

KIC 005649206

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})
005649206-01	OBS	3636.01	2.446746	131.517781	398820.6	5.087	2133.0	1324.4	1.00	5780	70.01	791.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005649206-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_KIC_POS

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.

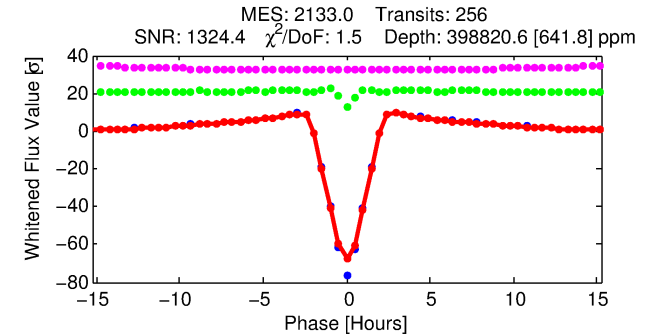
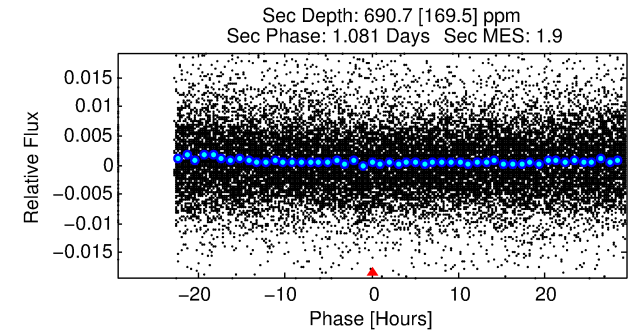
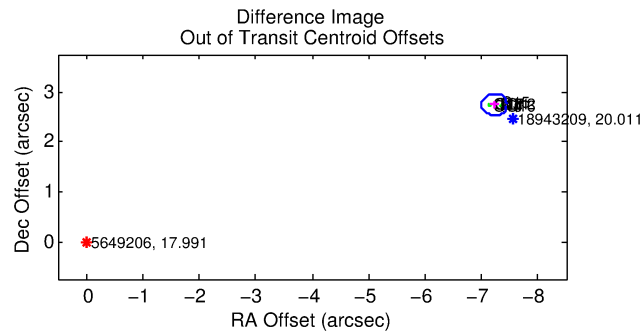
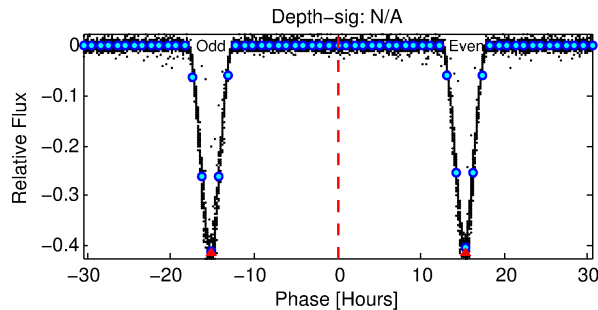
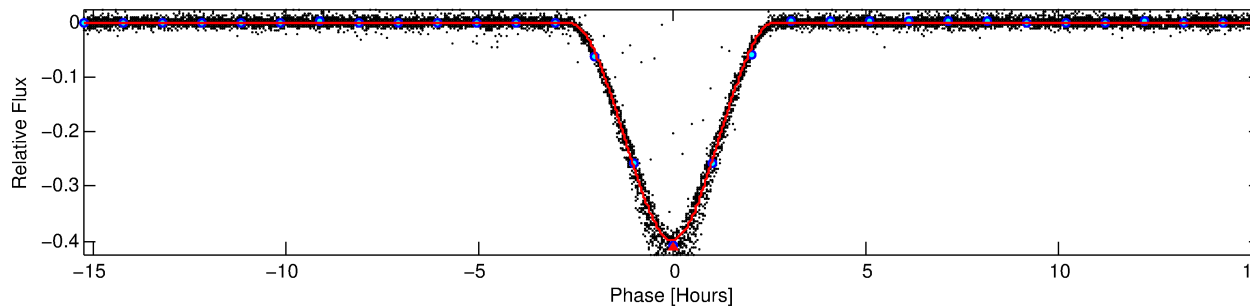
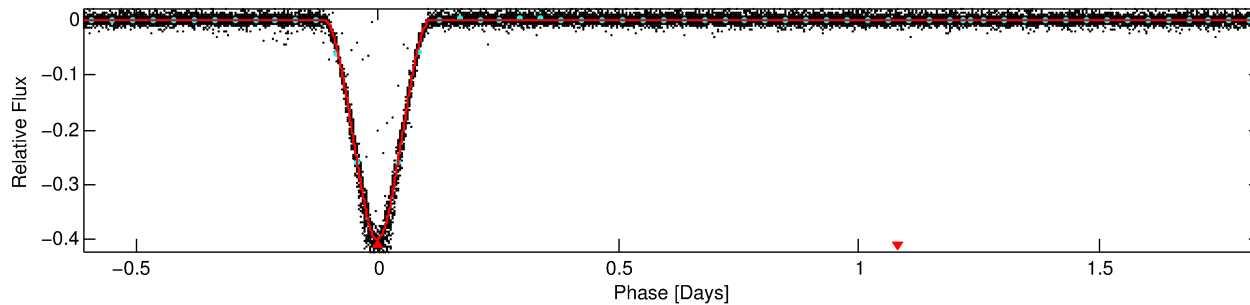
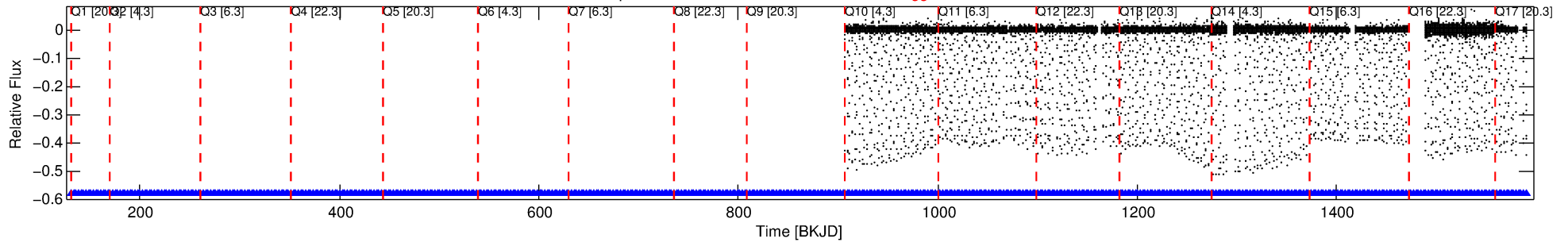
Ephemeris Match Information For 005649206-01

No Significant Match Found

DV One-Page Summary

KIC: 5649206 Candidate: 1 of 1 Period: 2.447 d
KOI: K03636.01 Corr: 0.990

Kp: 17.99 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 2.44675 [0.00000] d
Epoch = 131.5178 [0.0001] BKJD
Rp/R* = 0.6415 [0.0205]
a/R* = 5.85 [0.04]
b = 0.49 [0.04]
Seff = 791.57 [0.00]
Teq = 1353 [0] K
Rp = 70.01 [2.24] Re
a = 0.0355 [0.0000] AU
Ag = 0.10 [0.02] [-36.32σ]
Teffp = 1170 [74] K [-2.46σ]

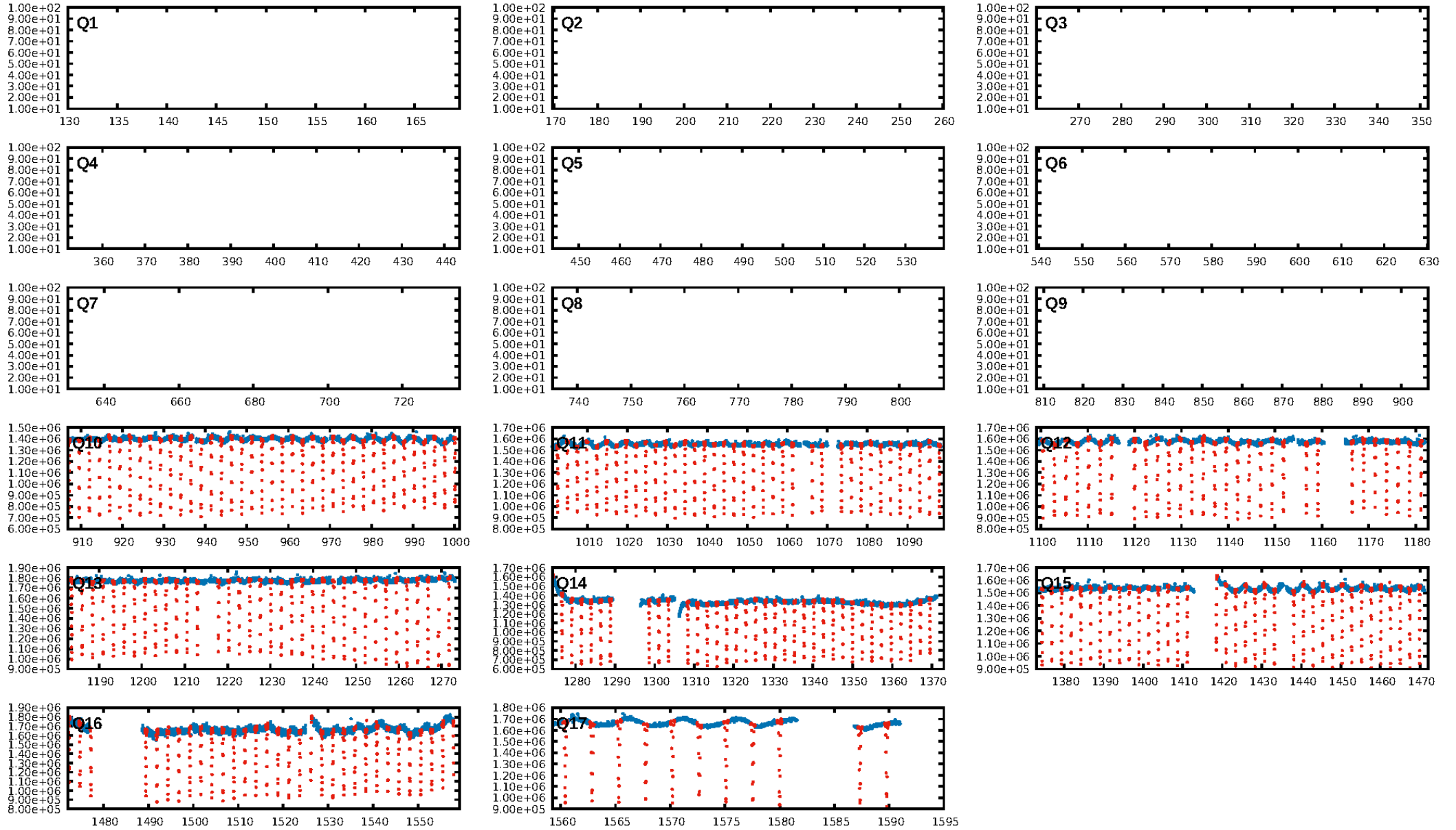
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [245/245]
GhostDiagnostic-chr: 1.602
Centroid-sig: 0.0%
Centroid-so: 4.080 arcsec [3046.88σ]
OotOffset-rm: 7.726 arcsec [104.98σ]
KicOffset-rm: 0.281 arcsec [3.95σ]
OotOffset-st: 2/2/2/2 [8]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

