

KIC 007583650

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})
007583650-01	OBS	4614.01	6.454775	135.531355	64.8	3.369	9.5	9.9	1.36	6474	1.27	566.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007583650-01	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.

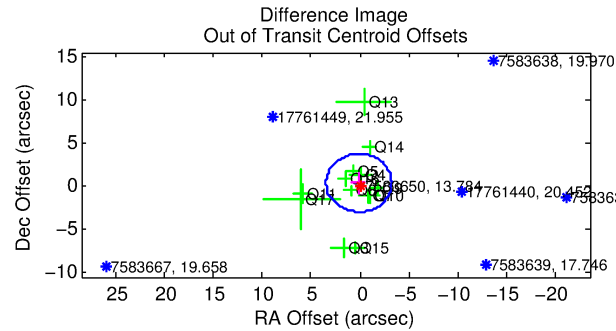
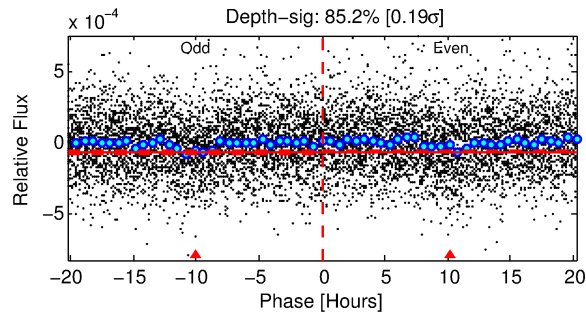
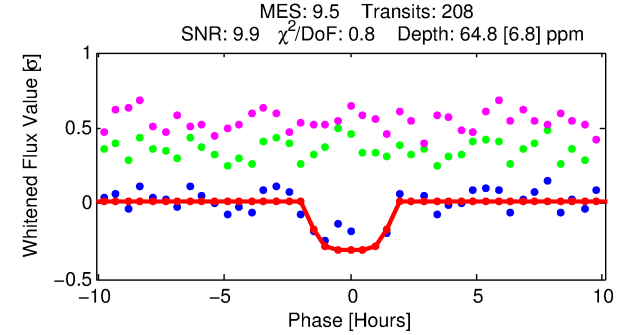
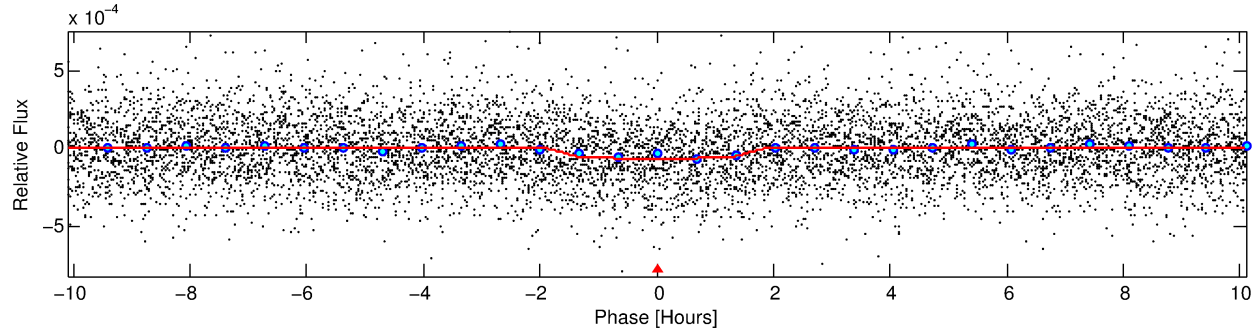
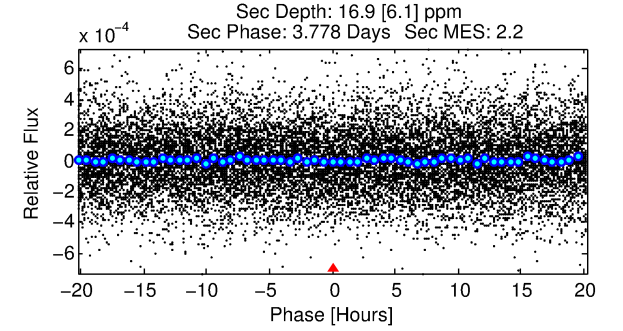
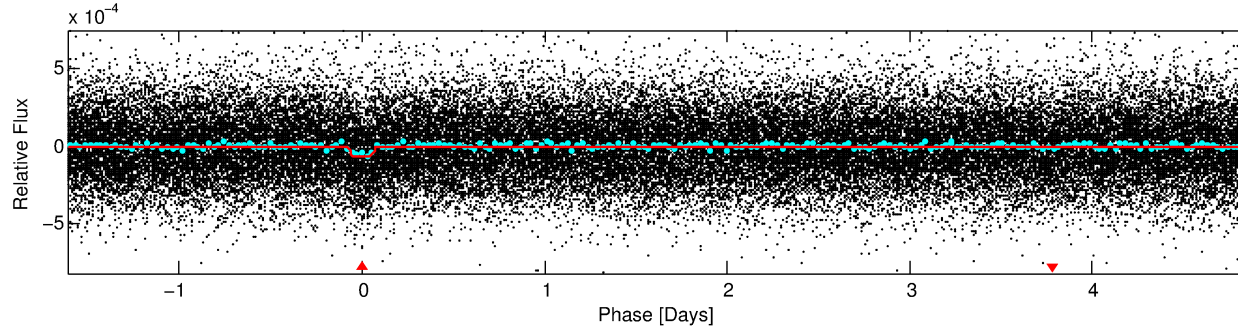
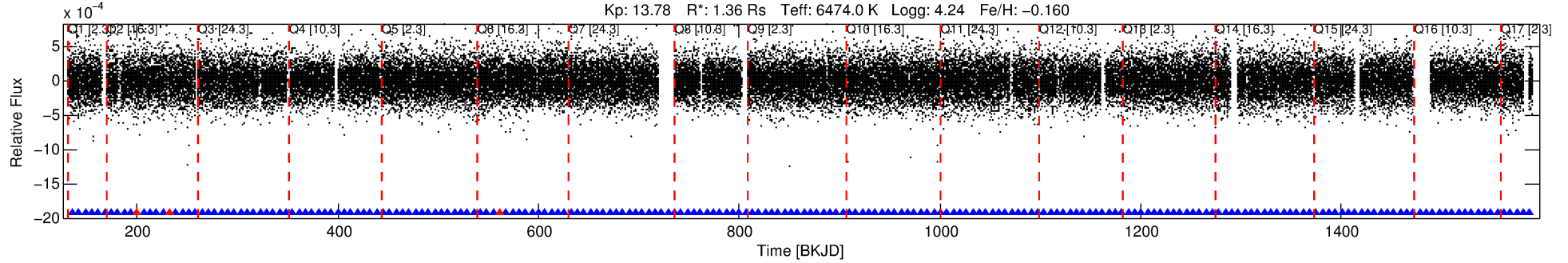
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007583650-01

No Significant Match Found

DV One-Page Summary

KIC: 7583650 Candidate: 1 of 1 Period: 6.455 d
KOI: K04614.01 Corr: 0.907



DV Fit Results:

Period = 6.45477 [0.00005] d
Epoch = 135.5314 [0.0062] BKJD
Rp/R* = 0.0086 [0.0039]
a/R* = 6.99 [17.55]
b = 0.89 [0.60]
Seff = 566.49 [208.49]
Teq = 1244 [114] K
Rp = 1.27 [0.70] Re
a = 0.0718 [0.0180] AU
Ag = 29.63 [30.53] [0.94σ]
Teffp = 4488 [1096] K [2.94σ]

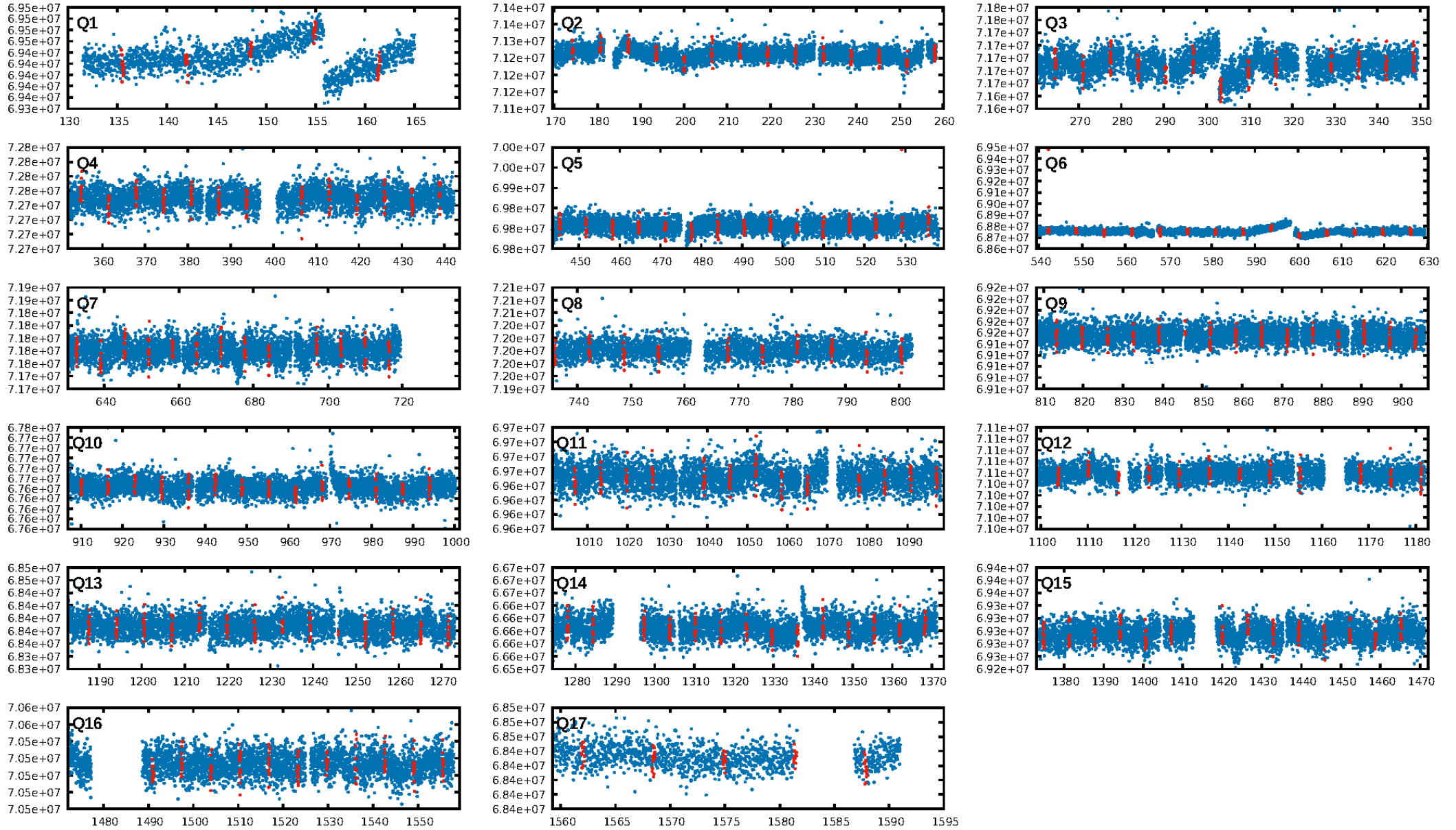
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.78e-20
RollingBand-fgt: 0.98 [195/198]
GhostDiagnostic-chr: 2.899
Centroid-sig: 1.1%
Centroid-so: 3.117 arcsec [2.18σ]
OotOffset-rm: 0.406 arcsec [0.36σ]
KicOffset-rm: 0.351 arcsec [0.31σ]
OotOffset-st: 2/4/3/4 [13]
KicOffset-st: 2/4/3/4 [13]
DiffImageQuality-fgm: 0.46 [6/13]
DiffImageOverlap-fno: 1.00 [17/17]

