

KIC 006280952

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})
006280952-01	OBS	No	0.542633	131.730910	14.9	5.287	11.1	13.8	2.58	7985	1.05	89411.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006280952-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

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

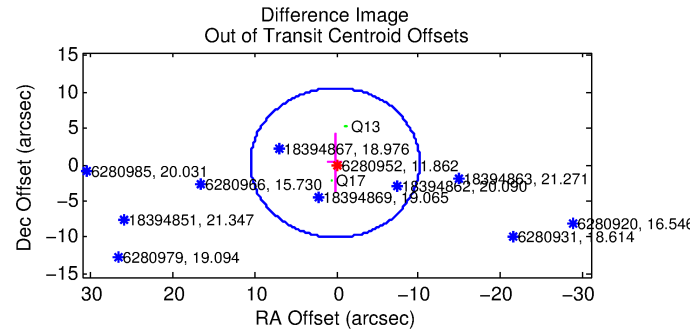
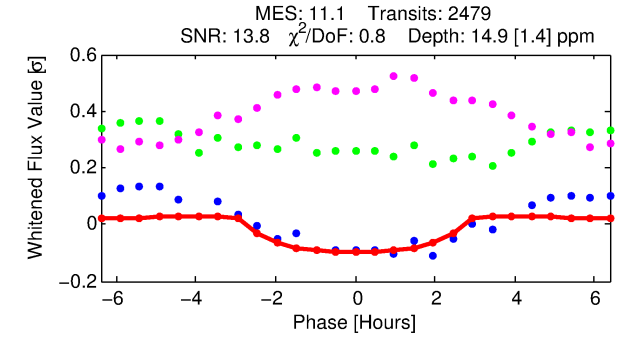
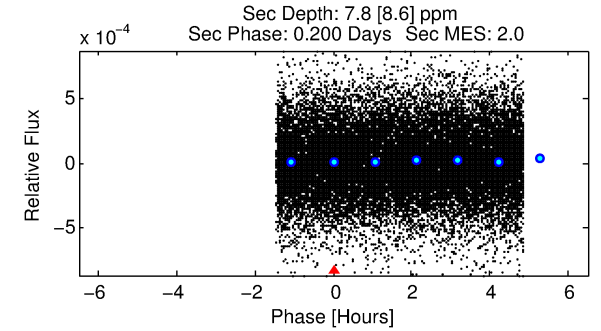
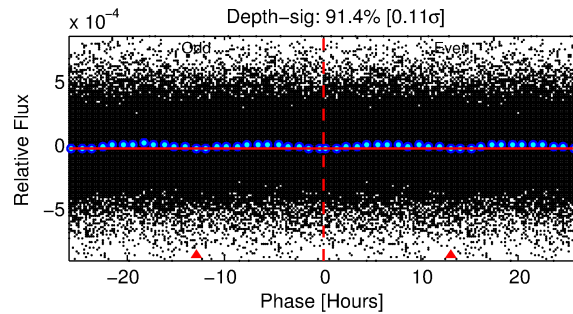
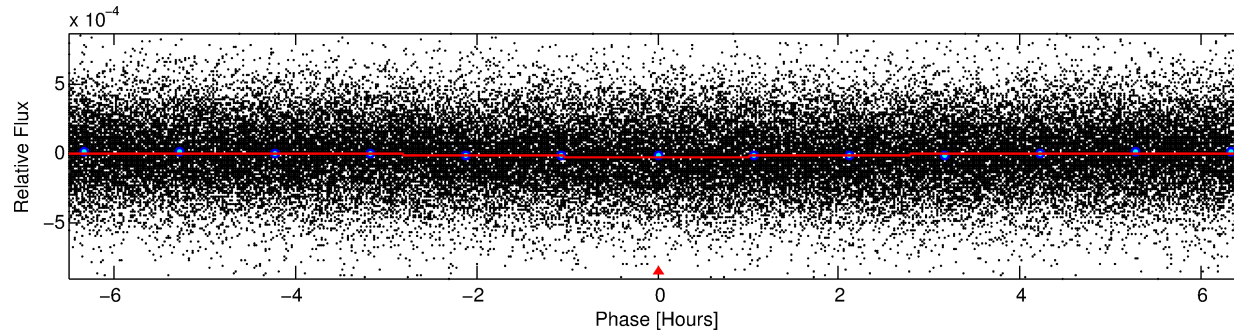
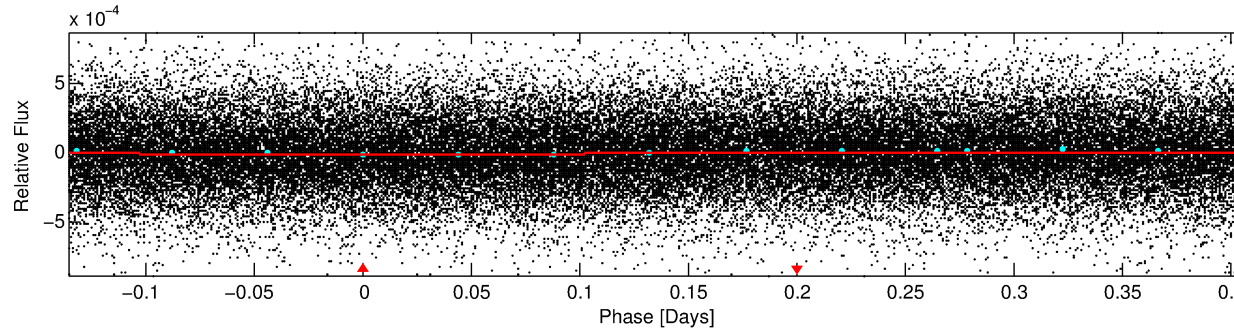
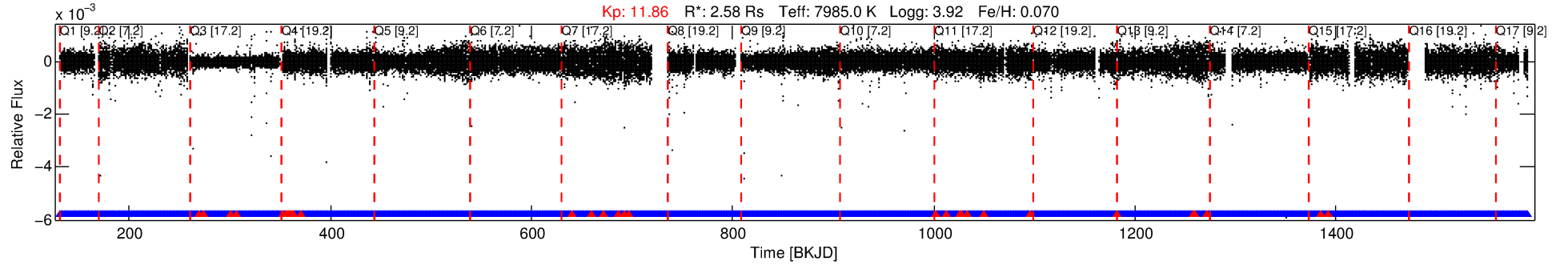
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006280952-01

