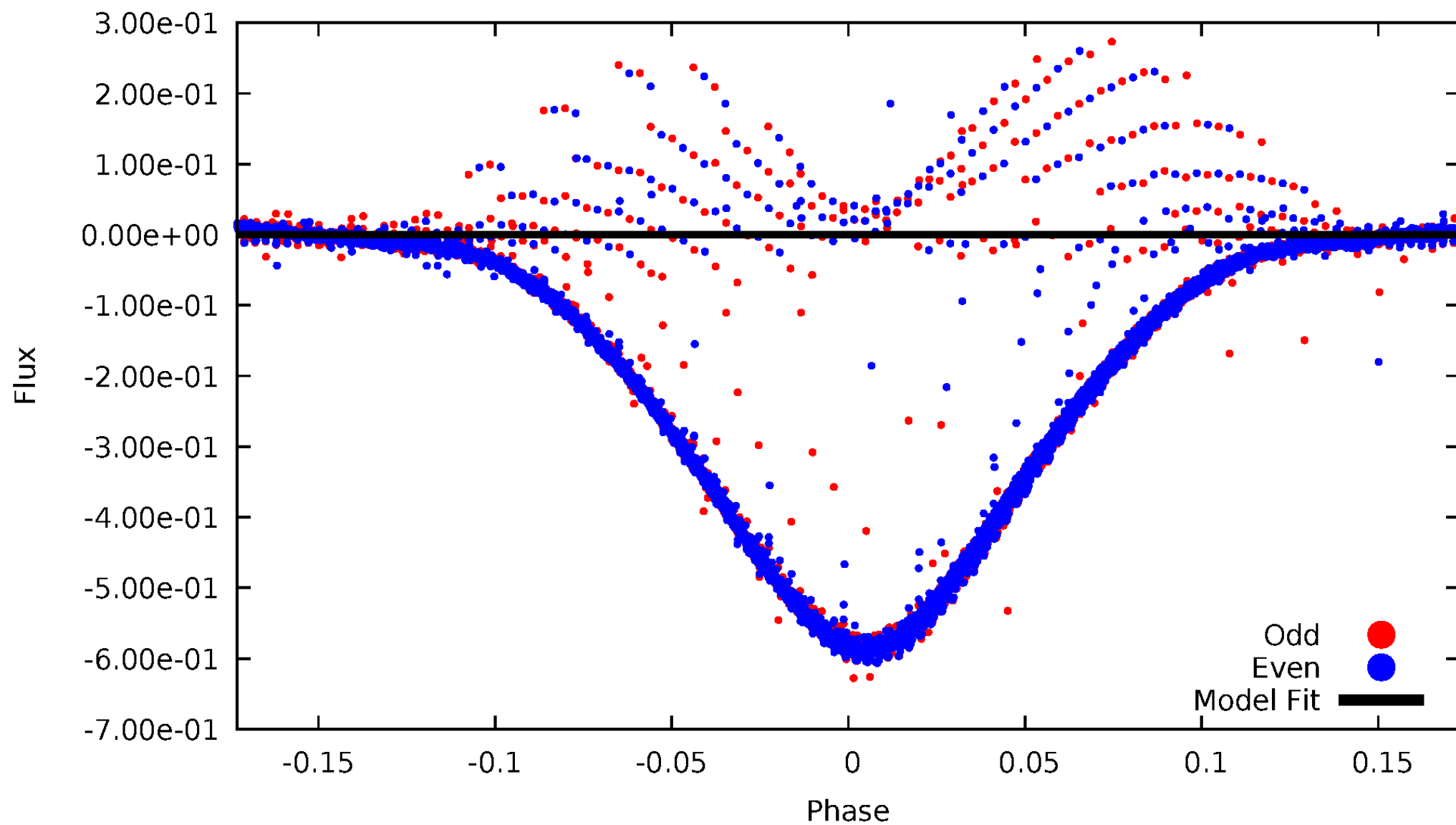


TCE 009788457-01



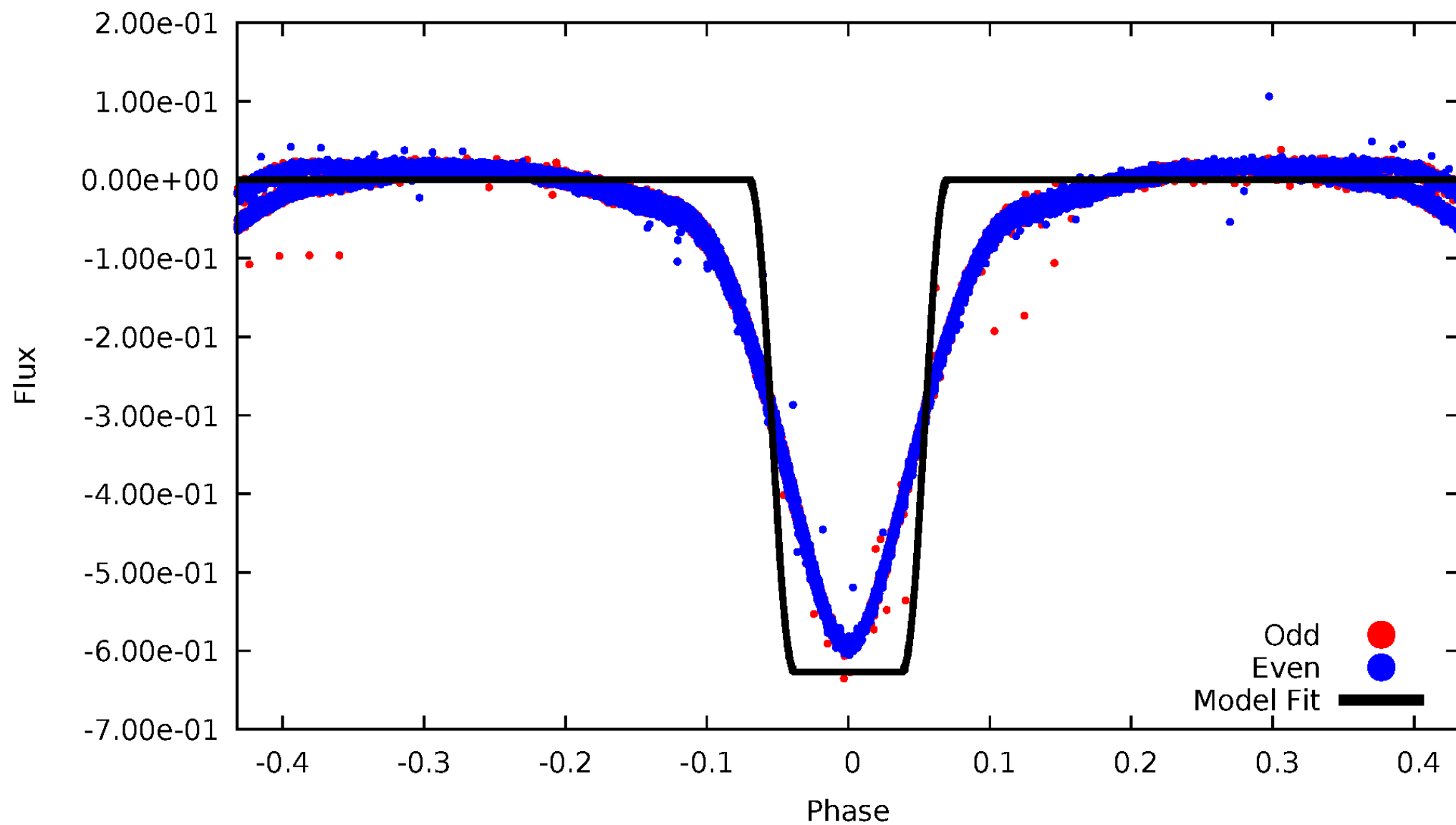
DV Odd/Even

TCE 009788457-01



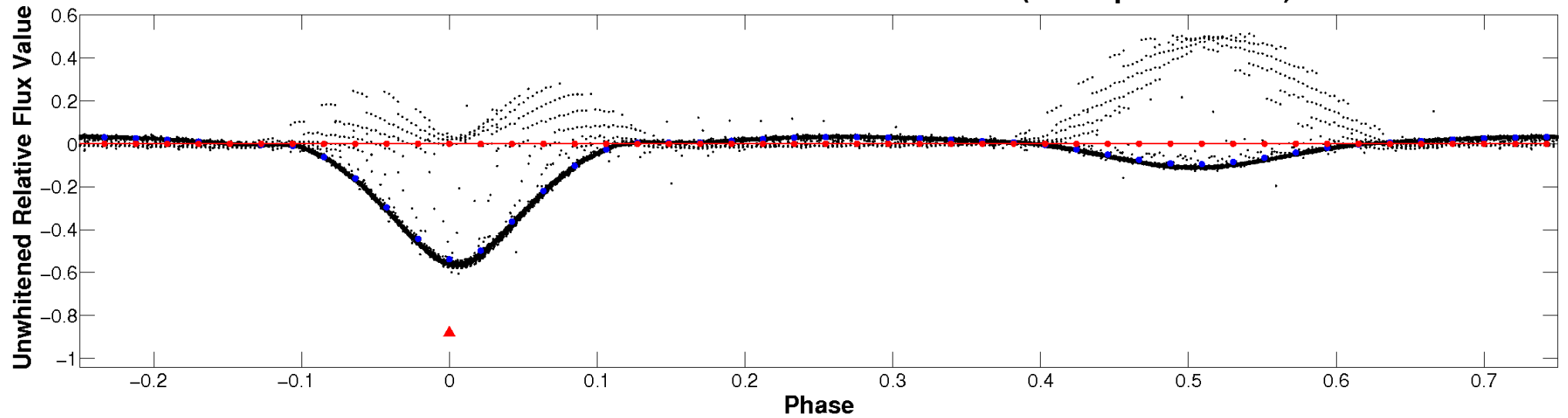
ALT Odd/Even

TCE 009788457-01



Non-Whitened Vs. Whitened Light Curve