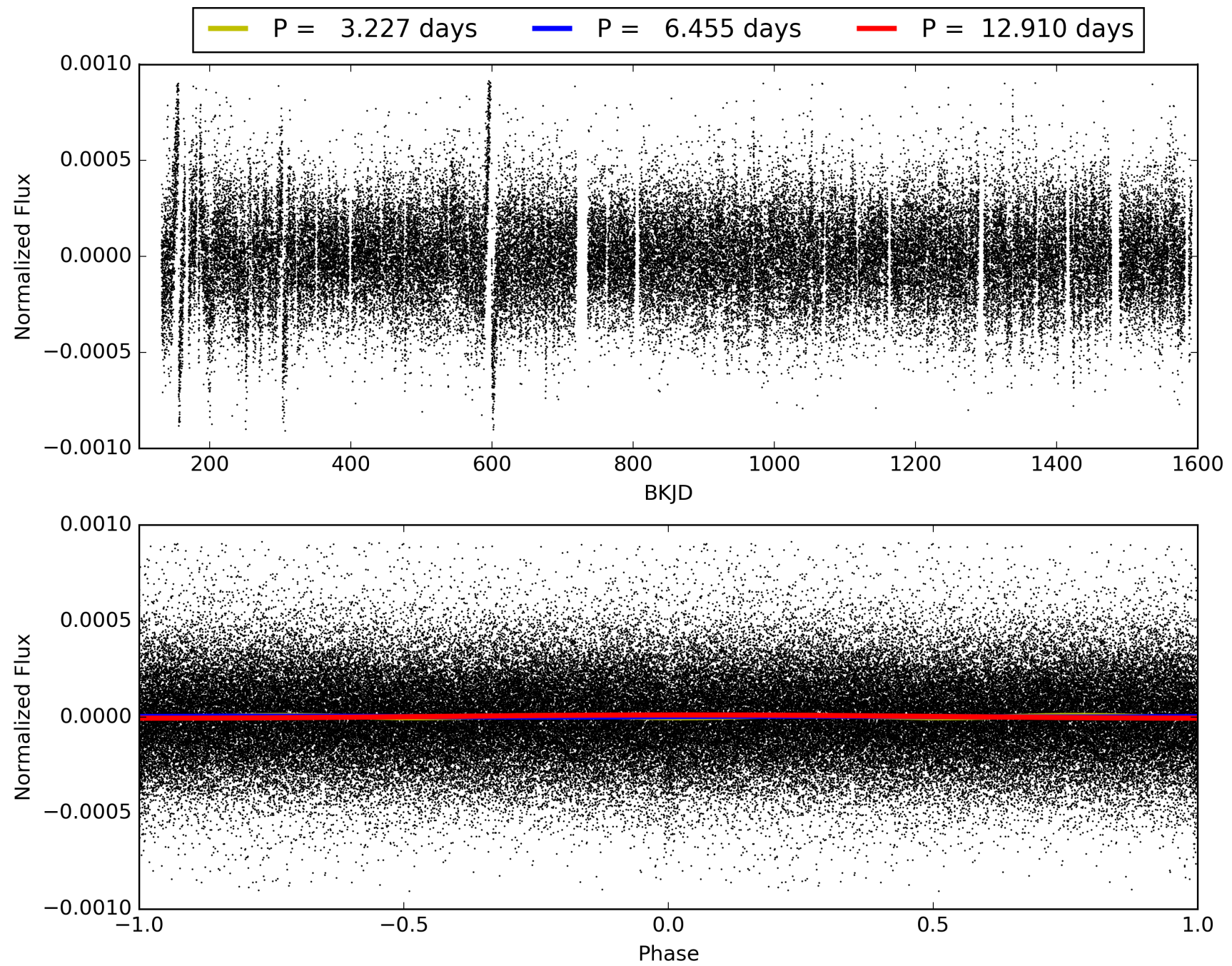
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:26:23 Z