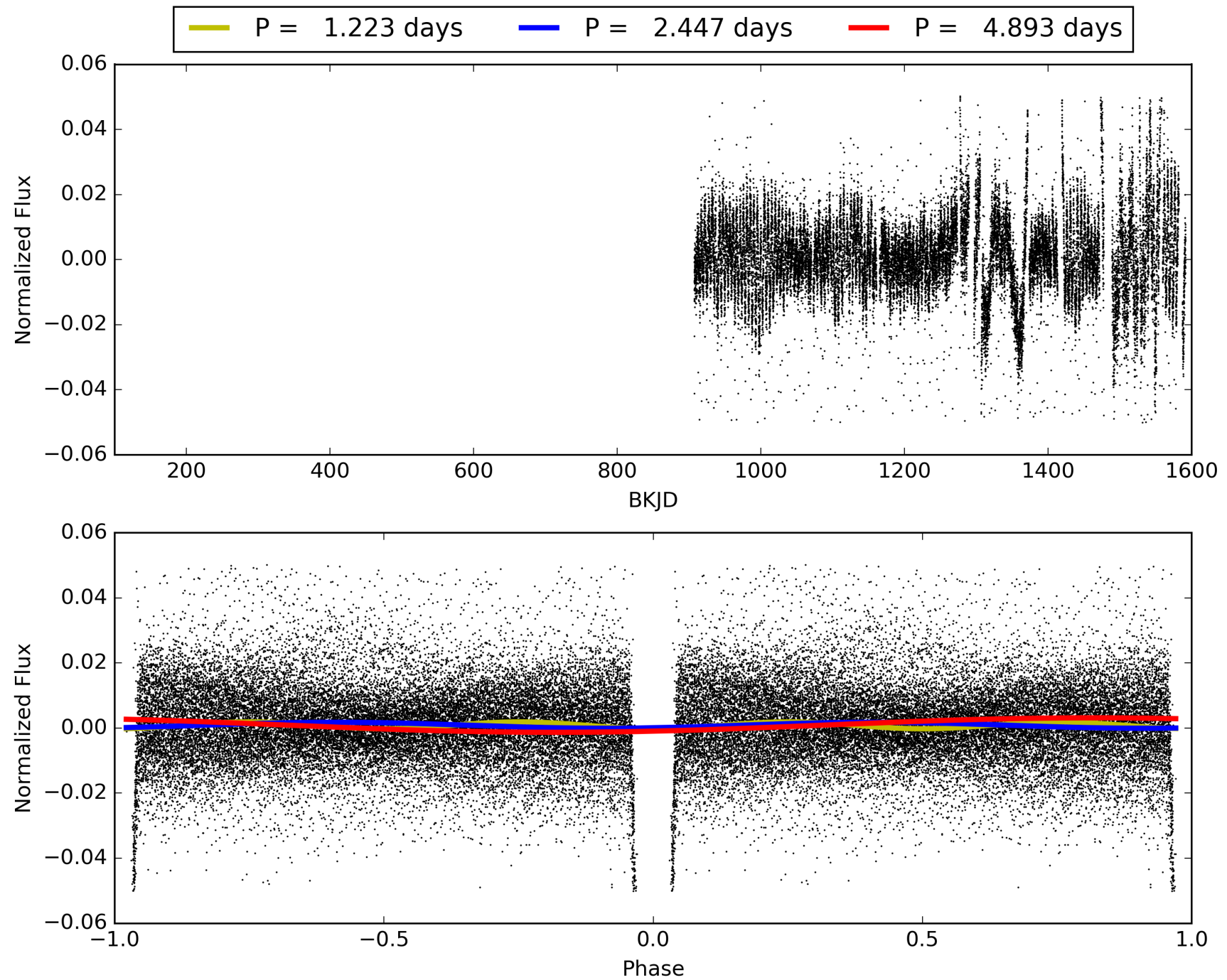
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:15:44 Z

