

KIC 003449540

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})
003449540-01	OBS	4982.01	1.606008	132.492514	396336.1	4.978	31474.2	14220.1	5.06	5297	352.88	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003449540-01	OBS	FP	0.00	0	1	0	0	PLANET_IN_STAR—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED

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.

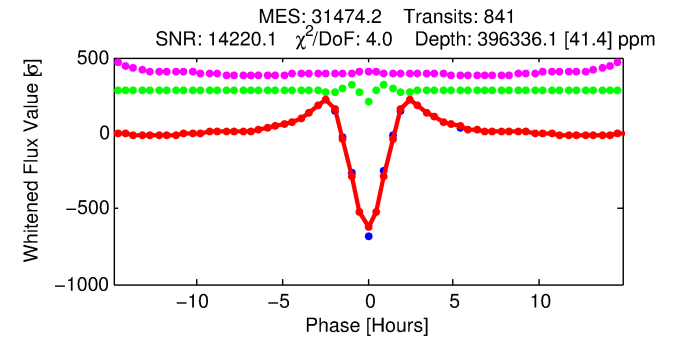
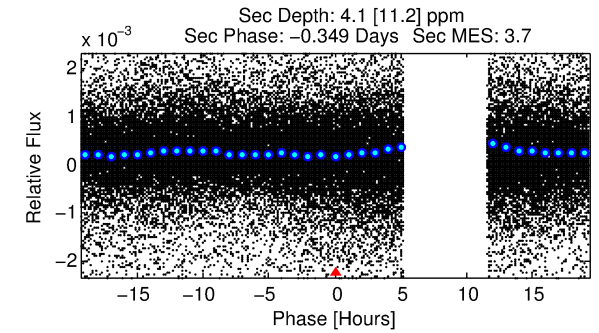
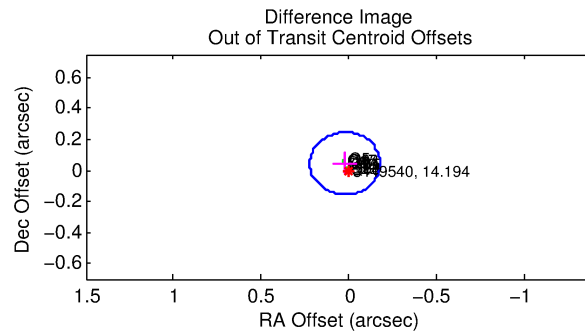
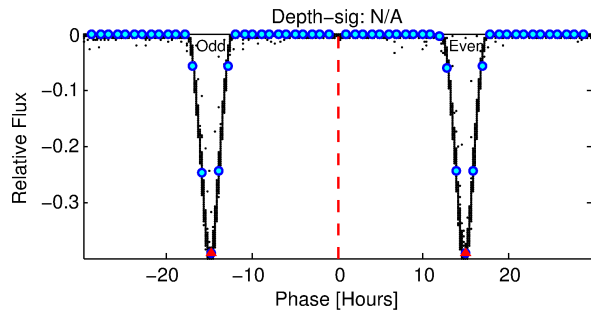
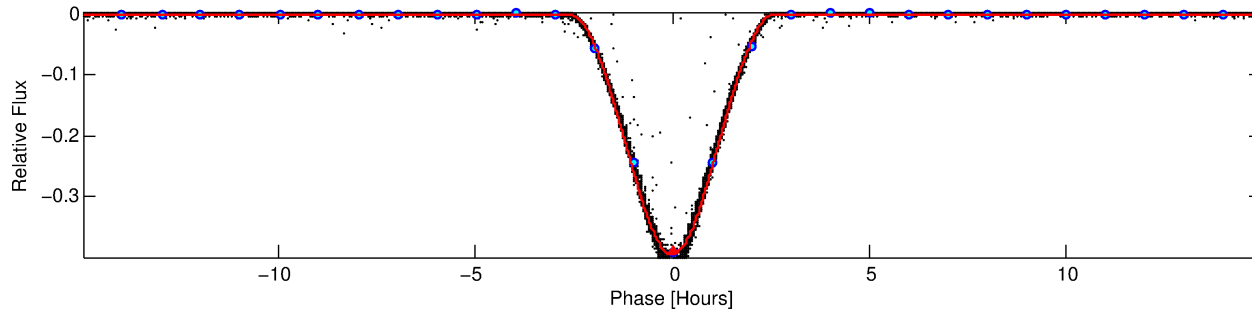
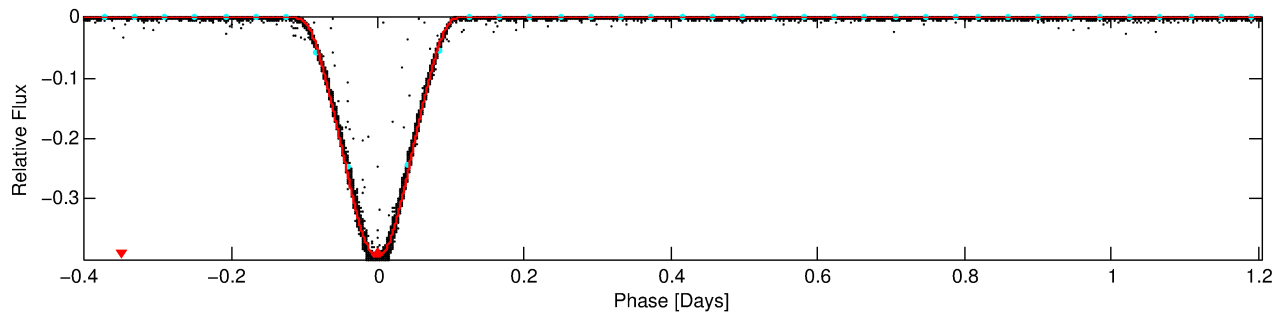
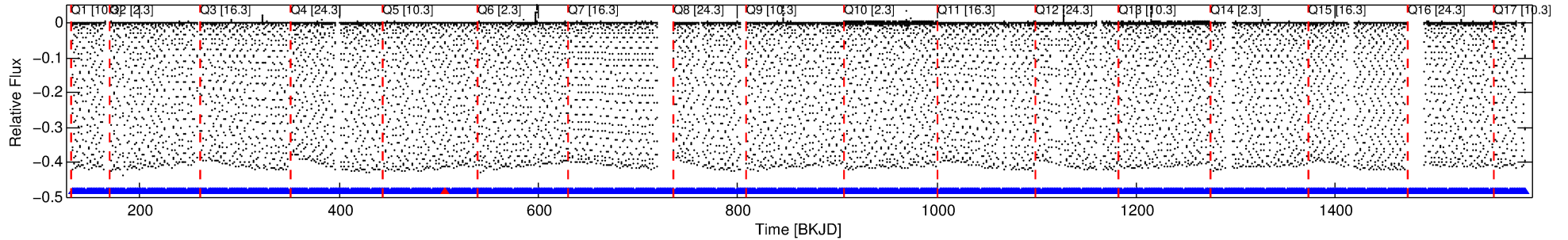
Ephemeris Match Information For 003449540-01

No Significant Match Found

DV One-Page Summary

KIC: 3449540 Candidate: 1 of 1 Period: 1.606 d
KOI: K04982.01 Corr: 0.992

Kp: 14.19 R*: 5.06 Rs Teff: 5297.0 K Logg: 2.91 Fe/H: -1.740



DV Fit Results:

Period = 1.60601 [0.00000] d
Epoch = 132.4925 [0.0000] BKJD
Rp/R* = 0.6392 [0.0011]
a/R* = 4.00 [0.00]
b = 0.48 [0.00]
Seff = N/A
Teq = N/A
Rp = 352.88 [110.63] Re
a = N/A
Ag = N/A
Teffp = N/A

