

KIC 005563057

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})
005563057-01	OBS	5179.01	1.049489	132.257167	14.2	3.642	12.8	11.4	1.67	7479	0.68	14731.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005563057-01	OBS	PC	0.94	0	0	0	0	NO_COMMENT

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 005563057-01

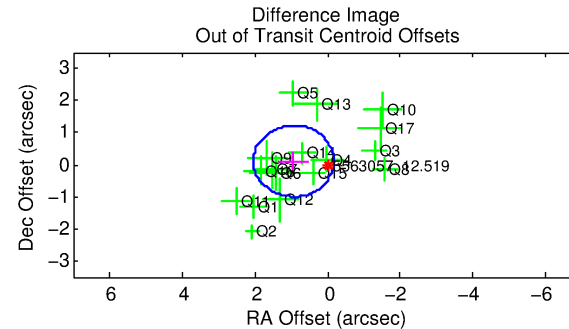
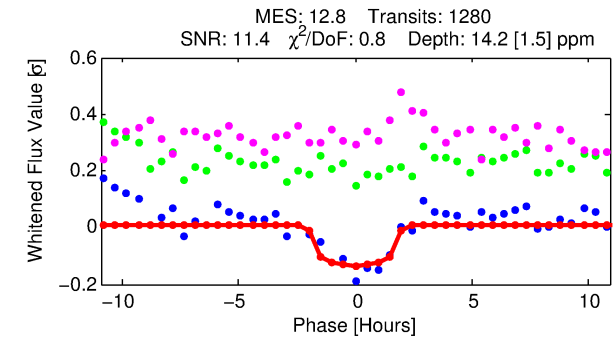
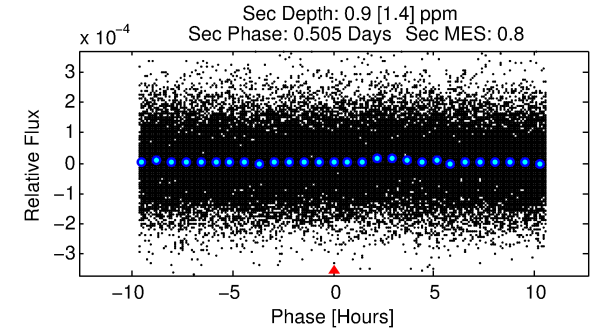
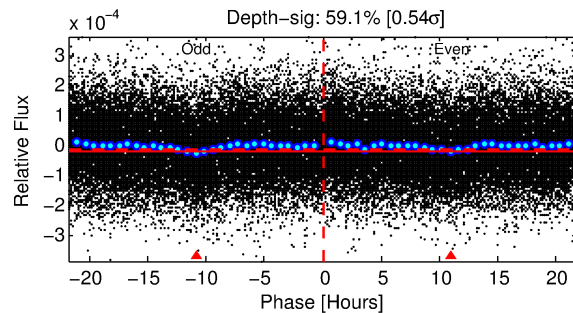
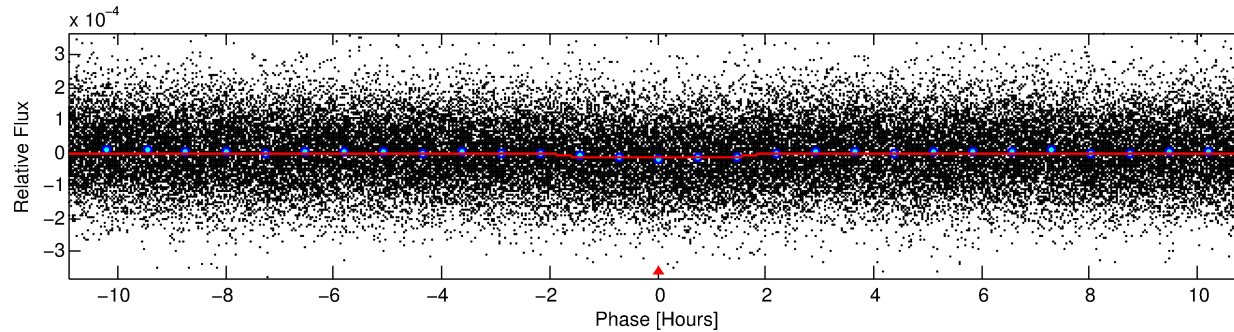
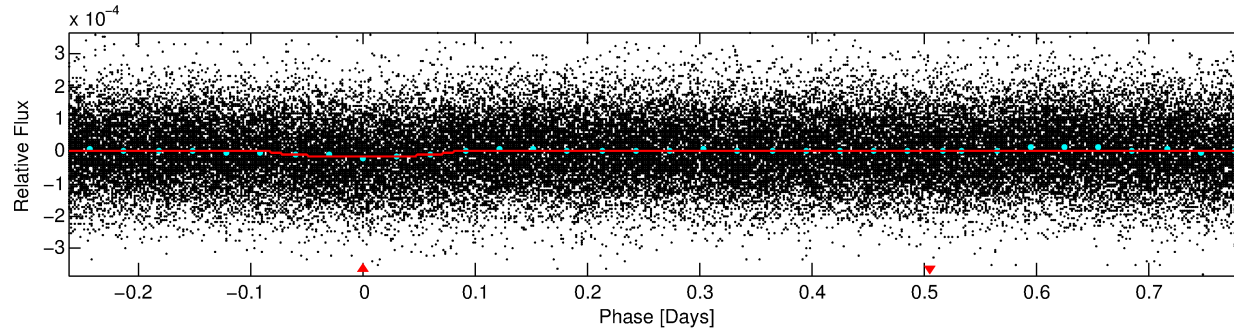
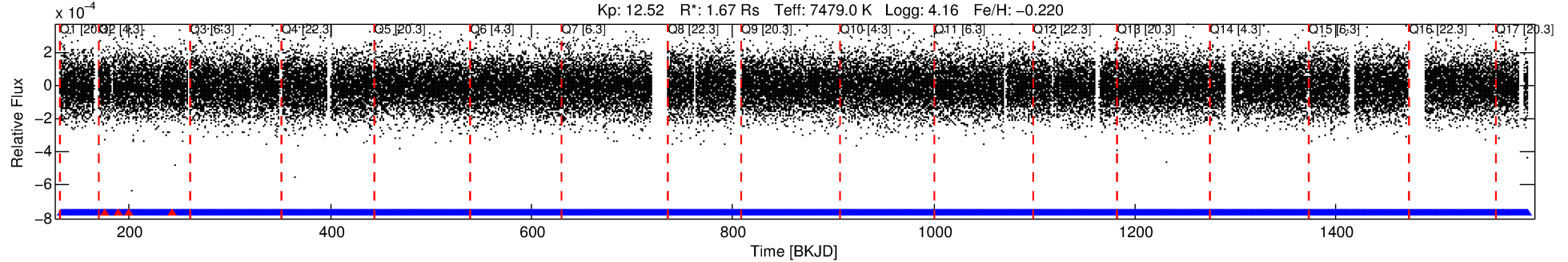
No Significant Match Found

DV One-Page Summary

KIC: 5563057 Candidate: 1 of 1 Period: 1.049 d

KOI: K05179.01 Corr: 0.920

Kp: 12.52 R*: 1.67 Rs Teff: 7479.0 K Logg: 4.16 Fe/H: -0.220



DV Fit Results:

Period = 1.04949 [0.00001] d
Epoch = 132.2572 [0.0038] BKJD
Rp/R* = 0.0037 [0.0006]
a/R* = 1.75 [1.04]
b = 0.72 [0.59]
Seff = 14731.78 [5855.47]
Teq = 2809 [279] K
Rp = 0.68 [0.24] Re
a = 0.0230 [0.0058] AU
Ag = 0.58 [0.90] [-0.47σ]
Teffp = 3788 [1449] K [0.66σ]