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

TCE 007583650-01, PDC Light Curves

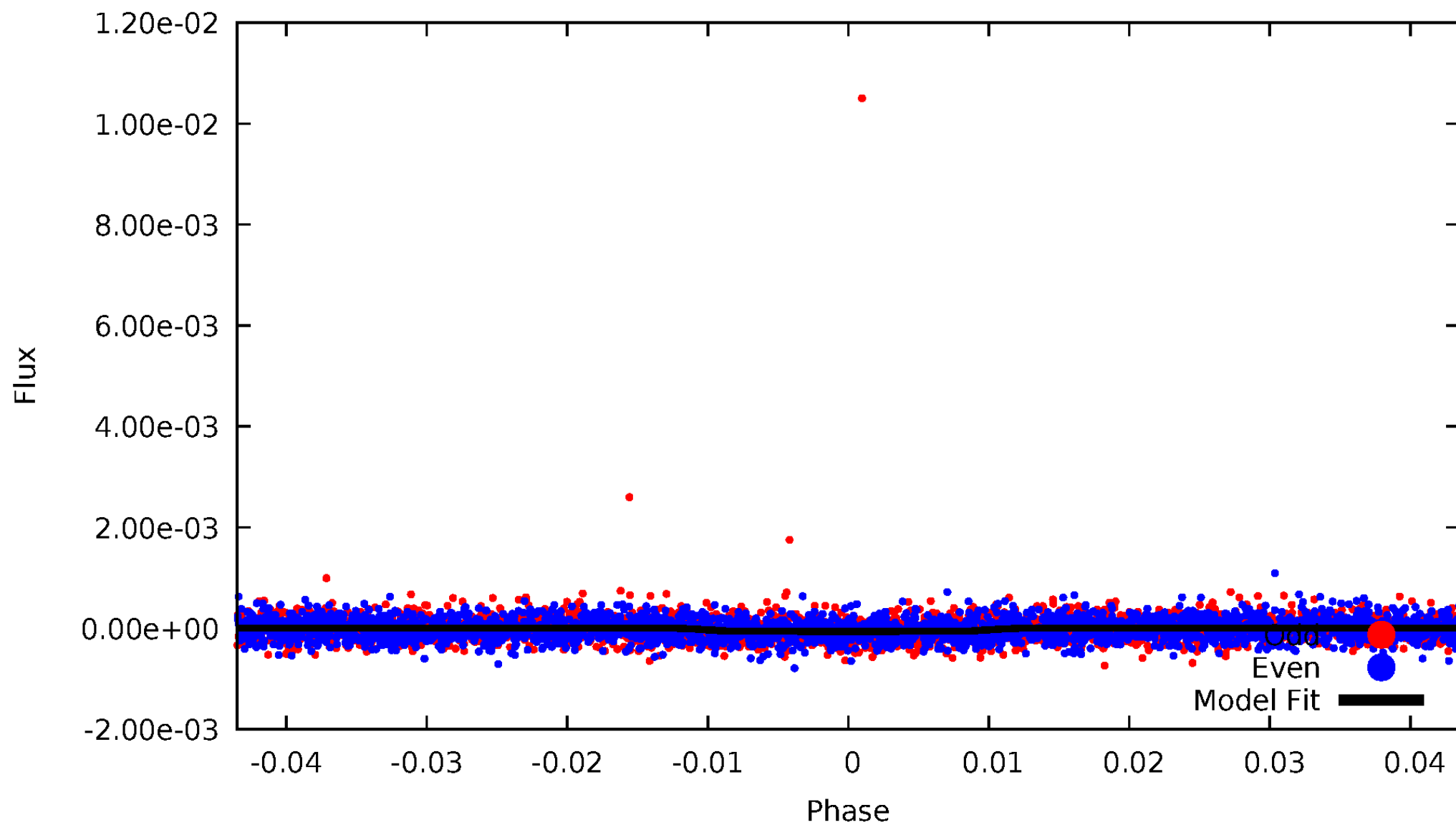


TCE 007583650-01



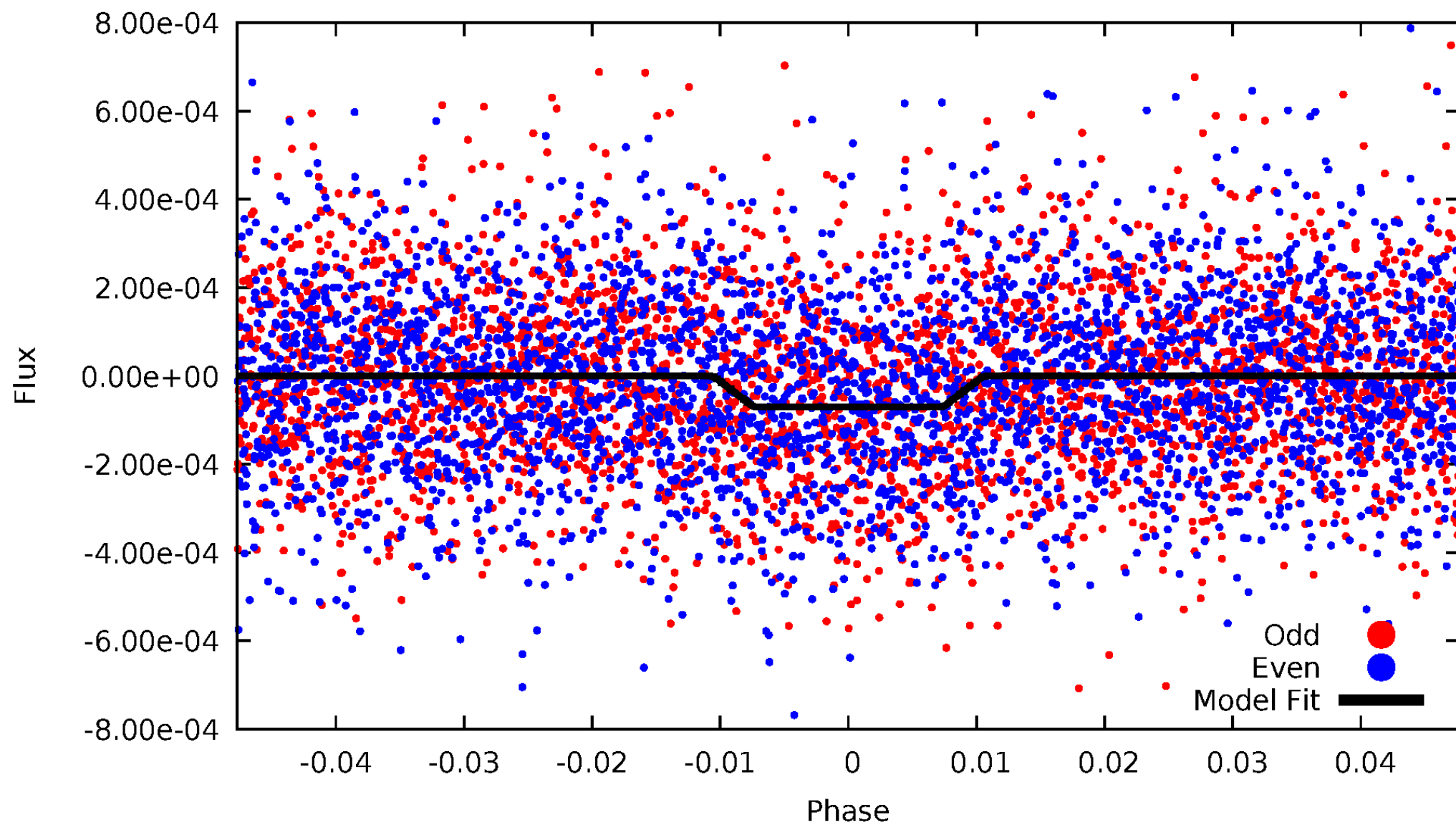
DV Odd/Even

TCE 007583650-01



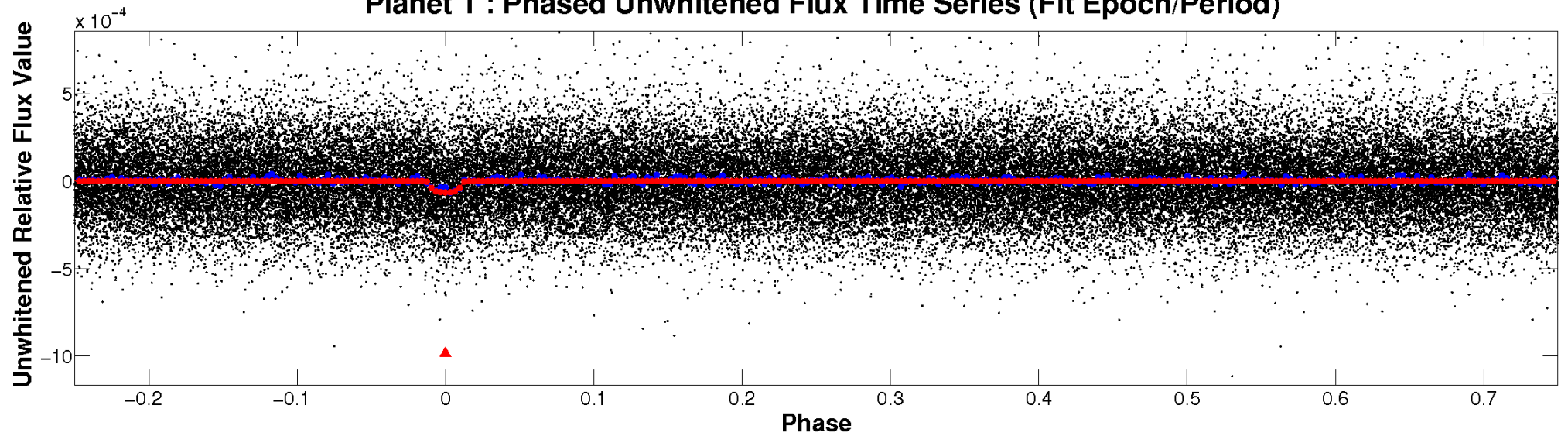
ALT Odd/Even

TCE 007583650-01

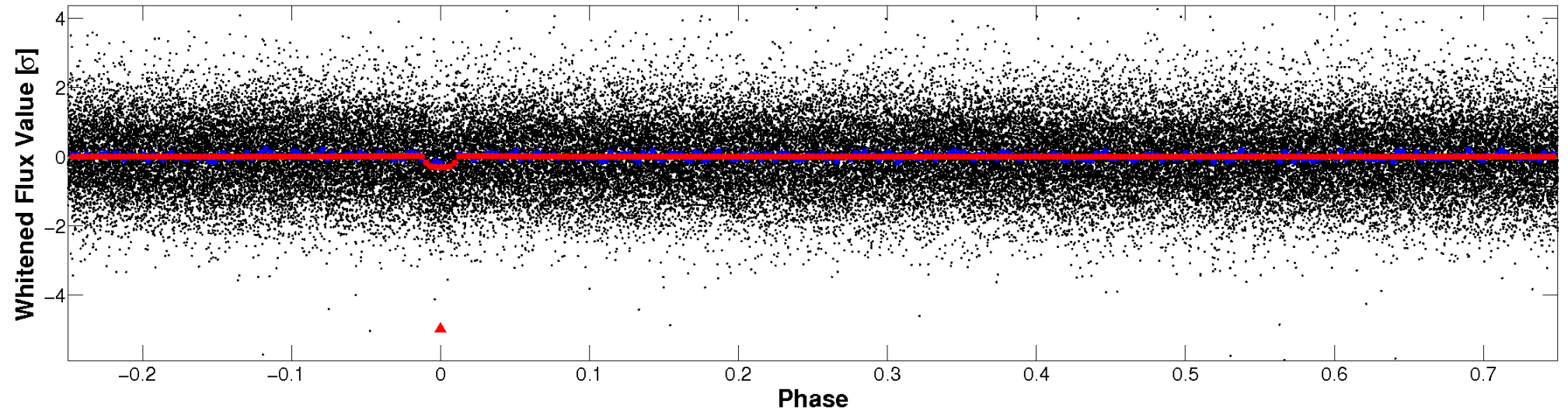


Non-Whitened Vs. Whitened Light Curve

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