No Significant Match Found

DV One-Page Summary

KIC: 6280952 Candidate: 1 of 1 Period: 0.543 d



DV Fit Results:

Period = 0.54263 [0.00001] d
Epoch = 131.7309 [0.0041] BKJD
 R_p/R^* = 0.0037 [0.0030]
 a/R^* = 1.03 [0.28]
 b = 0.63 [4.65]
 Seff = 89411.85 [43565.57]
 T_{eq} = 4409 [537] K
 R_p = 1.05 [0.92] R_{e}
 a = 0.0164 [0.0048] AU
 A_g = 1.05 [2.12] [0.03 σ]
 T_{eff} = 6906 [3393] K [0.73 σ]

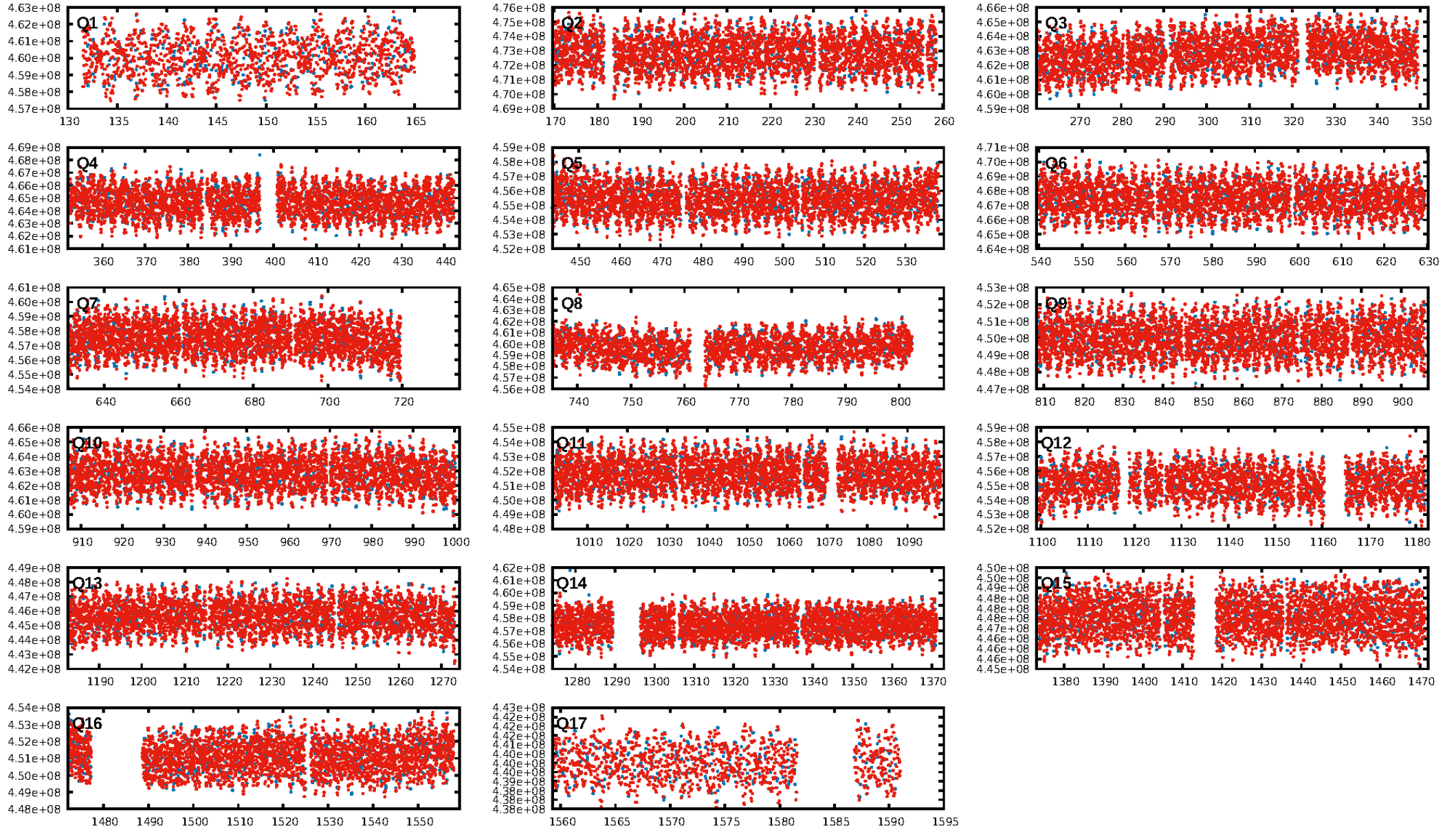
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [2336/2367]
GhostDiagnostic-chr: 2.464
Centroid-sig: 1.2%
Centroid-so: 0.699 arcsec [1.87 σ]
OotOffset-rm: 0.312 arcsec [0.09 σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-rm: 0.279 arcsec [0.07 σ]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [17/17]

