

KIC 010329469

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})
010329469-01	OBS	2271.01	55.822425	169.039394	859.6	5.730	20.8	21.0	0.74	5162	2.35	4.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010329469-01	OBS	PC	1.00	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 010329469-01

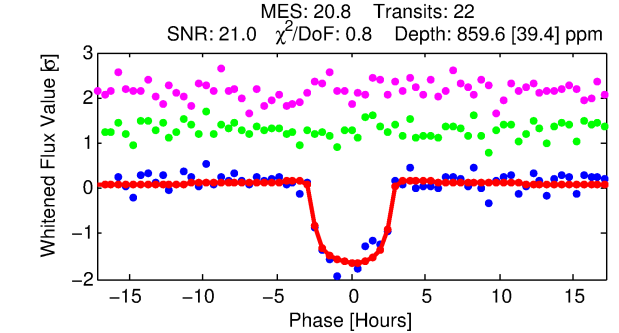
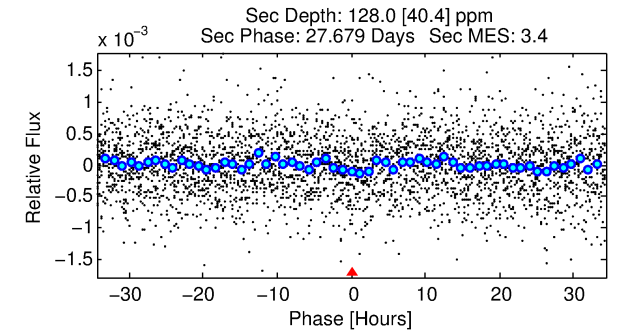
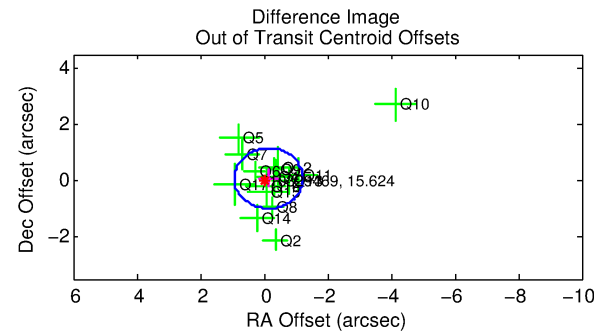
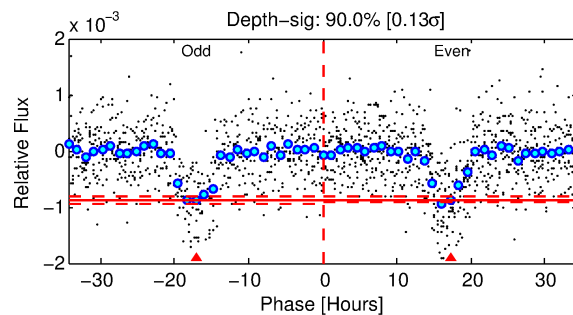
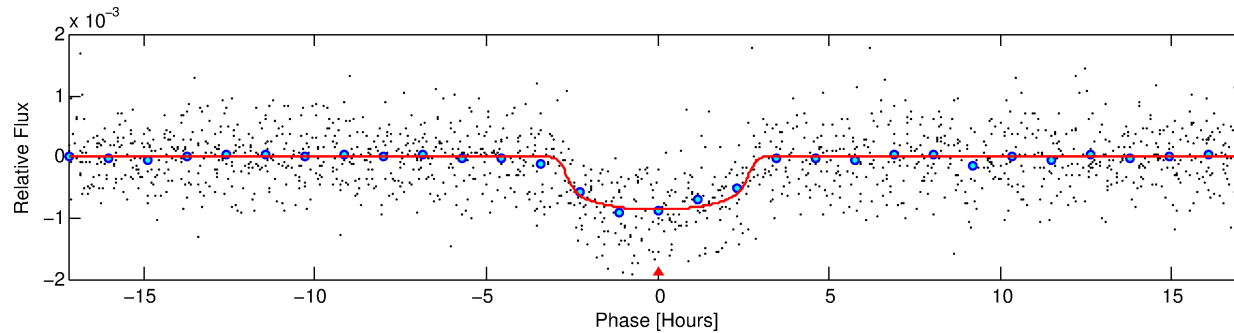
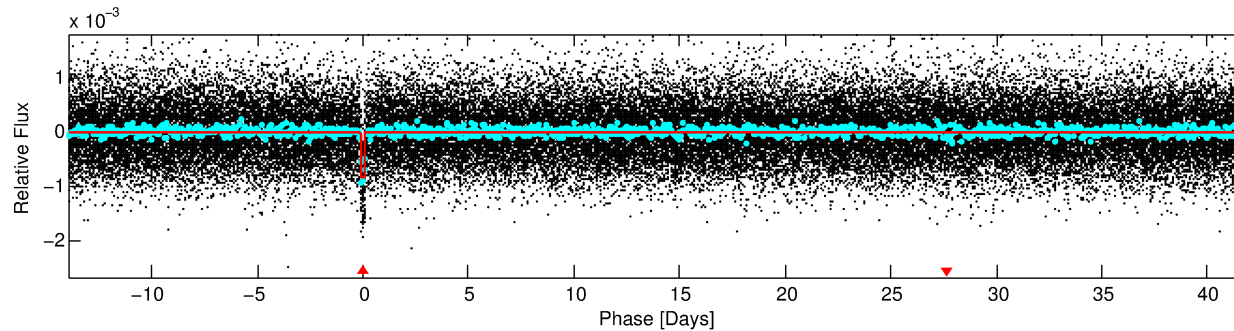
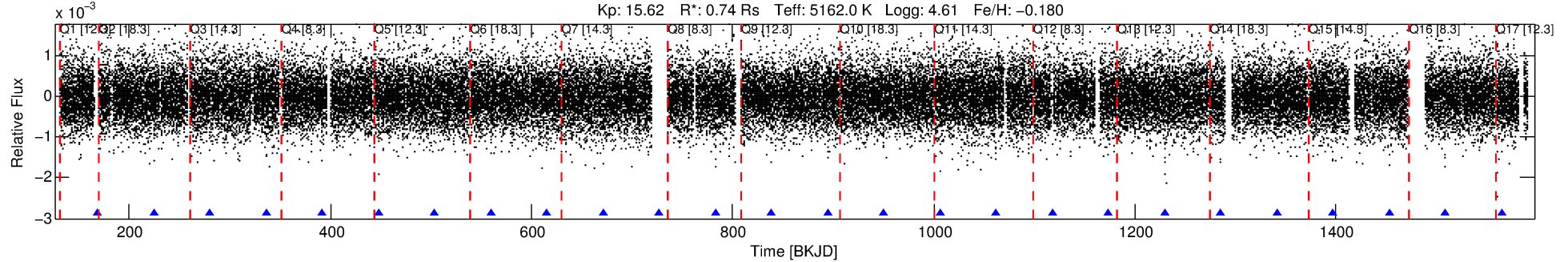
No Significant Match Found

DV One-Page Summary

KIC: 10329469 Candidate: 1 of 1 Period: 55.822 d

KOI: K02271.01 Corr: 0.979

Kp: 15.62 R*: 0.74 Rs Teff: 5162.0 K Logg: 4.61 Fe/H: -0.180



DV Fit Results:

Period = 55.82243 [0.00036] d
Epoch = 169.0394 [0.0056] BKJD
Rp/R* = 0.0293 [0.0084]
a/R* = 52.26 [55.66]
b = 0.75 [0.63]
Seff = 4.86 [0.95]
Teq = 379 [18] K
Rp = 2.35 [0.74] Re
a = 0.2662 [0.0289] AU
Ag = 901.85 [604.58] [1.49σ]
Teff = 3208 [532] K [5.32σ]

