

KIC 004679314

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})
004679314-01	OBS	4425.01	3.848343	133.260103	58.1	9.893	16.6	18.1	0.80	5709	0.66	289.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004679314-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_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.

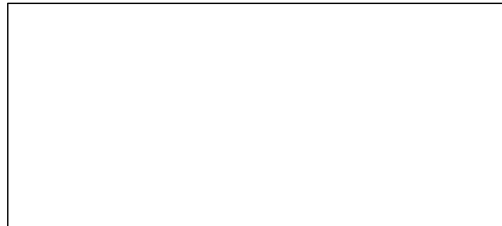
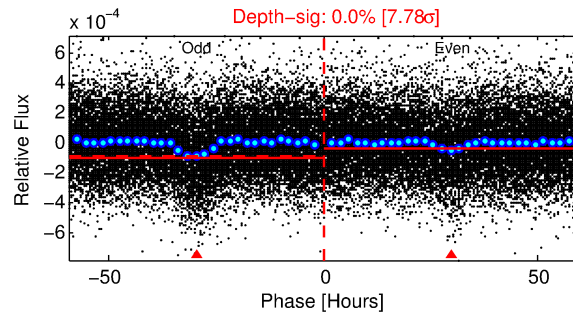
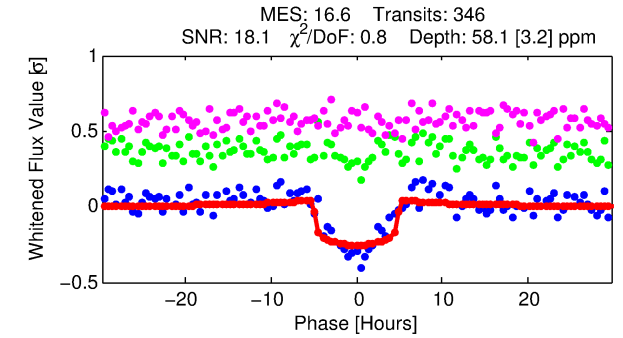
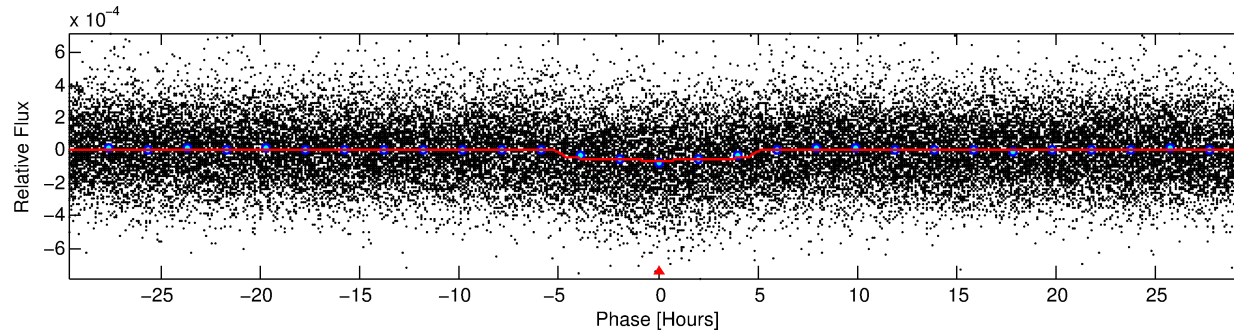
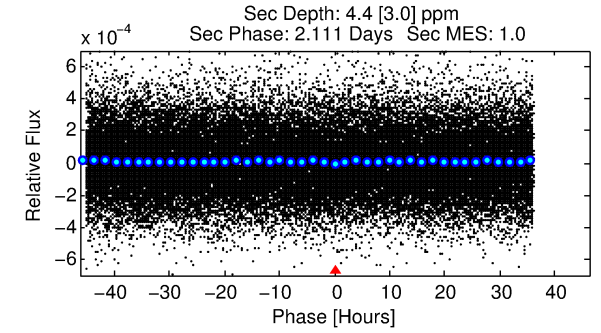
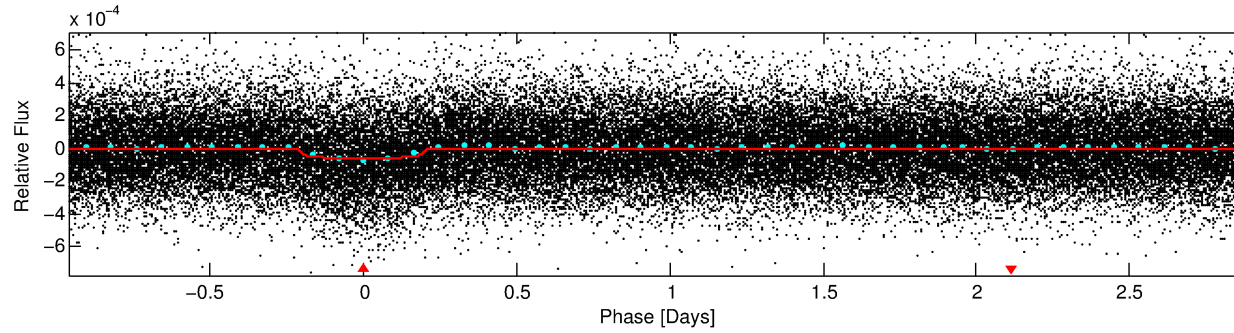
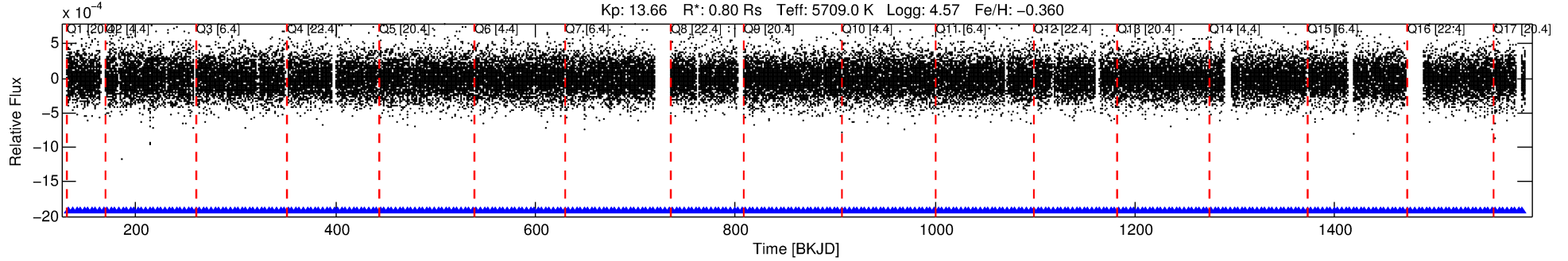
Ephemeris Match Information For 004679314-01

No Significant Match Found

DV One-Page Summary

KIC: 4679314 Candidate: 1 of 1 Period: 3.848 d
KOI: K04425.01 Corr: 0.989

Kp: 13.66 R*: 0.80 Rs Teff: 5709.0 K Logg: 4.57 Fe/H: -0.360



DV Fit Results:

Period = 3.84834 [0.00003] d
Epoch = 133.2601 [0.0055] BKJD
Rp/R* = 0.0076 [0.0020]
a/R* = 2.18 [2.08]
b = 0.75 [0.72]
Seff = 289.36 [95.12]
Teff = 1052 [86] K
Rp = 0.66 [0.24] Re
a = 0.0458 [0.0099] AU
Ag = 11.60 [10.51] [1.01σ]
Teffp = 3001 [644] K [3.00σ]

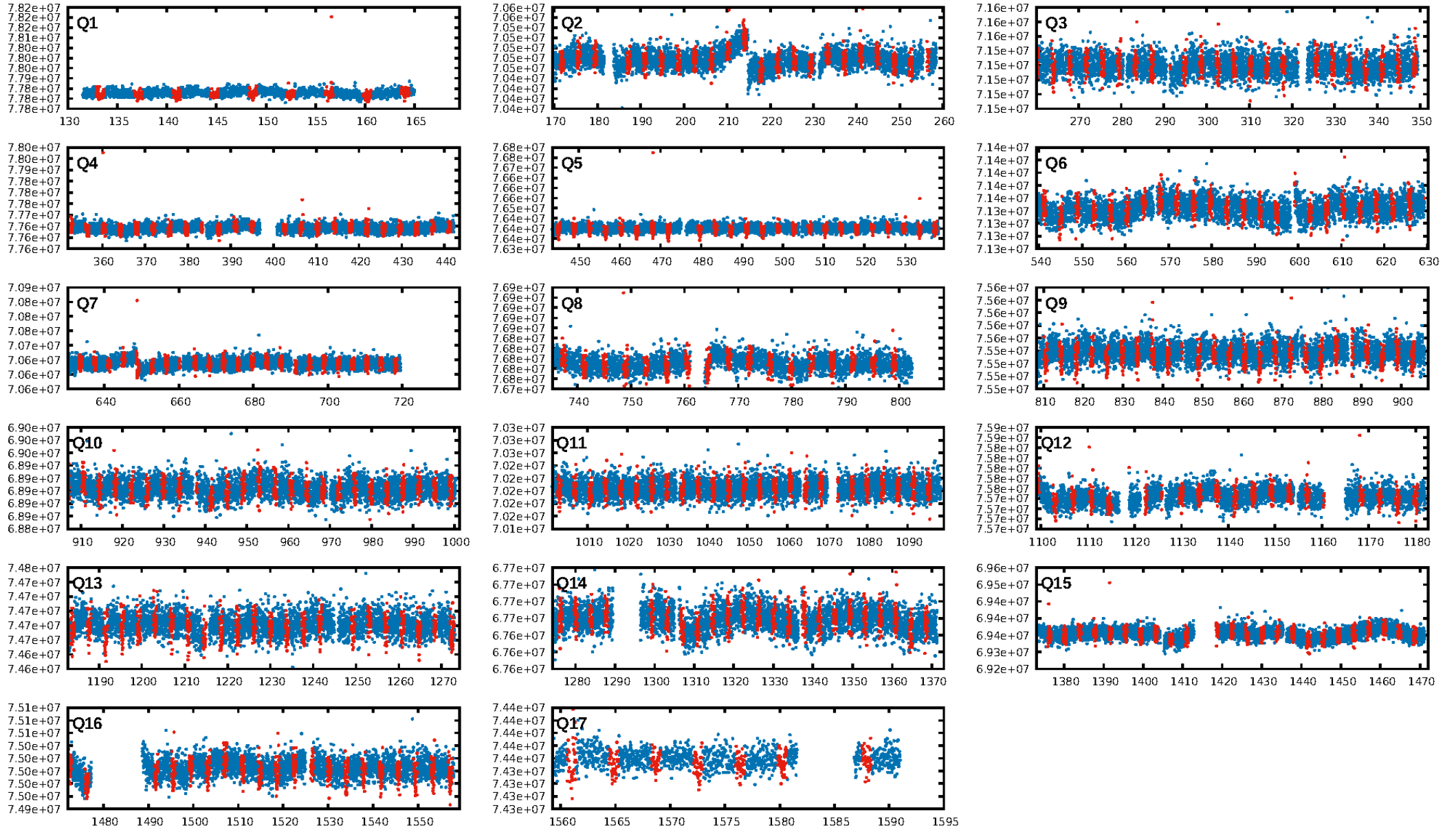
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.91e-59
RollingBand-fgt: 1.00 [330/330]
GhostDiagnostic-chr: -0.5817
Centroid-sig: 0.0%
Centroid-so: 33.080 arcsec [28.67σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

