

KIC 002580882

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})
002580882-01	OBS	No	0.889779	132.249339	72.2	1.852	7.8	8.6	0.99	6250	0.98	3920.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002580882-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

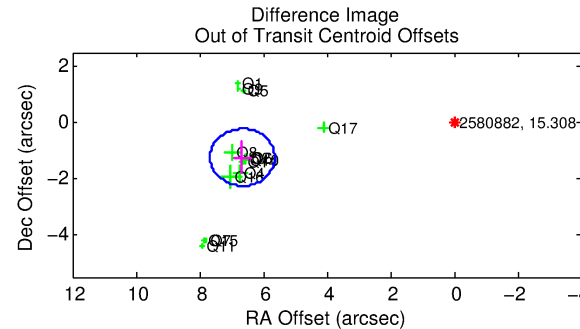
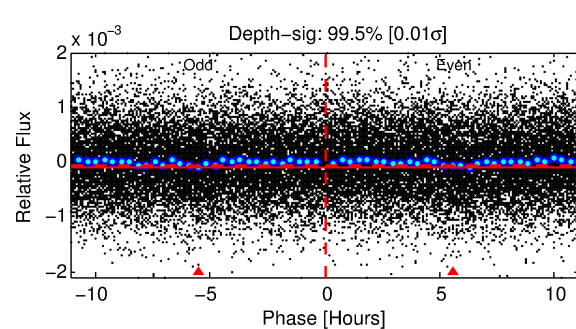
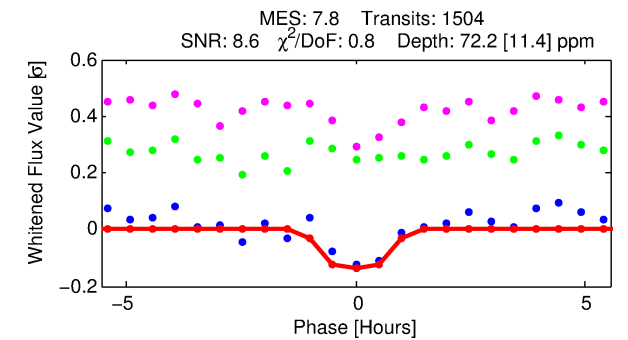
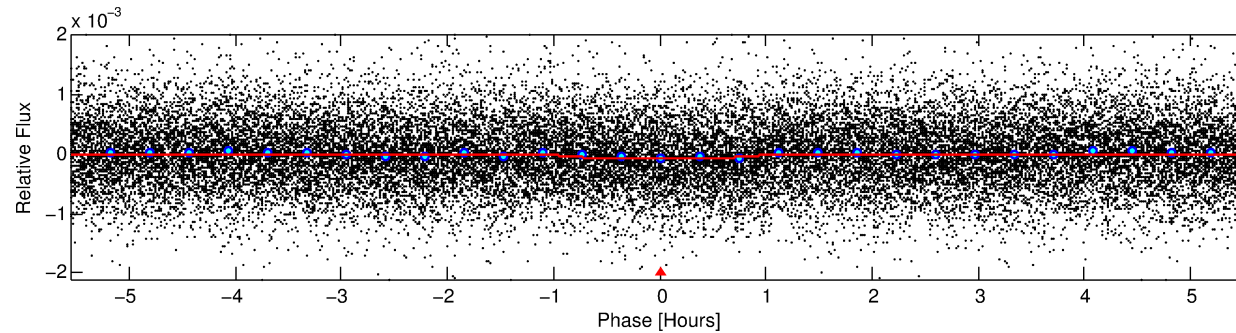
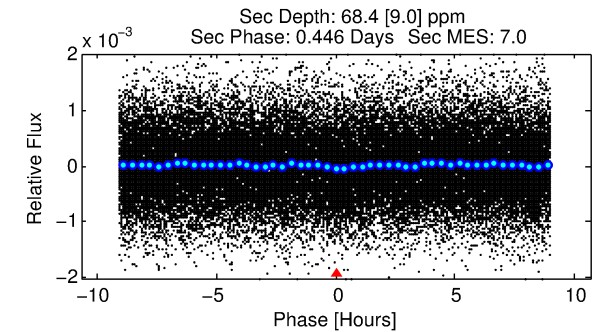
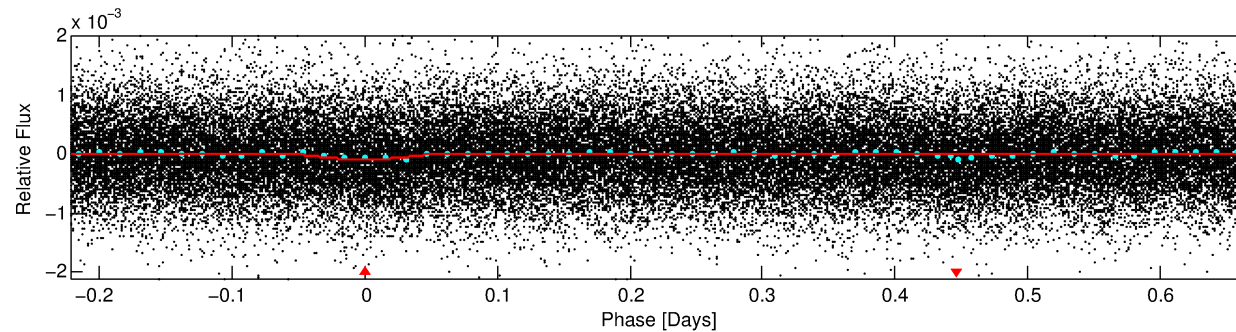
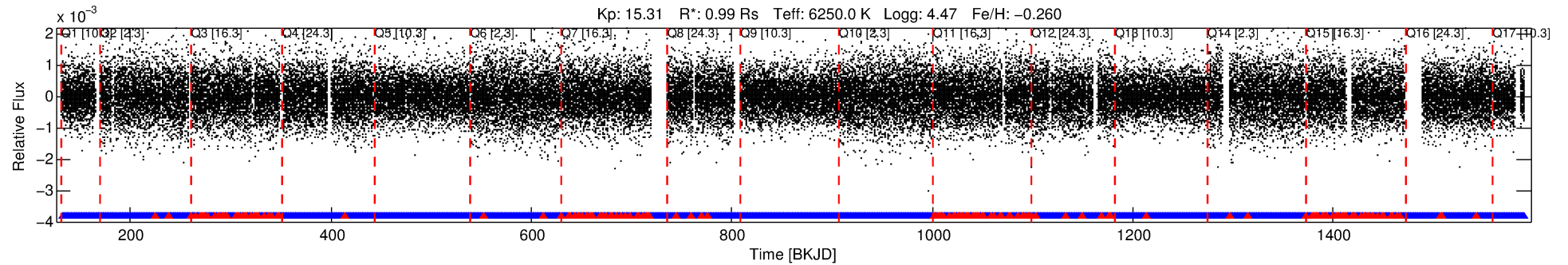
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002580882-01

No Significant Match Found

DV One-Page Summary

KIC: 2580882 Candidate: 1 of 1 Period: 0.890 d



DV Fit Results:

Period = 0.88978 [0.00001] d
Epoch = 132.2493 [0.0032] BKJD
Rp/R* = 0.0091 [0.0058]
a/R* = 1.92 [4.88]
b = 0.90 [0.75]
Seff = 3920.03 [1654.94]
Teq = 2018 [213] K
Rp = 0.98 [0.70] Re
a = 0.0184 [0.0049] AU
Ag = 13.17 [17.50] [0.70σ]
Teff = 5942 [1900] K [2.05σ]

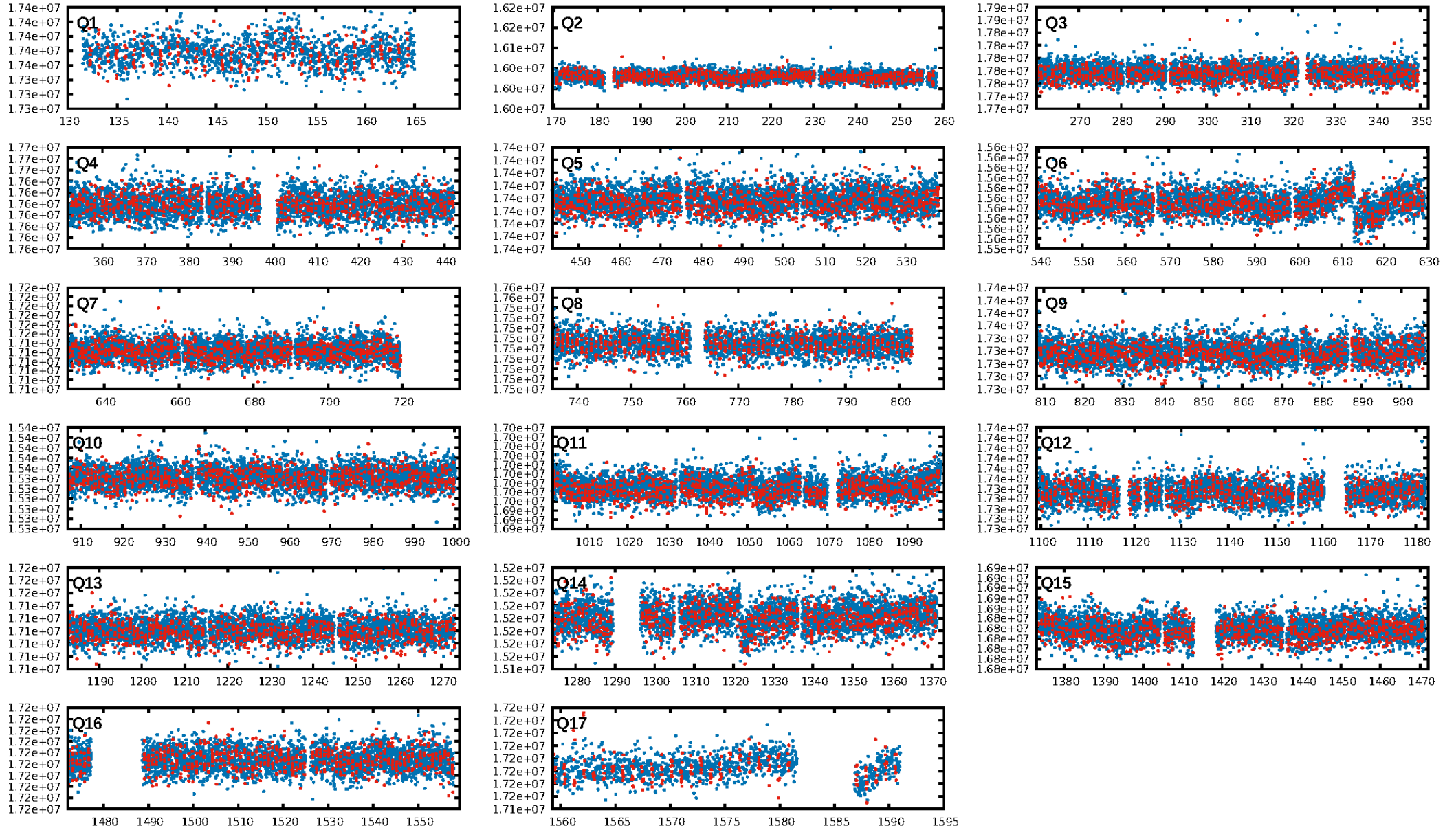
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.80e-14
RollingBand-fgt: 0.89 [1279/1437]
GhostDiagnostic-chr: 0.1418
Centroid-sig: 0.0%
Centroid-so: 5.279 arcsec [3.26σ]
OotOffset-rm: 6.769 arcsec [19.96σ]
KicOffset-rm: 6.658 arcsec [21.83σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [17/17]

