

KIC 005649325

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})
005649325-01	OBS	2676.01	195.614485	167.735999	1692.2	23.988	67.4	76.3	2.23	5970	10.80	11.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005649325-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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 005649325-01

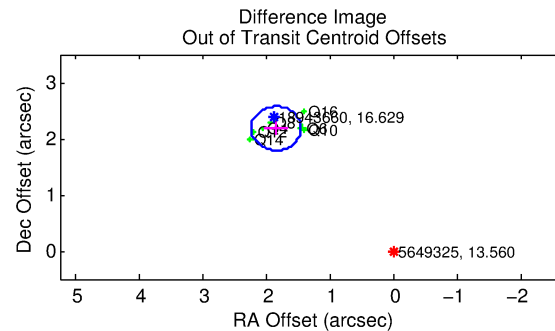
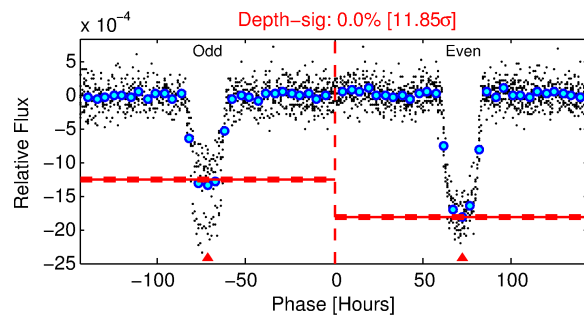
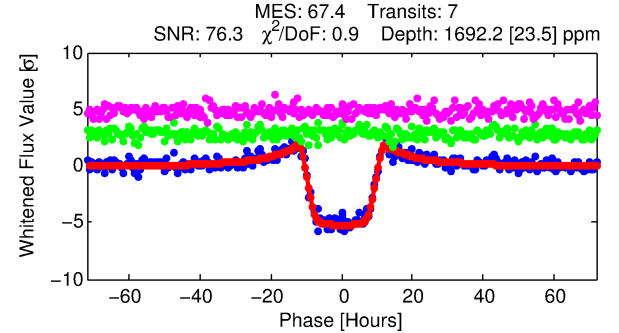
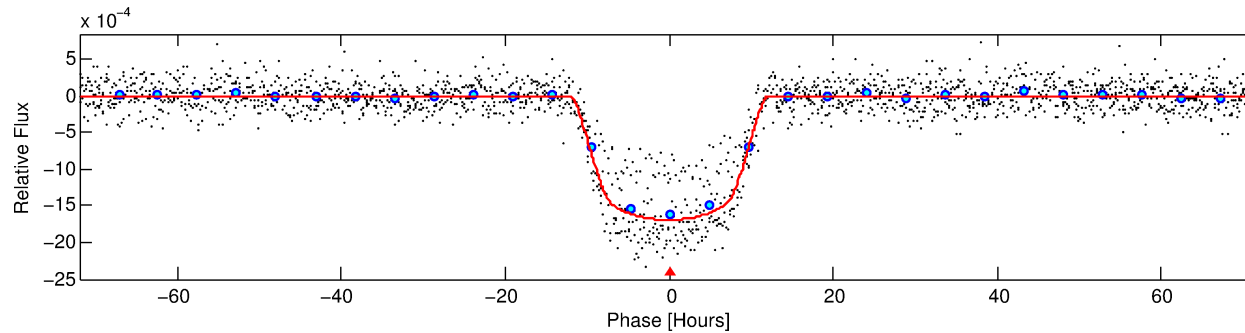
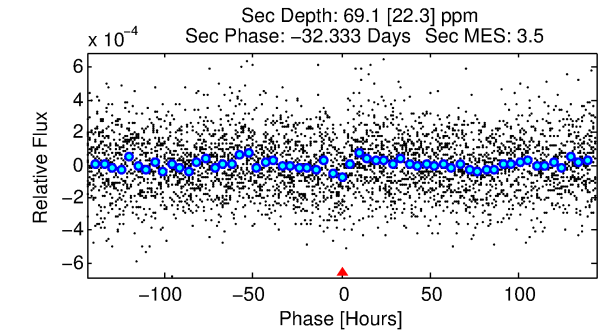
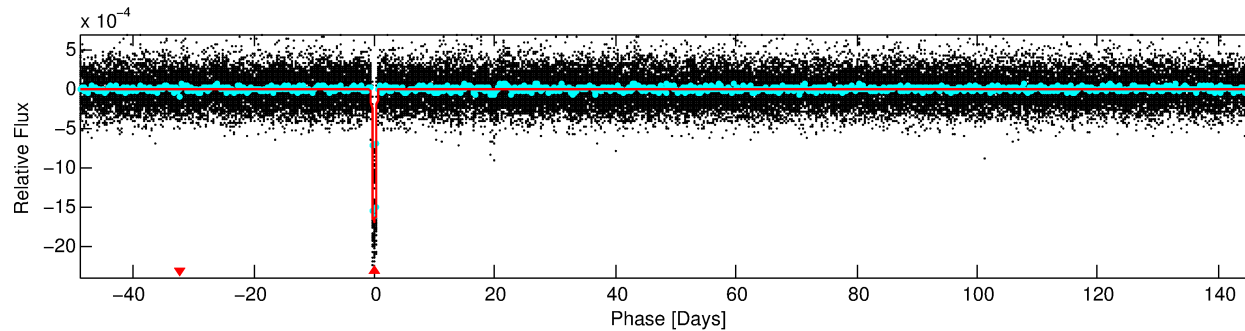
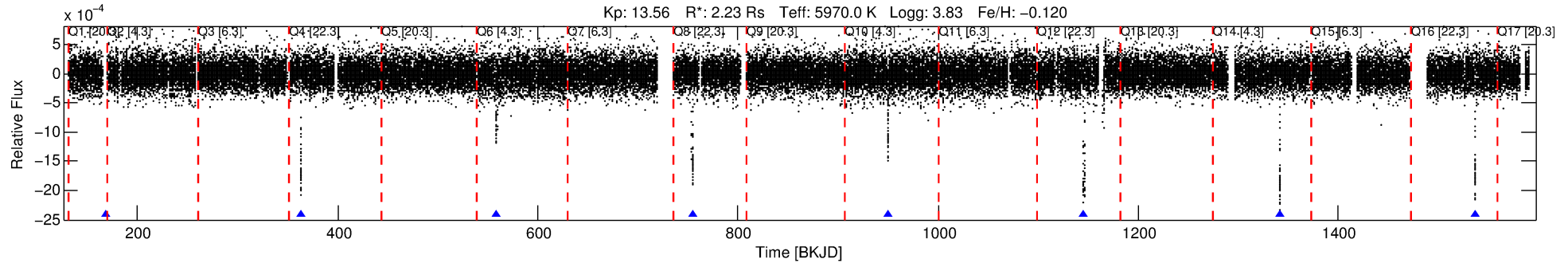
No Significant Match Found

DV One-Page Summary

KIC: 5649325 Candidate: 1 of 1 Period: 195.614 d

KOI: K02676.01 Corr: 0.984

Kp: 13.56 R*: 2.23 Rs Teff: 5970.0 K Logg: 3.83 Fe/H: -0.120



DV Fit Results:

Period = 195.61448 [0.00124] d
Epoch = 167.7360 [0.0056] BKJD
Rp/R* = 0.0444 [0.0005]
a/R* = 33.30 [1.00]
b = 0.90 [0.01]
Seff = 11.26 [9.76]
Teq = 467 [101] K
Rp = 10.80 [5.48] Re
a = 0.7086 [0.3674] AU
Ag = 163.64 [149.69] [1.09σ]
Teffp = 2583 [226] K [8.54σ]

