

KIC 008382207

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})
008382207-01	OBS	No	1.258679	132.476791	5.2	10.068	10.0	0.4	1.00	5780	0.23	1920.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008382207-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_FEW_DIFFS—EPHEM_MATCH

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.

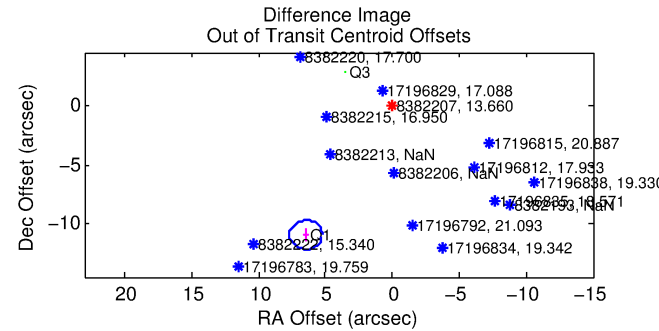
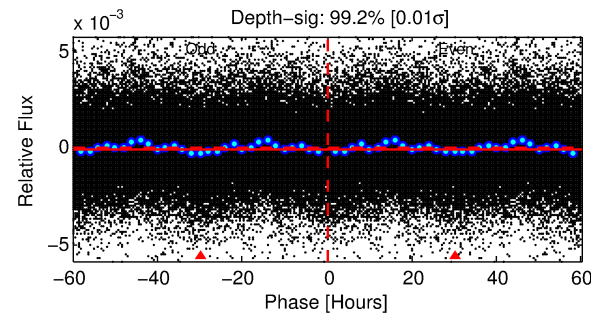
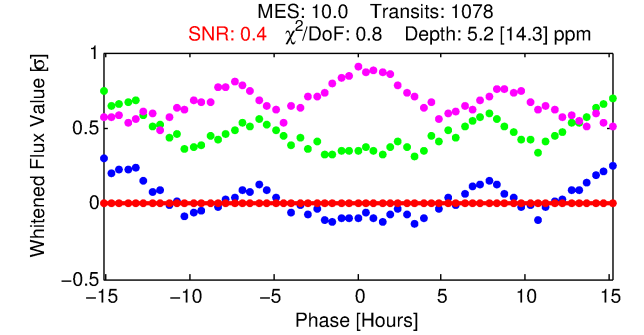
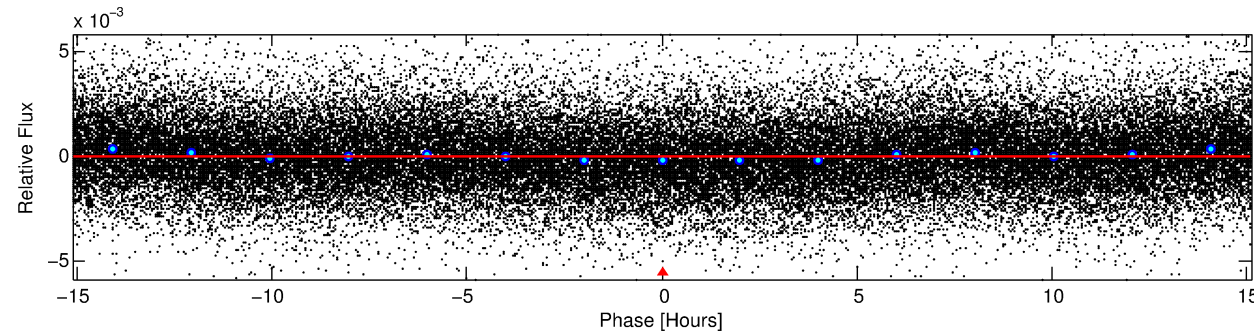
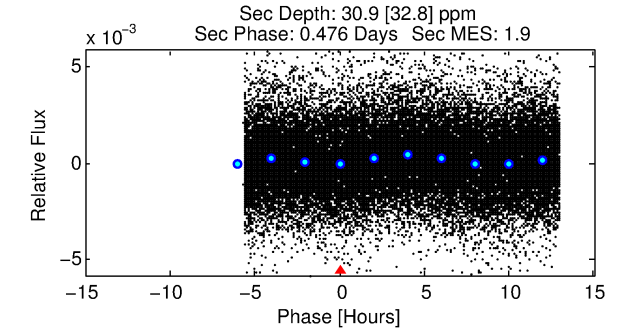
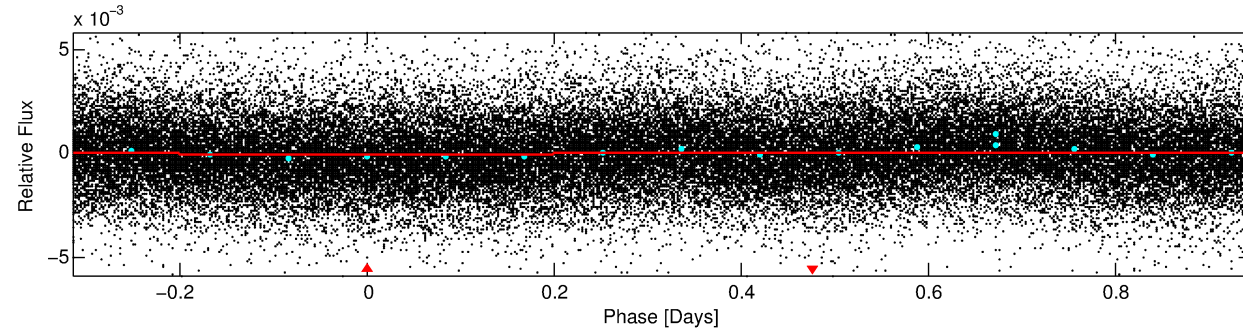
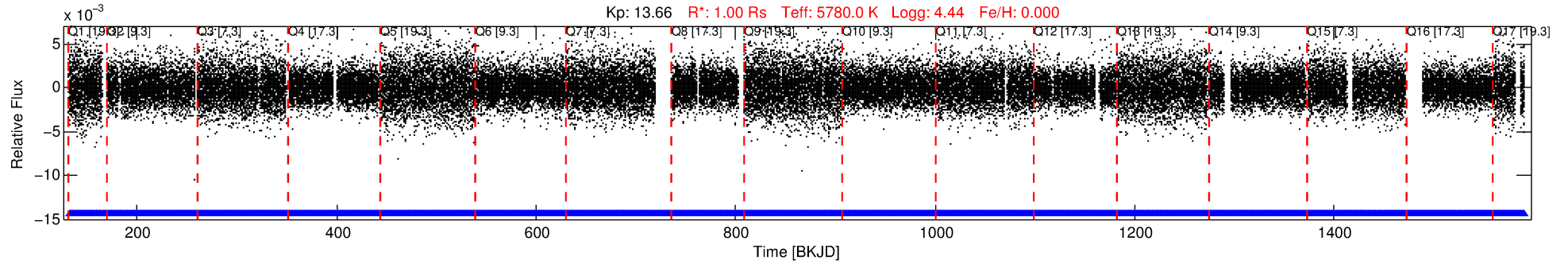
Ephemeris Match Information For 008382207-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008382207-01	8382207	008382182-pri	8382182	1:1	25.3	-5	-3	8.18	13.66	2940.00	Direct-PRF	0	2.36	0.28

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 8382207 Candidate: 1 of 1 Period: 1.259 d



DV Fit Results:

Period = 1.25868 [0.00064] d
Epoch = 132.4768 [0.2513] BKJD
Rp/R* = 0.0021 [0.0619]
a/R* = 1.16 [38.62]
b = 0.05 [2564.93]
Seff = 1920.37 [1.29]
Teq = 1688 [0] K
Rp = 0.22 [6.76] Re
a = 0.0228 [0.0000] AU
Ag = 175.78 [10579.64] [0.02 σ]
Teff = 9503 [142985] K [0.05 σ]