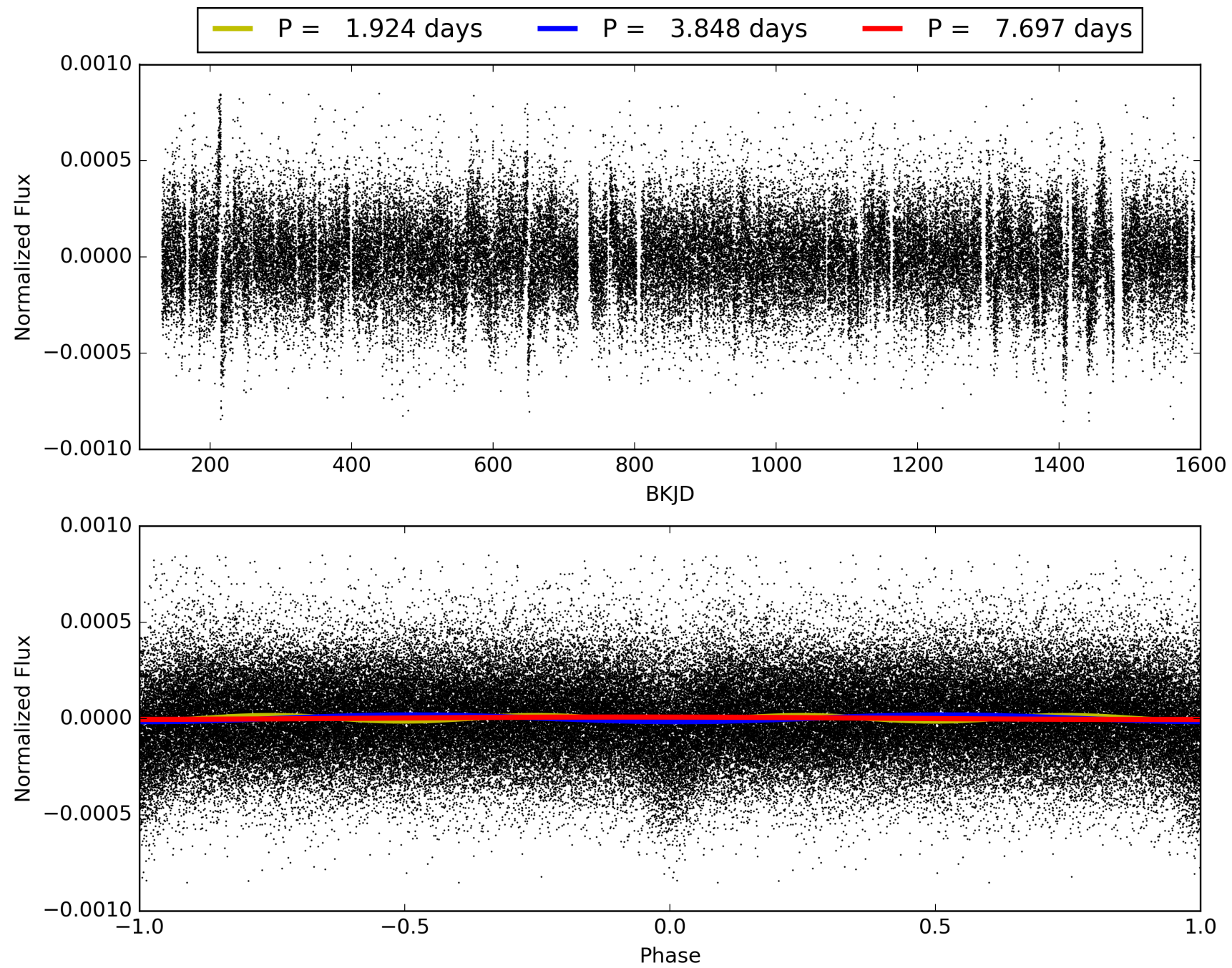
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:51:49 Z

