

KIC 008282651

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})
008282651-01	OBS	2193.01	2.361716	133.241132	546.6	1.361	25.8	32.7	0.65	4478	1.88	171.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008282651-01	OBS	PC	1.00	0	0	0	0	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 008282651-01

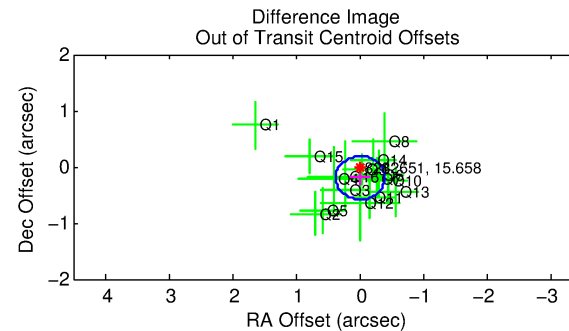
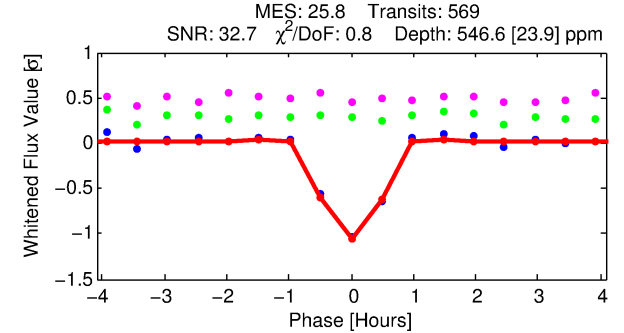
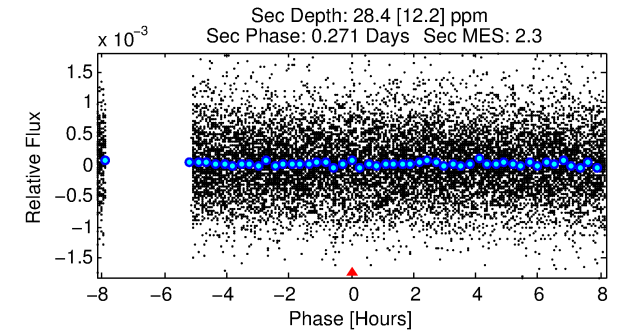
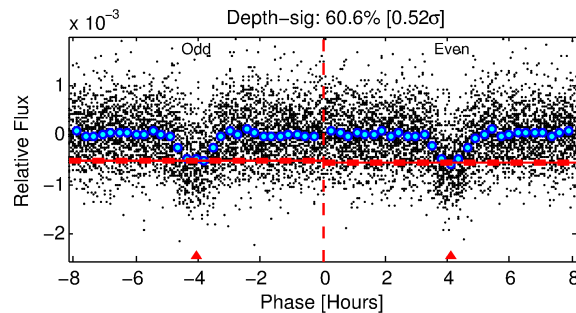
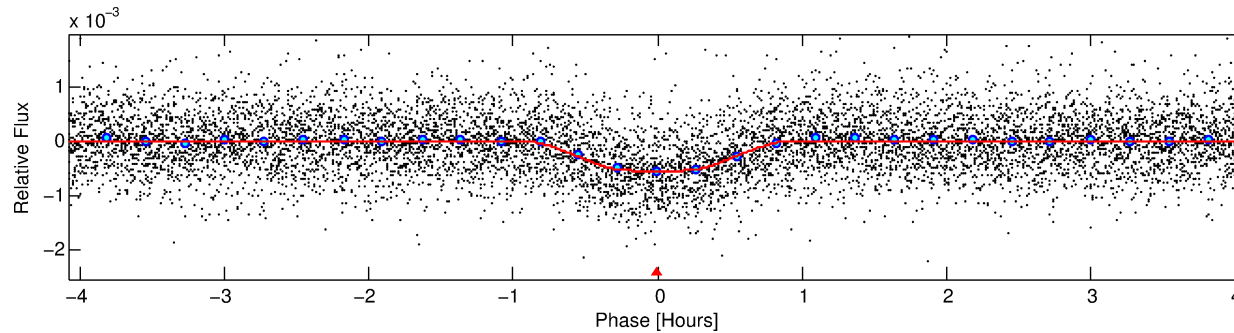
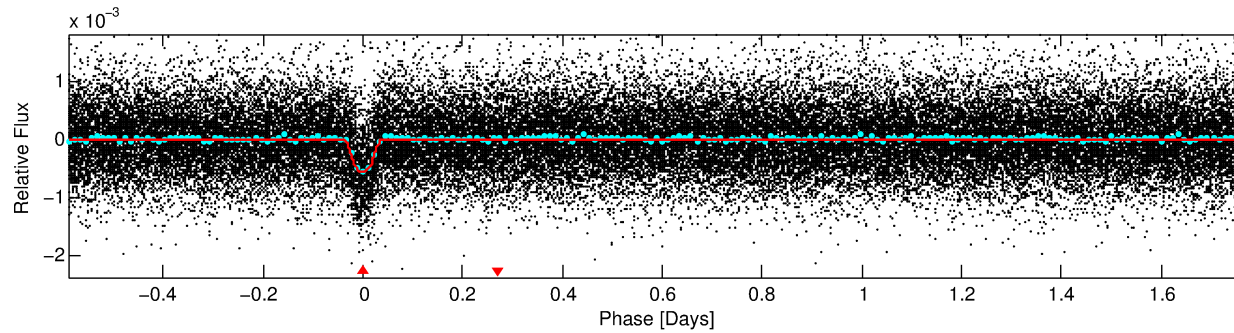
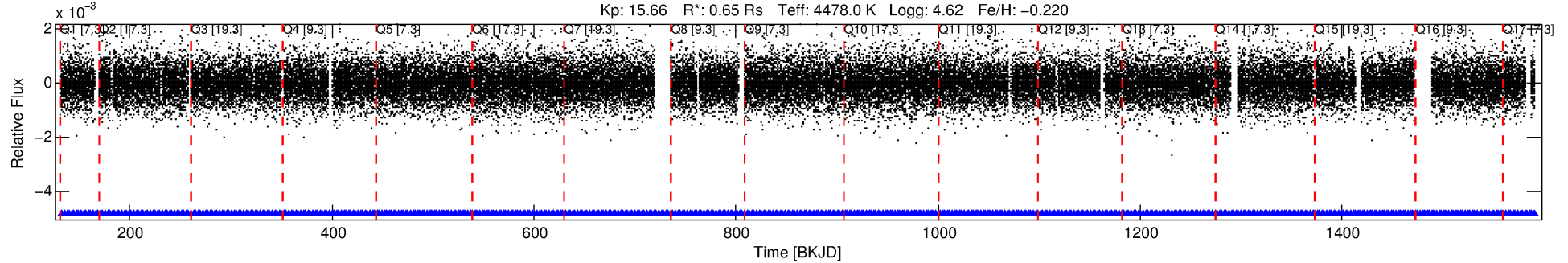
No Significant Match Found

DV One-Page Summary

KIC: 8282651 Candidate: 1 of 1 Period: 2.362 d

KOI: K02193.01 Corr: 0.947

Kp: 15.66 R*: 0.65 Rs Teff: 4478.0 K Logg: 4.62 Fe/H: -0.220



DV Fit Results:

Period = 2.36172 [0.00000] d
Epoch = 133.2411 [0.0007] BKJD
Rp/R* = 0.0264 [0.0074]
a/R* = 6.68 [6.68]
b = 0.90 [0.23]
Seff = 171.13 [26.72]
Teq = 922 [36] K
Rp = 1.88 [0.56] Re
a = 0.0299 [0.0022] AU
Ag = 3.95 [2.82] [1.05σ]
Teffp = 2010 [360] K [3.01σ]

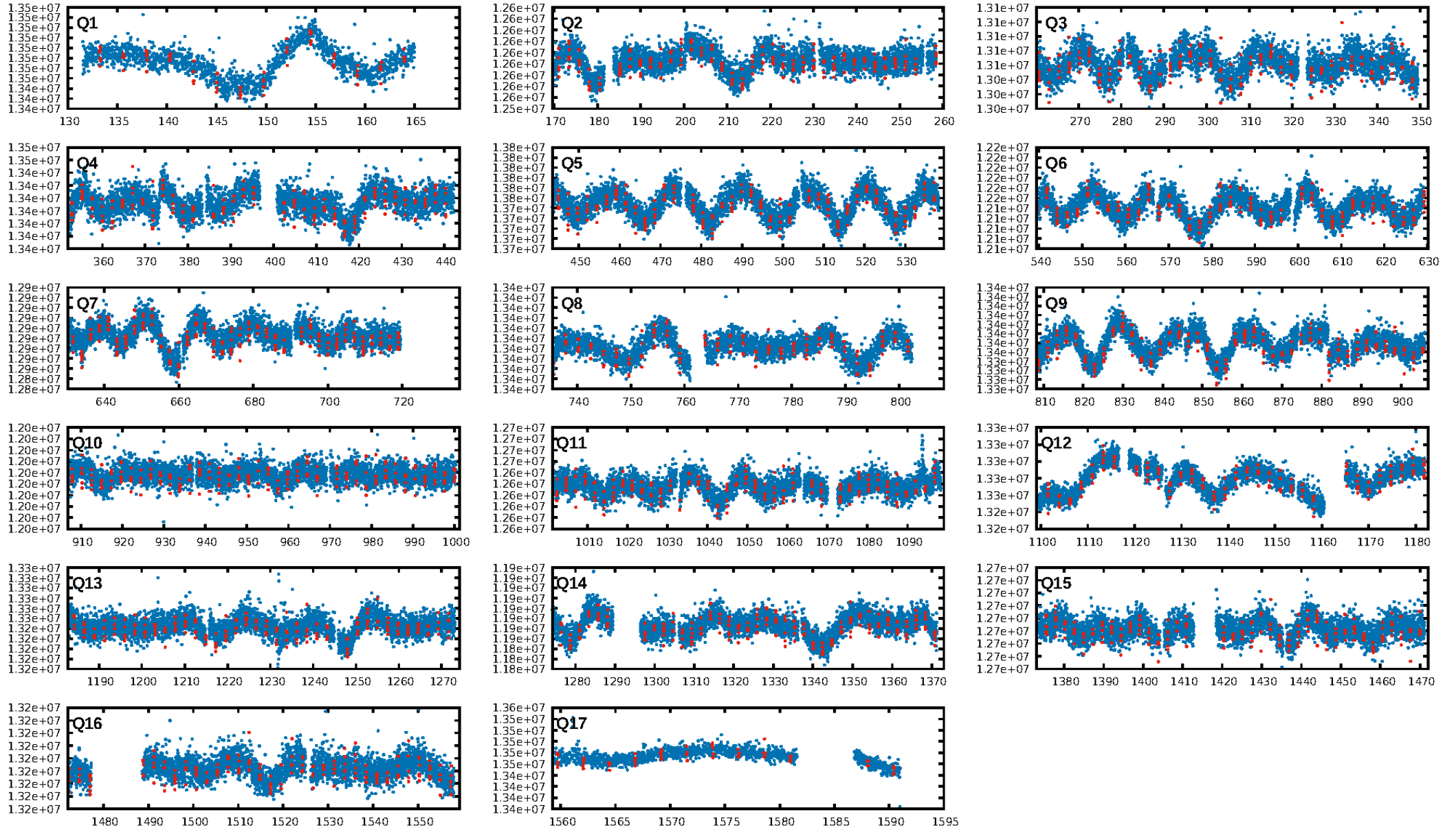
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.74e-140
RollingBand-fgt: 1.00 [543/543]
GhostDiagnostic-chr: 6.798
Centroid-sig: 1.8%
Centroid-so: 0.698 arcsec [2.20σ]
OotOffset-rm: 0.199 arcsec [1.55σ]
KicOffset-rm: 0.229 arcsec [1.36σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