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

TCE 005649206-01, PDC Light Curves

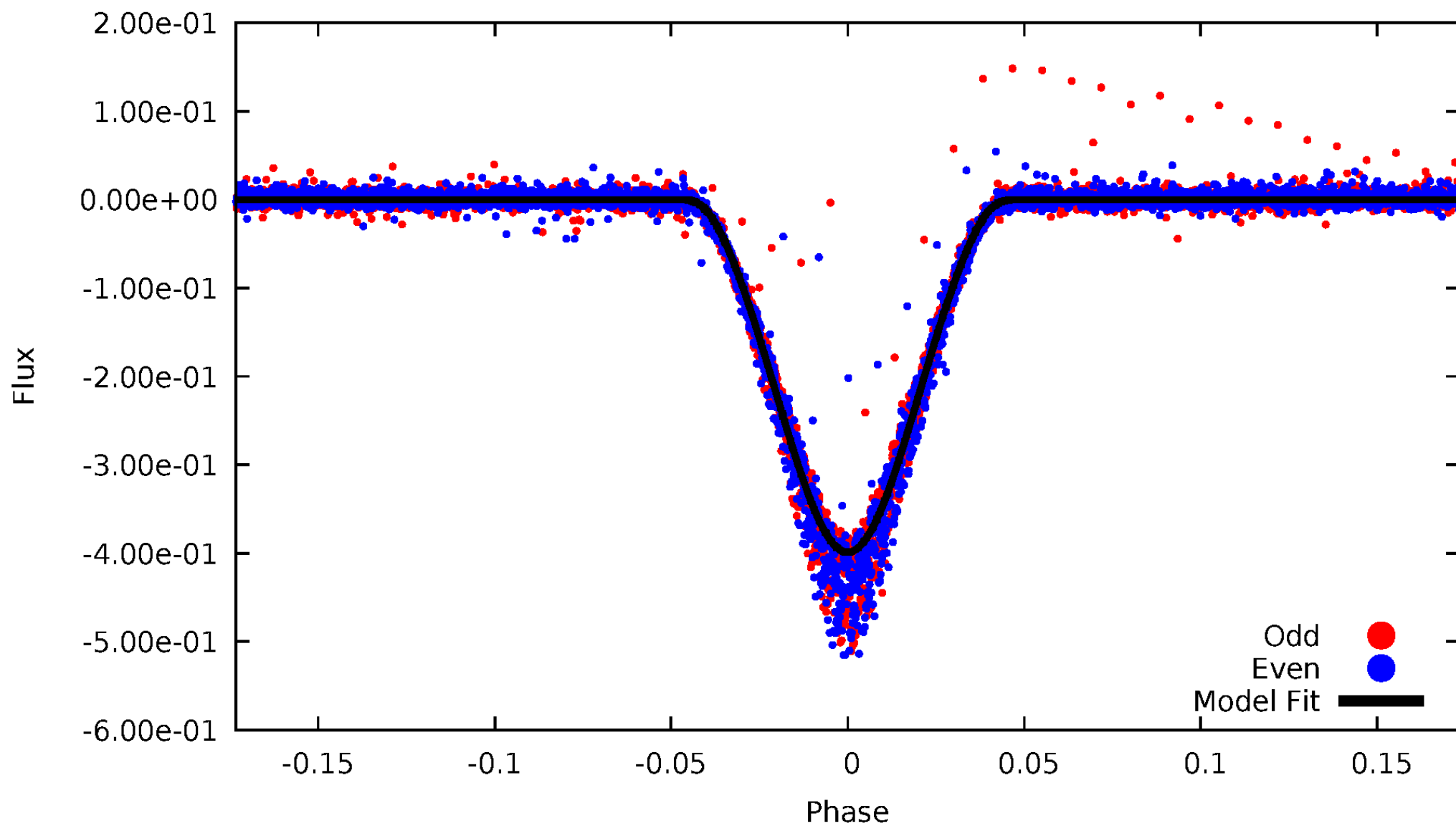


TCE 005649206-01



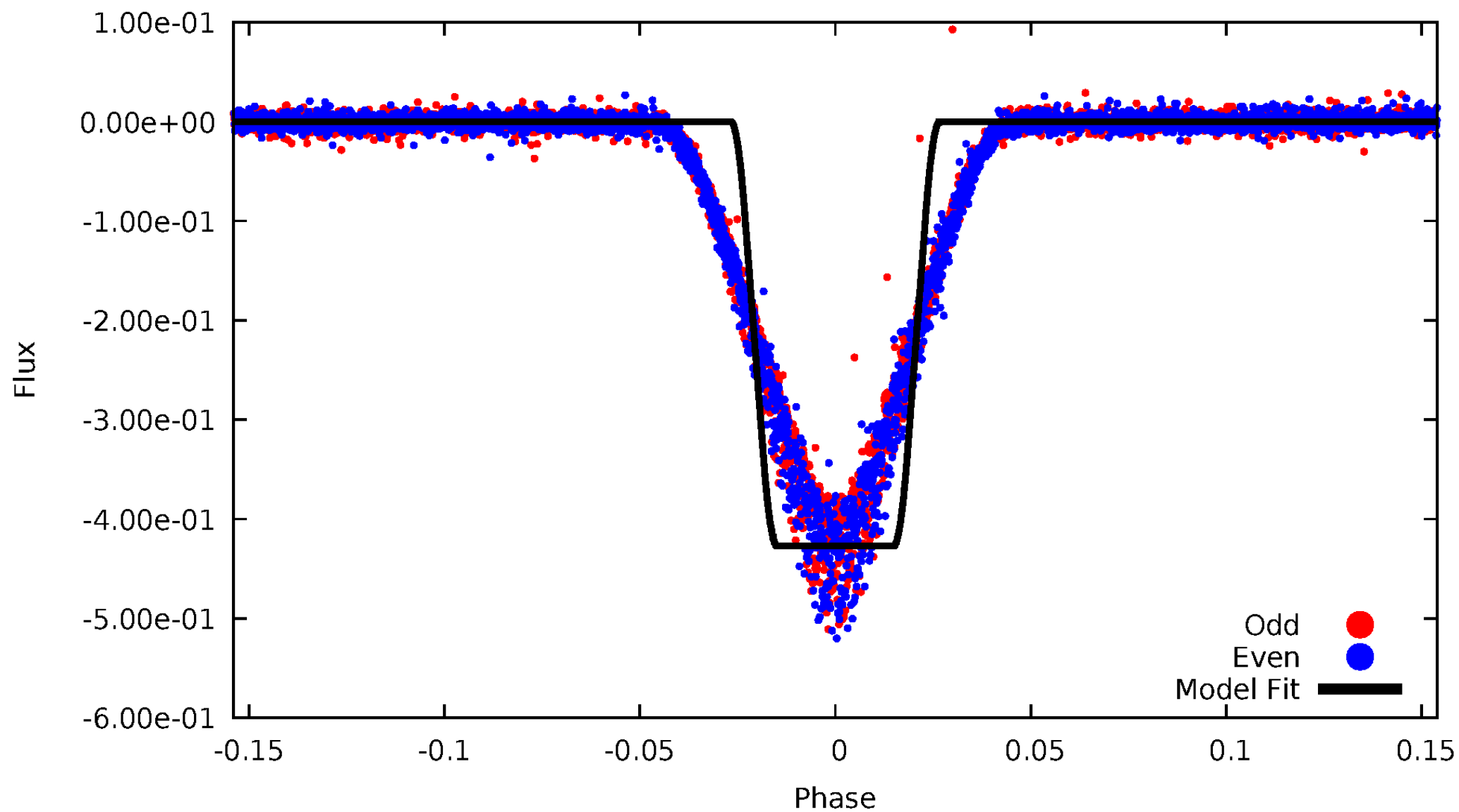
DV Odd/Even

TCE 005649206-01



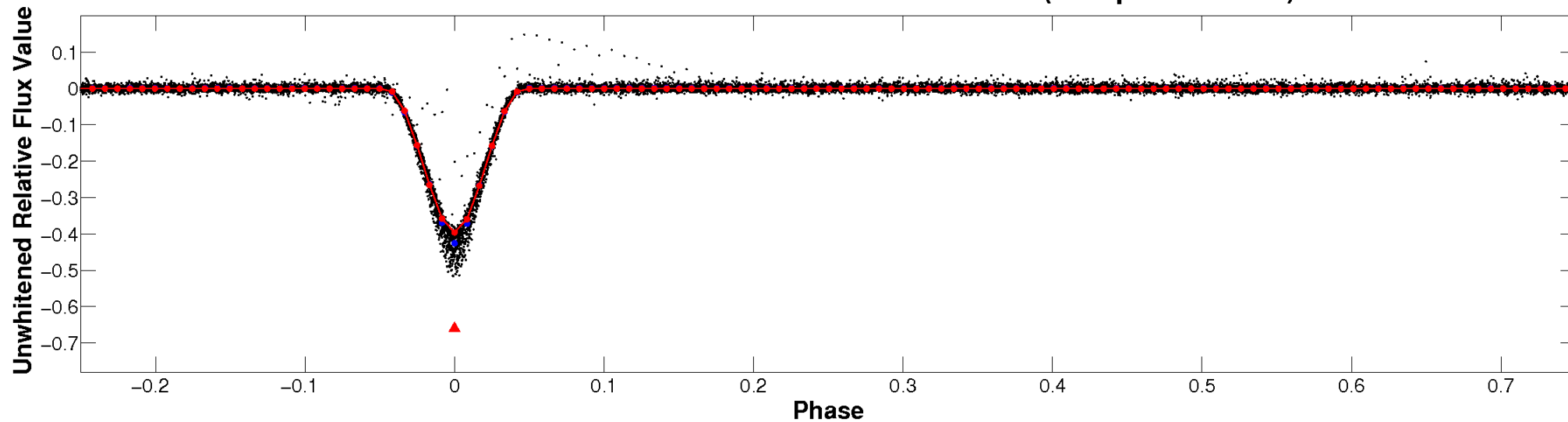
ALT Odd/Even

TCE 005649206-01

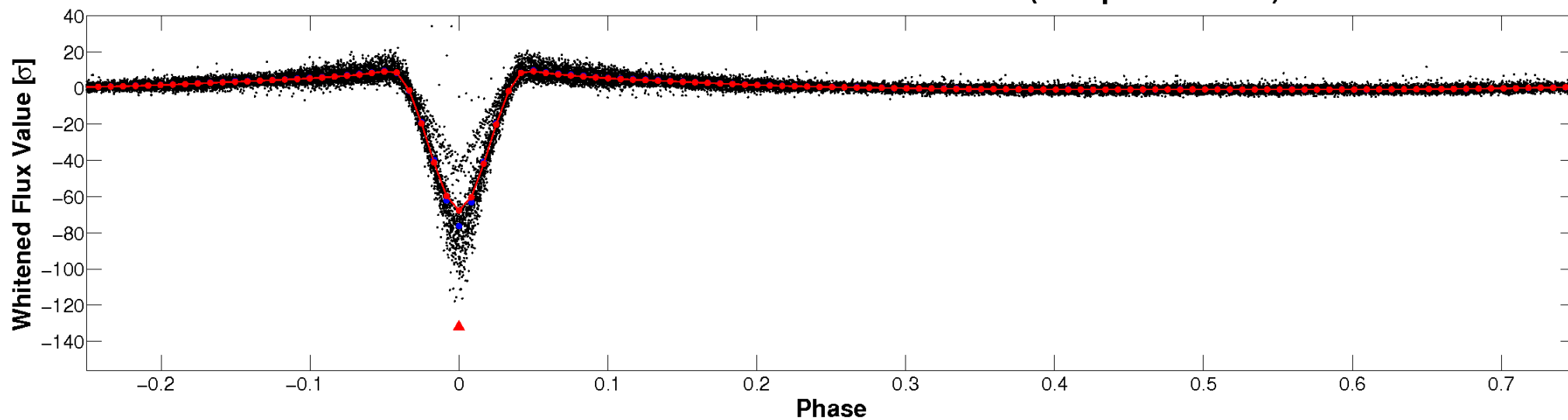


Non-Whitened Vs. Whitened Light Curve

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