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

TCE 004679314-01, PDC Light Curves

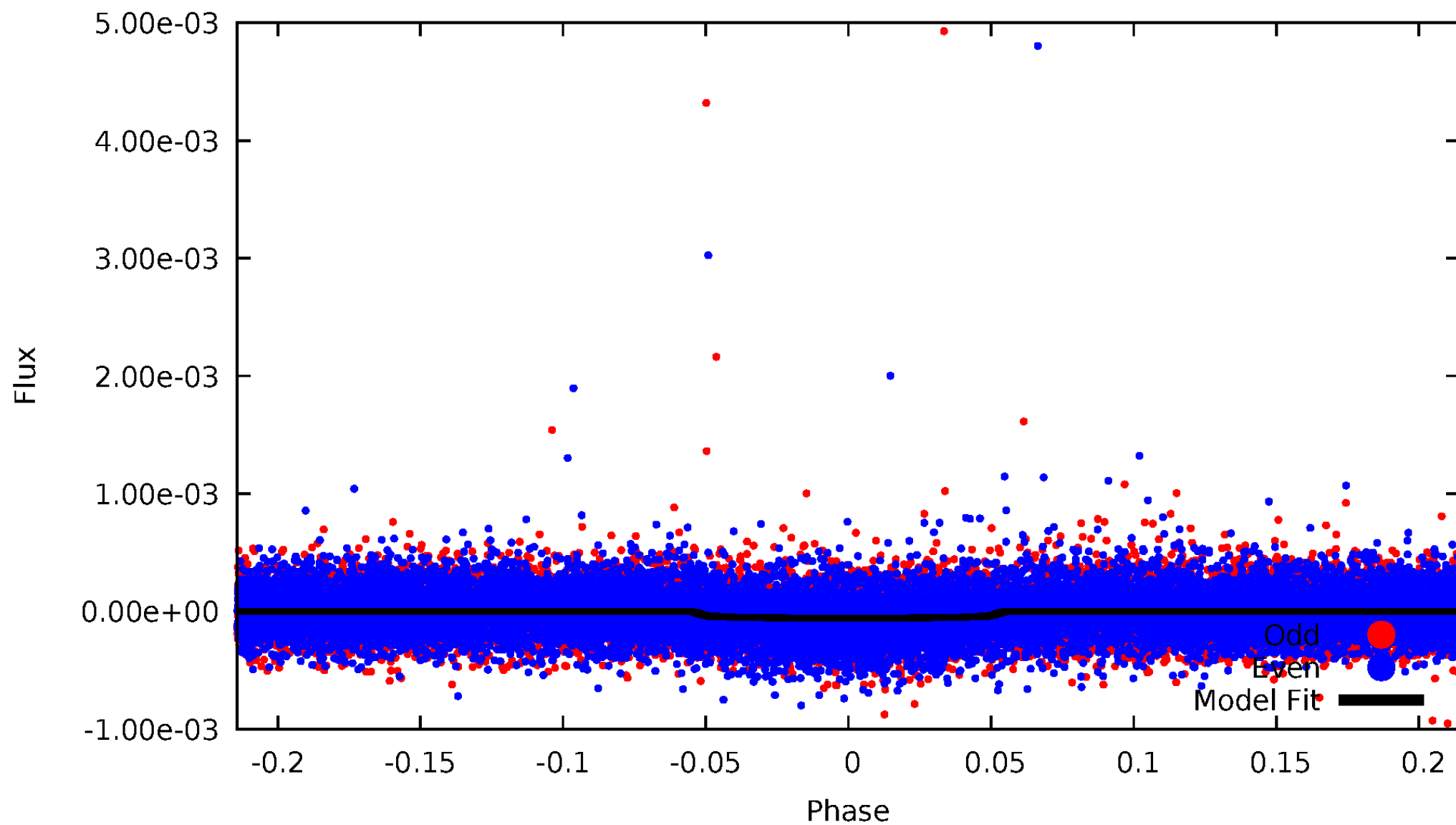


TCE 004679314-01



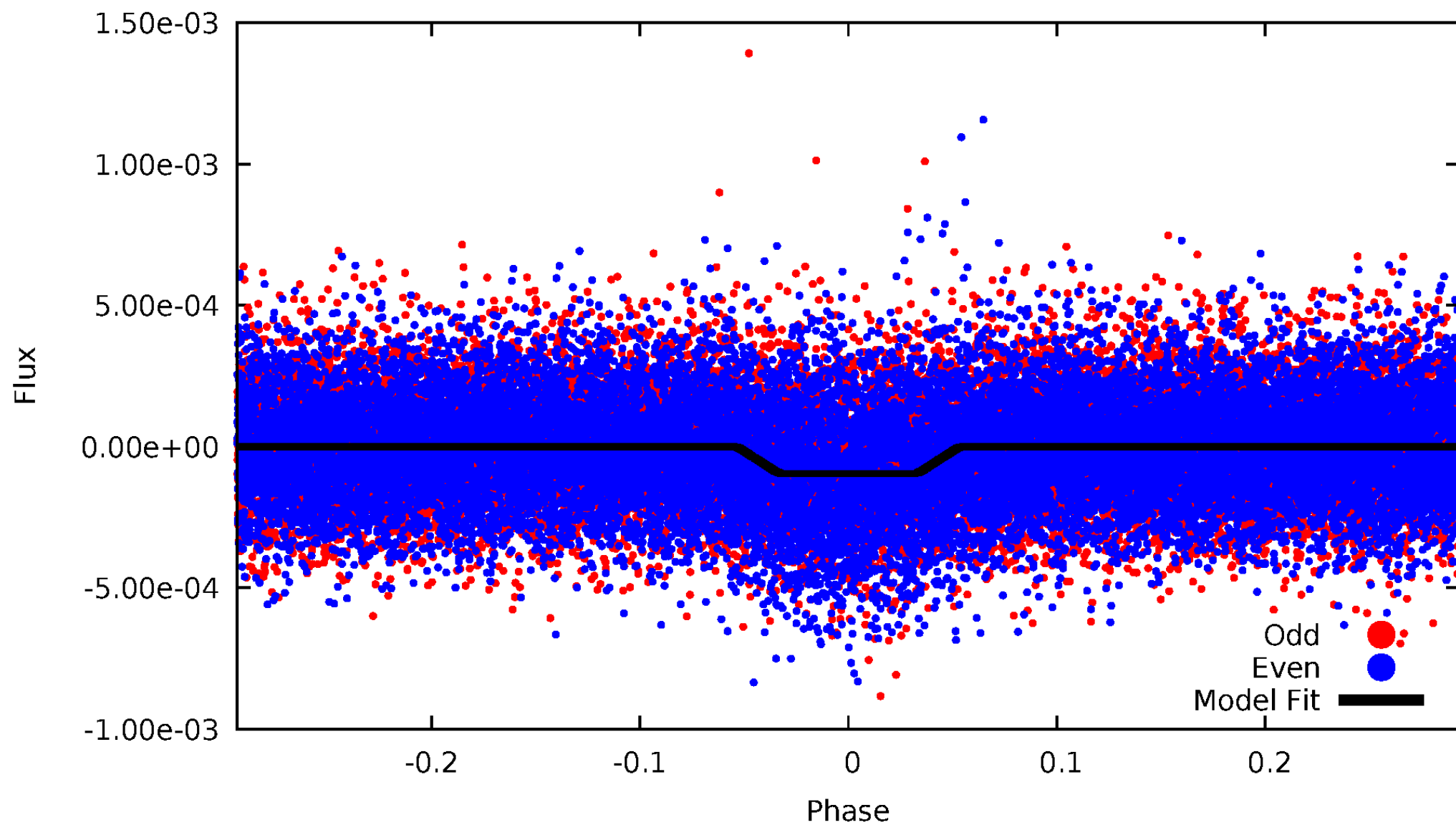
DV Odd/Even

TCE 004679314-01

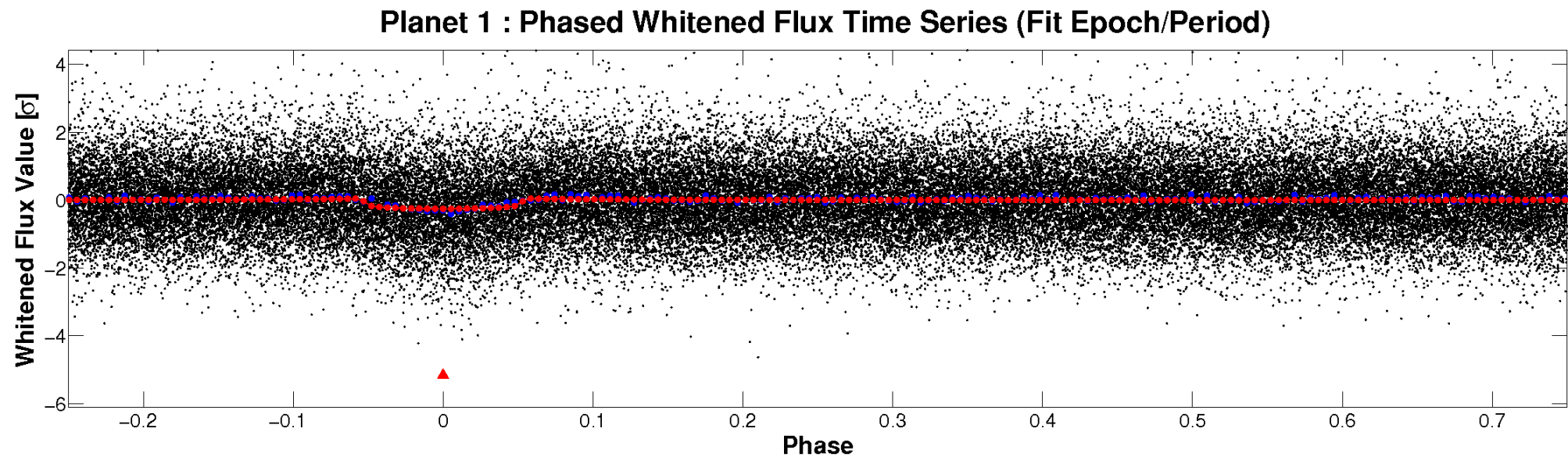
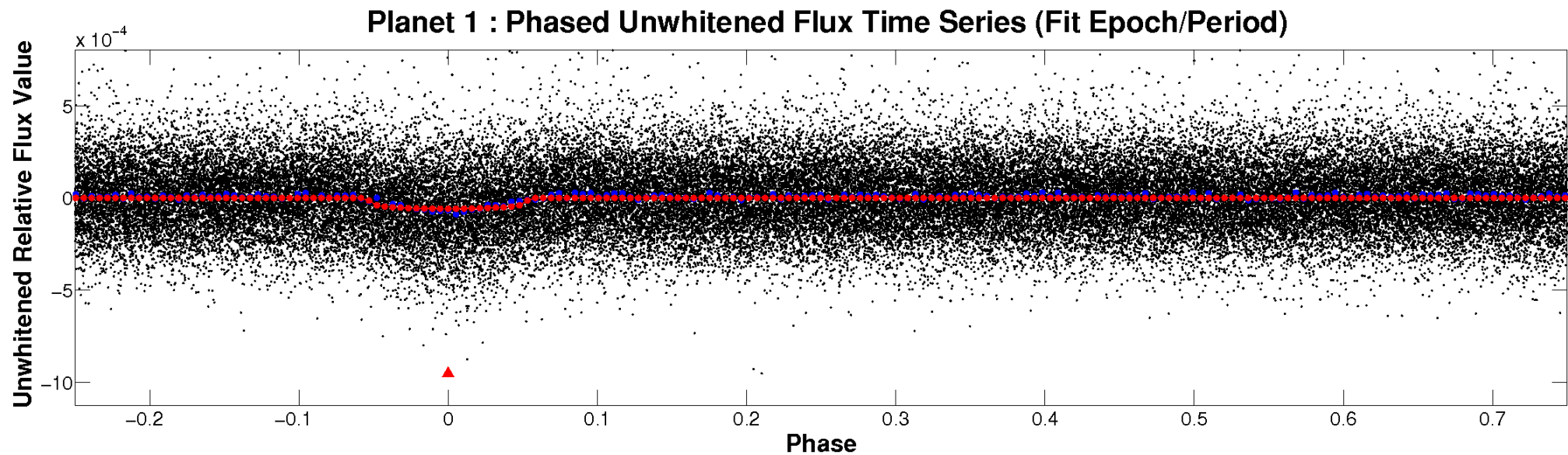