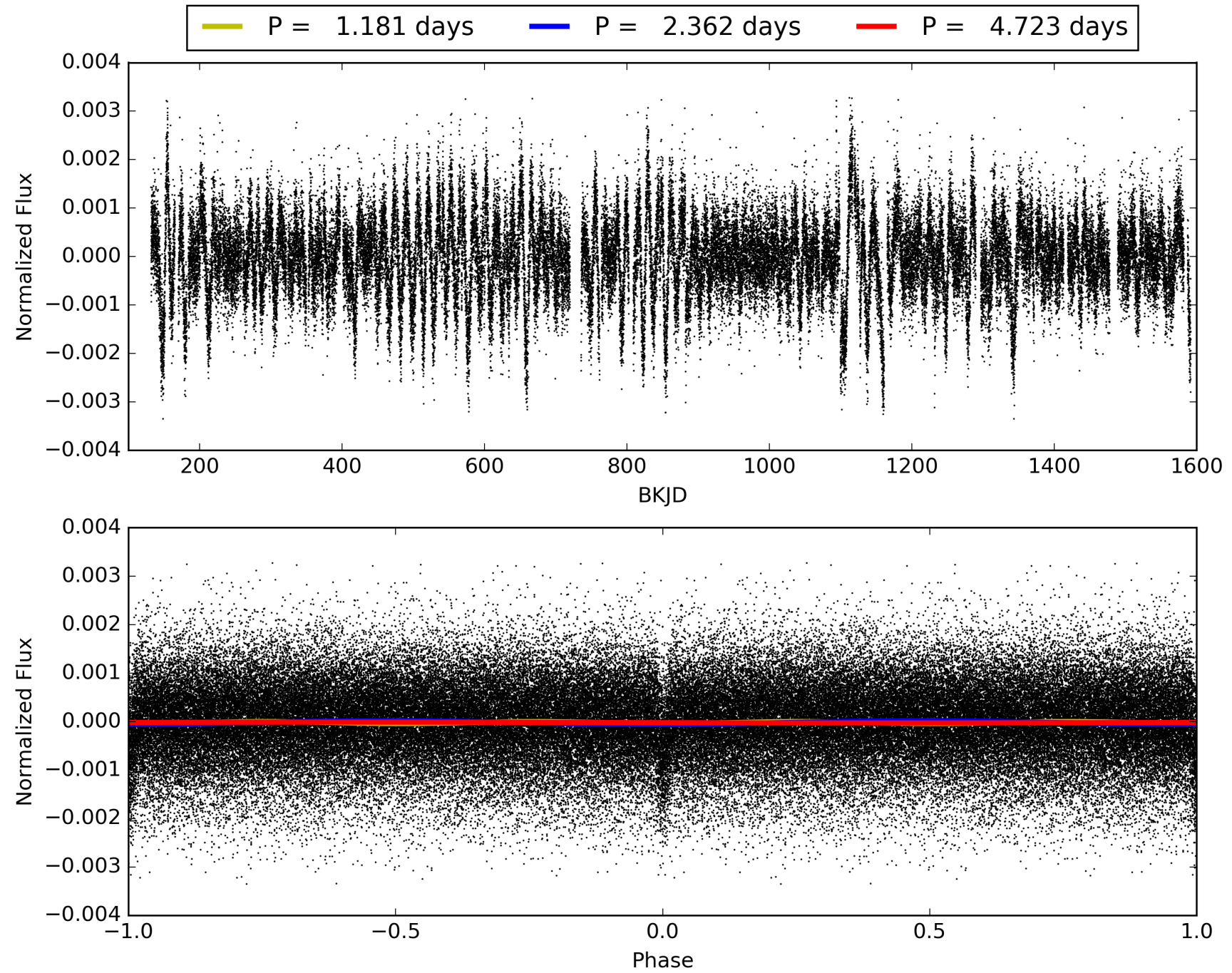
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:03:32 Z