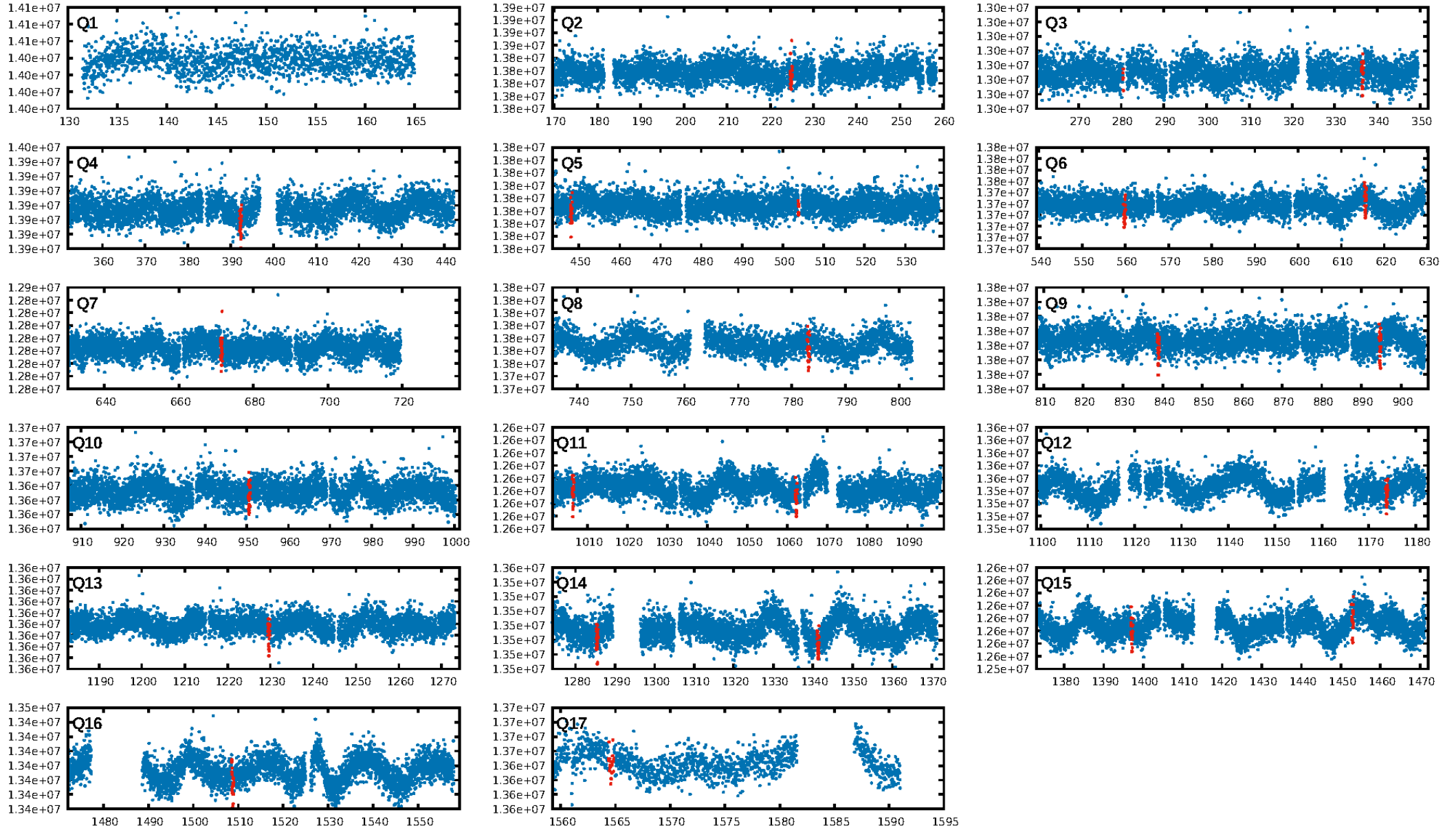
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 97.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.00e-88
RollingBand-fgt: 1.00 [21/21]
GhostDiagnostic-chr: 3.425
Centroid-sig: 5.4%
Centroid-so: 1.024 arcsec [1.65σ]
OotOffset-rm: 0.165 arcsec [0.46σ]
KicOffset-rm: 0.246 arcsec [0.88σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [16/16]

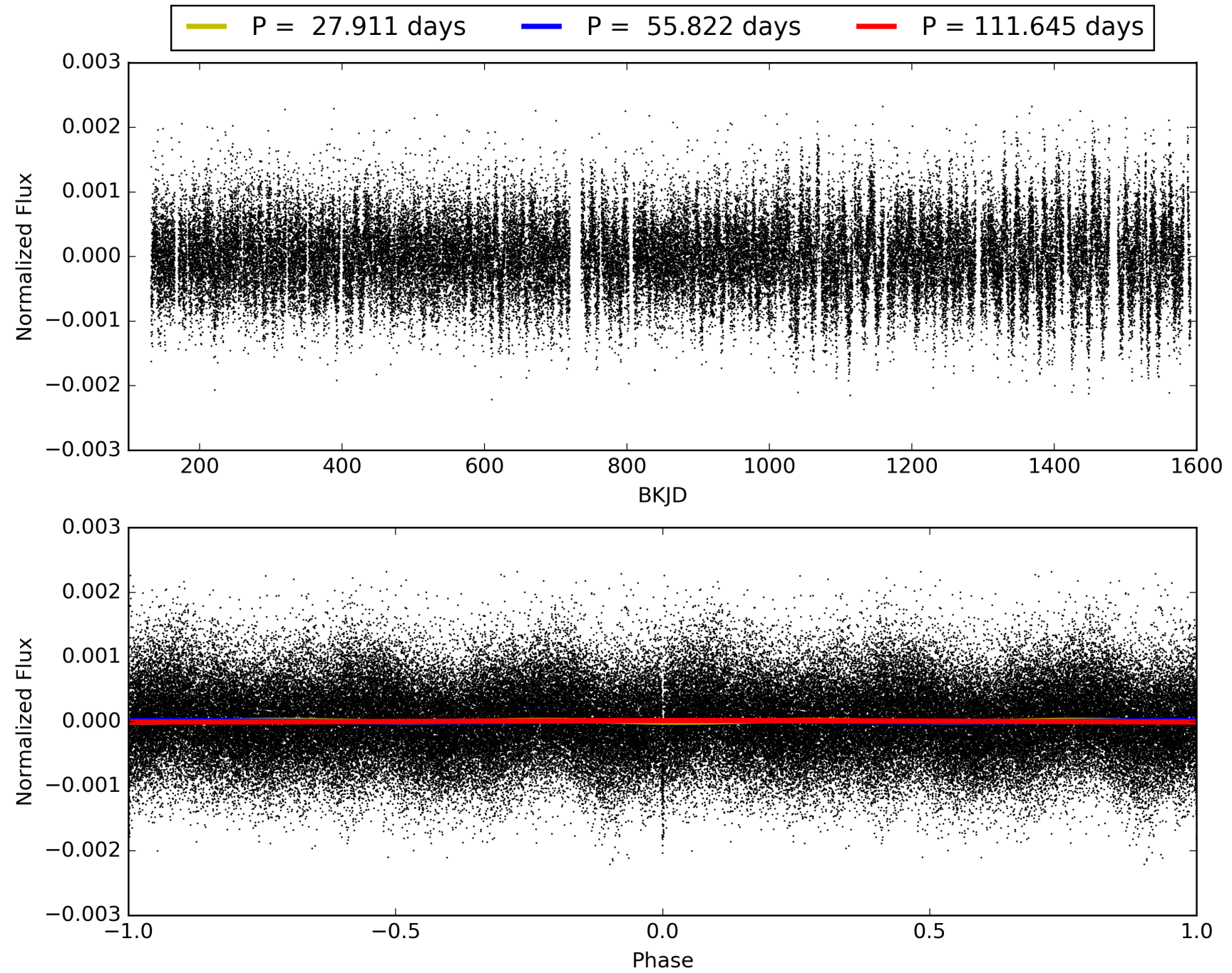
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:04:41 Z