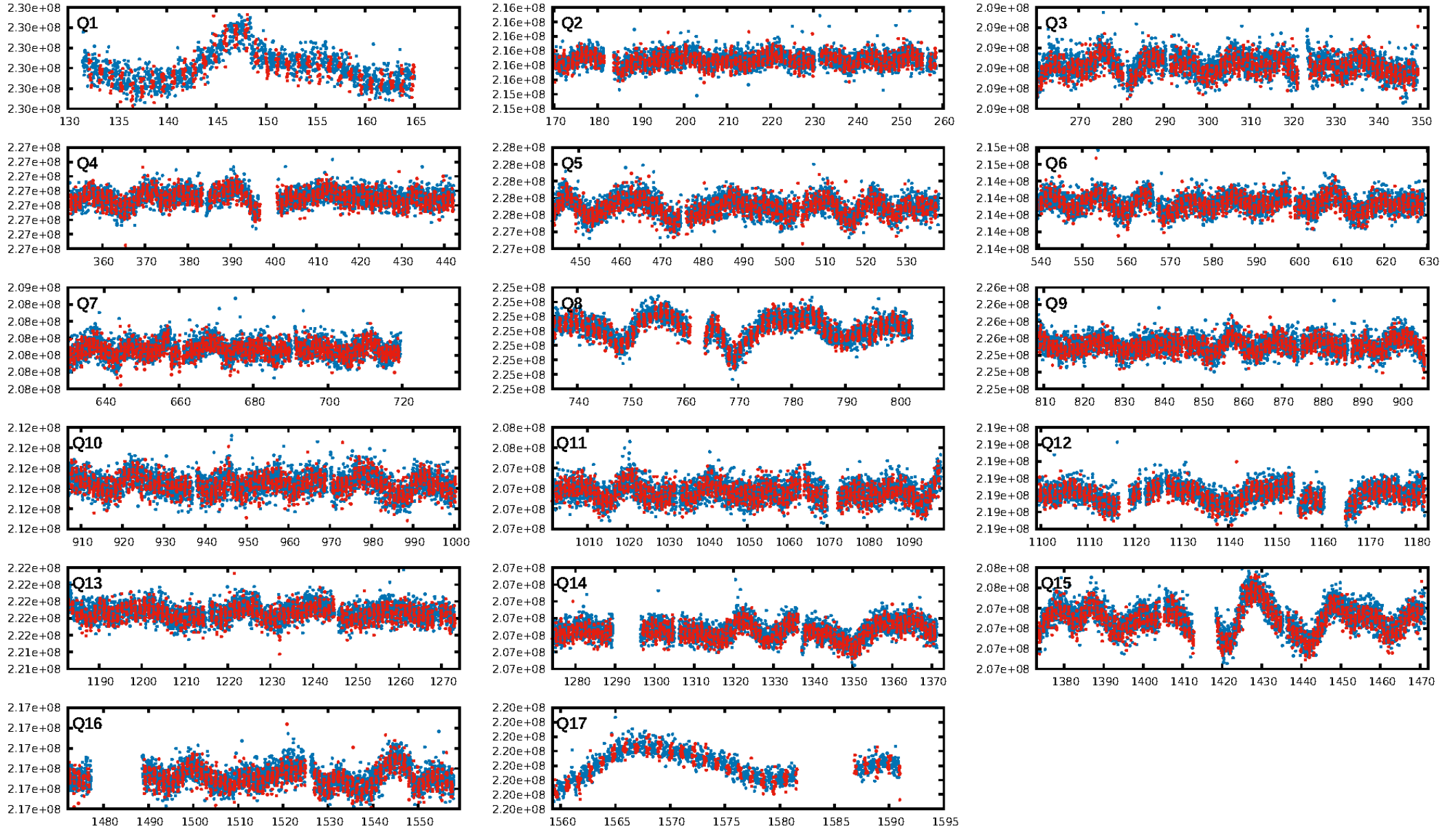
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.89e-33
RollingBand-fgt: 1.00 [1217/1221]
GhostDiagnostic-chr: 5.522
Centroid-sig: 0.0%
Centroid-so: 3.091 arcsec [3.10σ]
OotOffset-rm: 0.943 arcsec [2.55σ]
KicOffset-rm: 1.009 arcsec [2.72σ]
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]

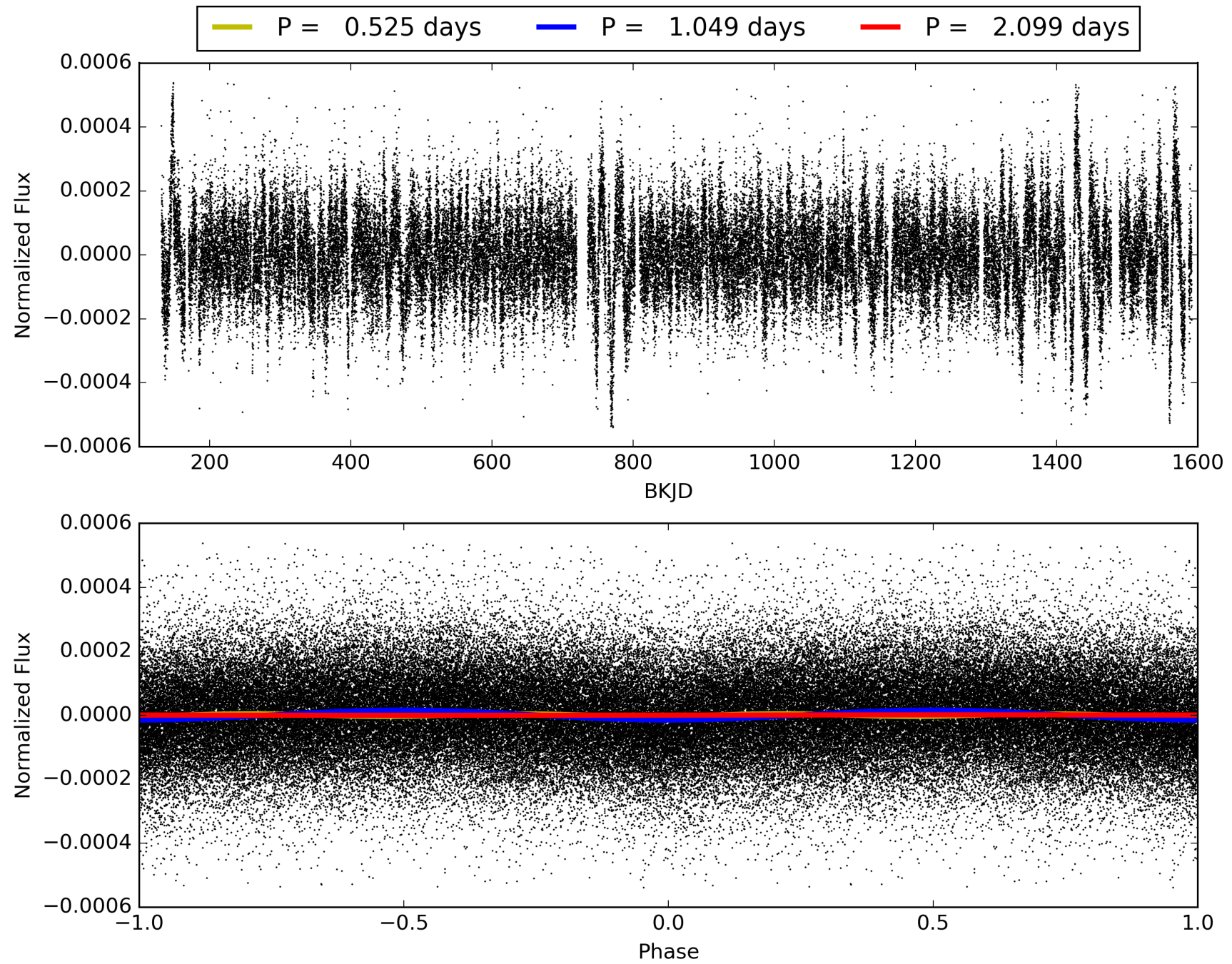
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 12:18:05 Z