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

TCE 008282651-01, PDC Light Curves

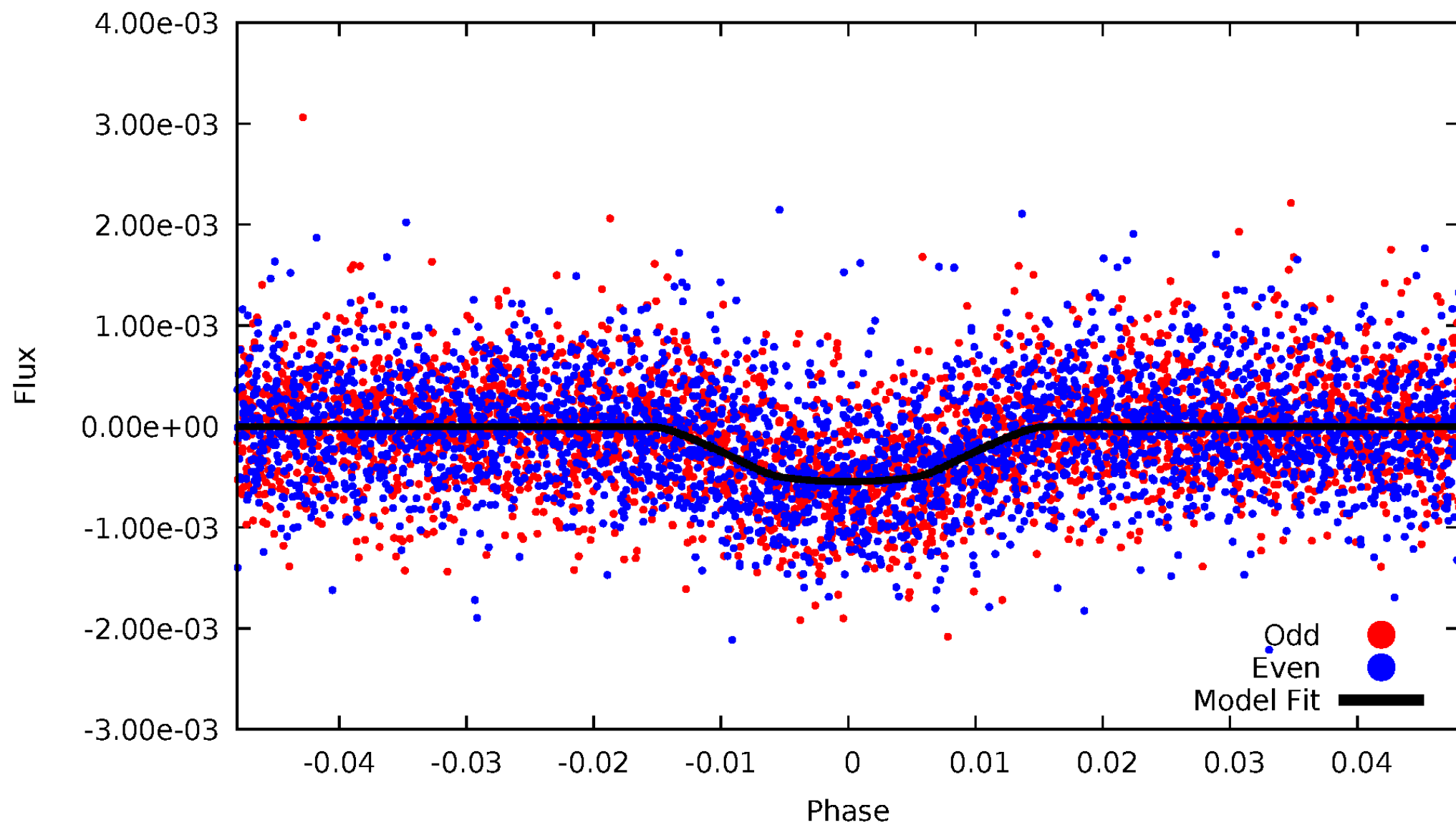


TCE 008282651-01



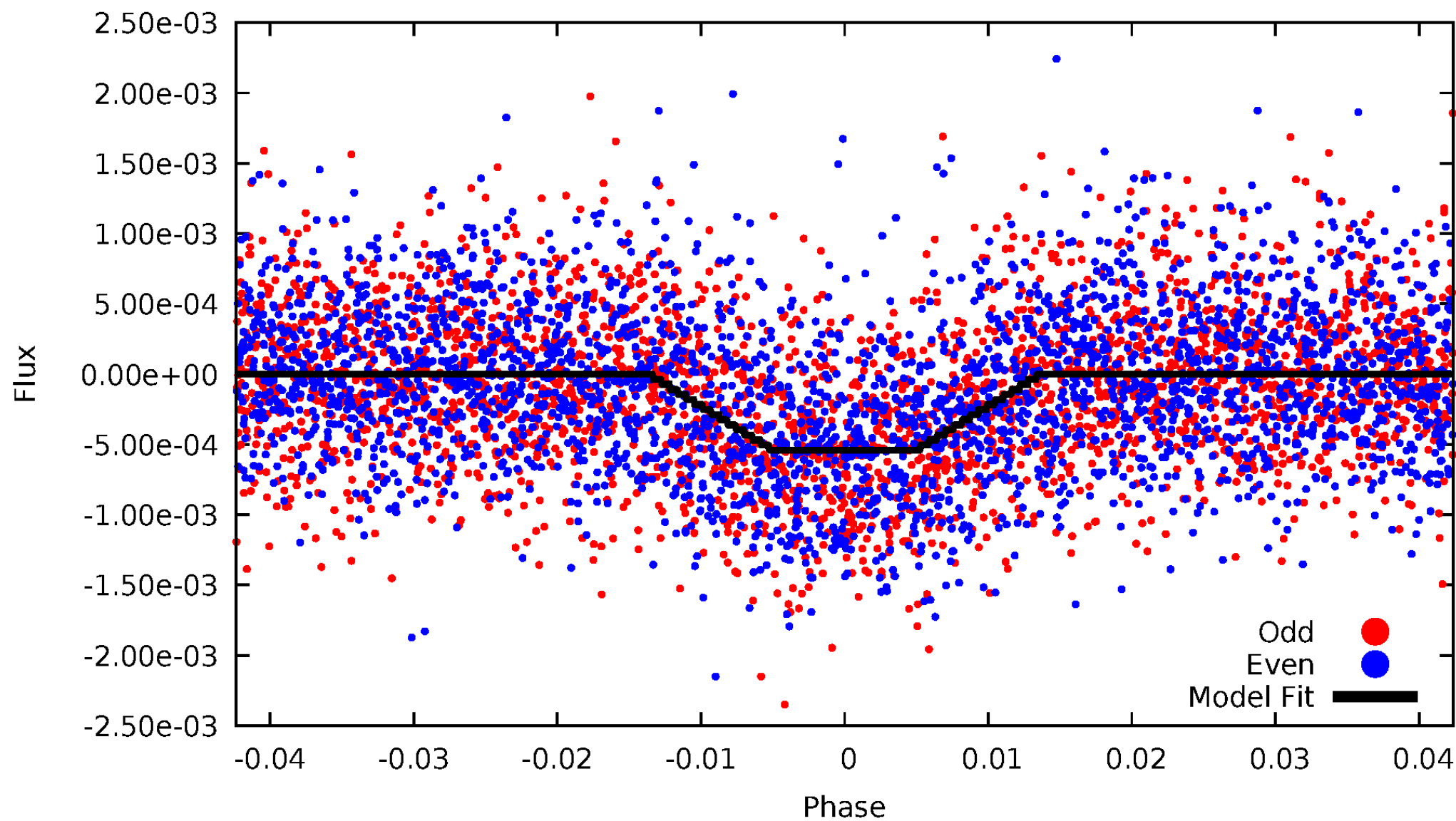
DV Odd/Even

TCE 008282651-01



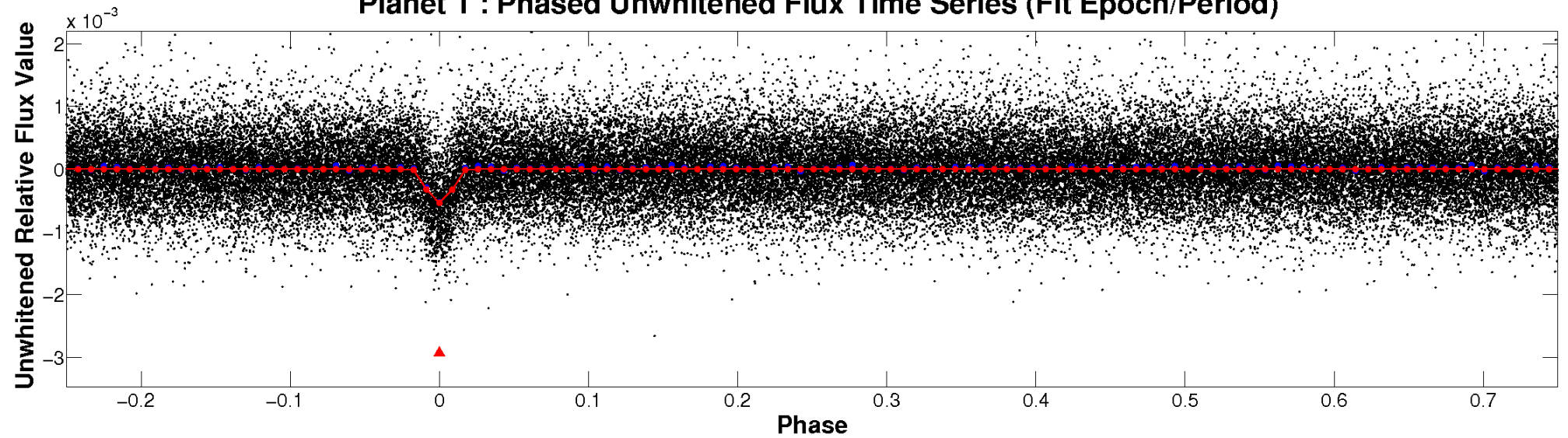
ALT Odd/Even

TCE 008282651-01

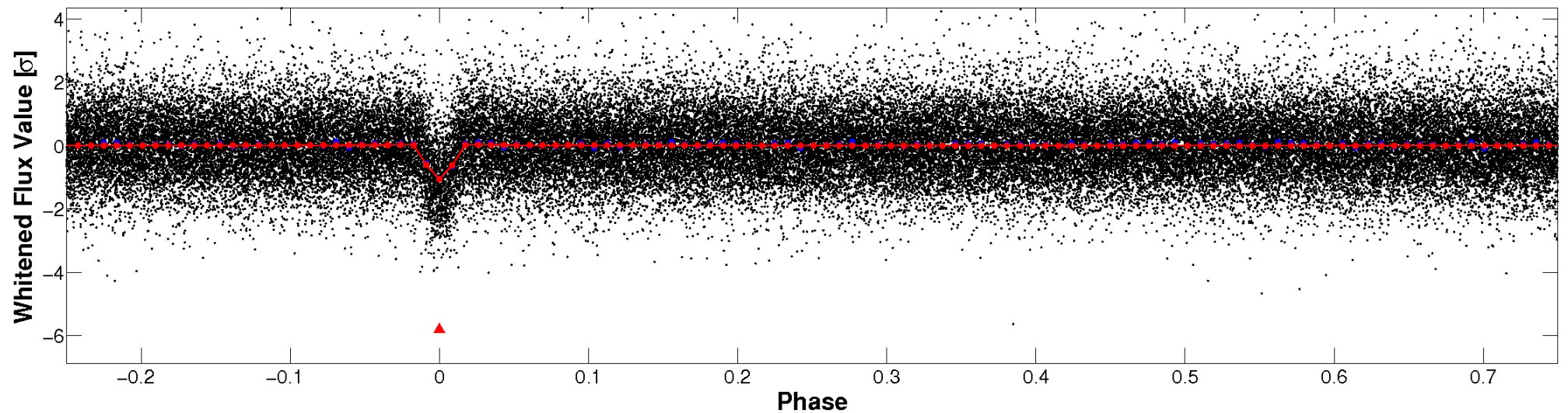


Non-Whitened Vs. Whitened Light Curve

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

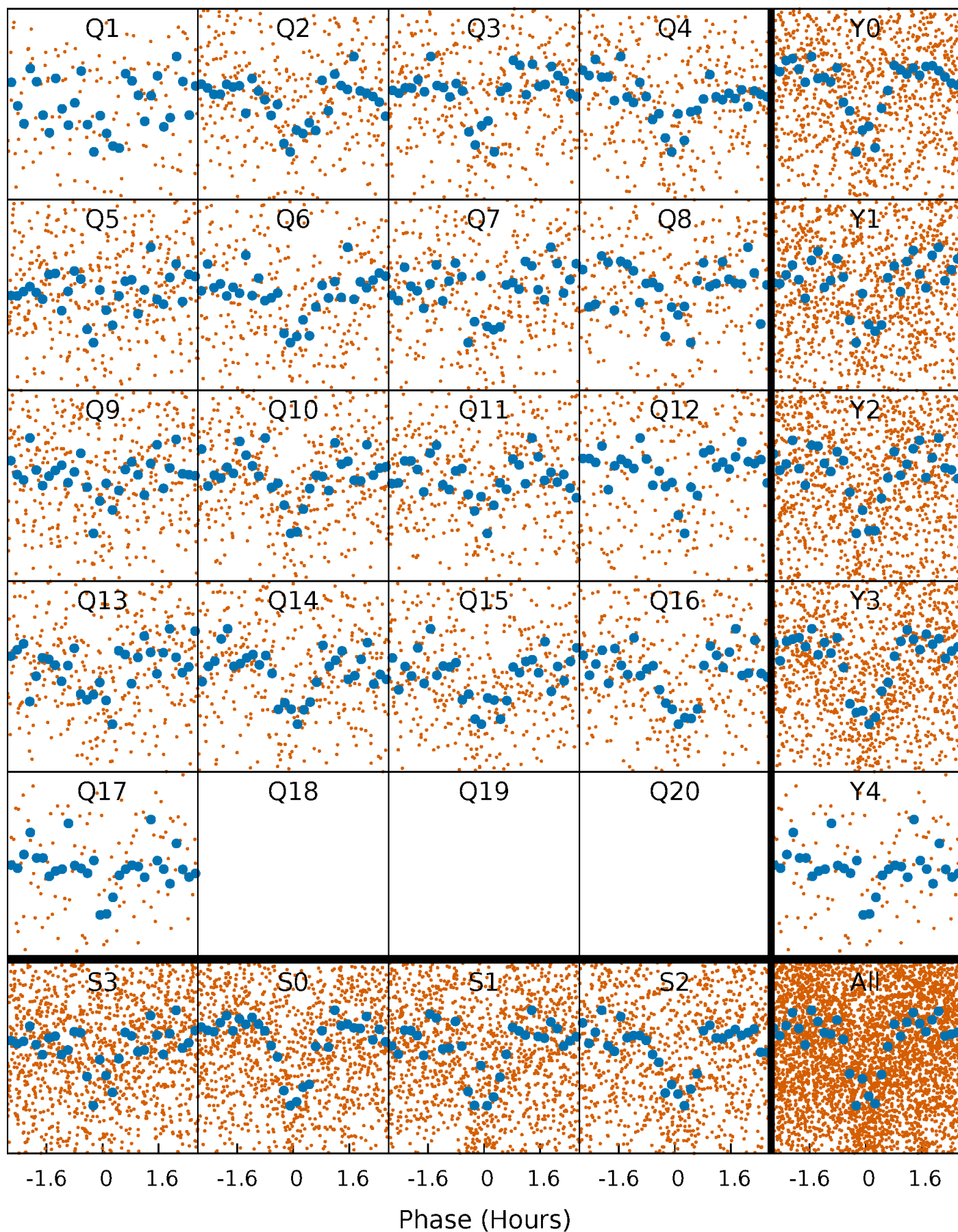


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



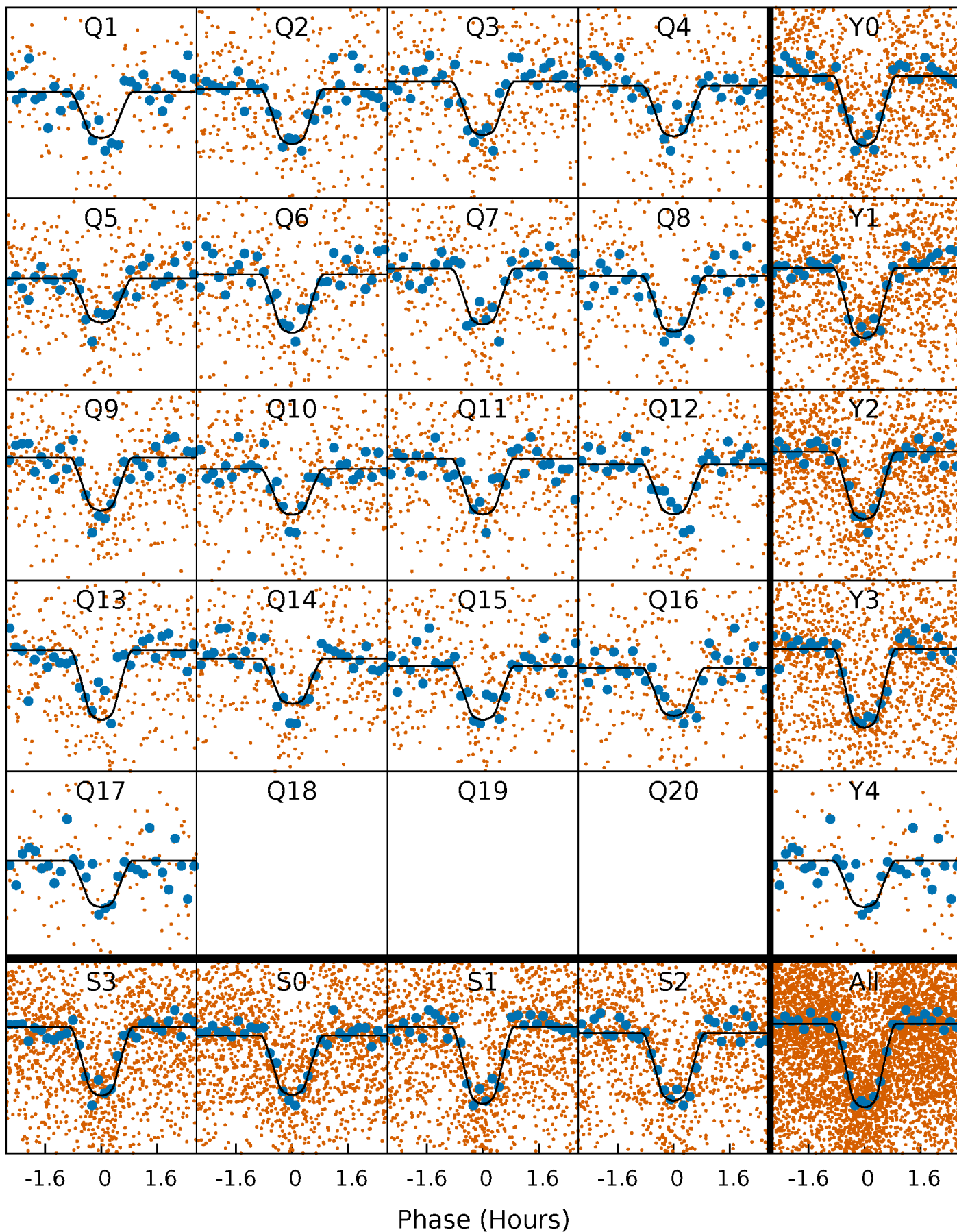
PDC Quarter-Phased Transit Curves

TCE 008282651-01 P= 2.361716 Days $T_0=133.241132$ (BKJD)