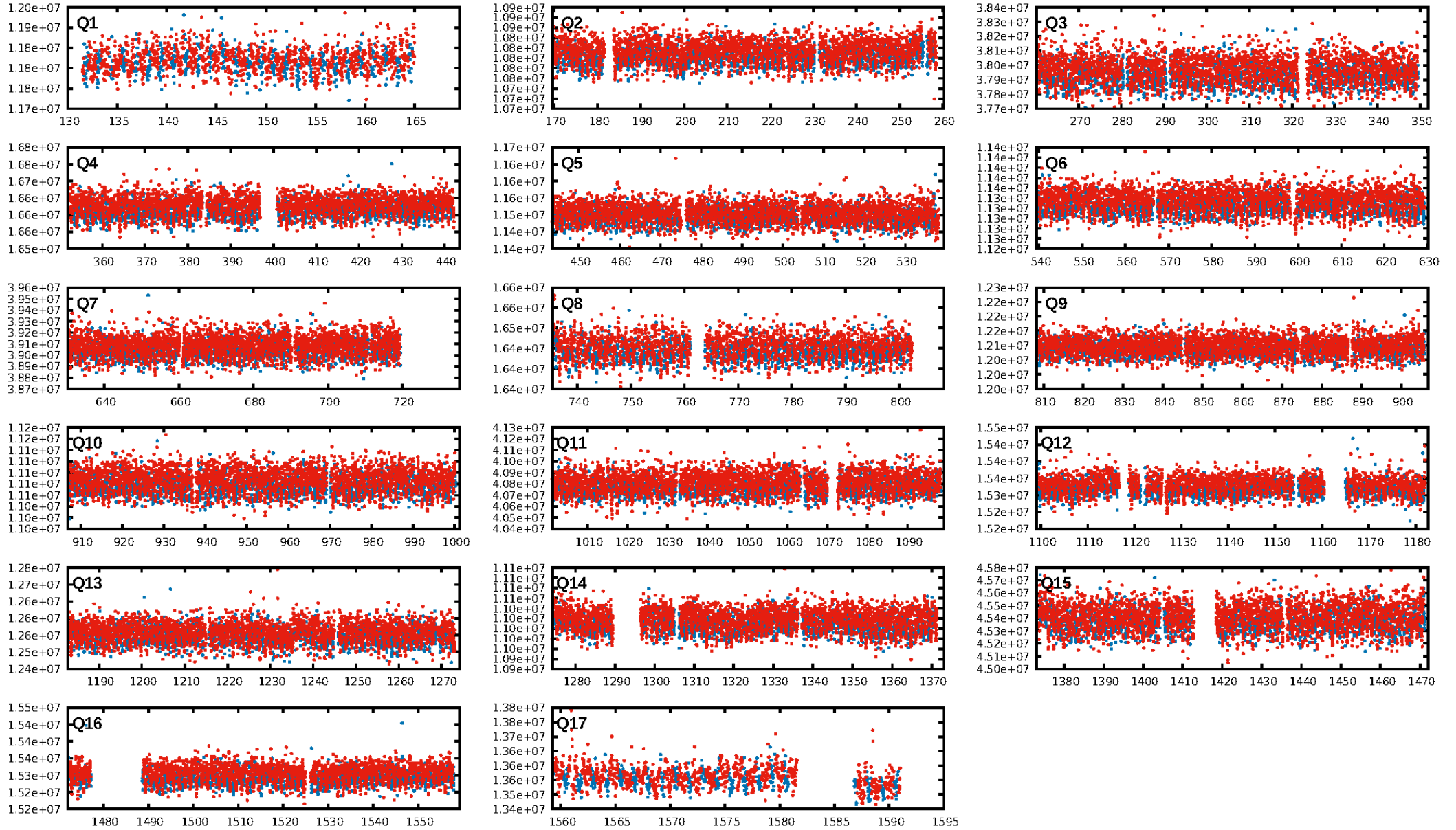
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1030/1030]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 3.839 arcsec [3.36 σ]
OotOffset-rm: 12.691 arcsec [31.33 σ]
KicOffset-rm: 4.037 arcsec [3.70 σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 2/1/0/2 [5]
DiffImageQuality-fgm: 0.20 [1/5]
DiffImageOverlap-fno: 1.00 [17/17]

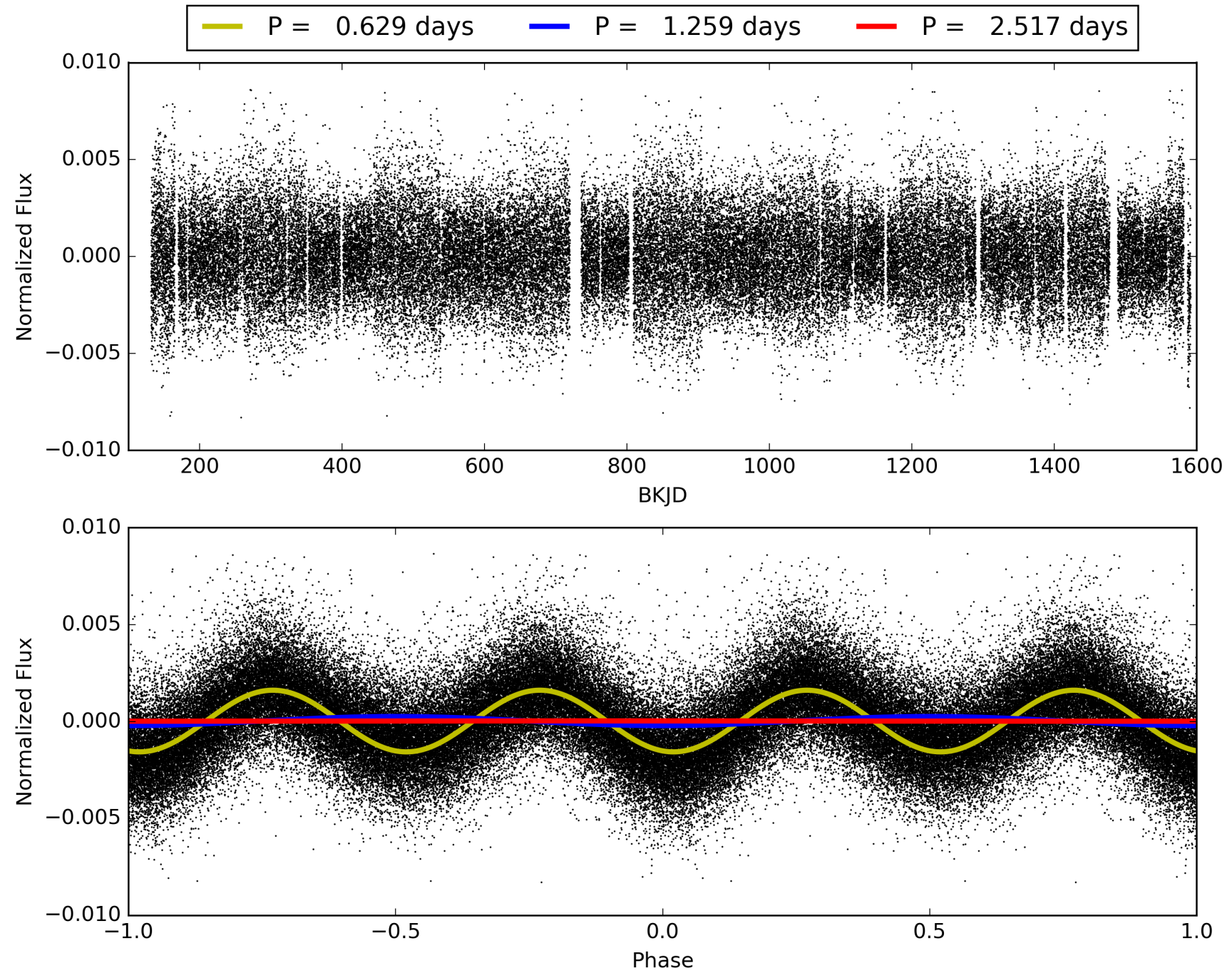
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:36:44 Z