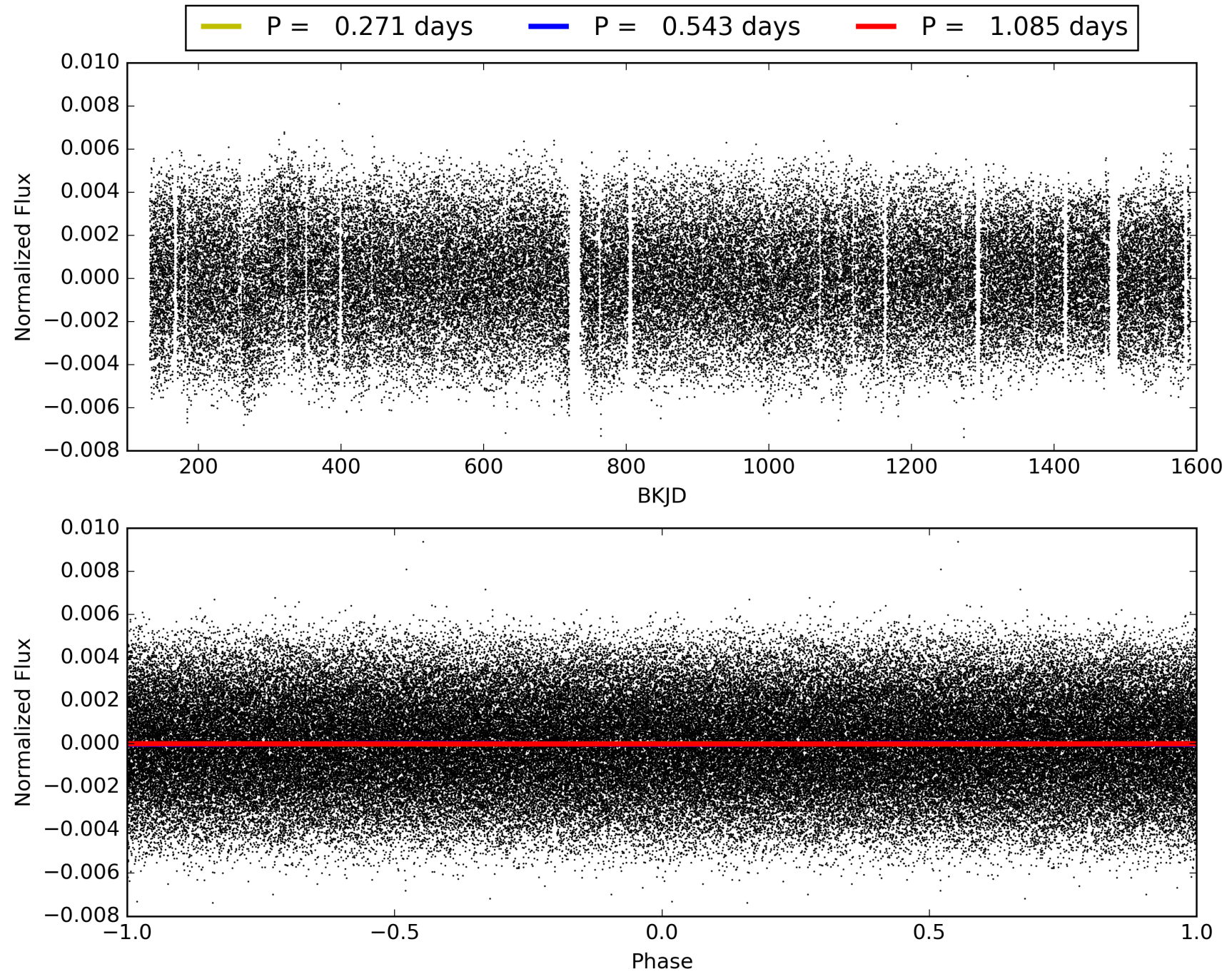
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:03:41 Z