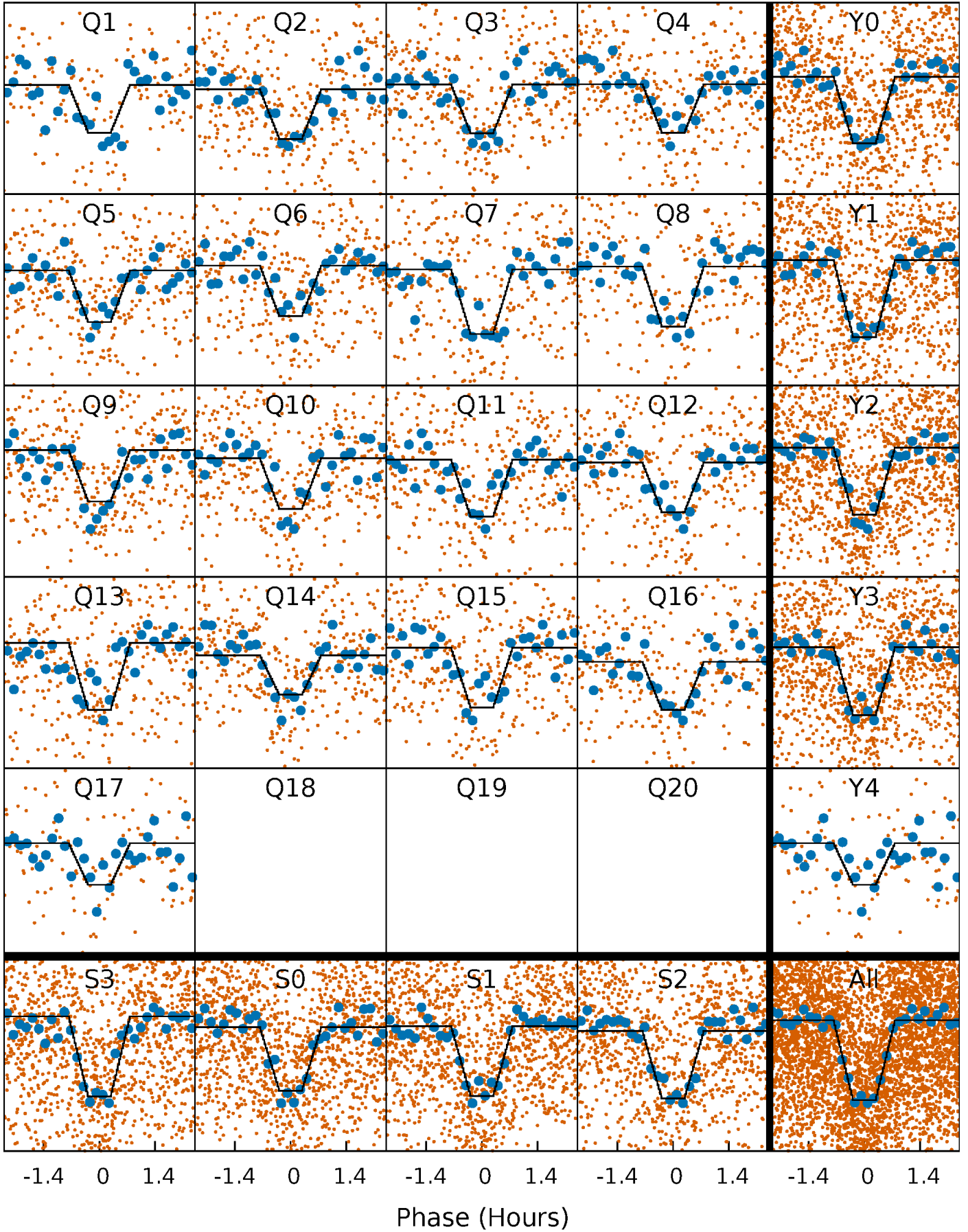
DV Quarter-Phased Transit Curves

TCE 008282651-01 P= 2.361716 Days $T_0=133.241132$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

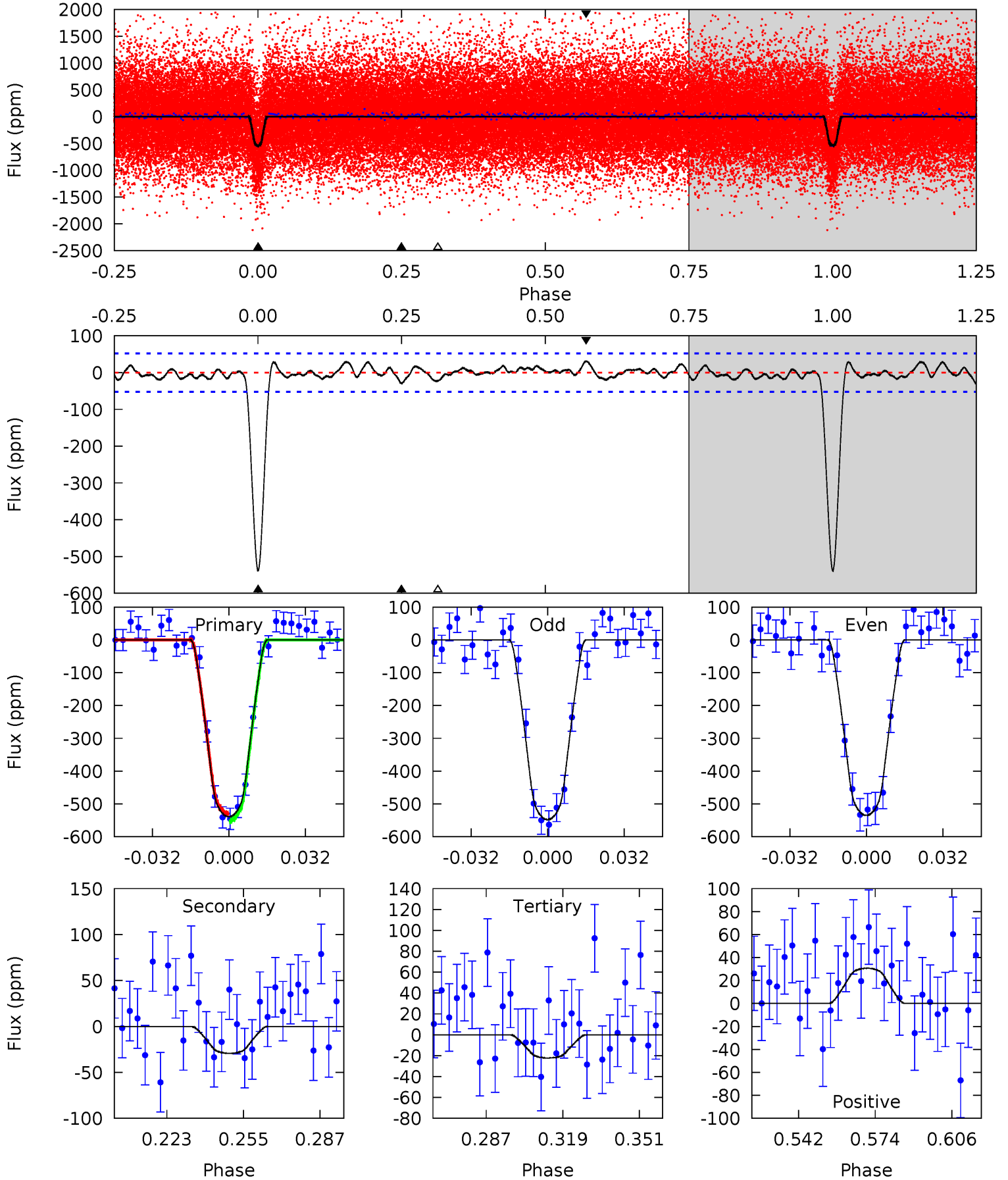
TCE 008282651-01 P= 2.361731 Days $T_0=133.237198$ (BKJD)



DV Model-Shift Uniqueness Test

008282651-01, P = 2.361716 Days, E = 130.879416 Days

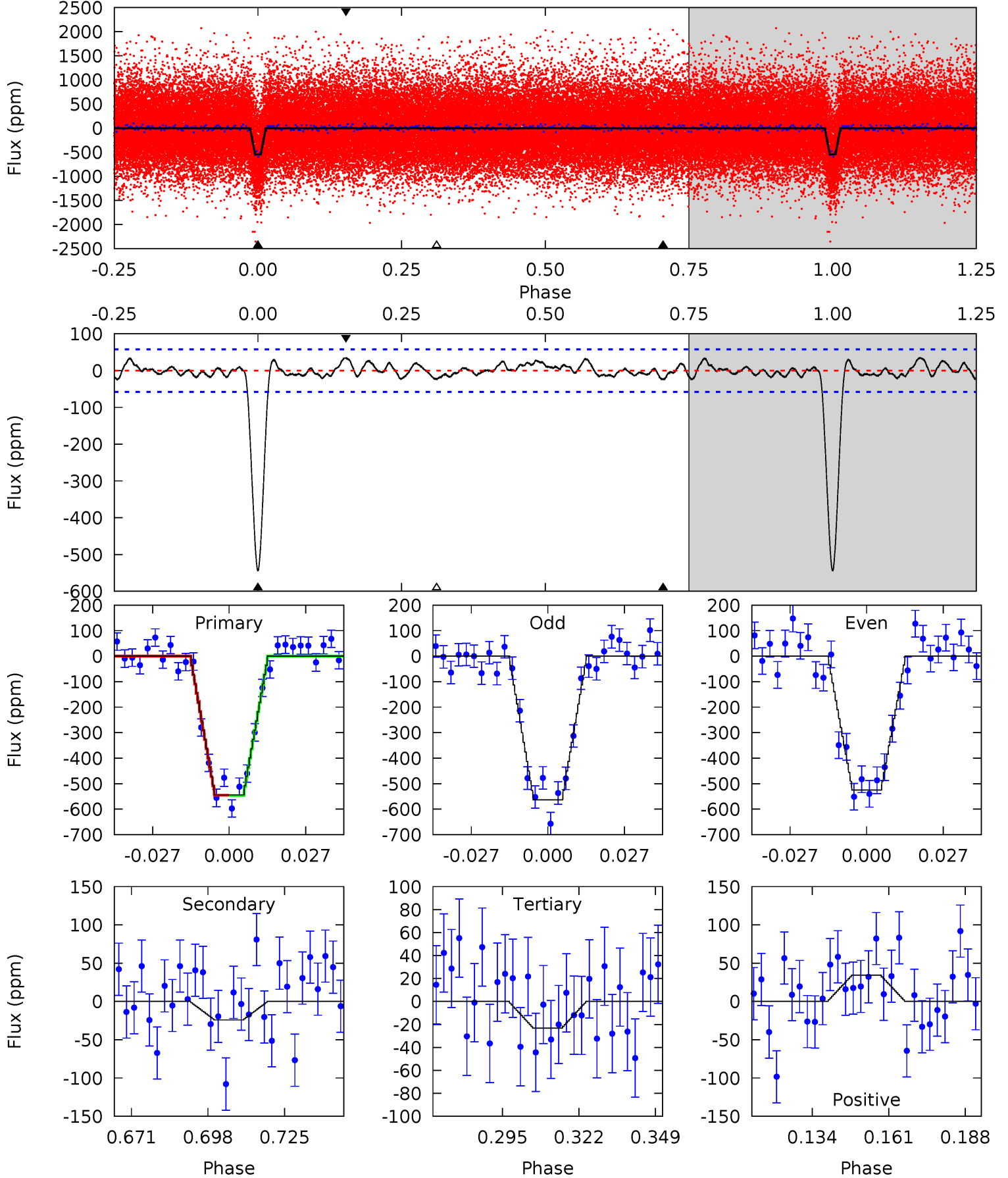
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.6	2.69	2.05	2.82	4.80	2.15	1.02	47.5	46.7	0.65	-0.12	0.60	0.98	0.05	1.00