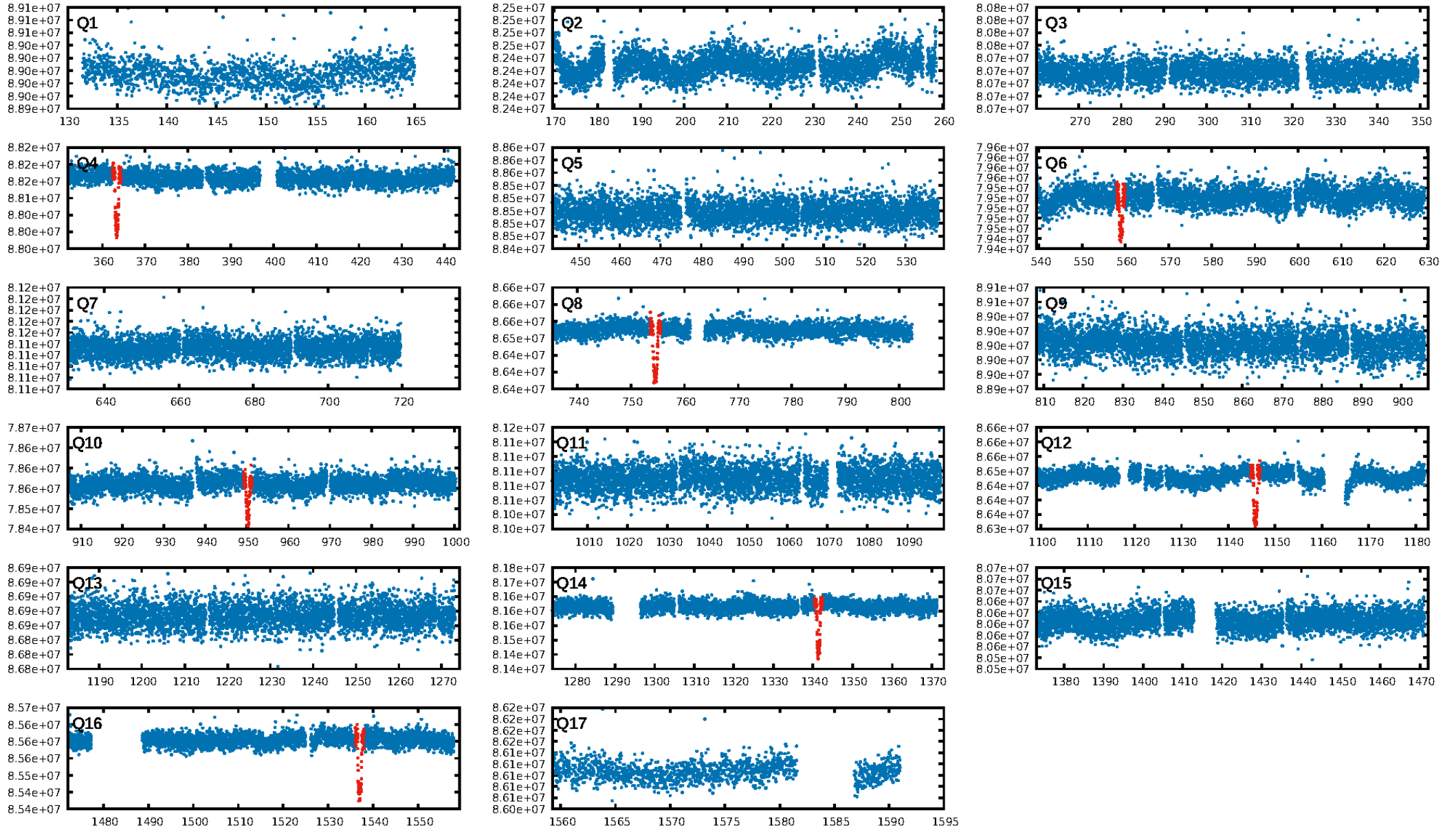
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 0.9517
Centroid-sig: 0.0%
Centroid-so: 3.304 arcsec [23.41σ]
OotOffset-rm: 2.862 arcsec [22.09σ]
KicOffset-rm: 2.967 arcsec [23.05σ]
OotOffset-st: 3/0/4/0 [7]
KicOffset-st: 3/0/4/0 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [7/7]

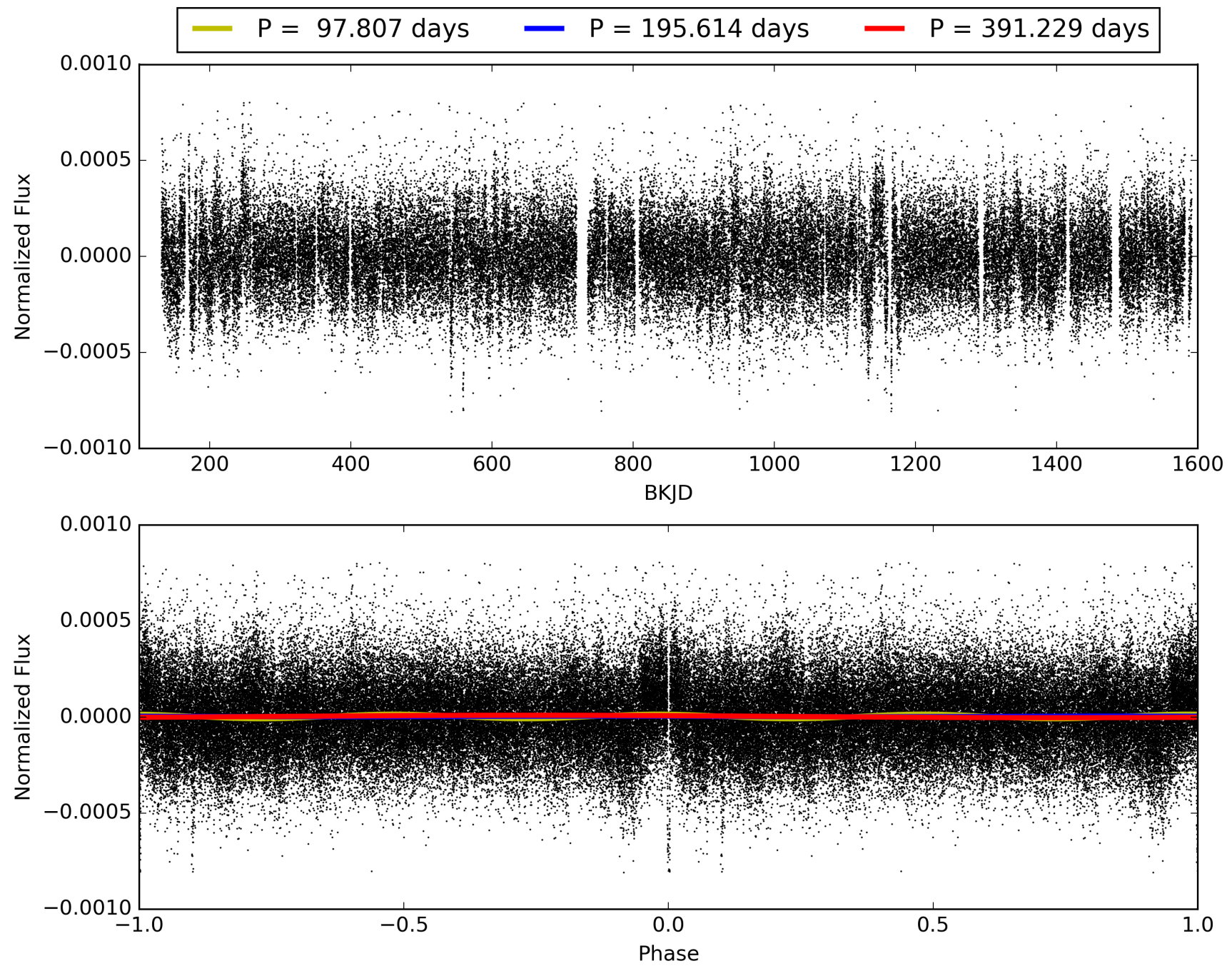
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:57:07 Z