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

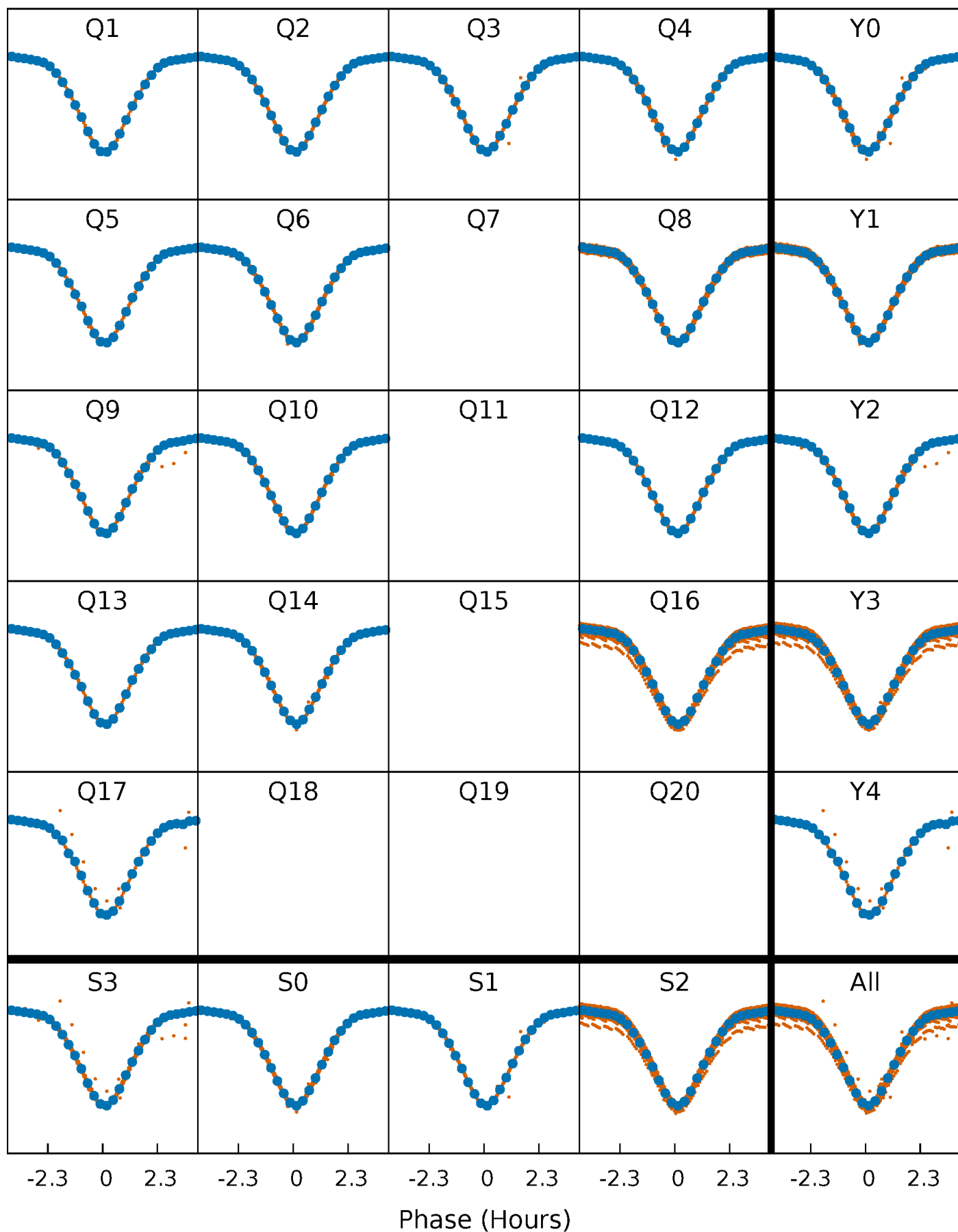


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



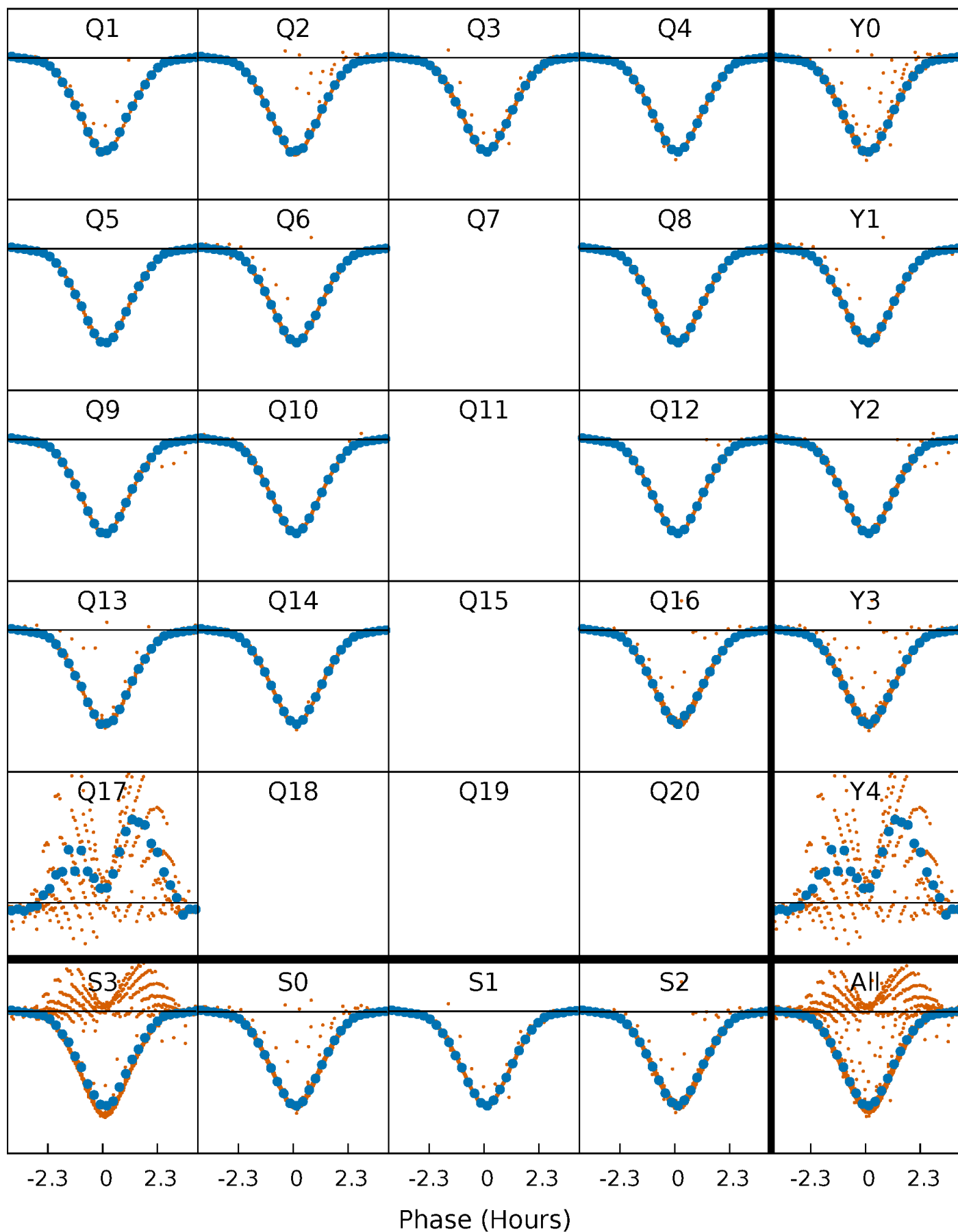
PDC Quarter-Phased Transit Curves

TCE 009788457-01 P= 0.963336 Days $T_0=132.184111$ (BKJD)