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

TCE 006280952-01, PDC Light Curves

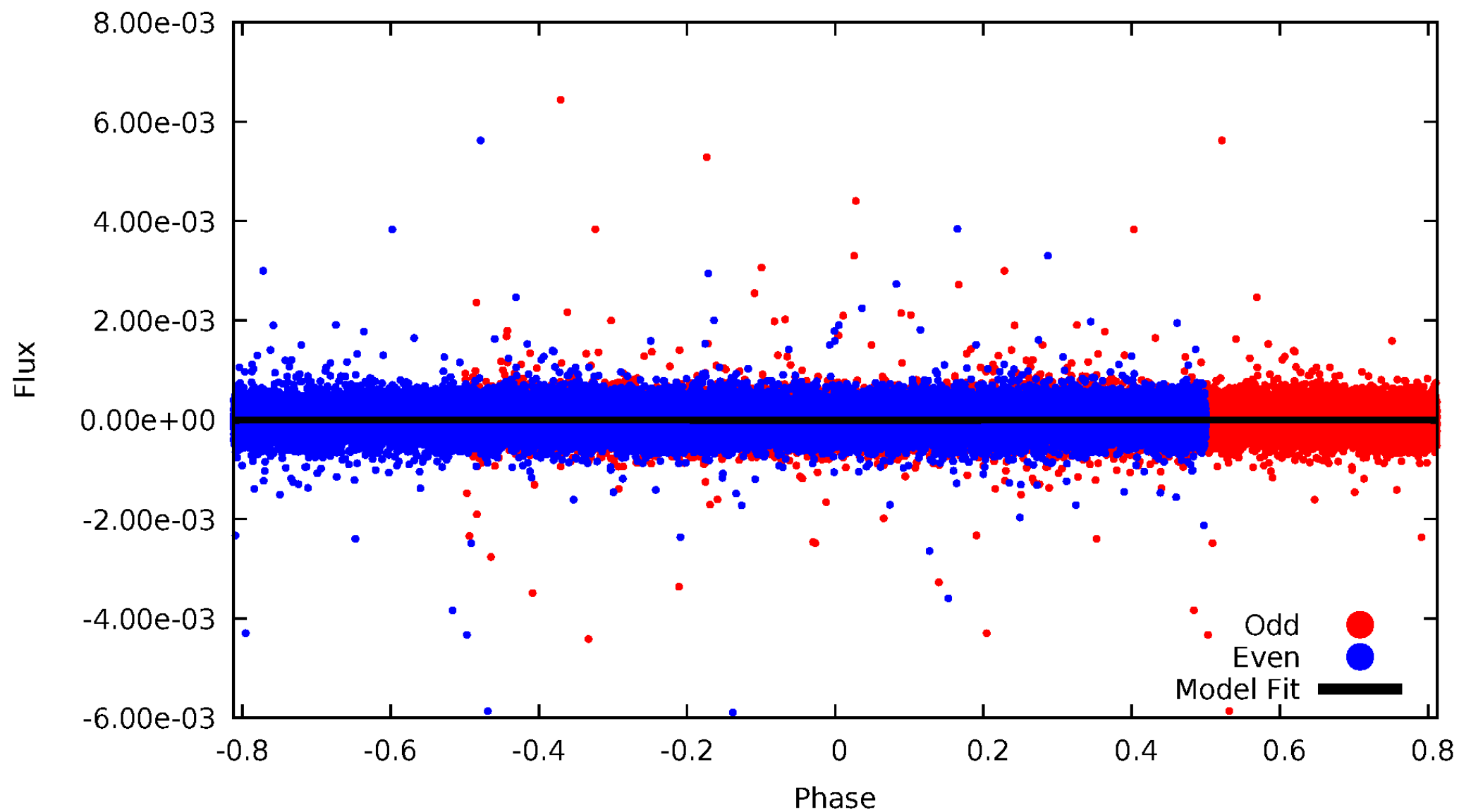


TCE 006280952-01



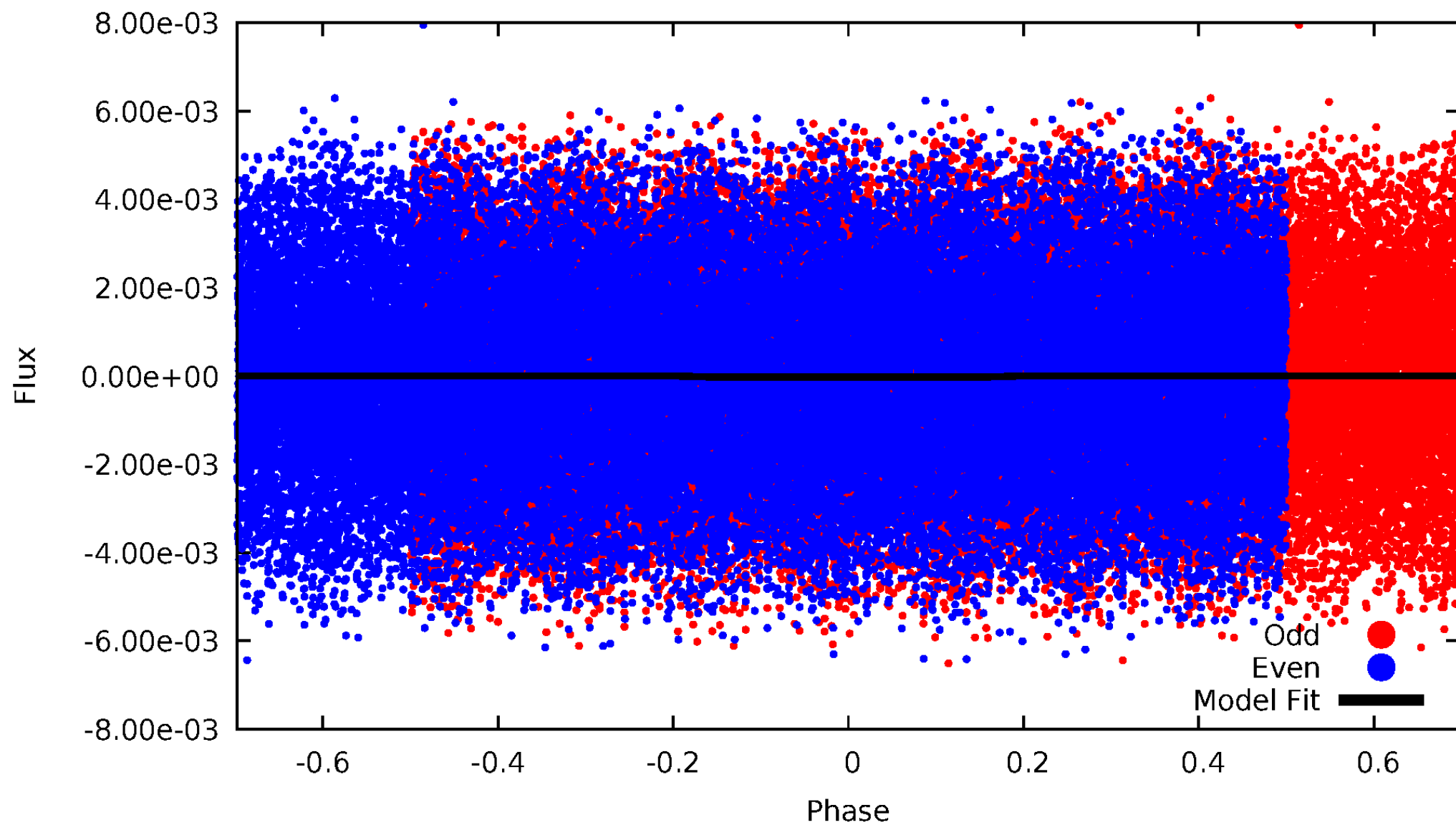
DV Odd/Even

TCE 006280952-01