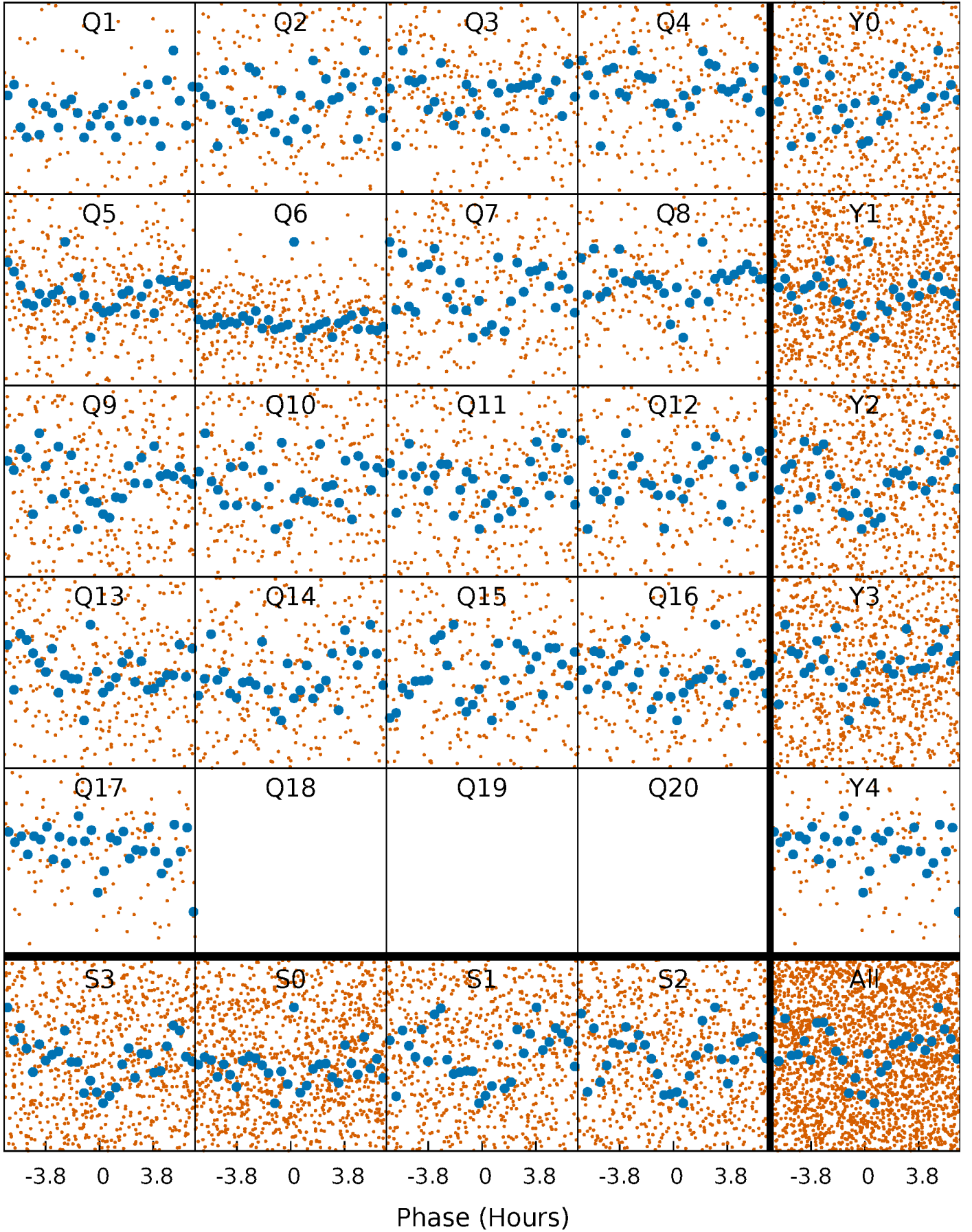


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



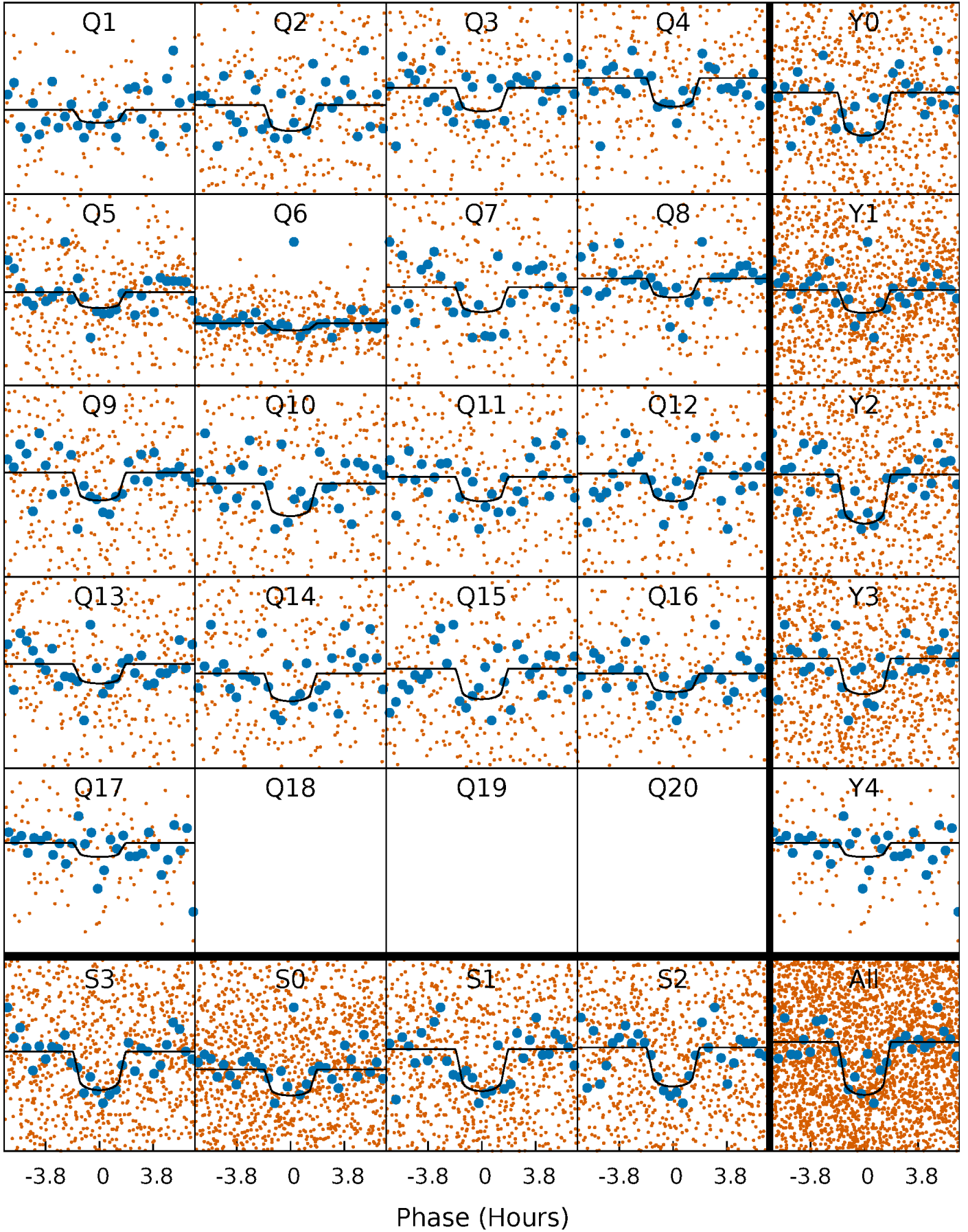
PDC Quarter-Phased Transit Curves

TCE 007583650-01 P= 6.454775 Days $T_0=135.531355$ (BKJD)



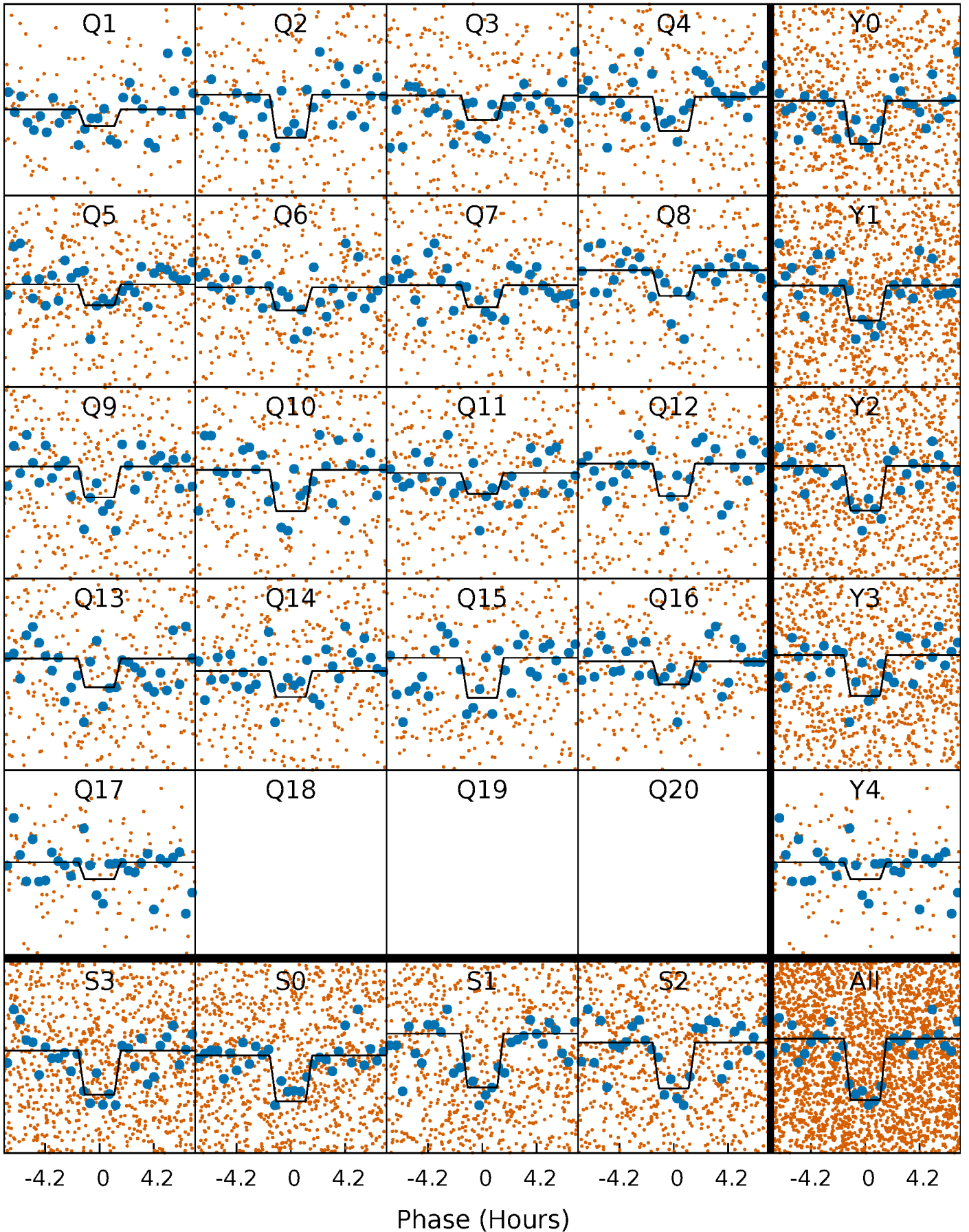
DV Quarter-Phased Transit Curves

TCE 007583650-01 P= 6.454775 Days $T_0=135.531355$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