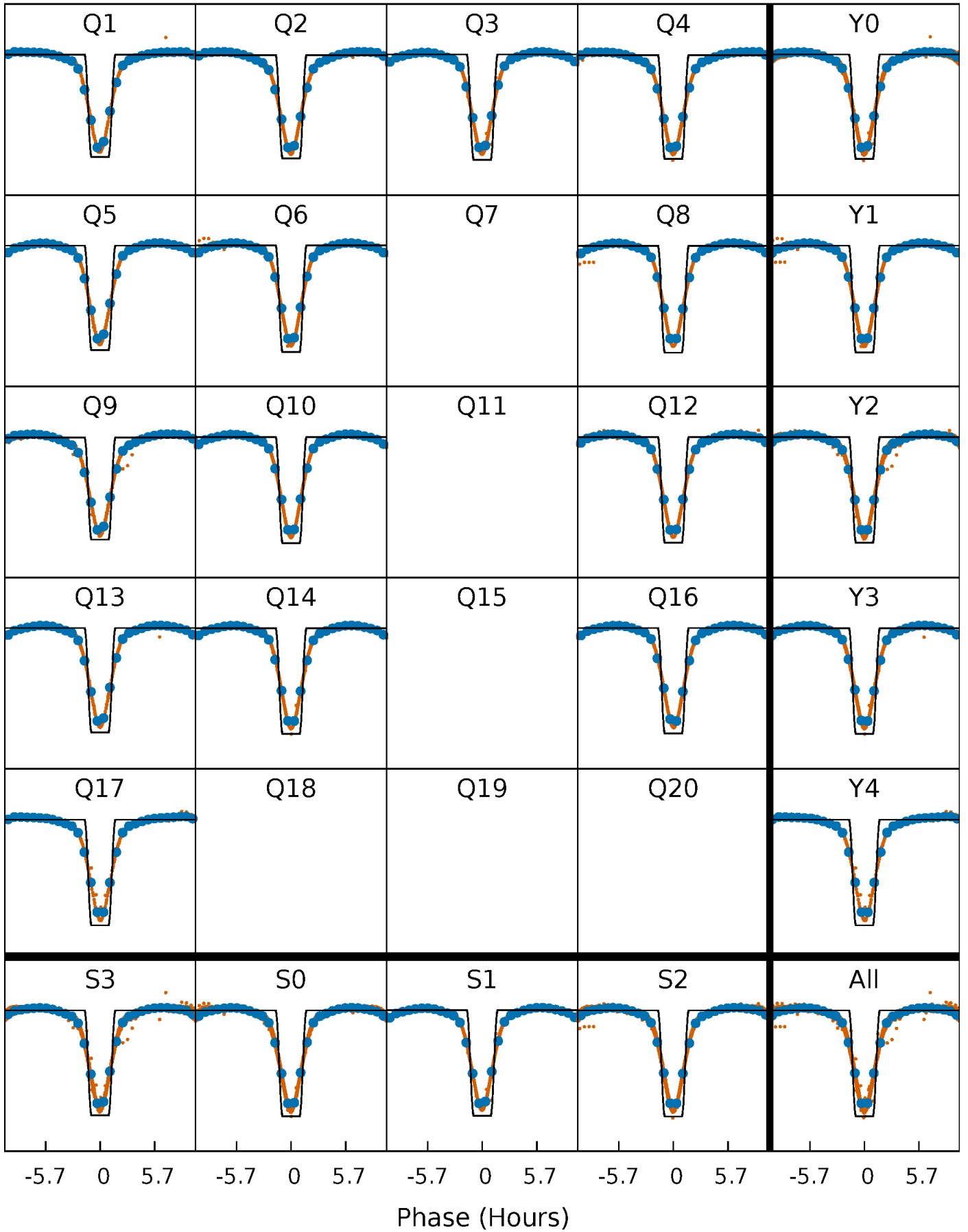
DV Quarter-Phased Transit Curves

TCE 009788457-01 P= 0.963336 Days $T_0=132.184111$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

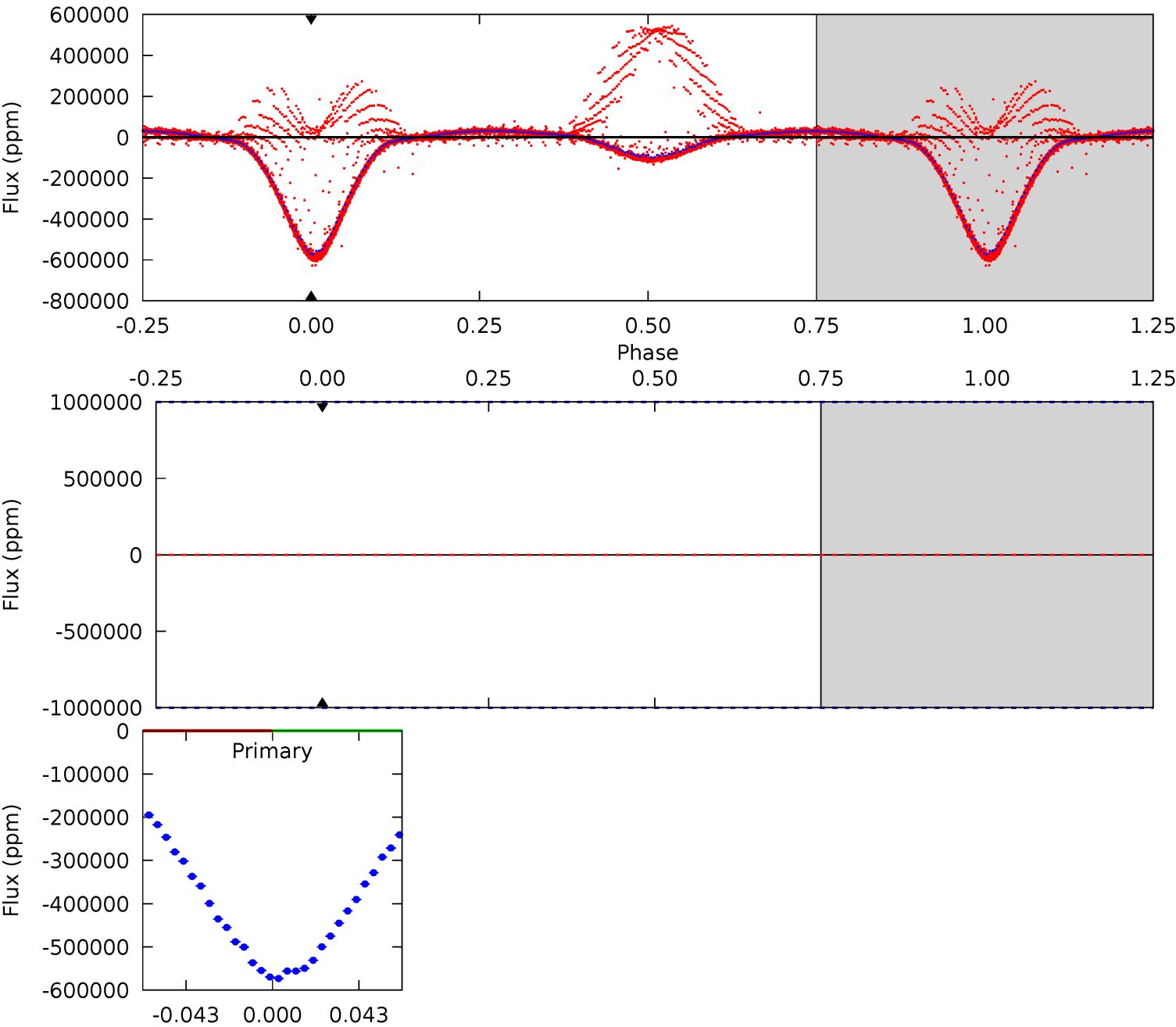
TCE 009788457-01 P= 0.963336 Days $T_0=132.188569$ (BKJD)