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

TCE 010329469-01, PDC Light Curves

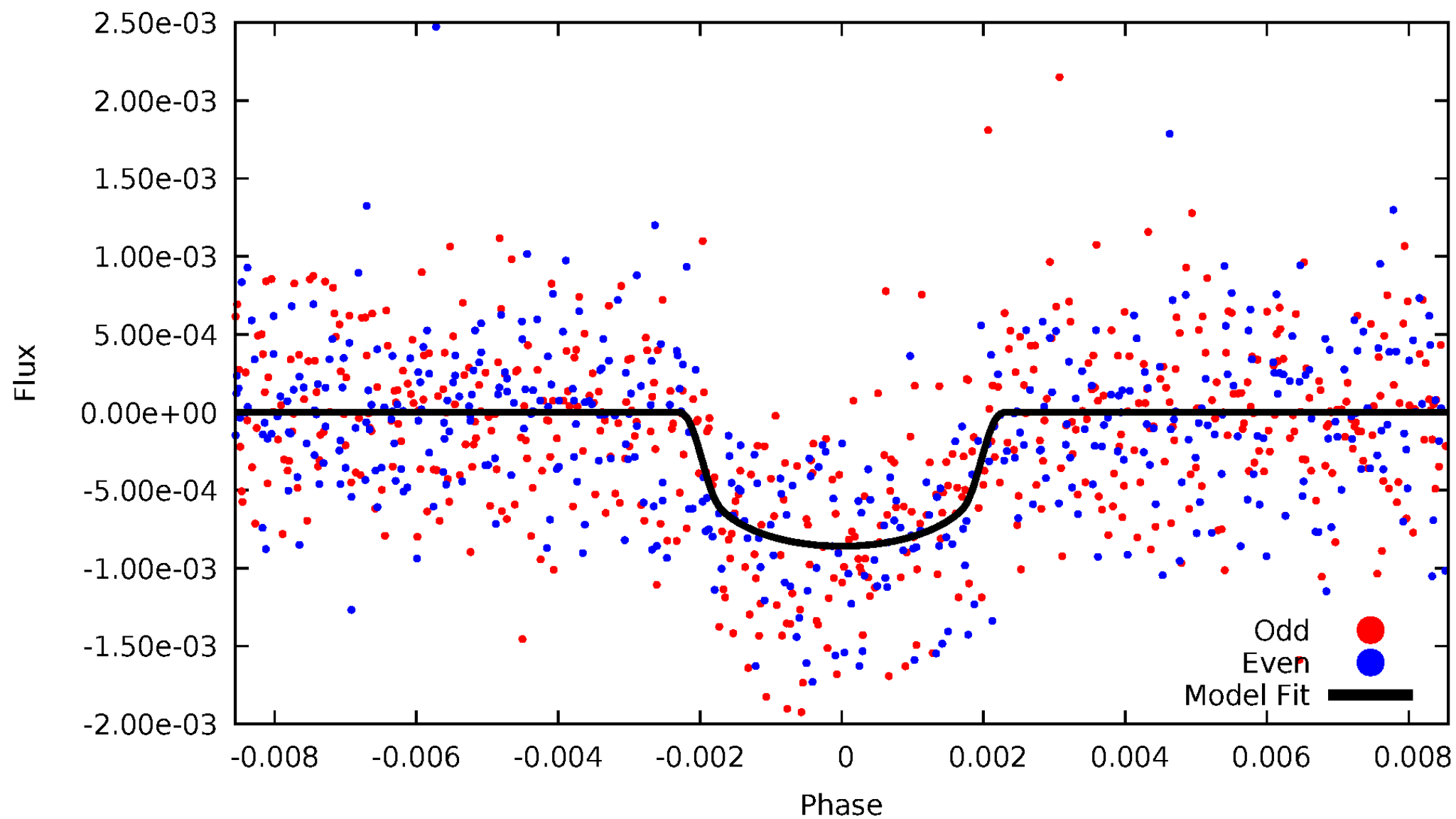


TCE 010329469-01



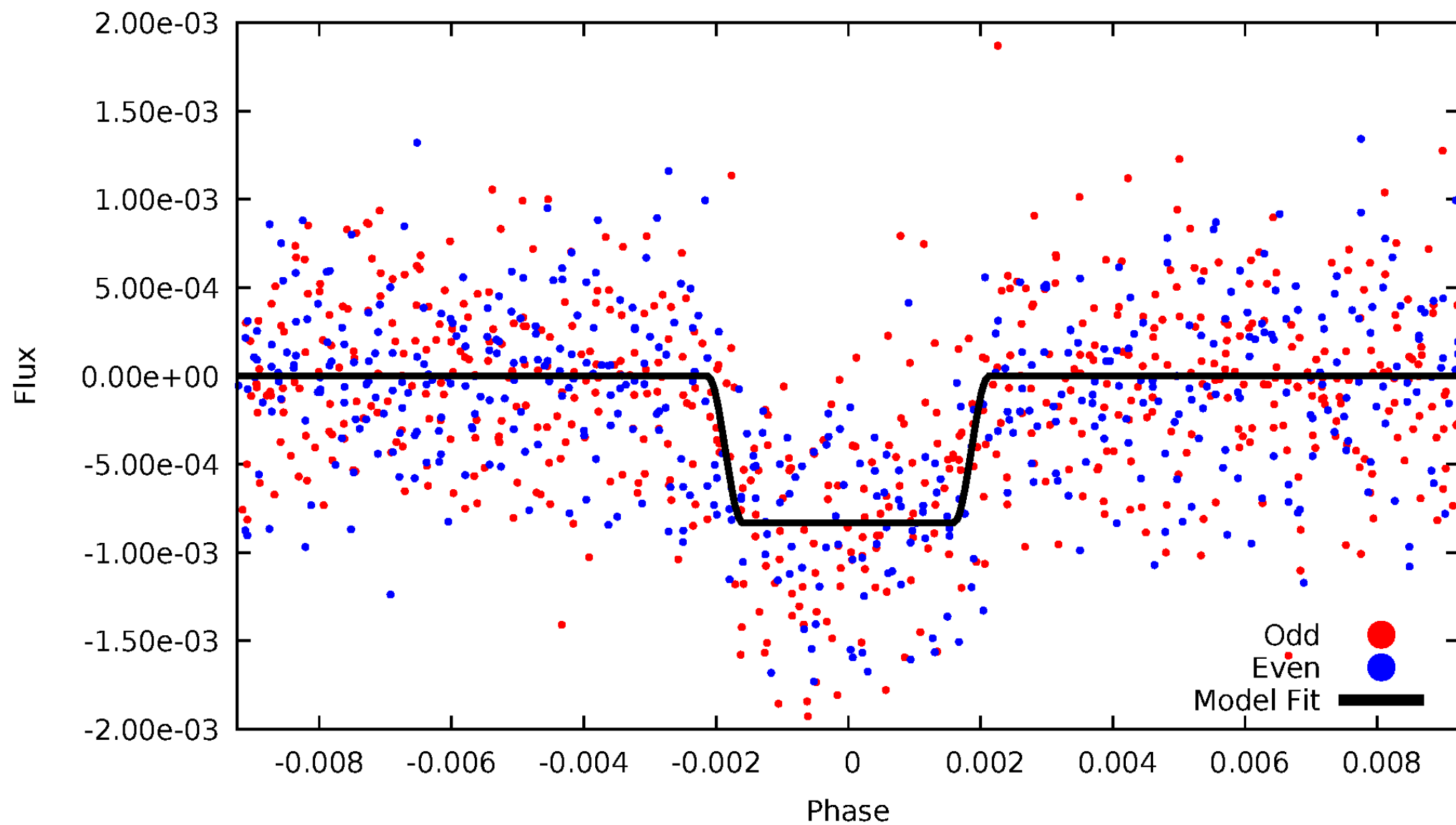
DV Odd/Even

TCE 010329469-01



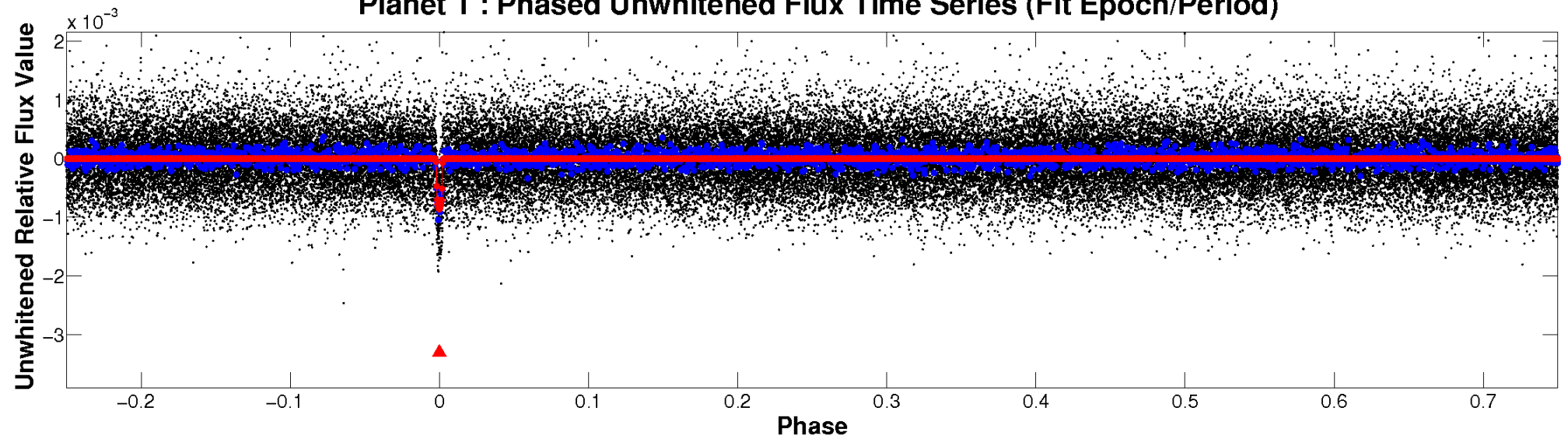
ALT Odd/Even

TCE 010329469-01

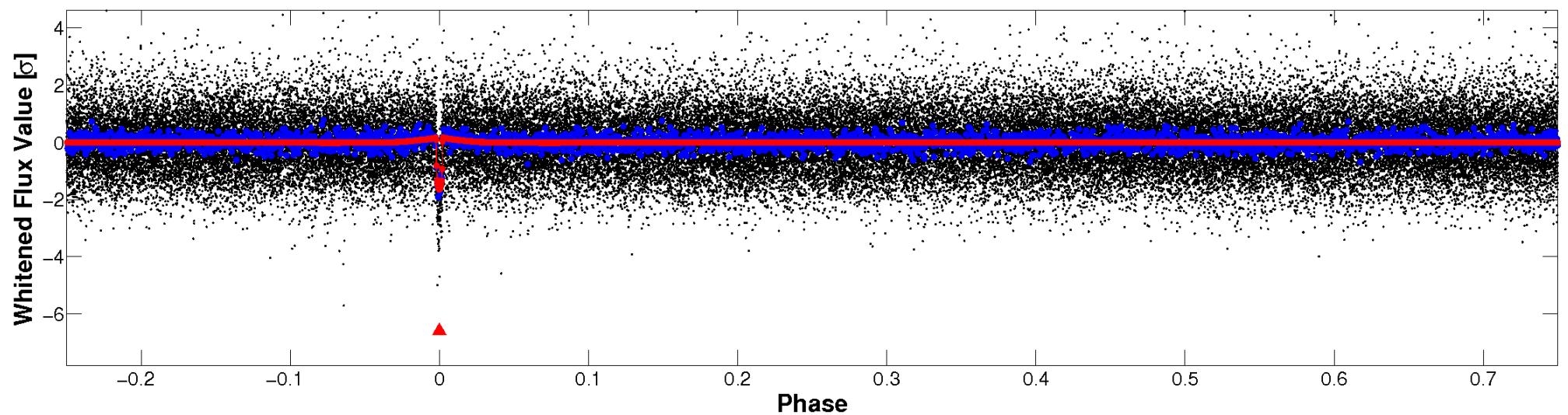