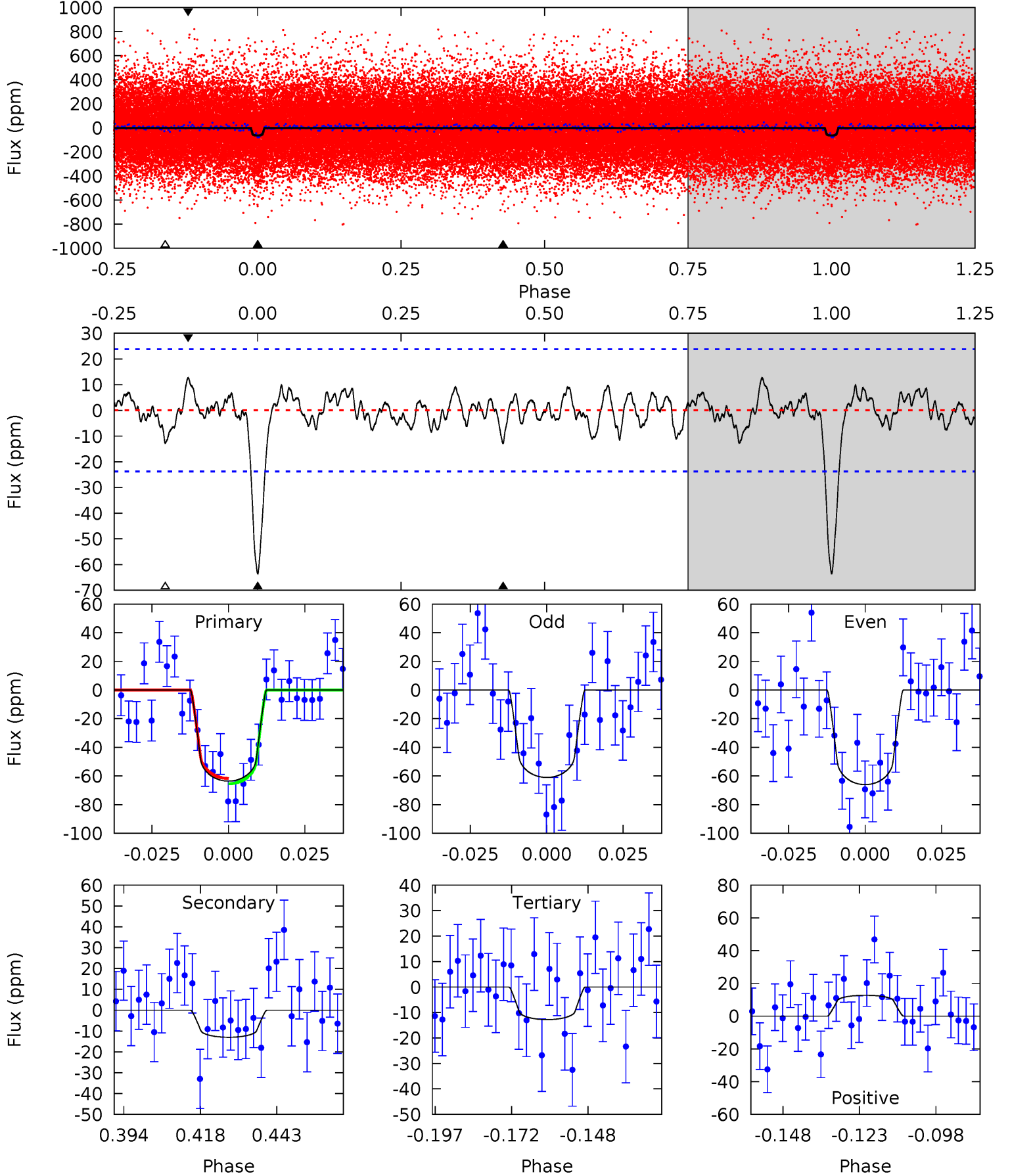
TCE 007583650-01 P= 6.454735 Days $T_0=135.535497$ (BKJD)



DV Model-Shift Uniqueness Test

007583650-01, P = 6.454775 Days, E = 129.076580 Days

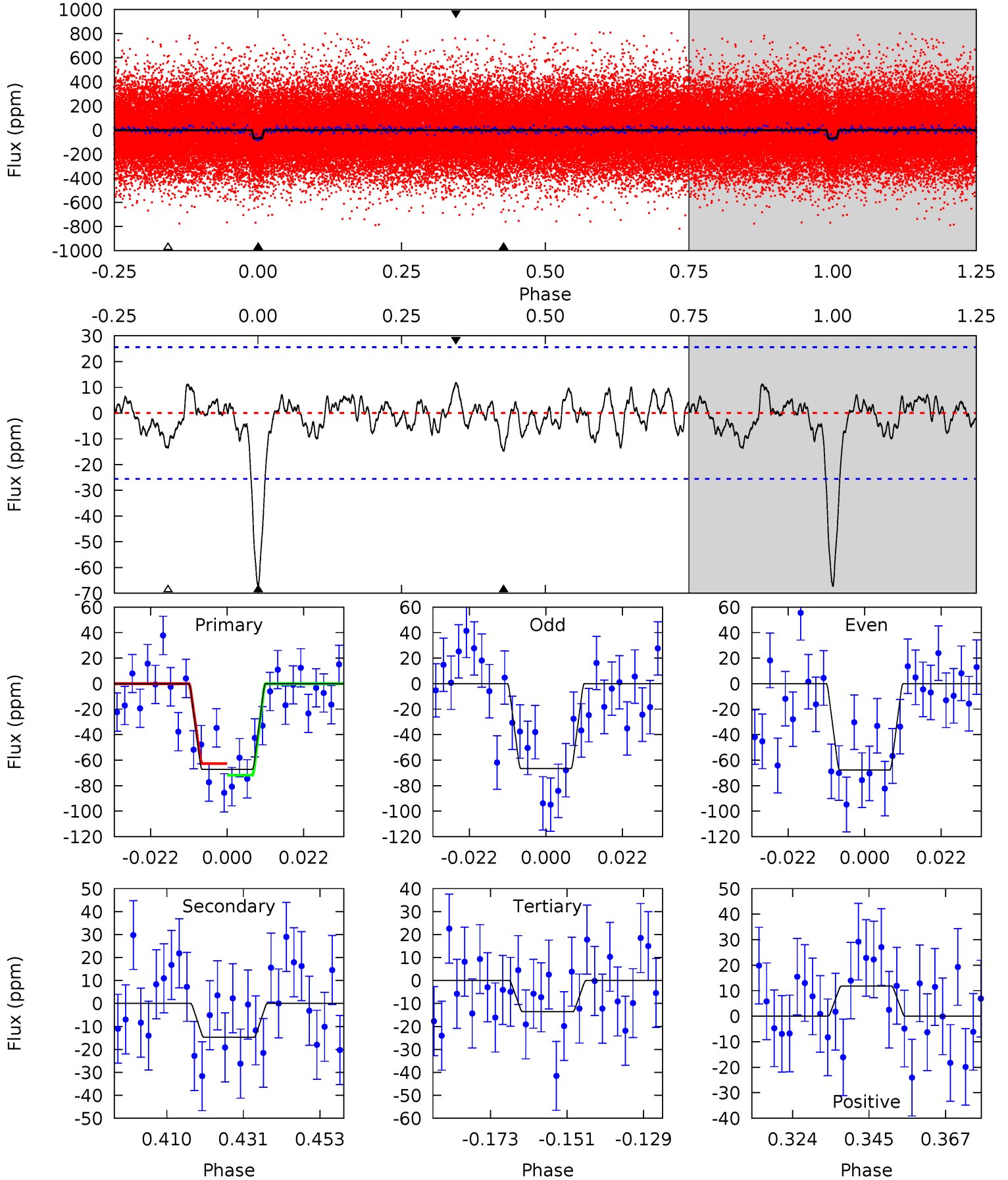
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	2.66	2.61	2.60	4.85	2.25	0.98	10.4	10.4	0.04	0.06	0.51	0.86	0.17	0.38



Alt Model-Shift Uniqueness Test

007583650-01, P = 6.454735 Days, E = 129.080762 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	2.80	2.59	2.24	4.88	2.30	0.98	10.2	10.6	0.21	0.56	0.11	1.05	0.15	0.87



Stellar Parameters For KIC 007583650

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6474^{+162}_{-194}	$4.243^{+0.148}_{-0.181}$	$-0.160^{+0.250}_{-0.300}$	$1.362^{+0.428}_{-0.263}$	$1.185^{+0.192}_{-0.157}$	$0.660^{+0.423}_{-0.329}$
	+3%/-3%	+3%/-4%	+156%/-188%	+31%/-19%	+16%/-13%	+64%/-50%
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 007583650-01 / KOI 4614.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 5	$1.33^{+0.59}_{-0.63}$	1737^{+125}_{-103}	4319^{+1278}_{-629}	20^{+57}_{-12}
Alt.	-15 ± 5	$1.25^{+0.65}_{-0.54}$	1743^{+125}_{-110}	4508^{+1295}_{-677}	26^{+59}_{-16}

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 $A_{obs} \gg 1.0$

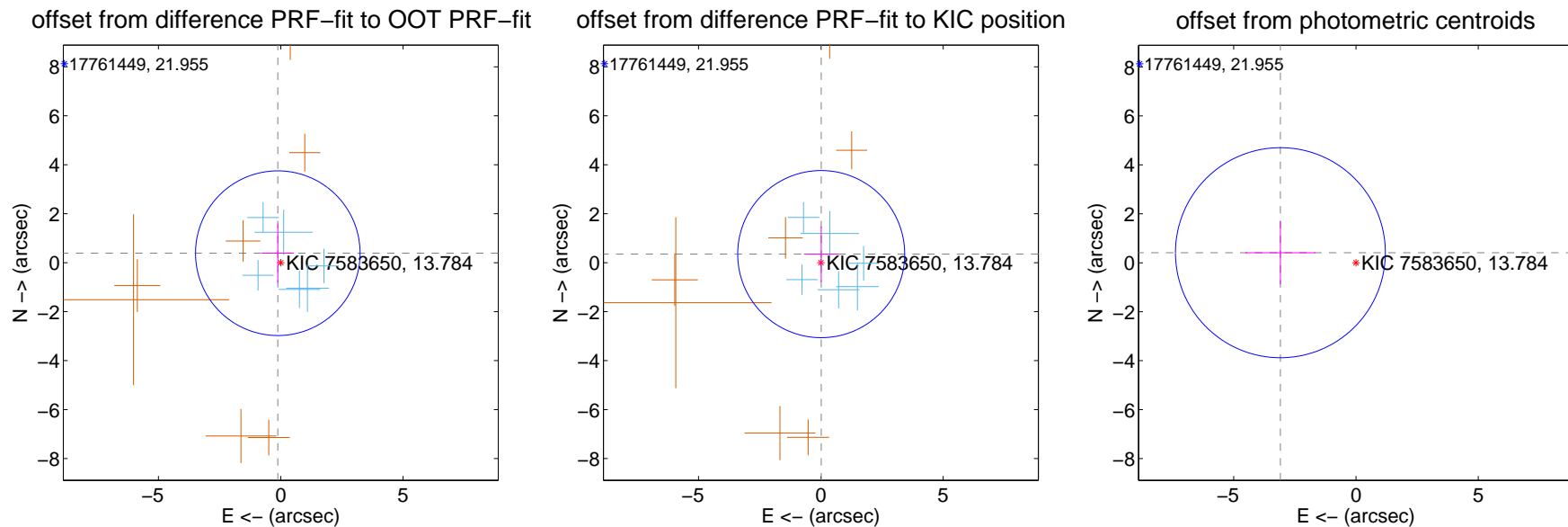
DV Centroid Data

Supplemental centroid analysis for 007583650-01. Kepler magnitude: 13.78. Transit SNR 9.92