DV Model-Shift Uniqueness Test

009788457-01, P = 0.963336 Days, E = 131.220775 Days

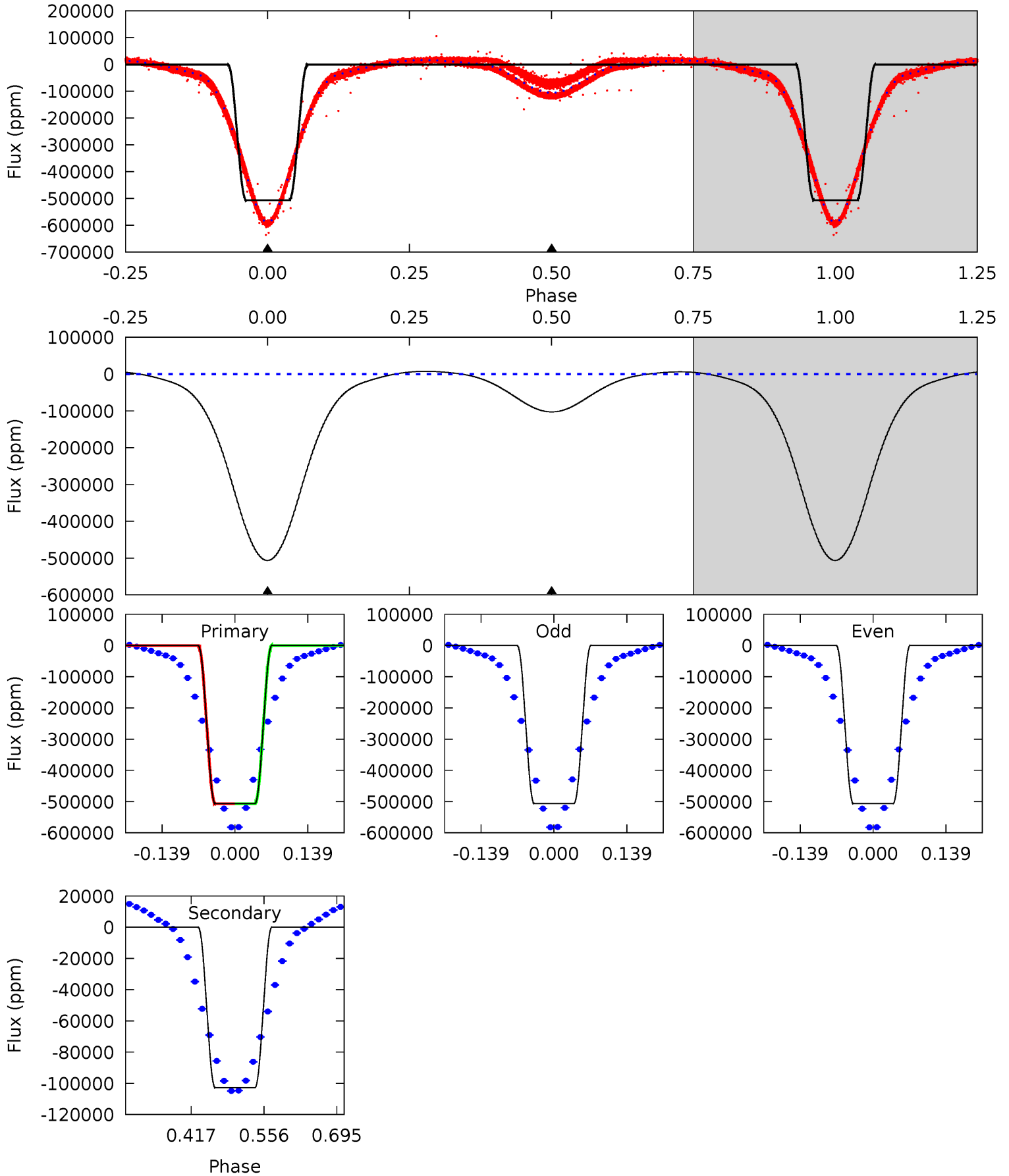
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009788457-01, P = 0.963336 Days, E = 131.225233 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3045	618.3	0	0	4.50	1.48	80.0	3045	3045	618.3	618.3	0.84	1.00	0.01	0.61



Stellar Parameters For KIC 009788457

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8139^{+226}_{-340}	$4.019^{+0.198}_{-0.132}$	$-0.160^{+0.200}_{-0.350}$	$2.180^{+0.410}_{-0.614}$	$1.813^{+0.120}_{-0.336}$	$0.246^{+0.308}_{-0.096}$
	+3%/-4%	+5%/-3%	+125%/-219%	+19%/-28%	+7%/-19%	+125%/-39%
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 009788457-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$21.84^{+20.35}_{-14.76}$	4826^{+310}_{-382}	-5797^{+37647}_{-28226}	$-1.543^{+102.213}_{-105.766}$
Alt.	-102854 ± 166	$182.49^{+34.20}_{-33.15}$	4805^{+303}_{-350}	4815^{+432}_{-355}	$0.998^{+0.484}_{-0.271}$

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 $A_{obs} \gg 1.0$

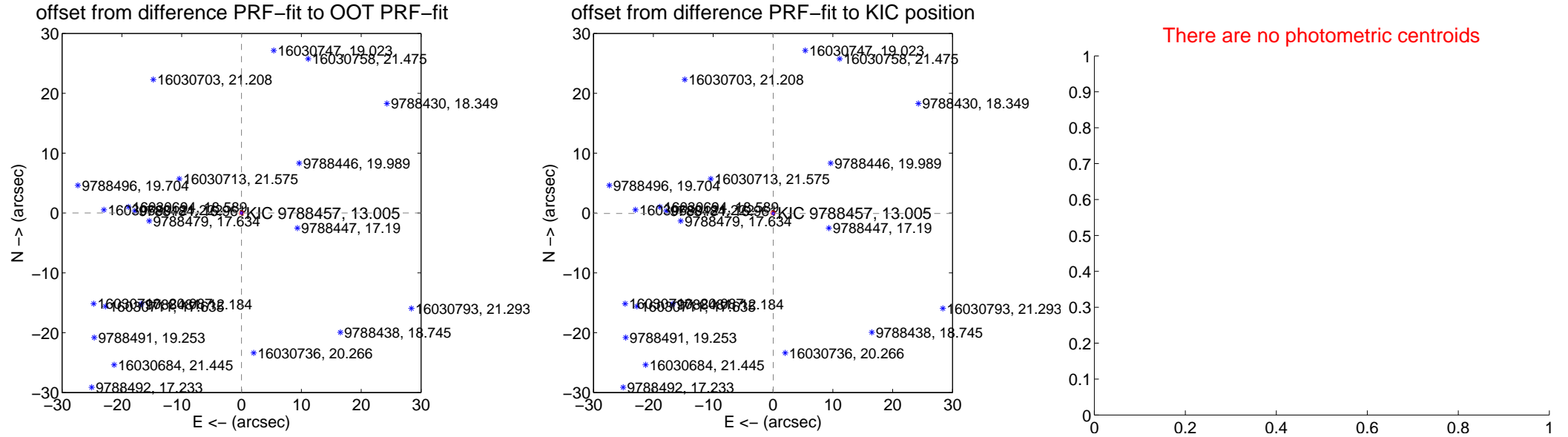
DV Centroid Data

Supplemental centroid analysis for 009788457-01. Kepler magnitude: 13.01. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