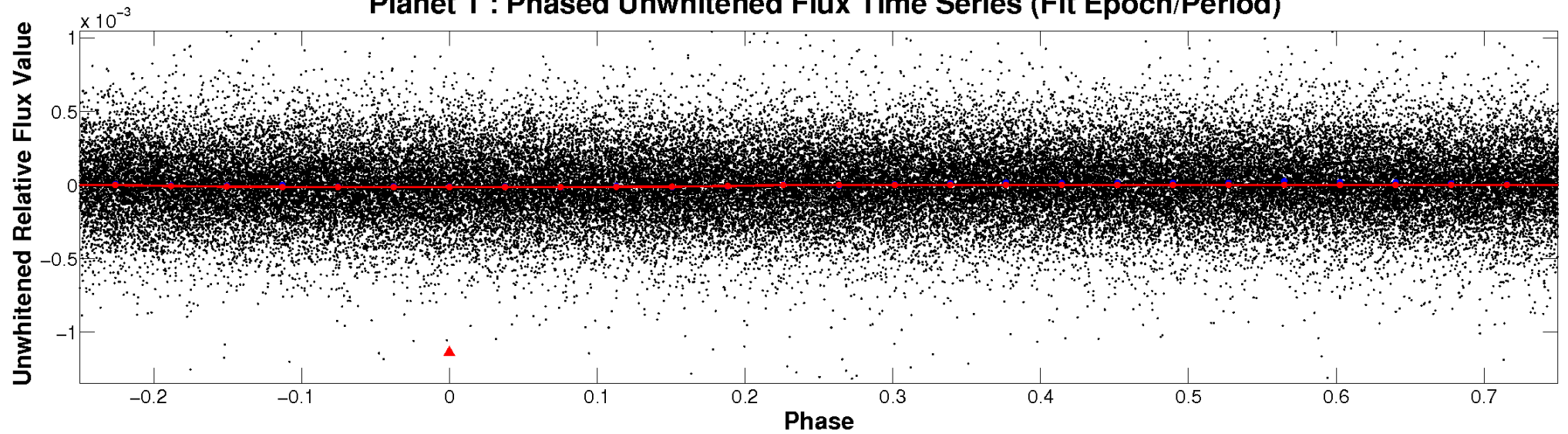
ALT Odd/Even

TCE 006280952-01

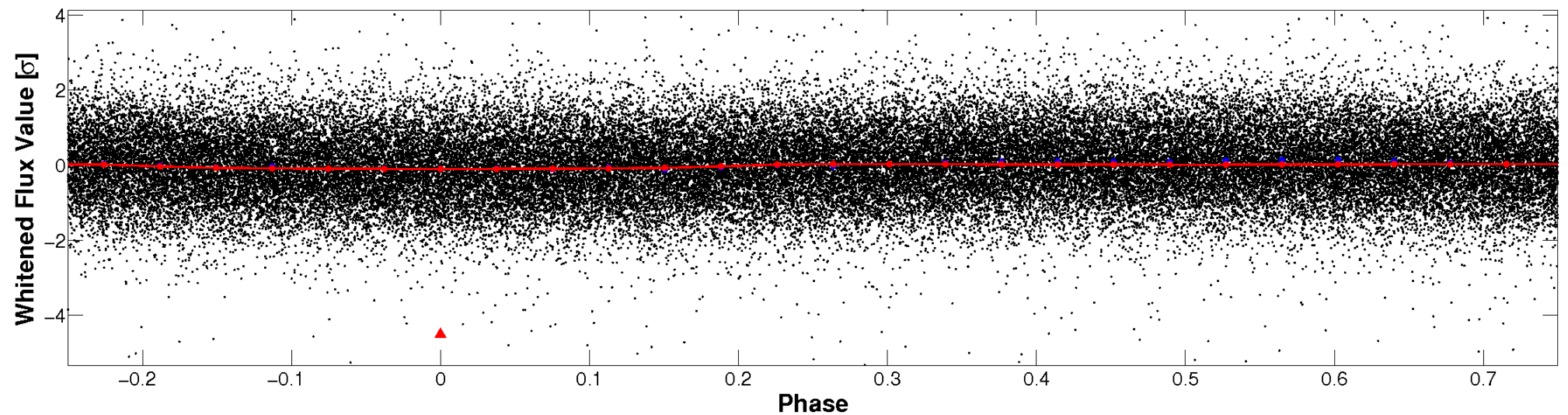


Non-Whitened Vs. Whitened Light Curve

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