ALT Odd/Even

TCE 004679314-01

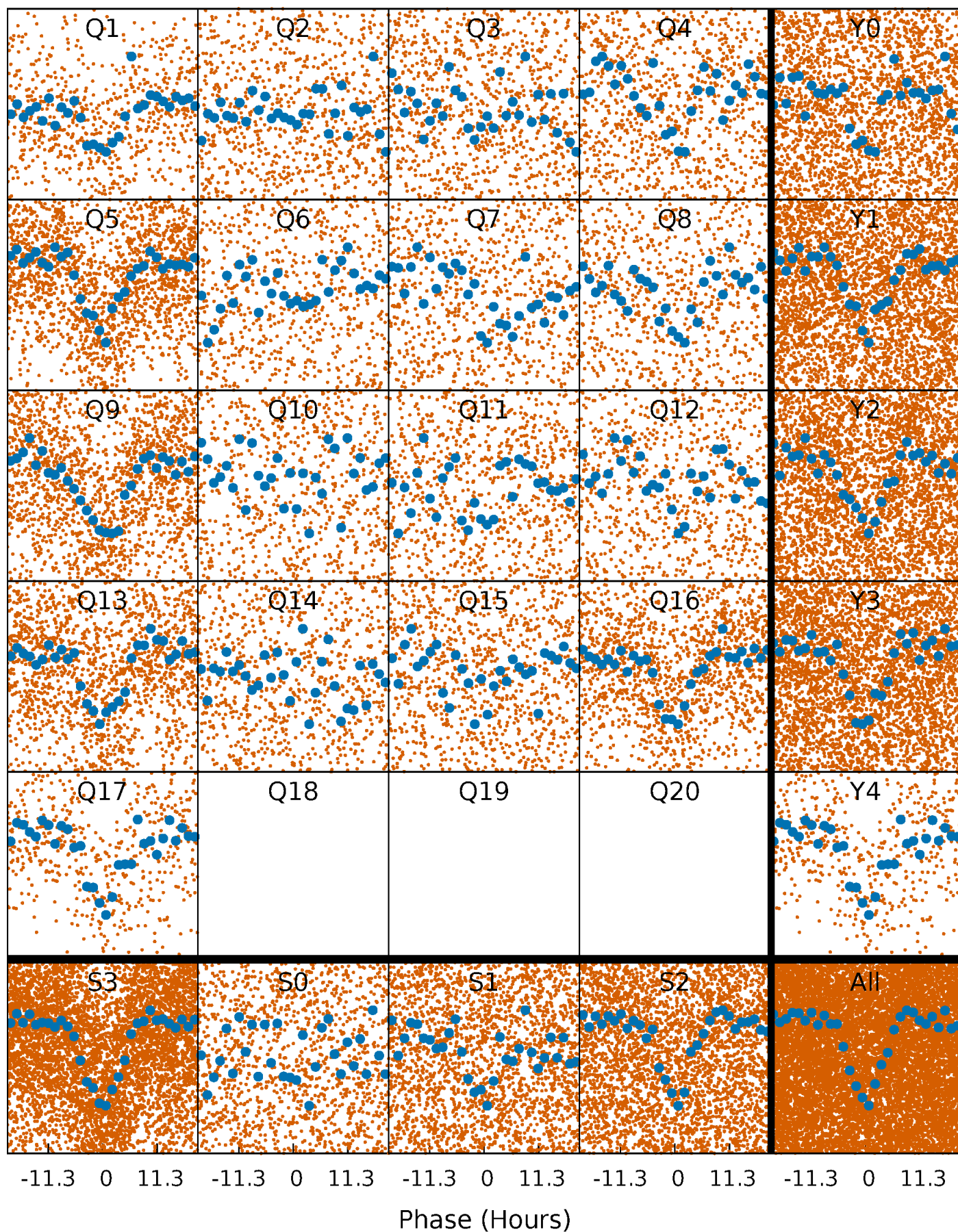


Non-Whitened Vs. Whitened Light Curve



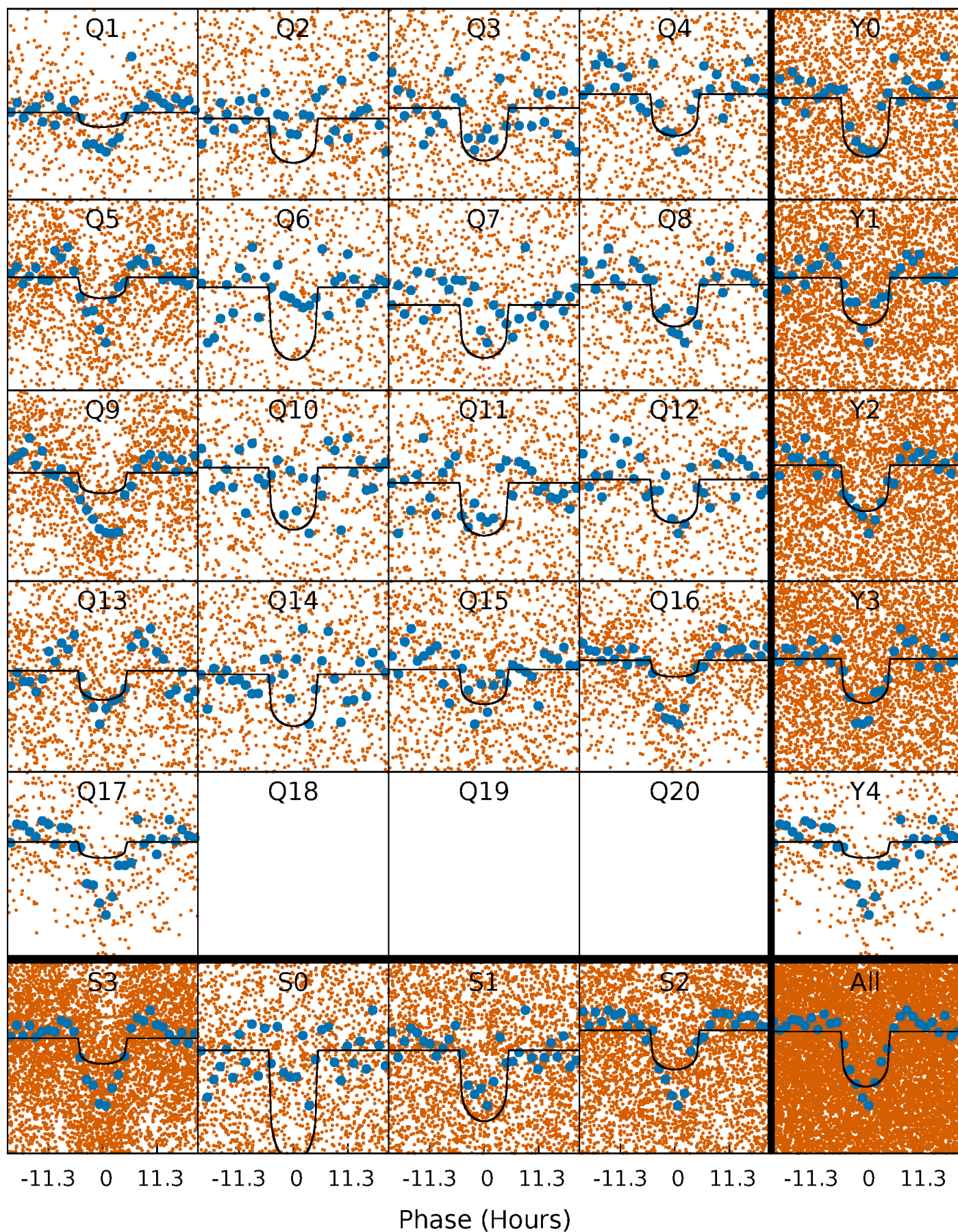
PDC Quarter-Phased Transit Curves

TCE 004679314-01 P= 3.848343 Days $T_0=133.260103$ (BKJD)



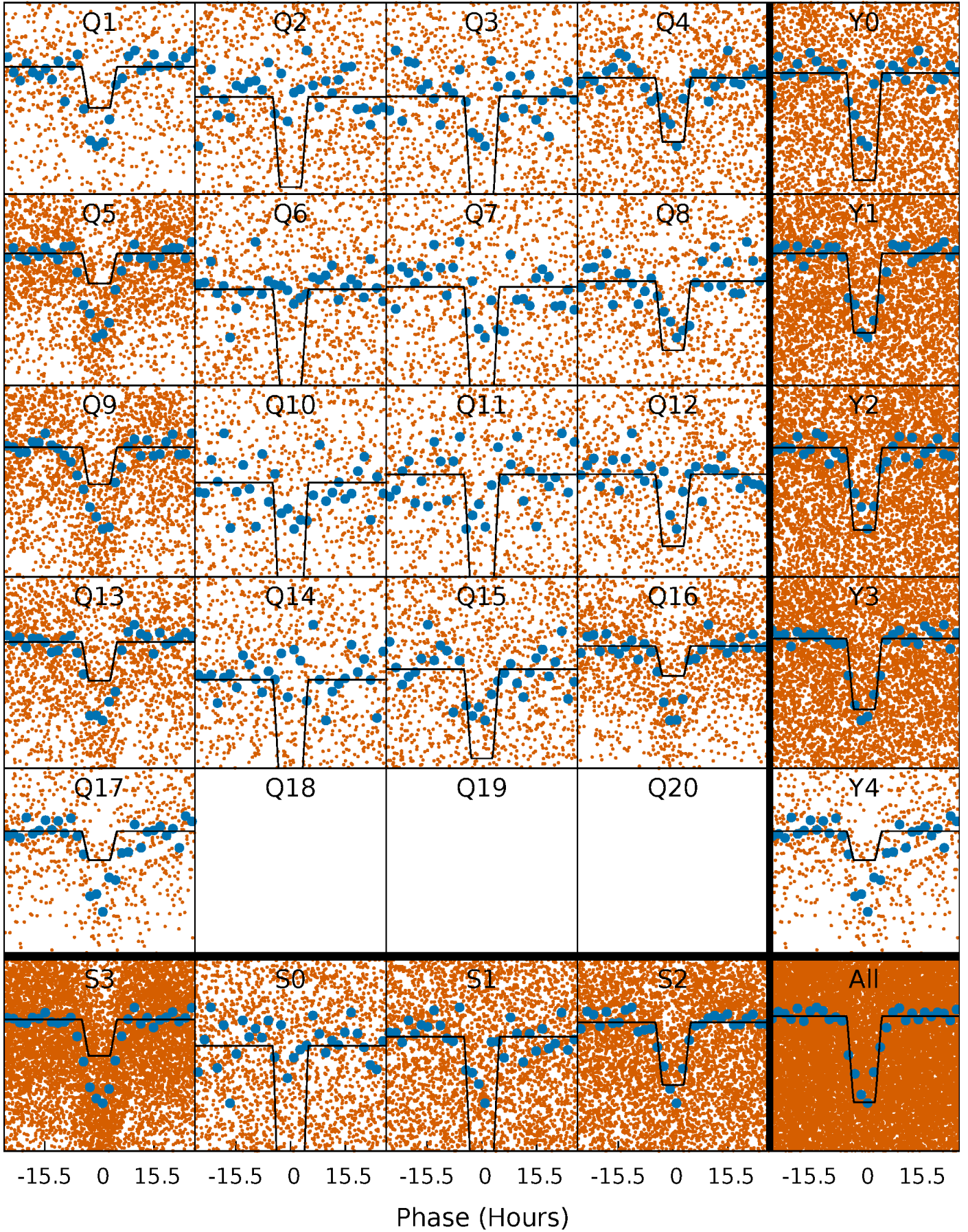
DV Quarter-Phased Transit Curves

TCE 004679314-01 P= 3.848343 Days $T_0=133.260103$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

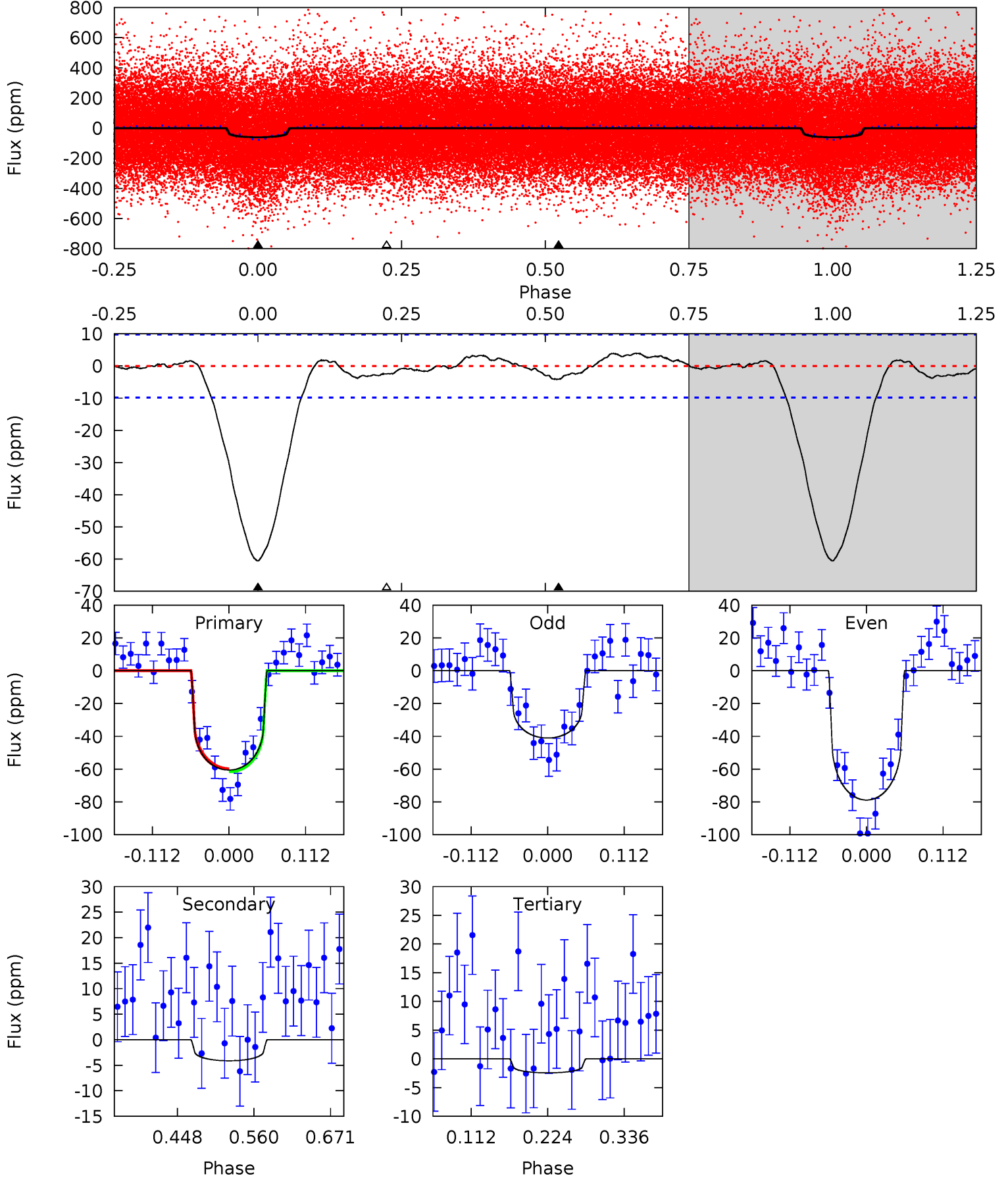
TCE 004679314-01 P= 3.848271 Days $T_0=133.275805$ (BKJD)