Non-Whitened Vs. Whitened Light Curve

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

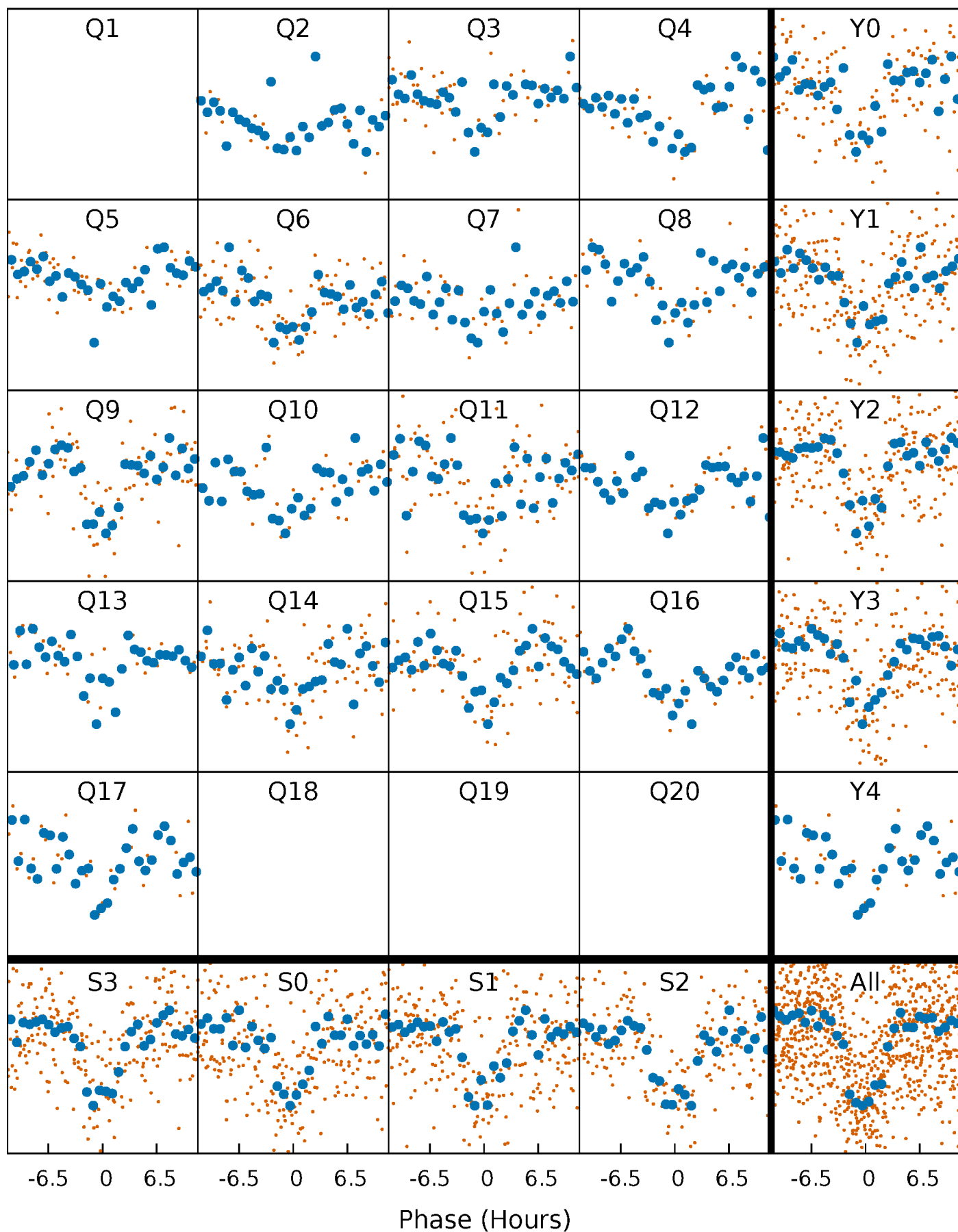


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



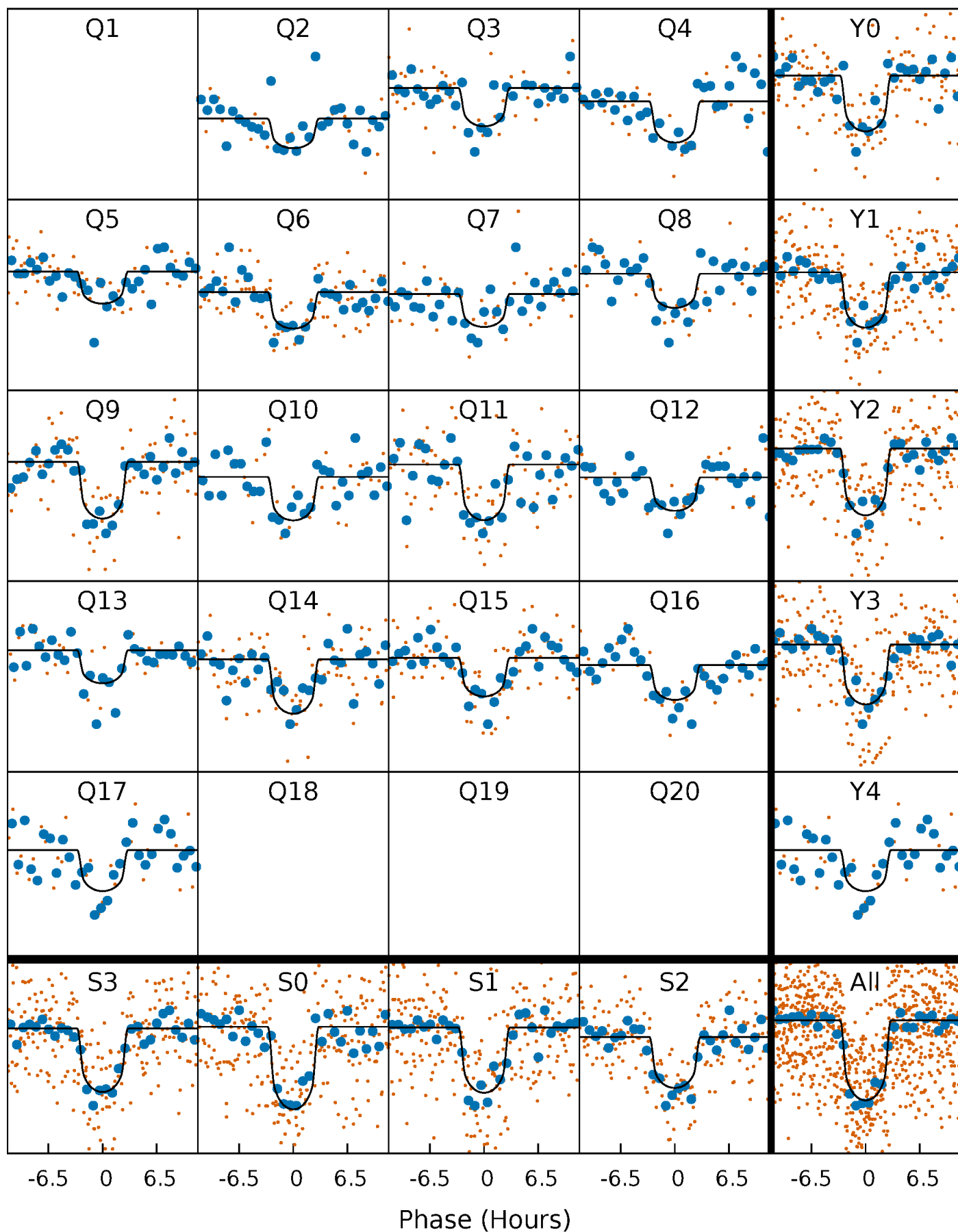
PDC Quarter-Phased Transit Curves

TCE 010329469-01 P= 55.822425 Days $T_0=169.039394$ (BKJD)