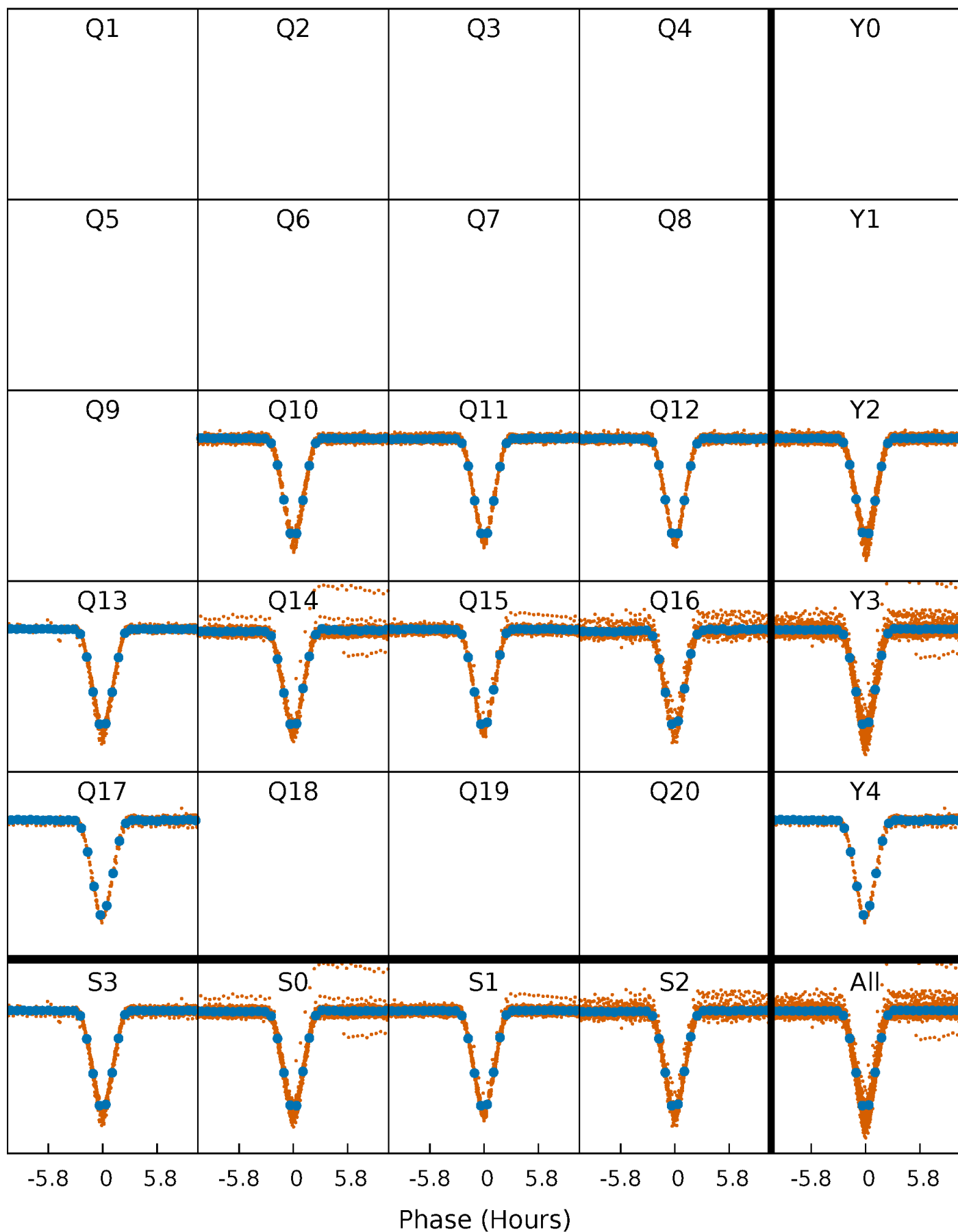


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



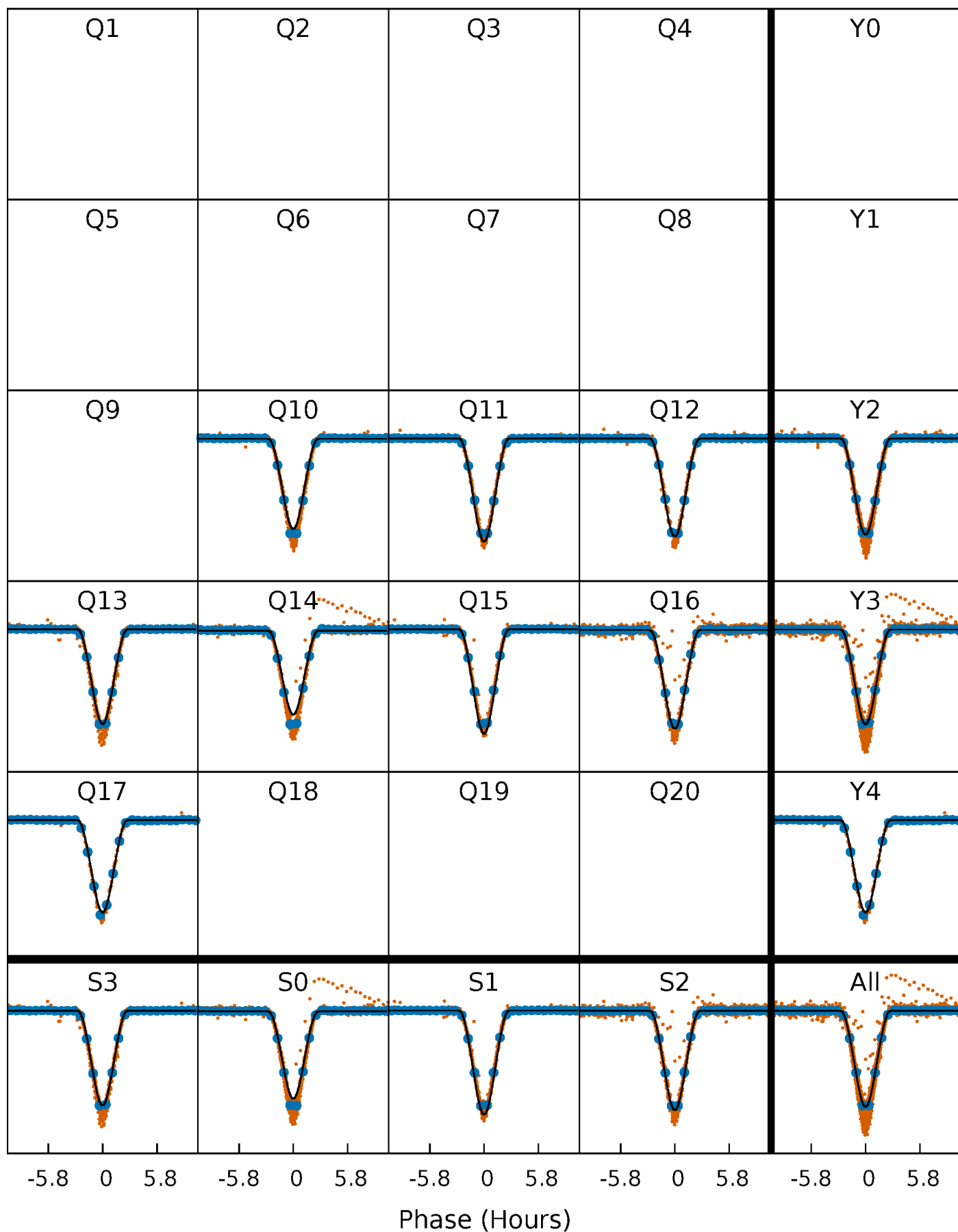
PDC Quarter-Phased Transit Curves

TCE 005649206-01 P= 2.446746 Days $T_0=131.517781$ (BKJD)



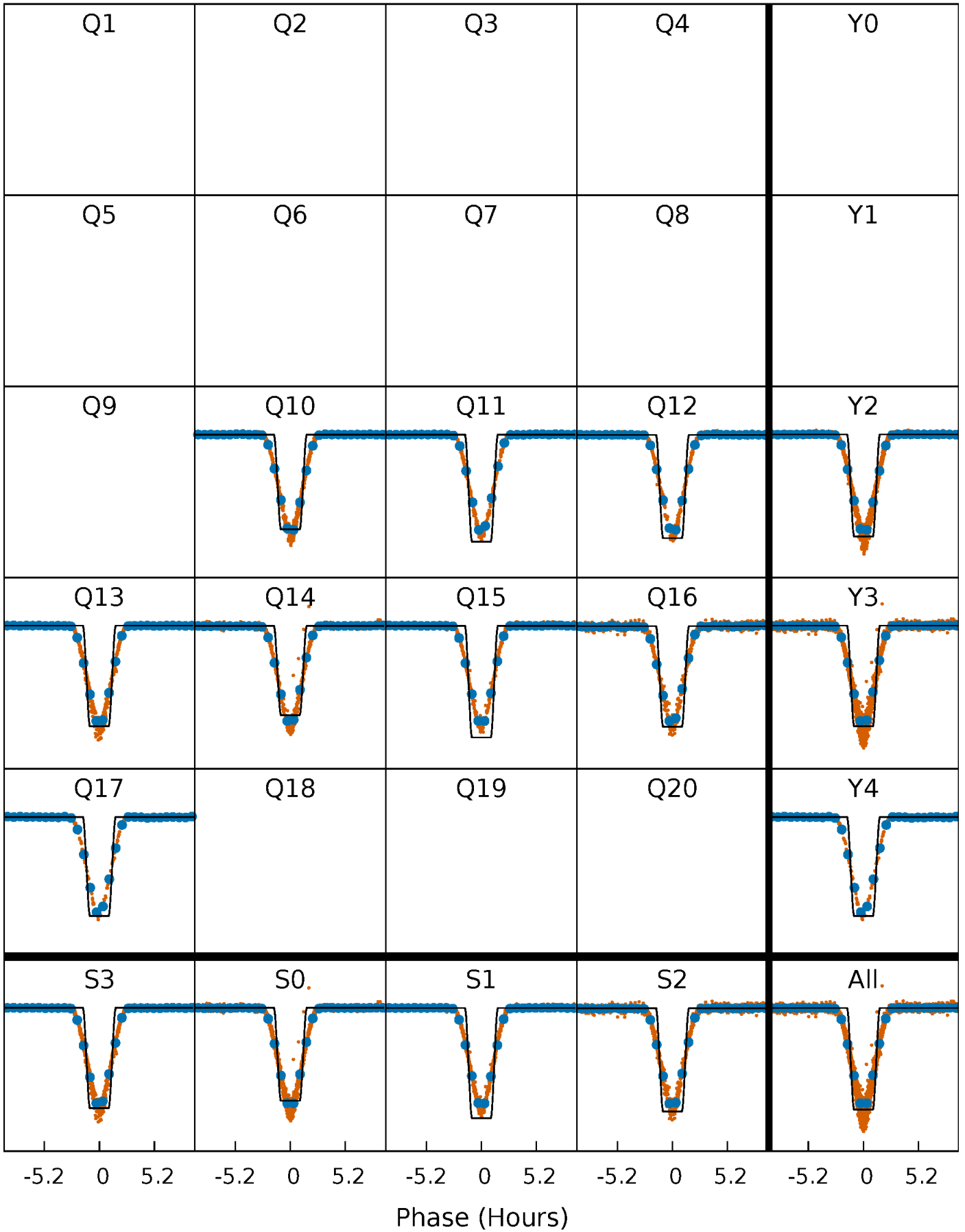
DV Quarter-Phased Transit Curves

TCE 005649206-01 P= 2.446746 Days $T_0=131.517781$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