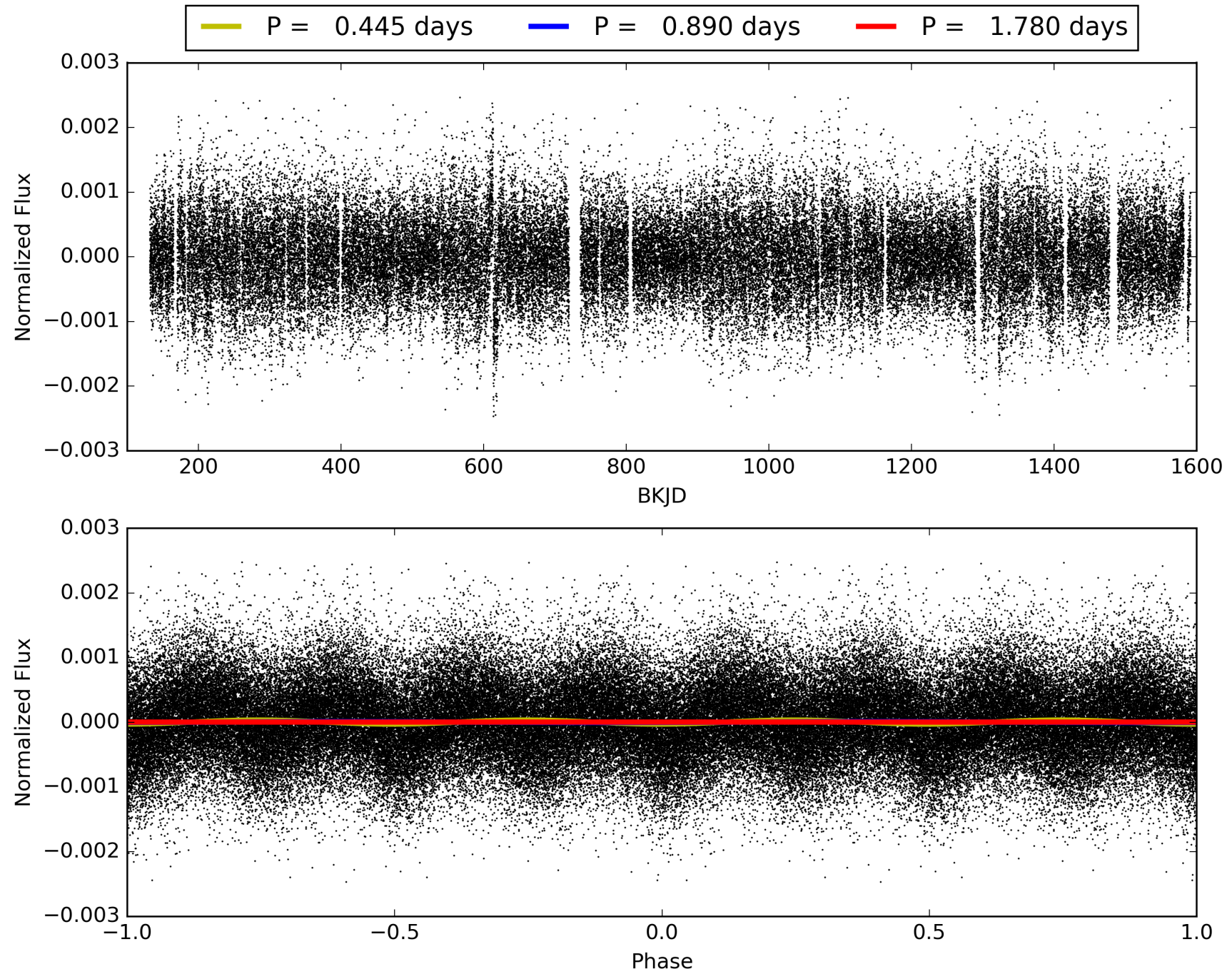
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:55:15 Z