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

TCE 005649325-01, PDC Light Curves

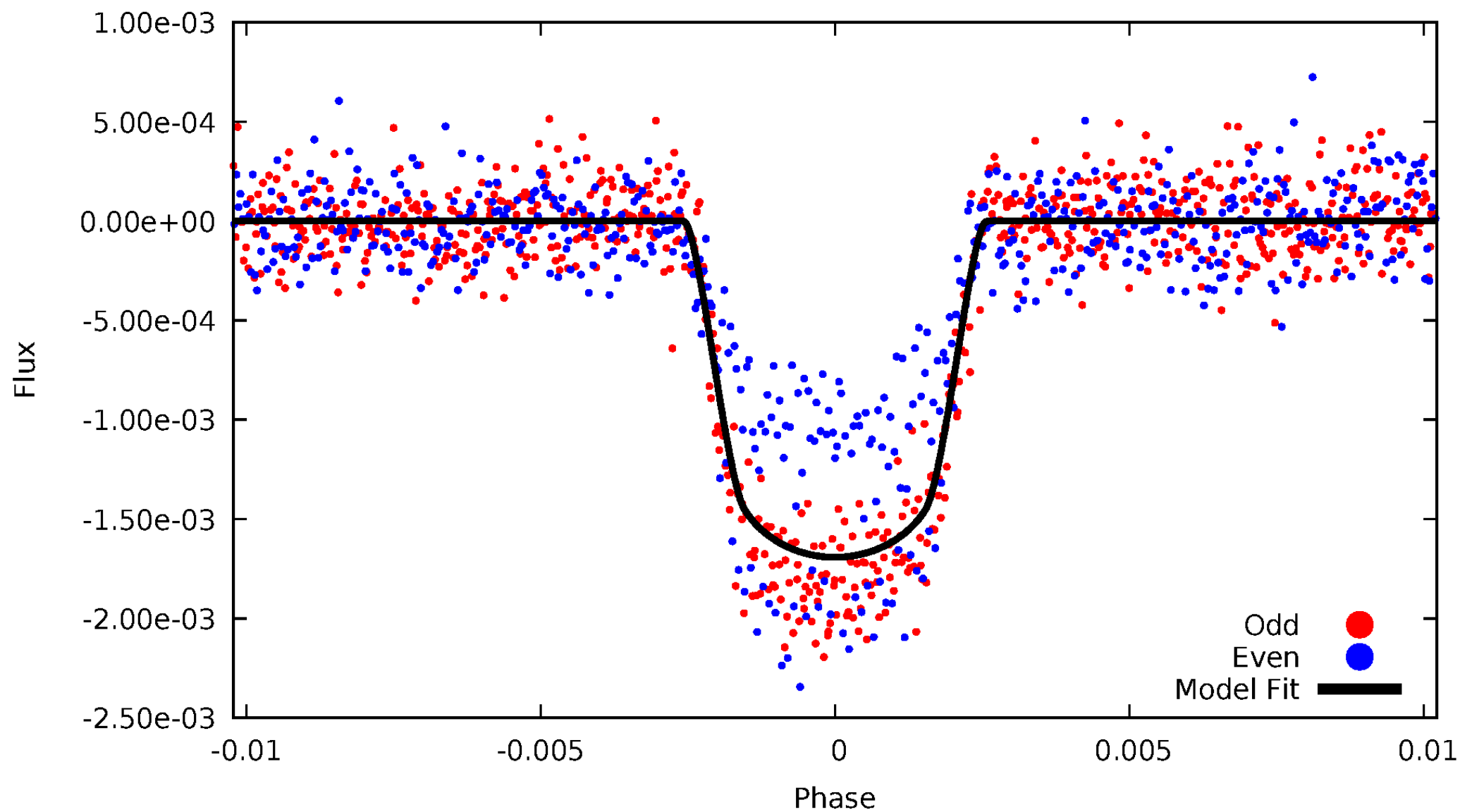


TCE 005649325-01



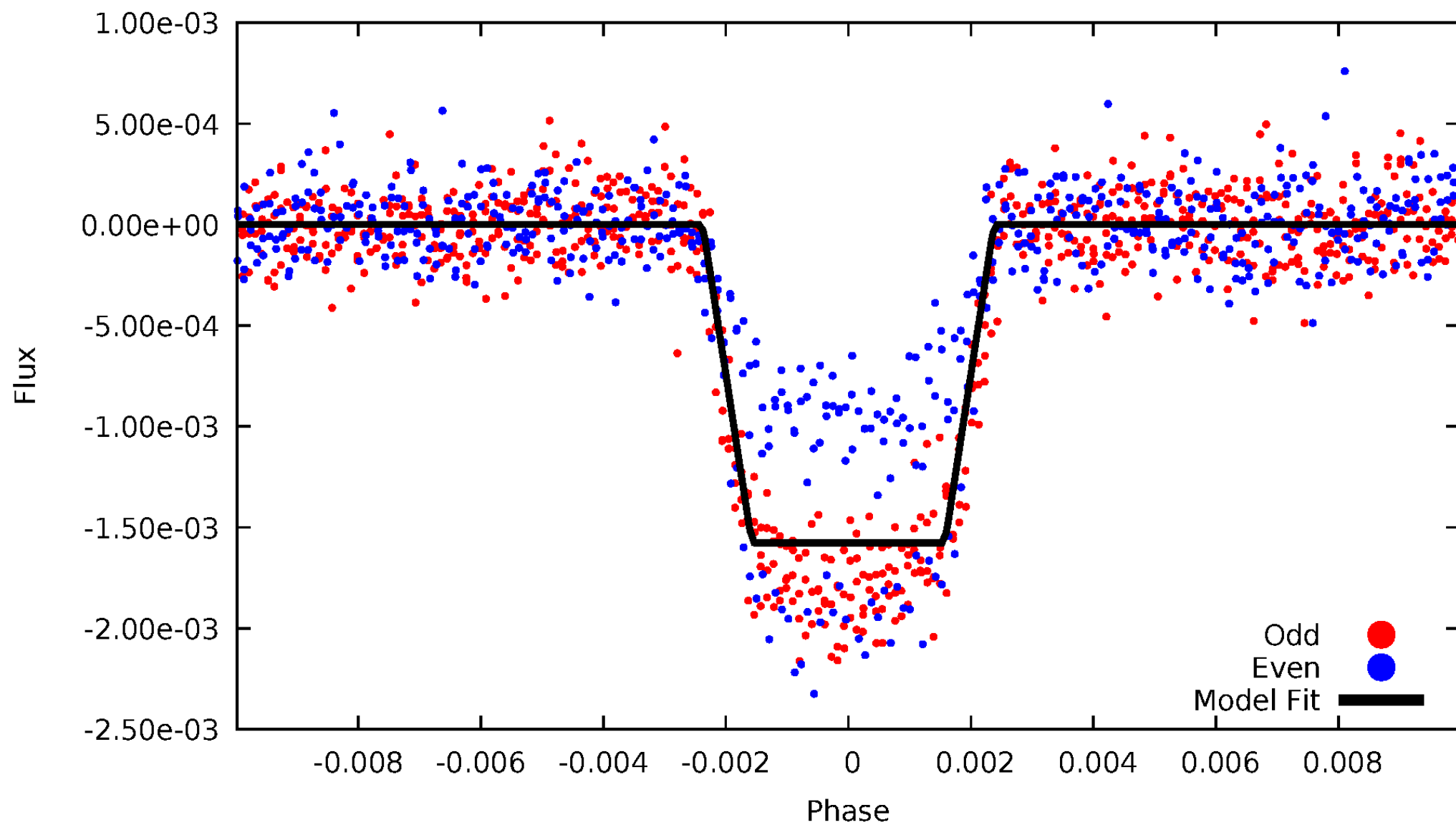
DV Odd/Even

TCE 005649325-01



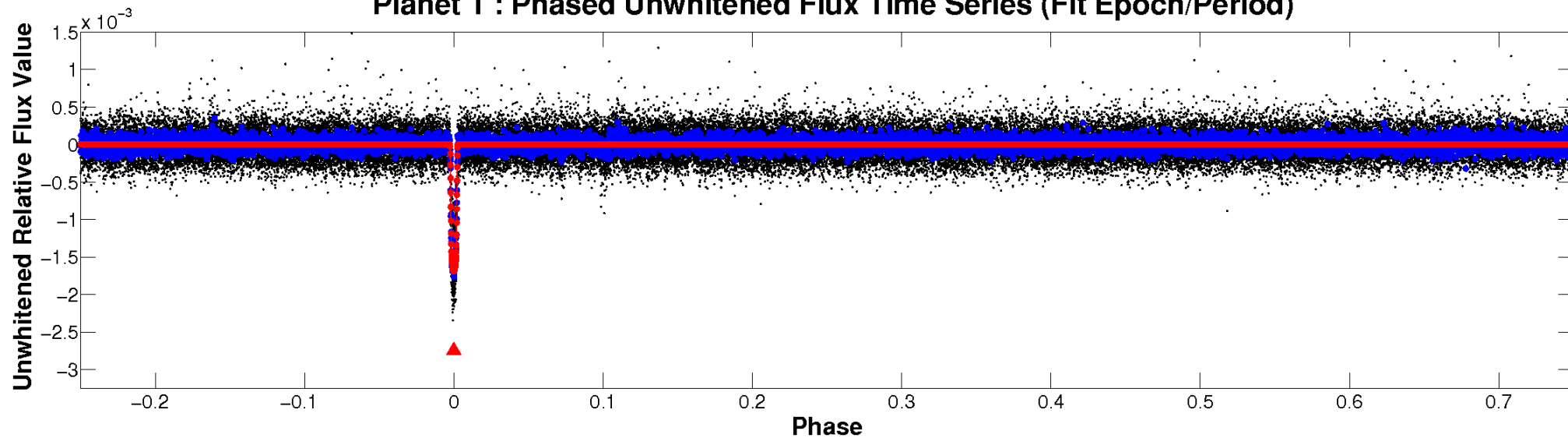
ALT Odd/Even

TCE 005649325-01

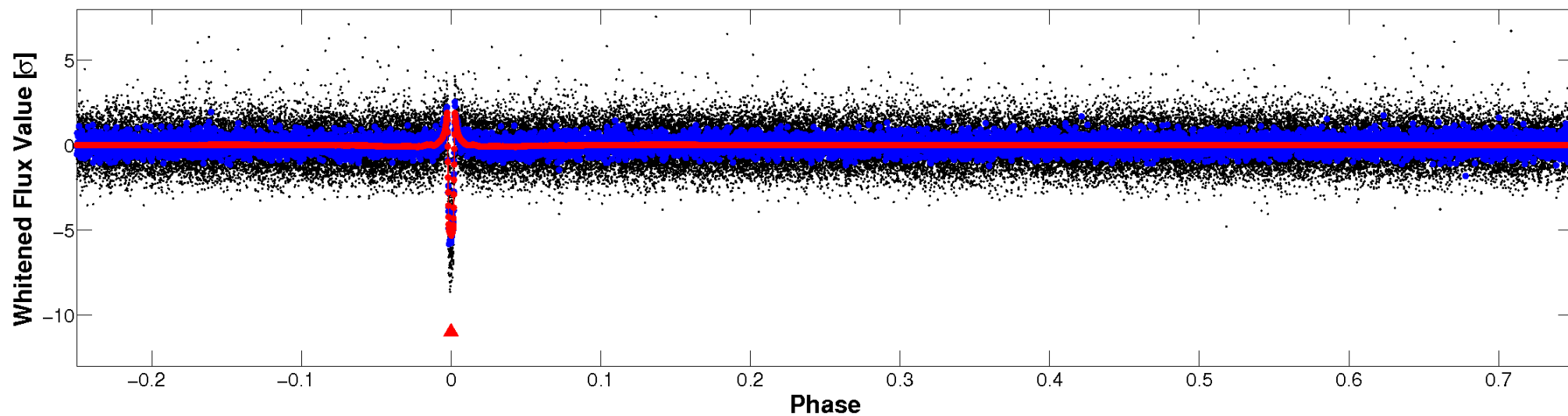