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

TCE 005563057-01, PDC Light Curves

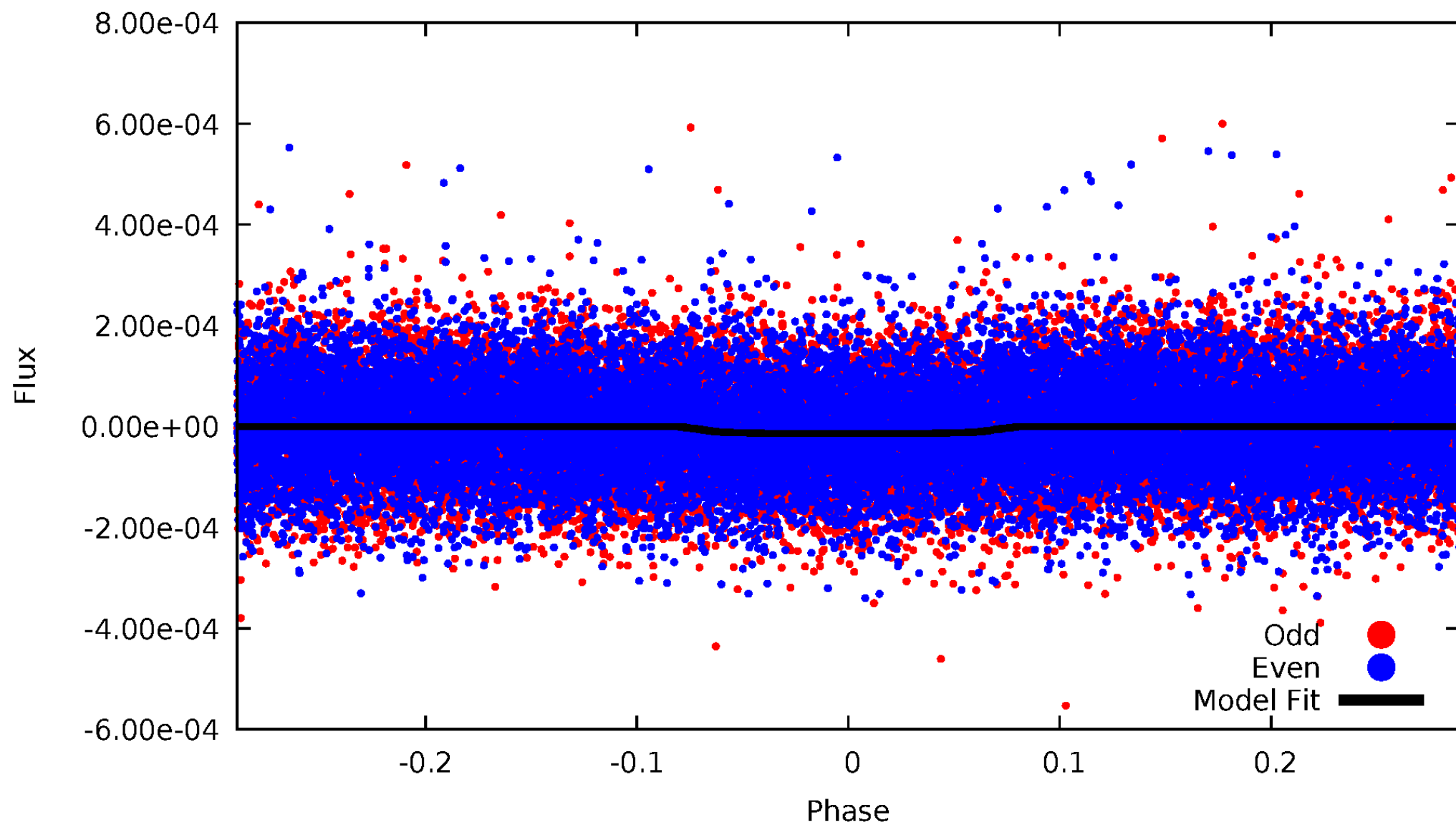


TCE 005563057-01



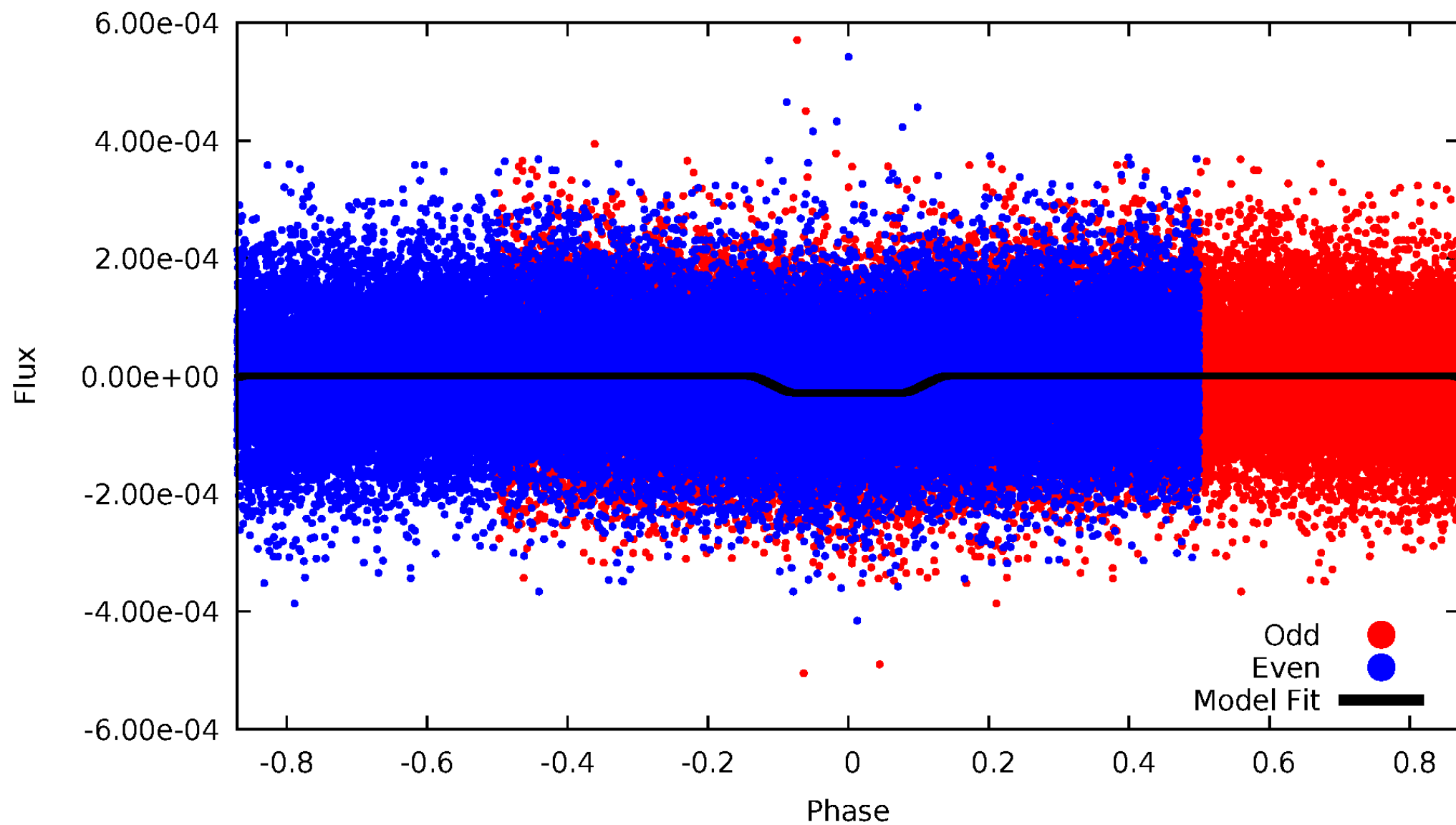
DV Odd/Even

TCE 005563057-01



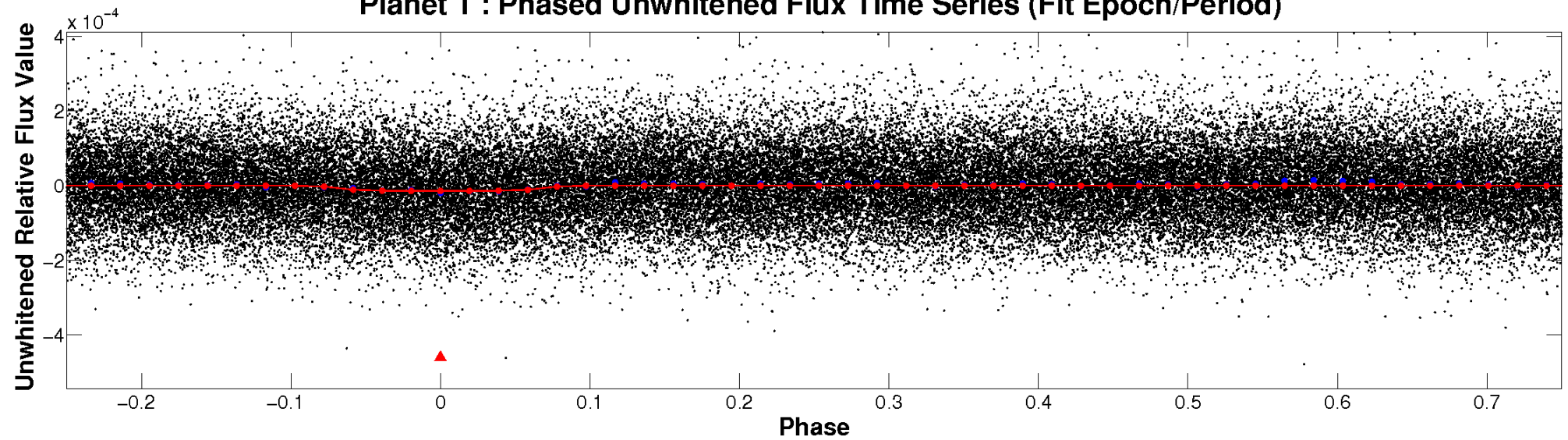
ALT Odd/Even

TCE 005563057-01

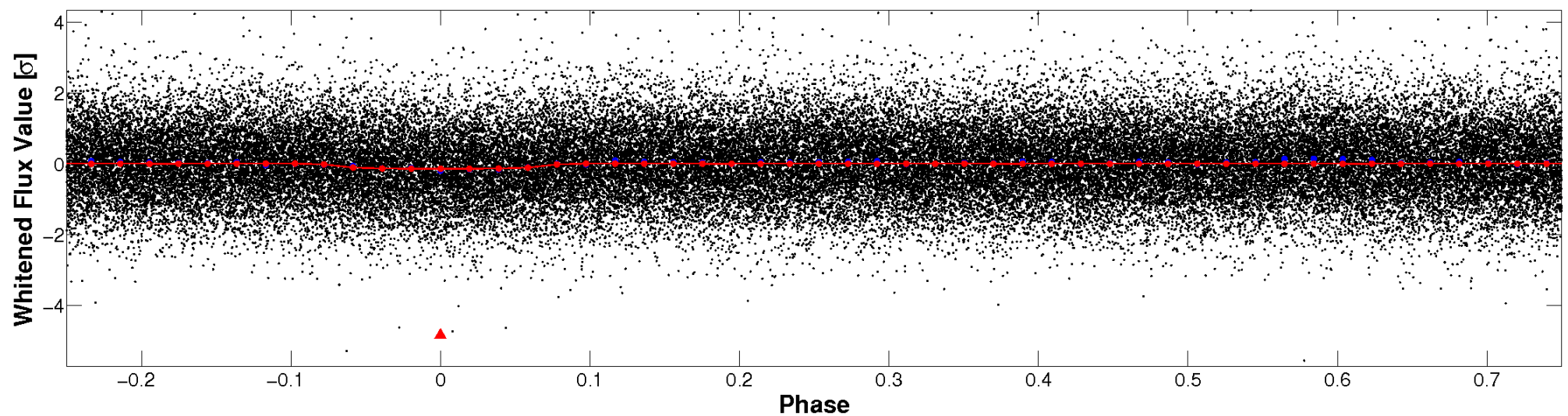


Non-Whitened Vs. Whitened Light Curve

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