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

TCE 002580882-01, PDC Light Curves

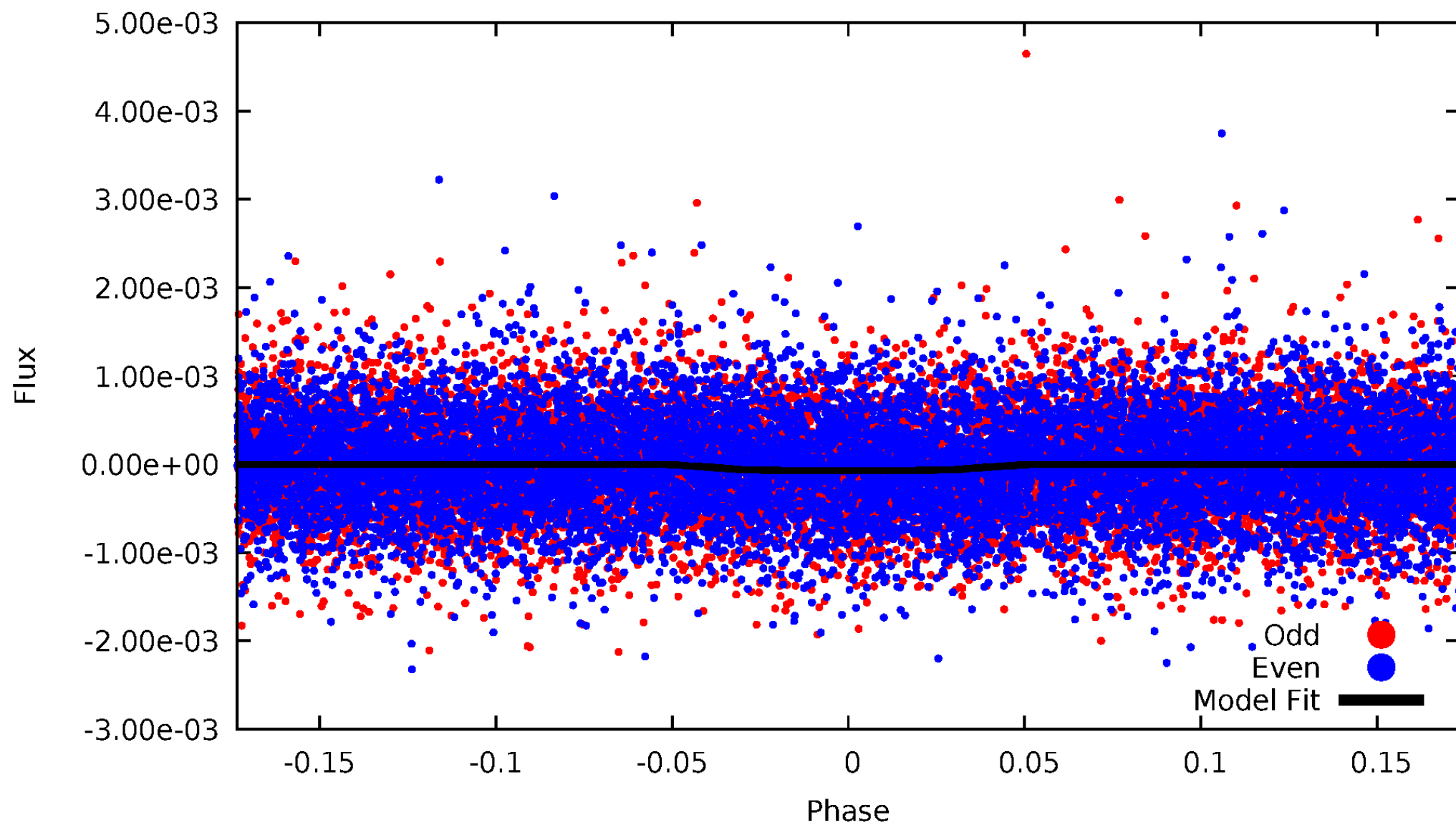


TCE 002580882-01



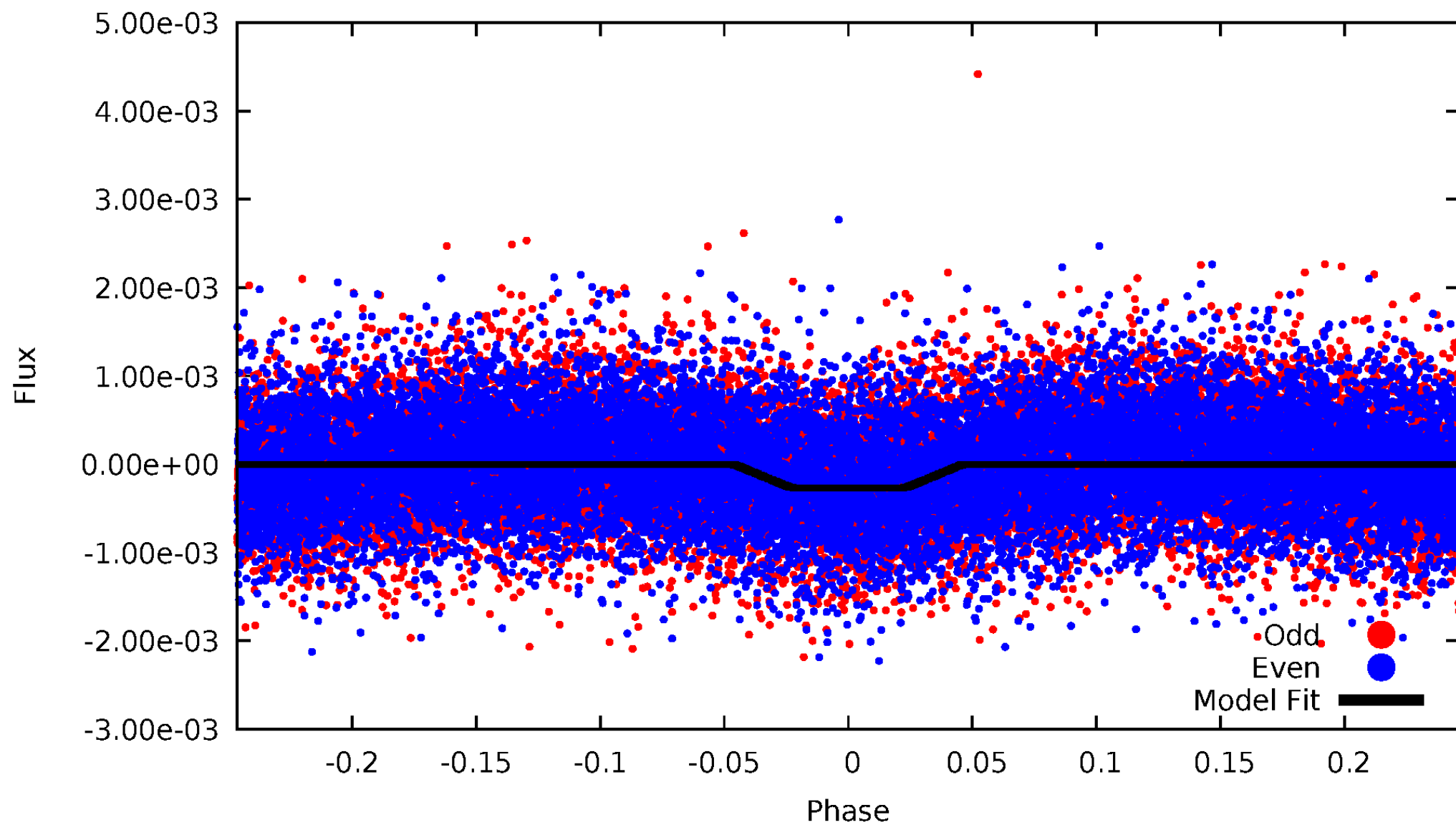
DV Odd/Even

TCE 002580882-01

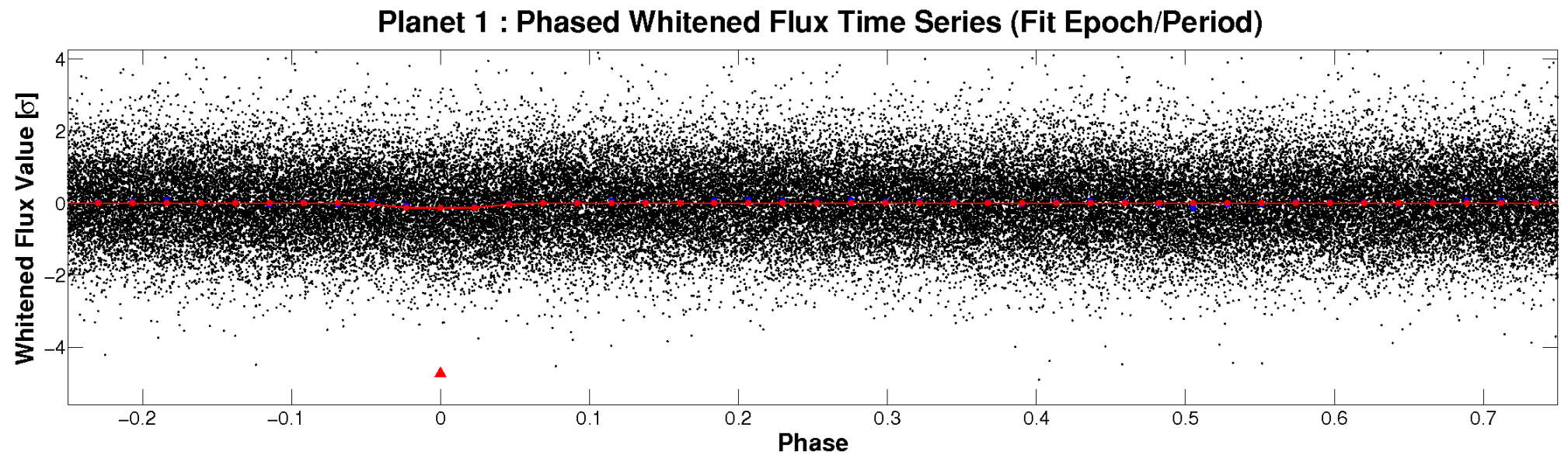
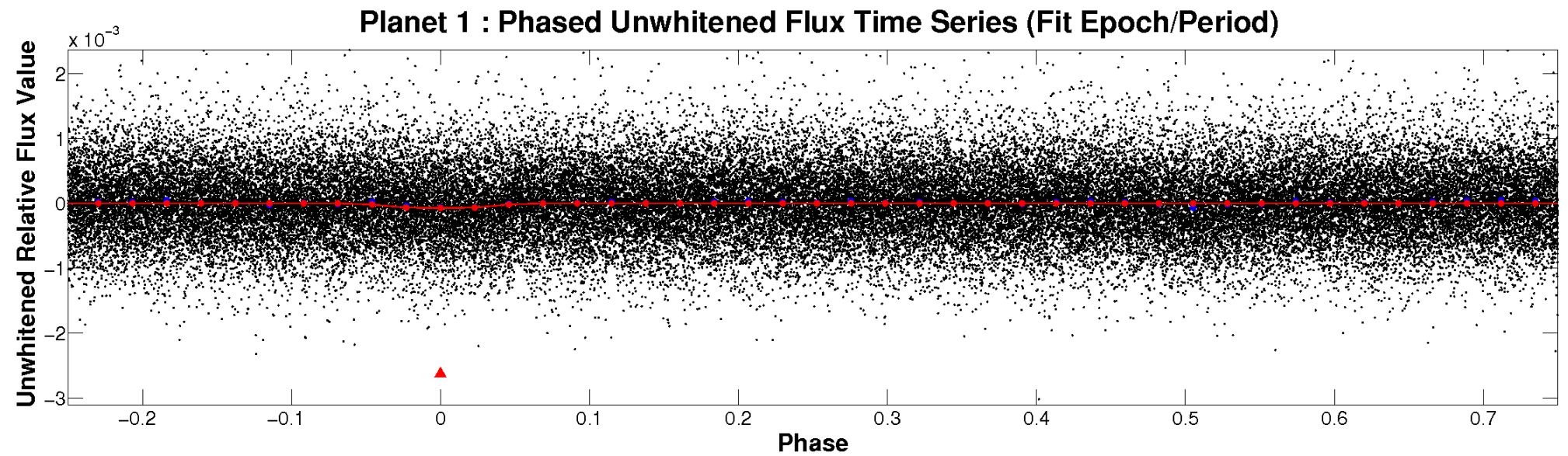


ALT Odd/Even

TCE 002580882-01

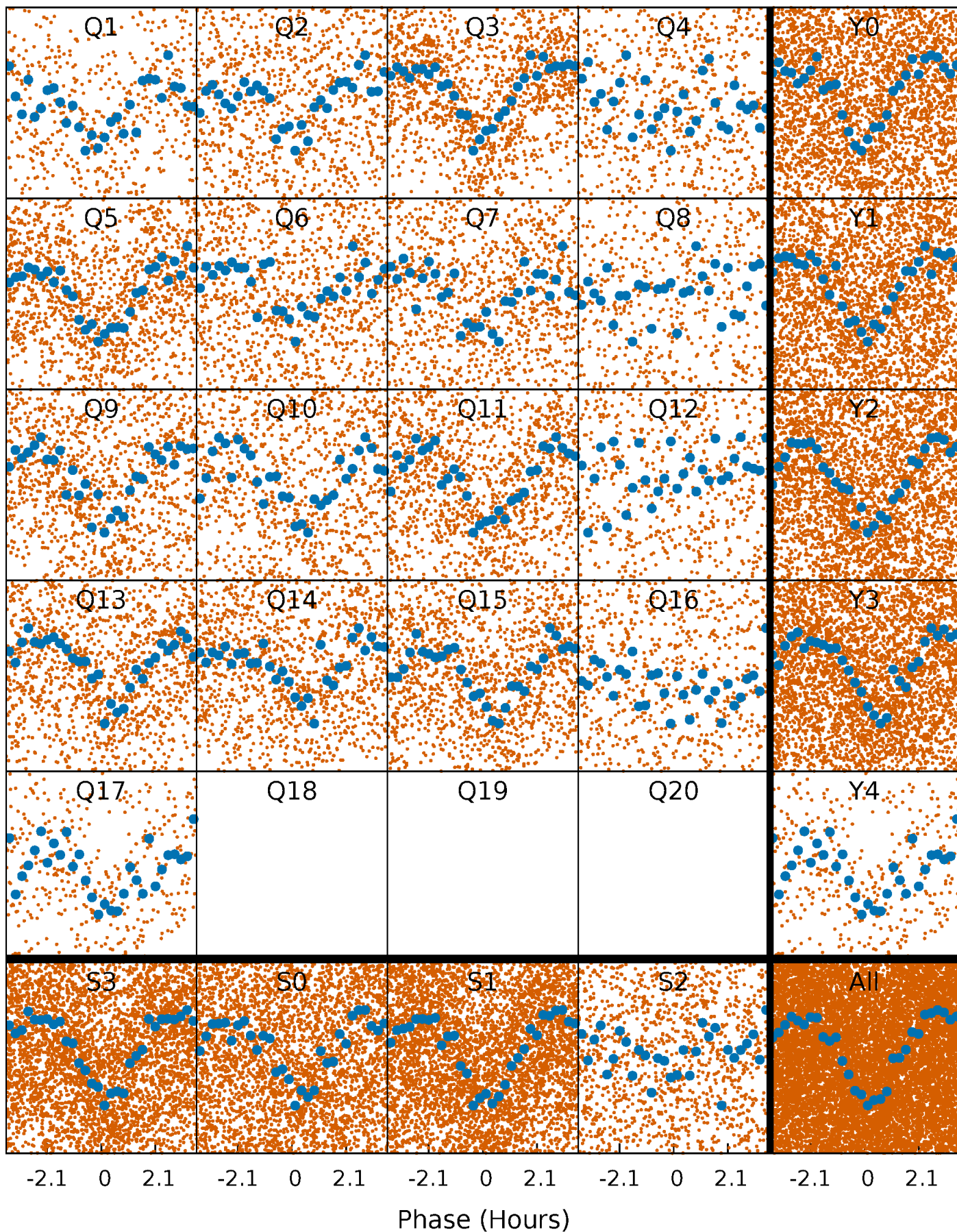


Non-Whitened Vs. Whitened Light Curve



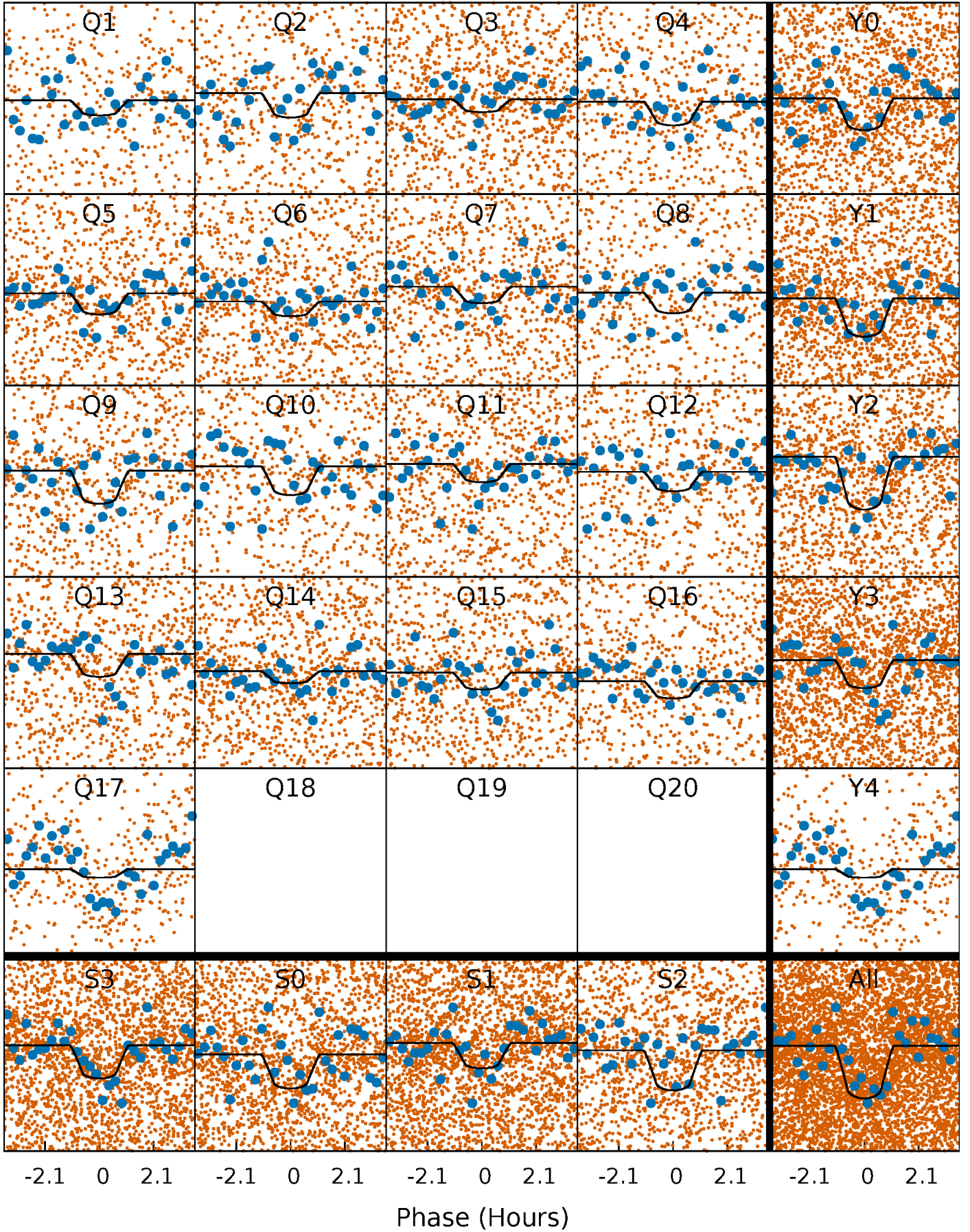
PDC Quarter-Phased Transit Curves

TCE 002580882-01 P= 0.889779 Days $T_0=132.249339$ (BKJD)