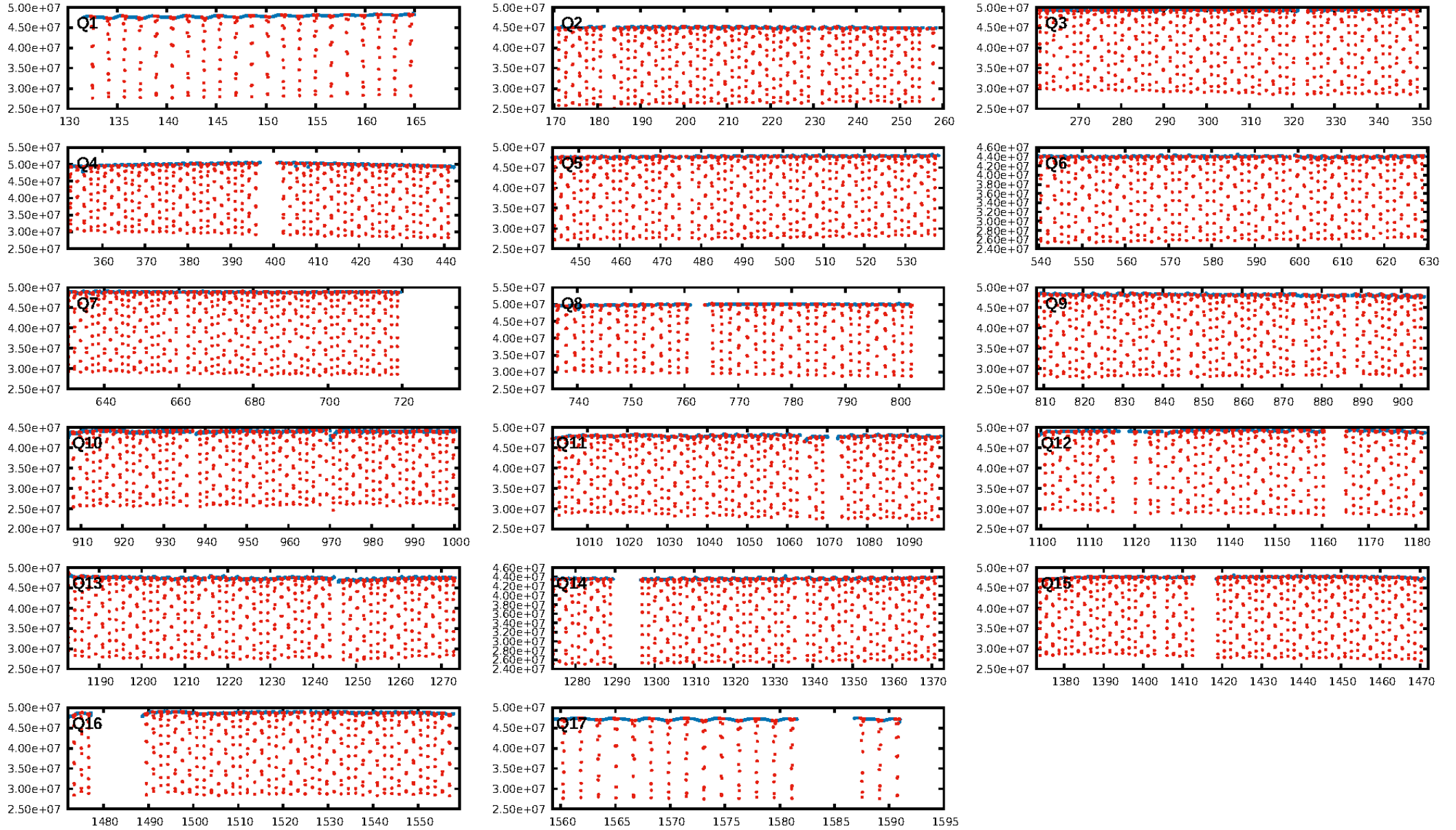
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [802/803]
GhostDiagnostic-chr: 1.399
Centroid-sig: 0.0%
Centroid-so: 0.218 arcsec [533.97σ]
OotOffset-rm: 0.051 arcsec [0.77σ]
KicOffset-rm: 0.033 arcsec [0.49σ]
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]

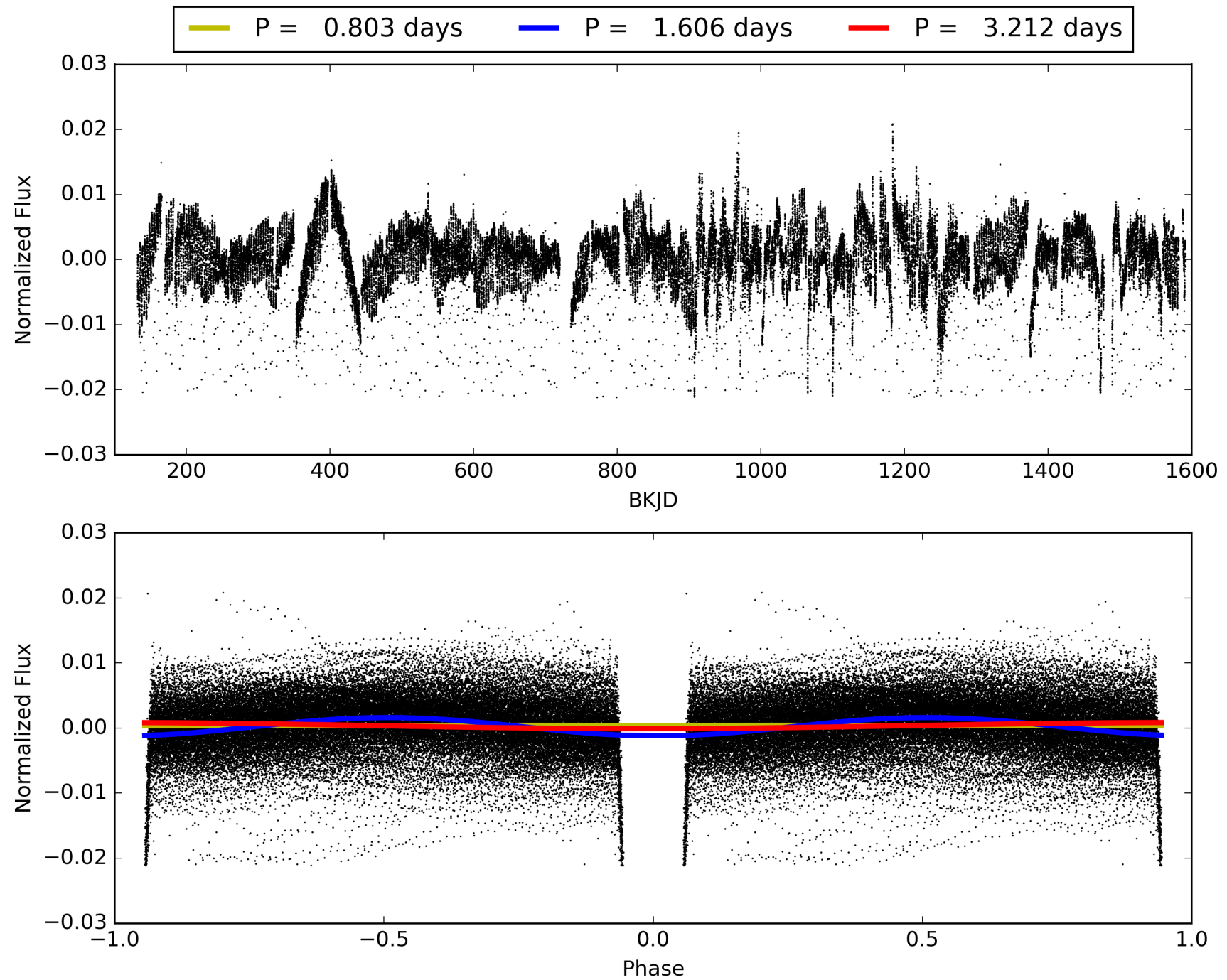
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:15:15 Z