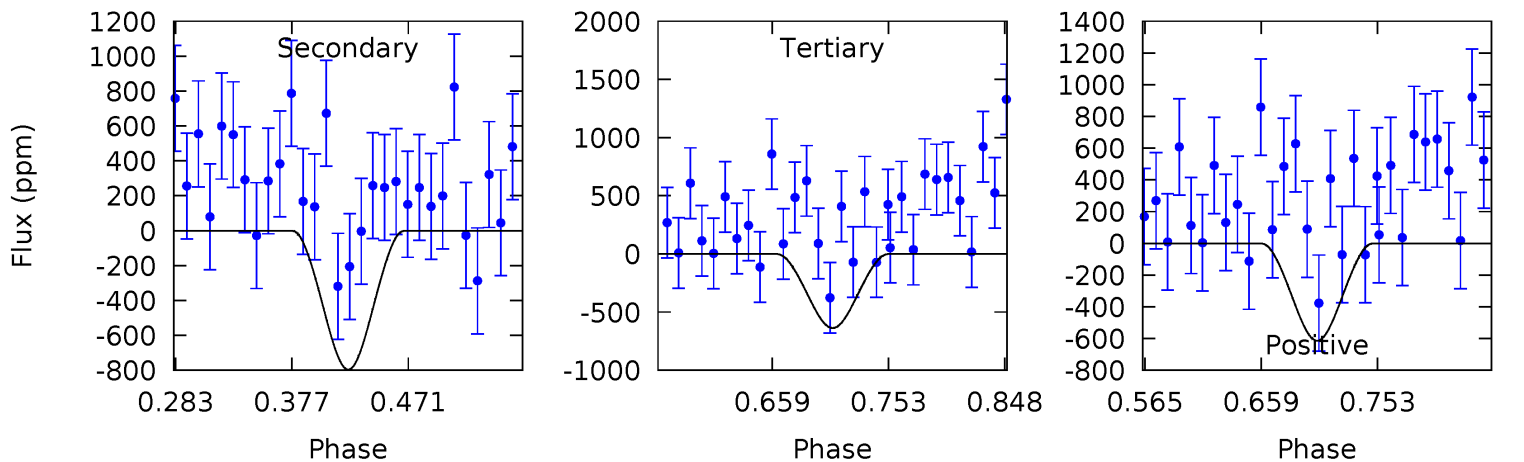
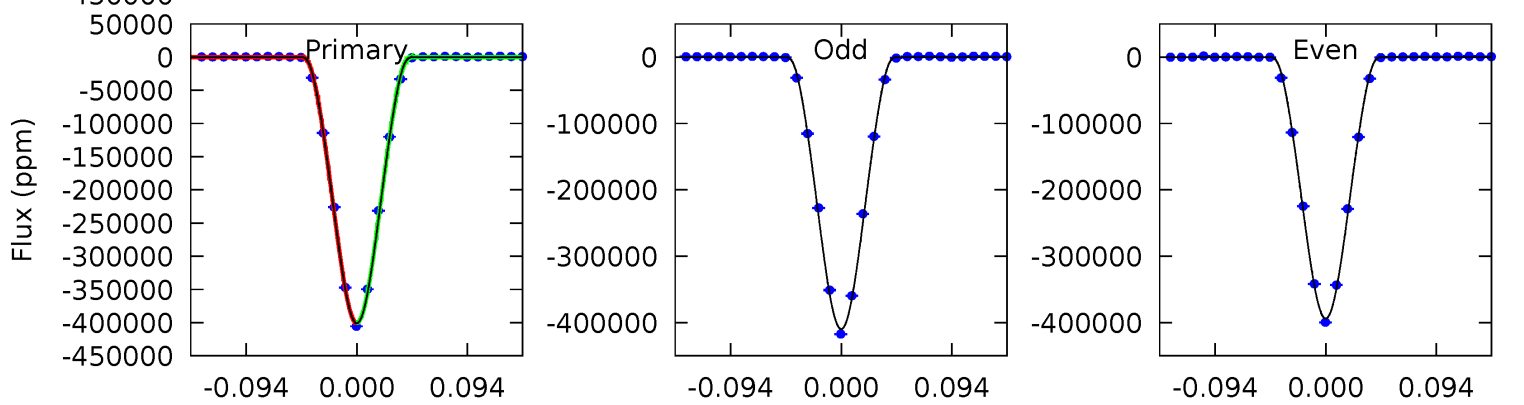
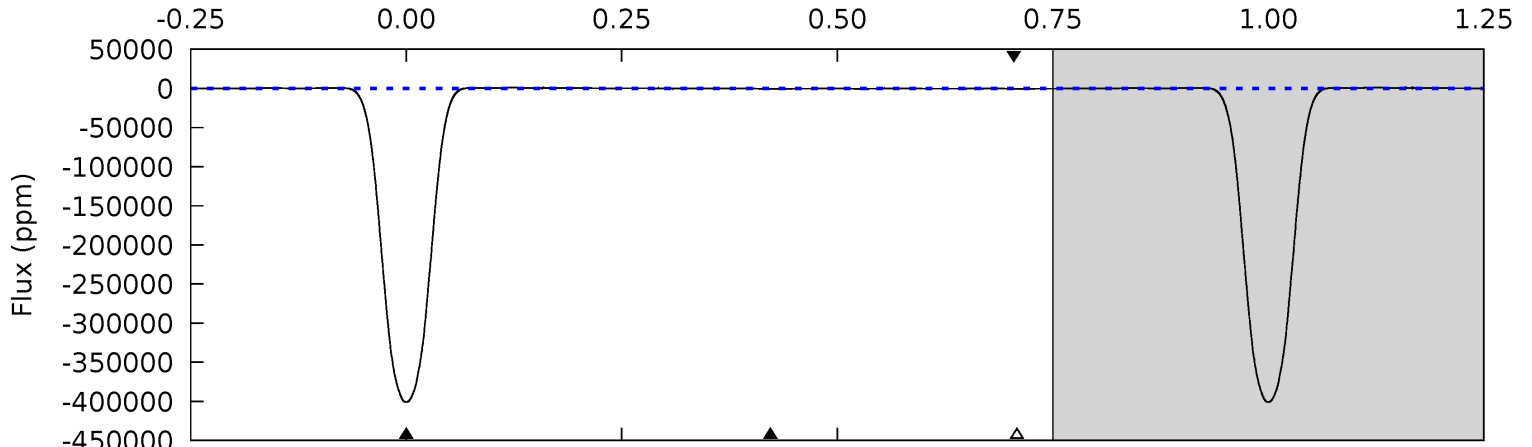
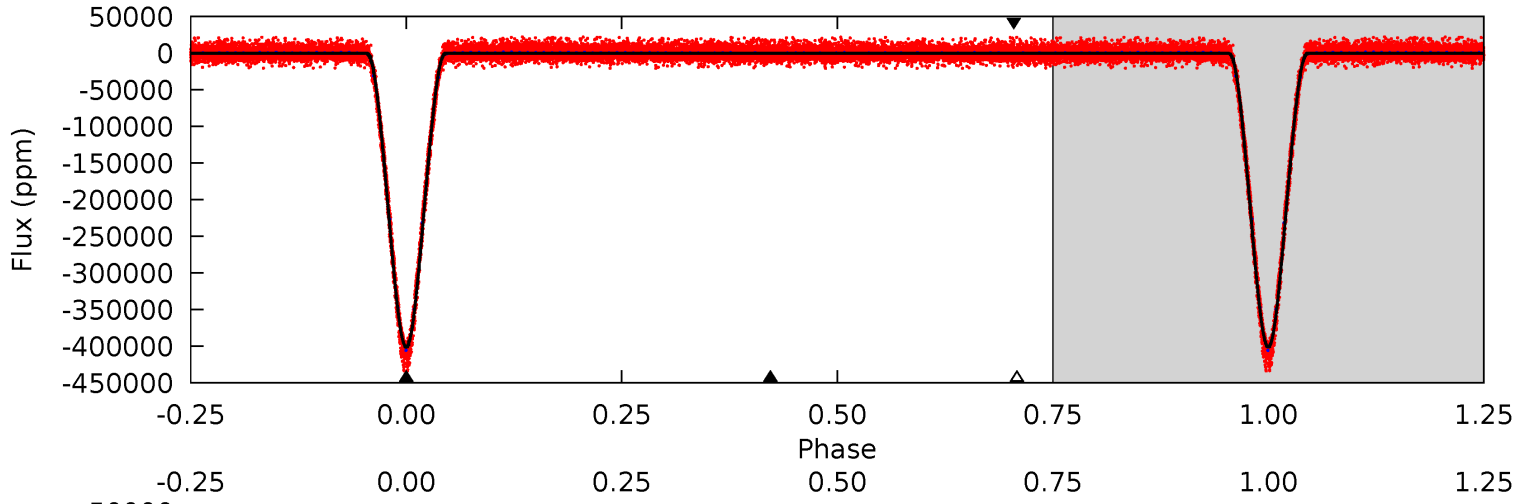
TCE 005649206-01 P= 2.446748 Days $T_0=131.516614$ (BKJD)