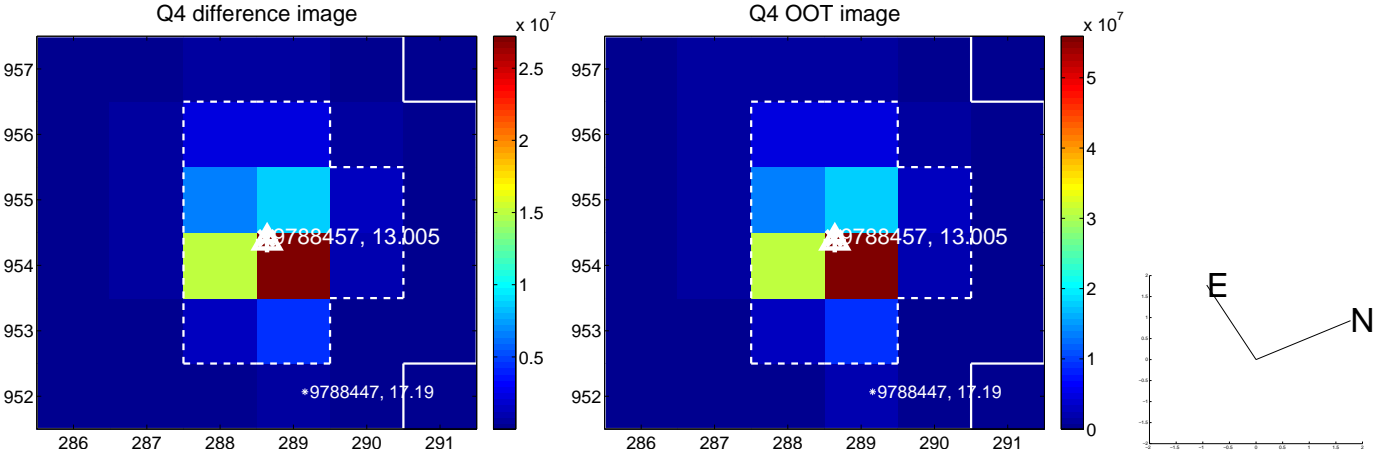
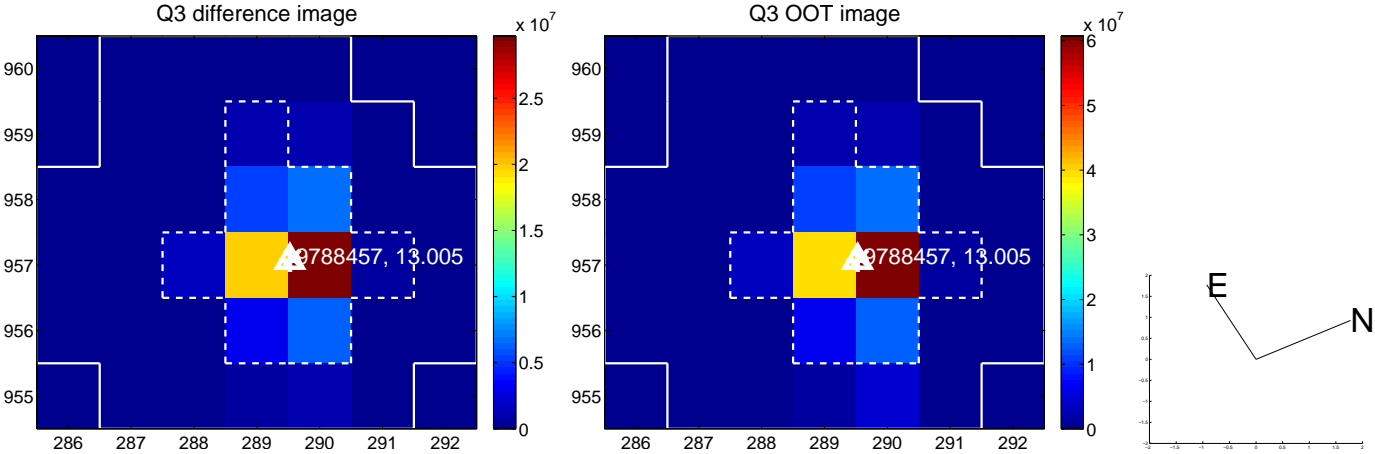
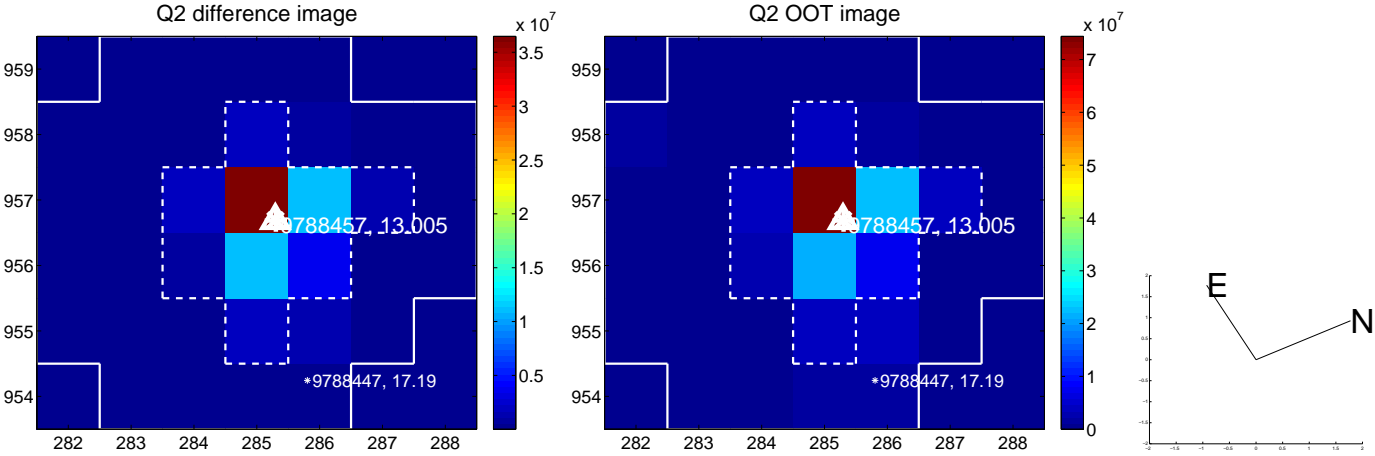
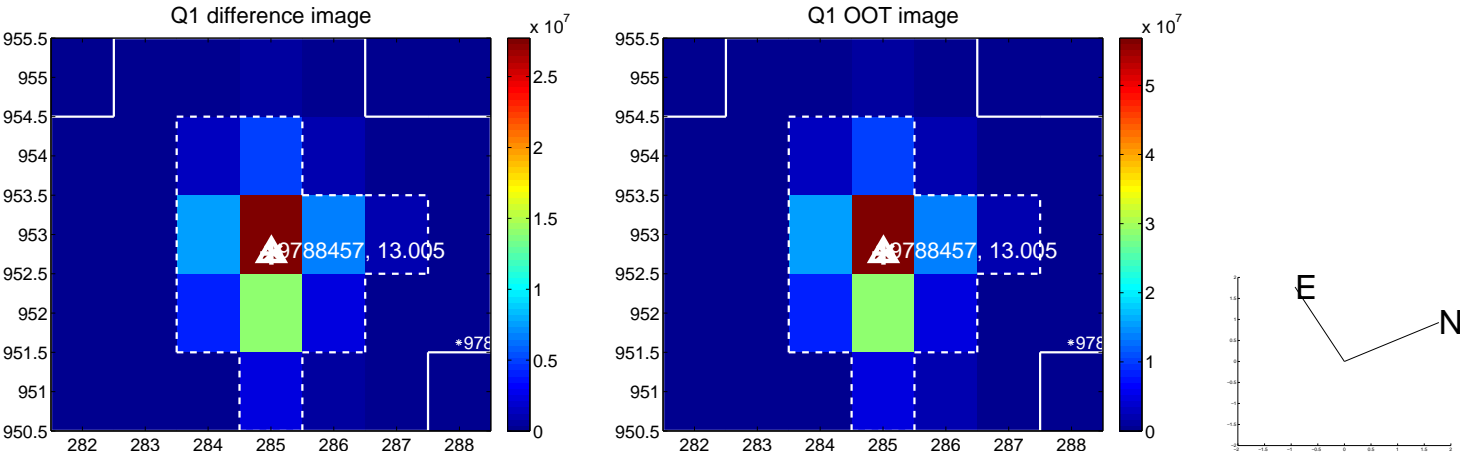
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.016 ± 0.067	0.24	0.014 ± 0.067	0.009 ± 0.067
PRF-fit source offset from KIC position	0.079 ± 0.069	1.15	-0.032 ± 0.070	-0.072 ± 0.068
photometric centroid source offset	—	—	—	—