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

TCE 003449540-01, PDC Light Curves

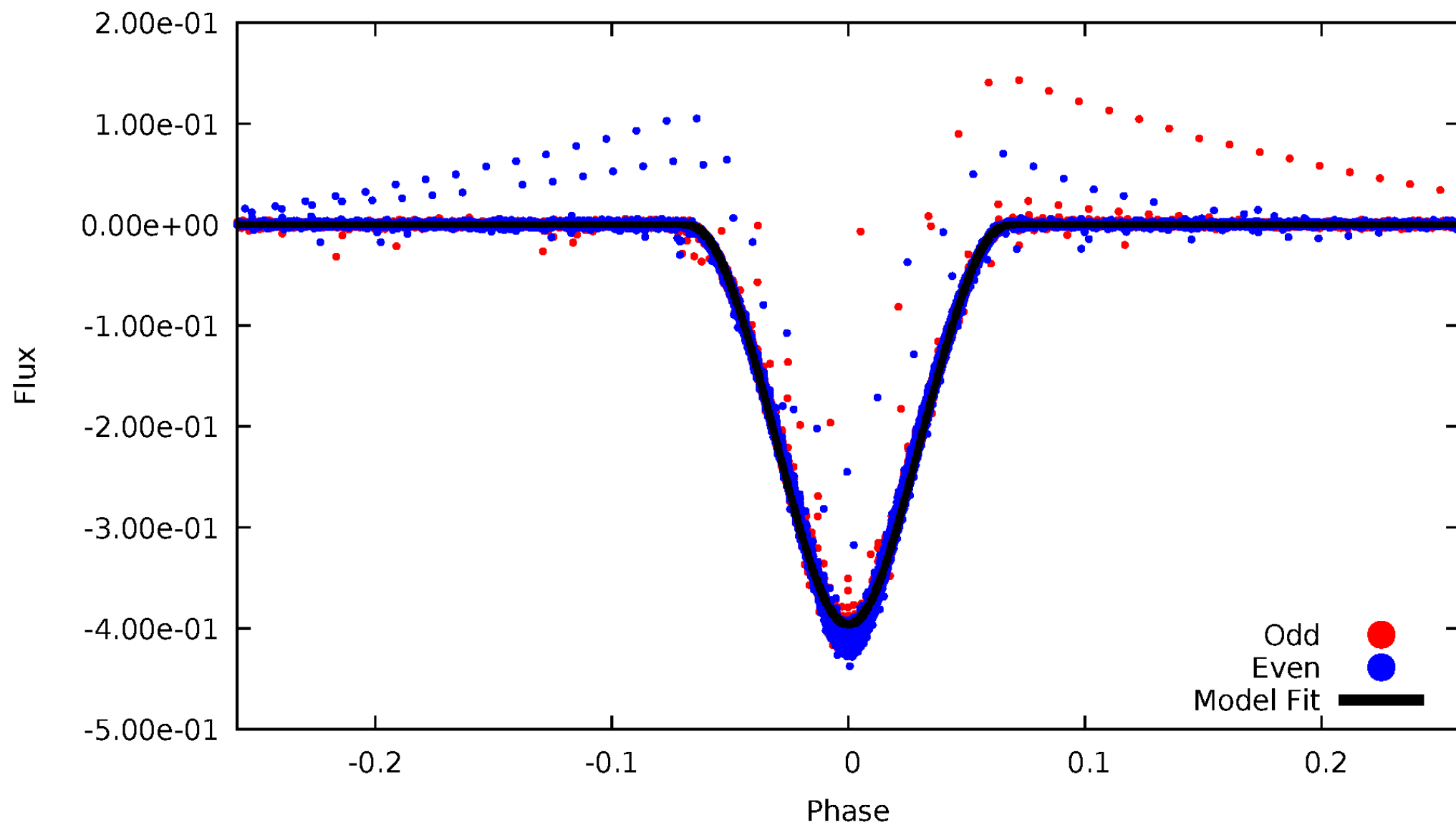


TCE 003449540-01



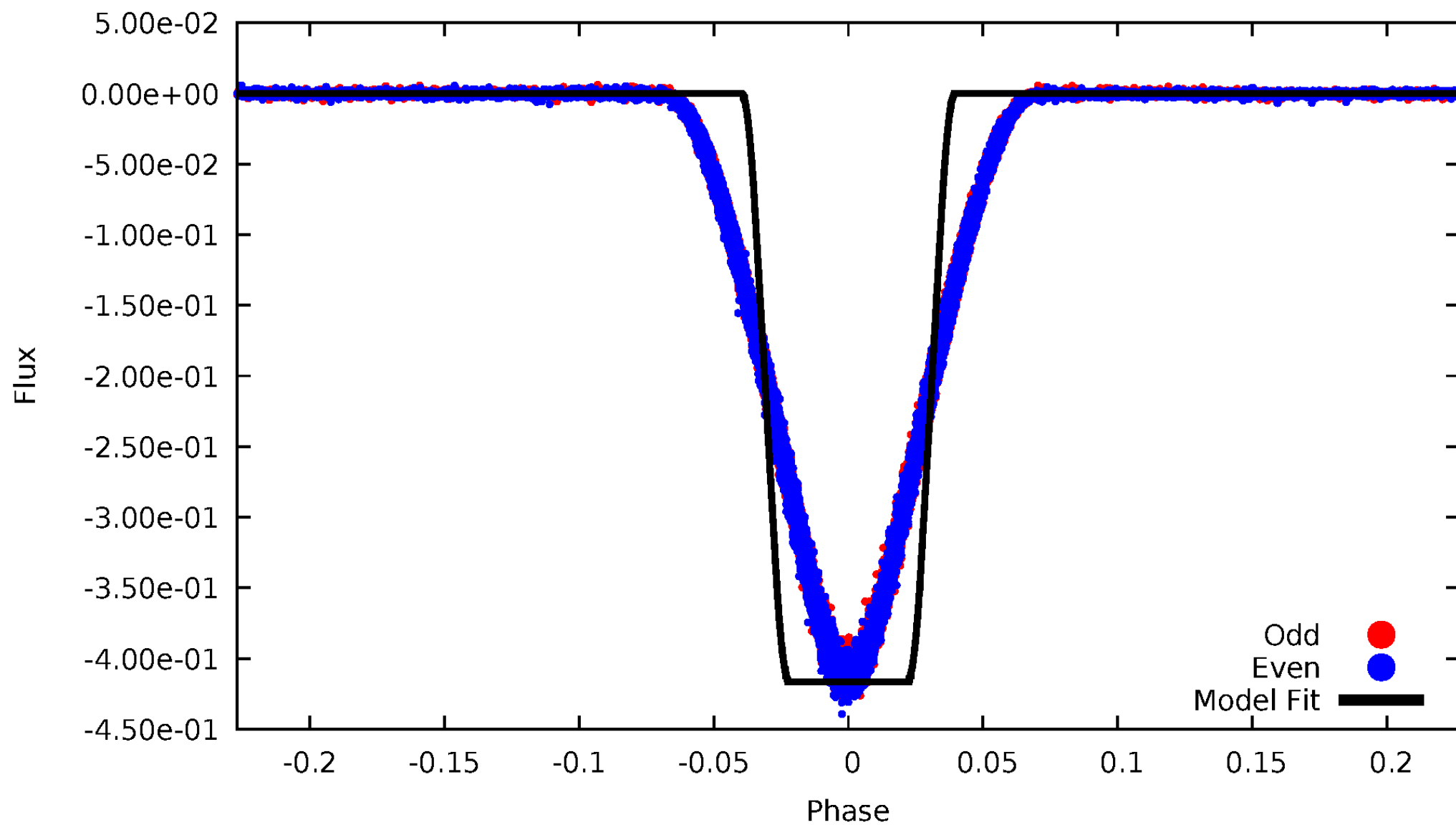
DV Odd/Even

TCE 003449540-01



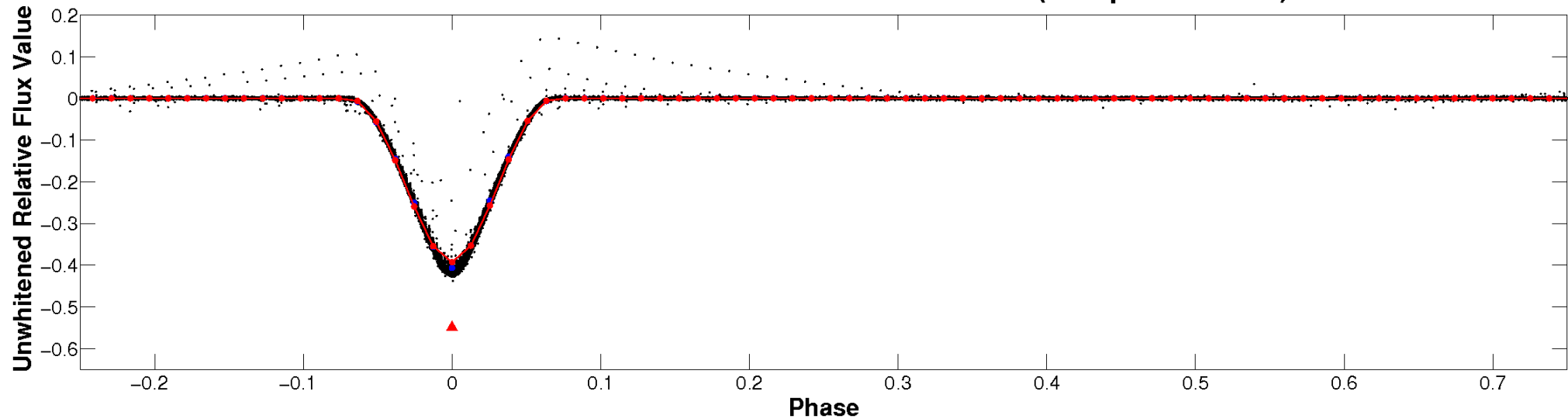
ALT Odd/Even

TCE 003449540-01

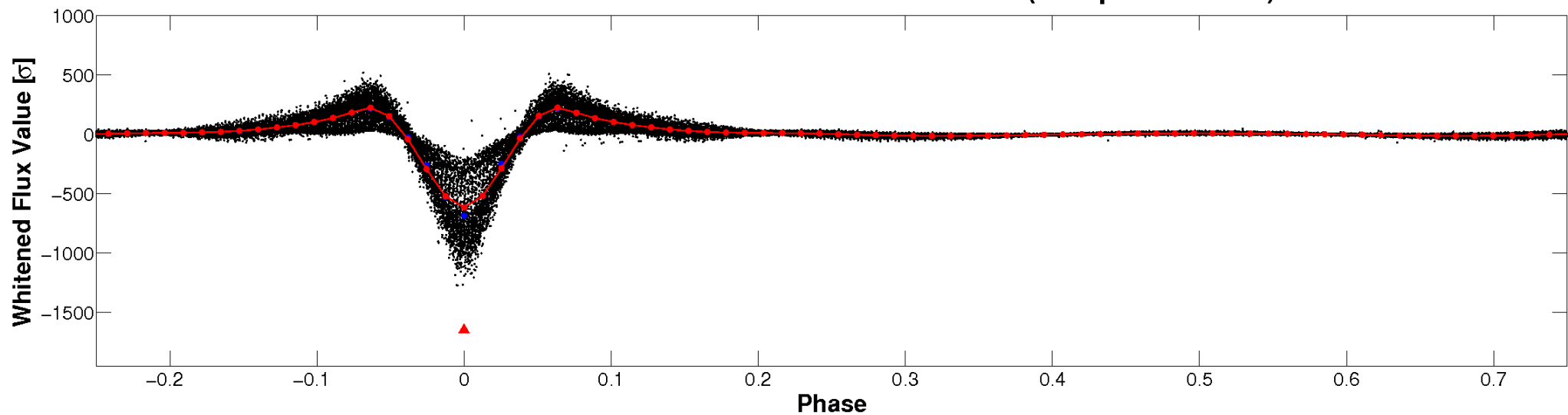