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

TCE 008382207-01, PDC Light Curves

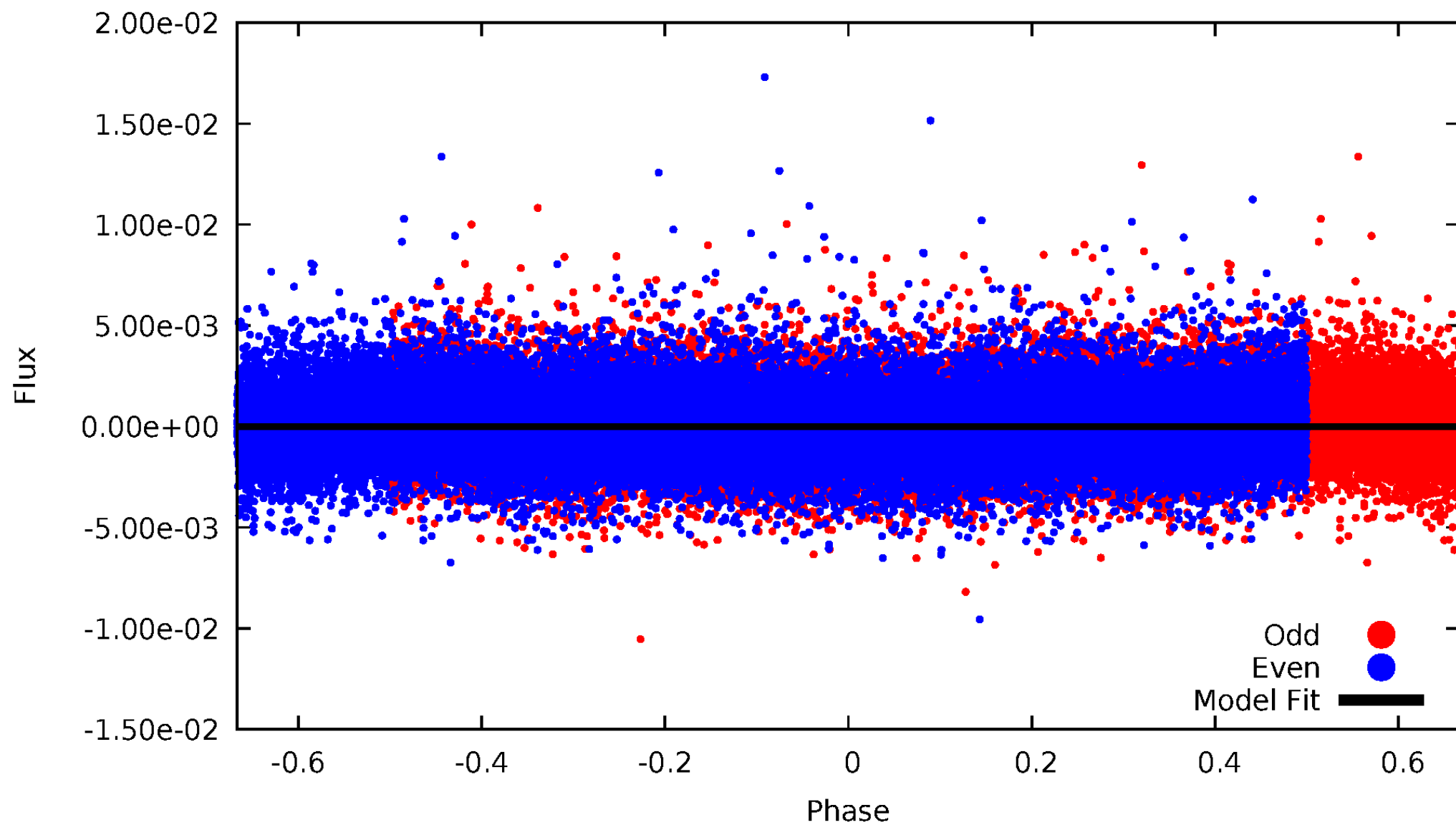


TCE 008382207-01



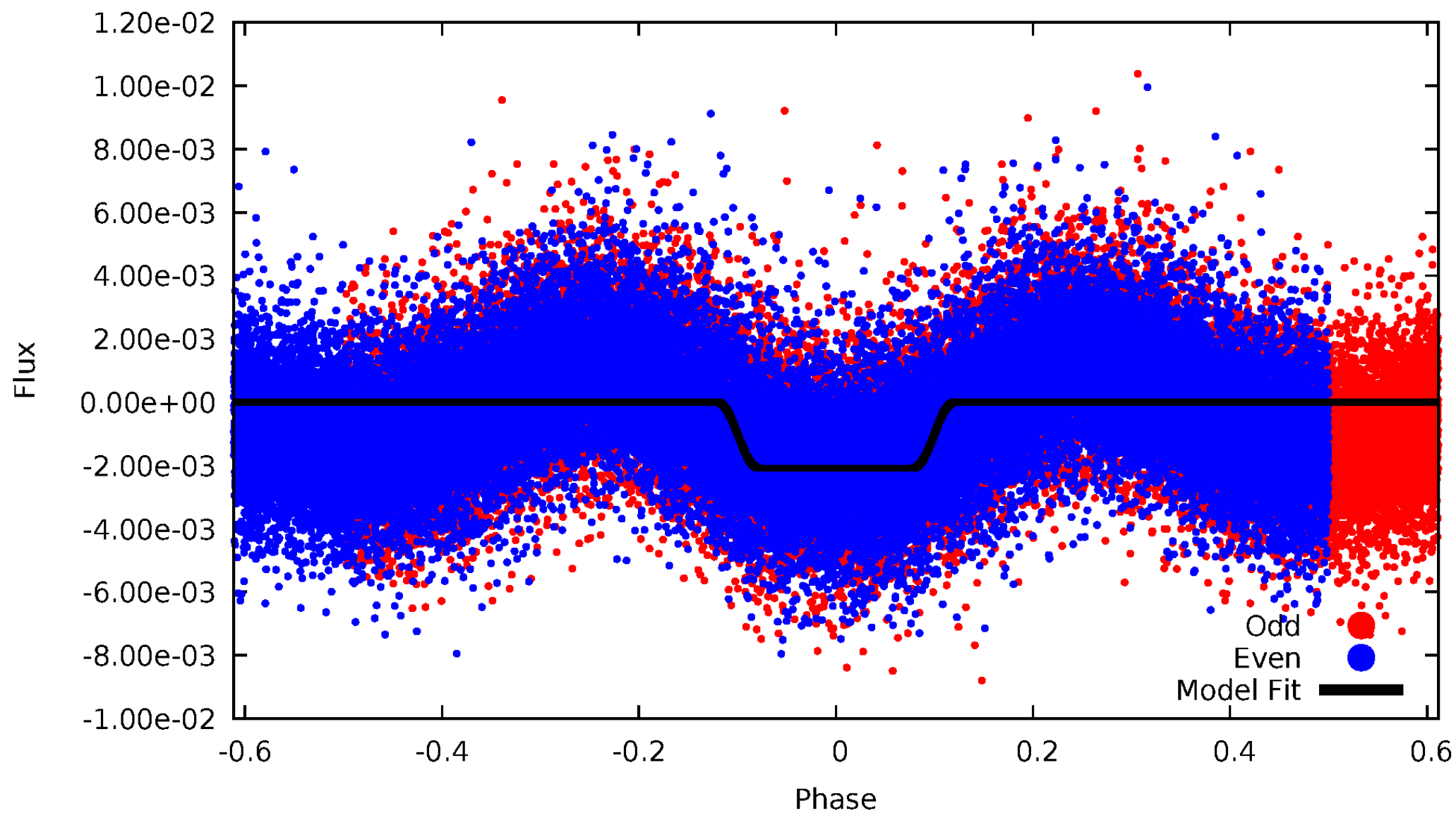
DV Odd/Even

TCE 008382207-01



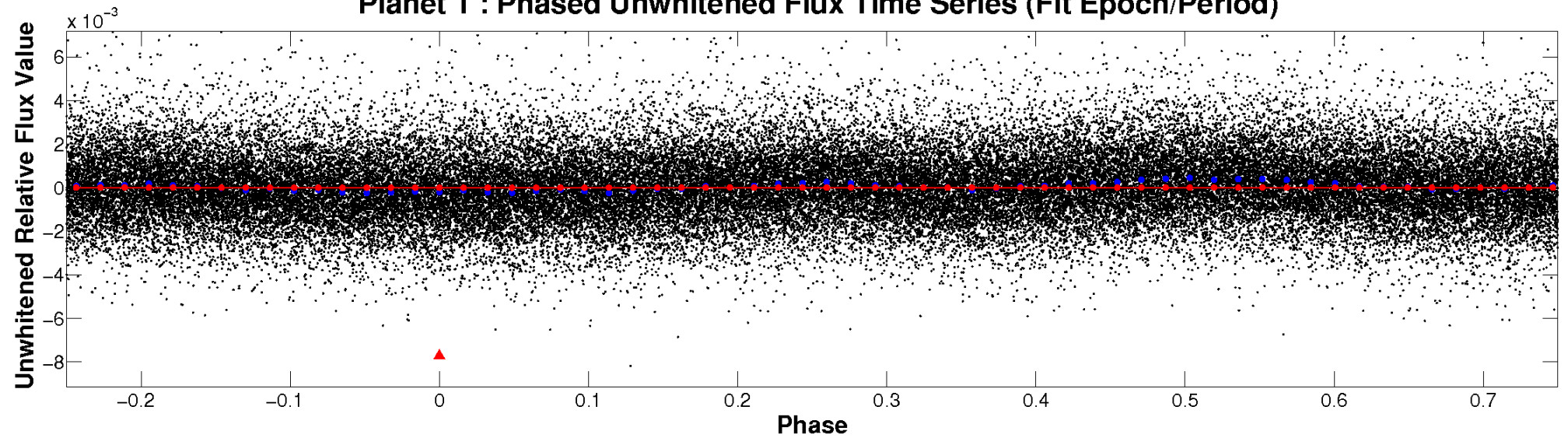
ALT Odd/Even

TCE 008382207-01

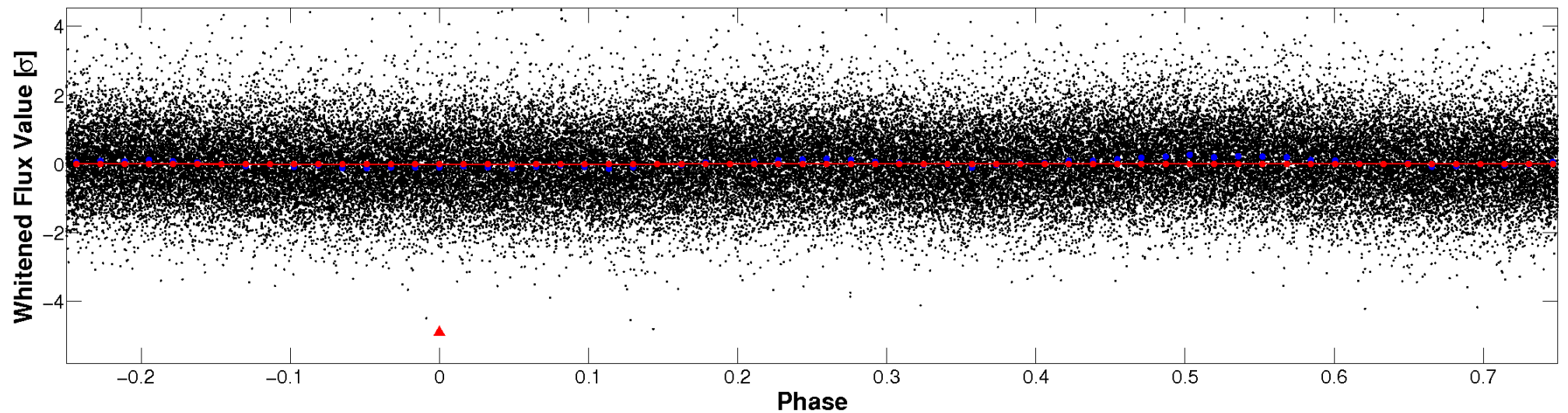