DV Model-Shift Uniqueness Test

004679314-01, P = 3.848343 Days, E = 129.411760 Days

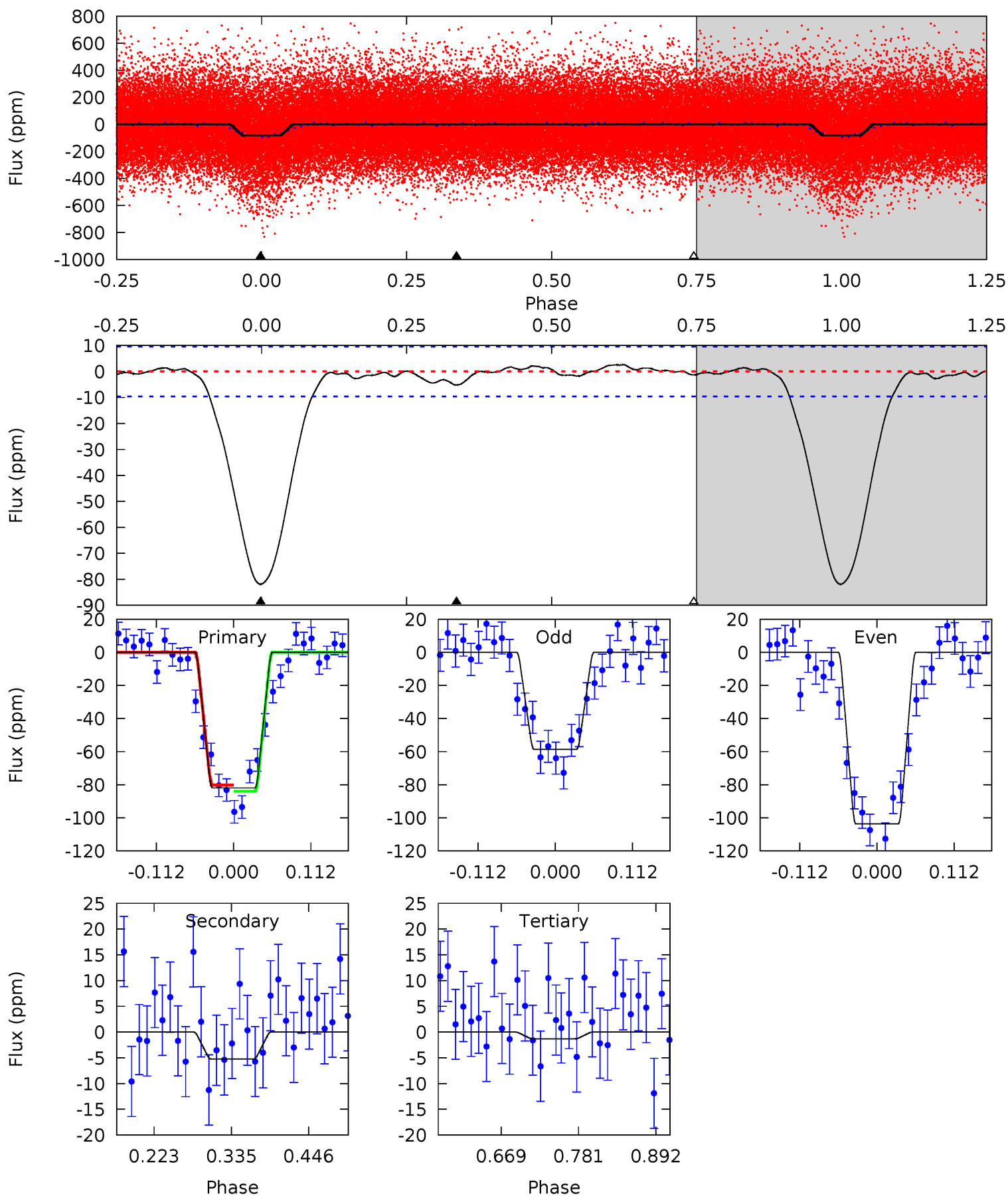
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.0	1.91	1.13	0	4.54	1.59	0.93	26.9	28.0	0.78	1.91	8.78	1.08	0.06	0.40



Alt Model-Shift Uniqueness Test

004679314-01, P = 3.848271 Days, E = 129.427534 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.6	2.47	0.62	0	4.54	1.59	0.60	38.0	38.6	1.85	2.47	10.6	1.25	0.03	0.86



Stellar Parameters For KIC 004679314

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5709^{+154}_{-154}	$4.570^{+0.042}_{-0.168}$	$-0.360^{+0.300}_{-0.300}$	$0.798^{+0.207}_{-0.069}$	$0.863^{+0.098}_{-0.089}$	$2.391^{+0.521}_{-1.121}$
	+3%/-3%	+1%/-4%	+83%/-83%	+26%/-9%	+11%/-10%	+22%/-47%
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 004679314-01 / KOI 4425.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-4 ± 2	$0.69^{+0.21}_{-0.17}$	1496^{+89}_{-63}	3409^{+446}_{-439}	$9.503^{+10.428}_{-5.670}$
Alt.	-5 ± 2	$0.88^{+0.20}_{-0.19}$	1497^{+83}_{-61}	3285^{+333}_{-305}	$7.504^{+5.985}_{-3.731}$

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

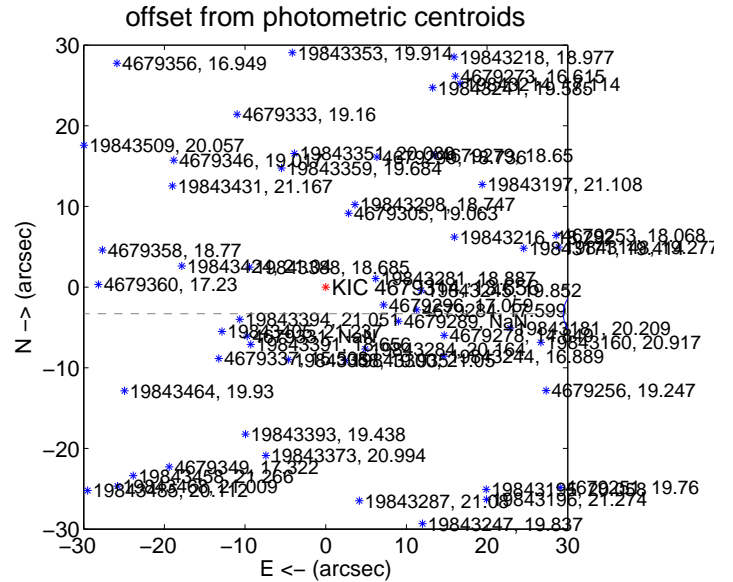
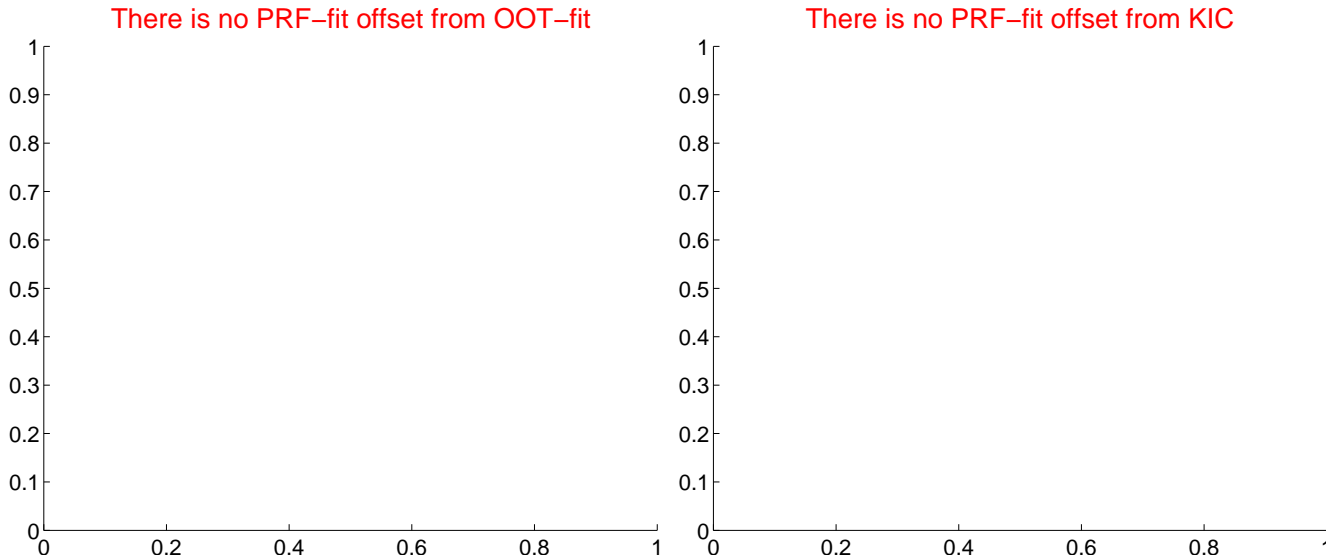
DV Centroid Data