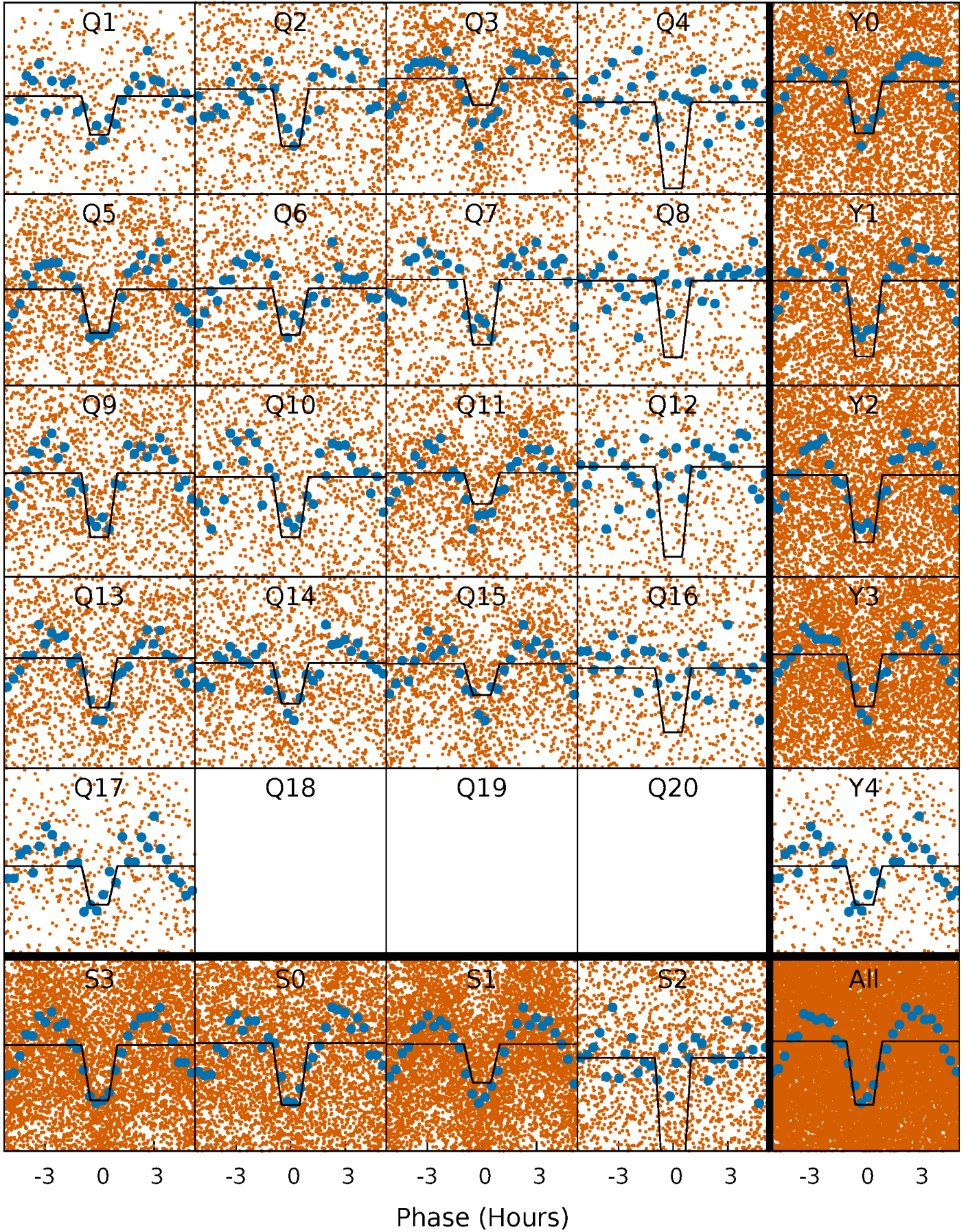
DV Quarter-Phased Transit Curves

TCE 002580882-01 P= 0.889779 Days $T_0=132.249339$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

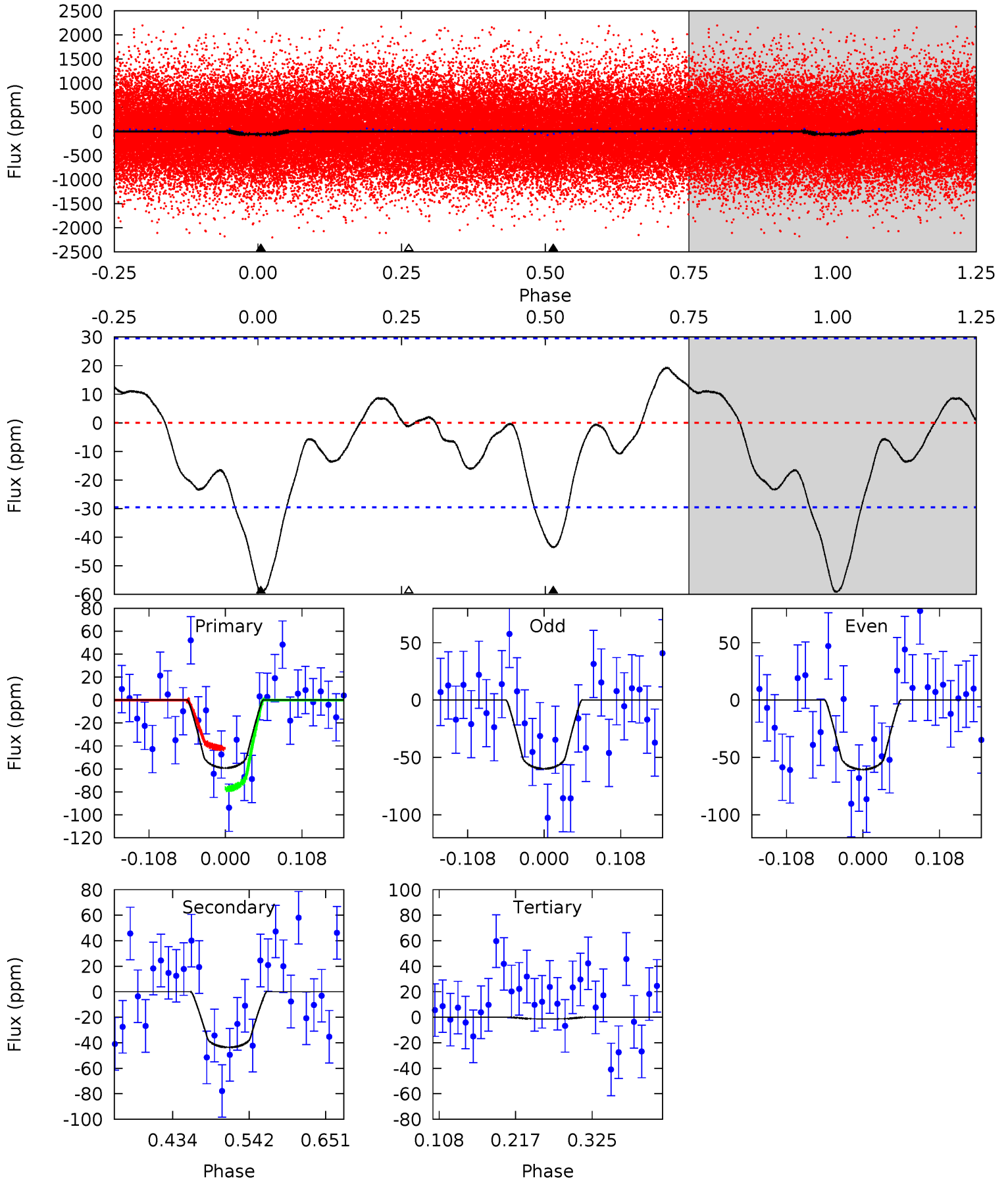
TCE 002580882-01 P= 0.889797 Days $T_0=132.244179$ (BKJD)



DV Model-Shift Uniqueness Test

002580882-01, P = 0.889779 Days, E = 131.359560 Days

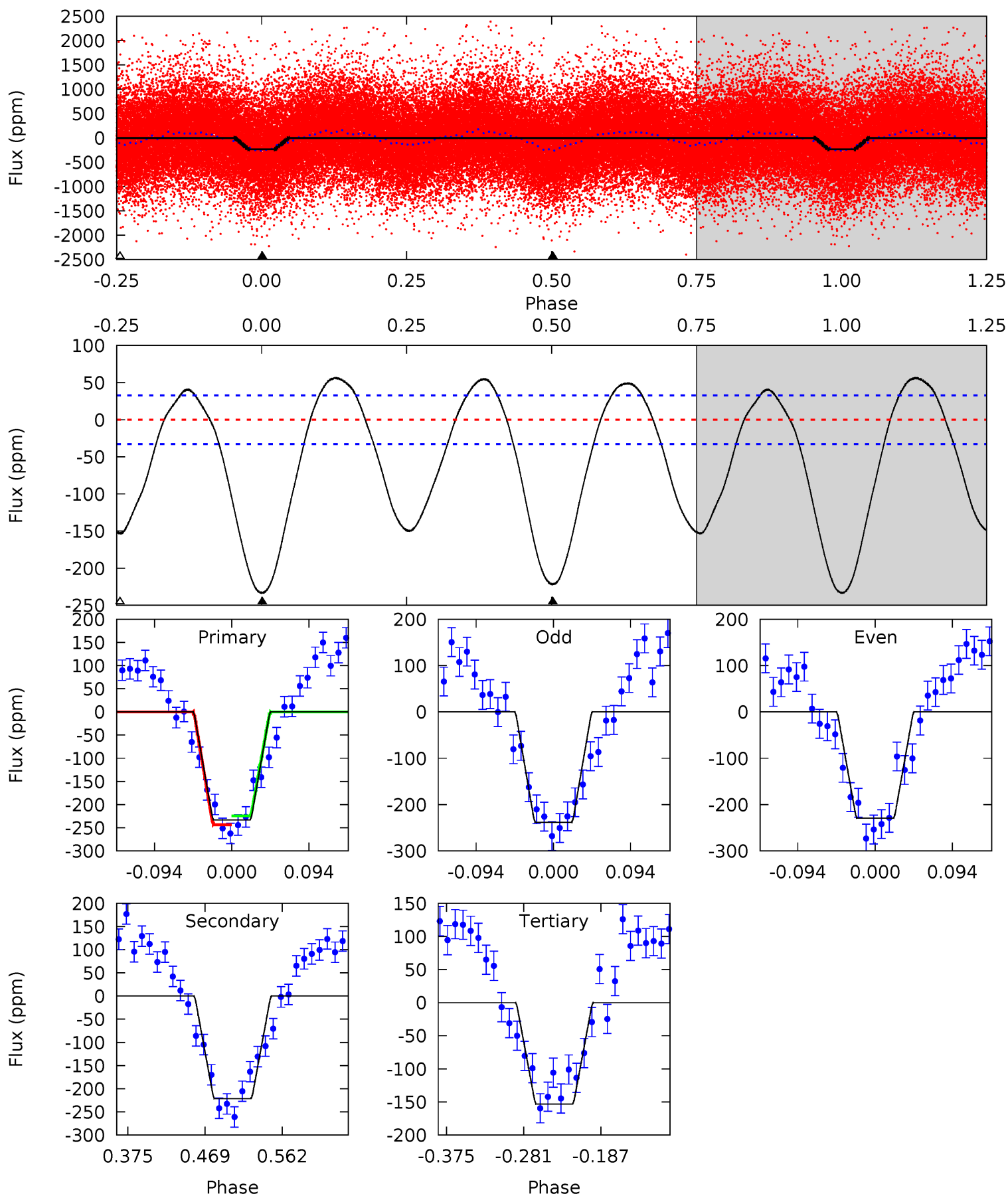
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.11	6.71	0.20	0	4.55	1.61	1.64	8.91	9.11	6.52	6.71	0.05	0.94	0.25	2.75