Non-Whitened Vs. Whitened Light Curve

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

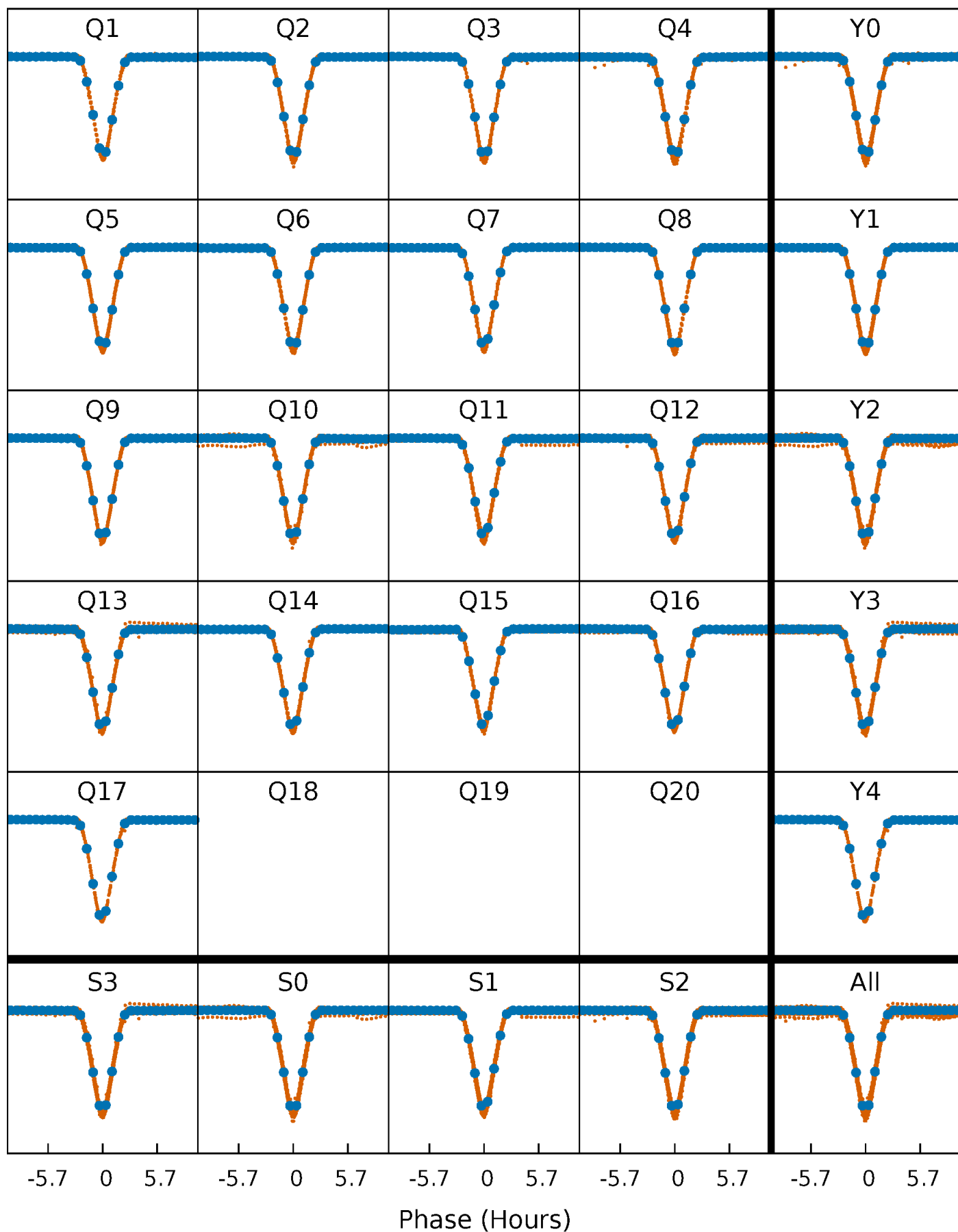


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



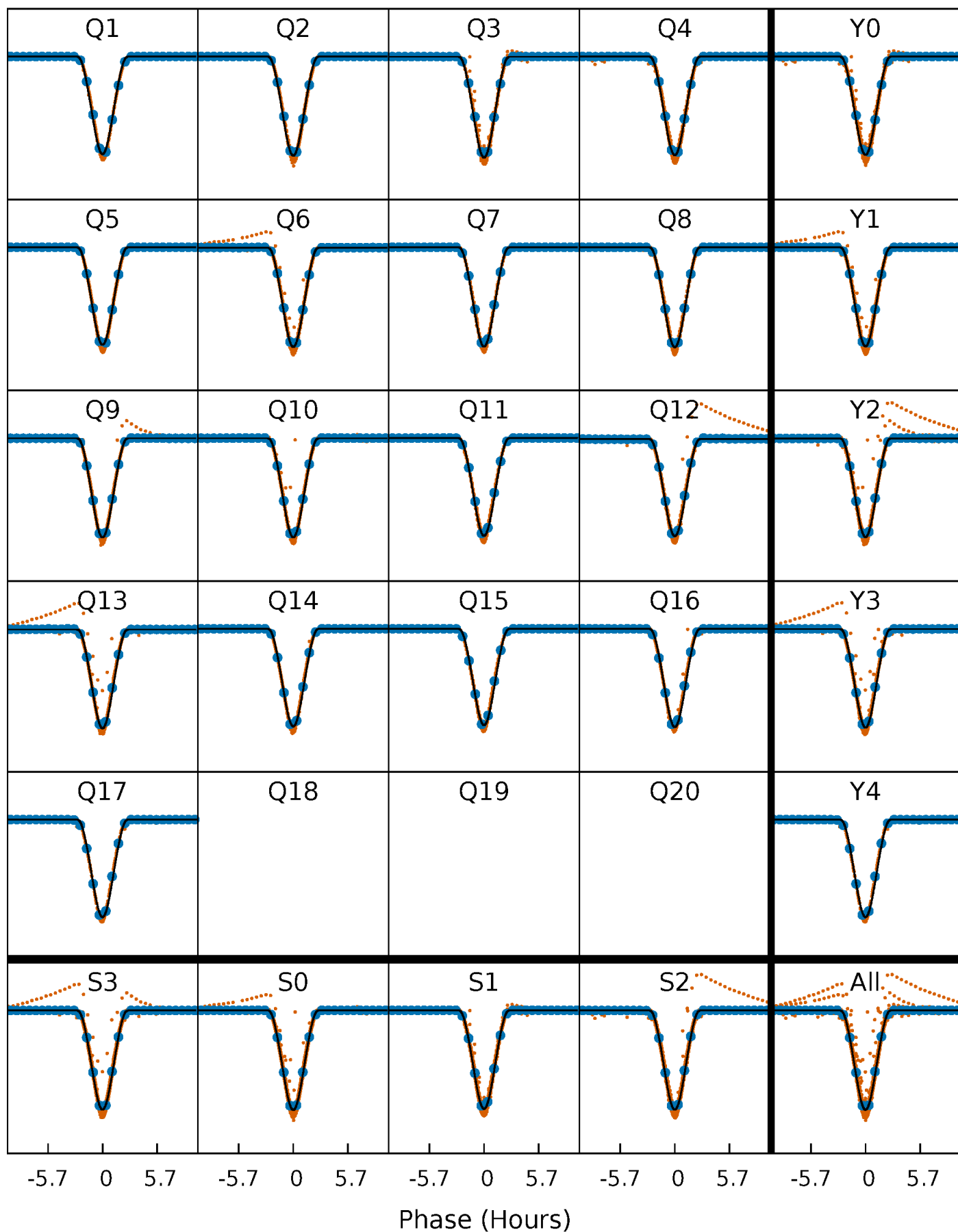
PDC Quarter-Phased Transit Curves

TCE 003449540-01 P= 1.606008 Days $T_0=132.492514$ (BKJD)