Supplemental centroid analysis for 004679314-01. Kepler magnitude: 13.66. Transit SNR 18.10

There are 0 quarters with good PRF difference image offsets

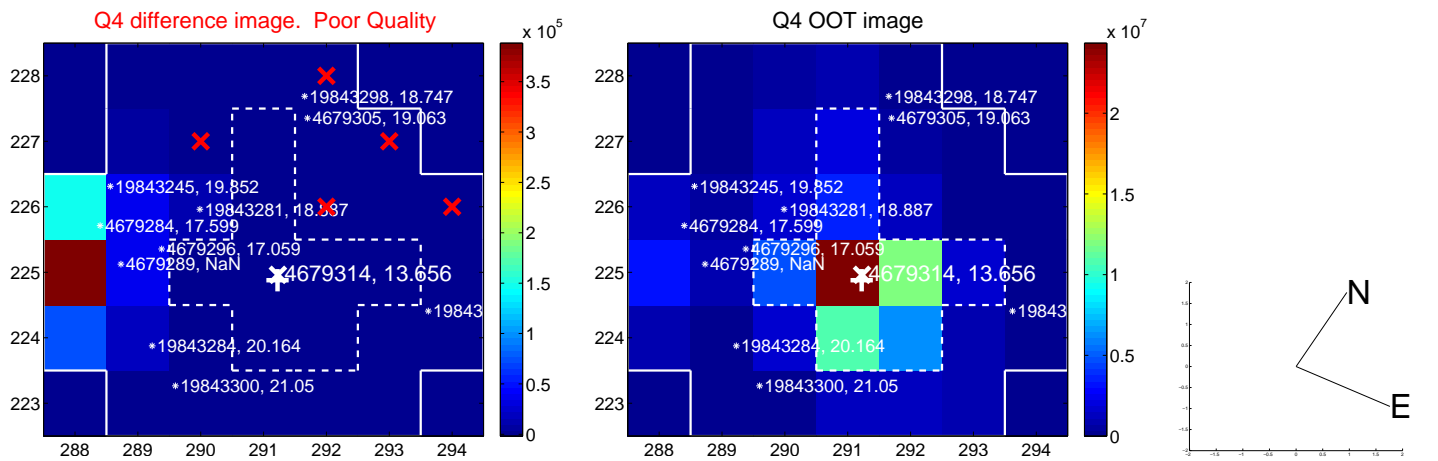
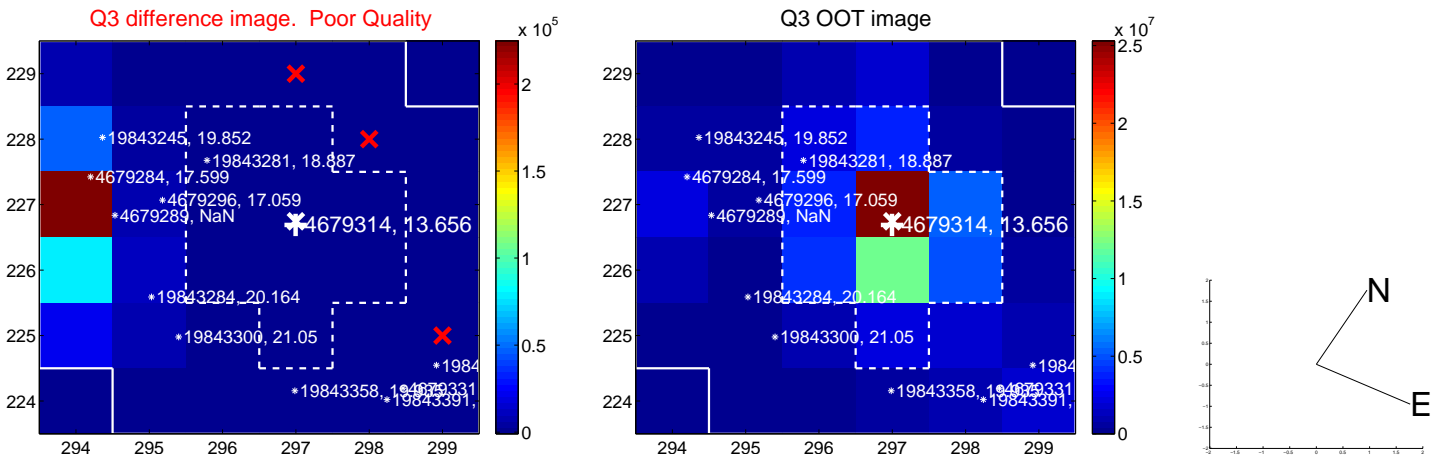
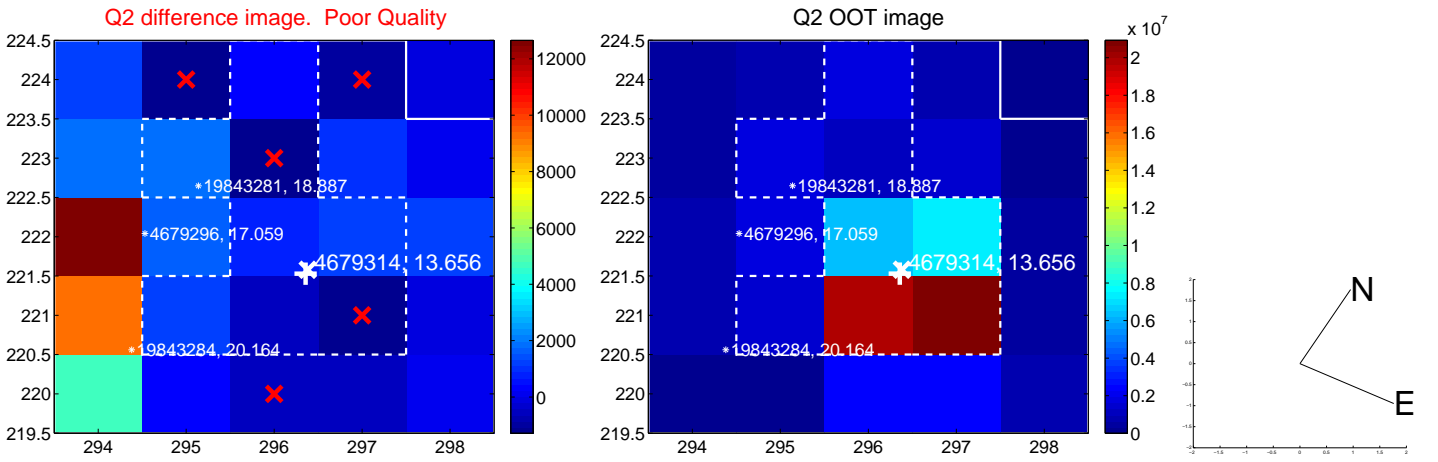
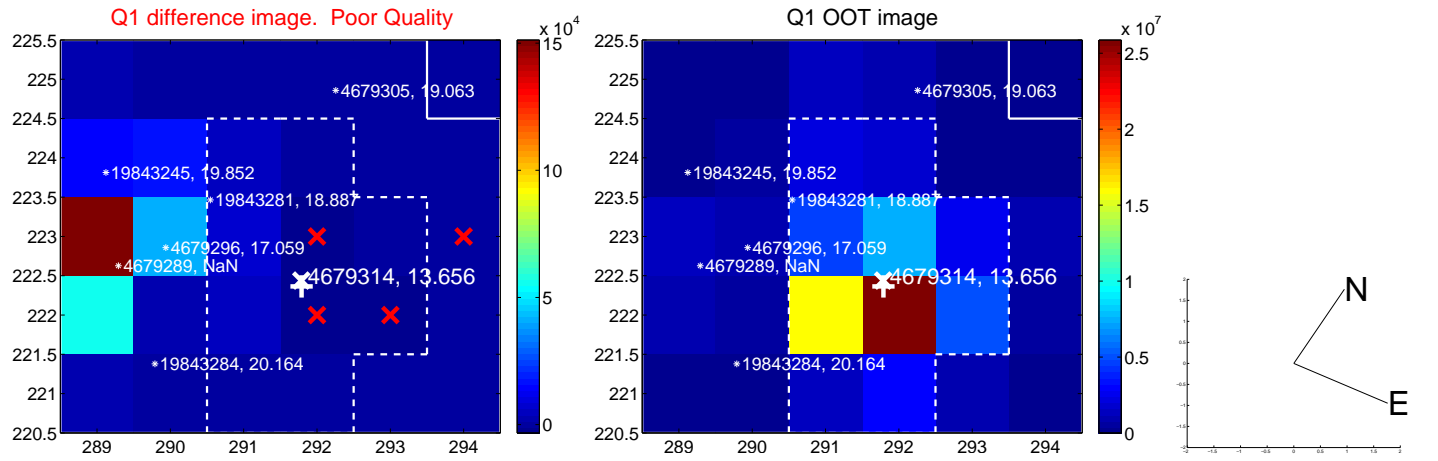
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	33.08 \pm 1.15	28.67	-32.92 \pm 1.16	-3.30 \pm 0.82