Alt Model-Shift Uniqueness Test

002580882-01, P = 0.889797 Days, E = 131.354382 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.5	30.9	21.3	0	4.58	1.68	10.0	11.2	32.5	9.55	30.9	0.60	0.96	0.19	1.35



Stellar Parameters For KIC 002580882

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6250^{+175}_{-241}	$4.472^{+0.054}_{-0.216}$	$-0.260^{+0.250}_{-0.350}$	$0.986^{+0.312}_{-0.112}$	$1.052^{+0.144}_{-0.144}$	$1.544^{+0.442}_{-0.817}$
	+3%/-4%	+1%/-5%	+96%/-135%	+32%/-11%	+14%/-14%	+29%/-53%
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 002580882-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-44 ± 6	$1.05^{+0.68}_{-0.56}$	2873^{+201}_{-138}	5185^{+2544}_{-973}	$7.153^{+26.122}_{-4.549}$
Alt.	-222 ± 7	$1.85^{+0.71}_{-0.61}$	2872^{+231}_{-149}	5884^{+1522}_{-762}	12^{+15}_{-6}

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

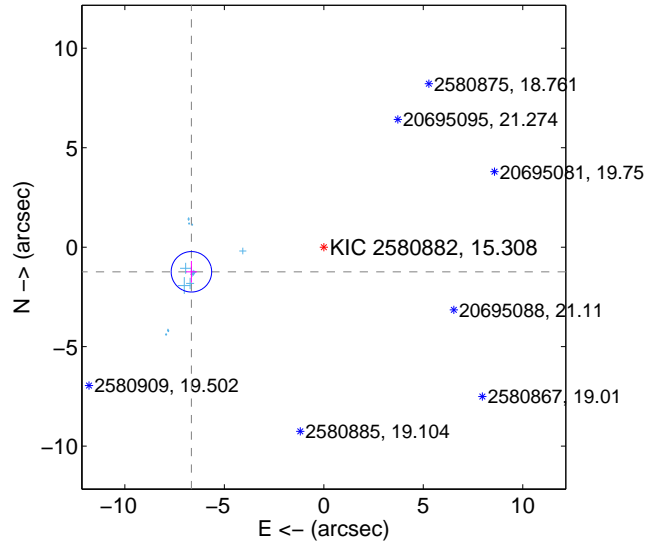
Supplemental centroid analysis for 002580882-01. Kepler magnitude: 15.31. Transit SNR 8.63

There are 14 quarters with good PRF difference image offsets

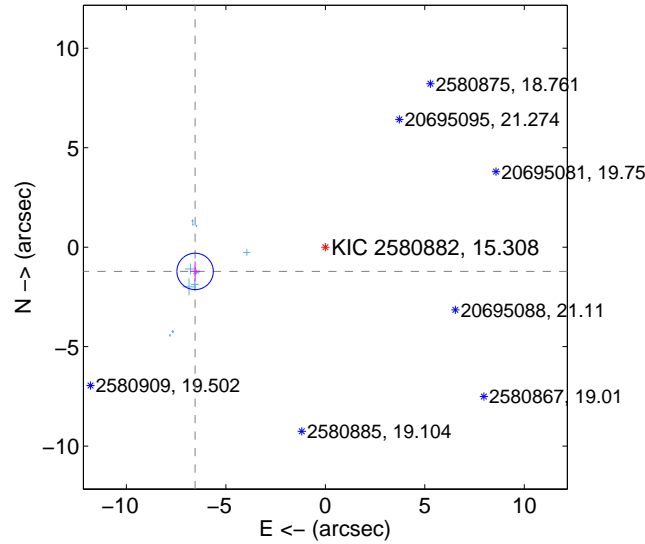
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.769 ± 0.339	19.96	6.655 ± 0.275	-1.238 ± 0.547
PRF-fit source offset from KIC position	6.658 ± 0.305	21.83	6.546 ± 0.250	-1.219 ± 0.504
photometric centroid source offset	5.28 ± 1.62	3.26	4.89 ± 1.63	-1.98 ± 1.56

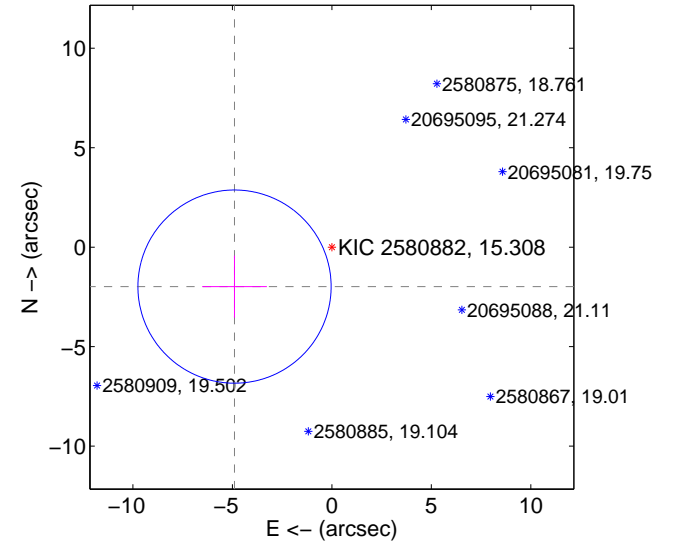
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

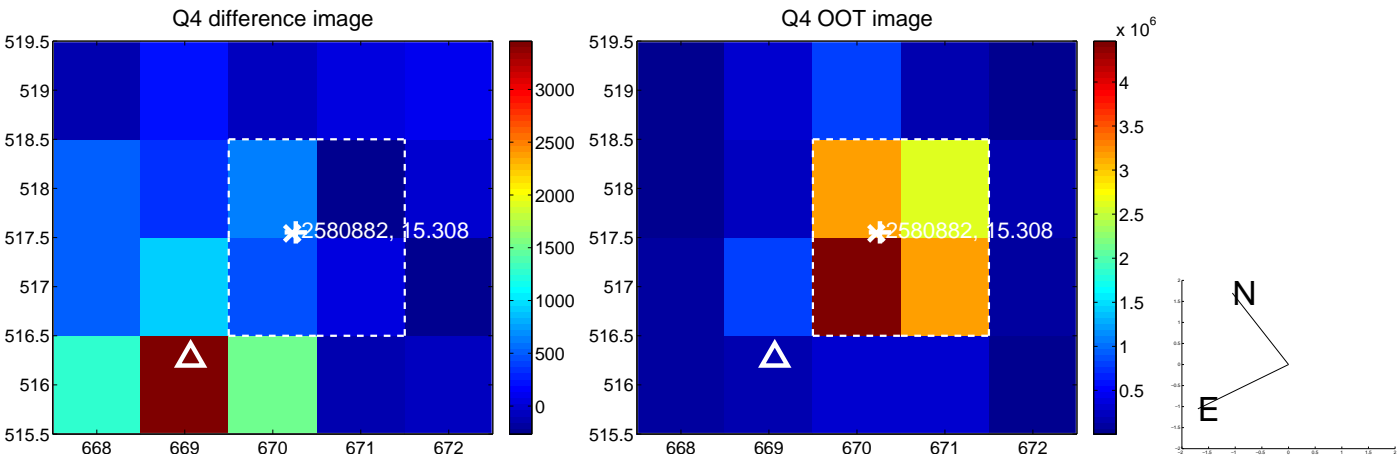
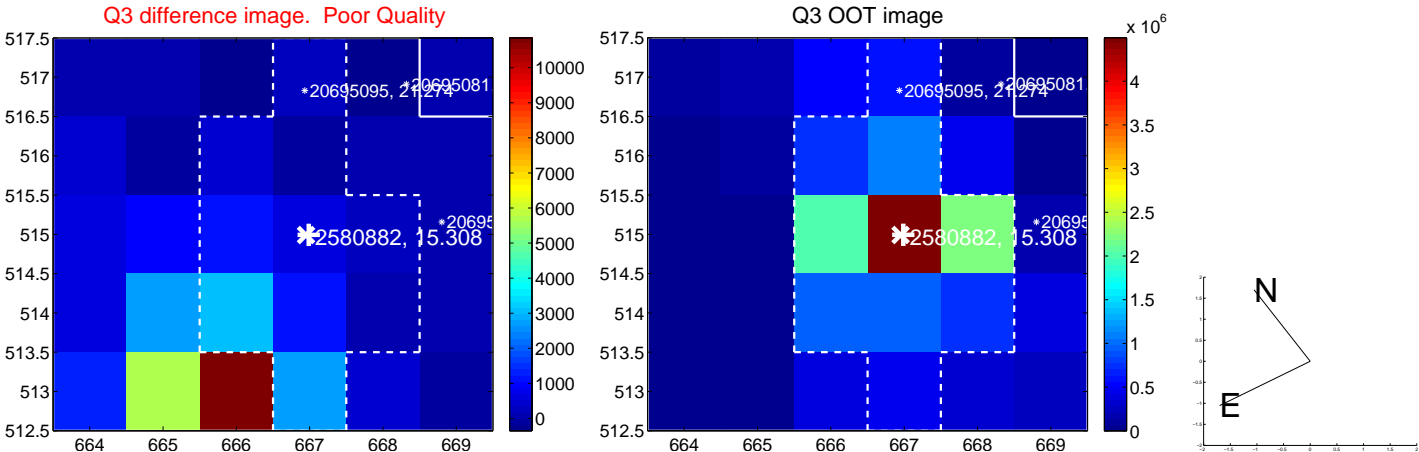
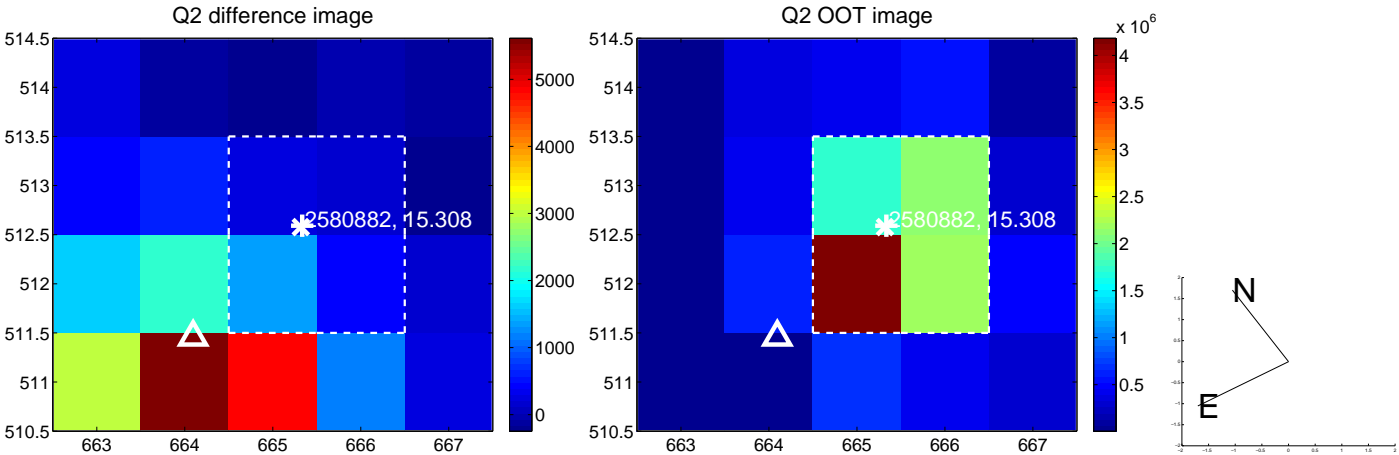
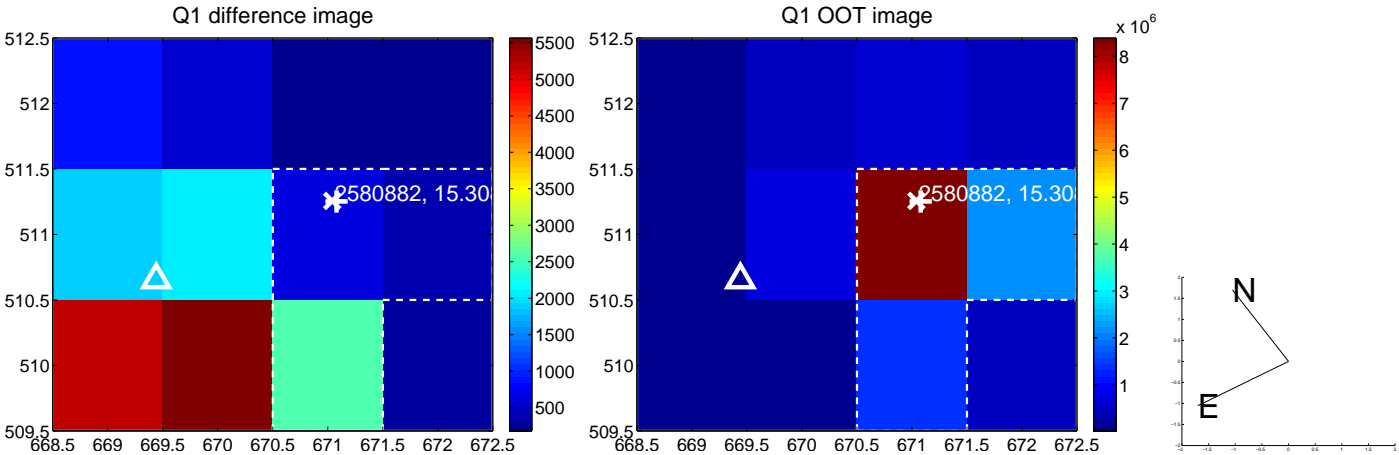