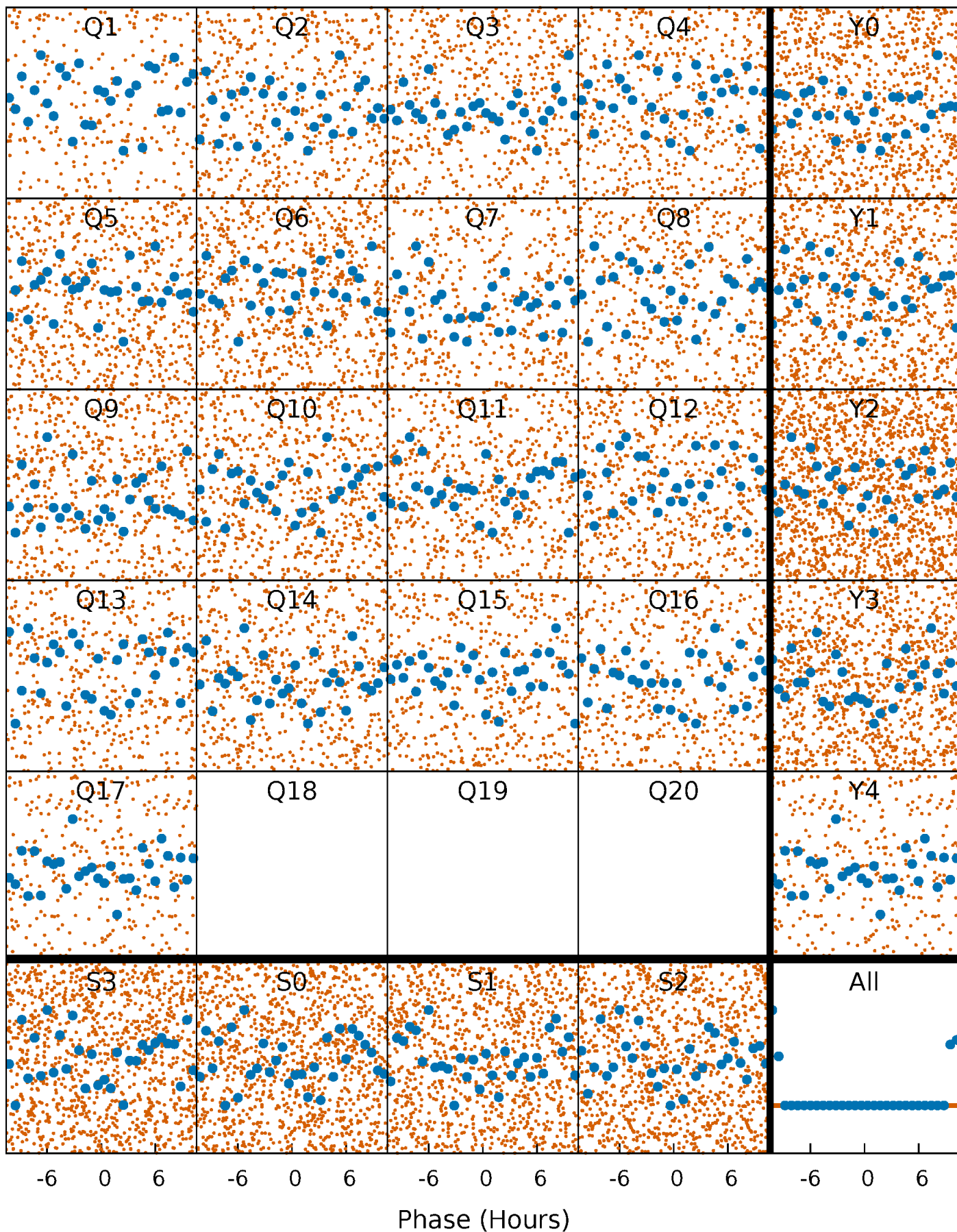


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



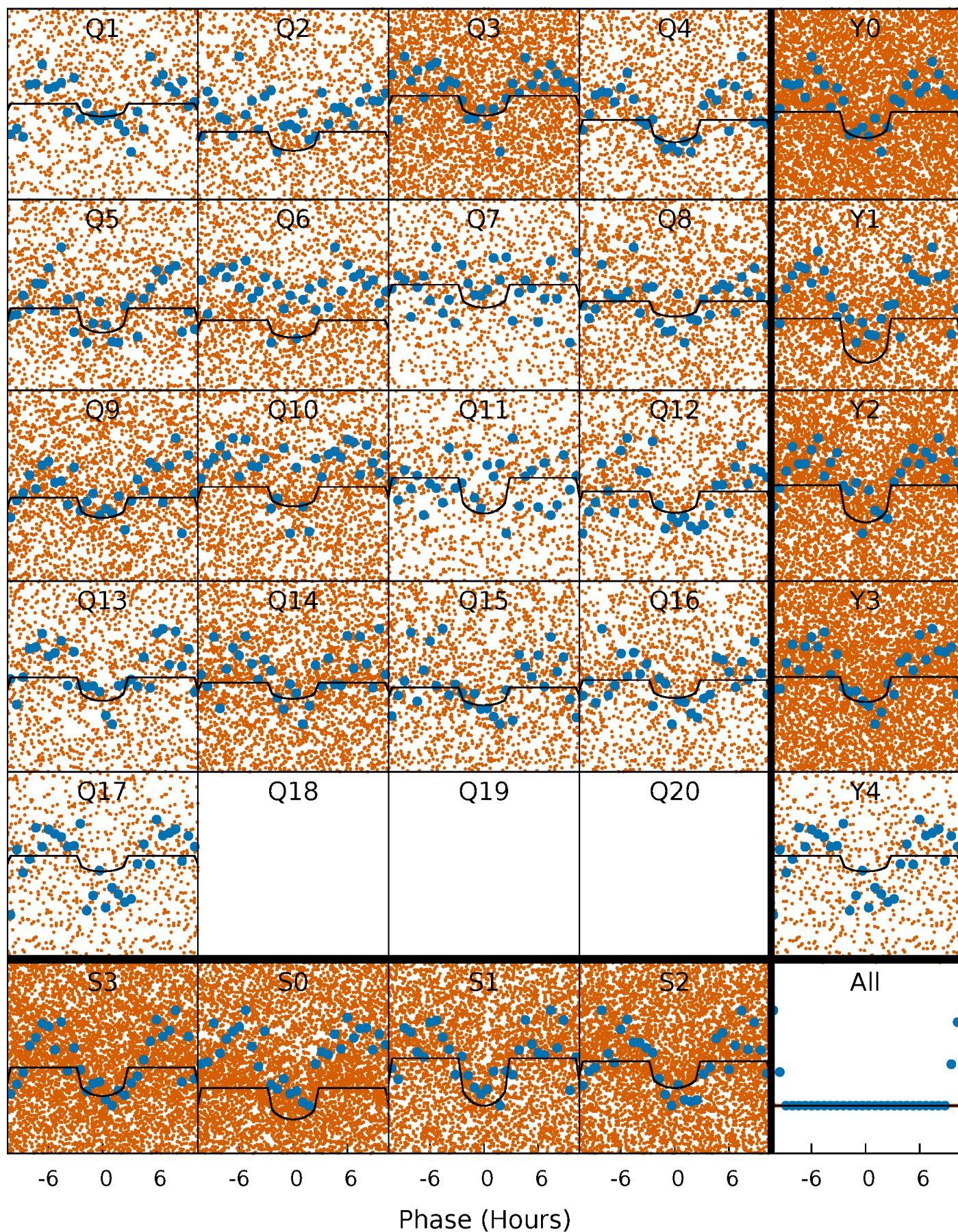
PDC Quarter-Phased Transit Curves

TCE 006280952-01 P= 0.542633 Days $T_0=131.730910$ (BKJD)