There are 6 quarters with good PRF difference image offsets

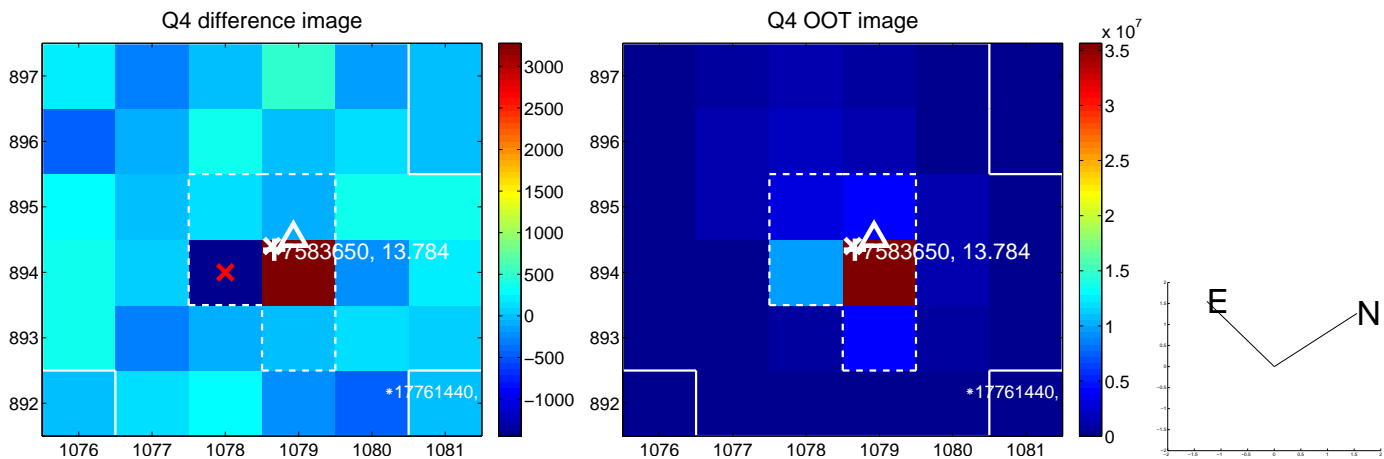
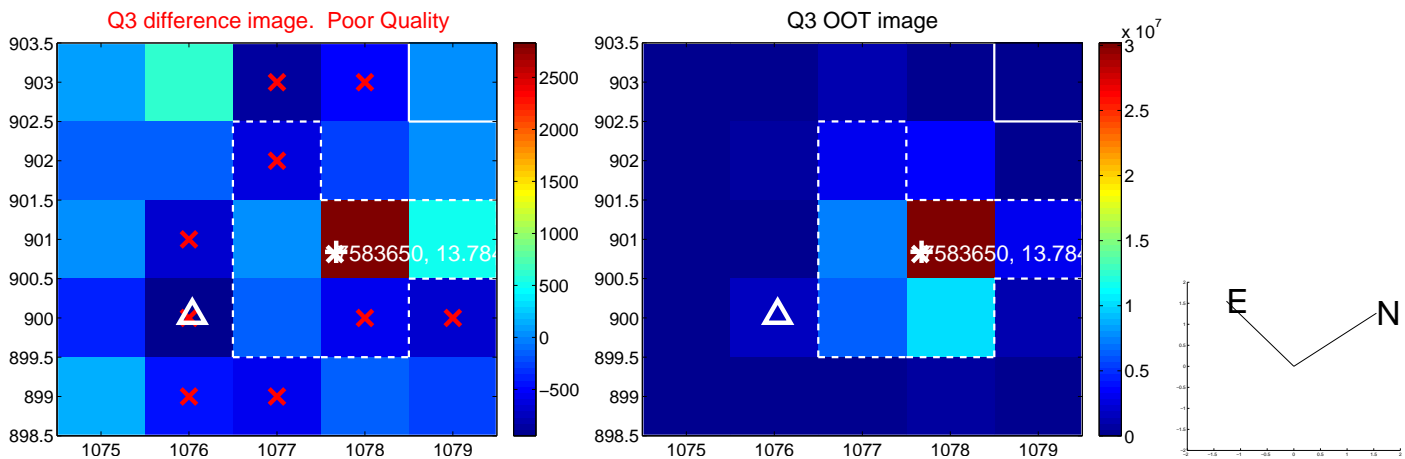
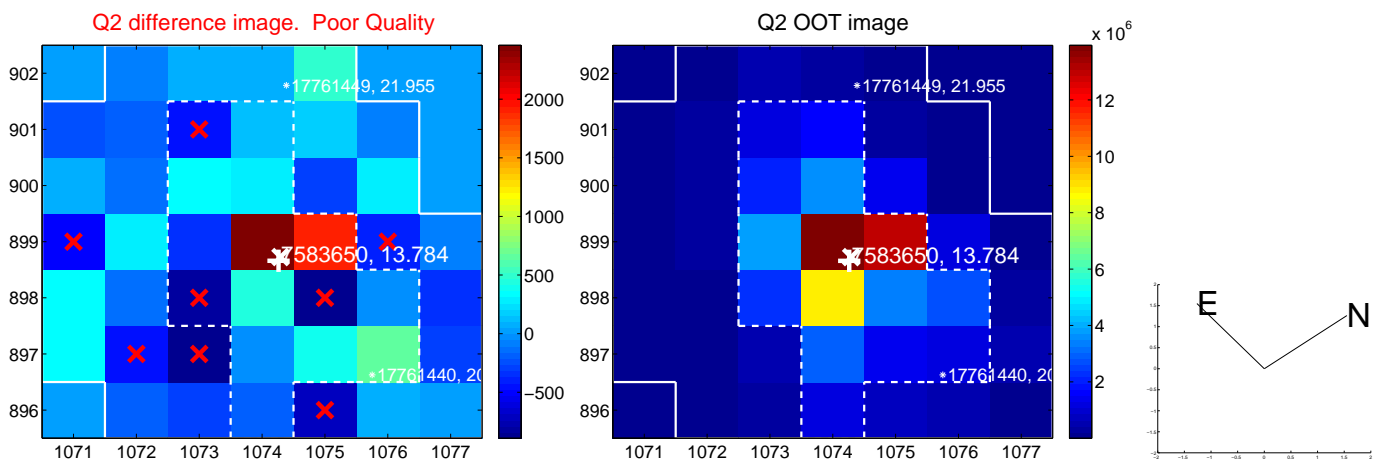
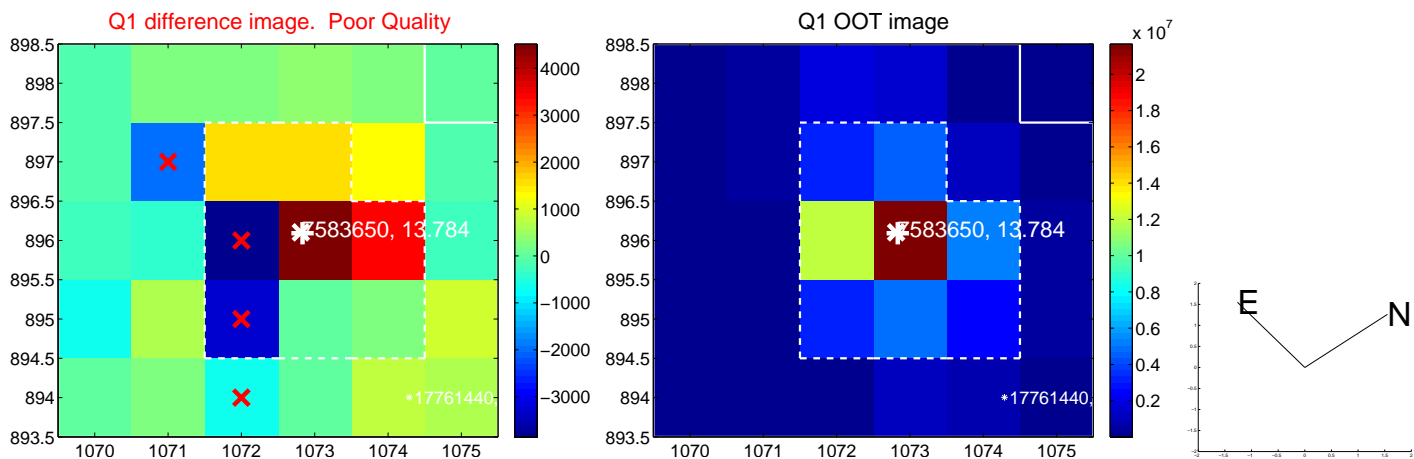
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.406 ± 1.121	0.36	0.120 ± 0.660	0.388 ± 1.207
PRF-fit source offset from KIC position	0.351 ± 1.138	0.31	-0.014 ± 0.705	0.350 ± 1.133
photometric centroid source offset	3.12 ± 1.43	2.18	3.09 ± 1.43	0.41 ± 1.29