offset from photometric centroids

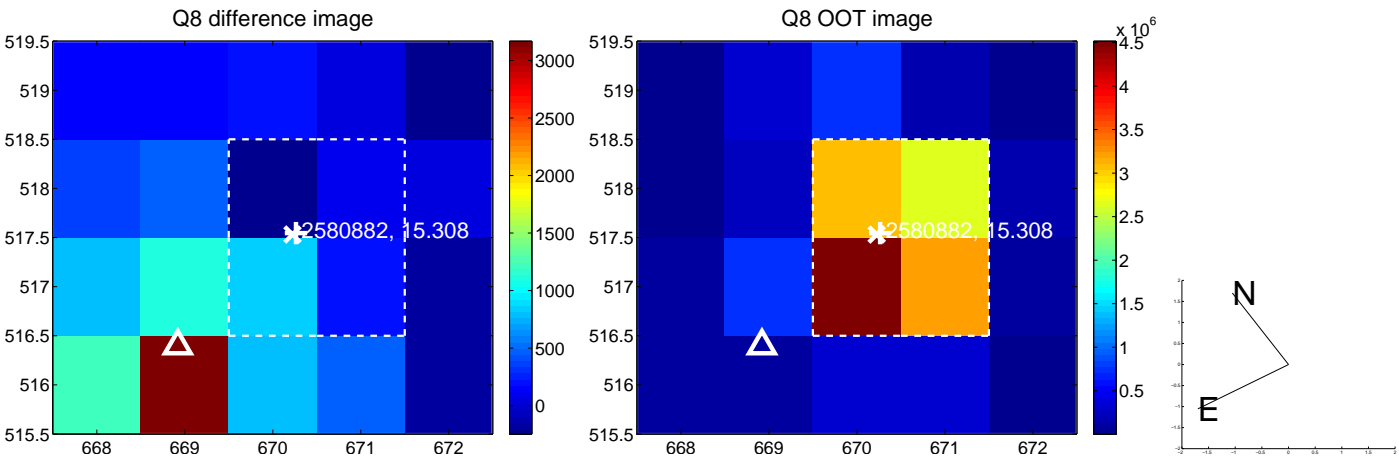
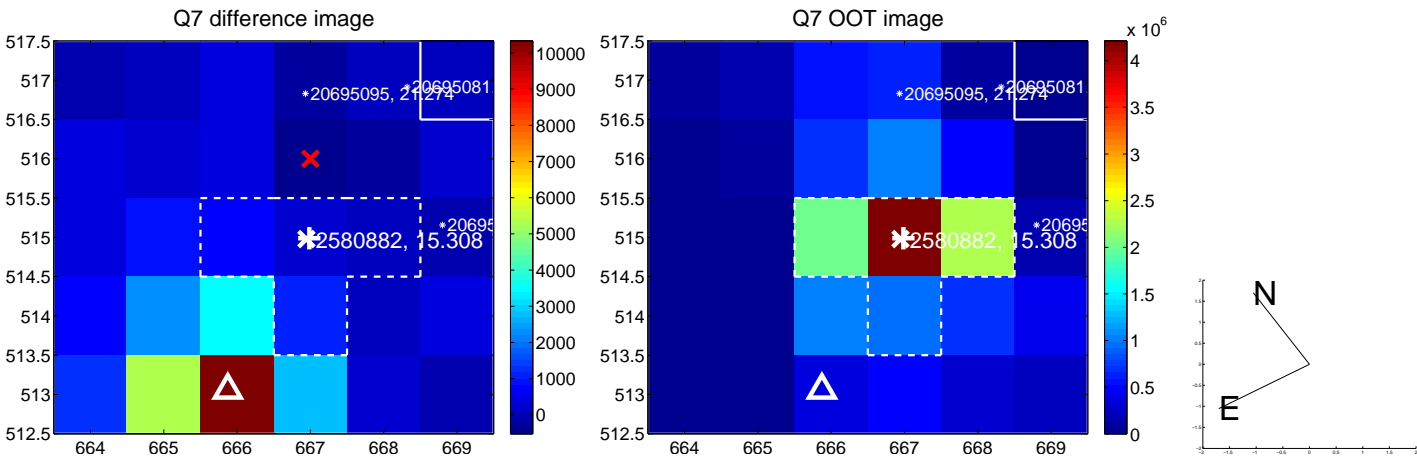
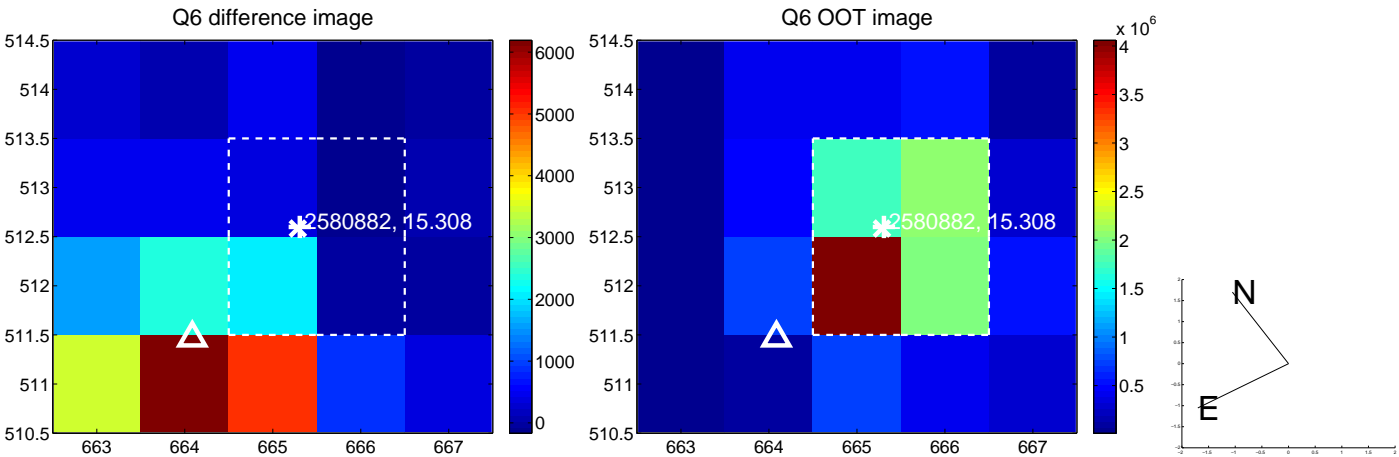
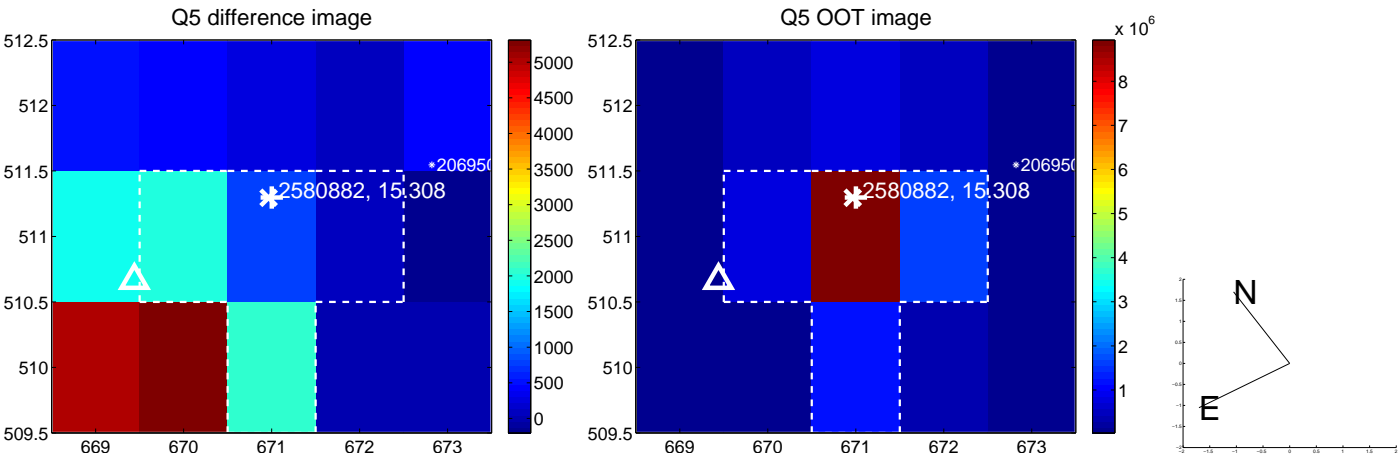