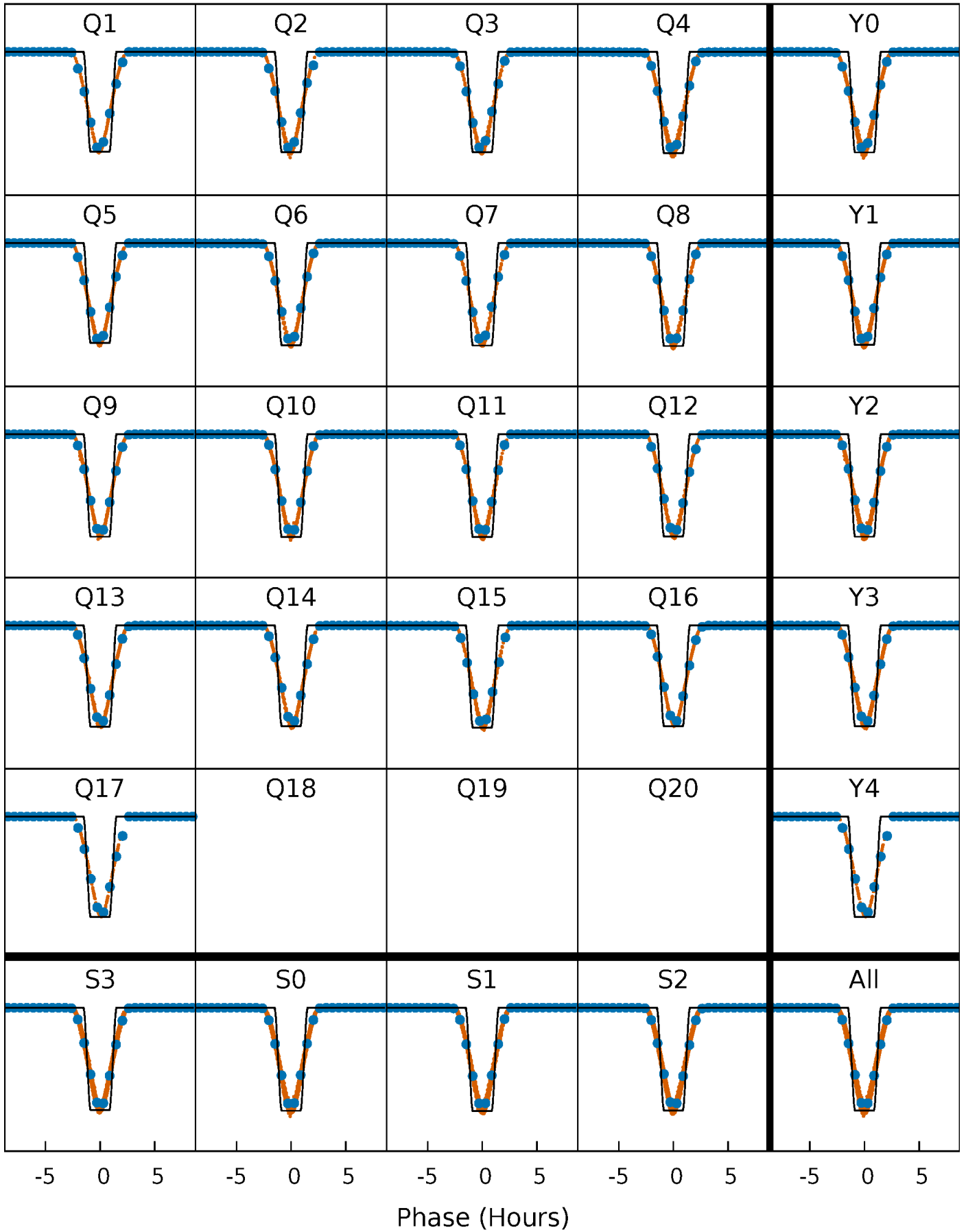
DV Quarter-Phased Transit Curves

TCE 003449540-01 P= 1.606008 Days $T_0=132.492514$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

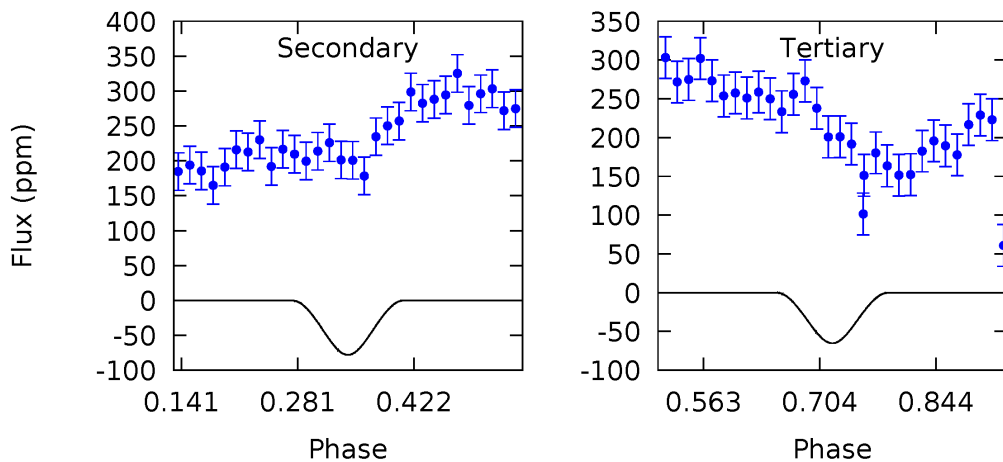
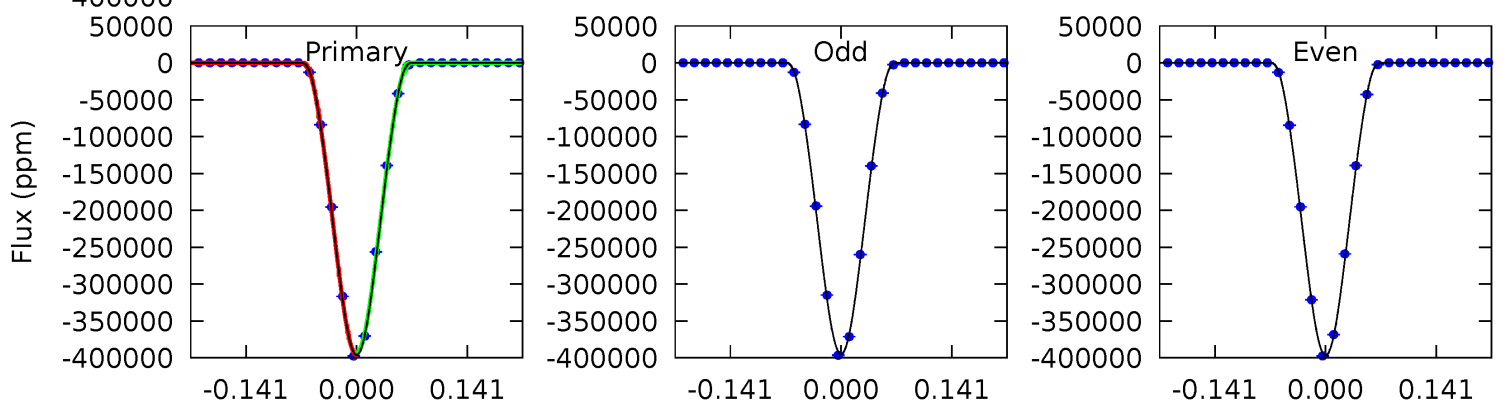
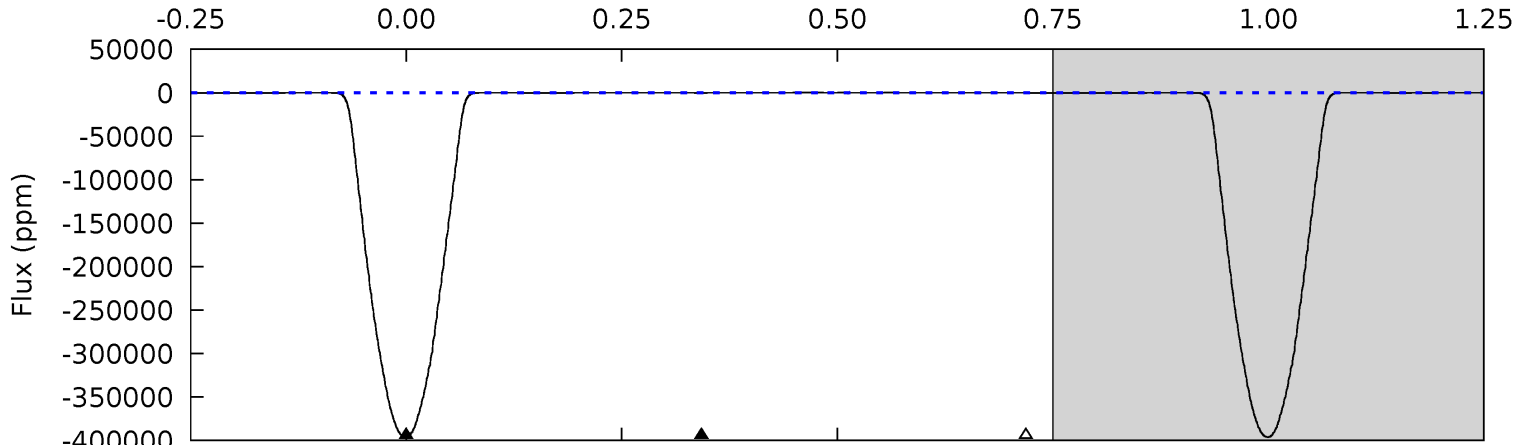
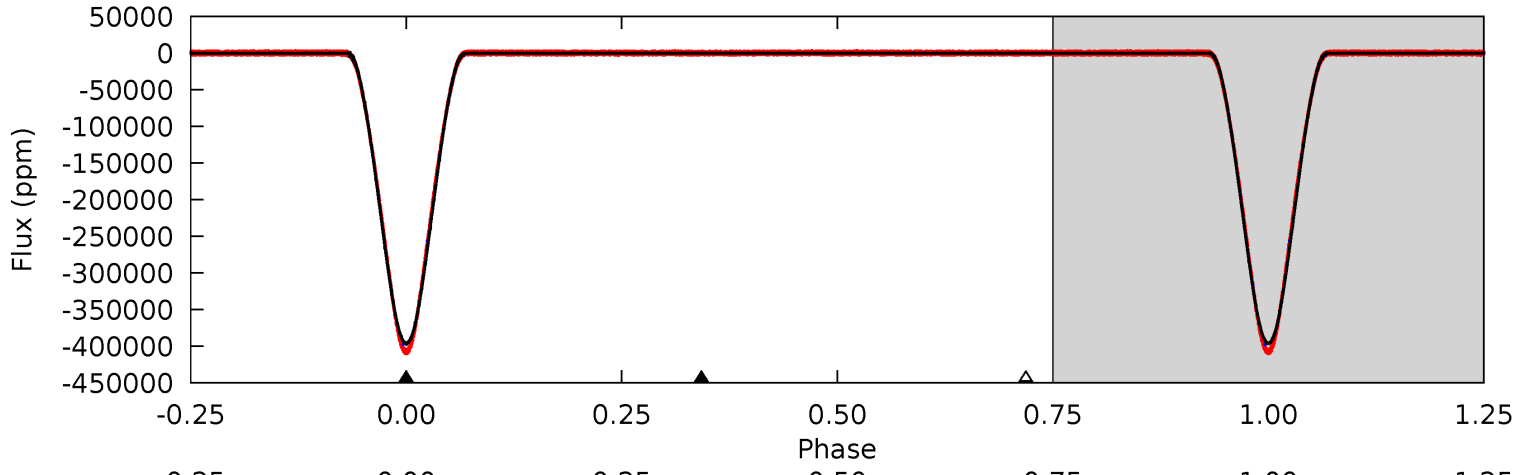
TCE 003449540-01 P= 1.605995 Days $T_0=132.497747$ (BKJD)