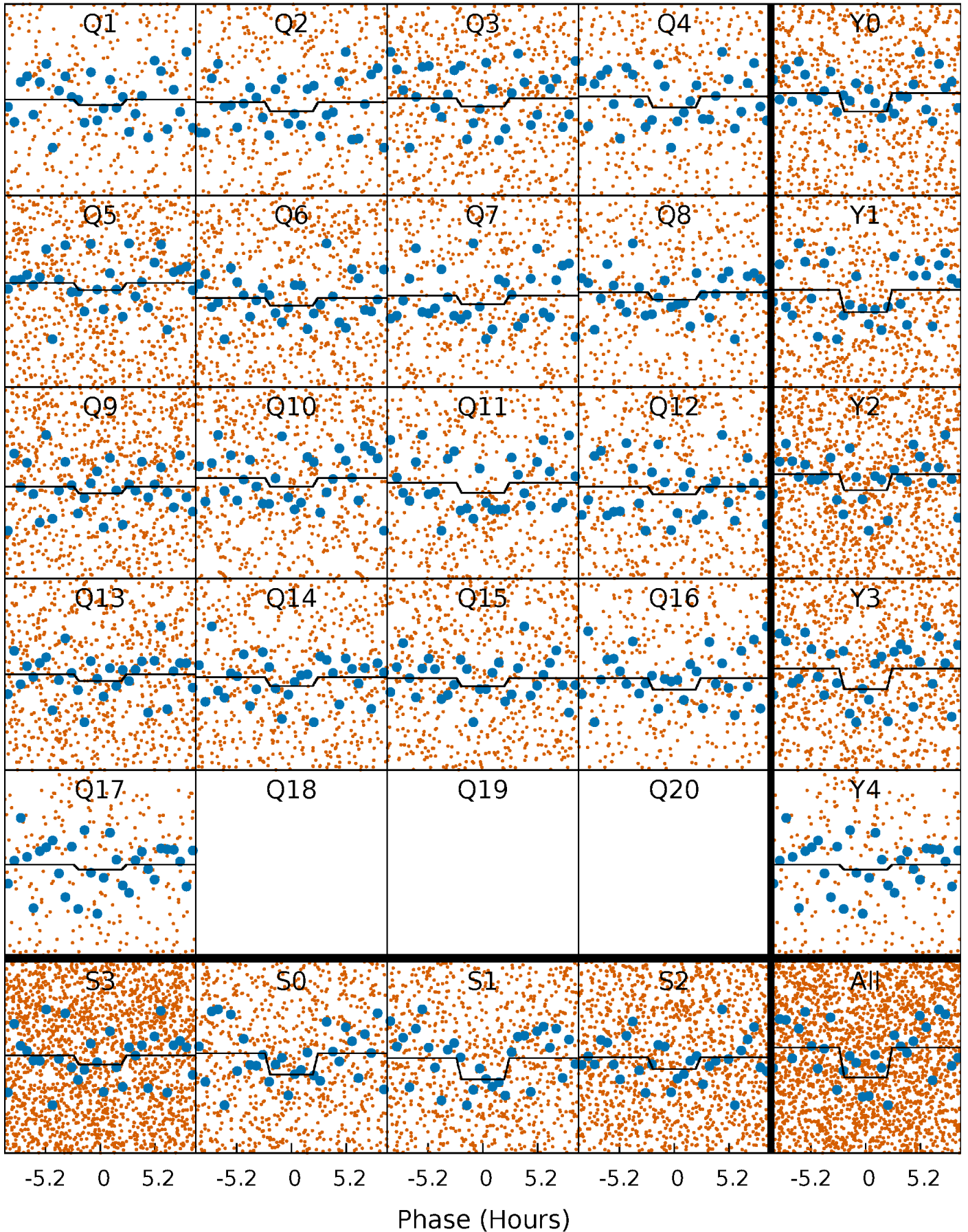
DV Quarter-Phased Transit Curves

TCE 006280952-01 P= 0.542633 Days $T_0=131.730910$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

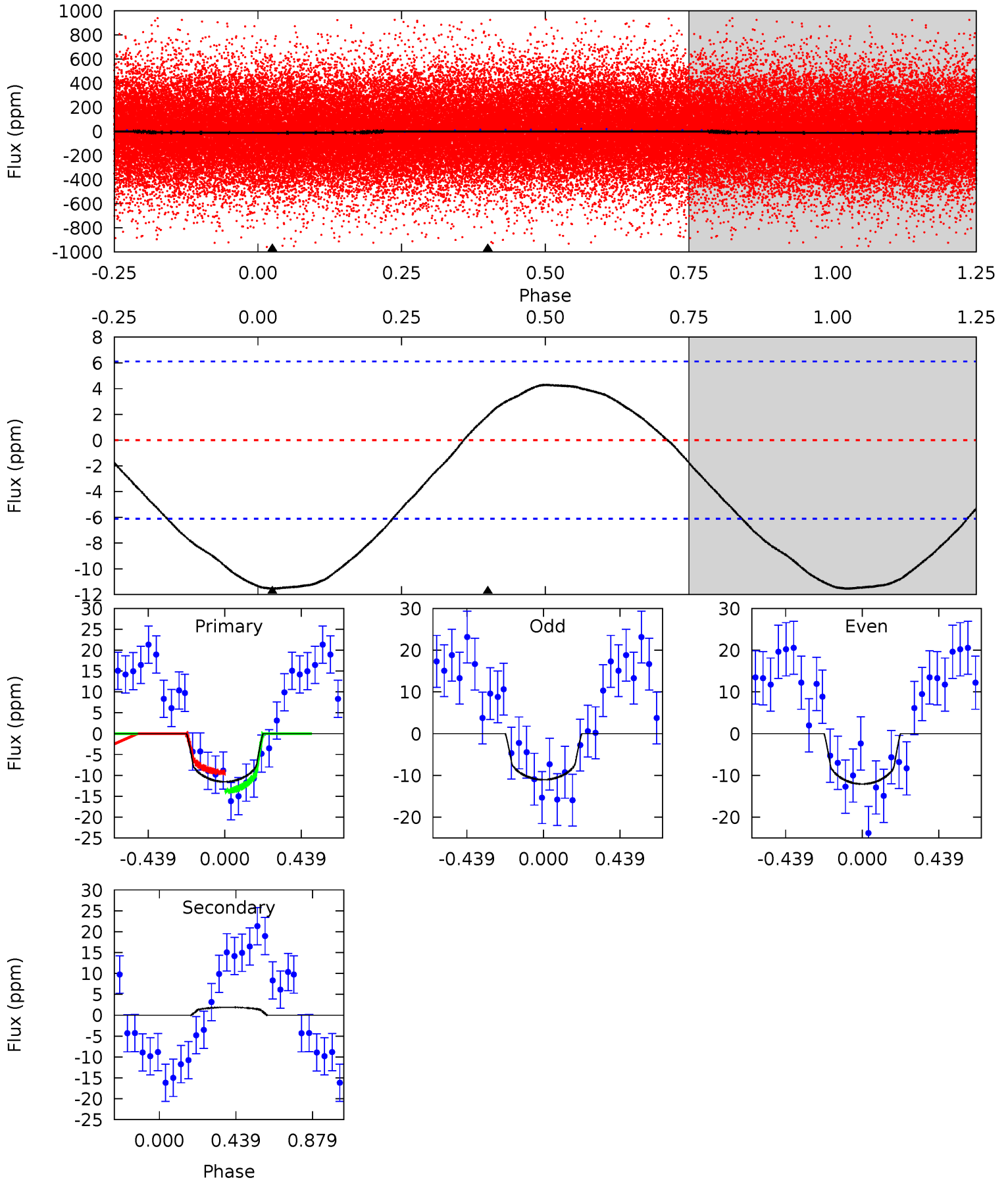
TCE 006280952-01 P= 0.542656 Days $T_0=131.723722$ (BKJD)