Non-Whitened Vs. Whitened Light Curve

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

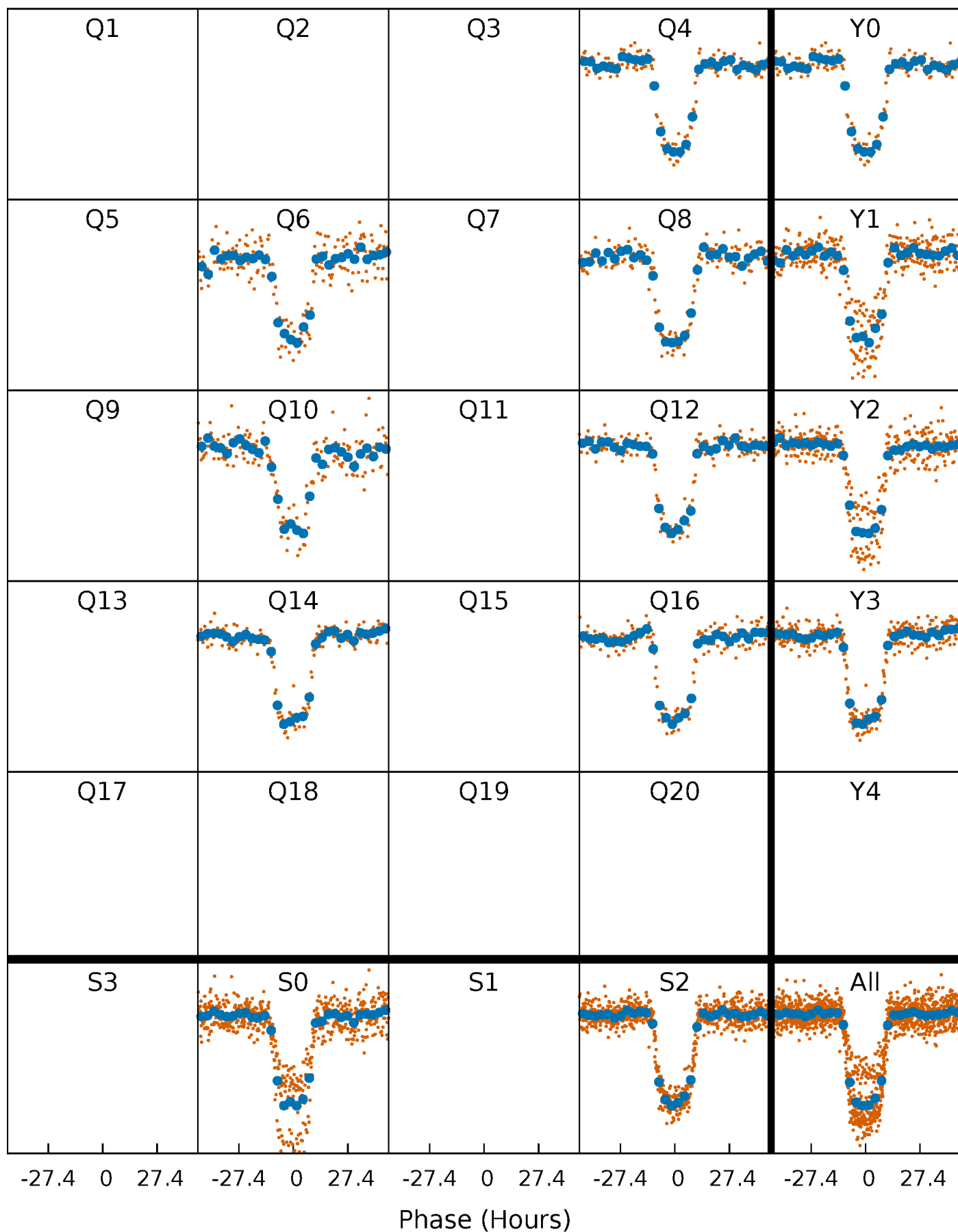


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



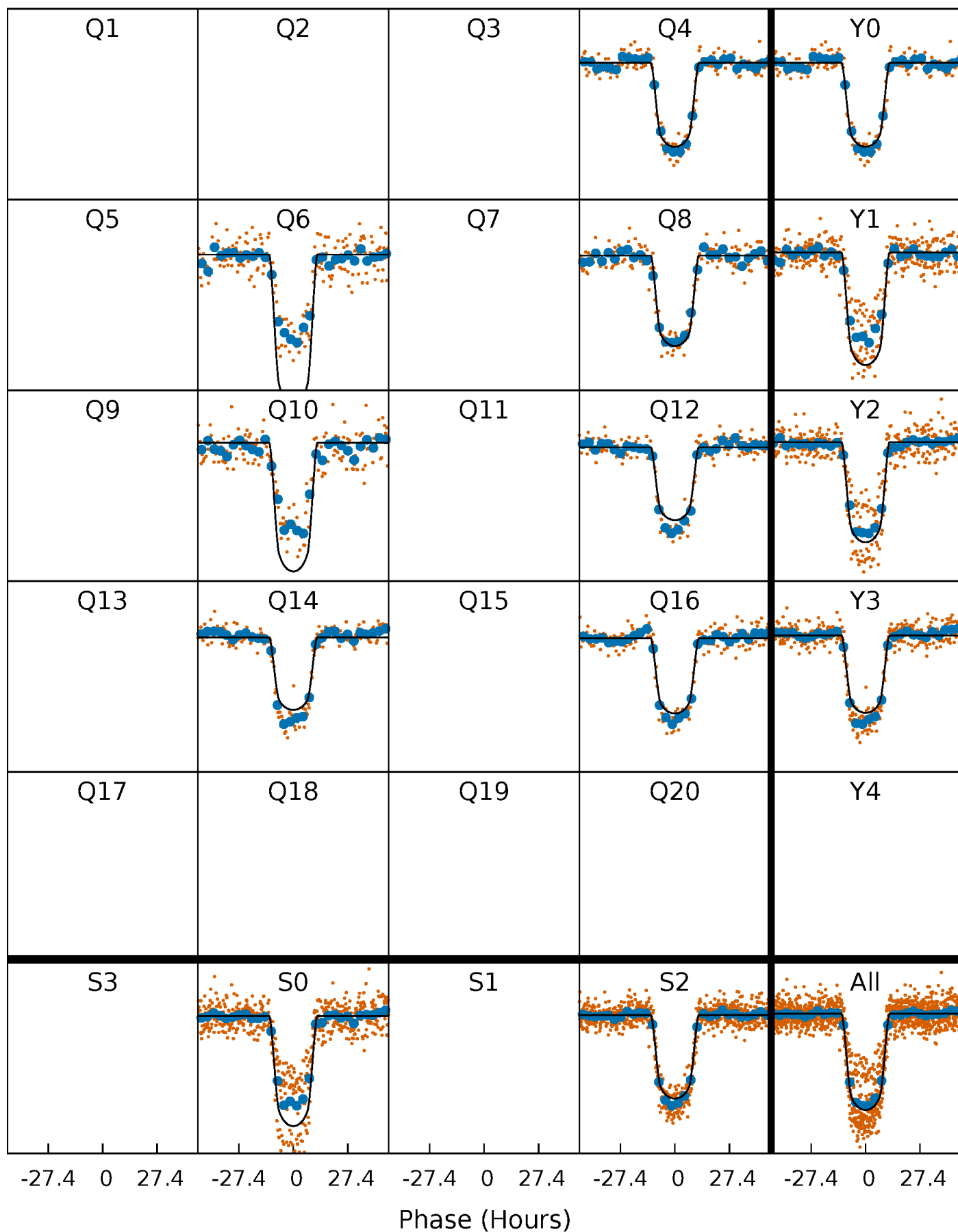
PDC Quarter-Phased Transit Curves

TCE 005649325-01 P=195.614485 Days $T_0=167.735999$ (BKJD)