Alt Model-Shift Uniqueness Test

008282651-01, P = 2.361731 Days, E = 130.875467 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.4	2.02	1.94	2.87	4.83	2.21	1.10	43.5	42.6	0.08	-0.85	1.58	1.00	0.06	0.06



Stellar Parameters For KIC 008282651

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4478^{+133}_{-133}	$4.615^{+0.052}_{-0.024}$	$-0.220^{+0.300}_{-0.300}$	$0.651^{+0.046}_{-0.061}$	$0.637^{+0.070}_{-0.051}$	$3.257^{+0.763}_{-0.349}$
	+3%/-3%	+1%/-1%	+136%/-136%	+7%/-9%	+11%/-8%	+23%/-11%
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 008282651-01 / KOI 2193.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-29±11	$1.86^{+0.53}_{-0.50}$	1280^{+46}_{-43}	2684^{+283}_{-248}	$3.971^{+4.334}_{-1.860}$
Alt.	-24±12	$1.61^{+0.53}_{-0.50}$	1278^{+45}_{-45}	2704^{+368}_{-327}	$4.414^{+5.864}_{-2.761}$

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 $A_{obs} \gg 1.0$

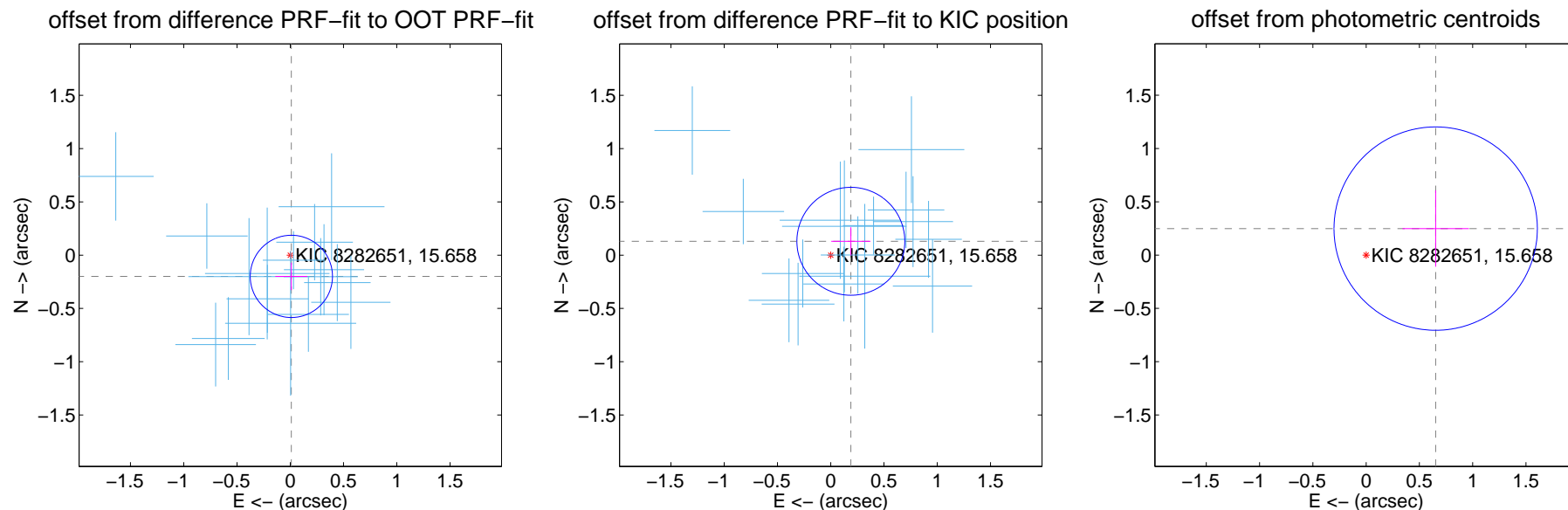
DV Centroid Data

Supplemental centroid analysis for 008282651-01. Kepler magnitude: 15.66. Transit SNR 32.67

There are 16 quarters with good PRF difference image offsets

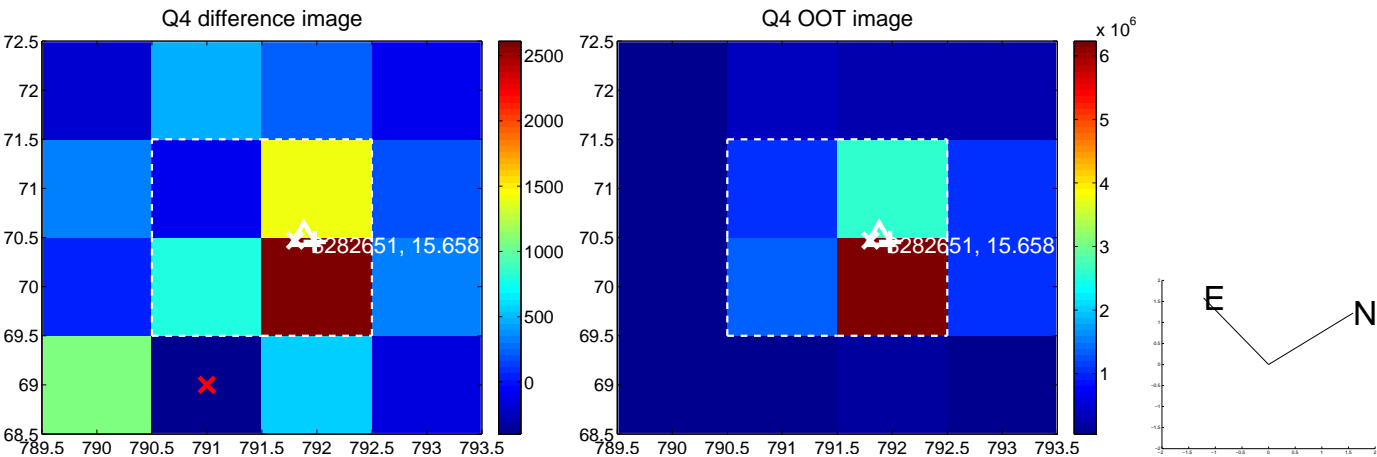
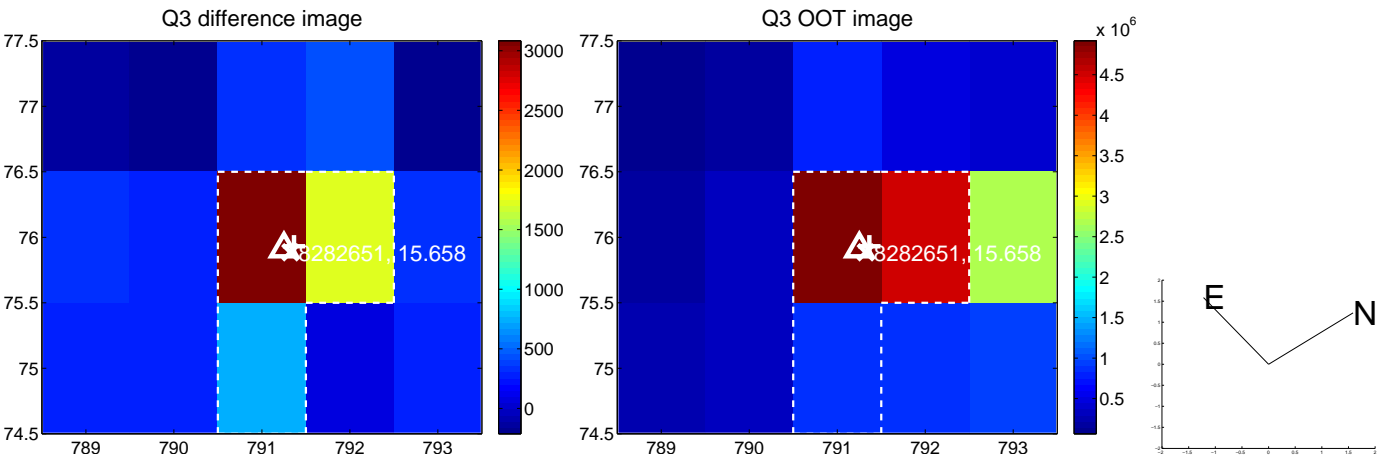
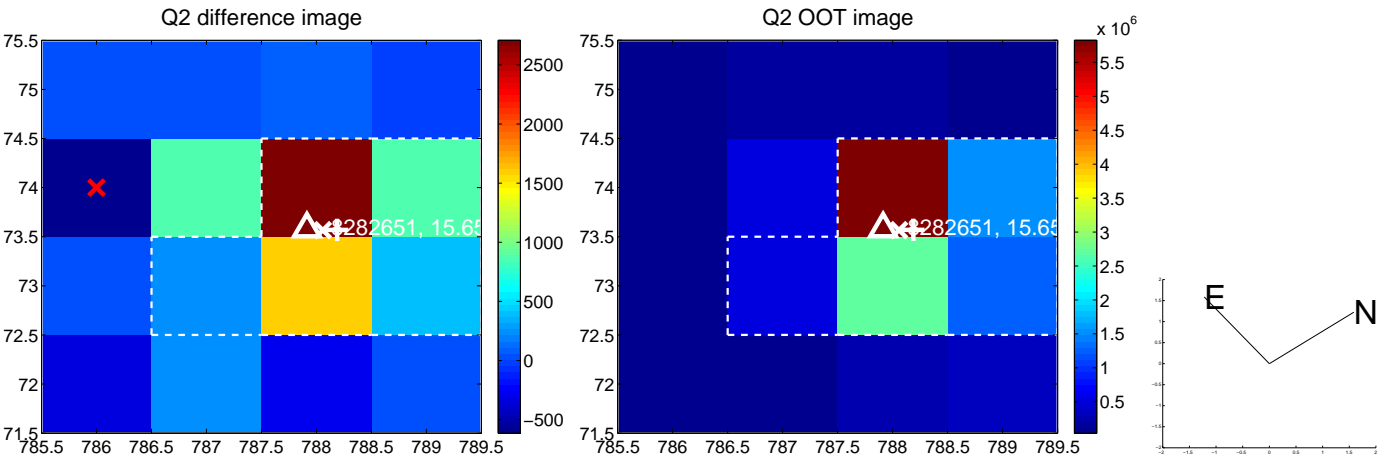
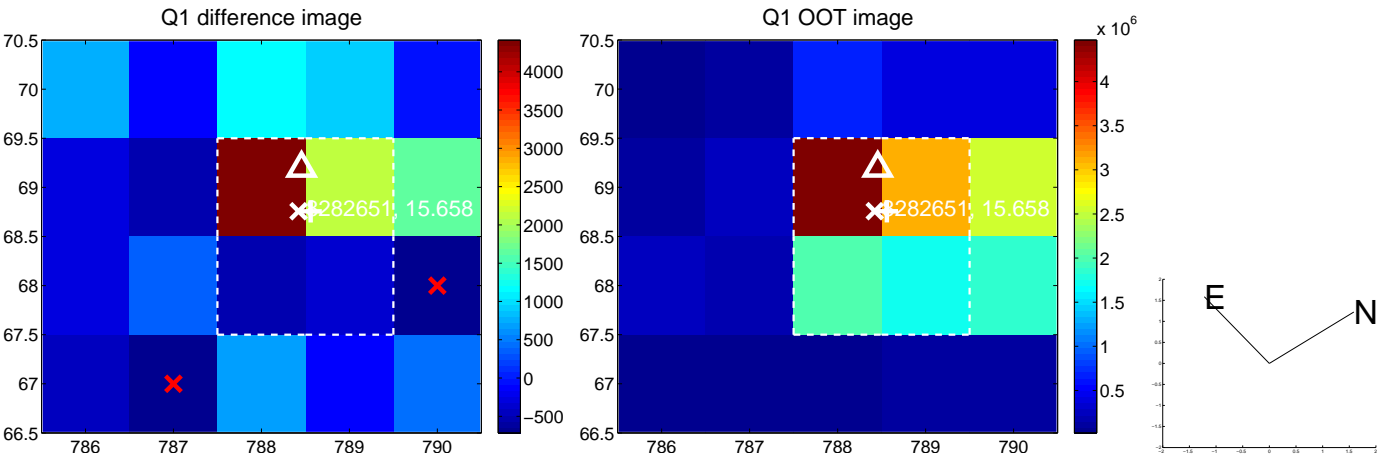
The direct PRF centroid is offset from the target star catalog position by about 0.56 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.199 ± 0.129	1.55	-0.010 ± 0.151	-0.199 ± 0.129
PRF-fit source offset from KIC position	0.229 ± 0.169	1.36	-0.189 ± 0.184	0.130 ± 0.132
photometric centroid source offset	0.70 ± 0.32	2.20	-0.65 ± 0.31	0.25 ± 0.36