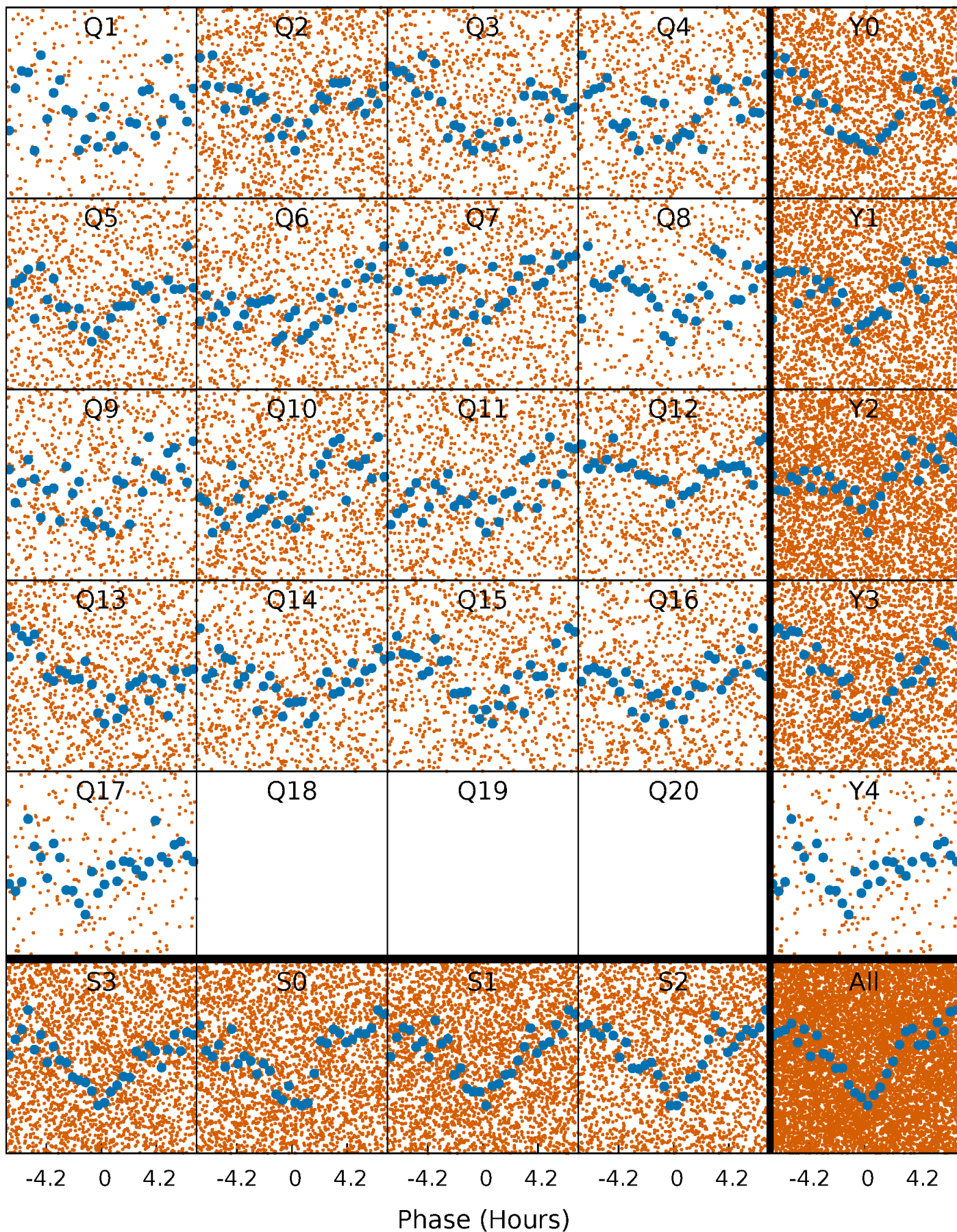


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



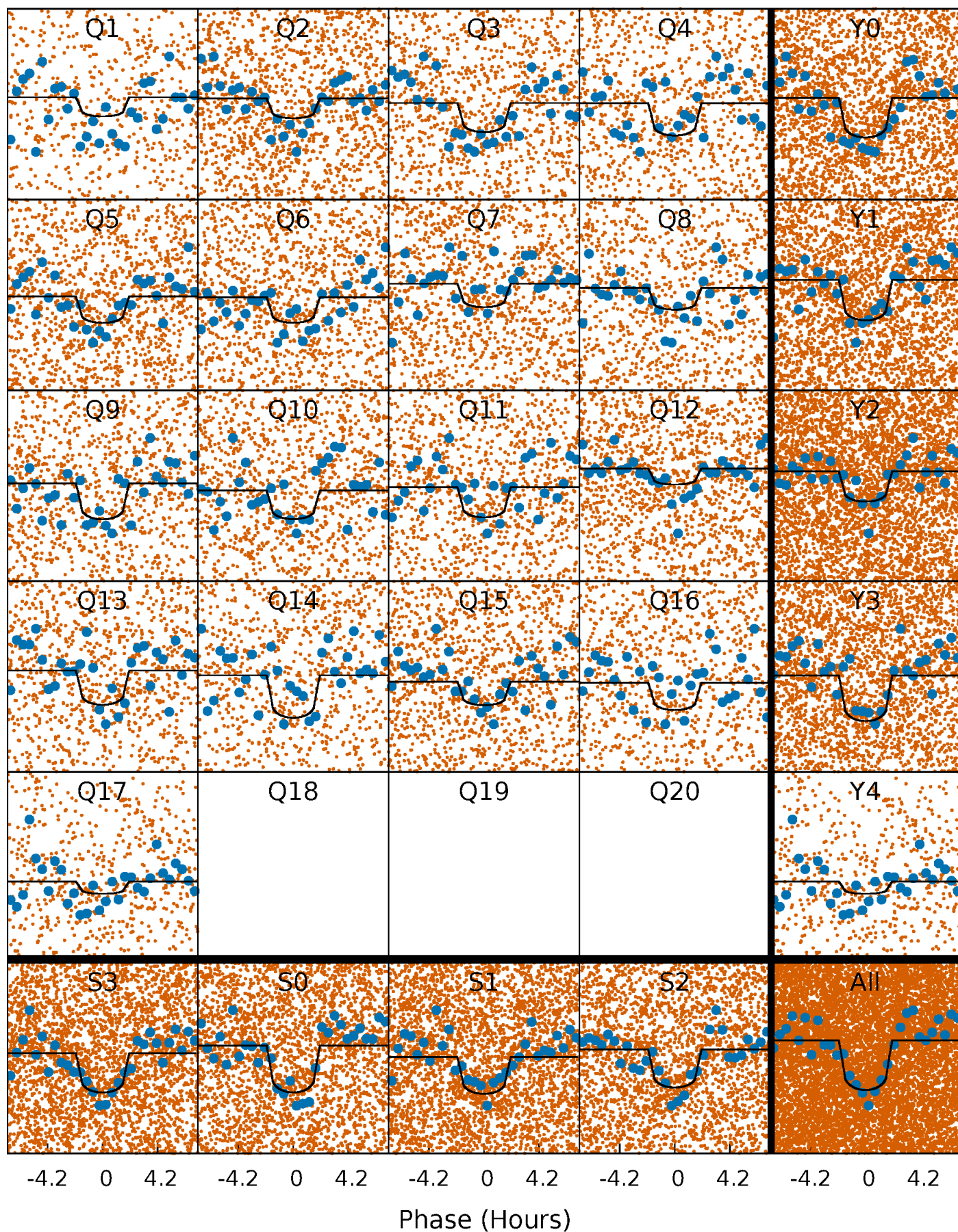
PDC Quarter-Phased Transit Curves

TCE 005563057-01 P= 1.049489 Days $T_0=132.257167$ (BKJD)



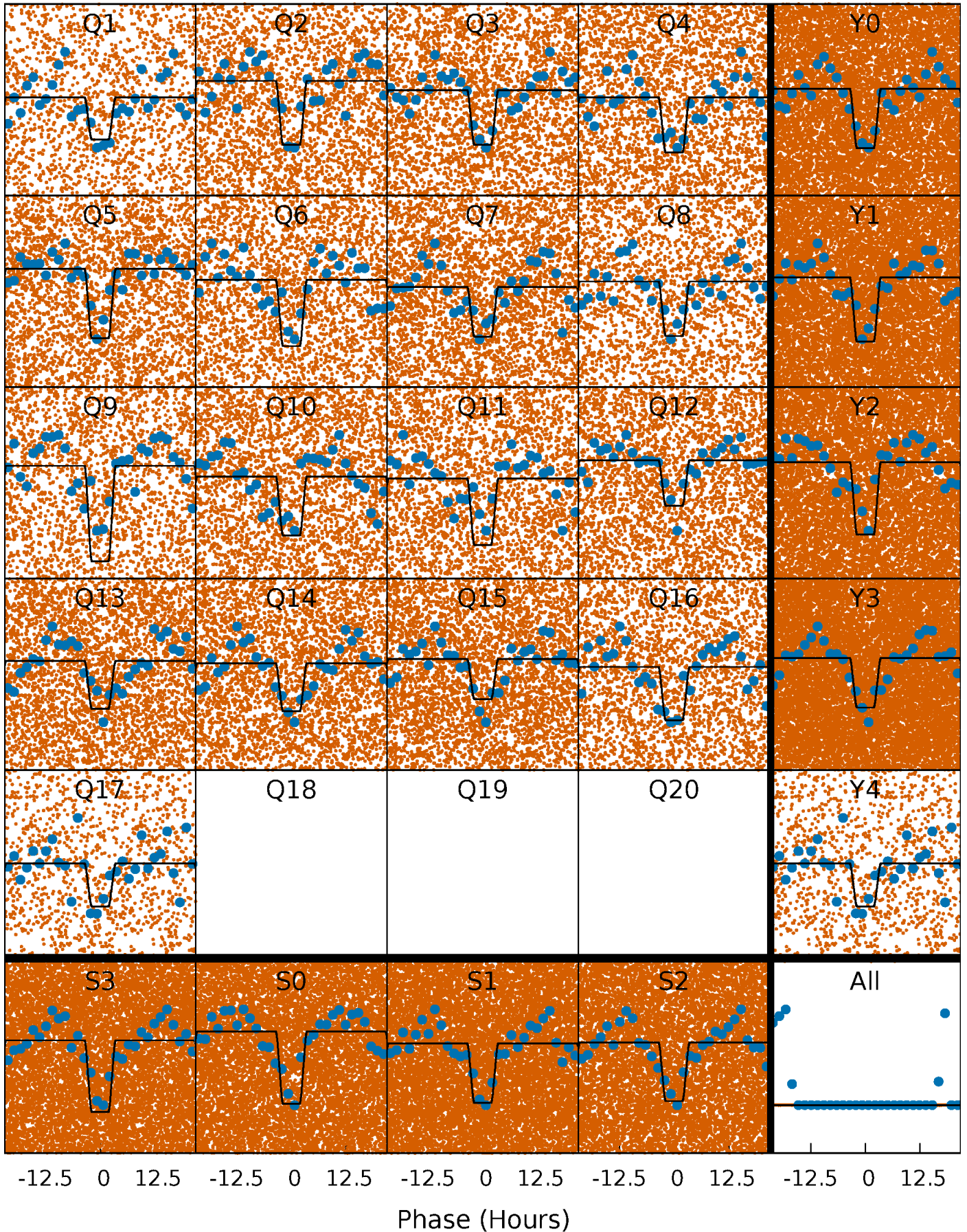
DV Quarter-Phased Transit Curves

TCE 005563057-01 P= 1.049489 Days $T_0=132.257167$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