DV Model-Shift Uniqueness Test

003449540-01, P = 1.606008 Days, E = 130.886506 Days

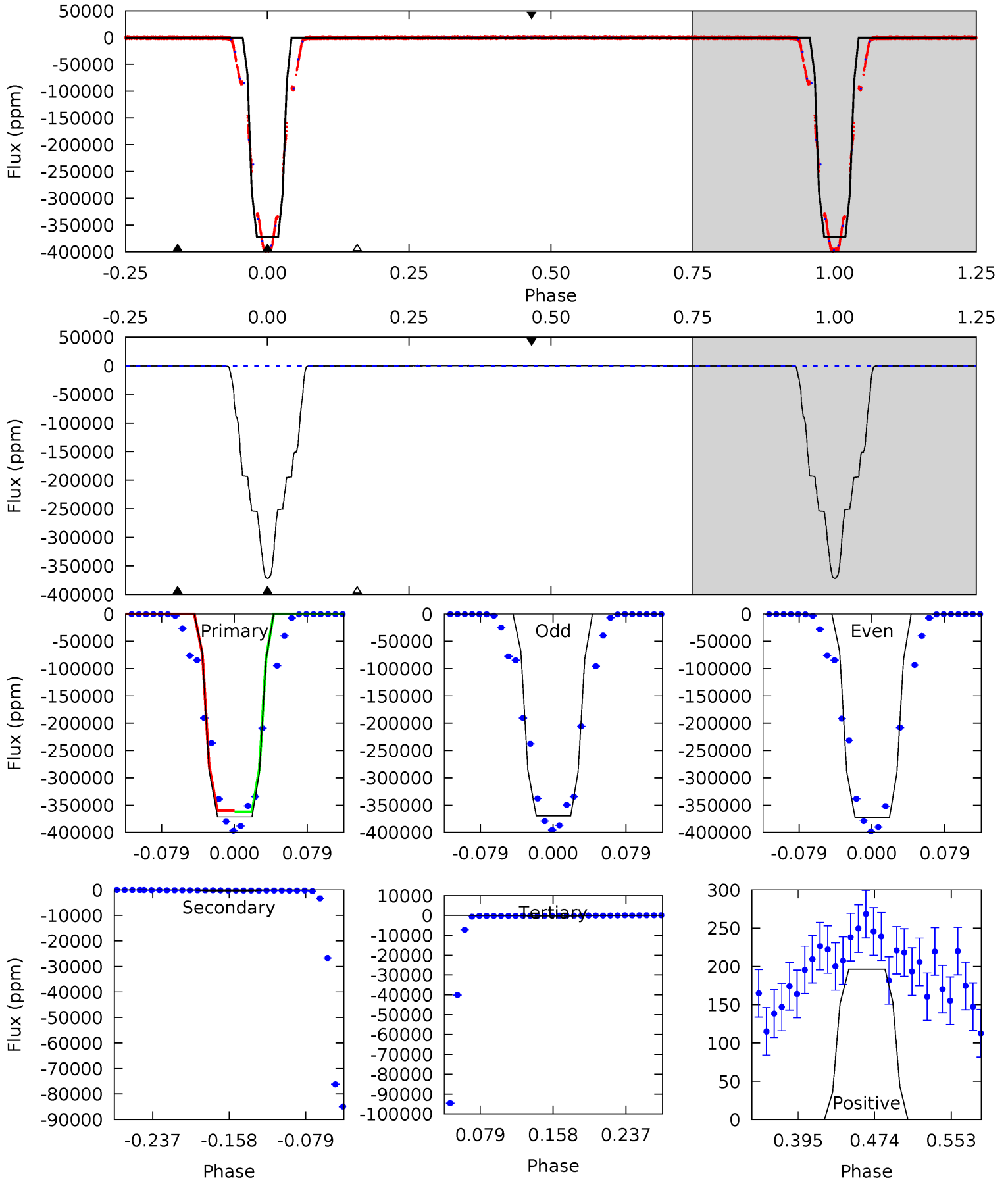
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28853	5.68	4.75	0	4.49	1.47	5.01	28848	28853	0.93	5.68	71.3	0.99	0.00	0



Alt Model-Shift Uniqueness Test

003449540-01, P = 1.605995 Days, E = 130.891752 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11333	12.5	9.92	5.99	4.61	1.76	4.88	11323	11327	2.56	6.50	44.1	1.00	0.00	0



Stellar Parameters For KIC 003449540

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5297^{+69}_{-37}	$2.909^{+0.121}_{-0.148}$	$-1.740^{+0.150}_{-0.150}$	$5.059^{+1.586}_{-0.680}$	$0.757^{+0.210}_{-0.015}$	$0.008^{+0.004}_{-0.004}$
	+1%/-1%	+4%/-5%	+9%/-9%	+31%/-13%	+28%/-2%	+52%/-44%
Source	SPE74	SPE74	SPE74	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003449540-01 / KOI 4982.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-78 ± 14	$357.48^{+60.63}_{-29.24}$	4713^{+302}_{-204}	-4113^{+132}_{-195}	$0.000^{+0.000}_{-0.000}$
Alt.	-410 ± 33	$360.24^{+56.40}_{-29.86}$	4696^{+288}_{-201}	-4103^{+130}_{-185}	$0.001^{+0.000}_{-0.000}$

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 $A_{obs} \gg 1.0$

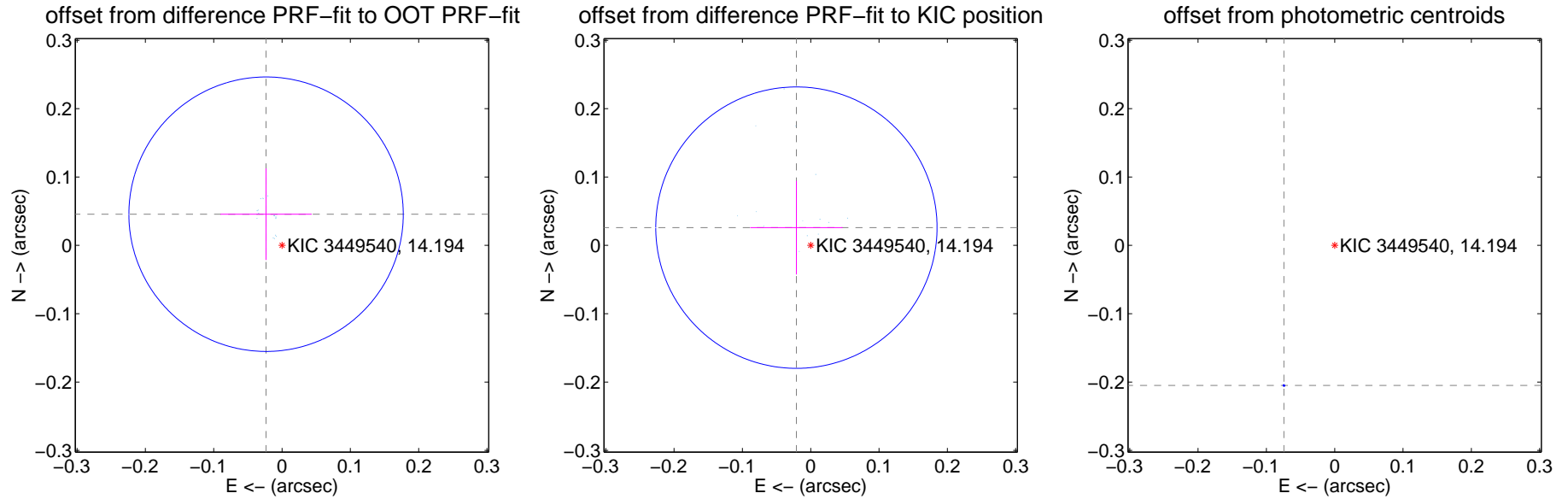
DV Centroid Data

Supplemental centroid analysis for 003449540-01. Kepler magnitude: 14.19. Transit SNR 14220.12