DV Model-Shift Uniqueness Test

005649206-01, P = 2.446746 Days, E = 131.517781 Days

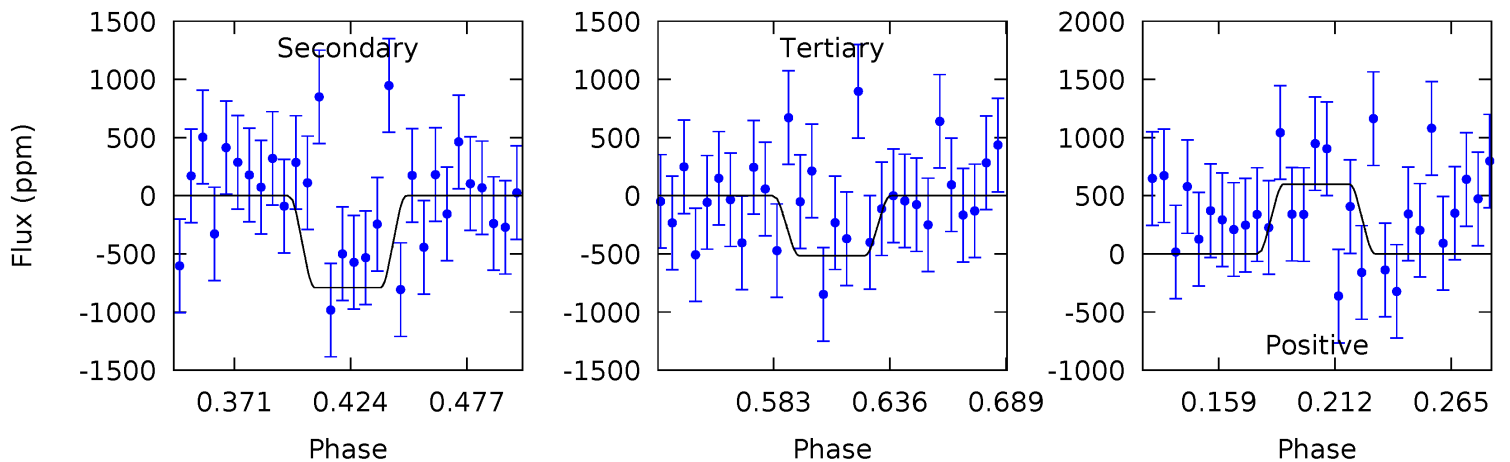
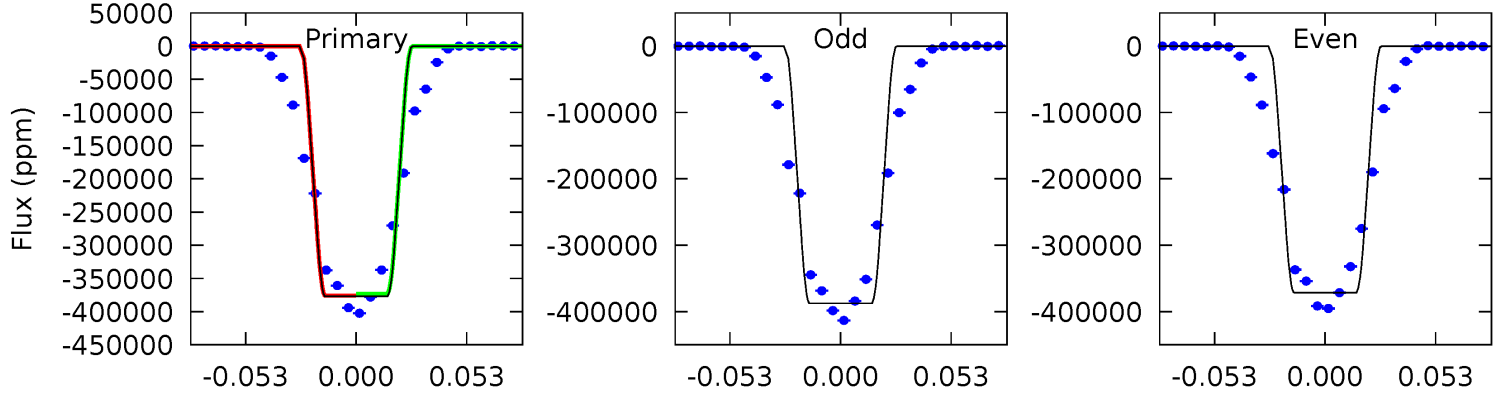
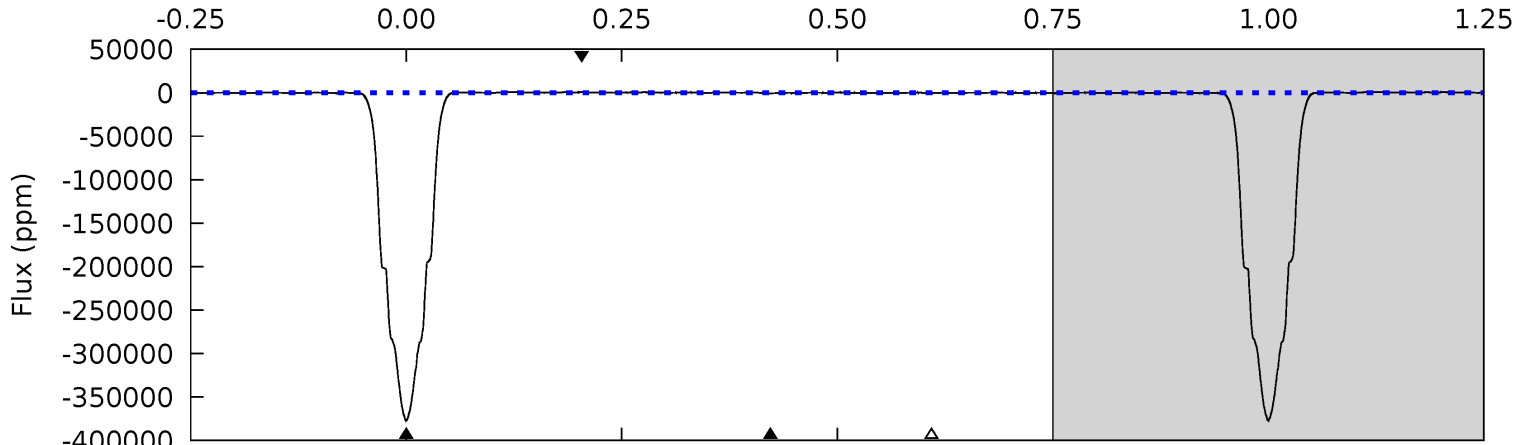
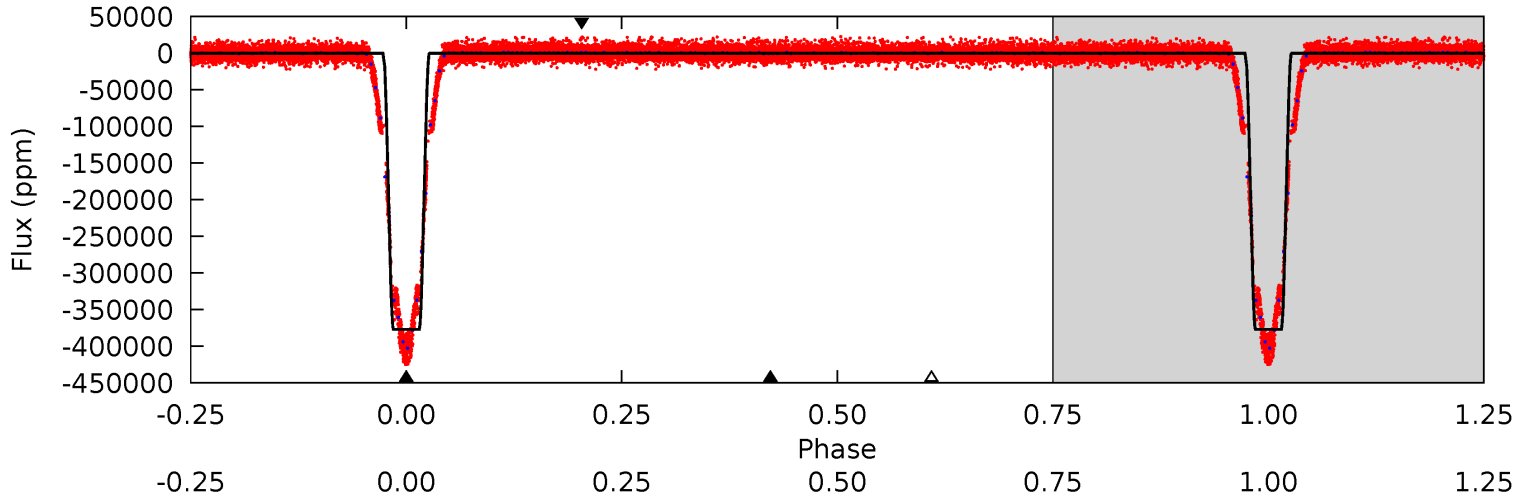
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3475	6.90	5.52	-5.32	4.58	1.67	3.40	3469	3480	1.38	12.2	70.1	1.02	0.00	2.58



Alt Model-Shift Uniqueness Test

005649206-01, P = 2.446748 Days, E = 131.516614 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1810	3.79	2.47	2.88	4.70	1.94	1.38	1808	1807	1.32	0.91	39.6	1.01	0.00	7.12