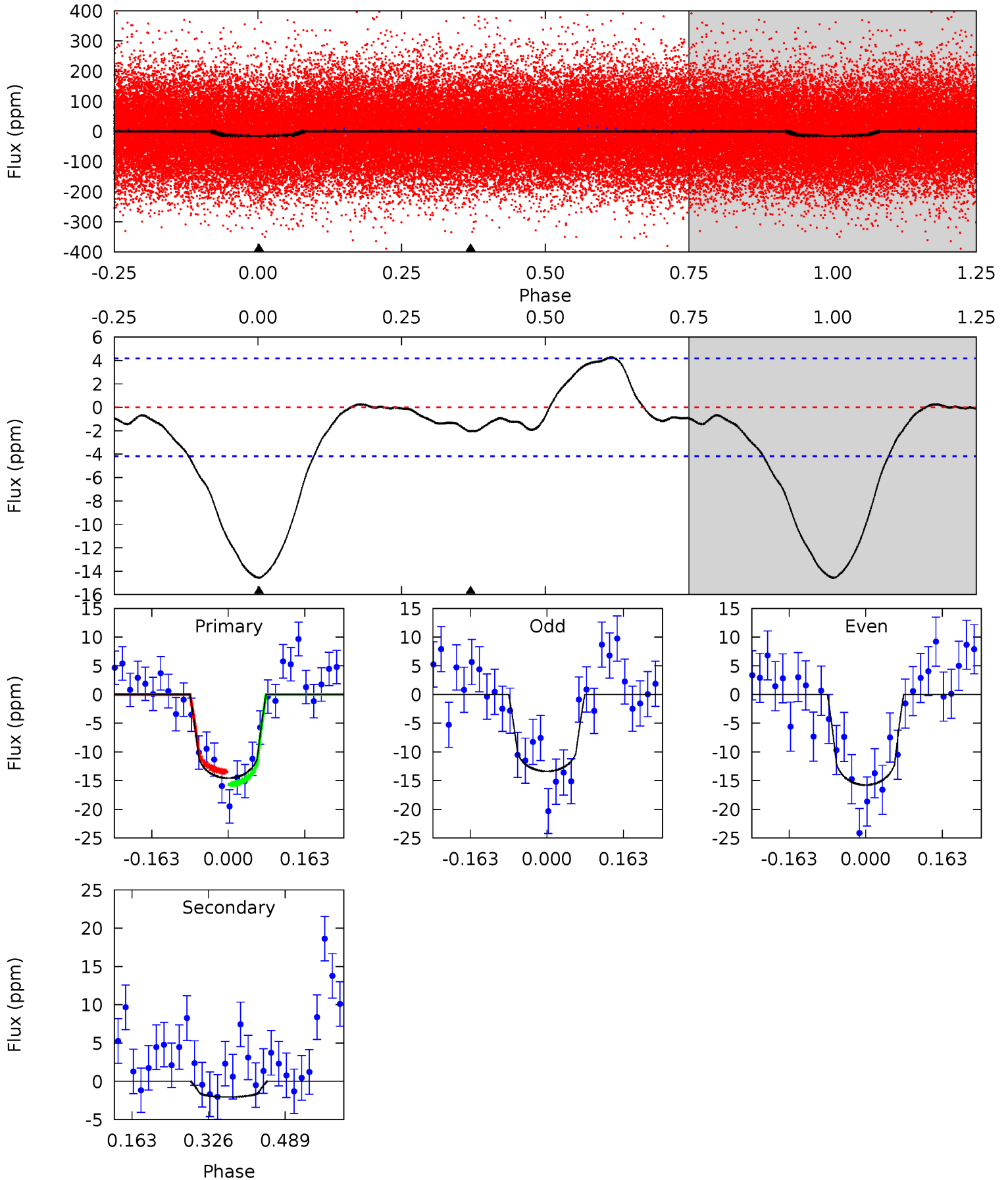
TCE 005563057-01 P= 1.049494 Days $T_0=132.250205$ (BKJD)



DV Model-Shift Uniqueness Test

005563057-01, P = 1.049489 Days, E = 131.207678 Days

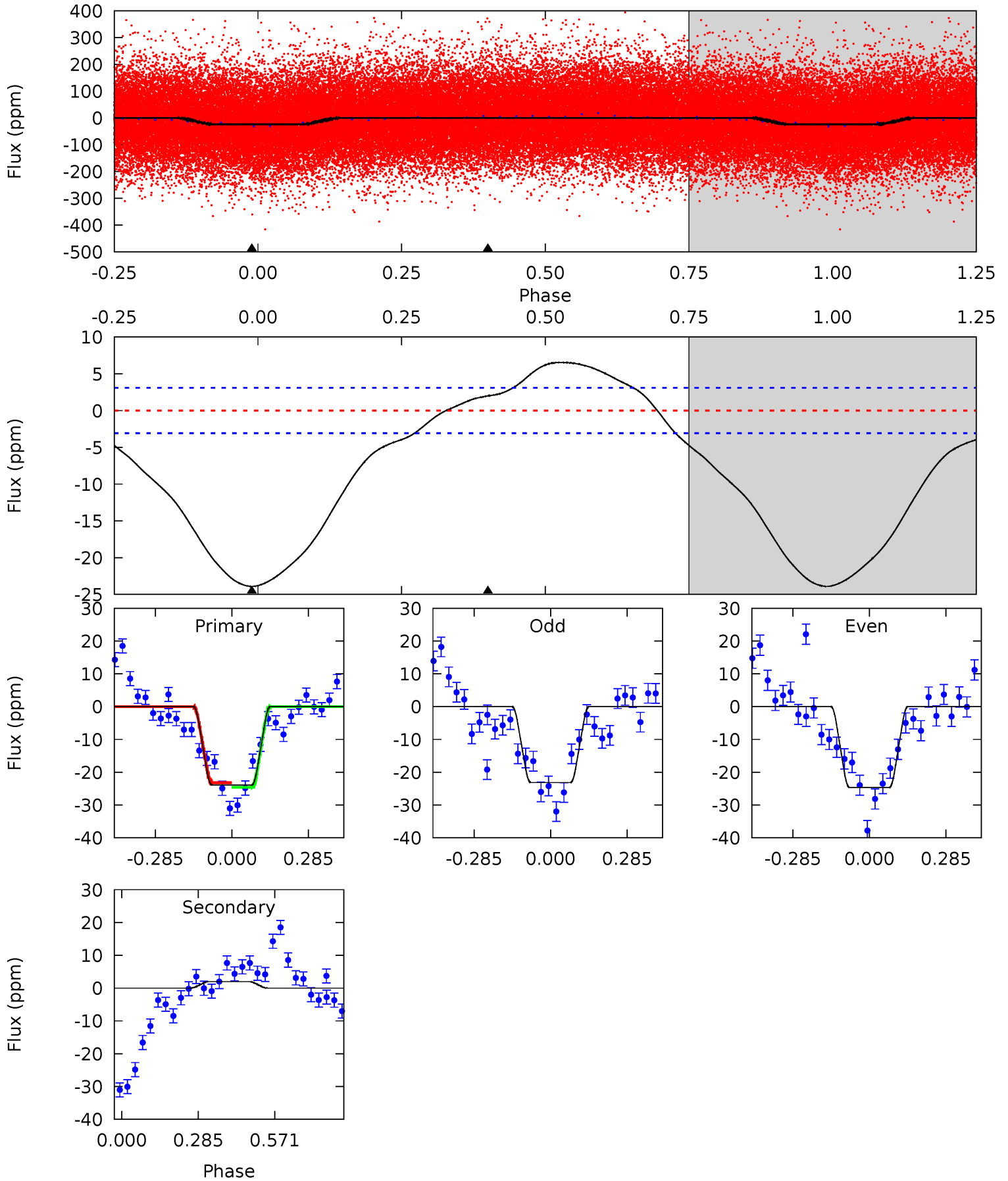
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	2.18	0	0	4.46	1.39	2.19	15.6	15.6	2.18	2.18	1.28	0.94	0.23	1.18



Alt Model-Shift Uniqueness Test

005563057-01, P = 1.049494 Days, E = 131.200711 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.6	-2.80	0	0	4.34	1.07	3.51	33.6	33.6	-2.80	-2.80	1.07	1.00	0.22	1.00



Stellar Parameters For KIC 005563057

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7479^{+235}_{-314}	$4.162^{+0.128}_{-0.192}$	$-0.220^{+0.250}_{-0.350}$	$1.667^{+0.518}_{-0.346}$	$1.469^{+0.231}_{-0.231}$	$0.447^{+0.333}_{-0.236}$
	+3%/-4%	+3%/-5%	+114%/-159%	+31%/-21%	+16%/-16%	+74%/-53%
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 005563057-01 / KOI 5179.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2 ± 1	$0.69^{+0.17}_{-0.13}$	3959^{+295}_{-266}	4384^{+651}_{-837}	$1.186^{+0.939}_{-0.655}$
Alt.	2 ± 1	$1.00^{+0.18}_{-0.16}$	3960^{+311}_{-244}	-4383^{+236}_{-308}	$-0.559^{+0.239}_{-0.324}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