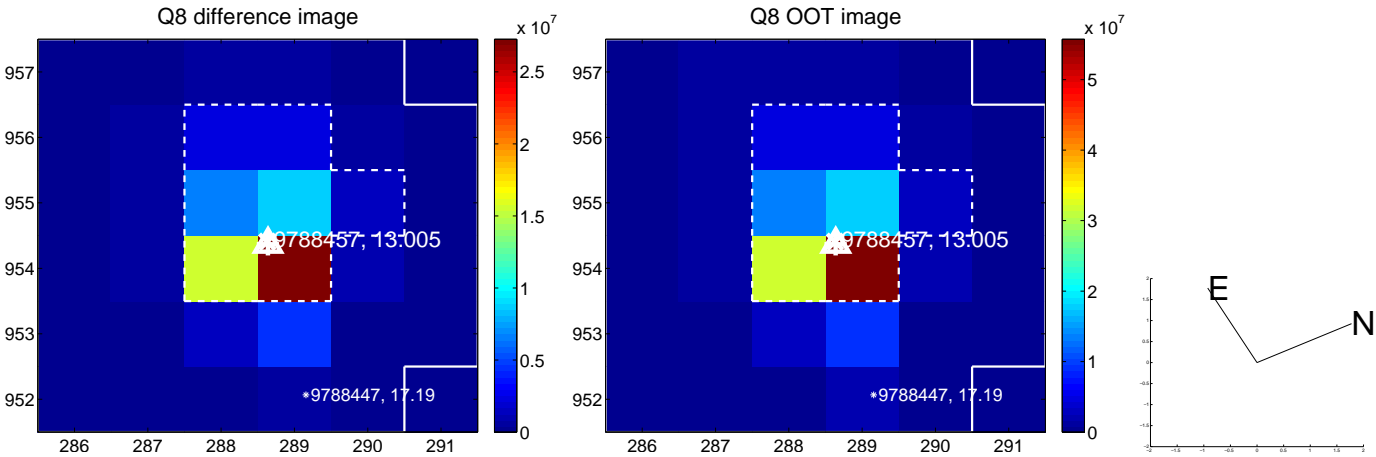
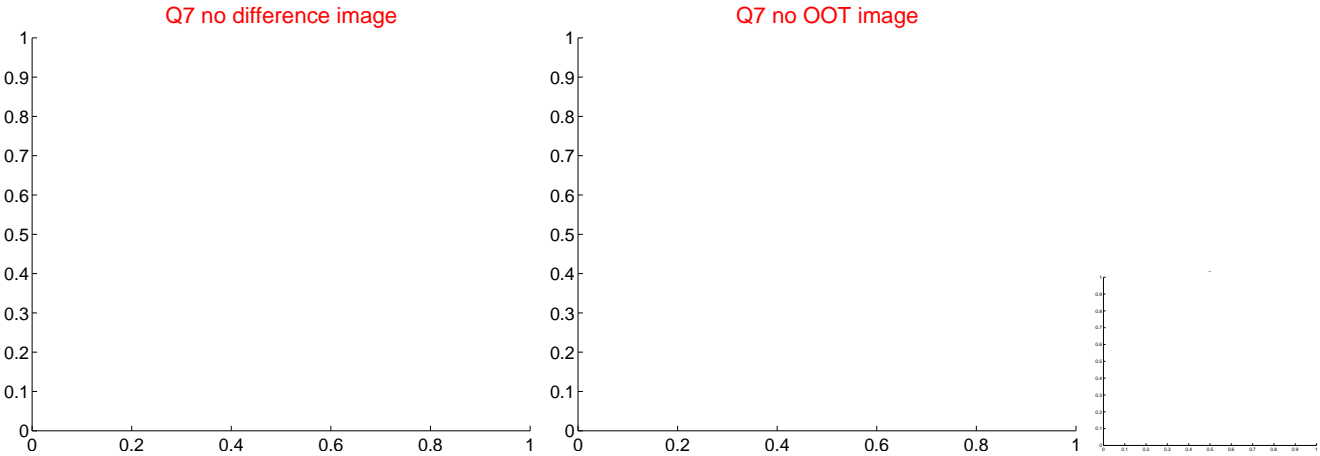
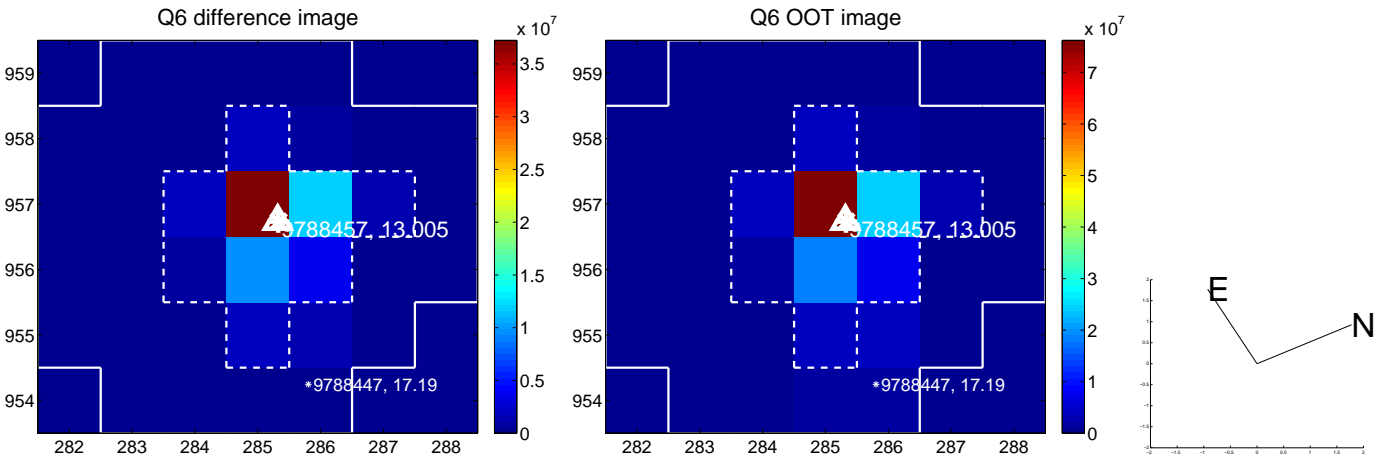
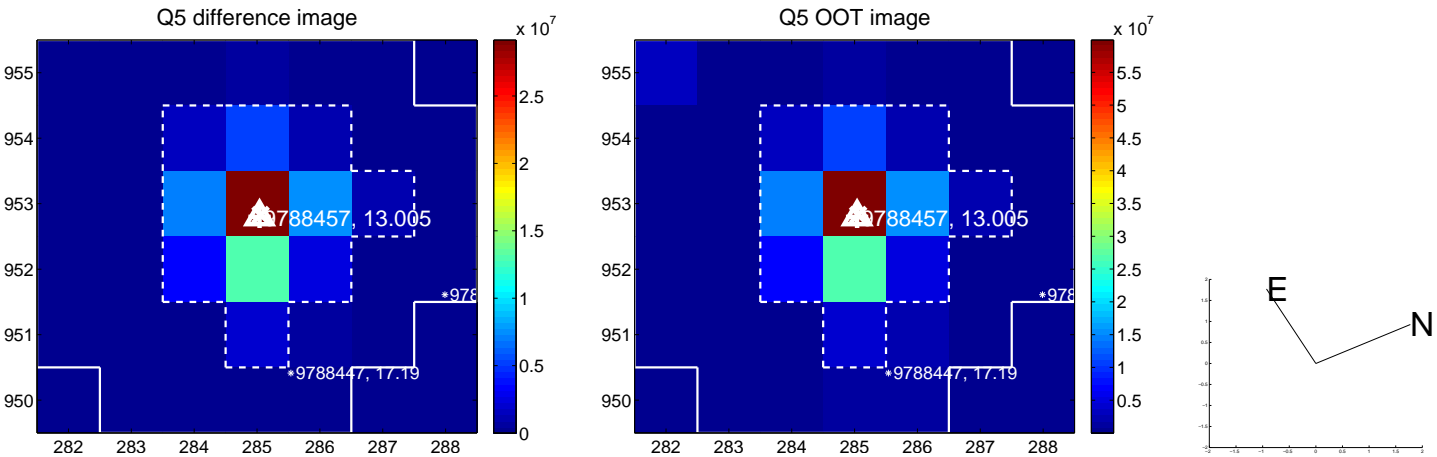