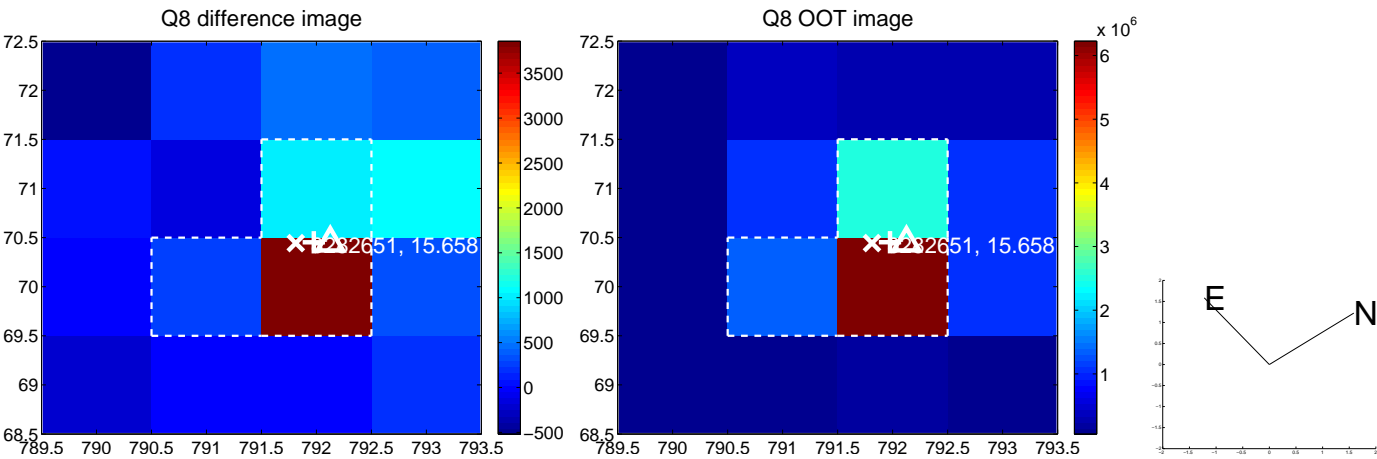
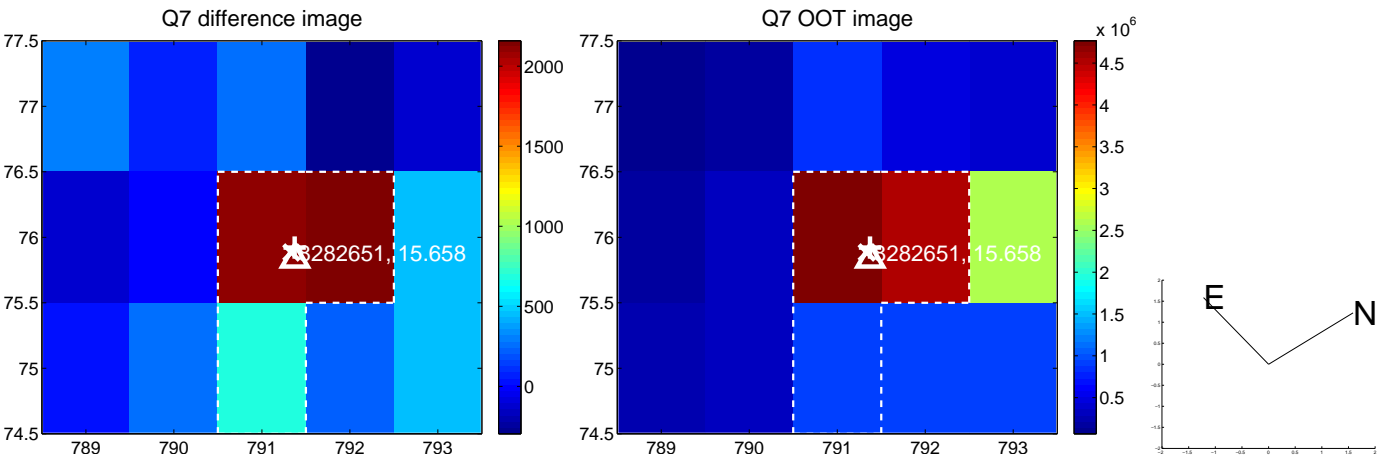
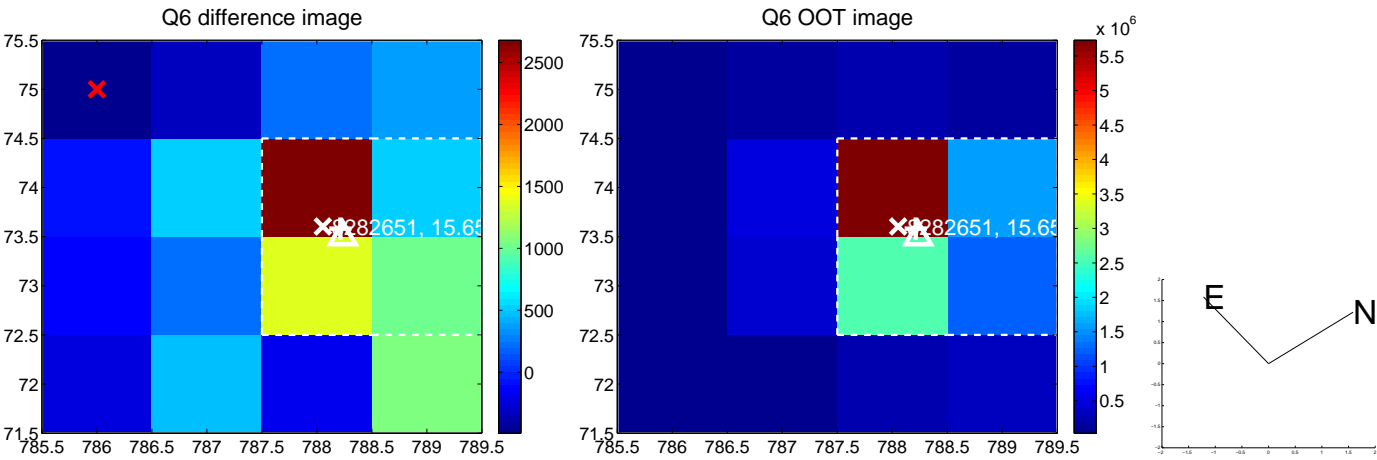
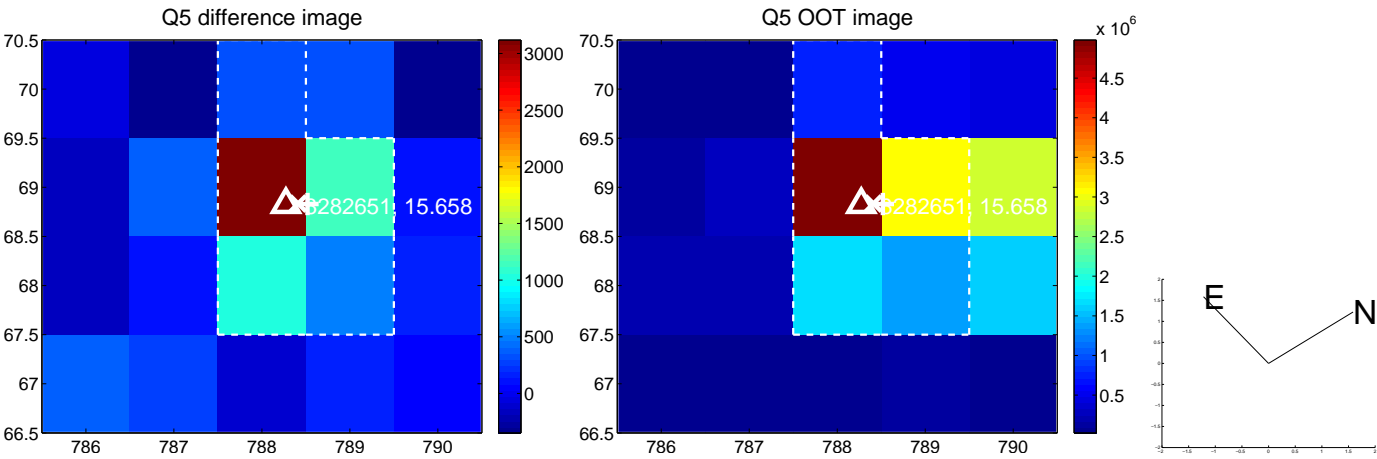