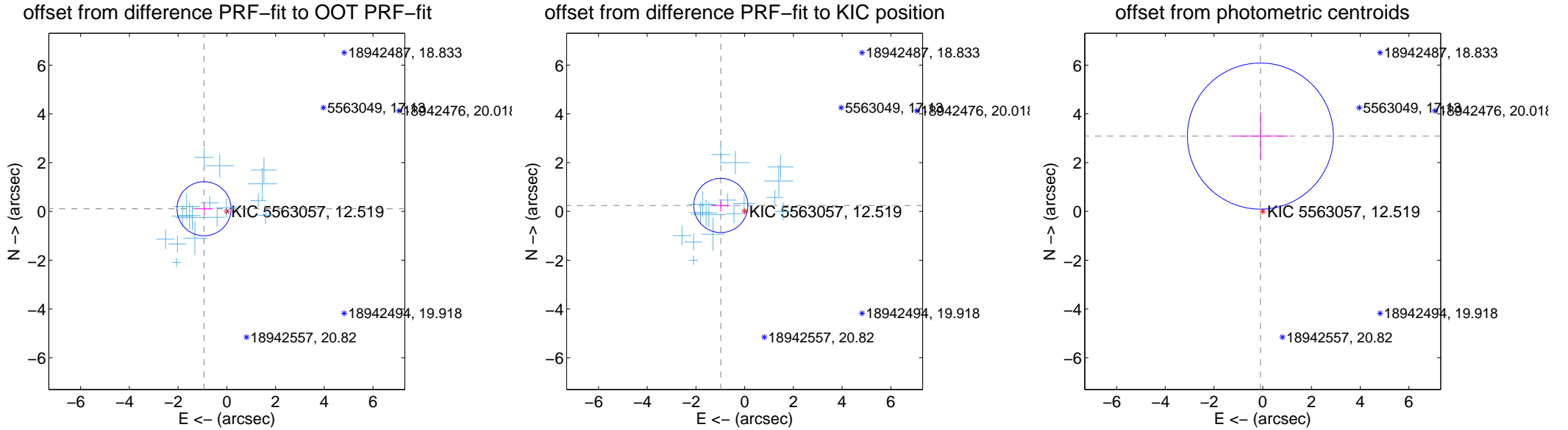
DV Centroid Data

Supplemental centroid analysis for 005563057-01. Kepler magnitude: 12.52. Transit SNR 11.43

There are 17 quarters with good PRF difference image offsets

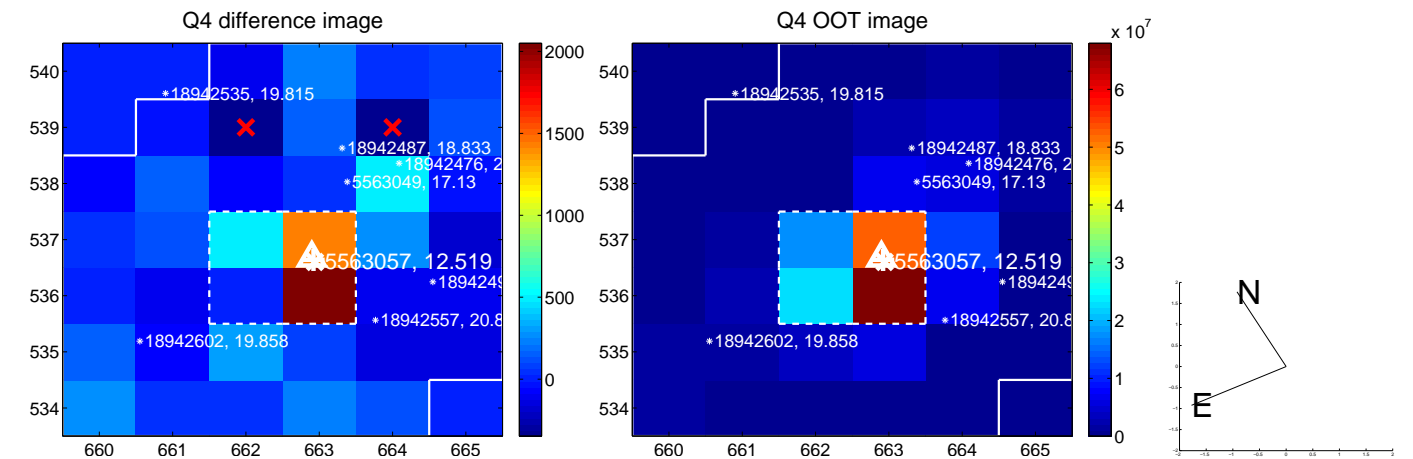
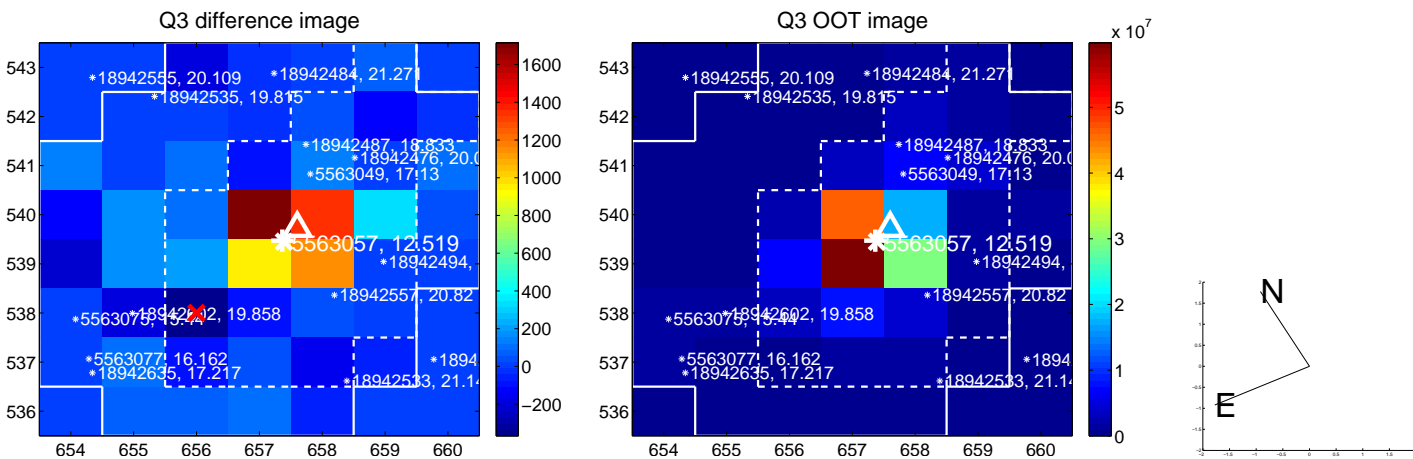
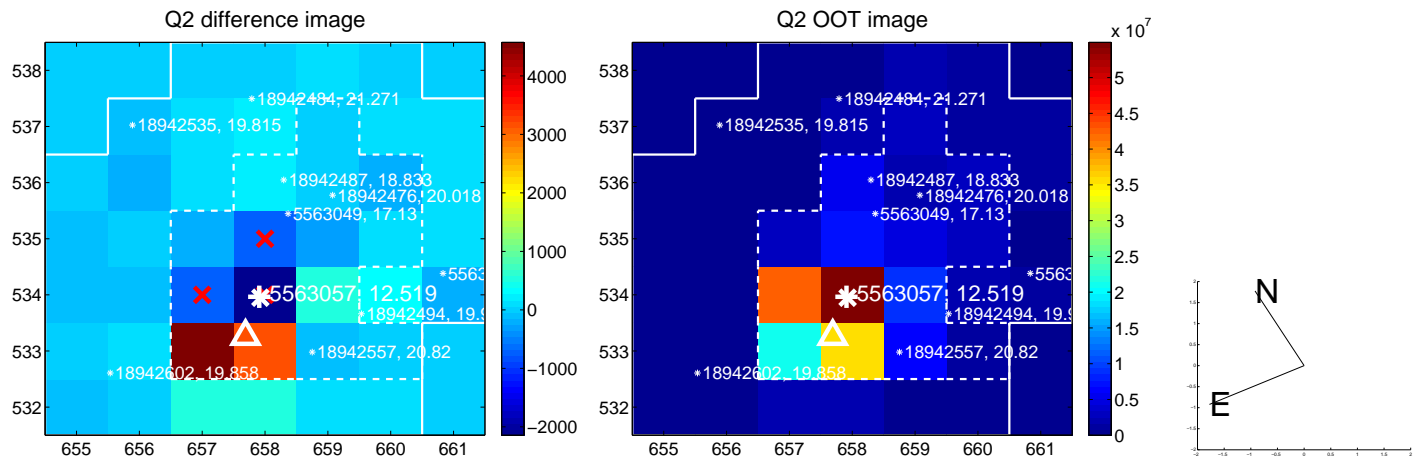
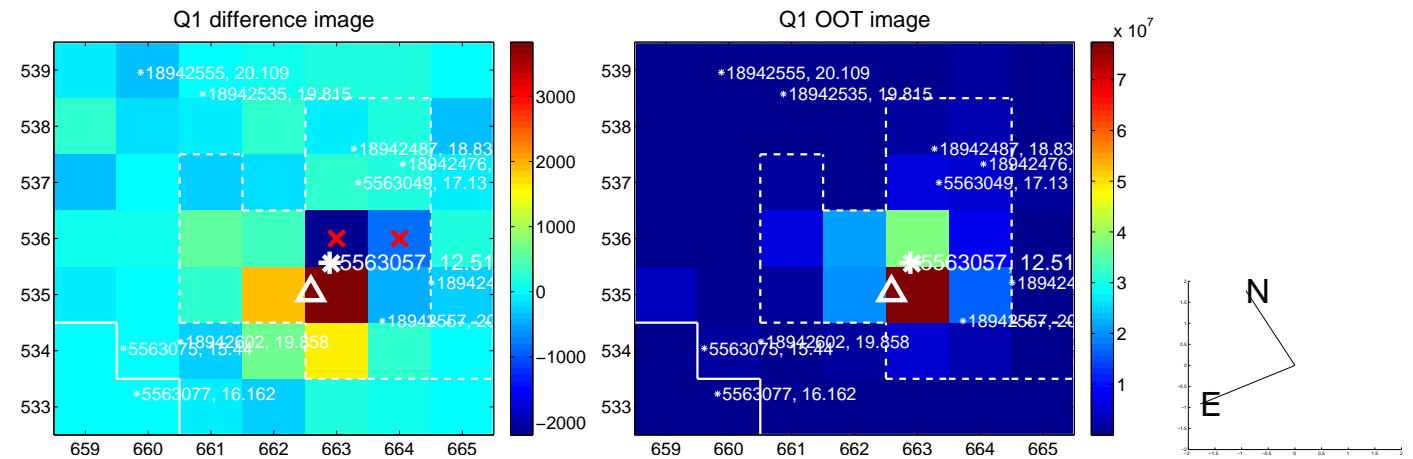
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.943 ± 0.370	2.55	0.936 ± 0.371	0.110 ± 0.251
PRF-fit source offset from KIC position	1.009 ± 0.370	2.72	0.979 ± 0.377	0.245 ± 0.250
photometric centroid source offset	3.09 ± 1.00	3.10	0.10 ± 1.12	3.09 ± 1.00