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

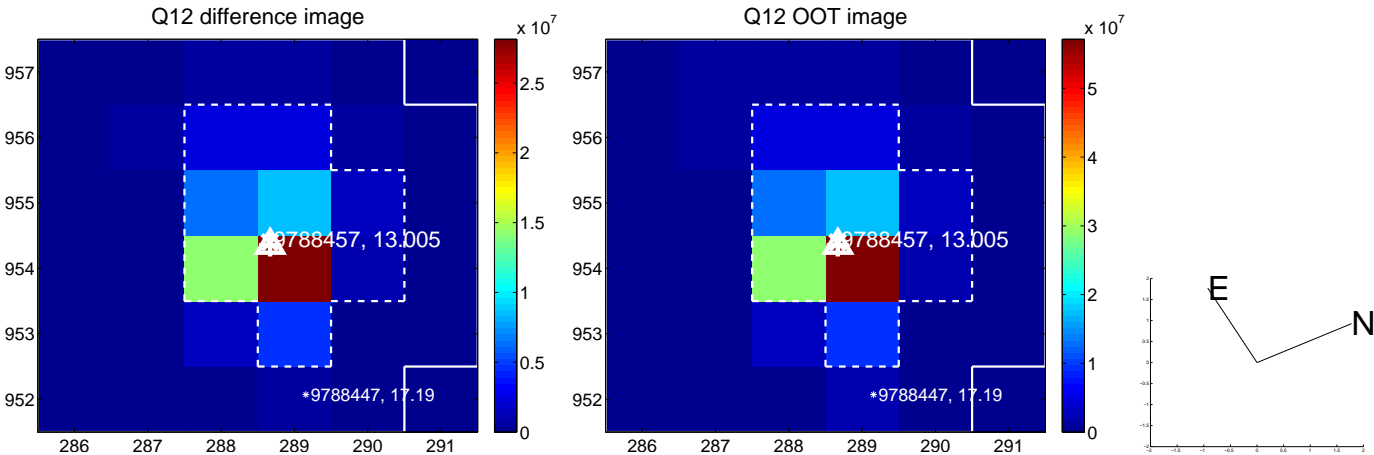
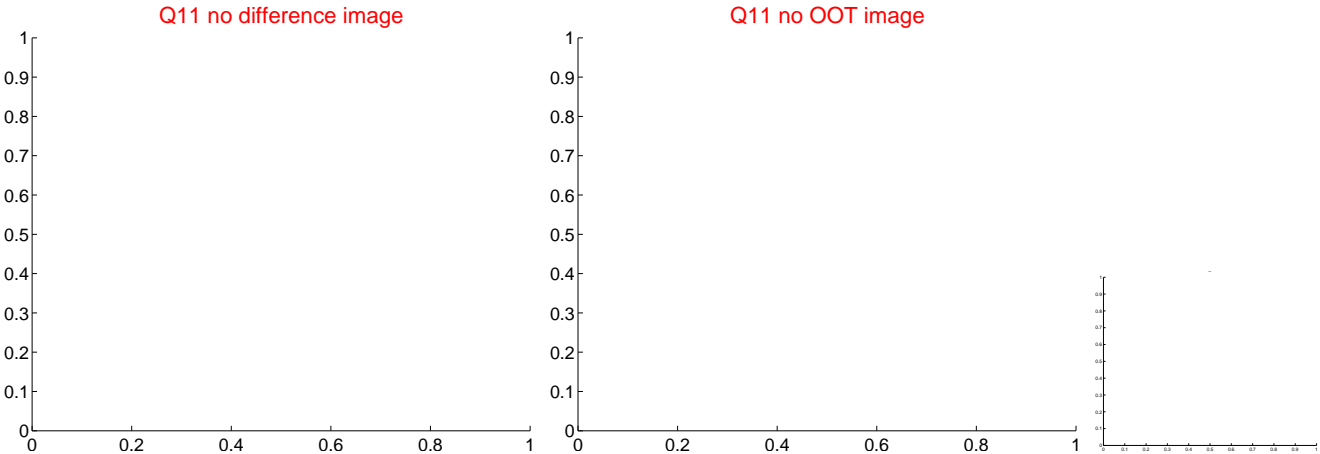
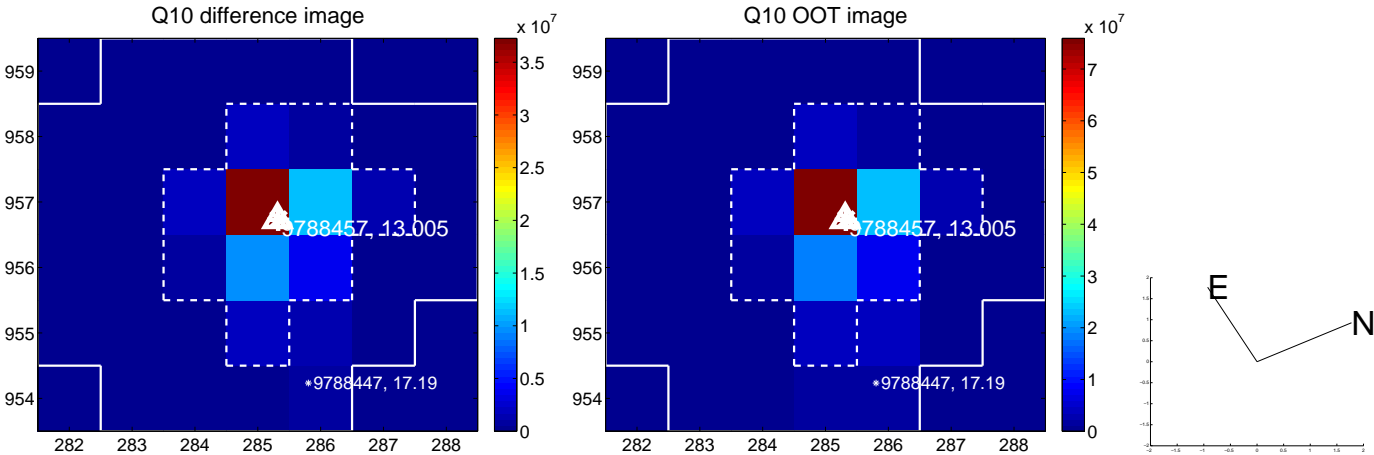
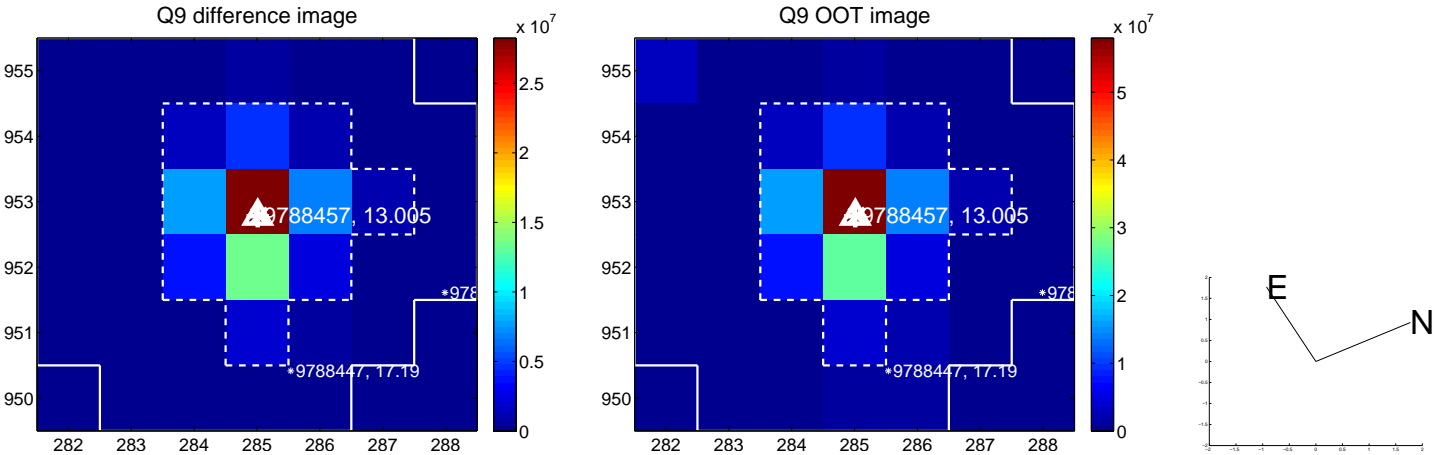
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