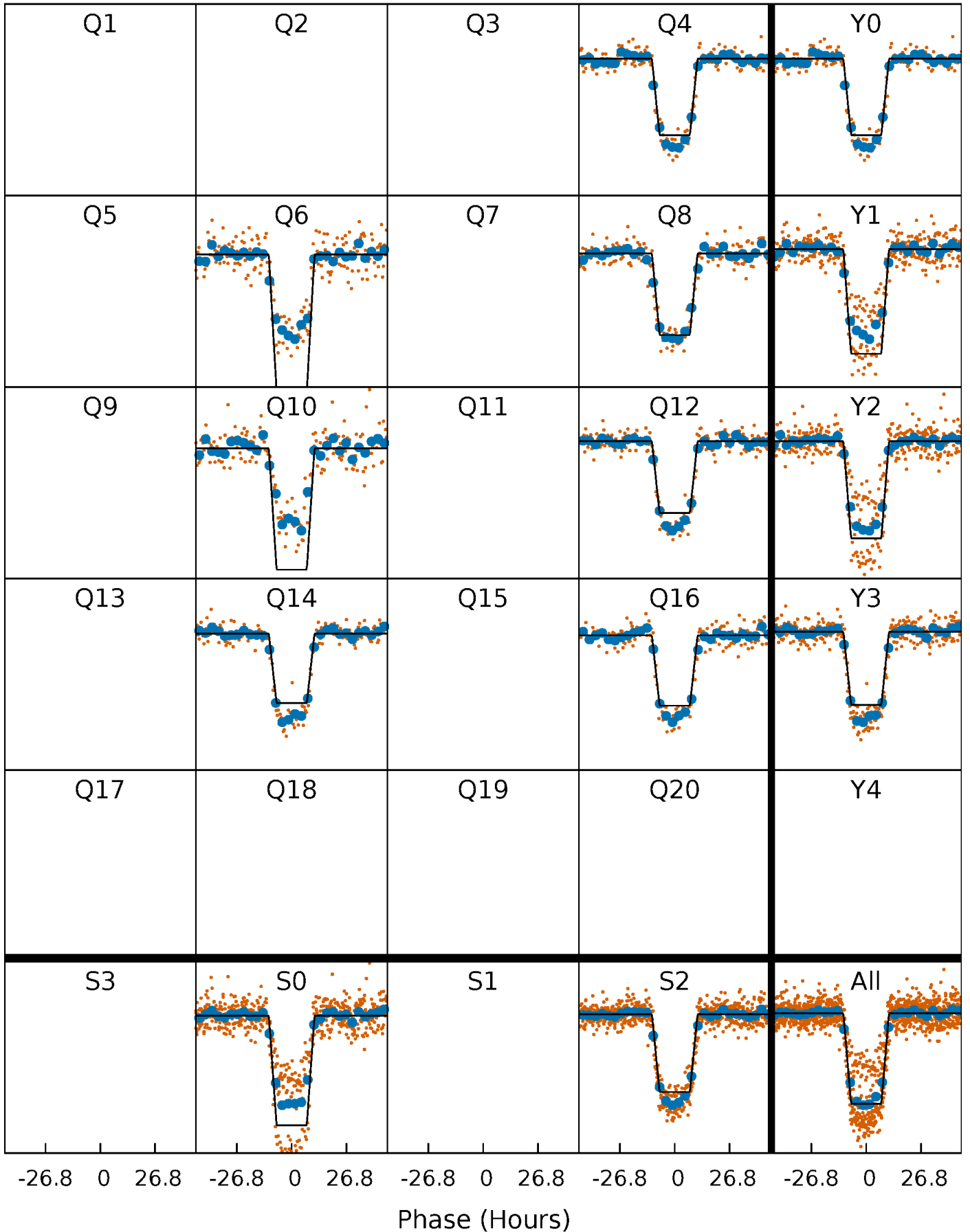
DV Quarter-Phased Transit Curves

TCE 005649325-01 P=195.614485 Days $T_0=167.735999$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

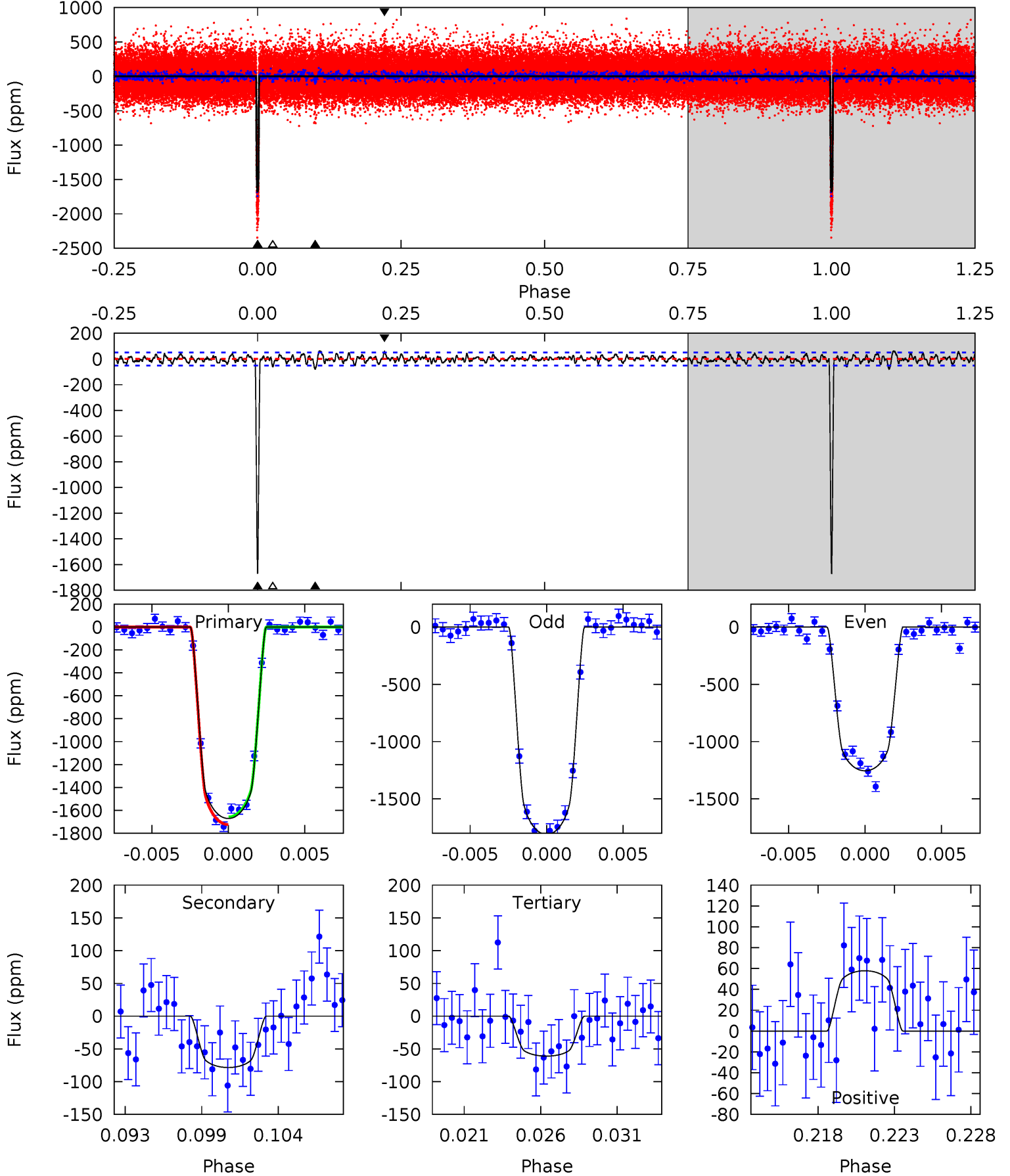
TCE 005649325-01 P=195.610470 Days $T_0=167.753360$ (BKJD)