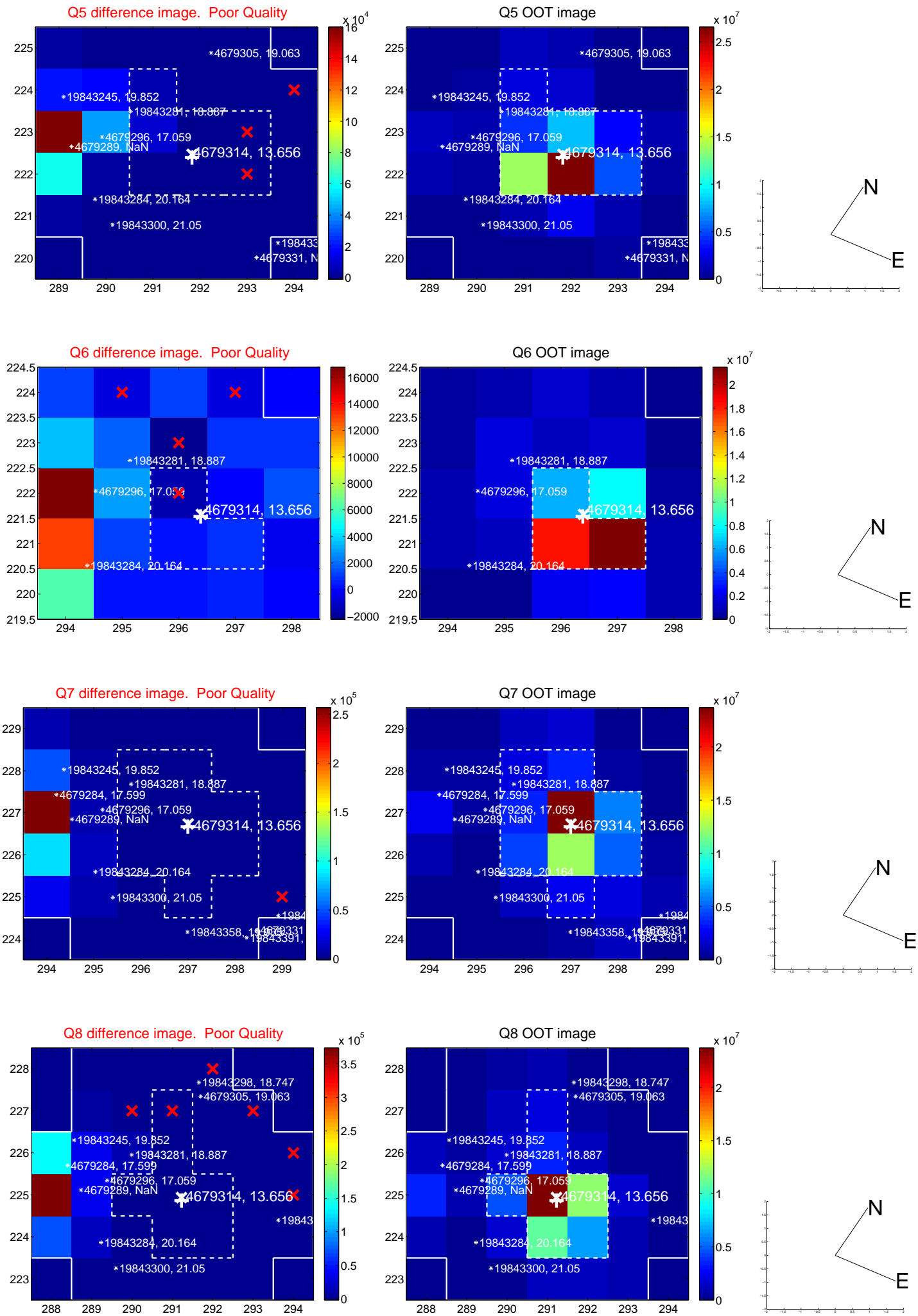


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

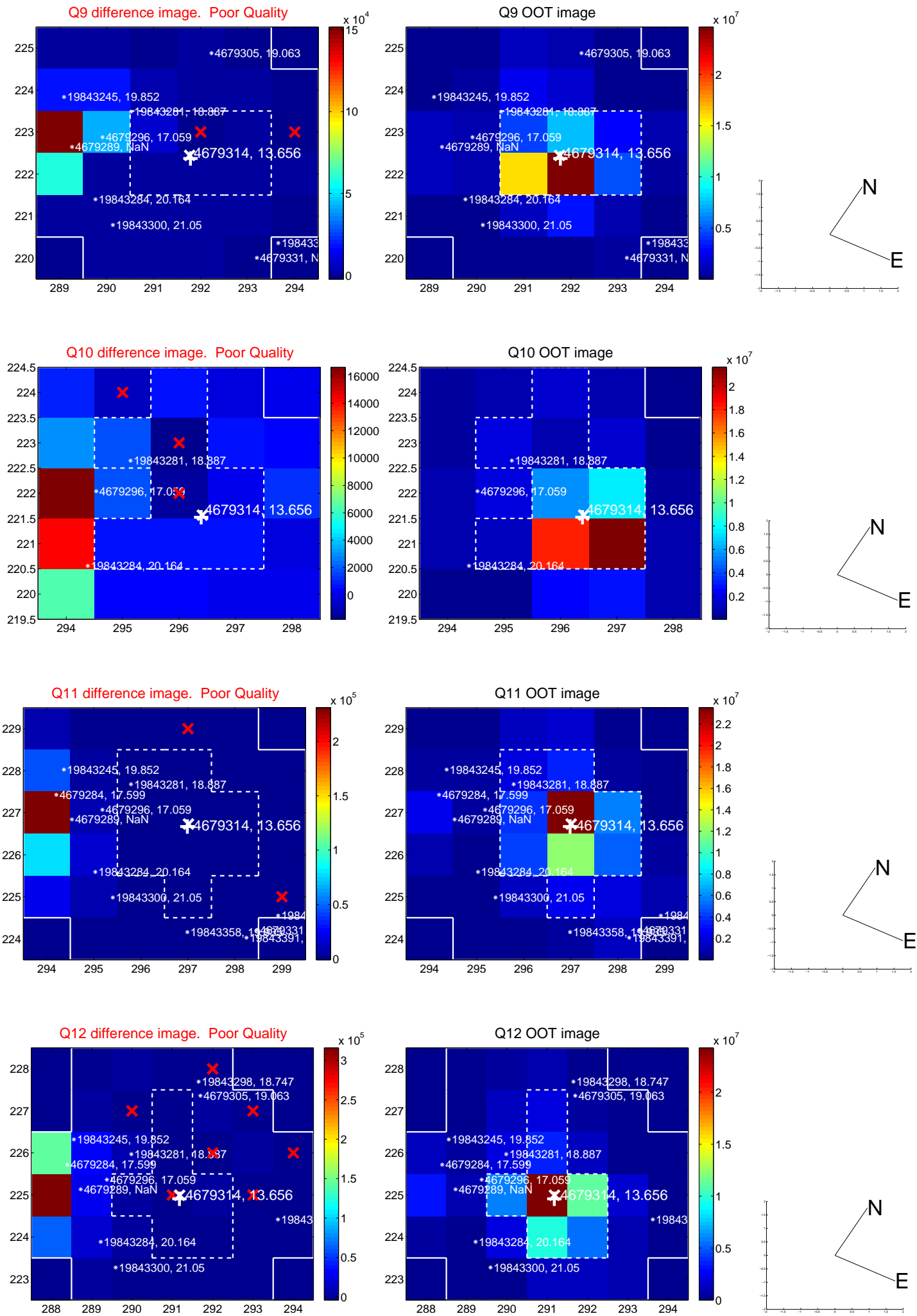
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