There are 17 quarters with good PRF difference image offsets

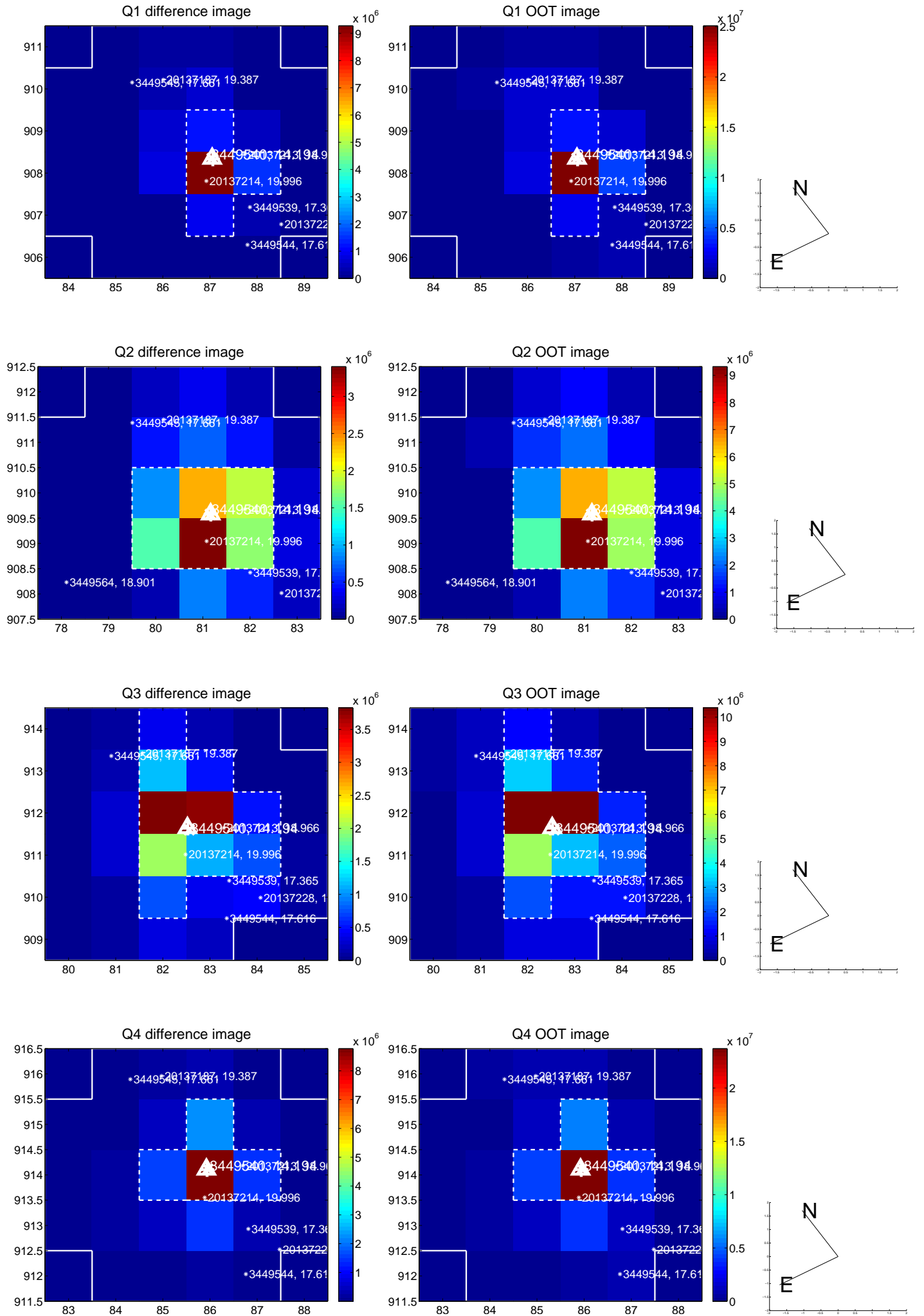
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.051 ± 0.067	0.77	0.023 ± 0.067	0.046 ± 0.067
PRF-fit source offset from KIC position	0.033 ± 0.069	0.49	0.021 ± 0.068	0.026 ± 0.069
photometric centroid source offset	0.22 ± 0.00	533.97	0.07 ± 0.00	-0.20 ± 0.00

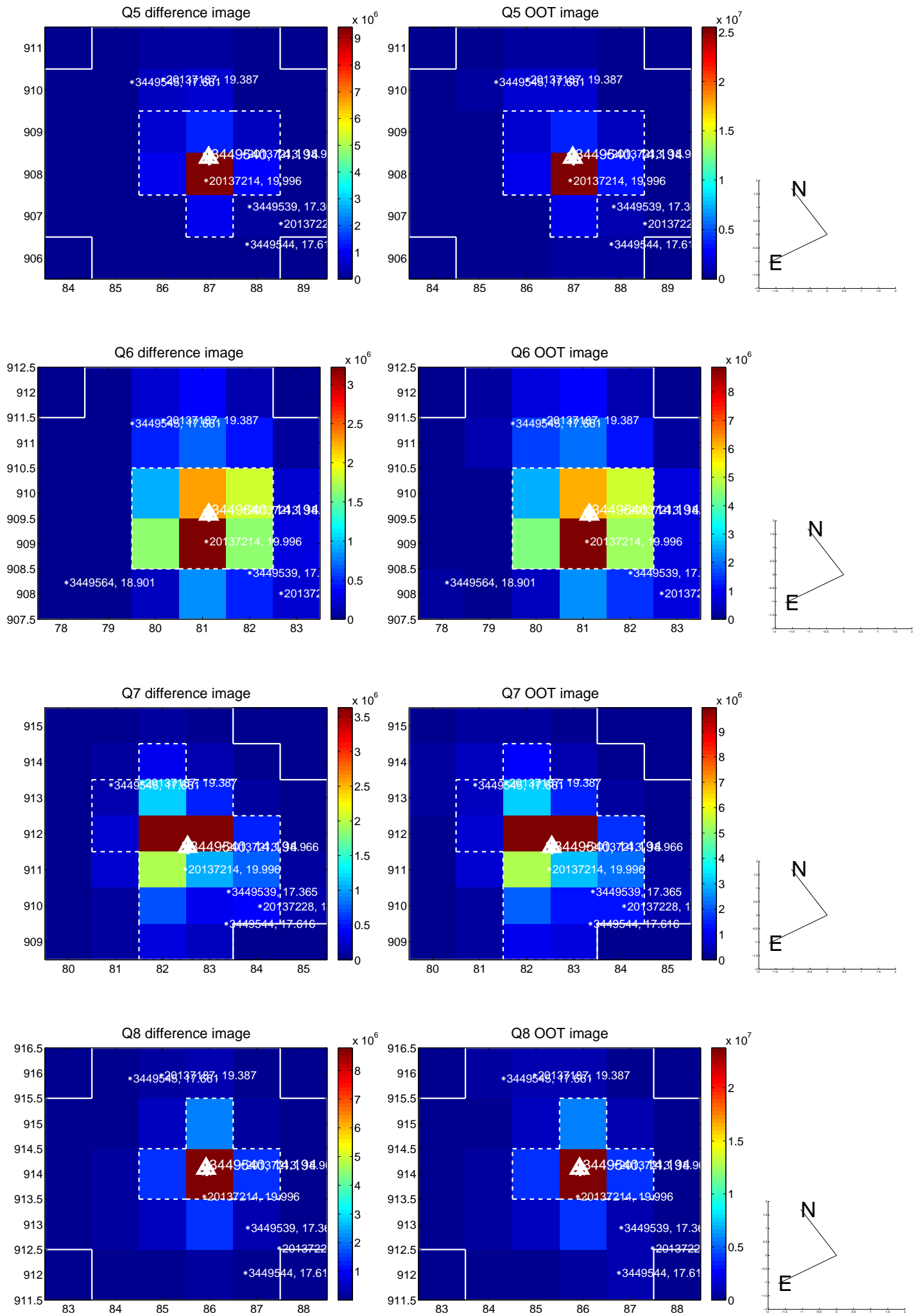


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

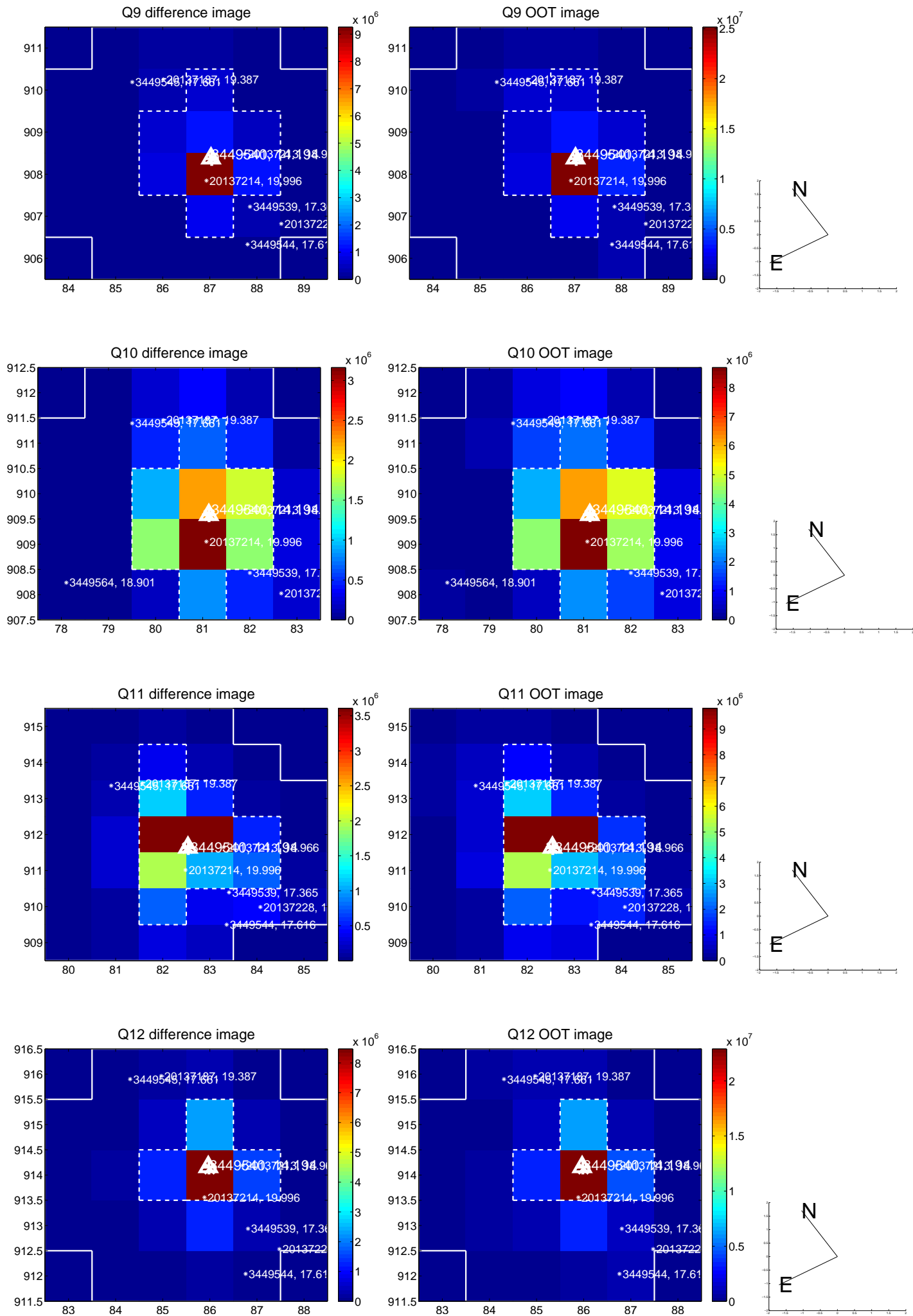
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