Non-Whitened Vs. Whitened Light Curve

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

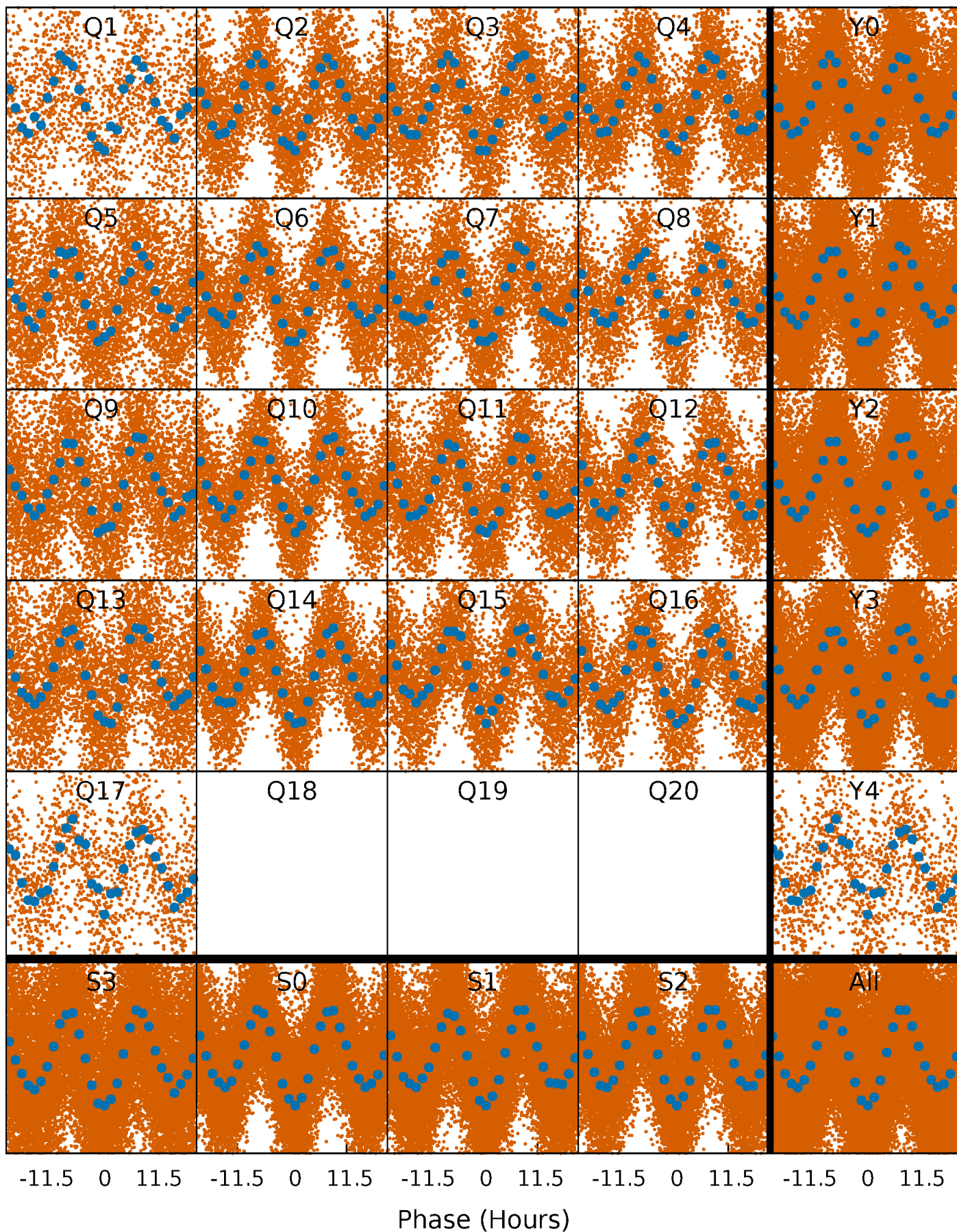


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



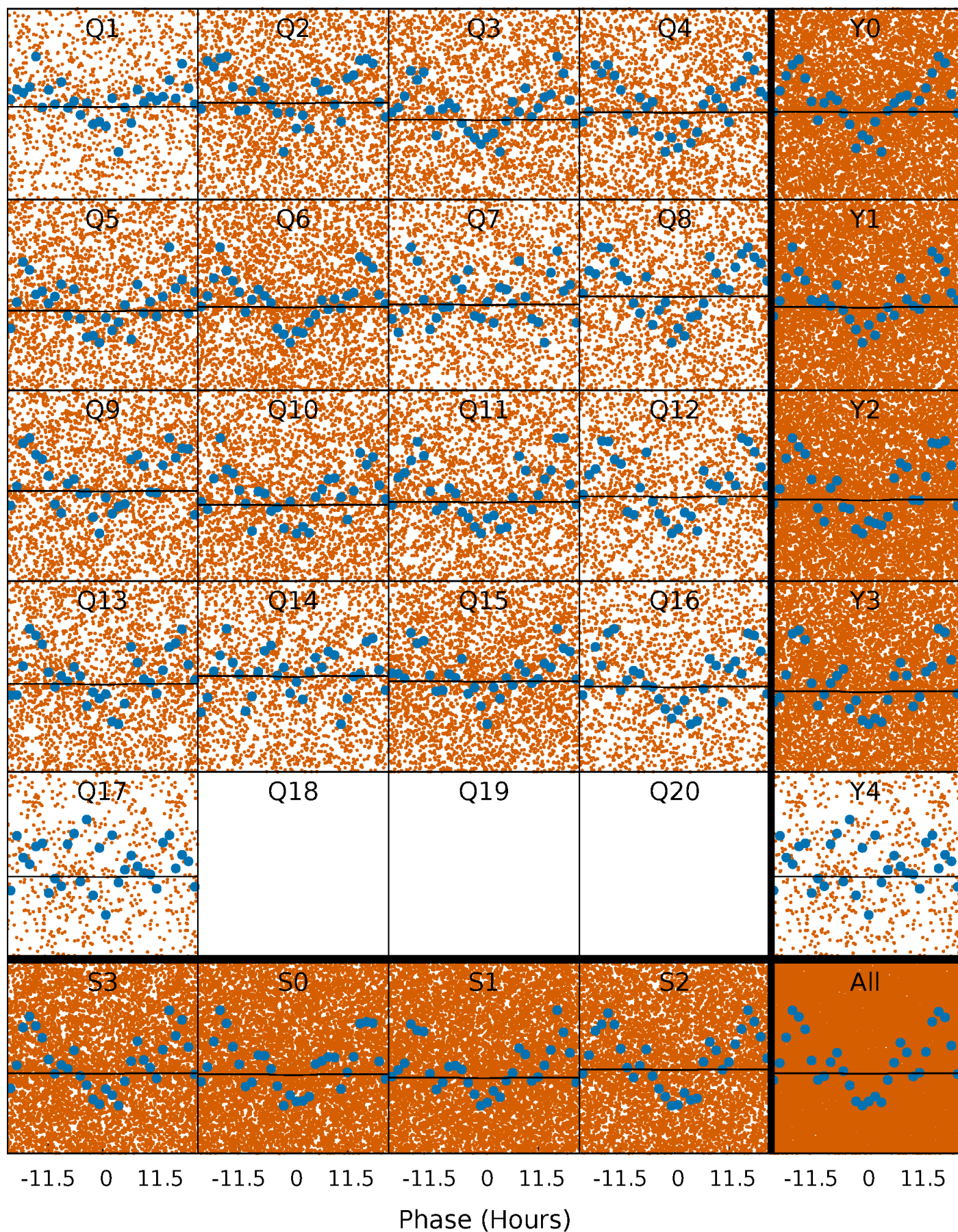
PDC Quarter-Phased Transit Curves

TCE 008382207-01 P= 1.258679 Days $T_0=132.476791$ (BKJD)