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

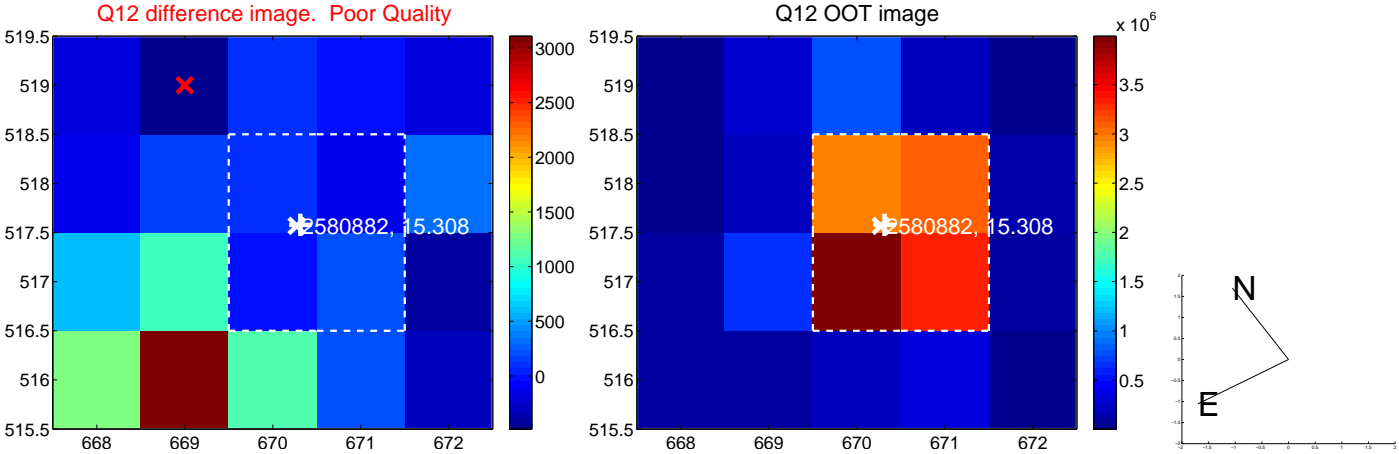
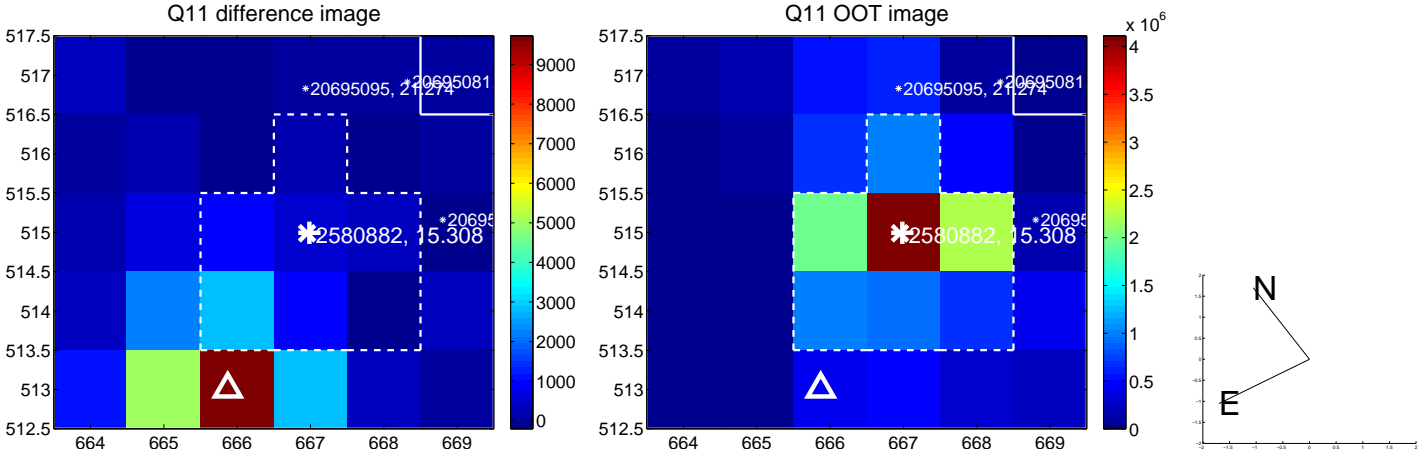
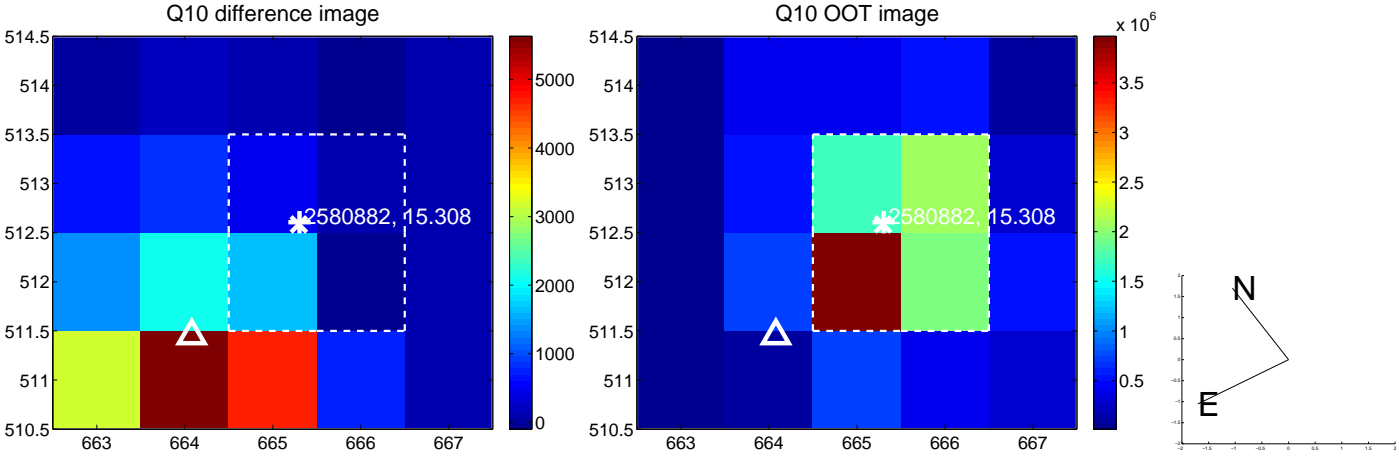
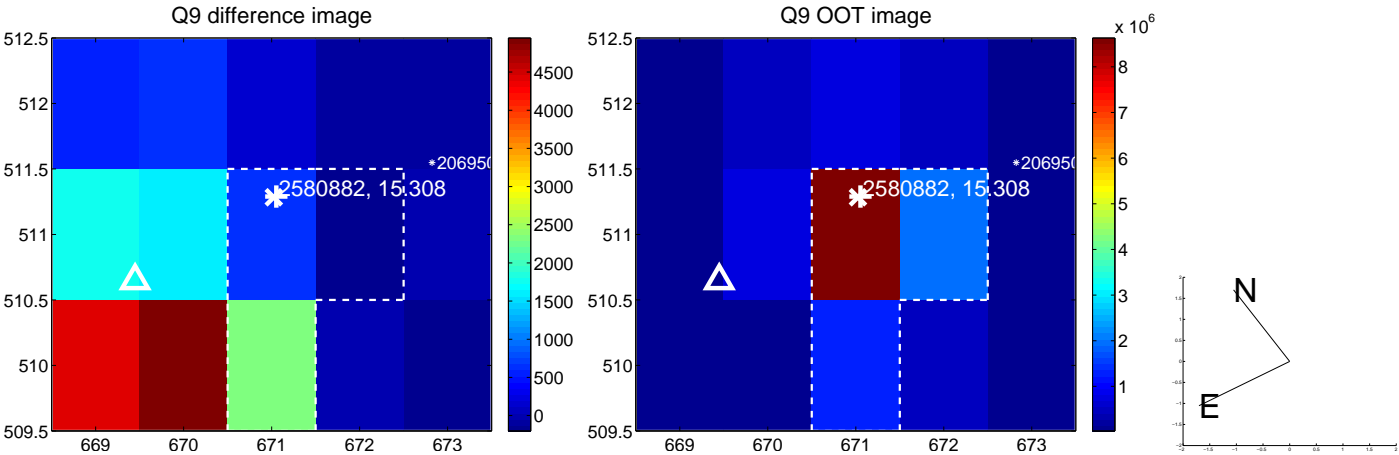
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