DV Model-Shift Uniqueness Test

005649325-01, P = 195.614485 Days, E = 167.735999 Days

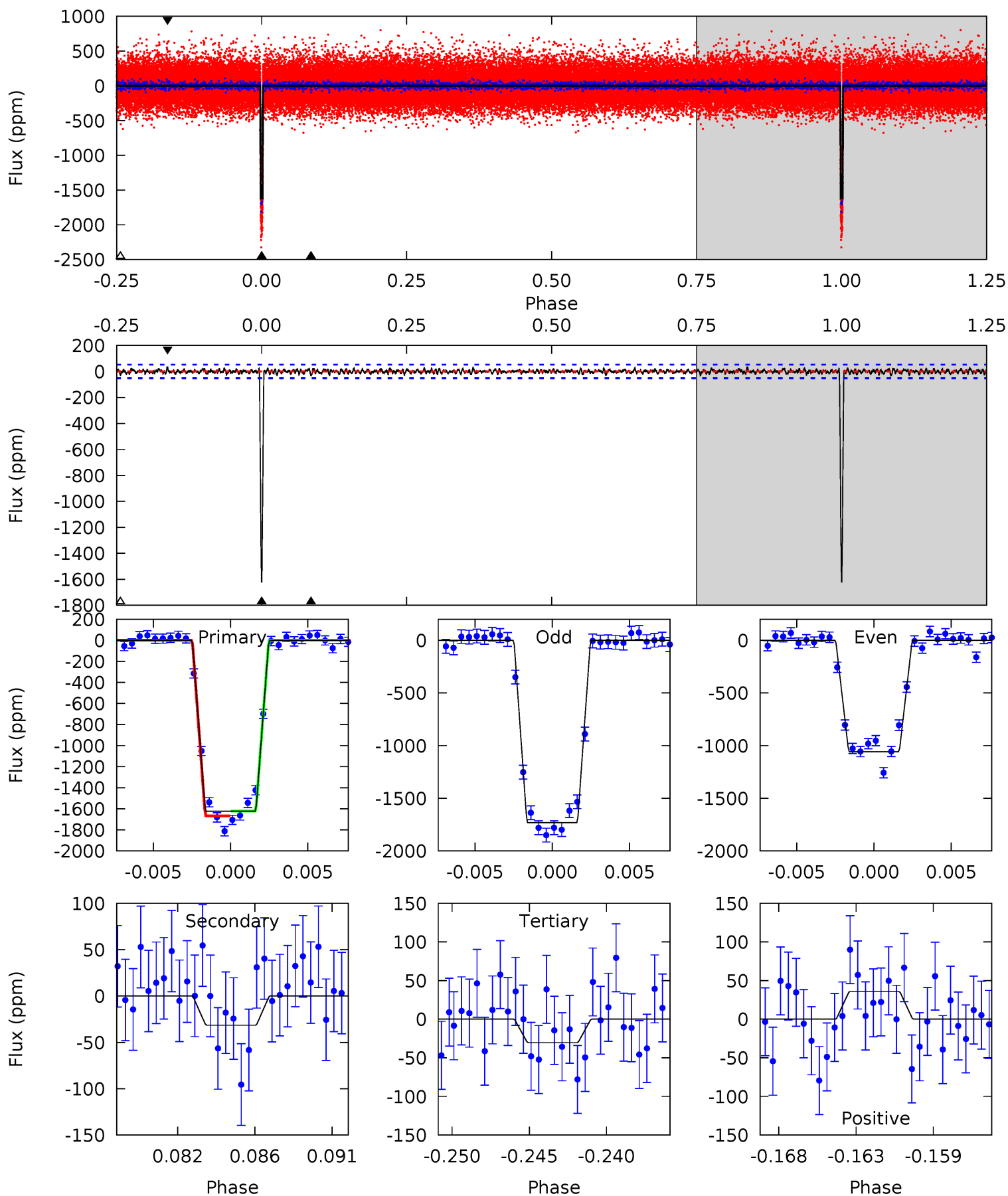
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
169.2	7.94	6.18	5.86	5.15	2.80	1.82	163.0	163.3	1.76	2.08	27.6	0.91	0.04	3.31



Alt Model-Shift Uniqueness Test

005649325-01, P = 195.610470 Days, E = 167.753360 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
158.2	3.06	2.95	3.49	5.17	2.82	0.93	155.2	154.7	0.11	-0.42	32.5	0.88	0.02	2.25



Stellar Parameters For KIC 005649325

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5970^{+201}_{-201}	$3.835^{+0.512}_{-0.128}$	$-0.120^{+0.300}_{-0.250}$	$2.229^{+0.485}_{-1.131}$	$1.239^{+0.166}_{-0.285}$	$0.158^{+0.900}_{-0.060}$
	+3%/-3%	+13%/-3%	+250%/-208%	+22%/-51%	+13%/-23%	+571%/-38%
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 005649325-01 / KOI 2676.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-78 ± 10	$10.39^{+1.53}_{-2.68}$	636^{+50}_{-81}	3244^{+85}_{-96}	202^{+148}_{-54}
Alt.	-31 ± 10	$9.29^{+1.49}_{-2.50}$	635^{+53}_{-83}	2936^{+143}_{-168}	105^{+80}_{-42}

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 $A_{\text{obs}} \gg 1.0$

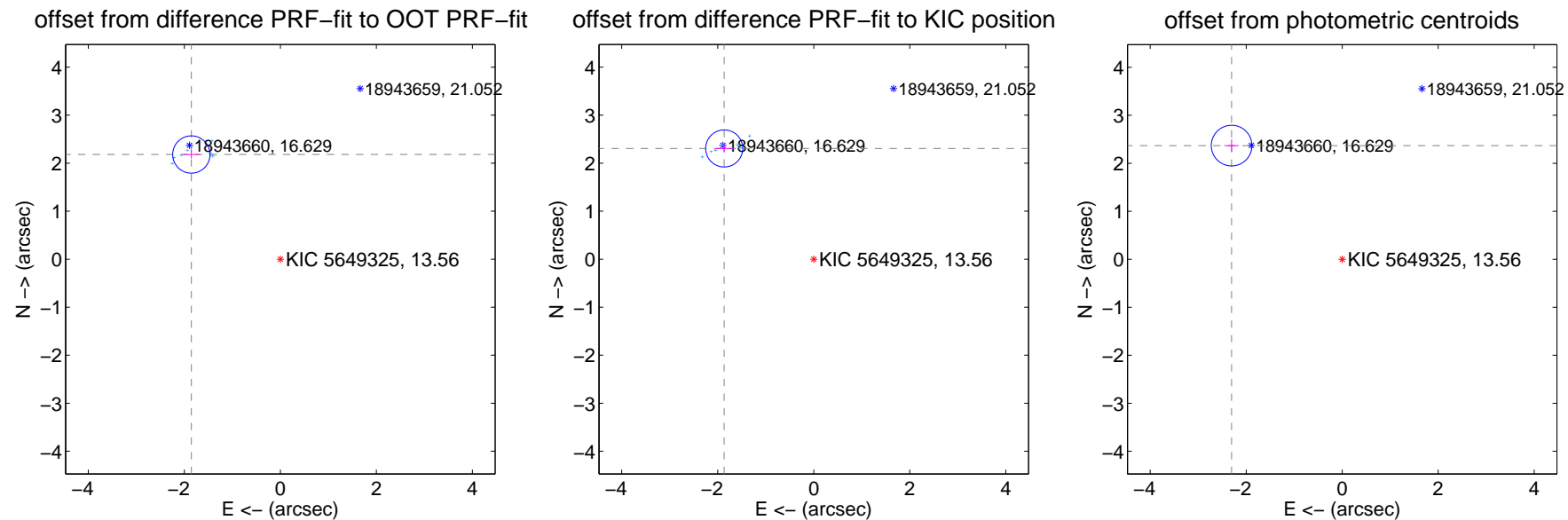
DV Centroid Data

Supplemental centroid analysis for 005649325-01. Kepler magnitude: 13.56. Transit SNR 76.33