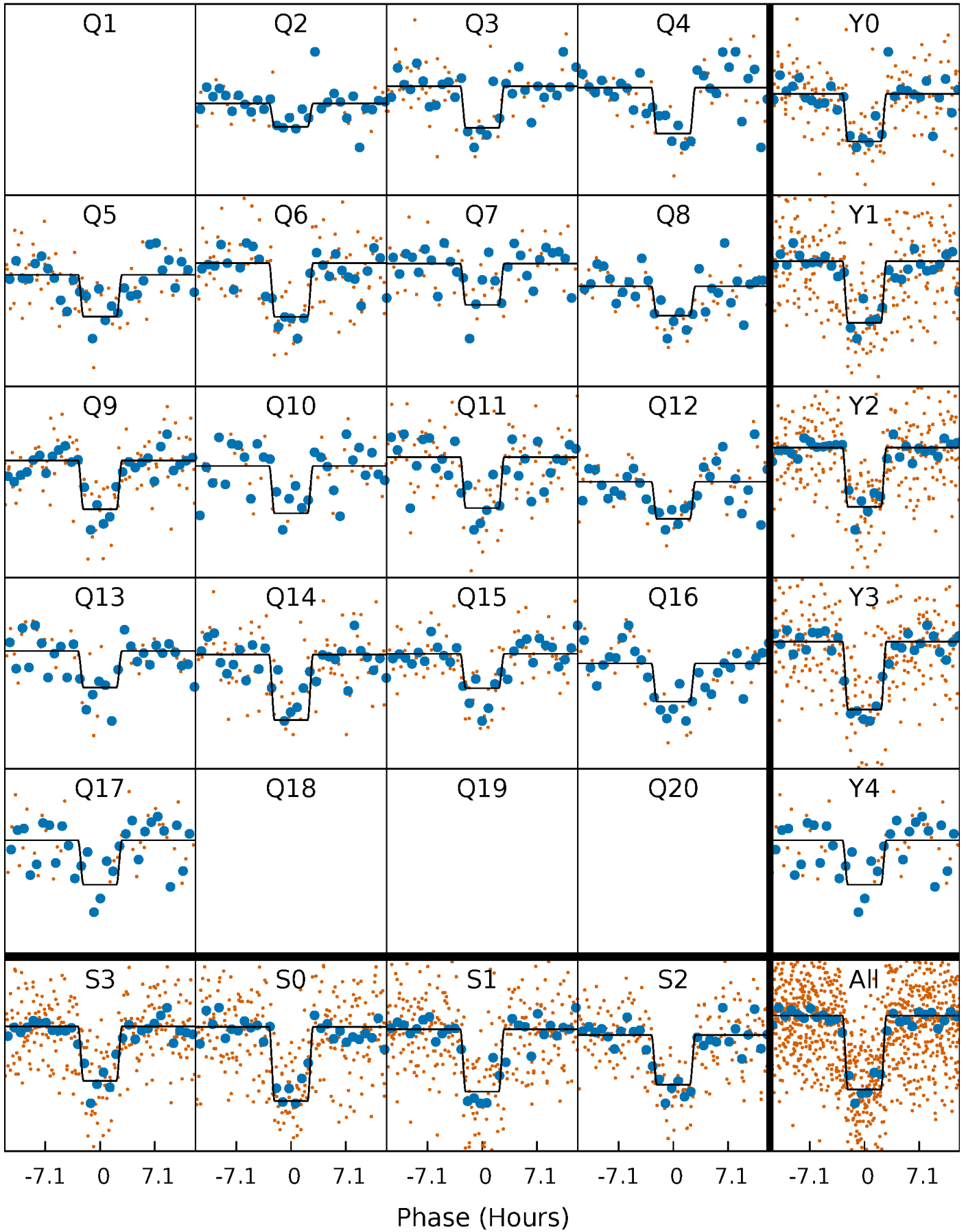
DV Quarter-Phased Transit Curves

TCE 010329469-01 P= 55.822425 Days $T_0=169.039394$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

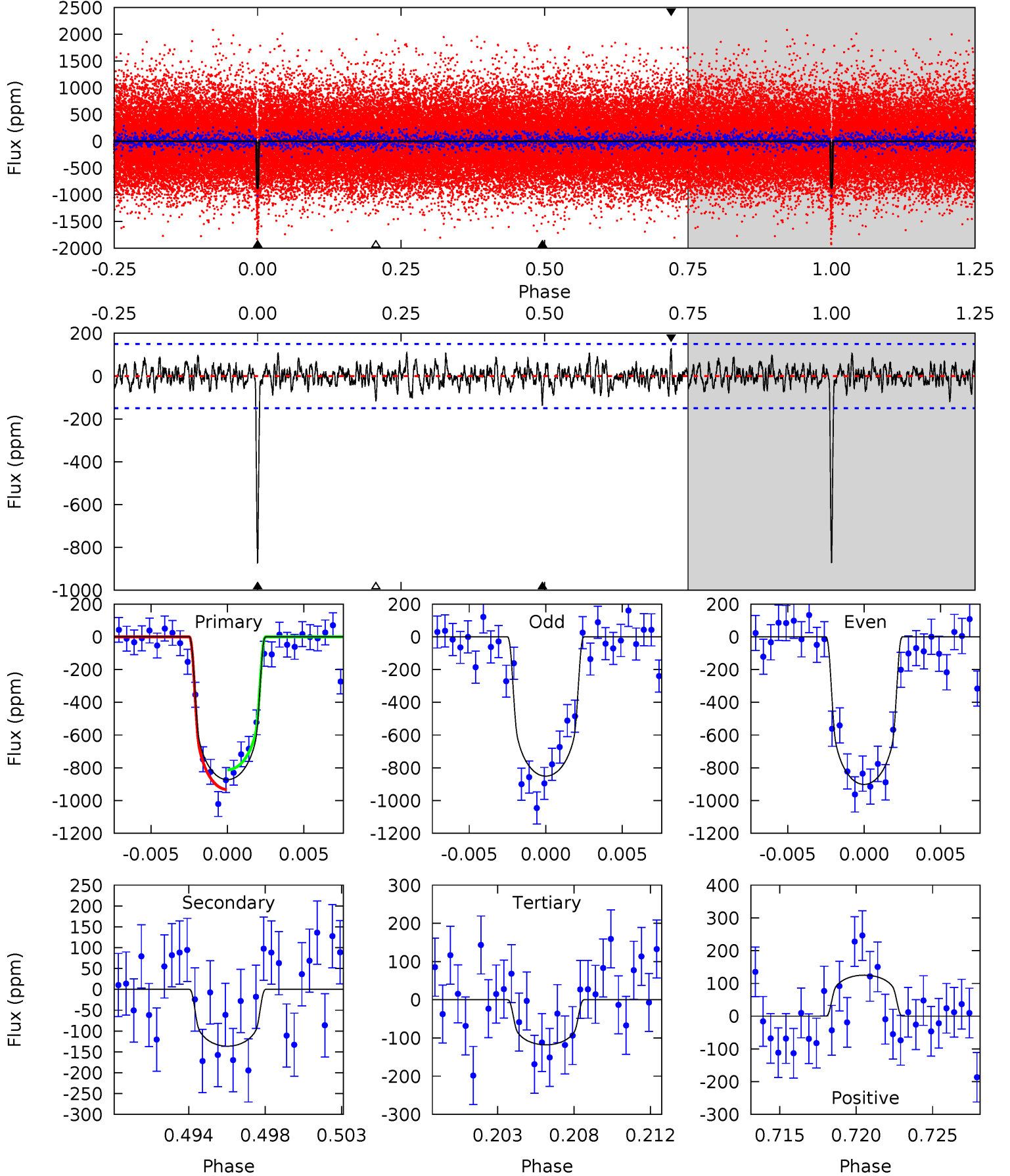
TCE 010329469-01 P= 55.823170 Days $T_0=169.027725$ (BKJD)



DV Model-Shift Uniqueness Test

010329469-01, P = 55.822425 Days, E = 113.216969 Days

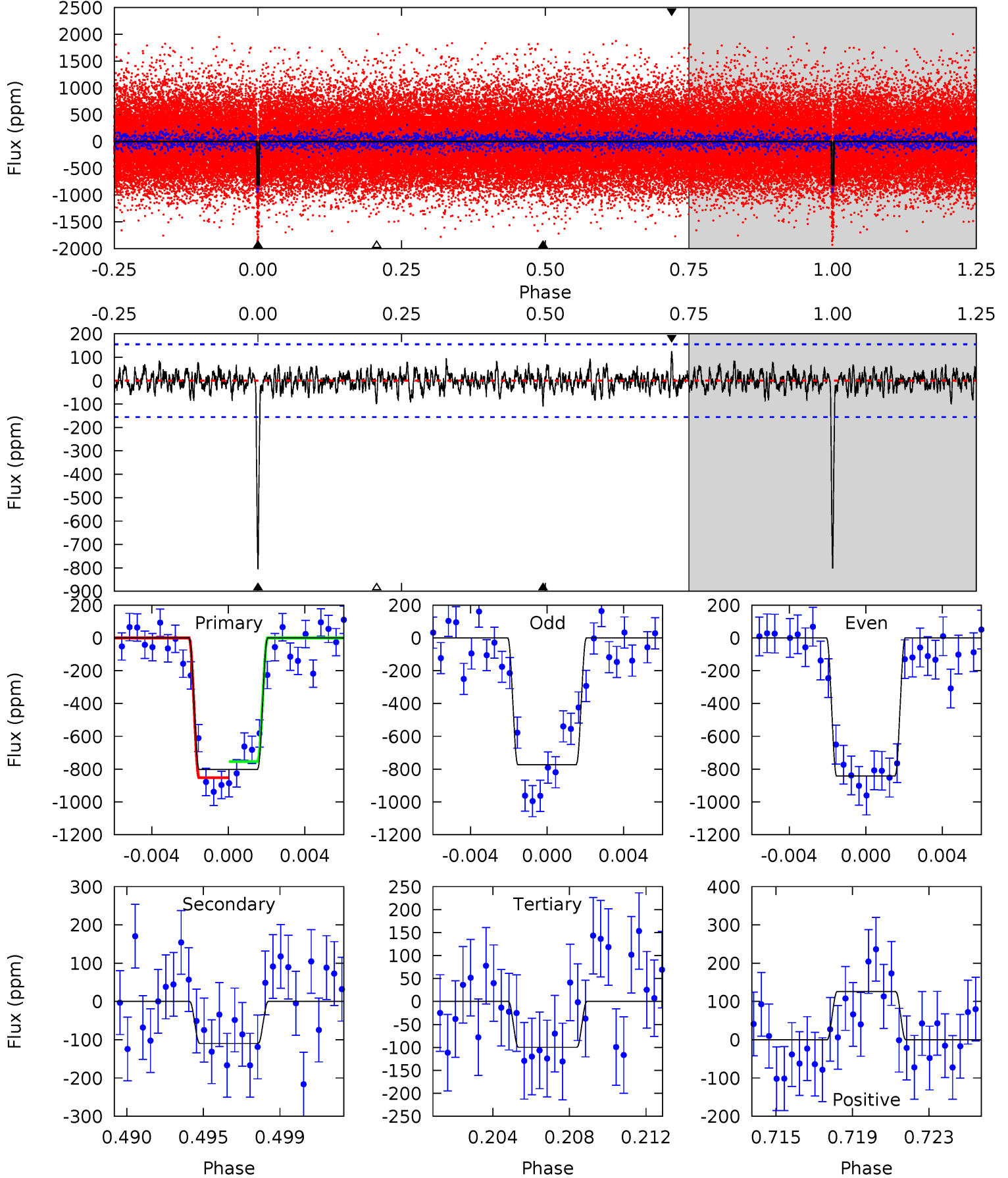
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.1	4.70	4.07	4.32	5.17	2.83	1.24	26.0	25.8	0.64	0.38	0.86	1.00	0.13	2.08