Stellar Parameters For KIC 005649206

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 005649206-01 / KOI 3636.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-796 ± 115	$70.06^{+5.70}_{-5.32}$	1885^{+99}_{-86}	-2291^{+70}_{-75}	$0.113^{+0.027}_{-0.020}$
Alt.	-790 ± 208	$71.44^{+5.13}_{-5.34}$	1895^{+83}_{-89}	-2305^{+83}_{-72}	$0.109^{+0.033}_{-0.031}$

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 $A_{obs} \gg 1.0$

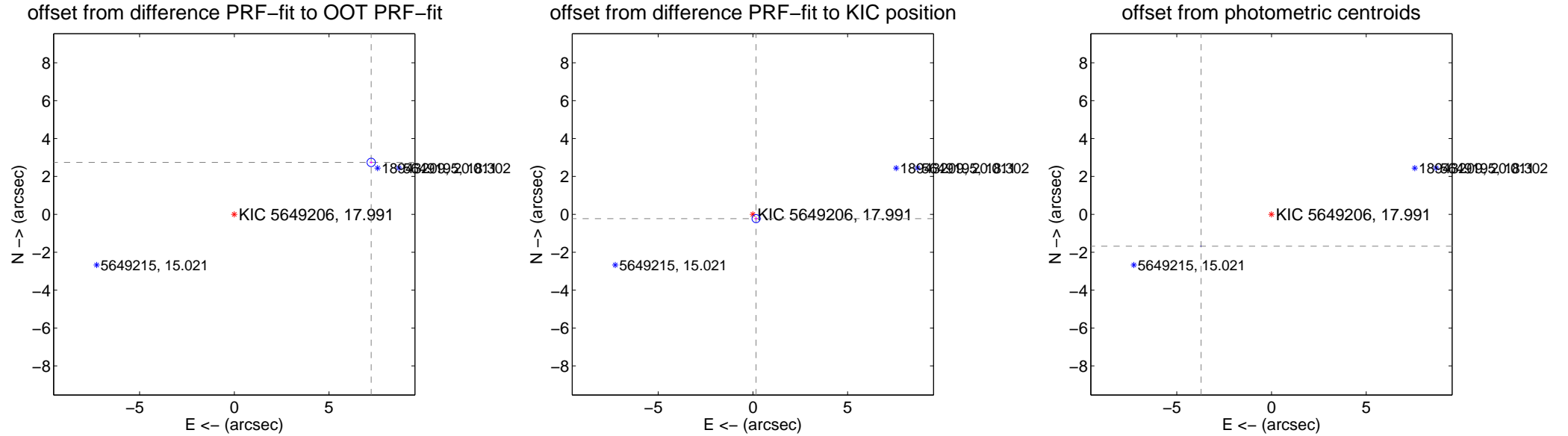
DV Centroid Data

Supplemental centroid analysis for 005649206-01. Kepler magnitude: 17.99. Transit SNR 1324.45

There are 8 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 7.68 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.726 ± 0.074	104.98	-7.223 ± 0.074	2.741 ± 0.068
PRF-fit source offset from KIC position	0.281 ± 0.071	3.95	-0.165 ± 0.077	-0.227 ± 0.067
photometric centroid source offset	4.08 ± 0.00	3046.88	3.72 ± 0.00	-1.68 ± 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.

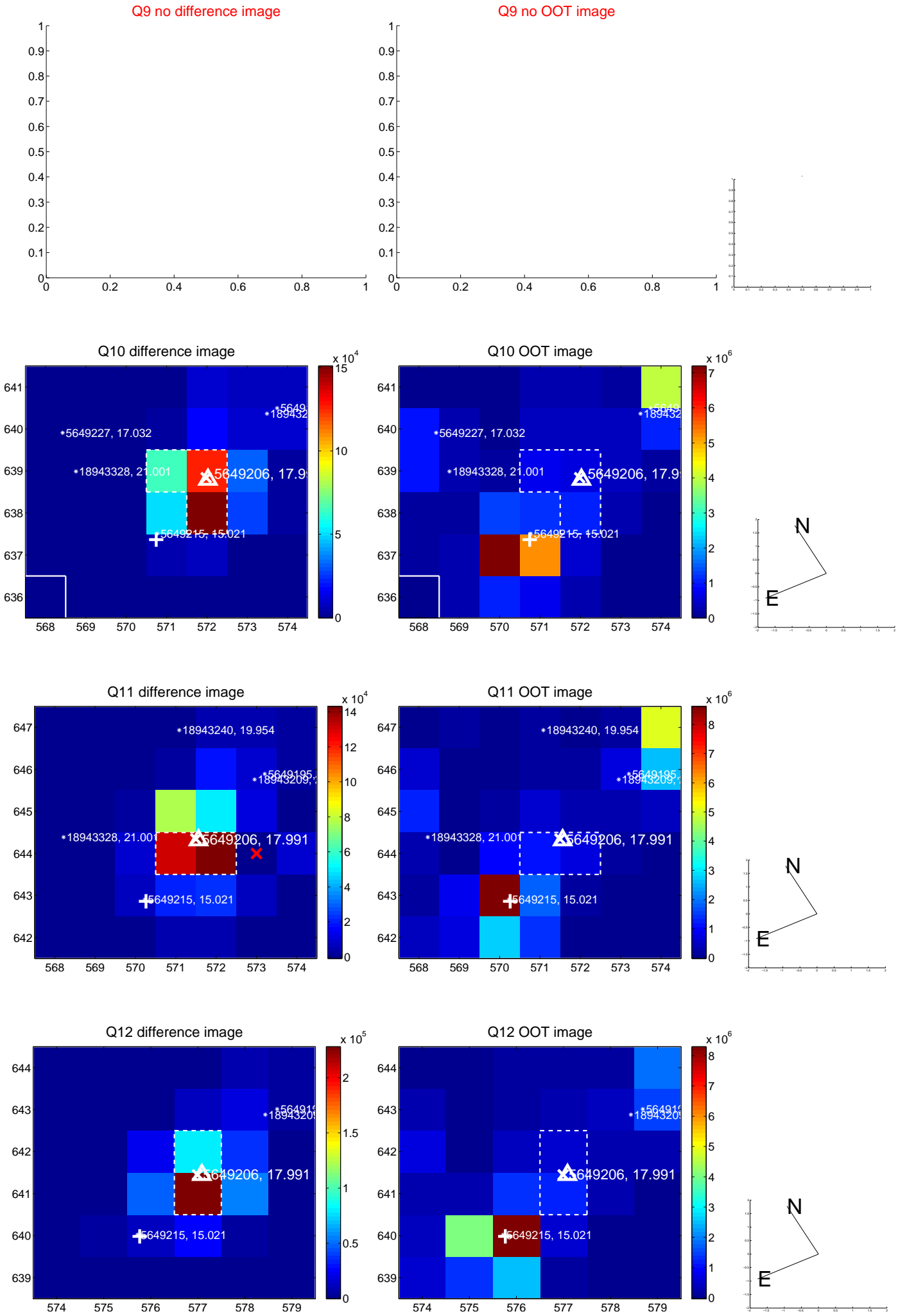
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