There are 7 quarters with good PRF difference image offsets

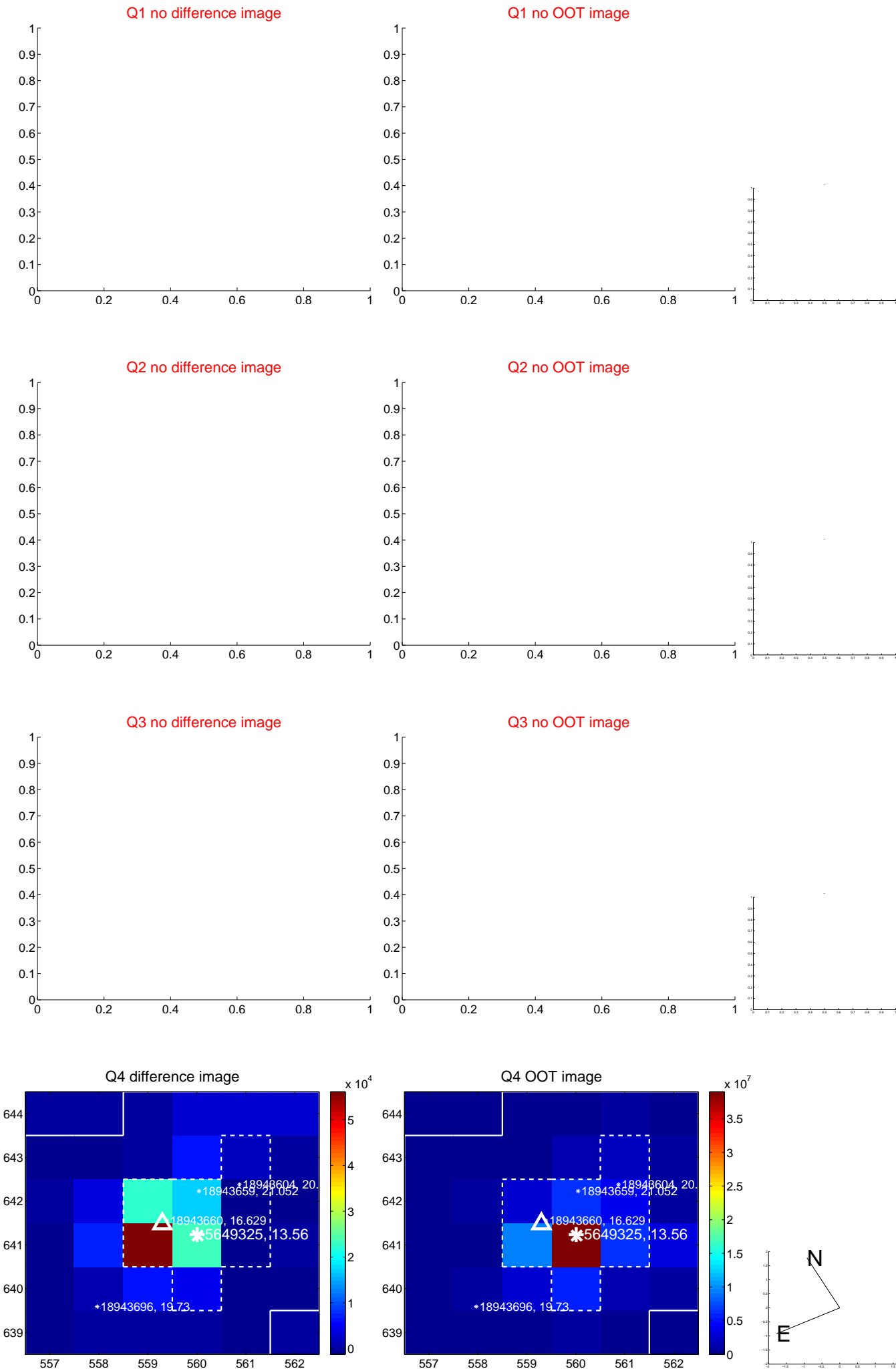
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.862 ± 0.130	22.09	1.854 ± 0.172	2.181 ± 0.087
PRF-fit source offset from KIC position	2.967 ± 0.129	23.05	1.865 ± 0.176	2.307 ± 0.084
photometric centroid source offset	3.30 ± 0.14	23.41	2.30 ± 0.15	2.37 ± 0.13

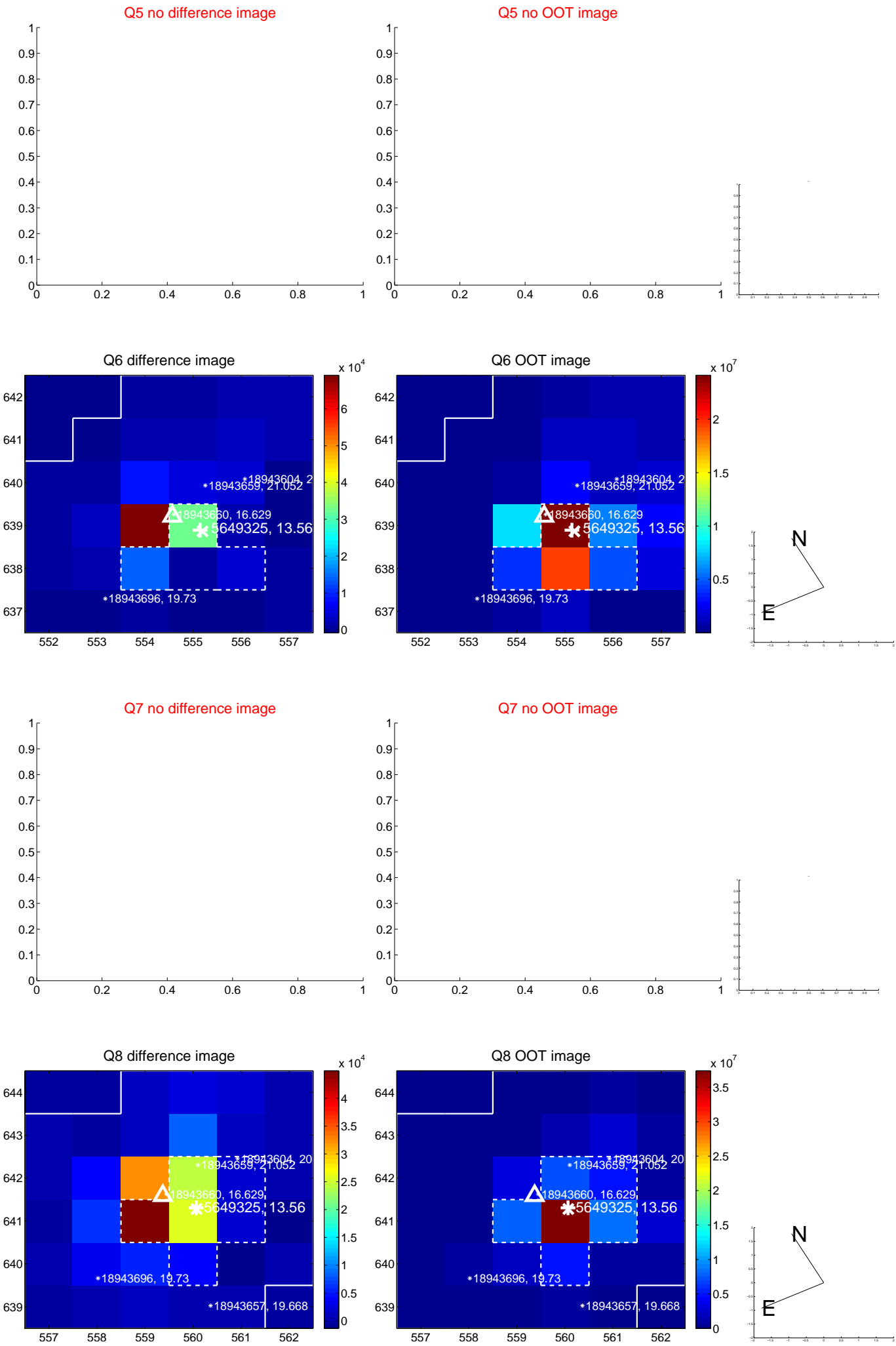


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

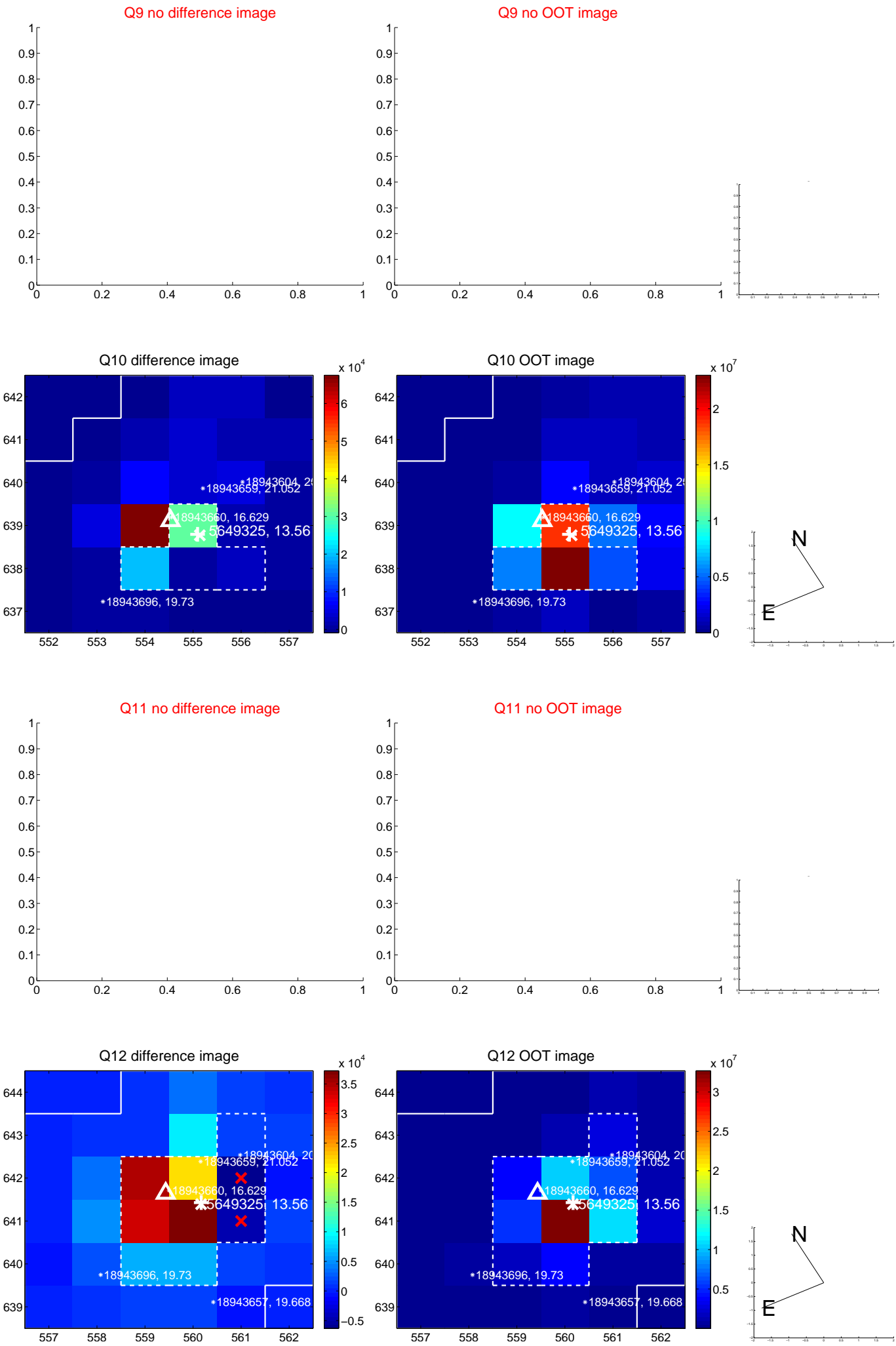
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