Alt Model-Shift Uniqueness Test

010329469-01, P = 55.823170 Days, E = 113.204555 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.8	3.66	3.34	4.20	5.19	2.87	1.03	23.5	22.6	0.33	-0.54	1.15	0.99	0.14	1.66



Stellar Parameters For KIC 010329469

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5162^{+153}_{-138}	$4.611^{+0.033}_{-0.083}$	$-0.180^{+0.300}_{-0.300}$	$0.736^{+0.097}_{-0.065}$	$0.817^{+0.065}_{-0.090}$	$2.887^{+0.448}_{-0.774}$
	+3%/-3%	+1%/-2%	+167%/-167%	+13%/-9%	+8%/-11%	+16%/-27%
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 010329469-01 / KOI 2271.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-136 ± 29	$2.42^{+0.72}_{-0.70}$	535^{+19}_{-19}	3640^{+443}_{-334}	903^{+915}_{-389}
Alt.	-110 ± 30	$2.34^{+0.60}_{-0.64}$	534^{+21}_{-19}	3549^{+431}_{-312}	766^{+777}_{-338}

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

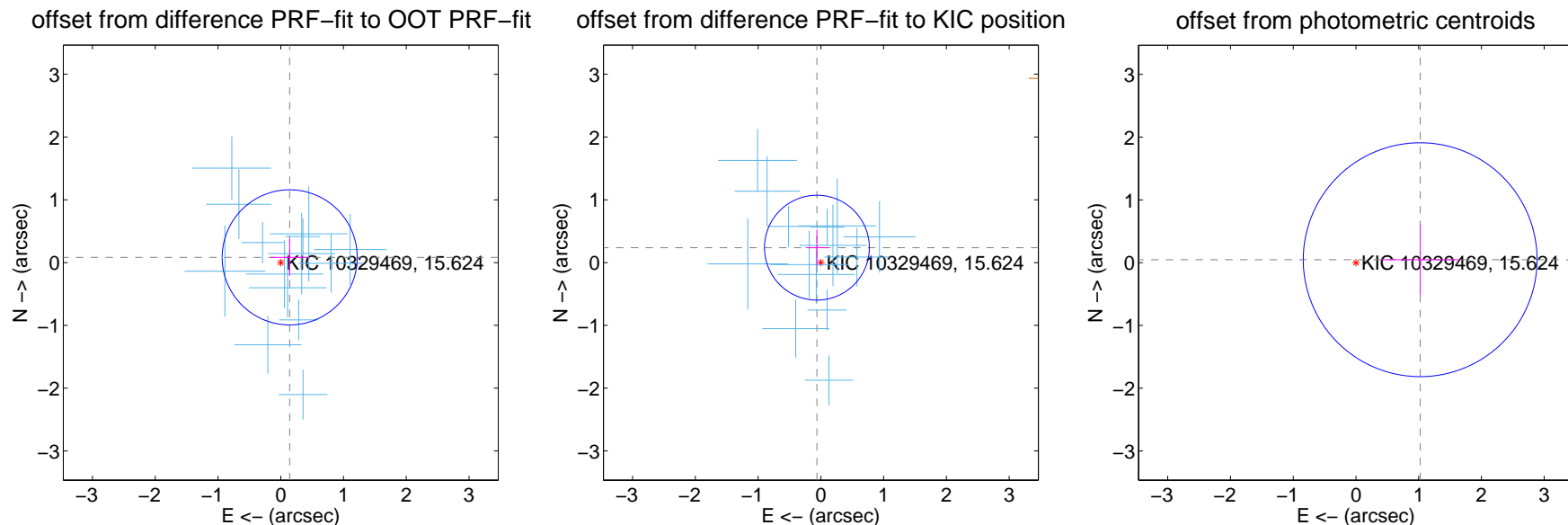
DV Centroid Data

Supplemental centroid analysis for 010329469-01. Kepler magnitude: 15.62. Transit SNR 20.96

There are 14 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.165 ± 0.359	0.46	-0.143 ± 0.306	0.083 ± 0.294
PRF-fit source offset from KIC position	0.246 ± 0.278	0.88	0.063 ± 0.178	0.238 ± 0.284
photometric centroid source offset	1.02 ± 0.62	1.65	-1.02 ± 0.62	0.05 ± 0.56



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.