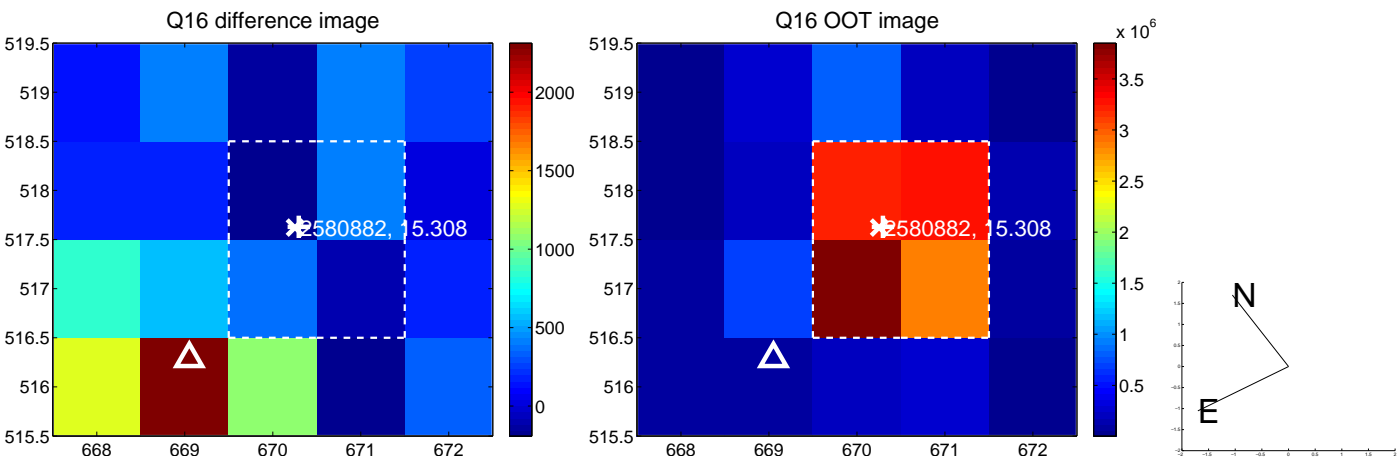
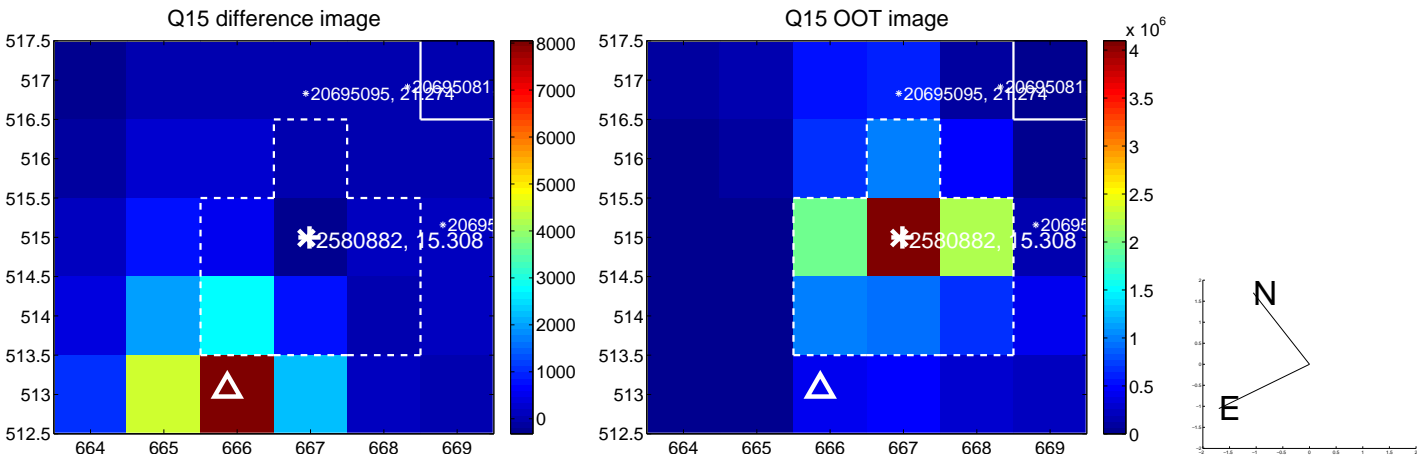
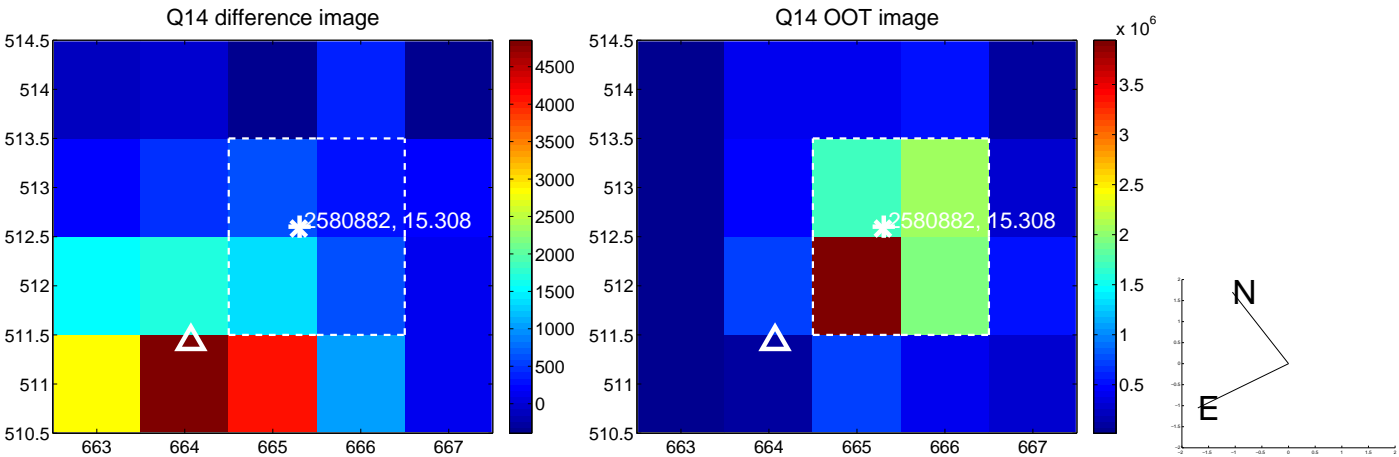
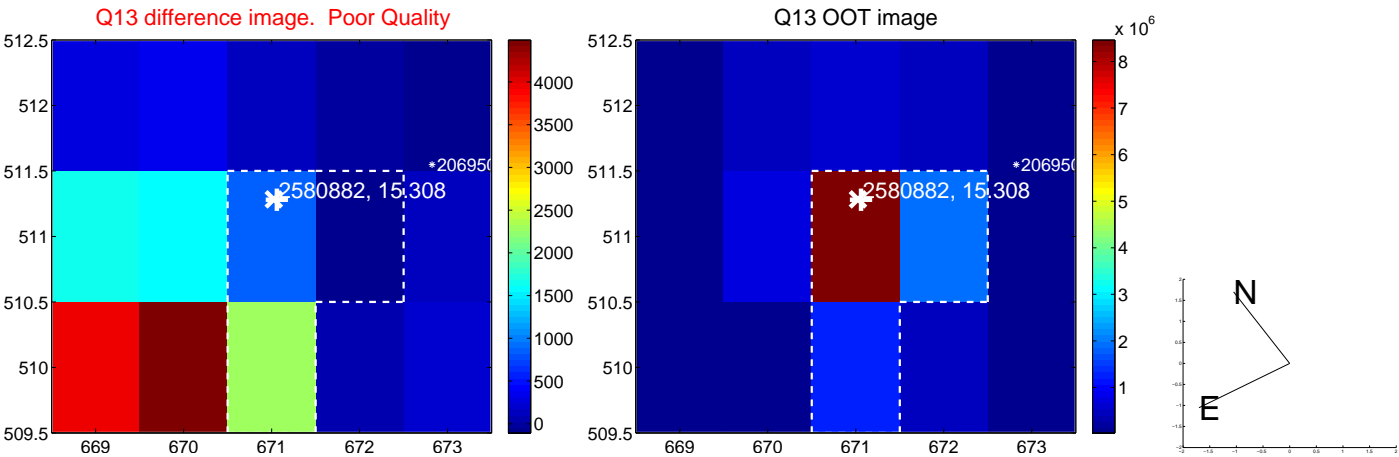
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



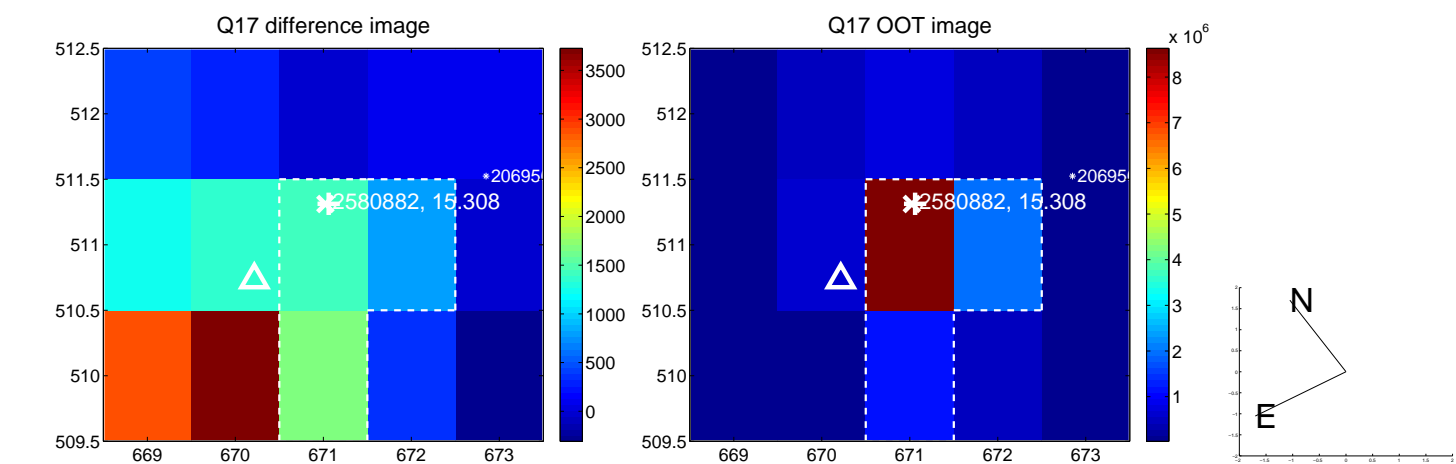
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



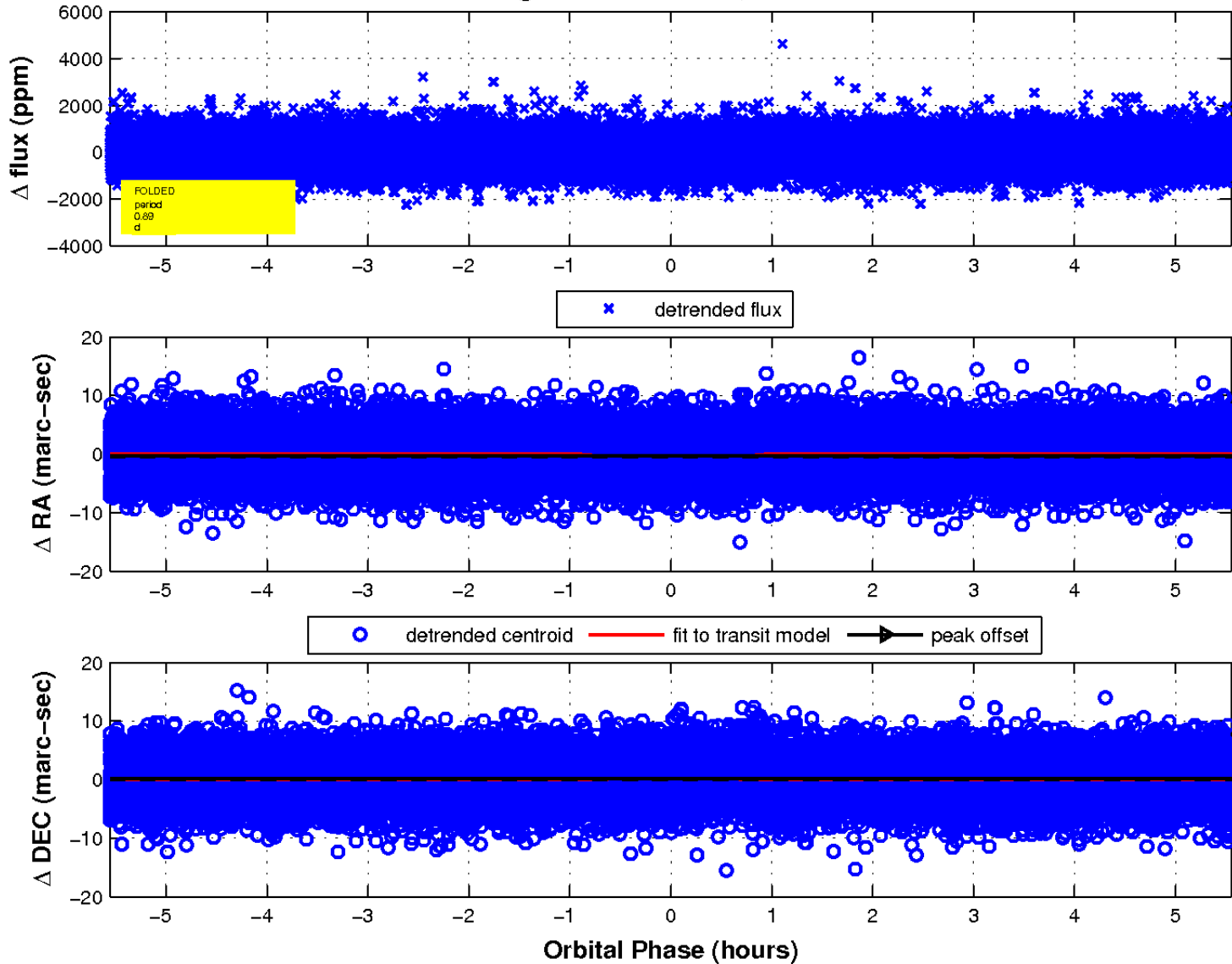
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