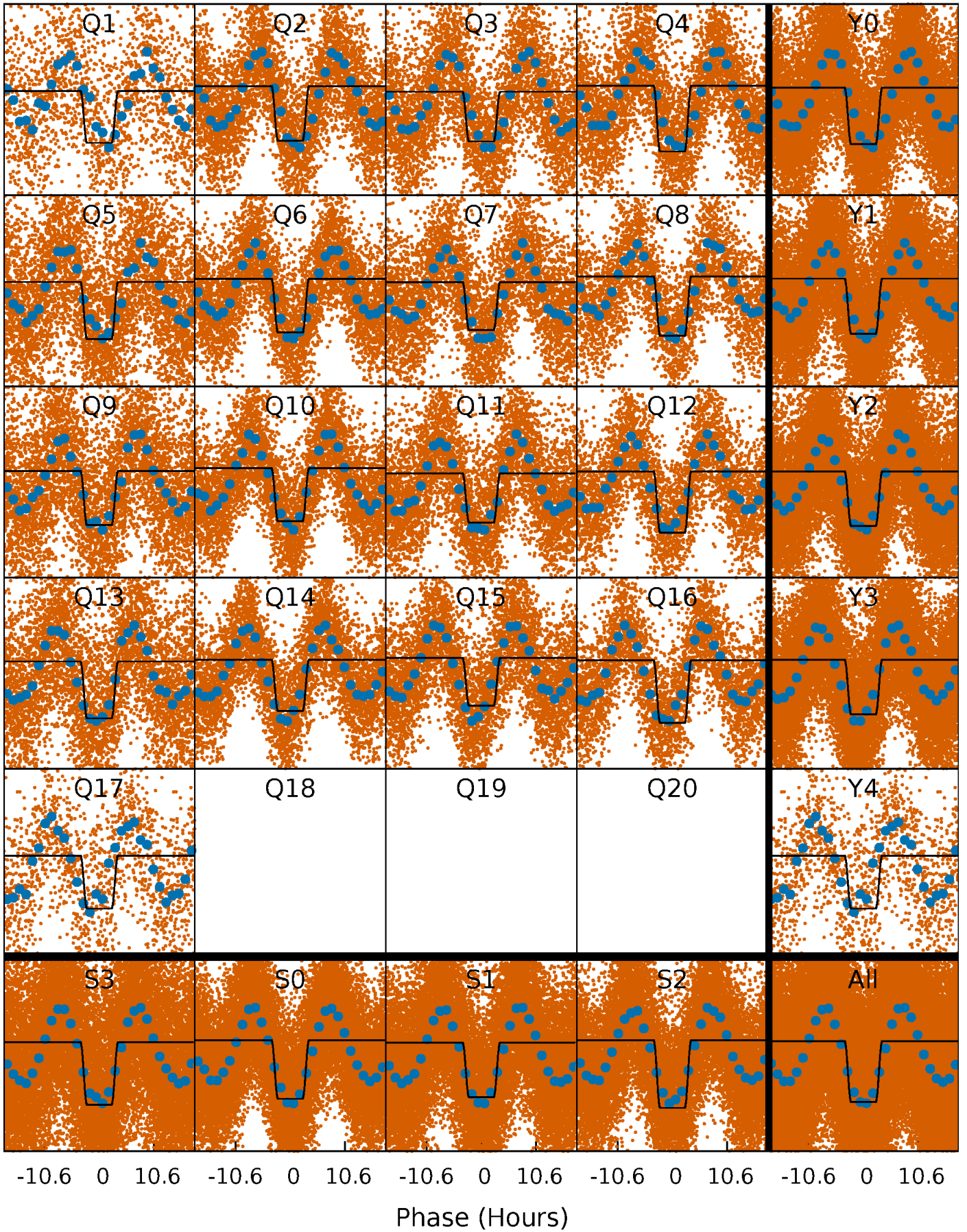
DV Quarter-Phased Transit Curves

TCE 008382207-01 P= 1.258679 Days $T_0=132.476791$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

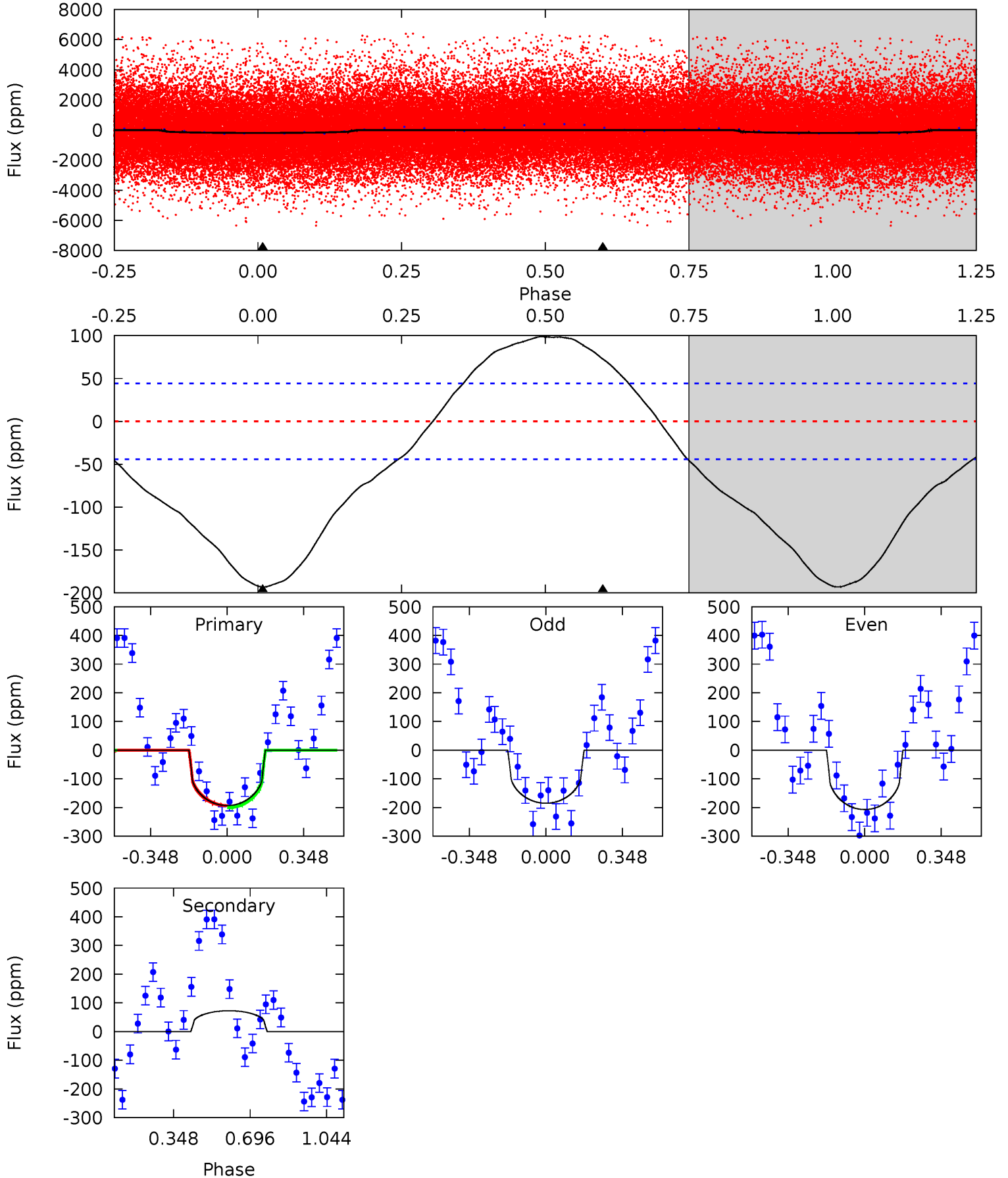
TCE 008382207-01 P= 1.258830 Days $T_0=132.412082$ (BKJD)



DV Model-Shift Uniqueness Test

008382207-01, P = 1.258679 Days, E = 131.218112 Days

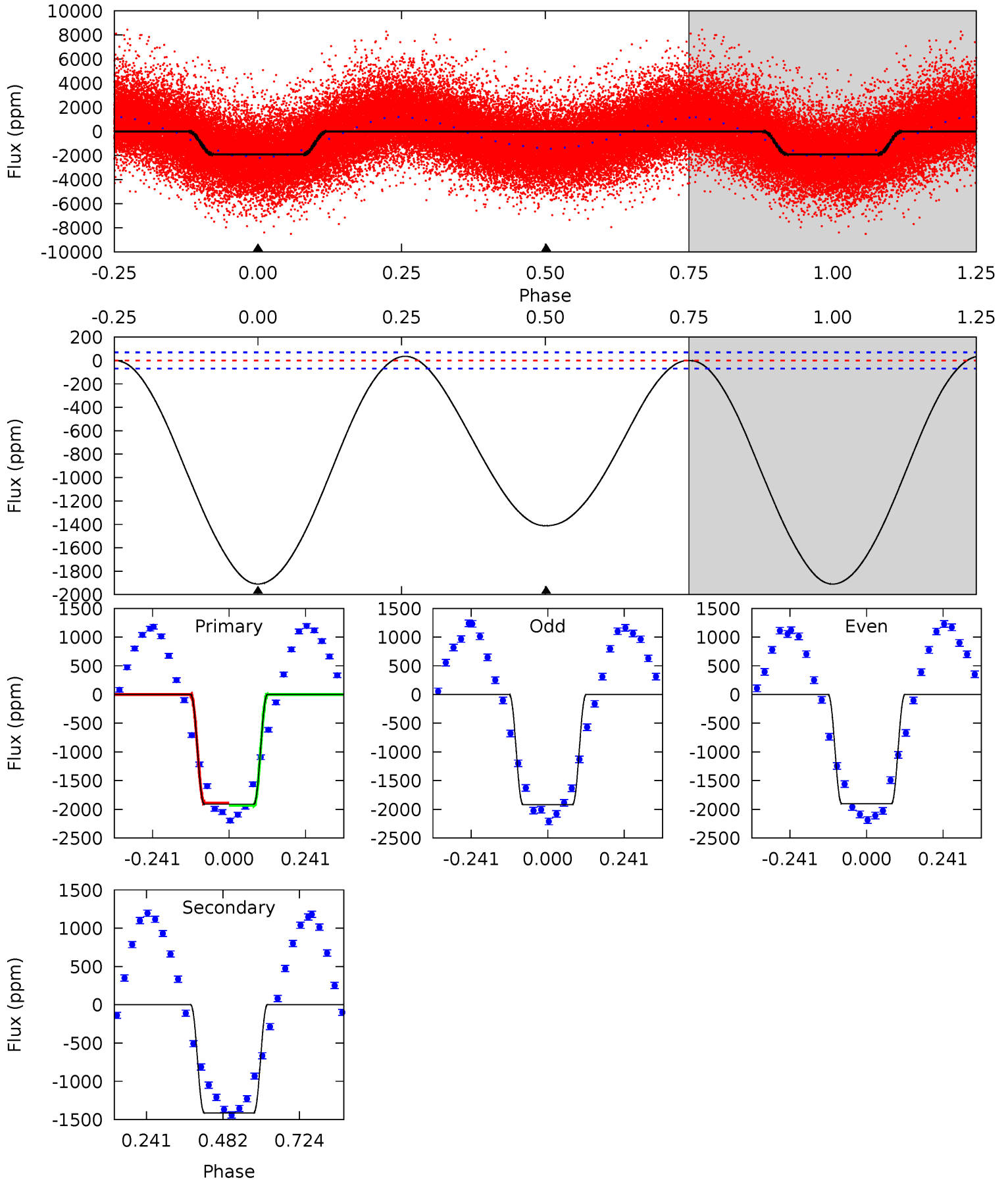
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	-7.06	0	0	4.30	0.94	2.39	18.7	18.7	-7.06	-7.06	1.06	1.05	0.34	0.34