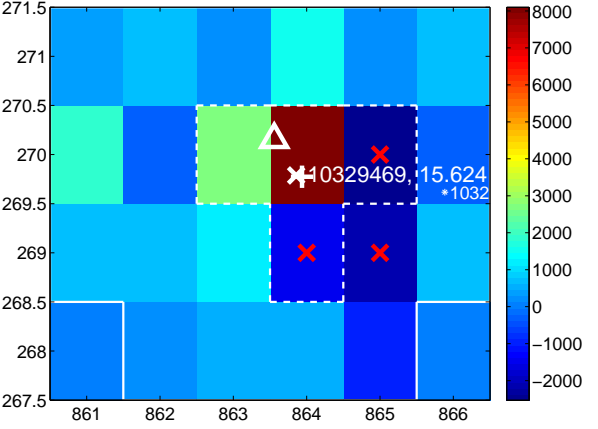
Q1 no difference image



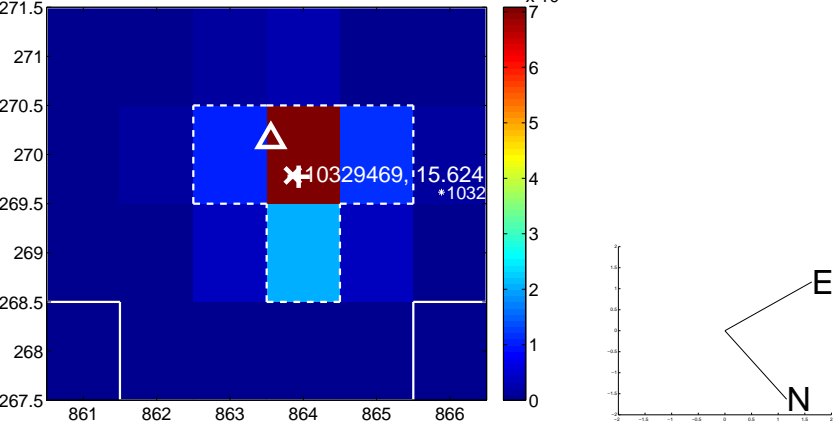
Q1 no OOT image



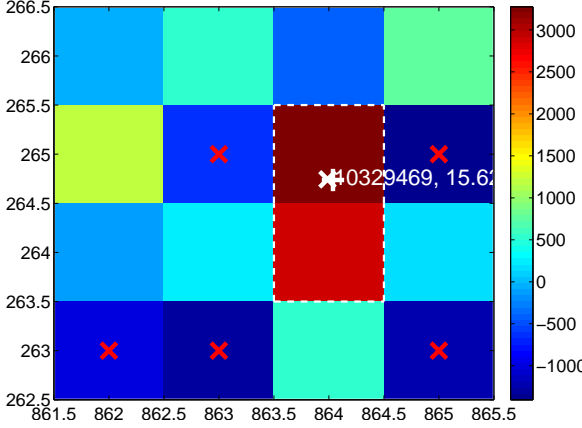
Q2 difference image



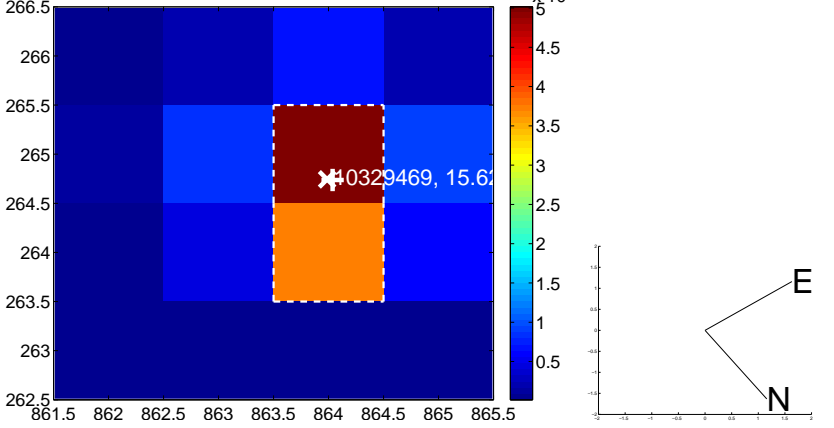
Q2 OOT image



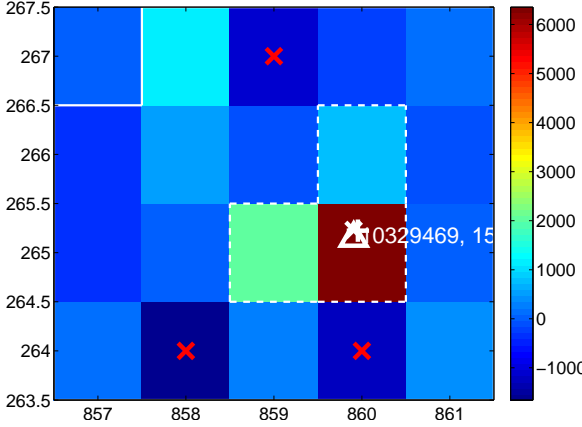
Q3 difference image. Poor Quality



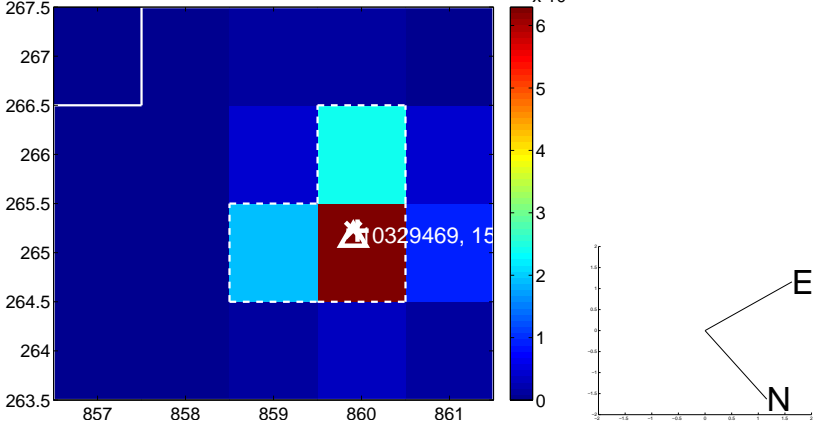