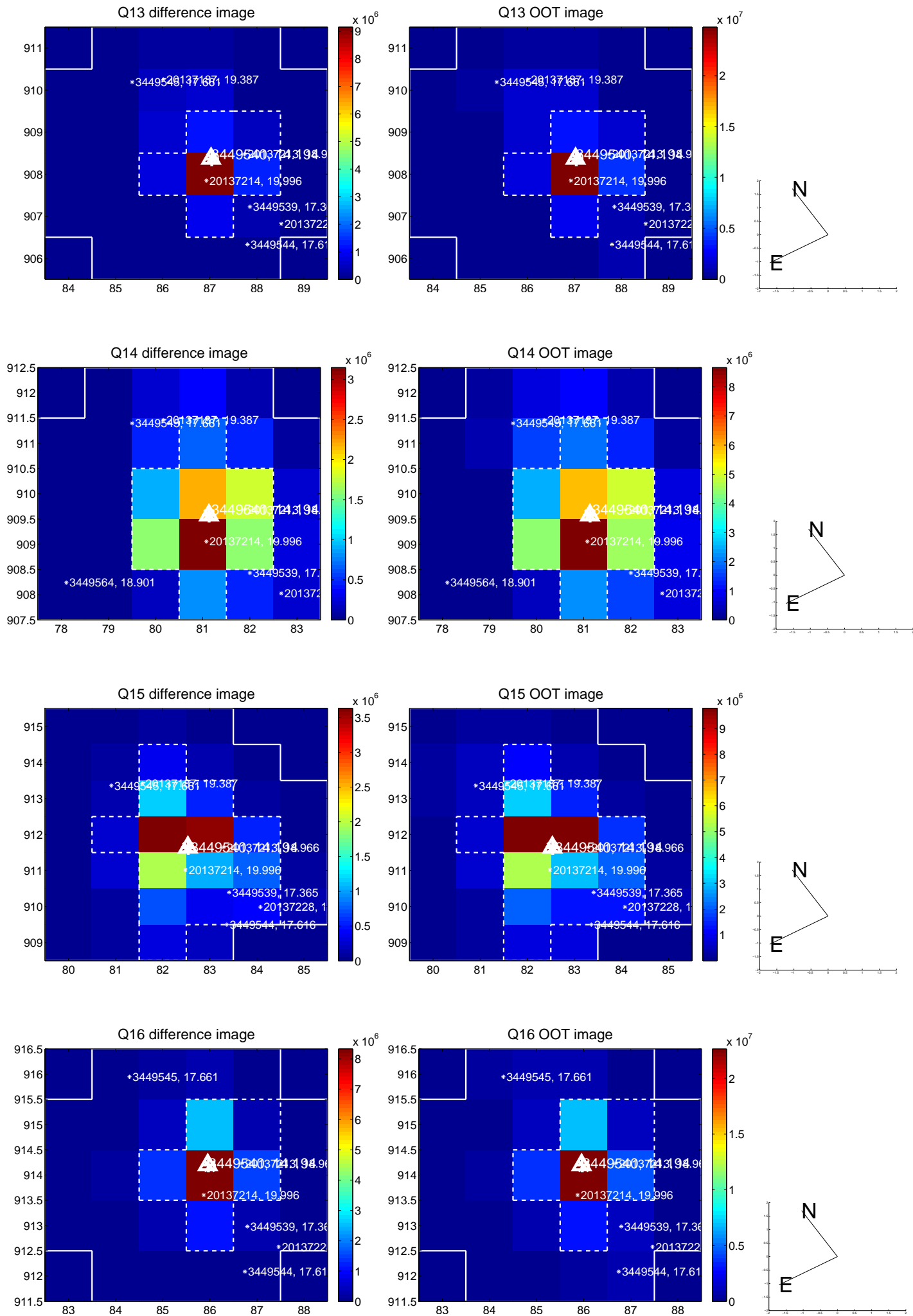
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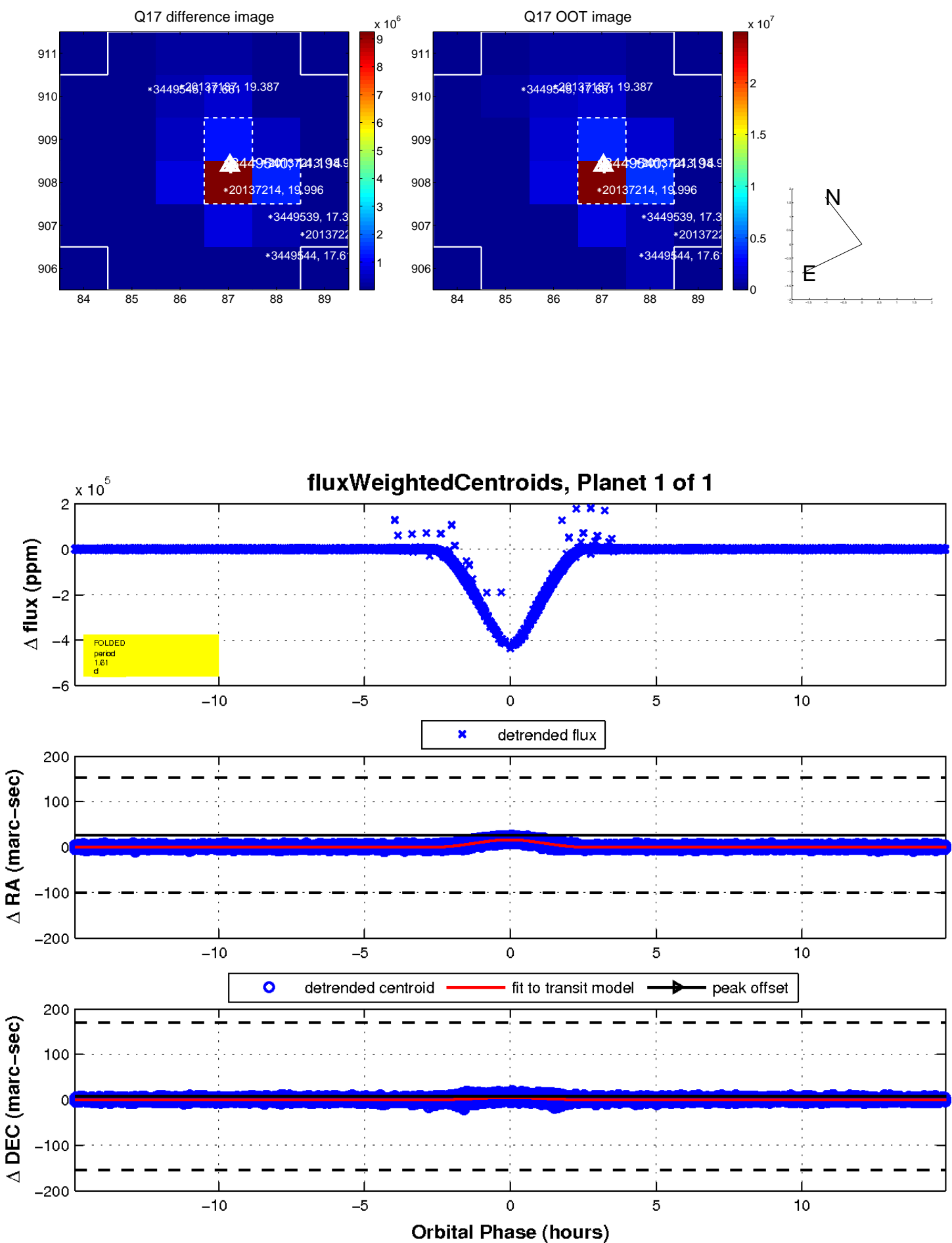
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