Alt Model-Shift Uniqueness Test

008382207-01, P = 1.258830 Days, E = 131.153252 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
120.5	89.1	0	0	4.38	1.17	1.35	120.5	120.5	89.1	89.1	0.33	1.00	0.02	1.47



Stellar Parameters For KIC 008382207

	$T_{\text{eff}}(K)$	$\log(g)$	[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 008382207-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	73 ± 10	$4.83^{+4.99}_{-3.42}$	2353^{+111}_{-102}	-3290^{+382}_{-1526}	$-0.940^{+0.731}_{-9.880}$
Alt.	-1412 ± 16	$6.98^{+5.80}_{-4.66}$	2360^{+106}_{-115}	4571^{+3399}_{-963}	$8.470^{+65.818}_{-6.052}$

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 $A_{obs} \gg 1.0$

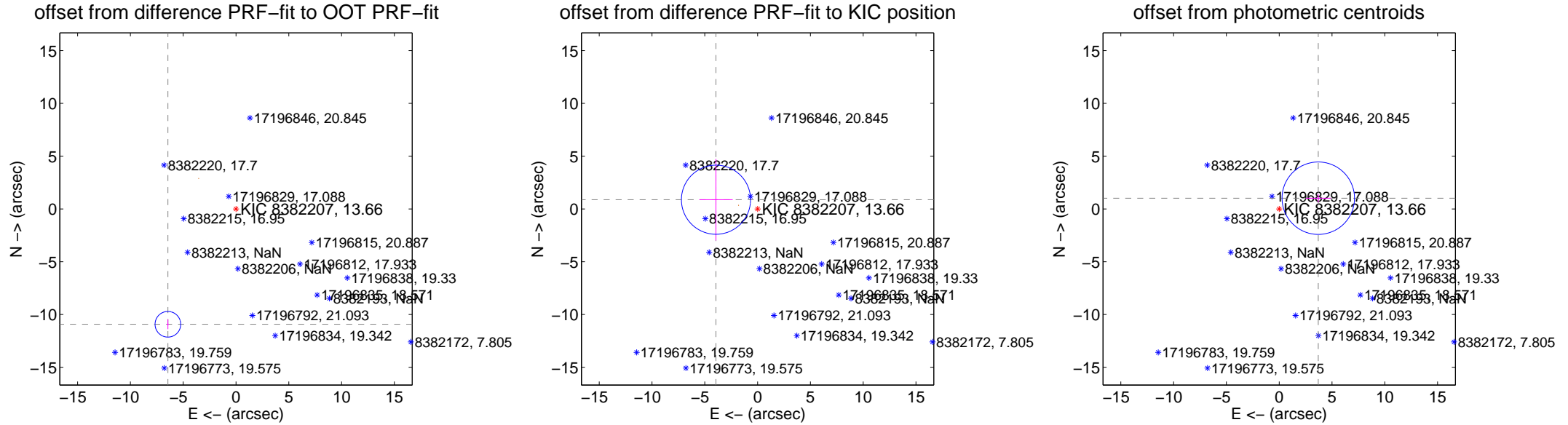
DV Centroid Data

Supplemental centroid analysis for 008382207-01. Kepler magnitude: 13.66. Transit SNR 0.37