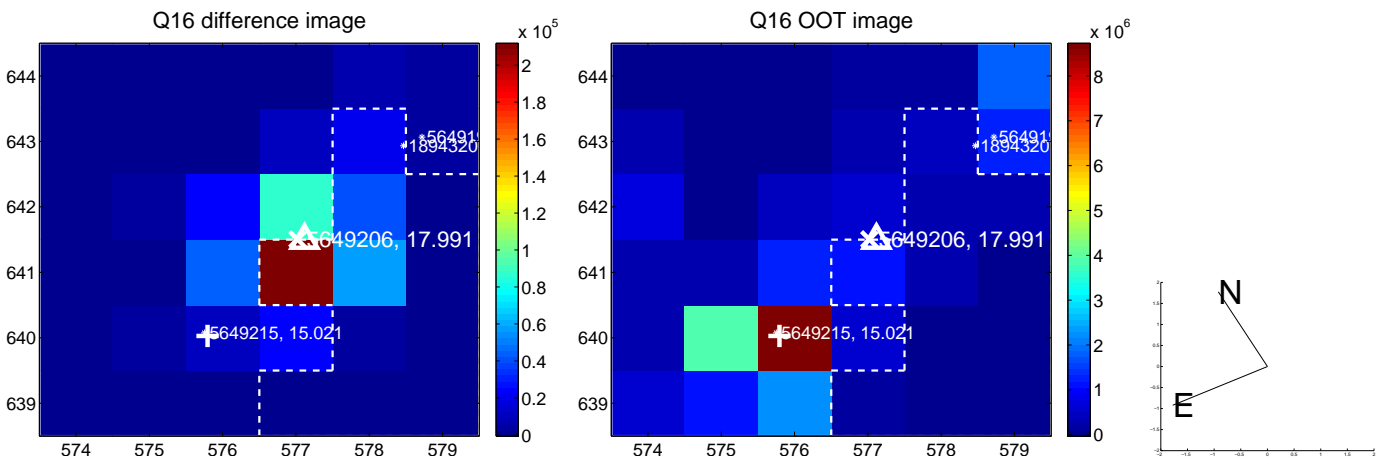
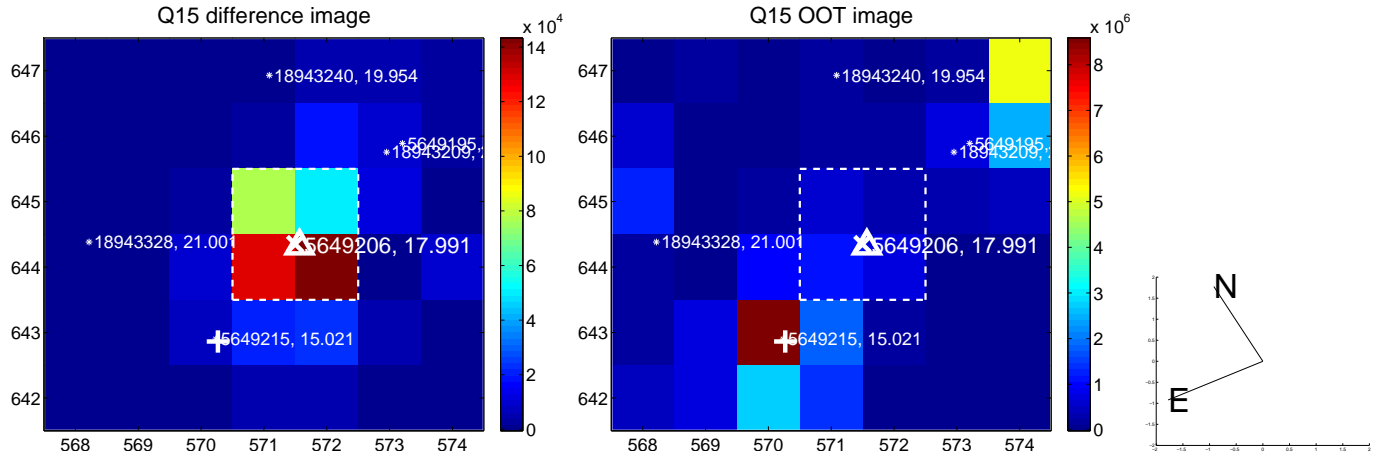
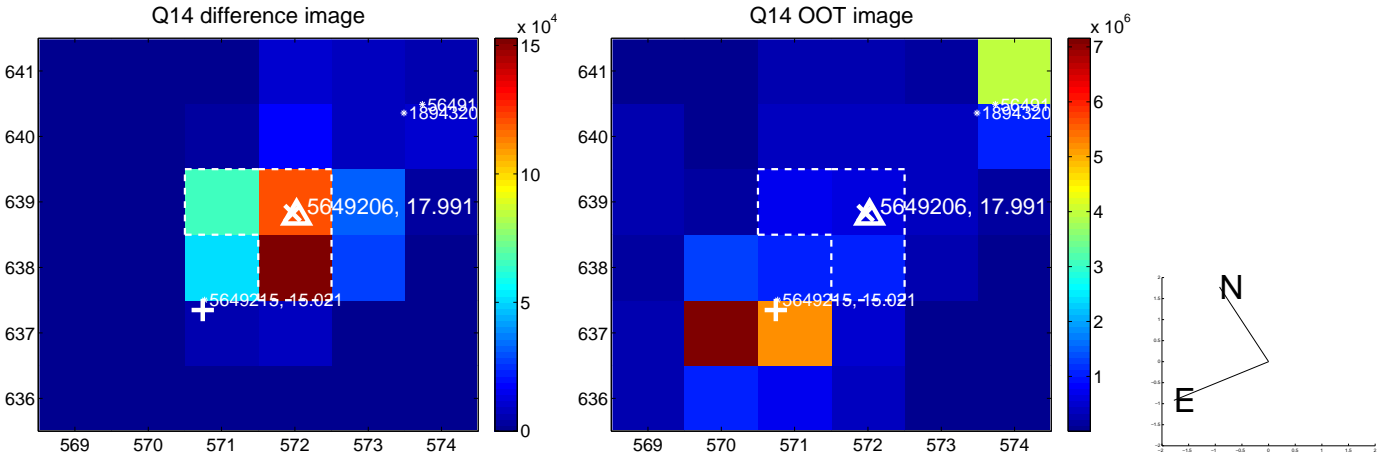
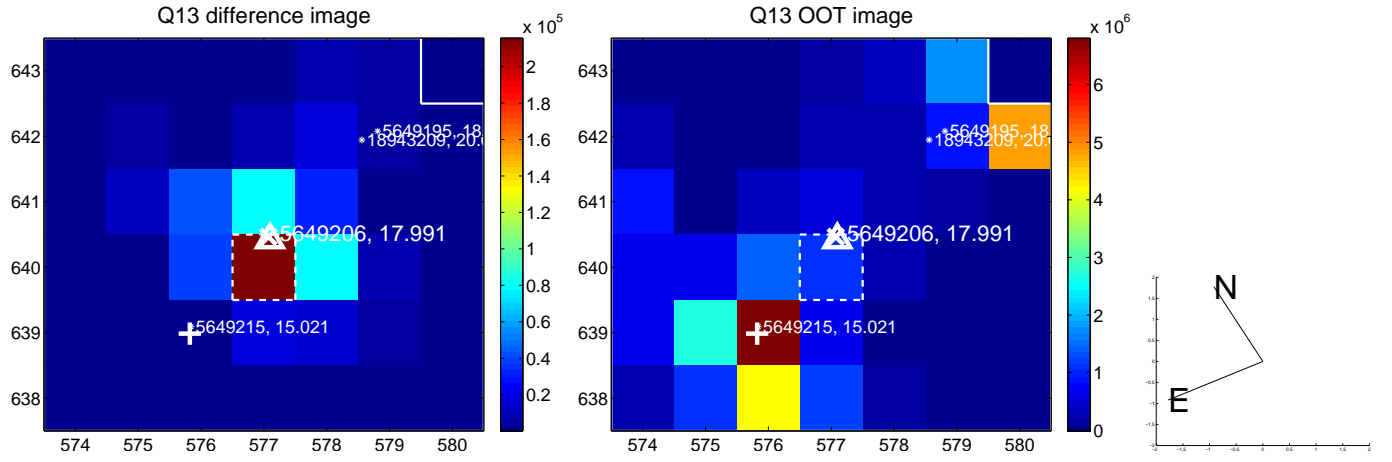
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



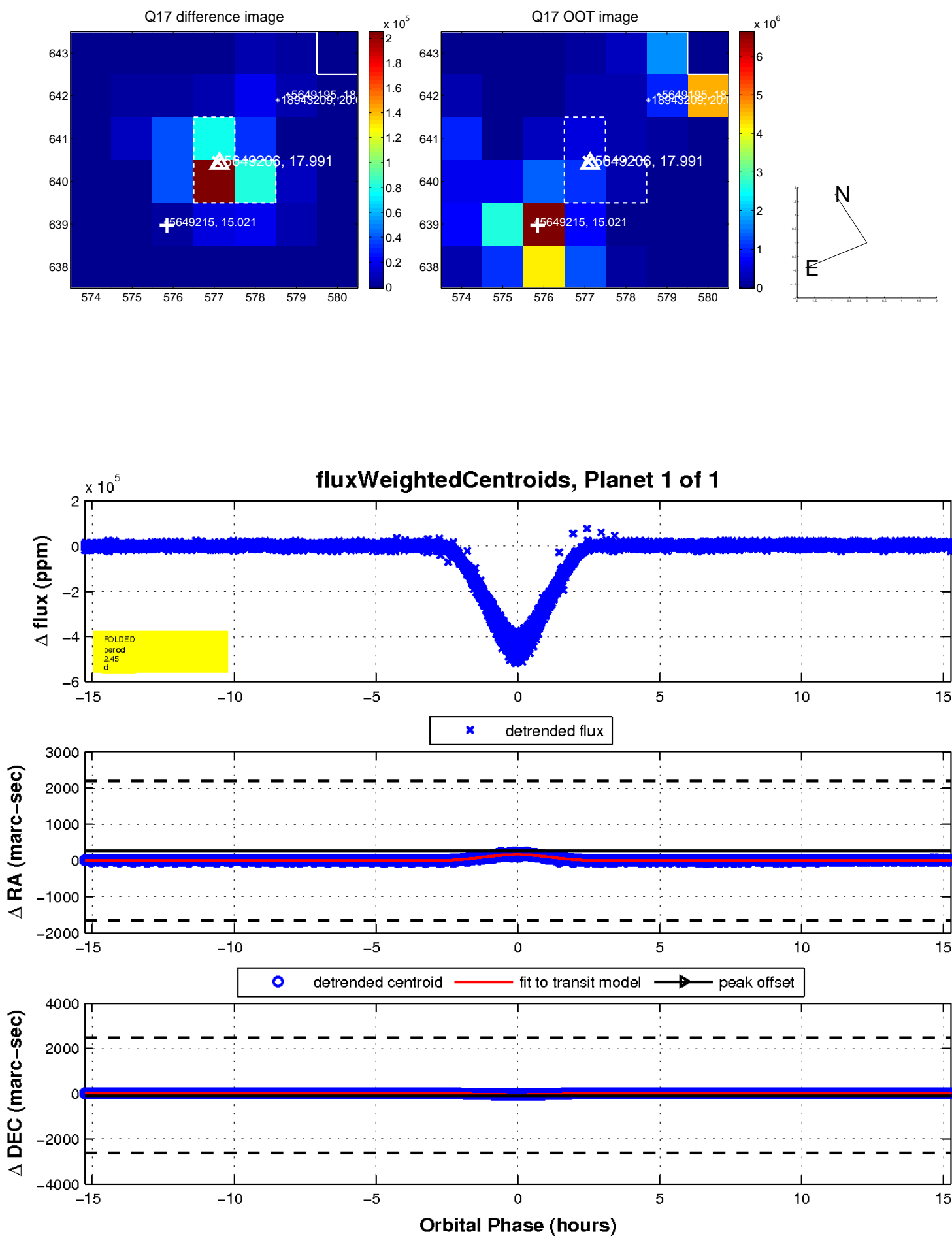
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