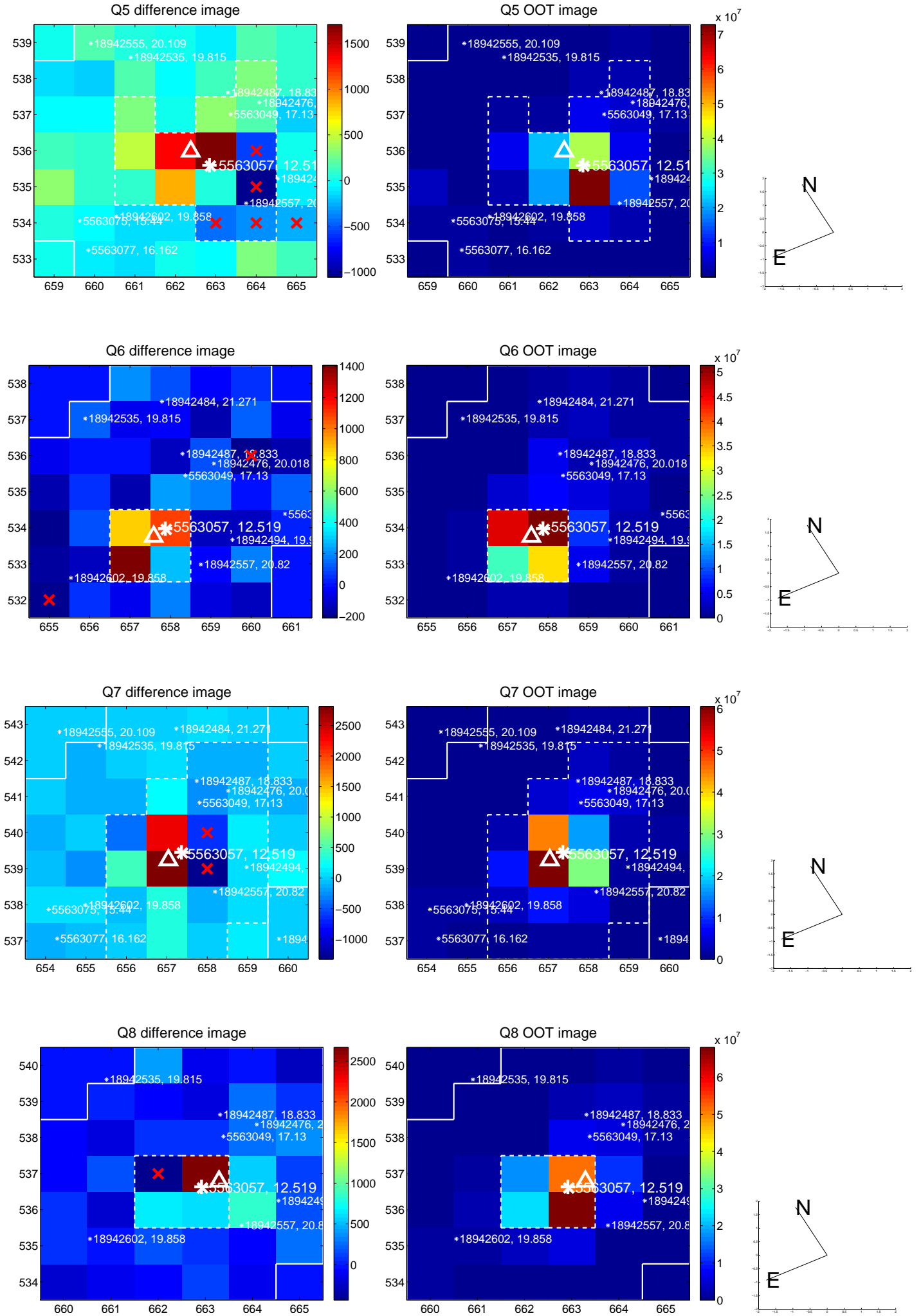


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

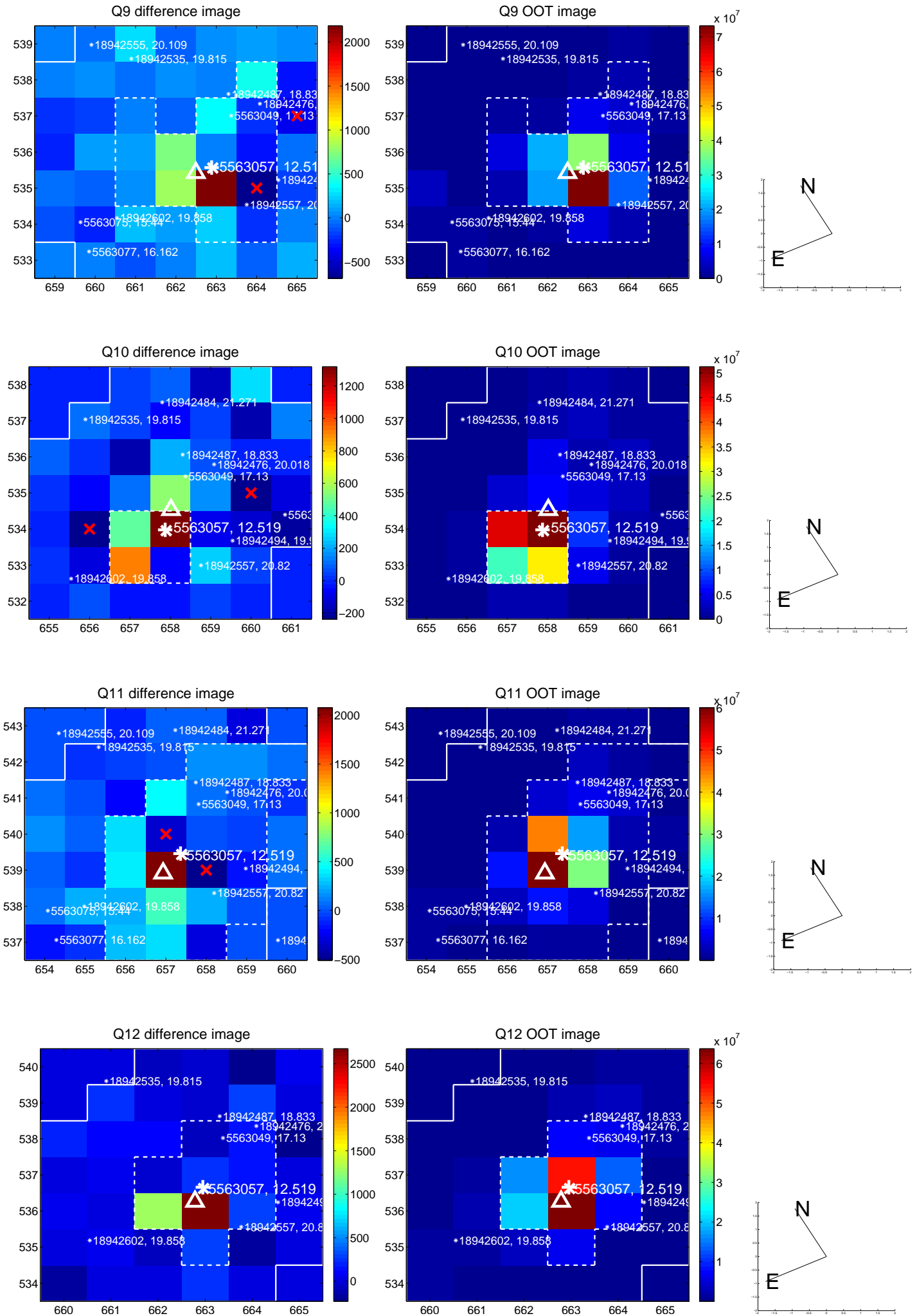
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