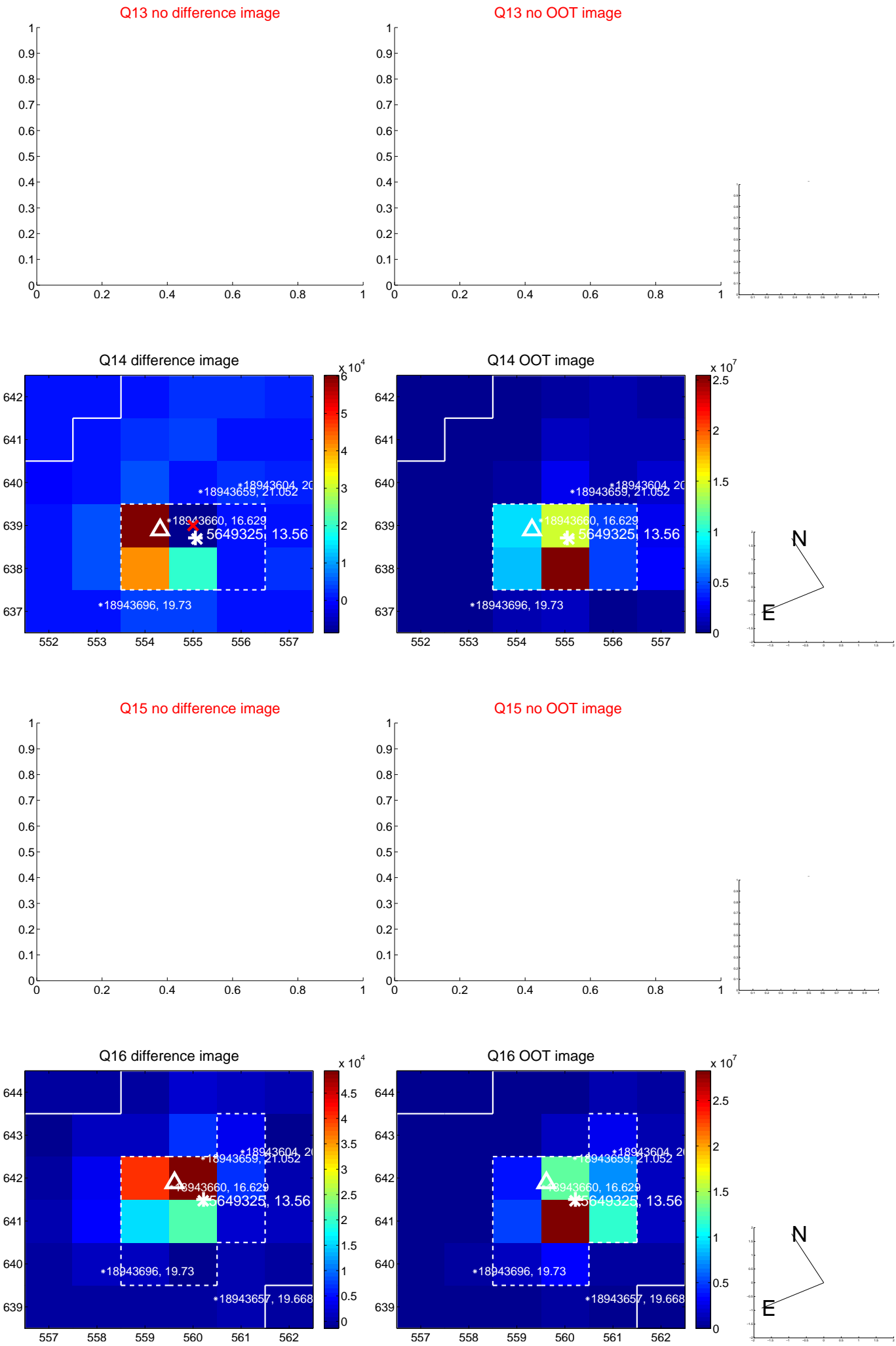
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



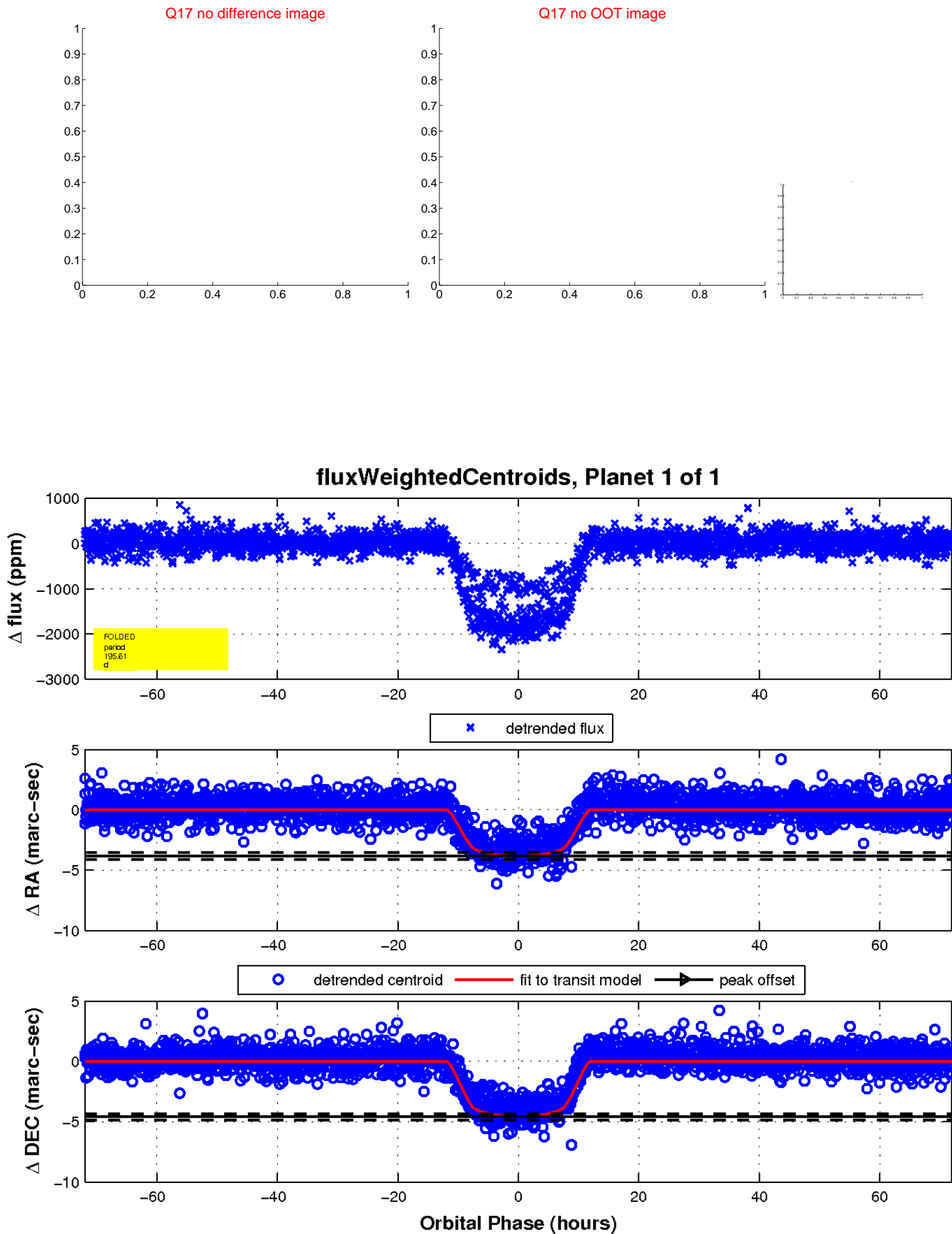
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