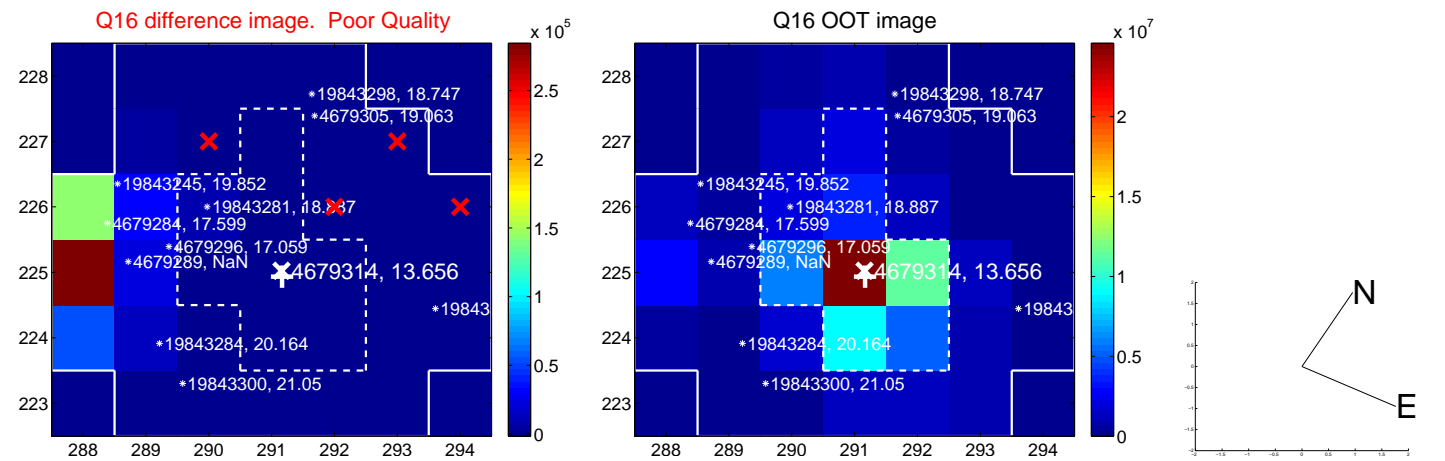
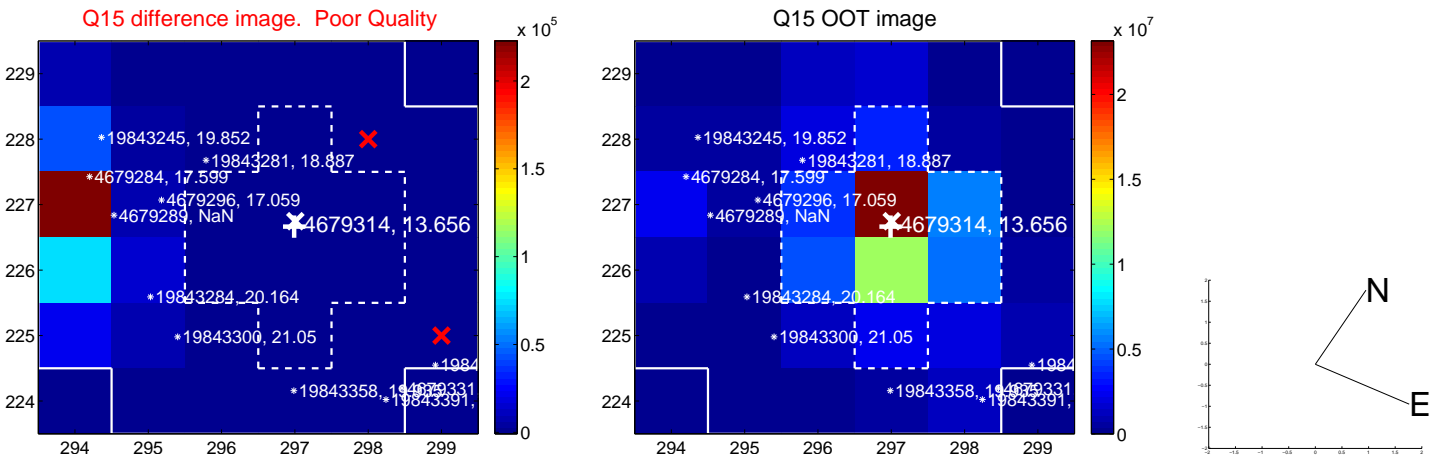
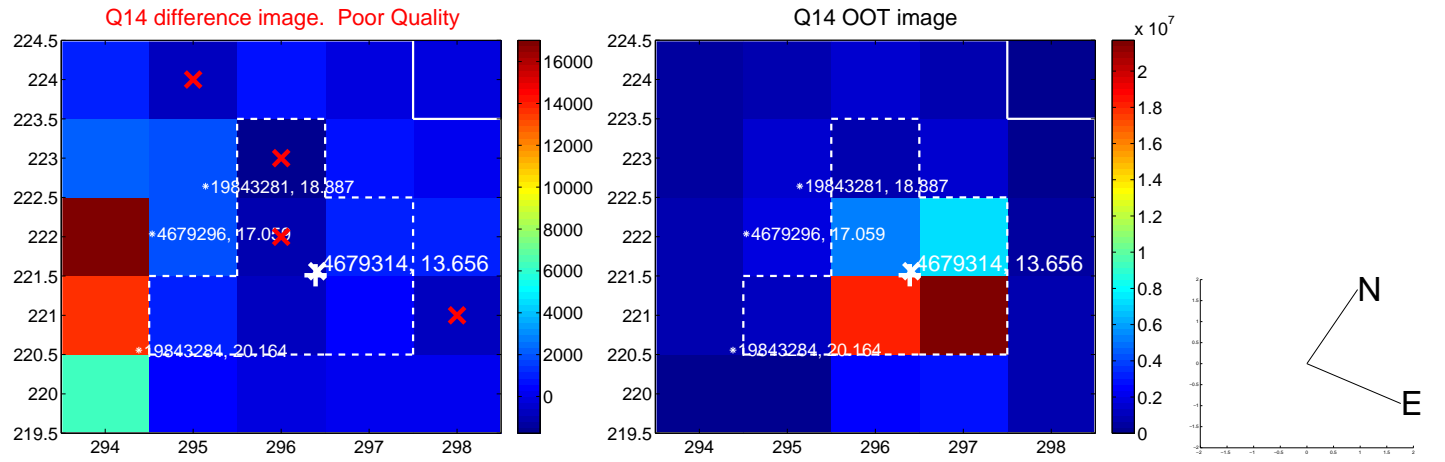
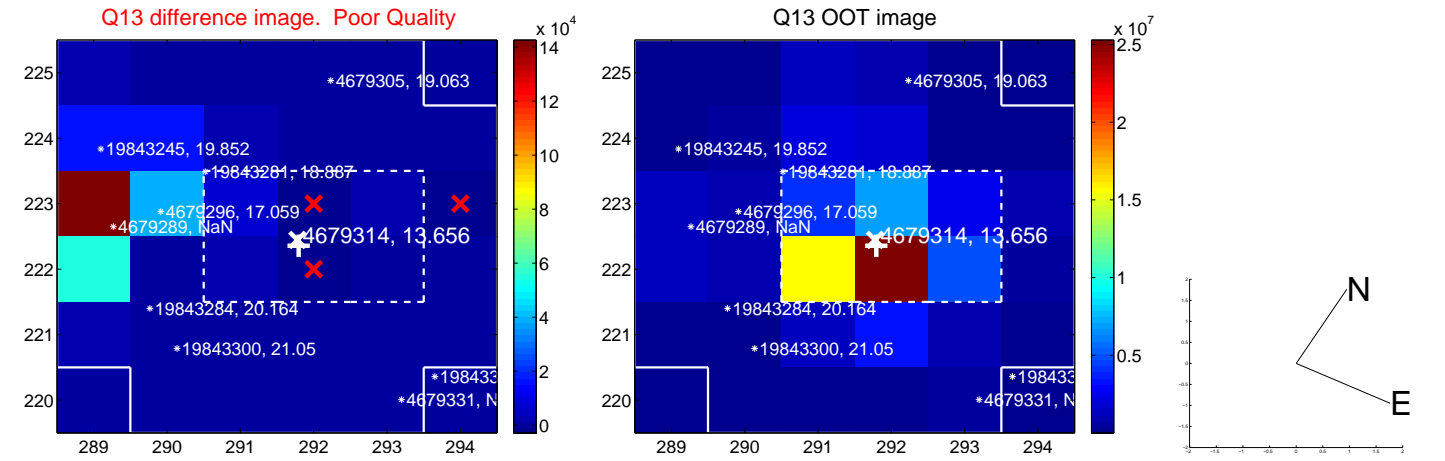
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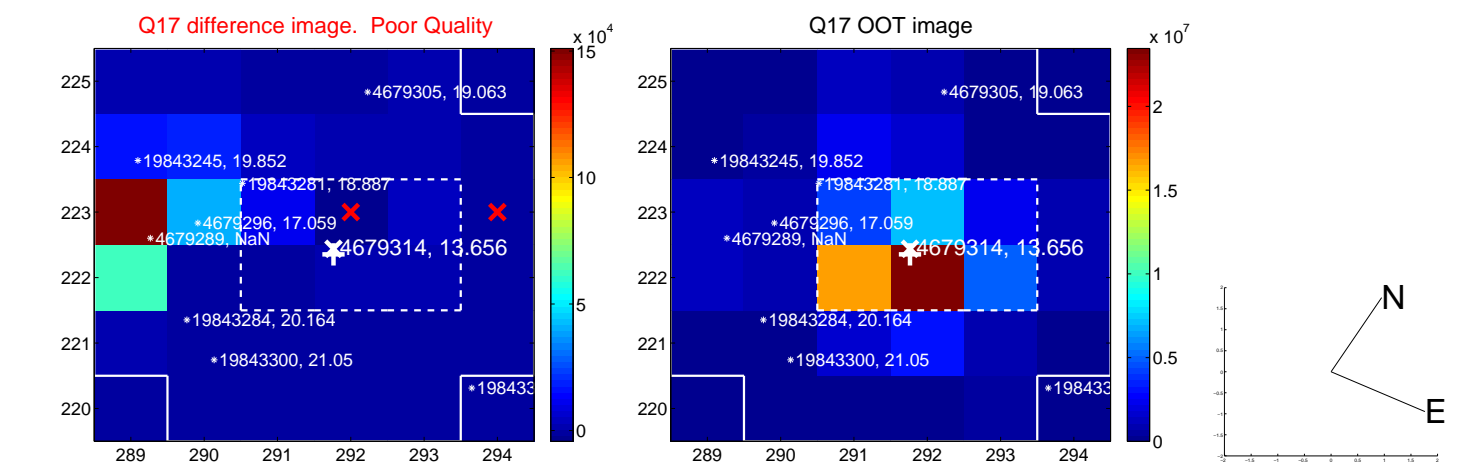
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



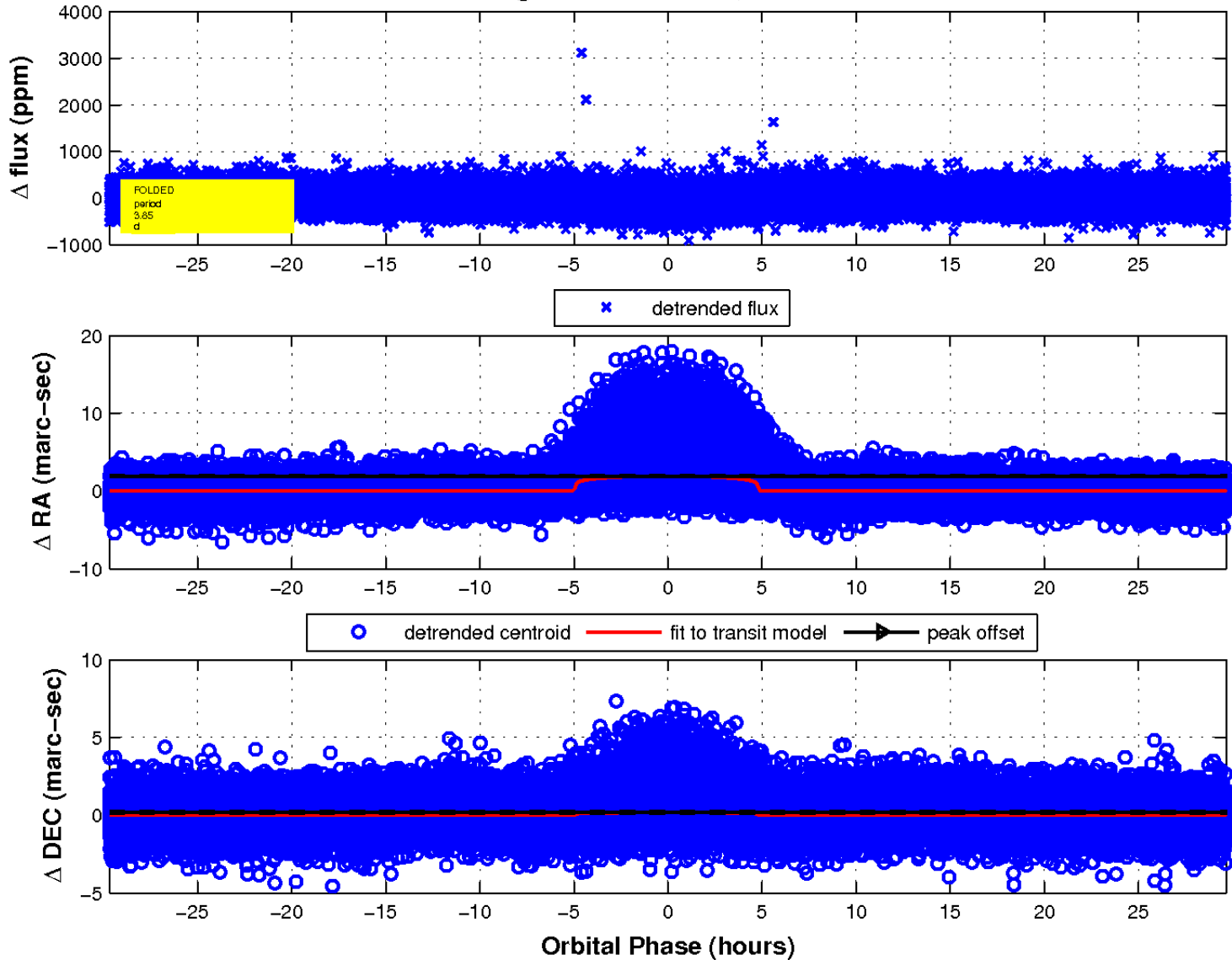
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