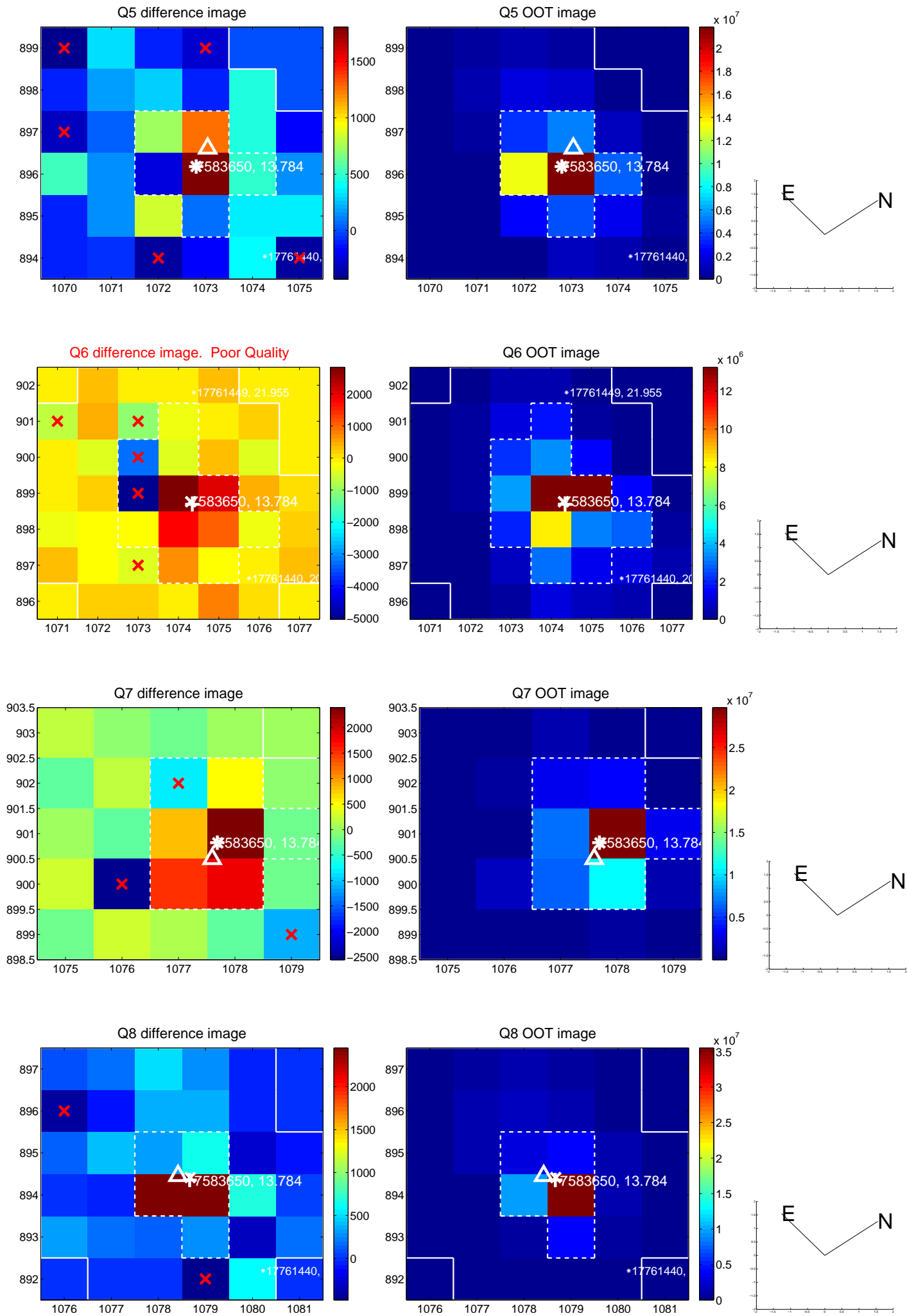


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

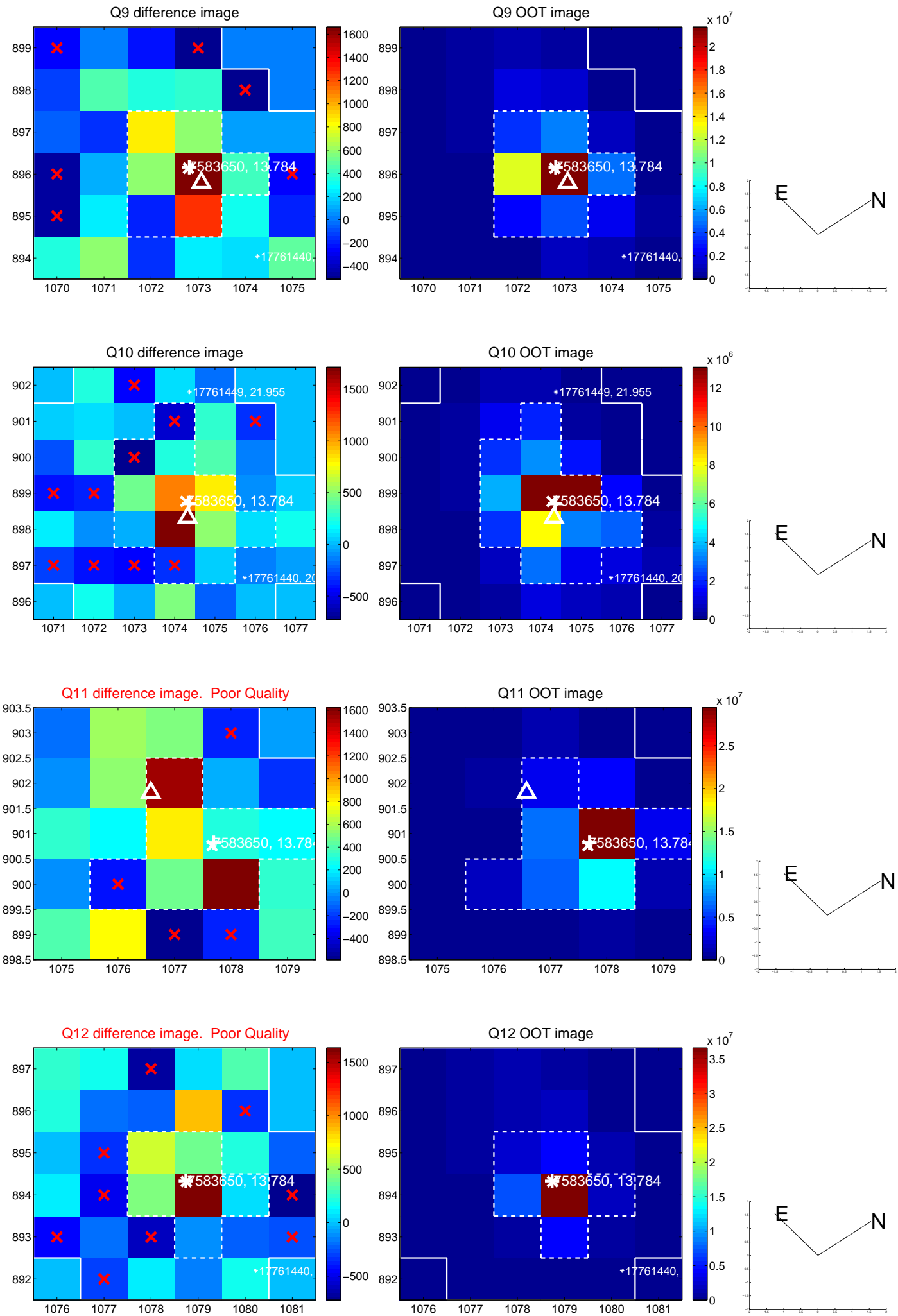
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