There are 1 quarters with good PRF difference image offsets

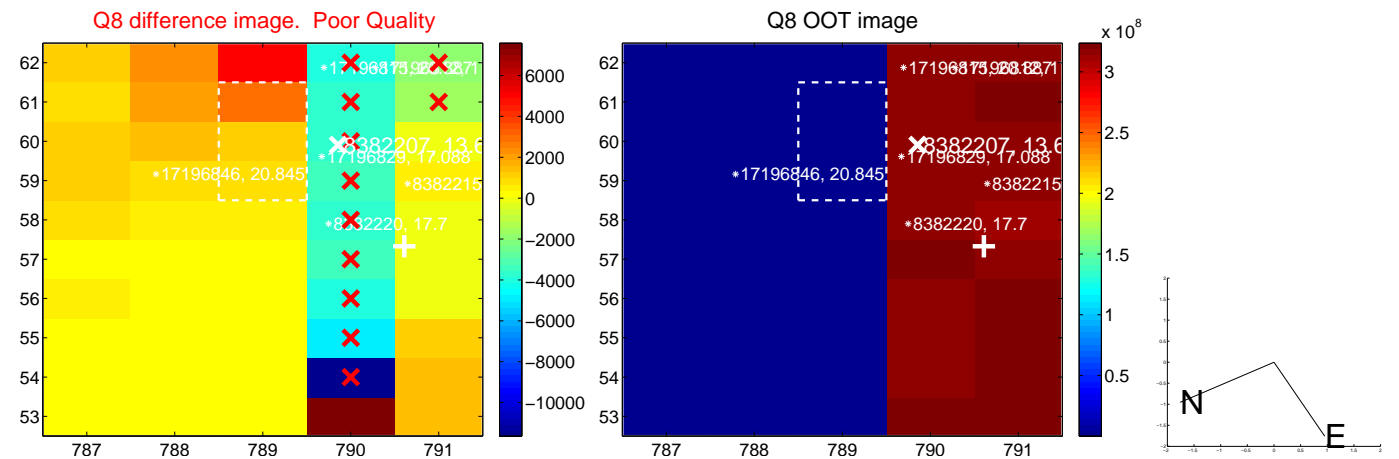
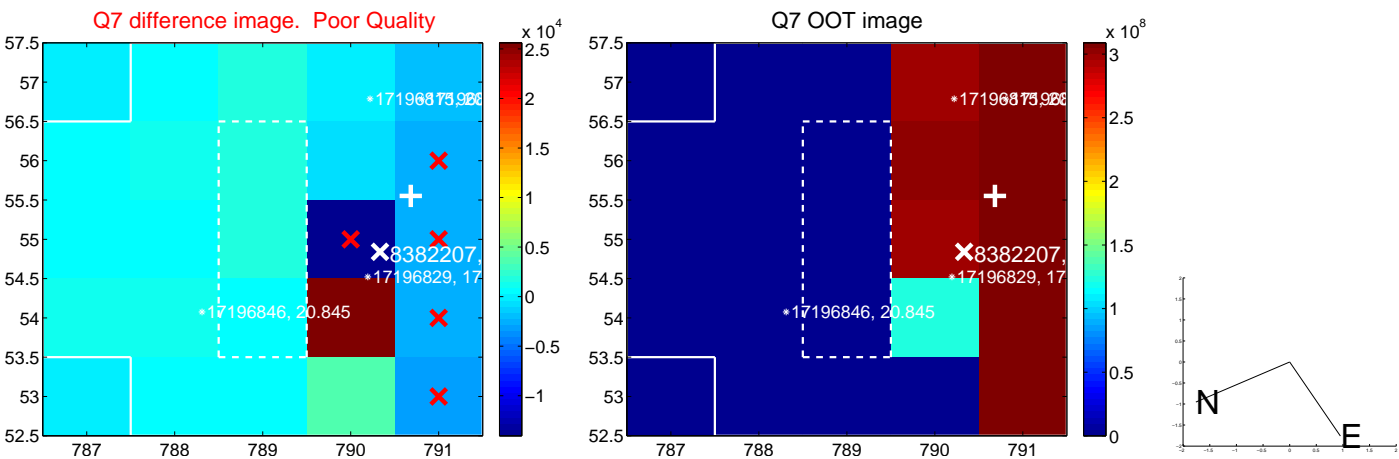
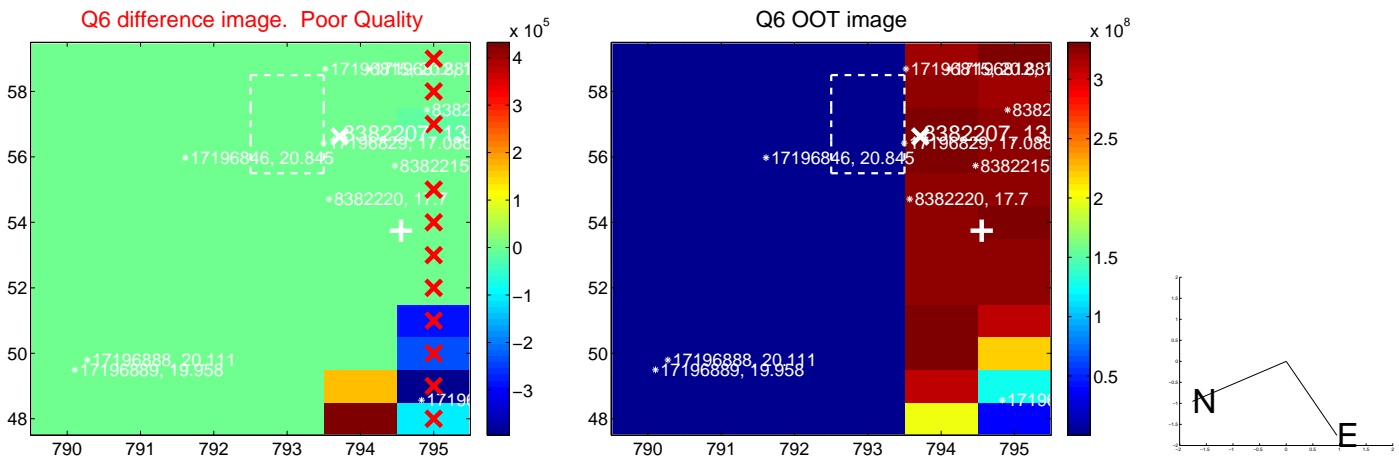
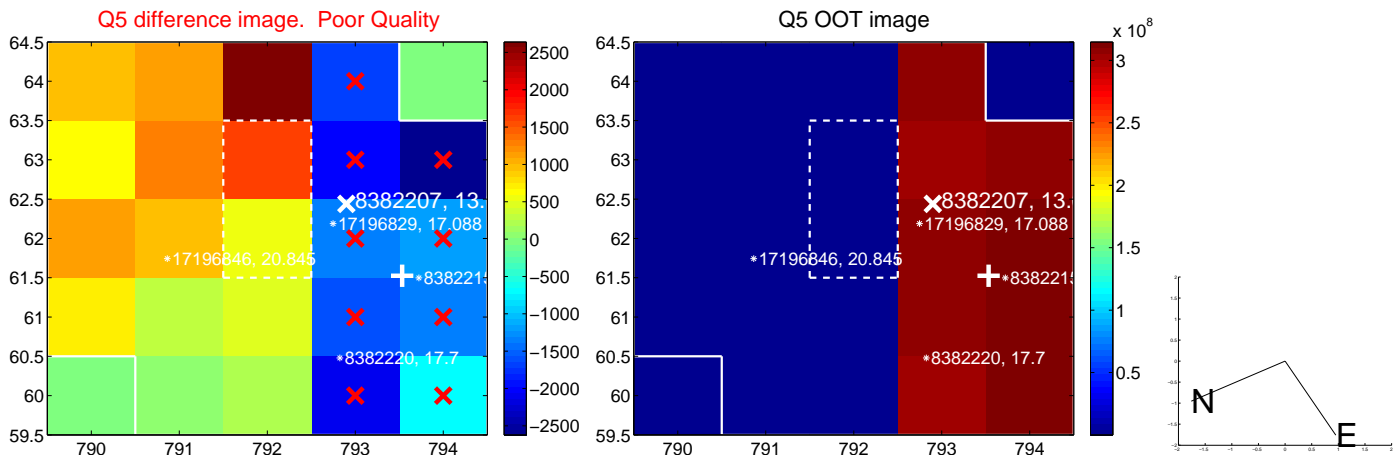
The OOT PRF centroid is offset from the target star catalog position by about 3.08 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	12.691 ± 0.405	31.33	6.451 ± 0.096	-10.929 ± 0.467
PRF-fit source offset from KIC position	4.037 ± 1.092	3.70	3.941 ± 1.586	0.873 ± 3.863
photometric centroid source offset	3.84 ± 1.14	3.36	-3.70 ± 1.18	1.02 ± 0.40