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

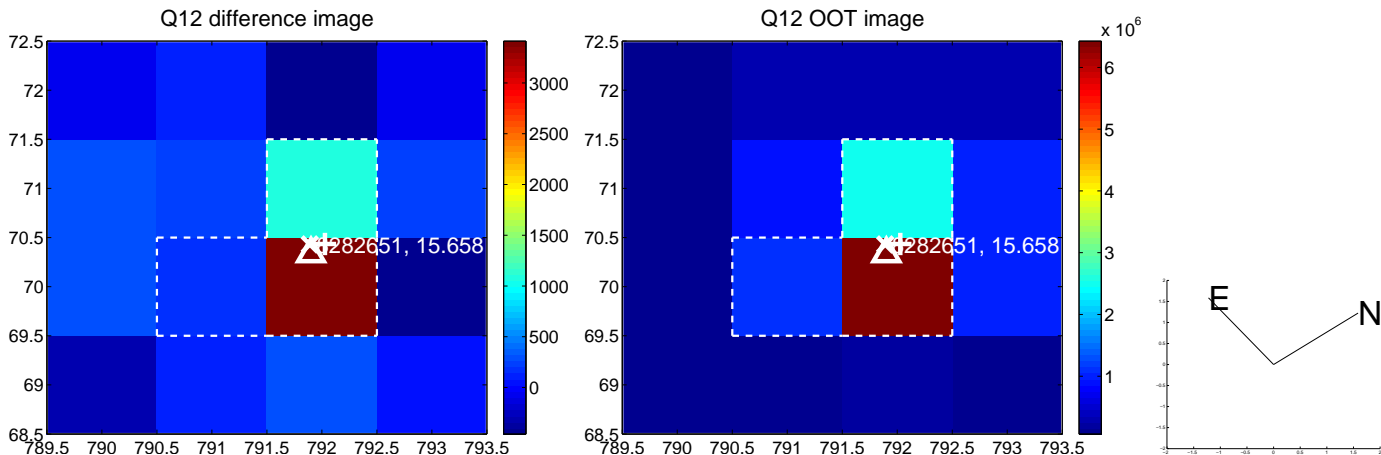
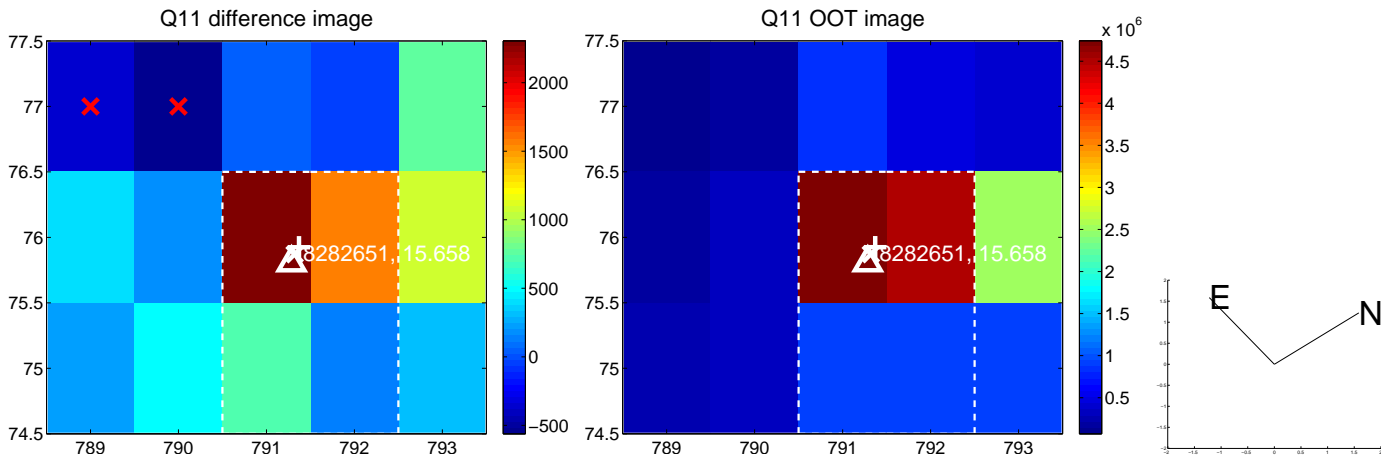
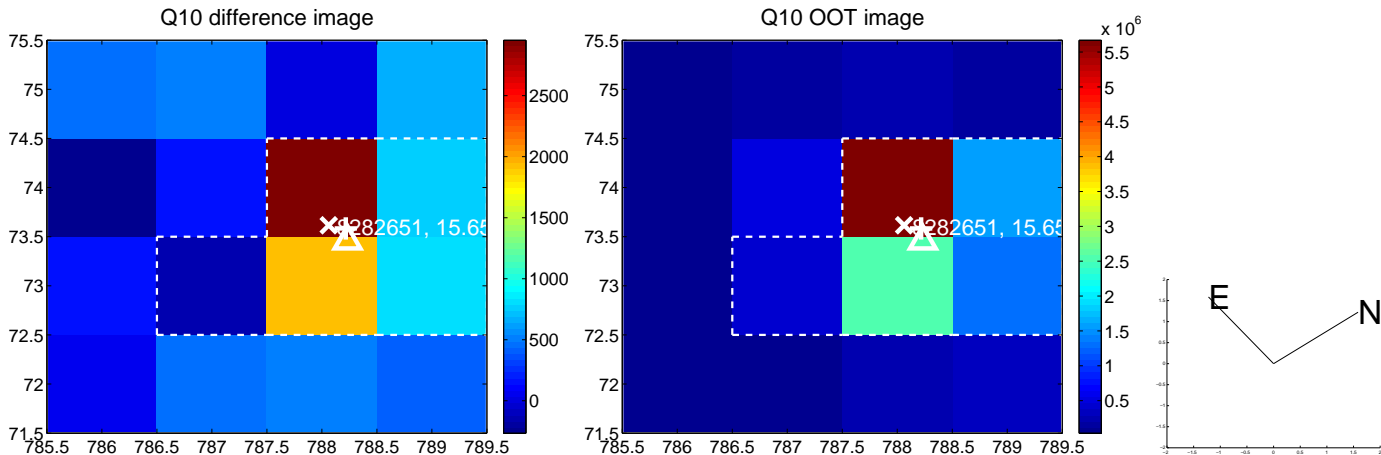
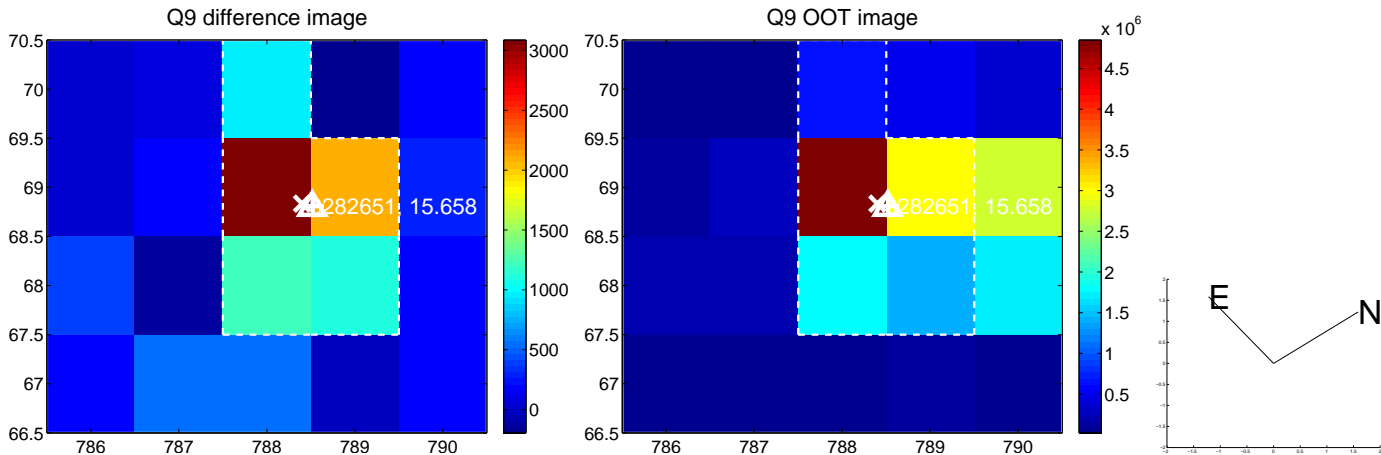
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