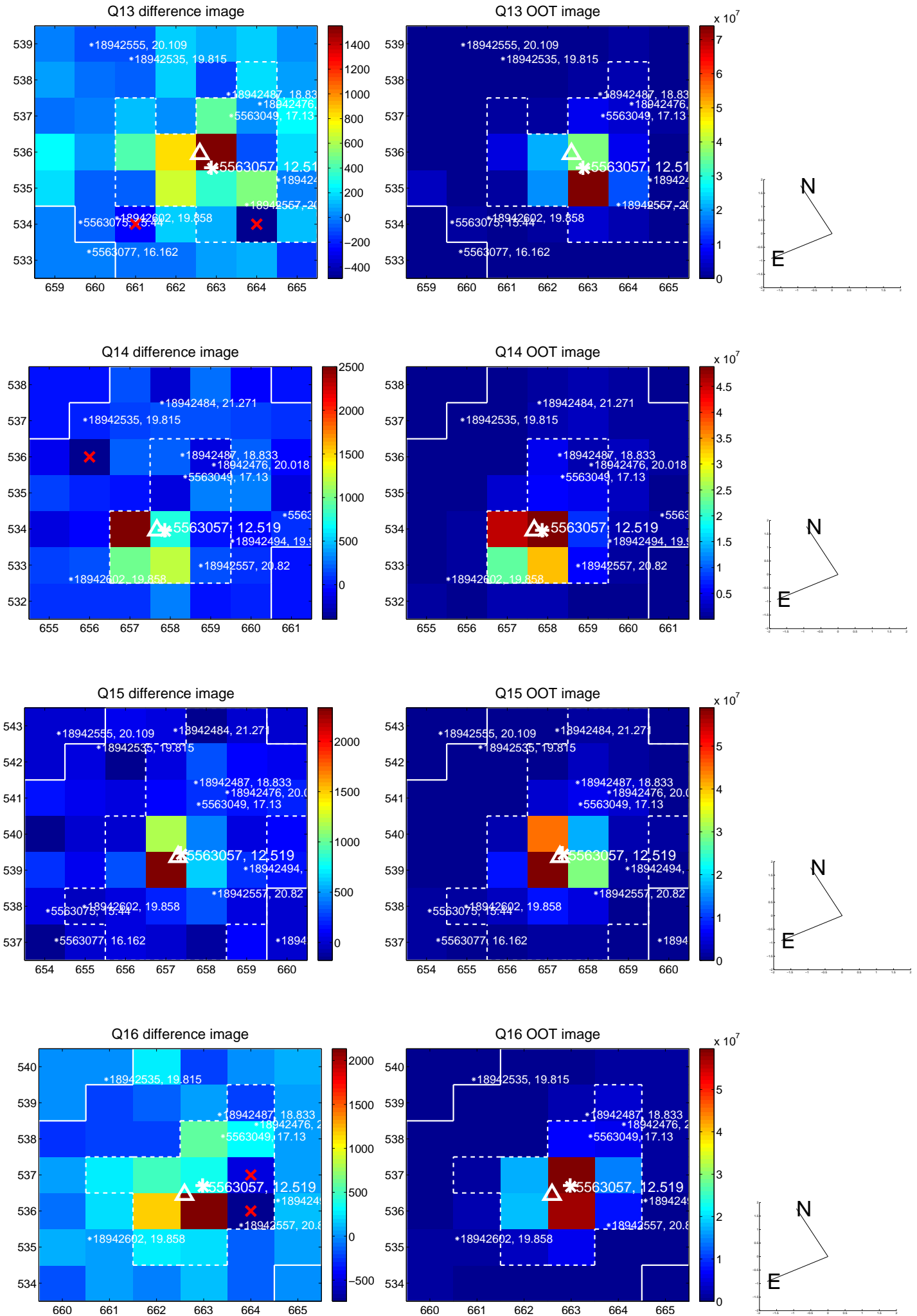
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



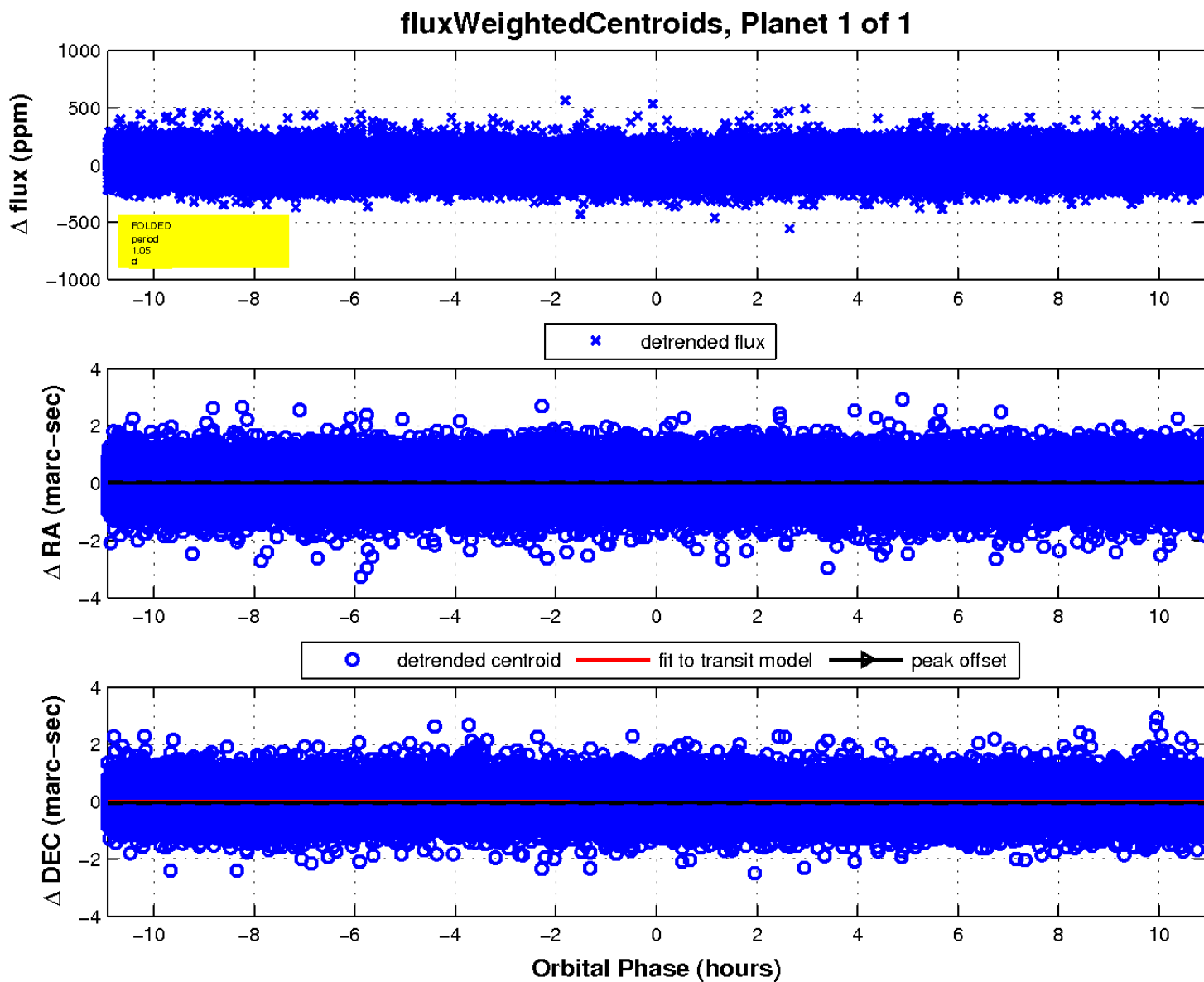
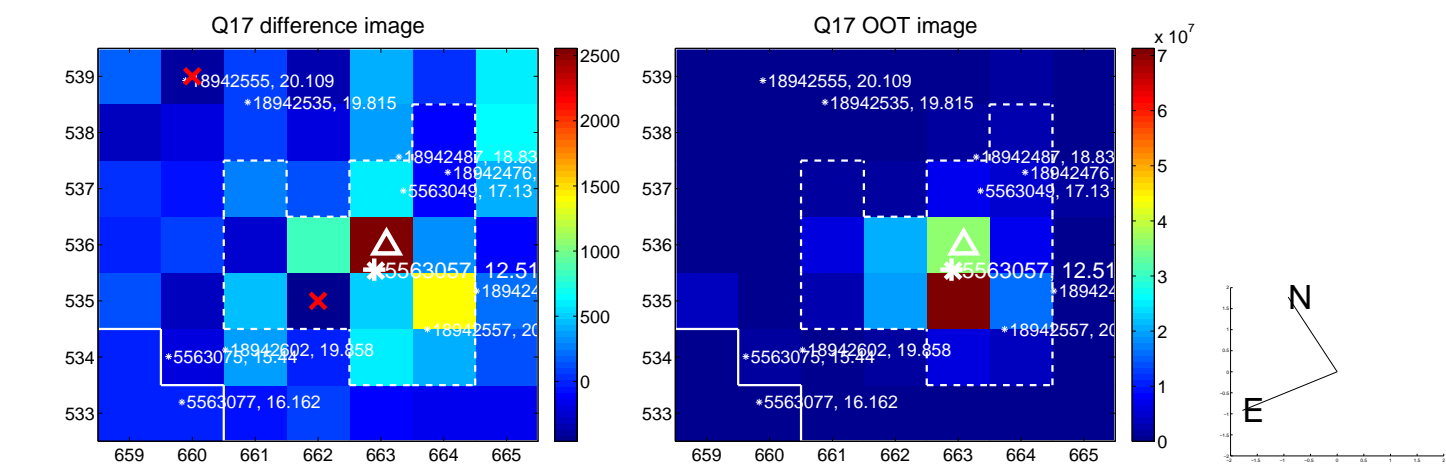
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