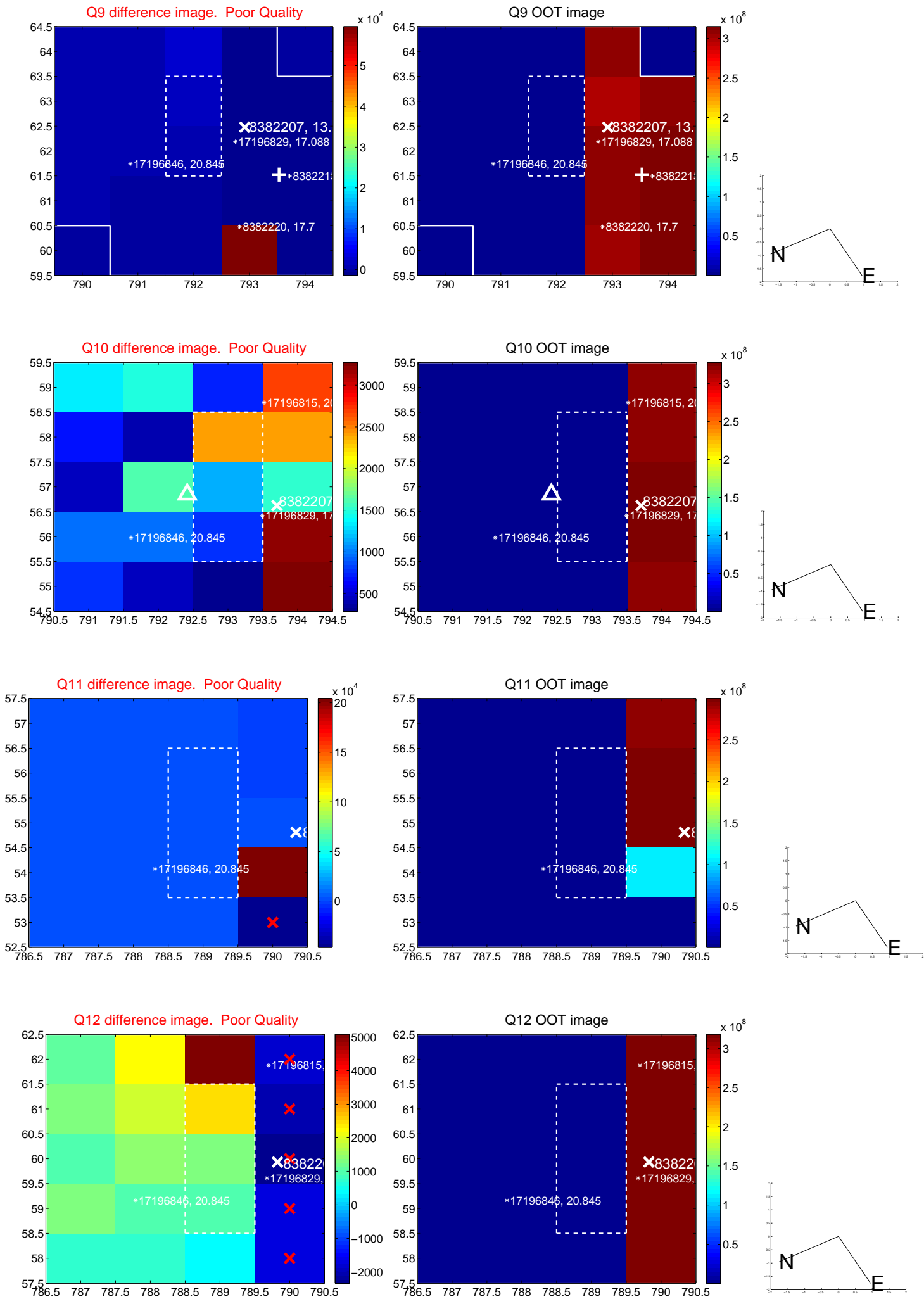


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

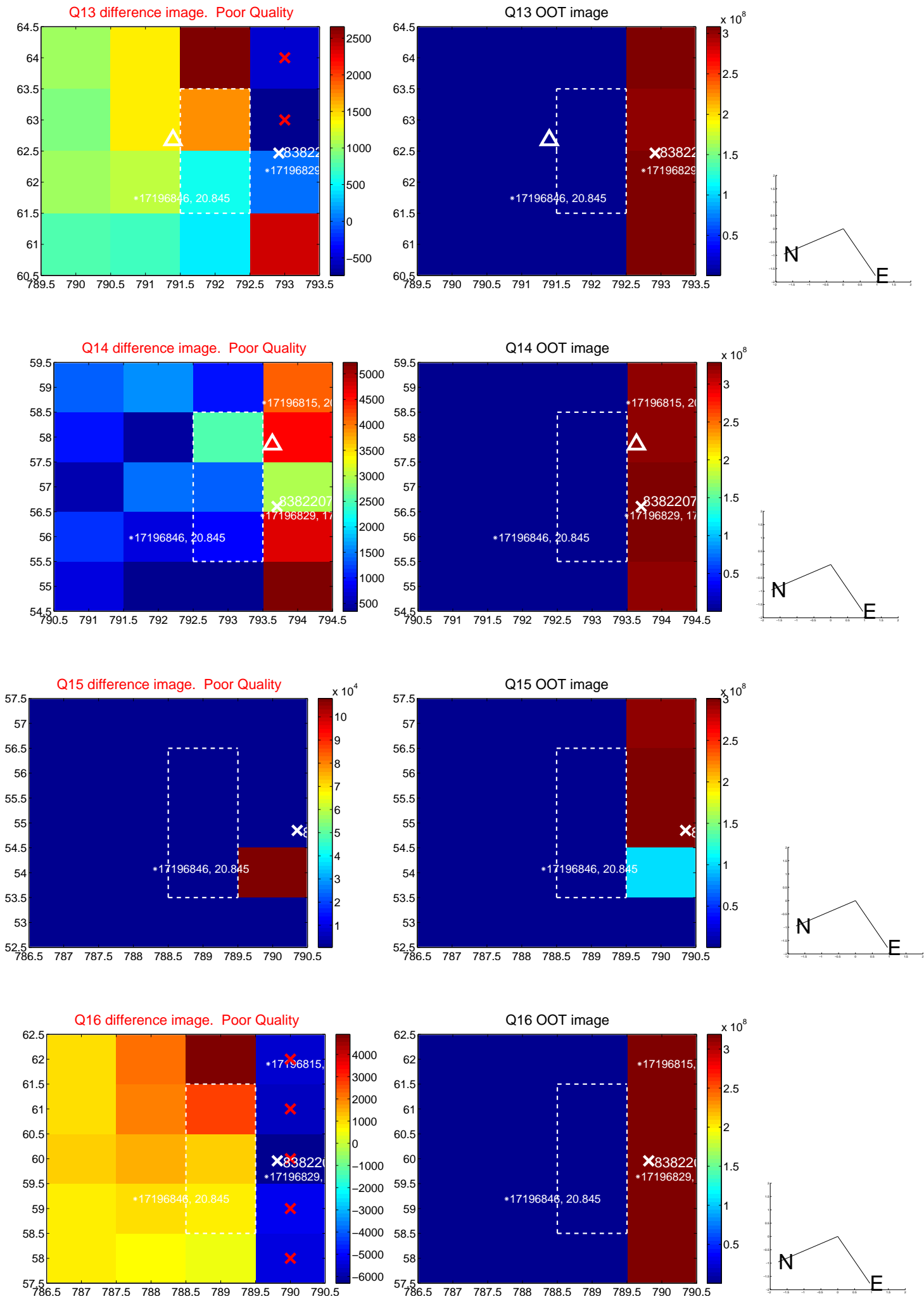
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



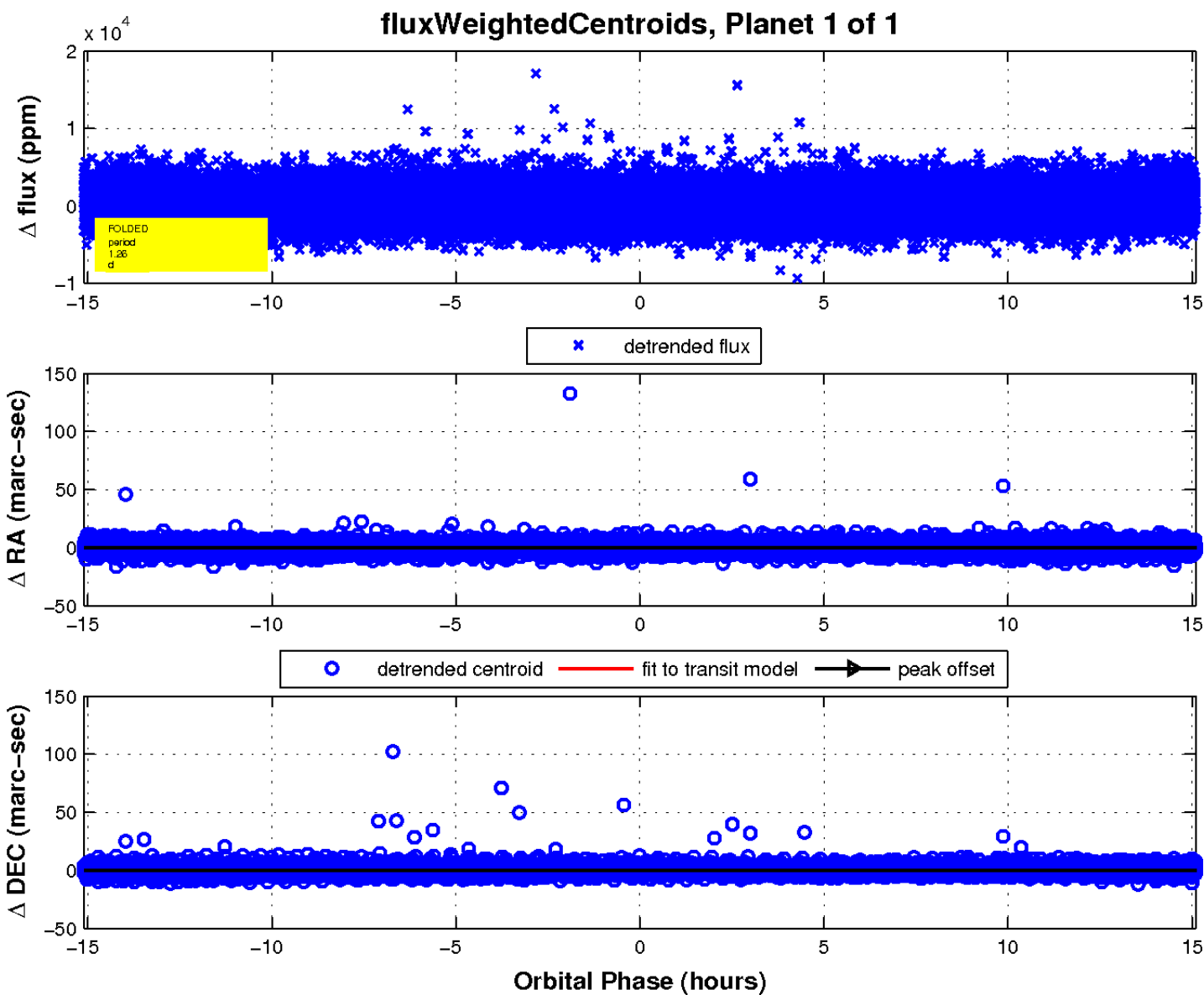
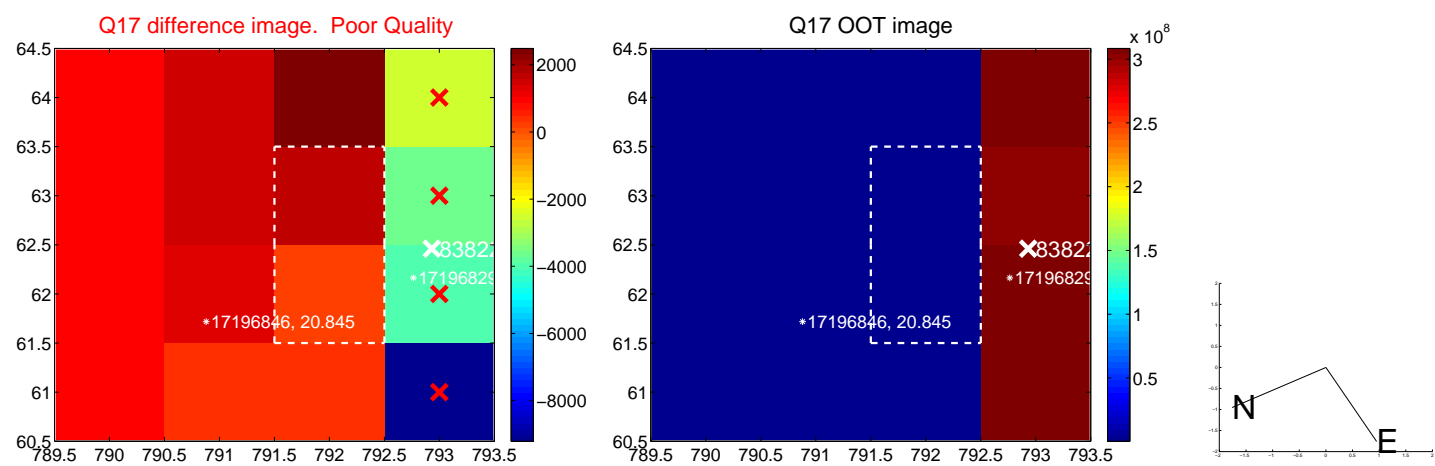
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