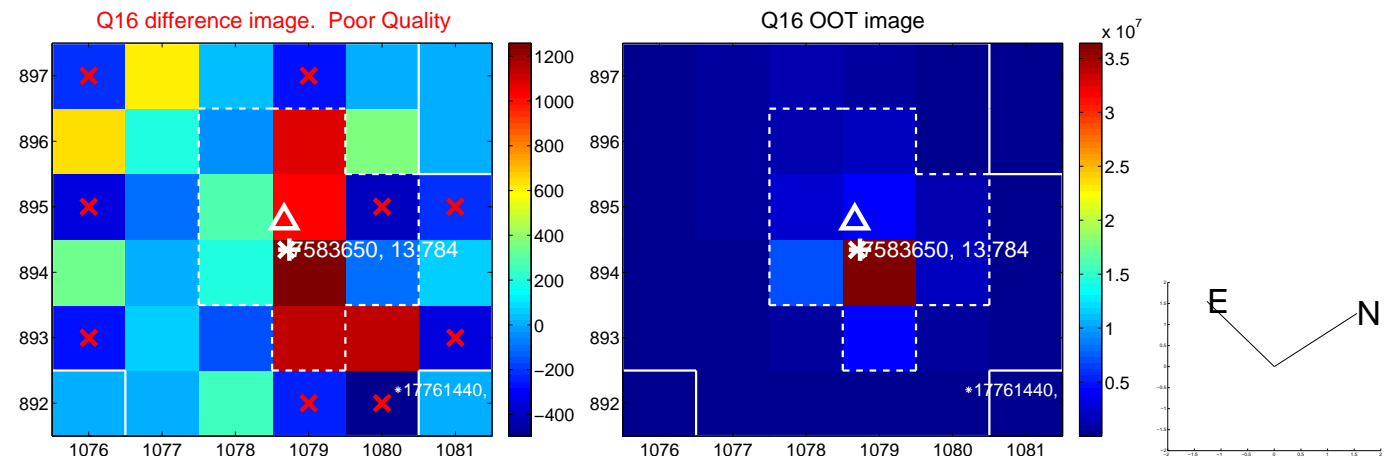
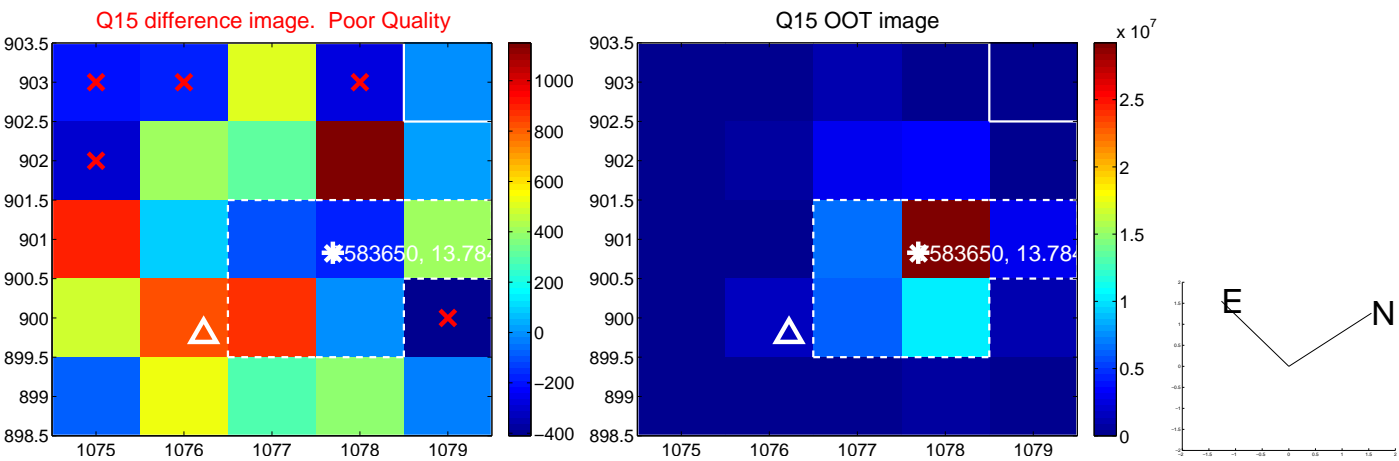
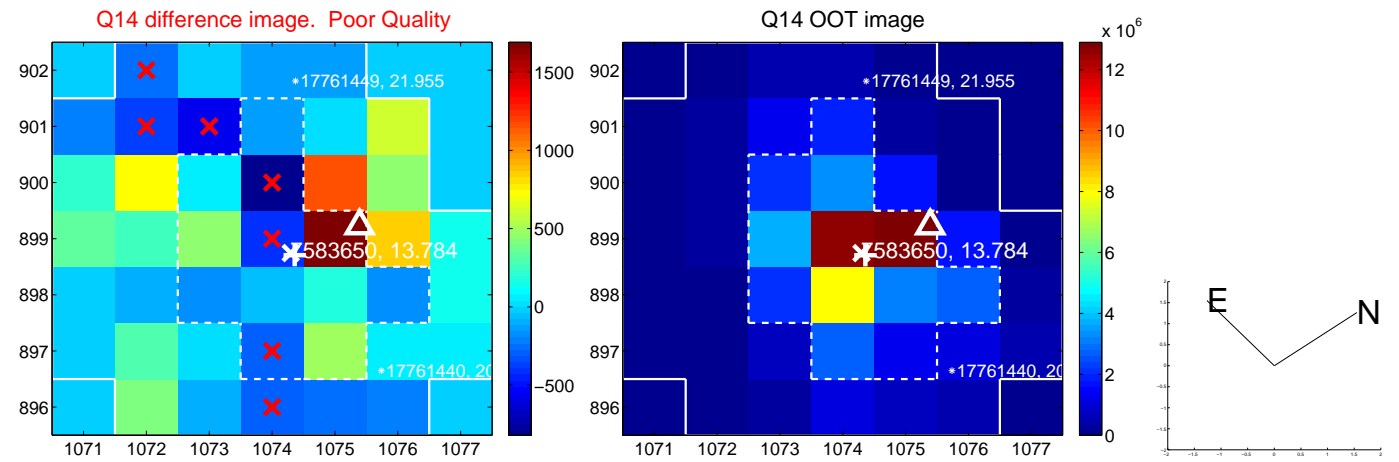
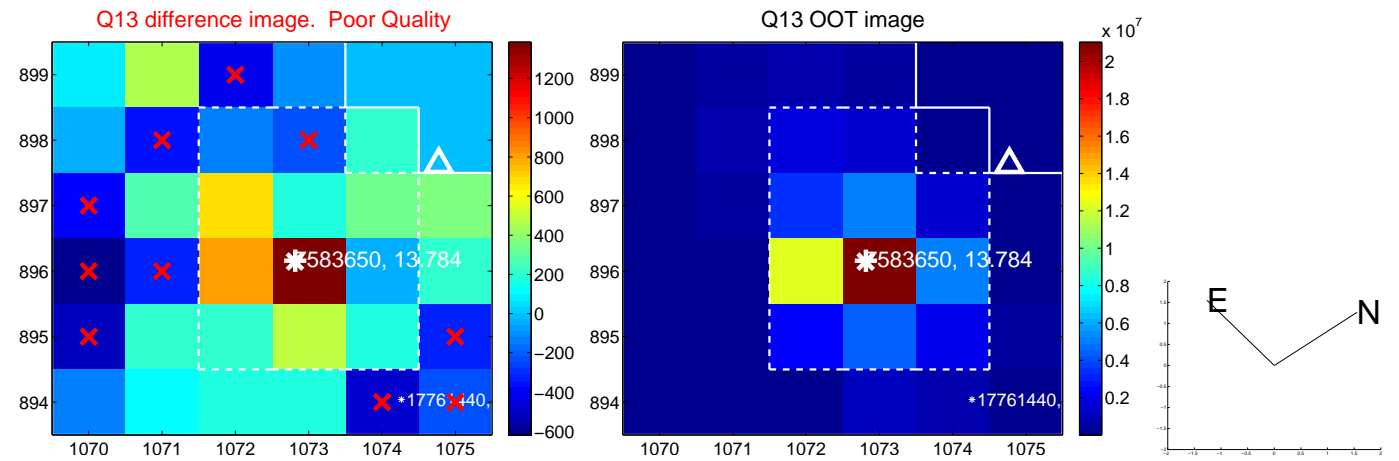
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



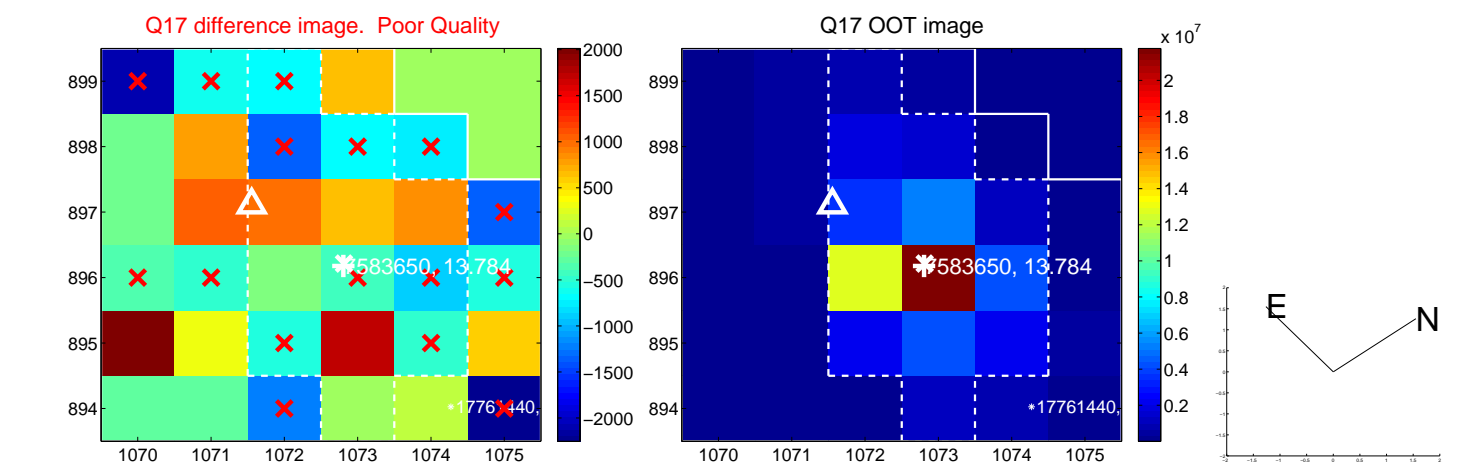
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



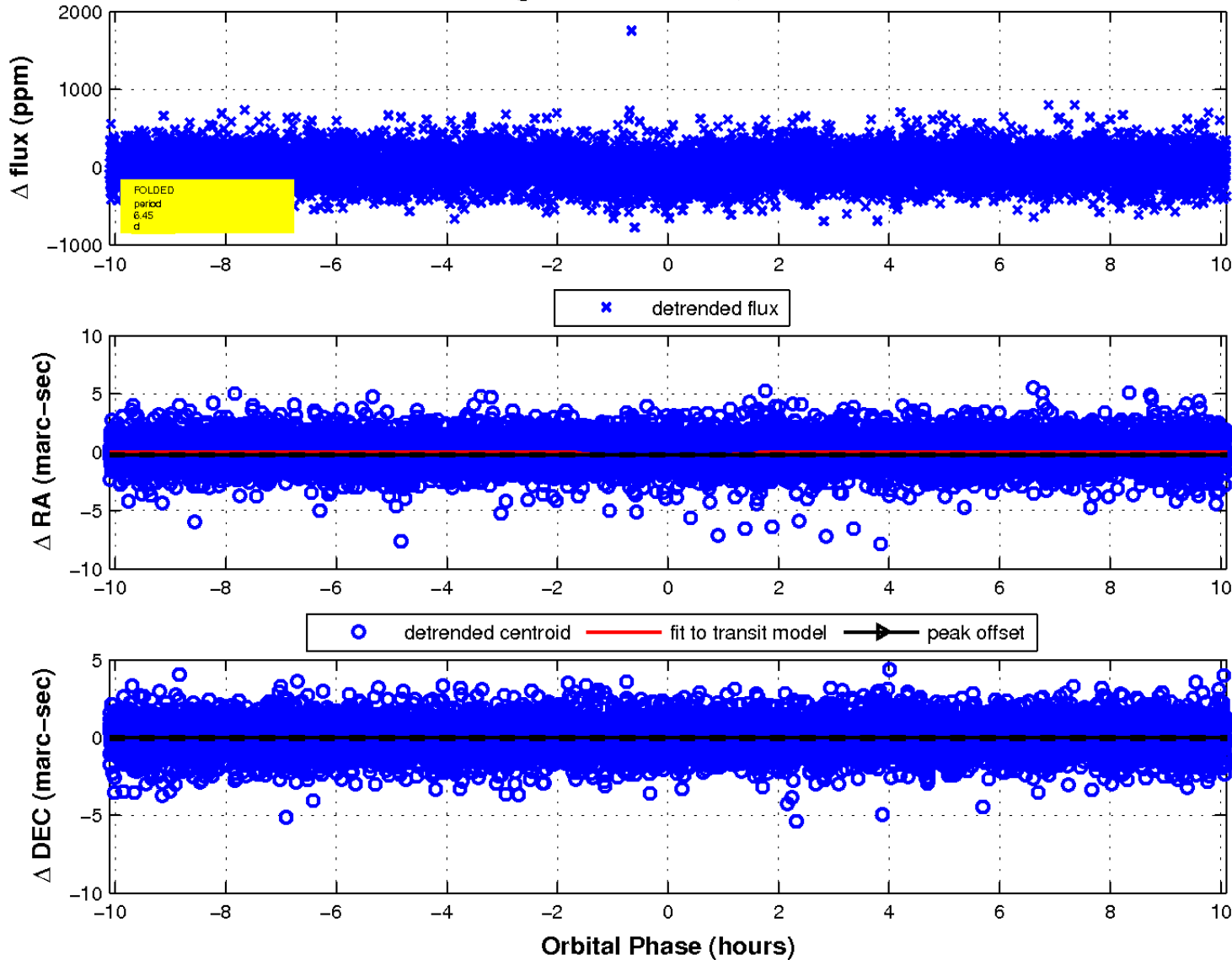
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