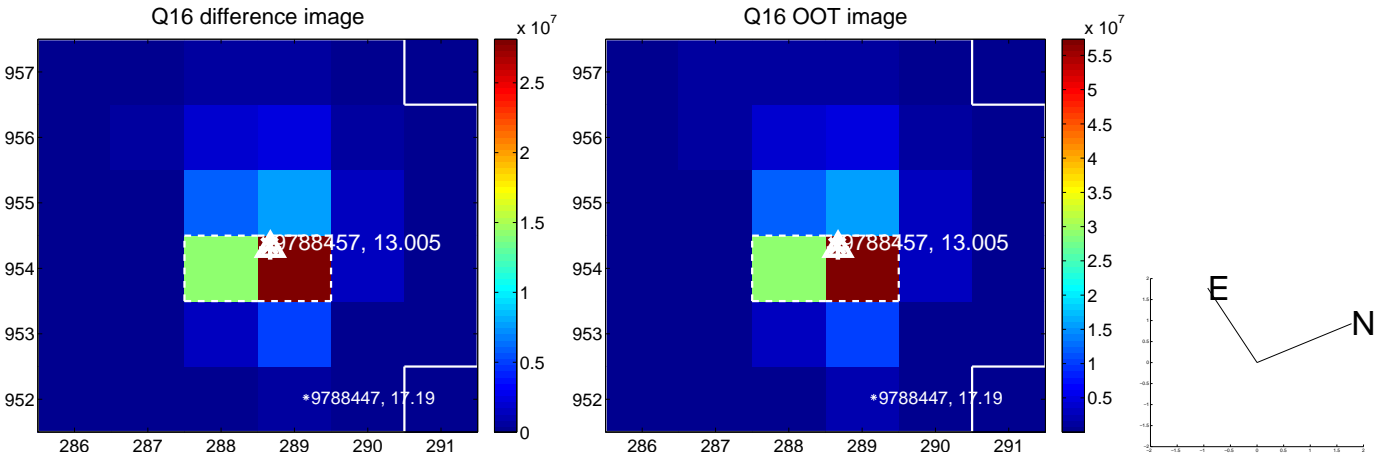
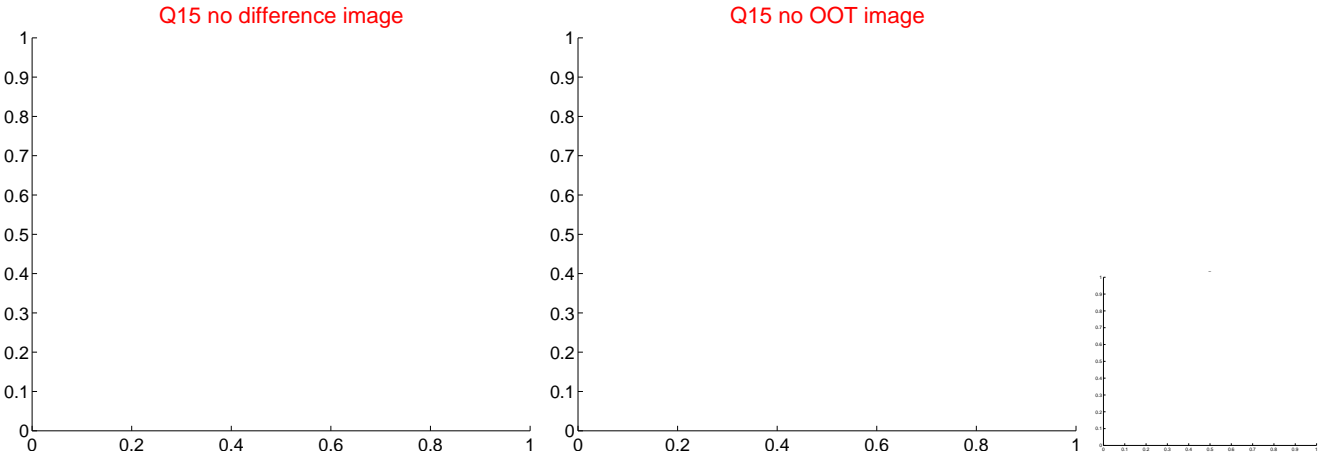
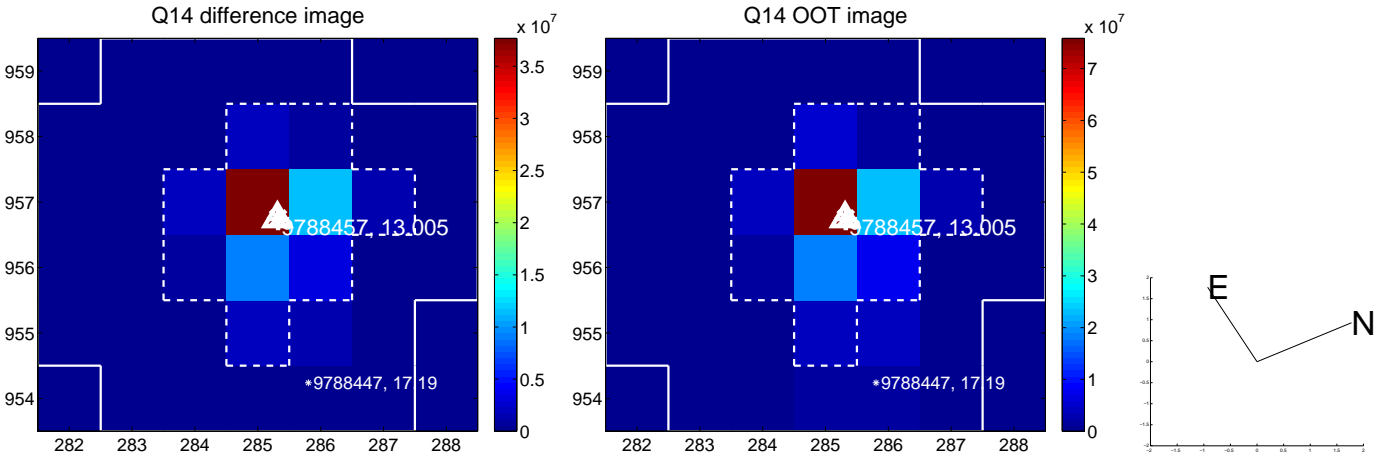
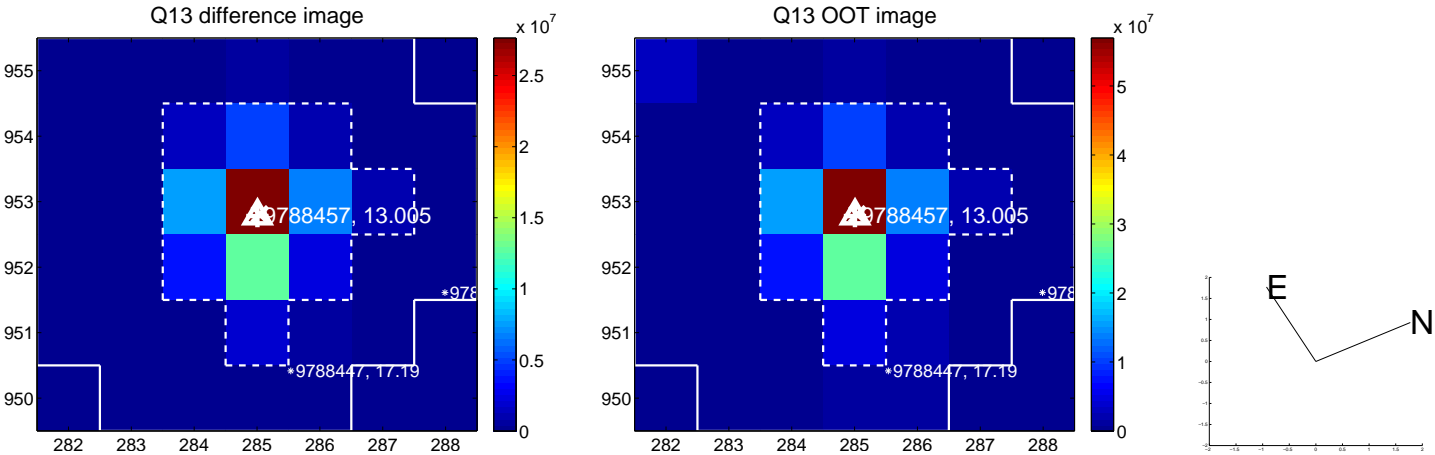
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



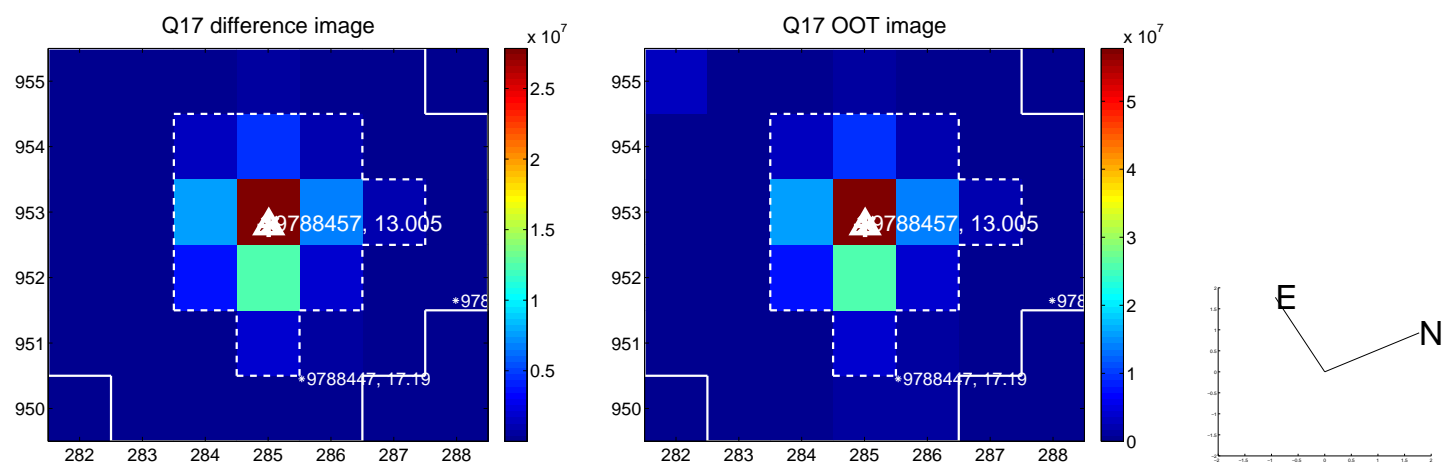
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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folded centroid time series figure for this object.

UKIRT Image