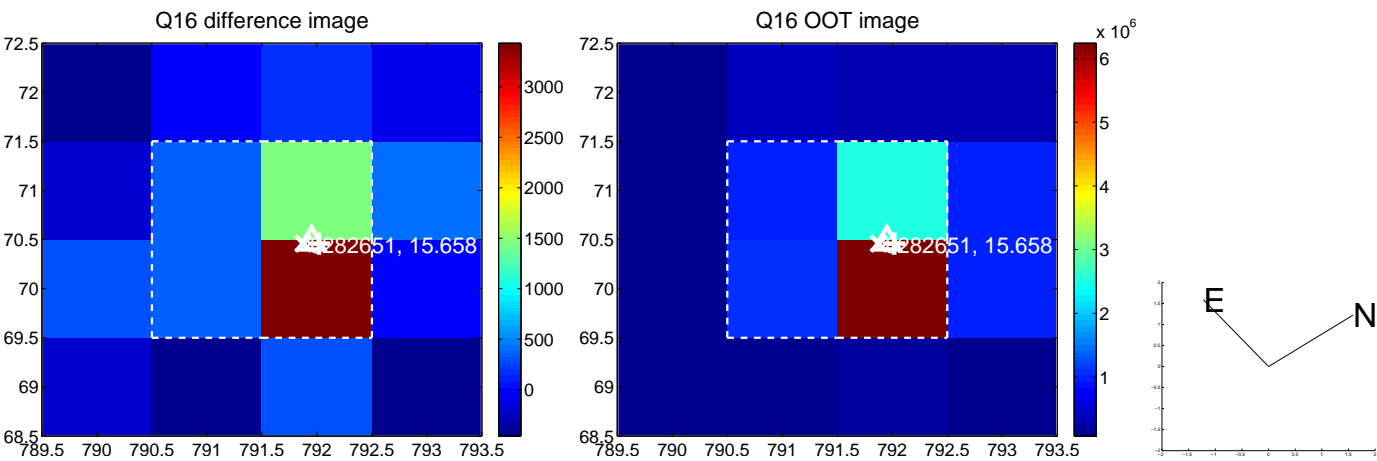
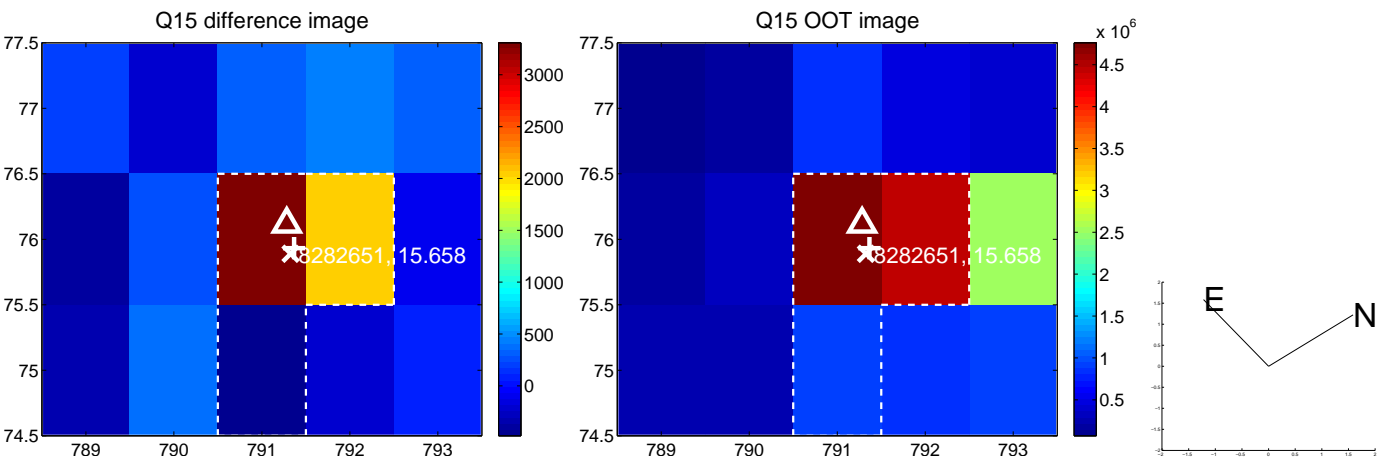
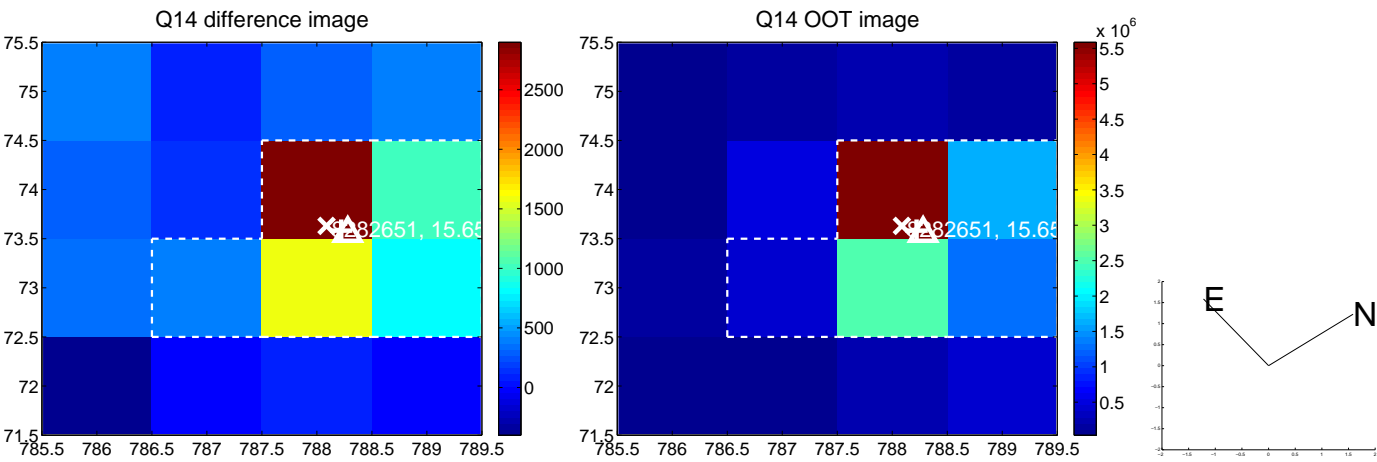
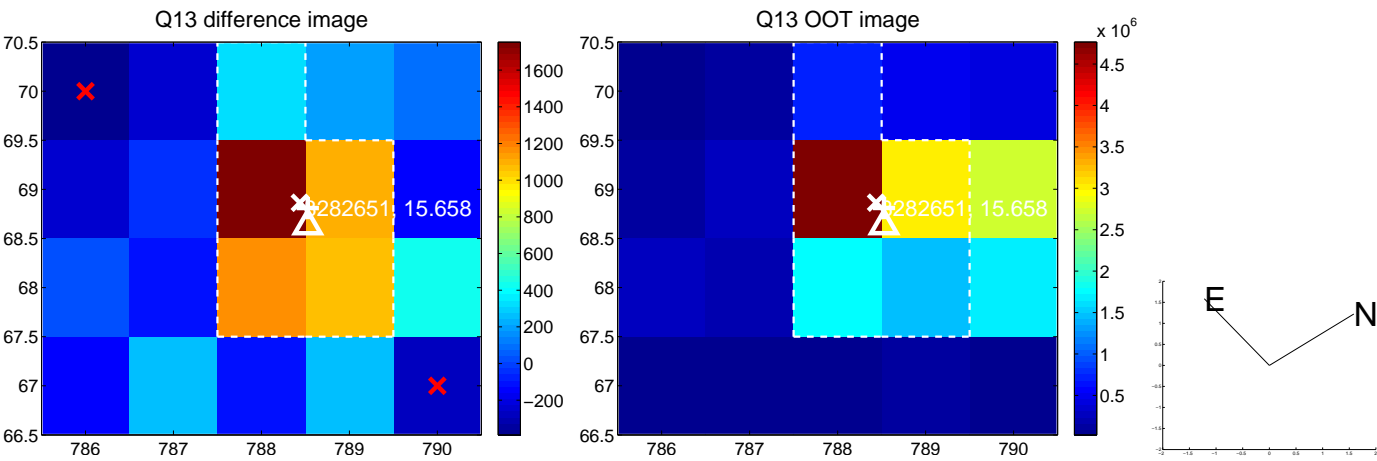
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



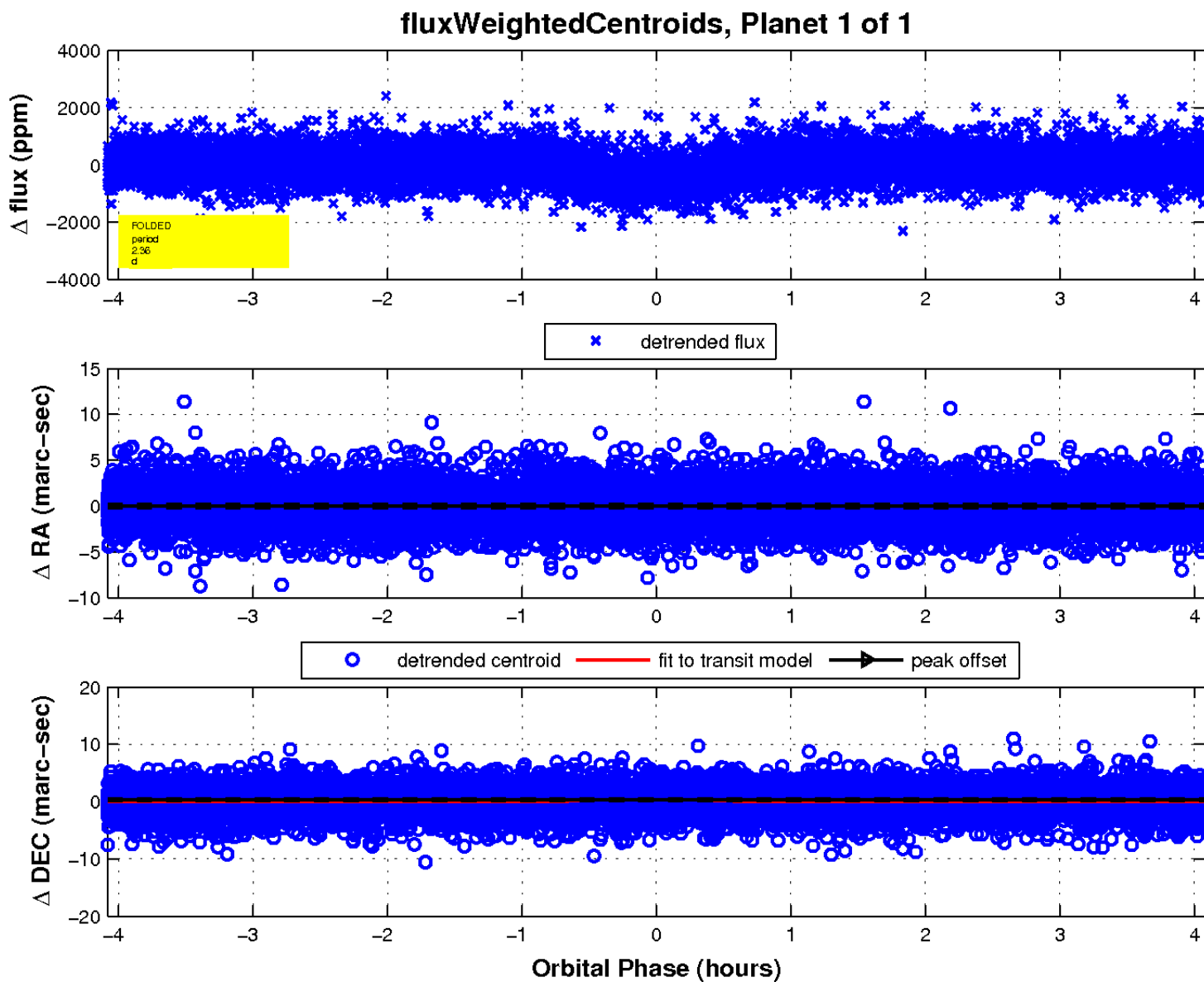
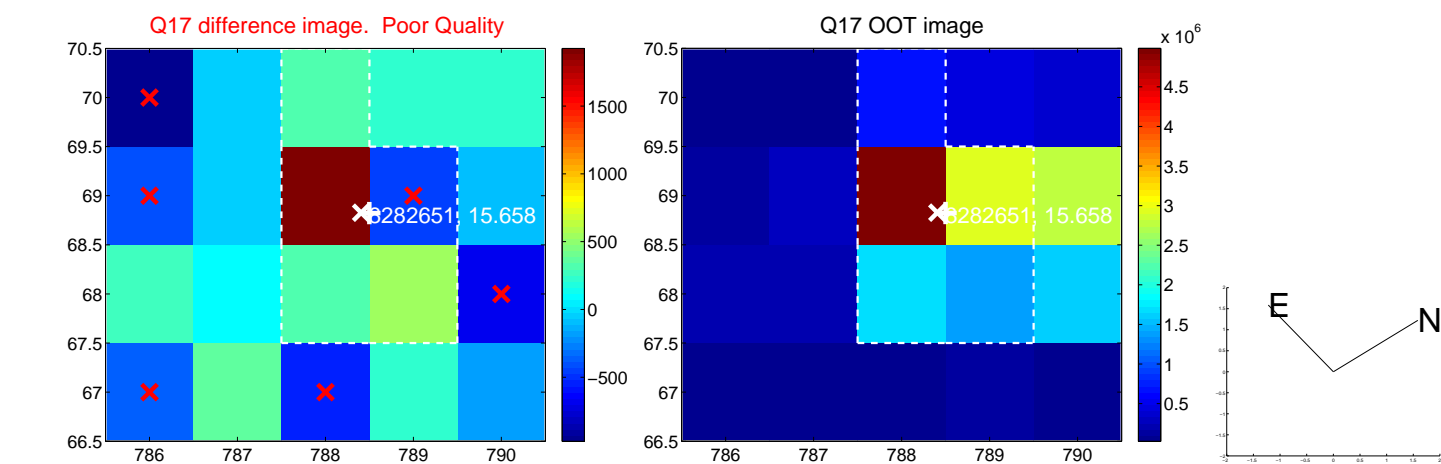
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