Q3 OOT image



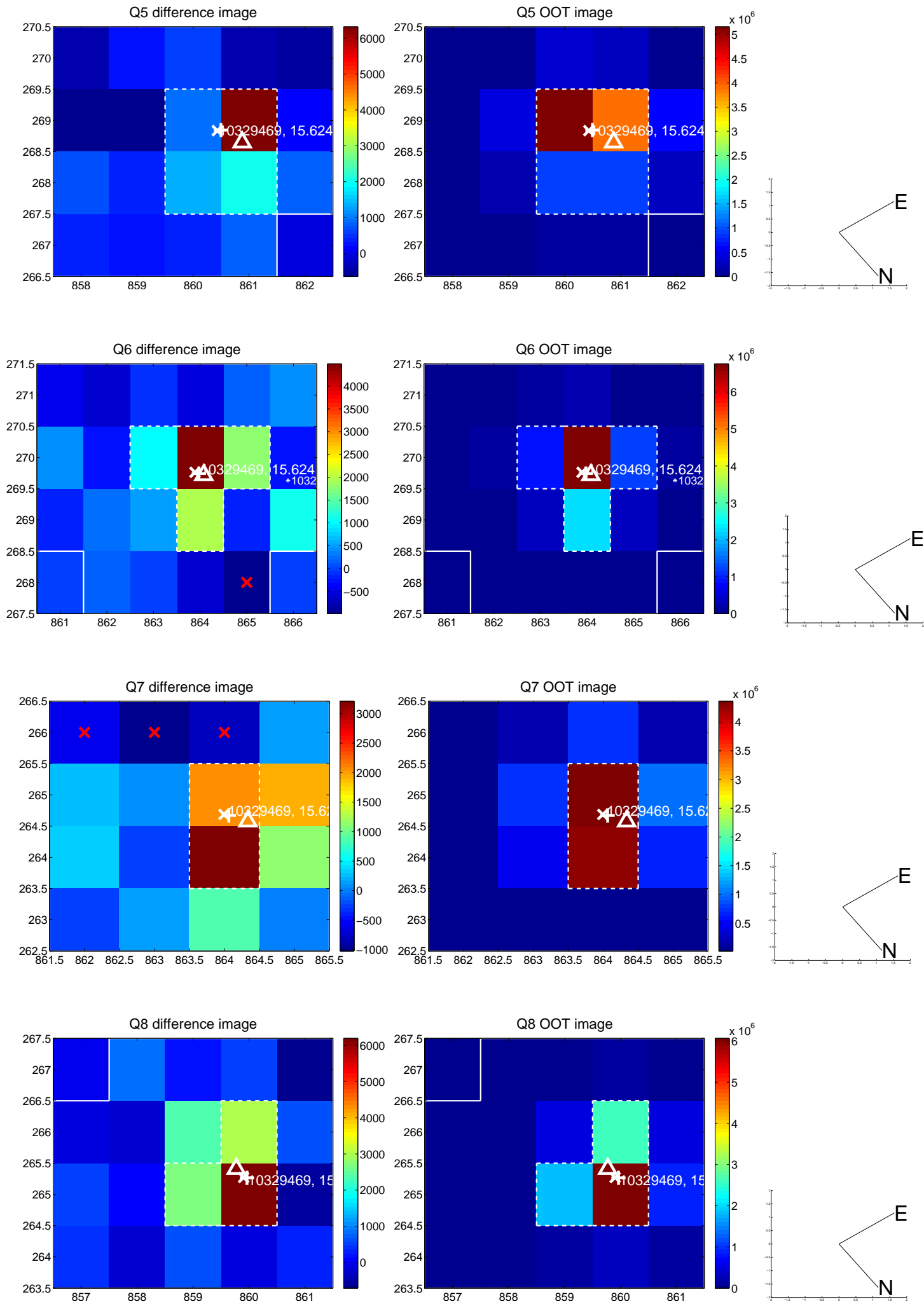
Q4 difference image



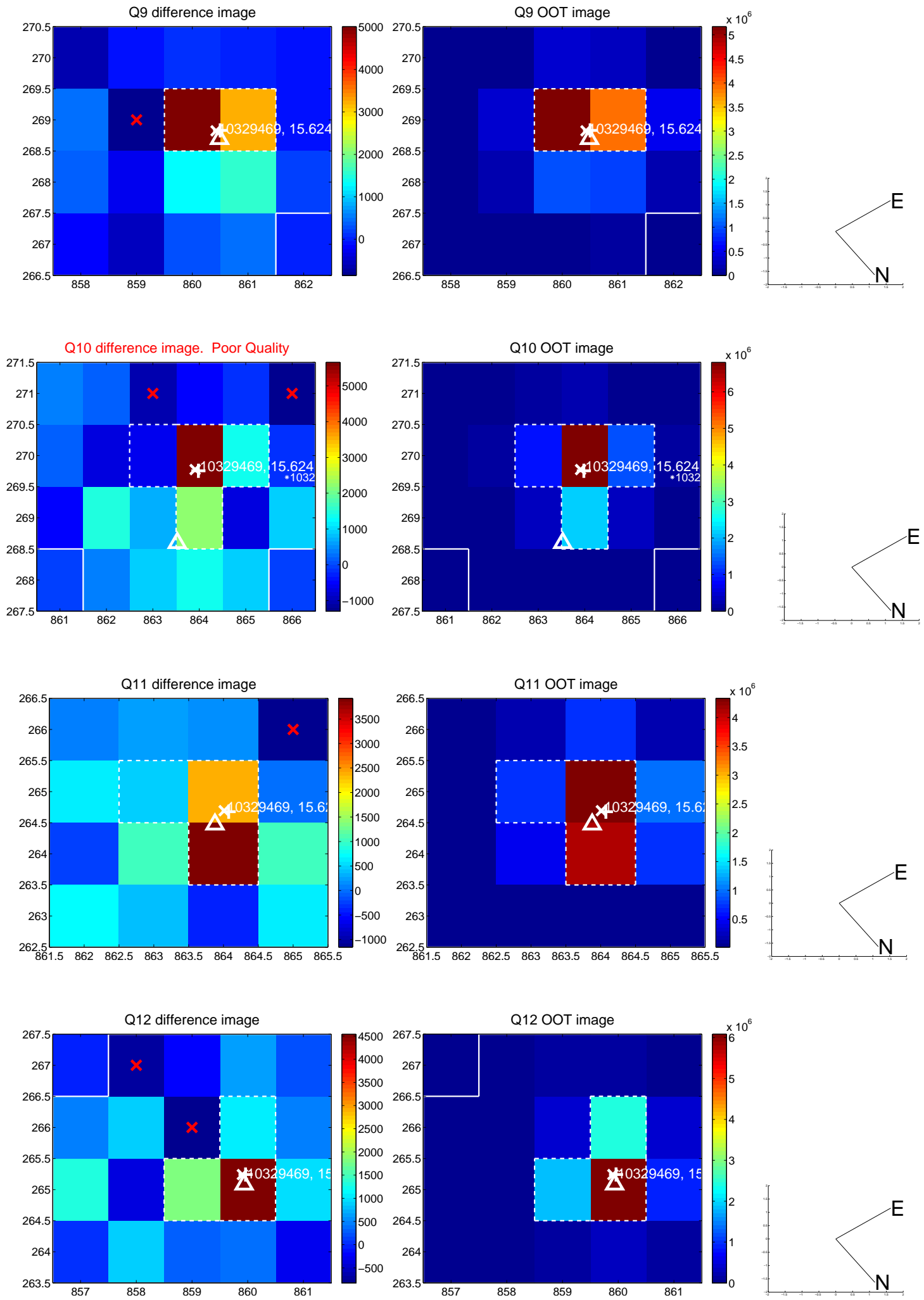
Q4 OOT image



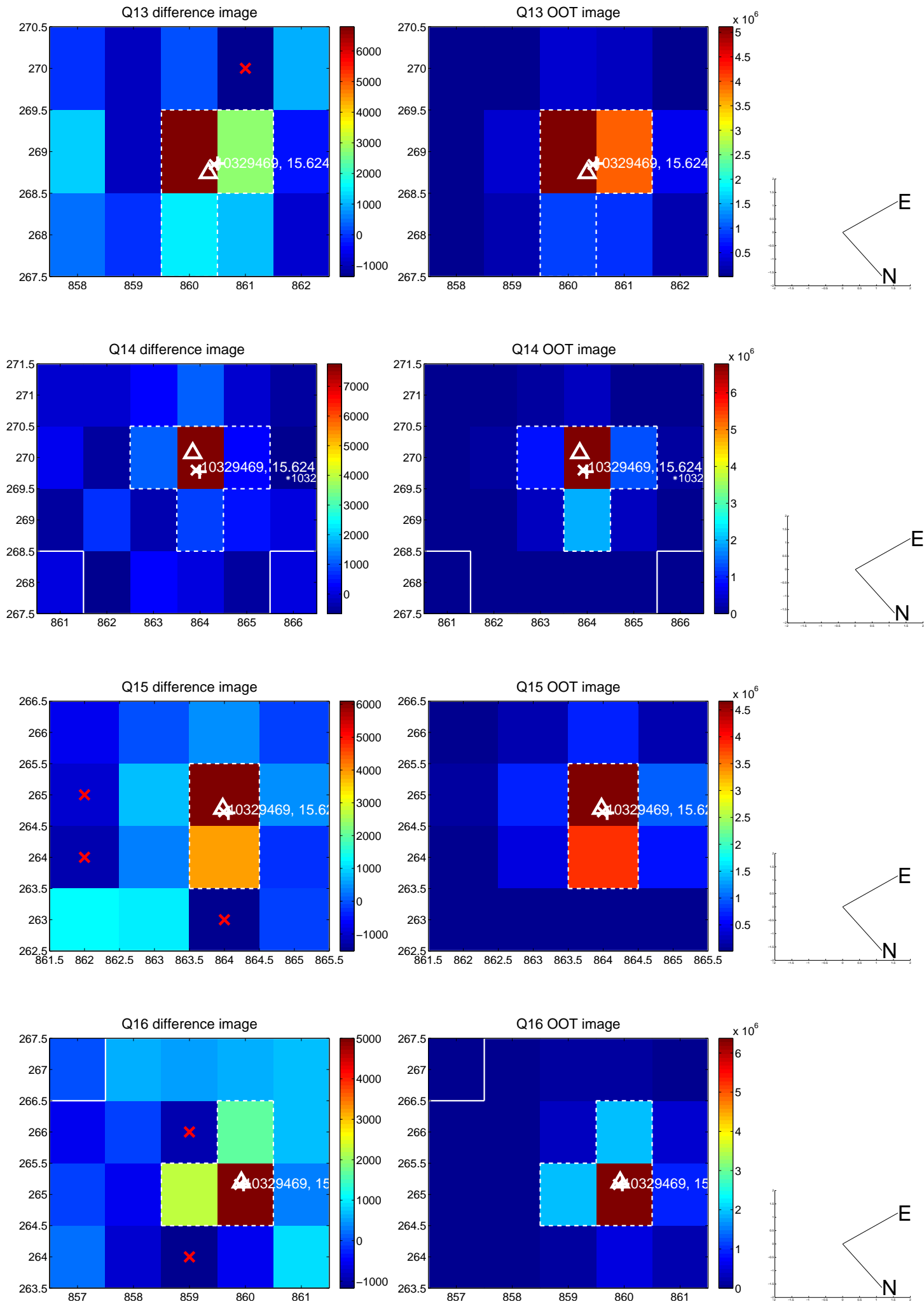
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



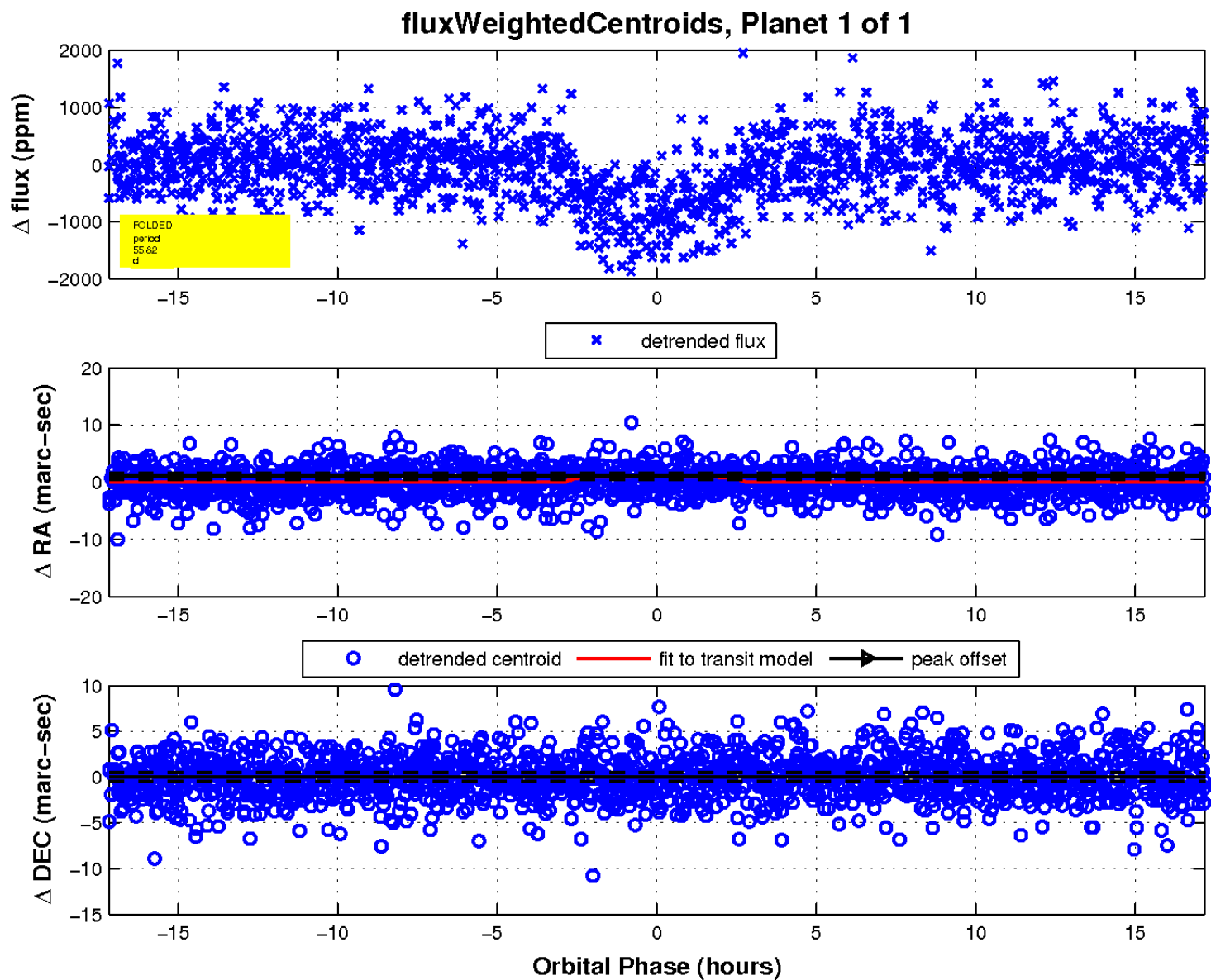
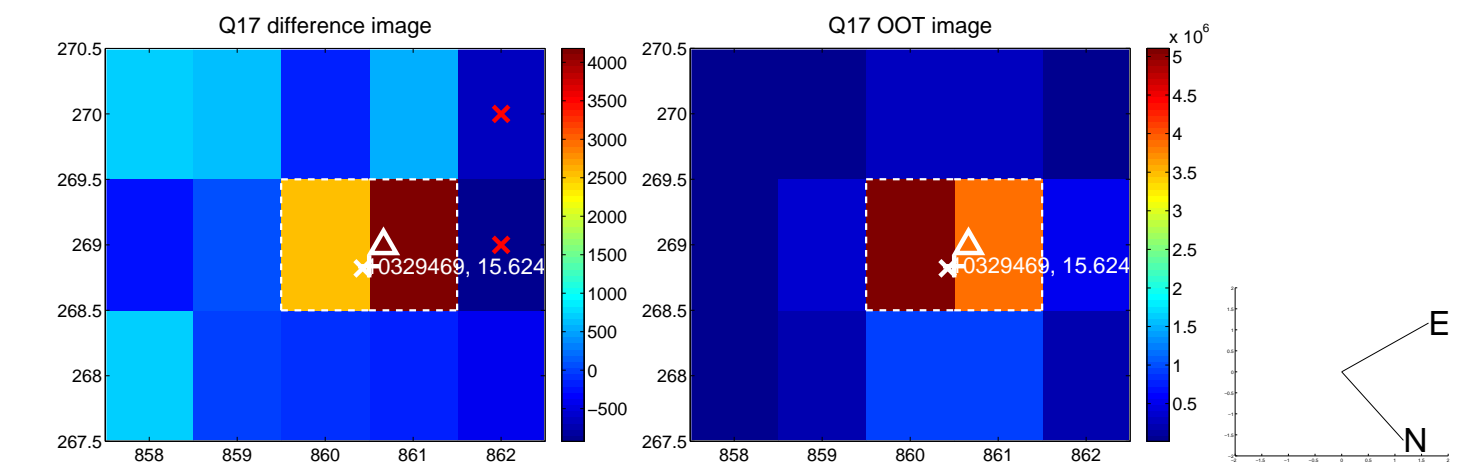
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