DV Model-Shift Uniqueness Test

006280952-01, P = 0.542633 Days, E = 131.188277 Days

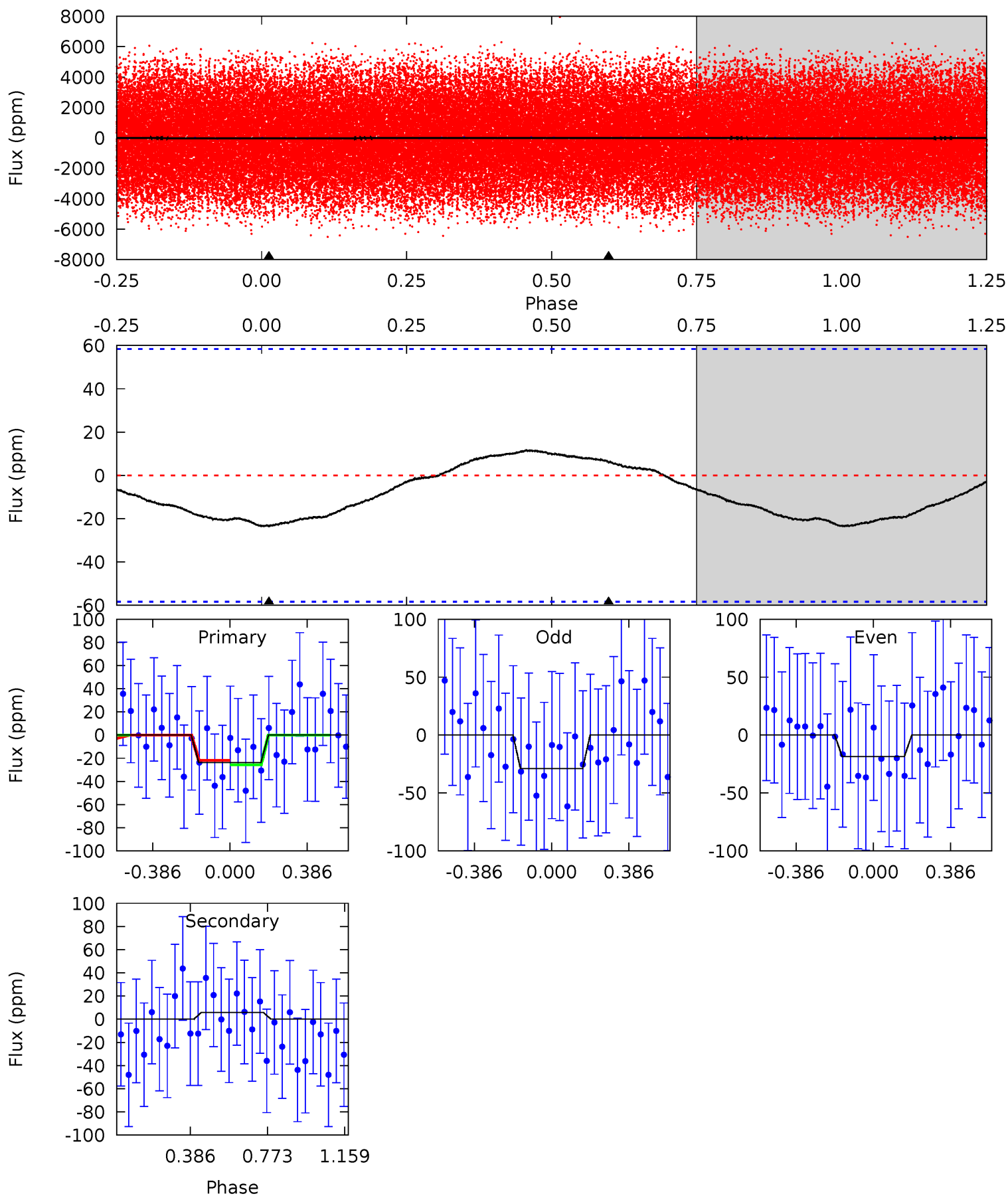
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.02	-1.32	0	0	4.24	0.77	0.88	8.02	8.02	-1.32	-1.32	0.36	0.86	0.27	1.58



Alt Model-Shift Uniqueness Test

006280952-01, P = 0.542656 Days, E = 131.181066 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.74	-0.42	0	0	4.27	0.87	0.19	1.74	1.74	-0.42	-0.42	0.38	1.23	0.33	0.14



Stellar Parameters For KIC 006280952

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7985^{+193}_{-359}	$3.920^{+0.259}_{-0.111}$	$0.070^{+0.150}_{-0.400}$	$2.577^{+0.451}_{-0.838}$	$2.013^{+0.269}_{-0.461}$	$0.166^{+0.261}_{-0.059}$
	+2%/-4%	+7%/-3%	+214%/-571%	+18%/-33%	+13%/-23%	+157%/-36%
Source	KIC0	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 006280952-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	2 ± 1	$1.15^{+0.79}_{-0.69}$	6064^{+389}_{-538}	-5547^{+604}_{-1881}	$-0.203^{+0.172}_{-1.060}$
Alt.	6 ± 14	$1.36^{+0.84}_{-0.71}$	6026^{+407}_{-479}	-5664^{+11011}_{-2633}	$-0.277^{+0.997}_{-1.949}$

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

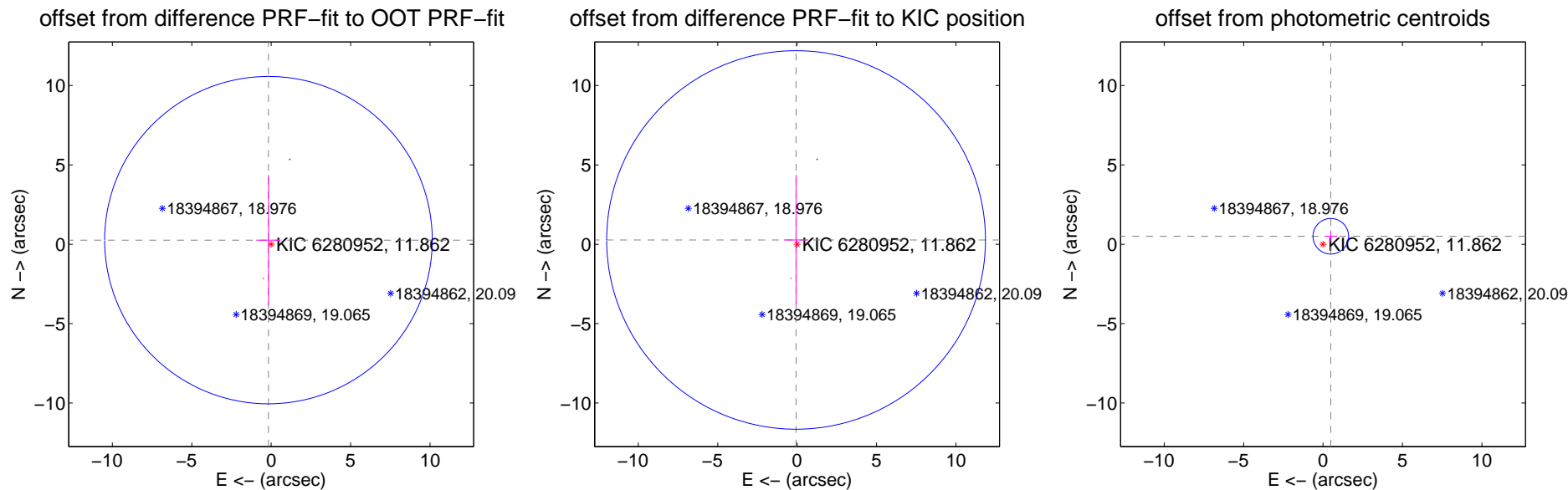
DV Centroid Data

Supplemental centroid analysis for 006280952-01. **Kepler magnitude: 11.86.** Transit SNR 13.82

There are 0 quarters with good PRF difference image offsets

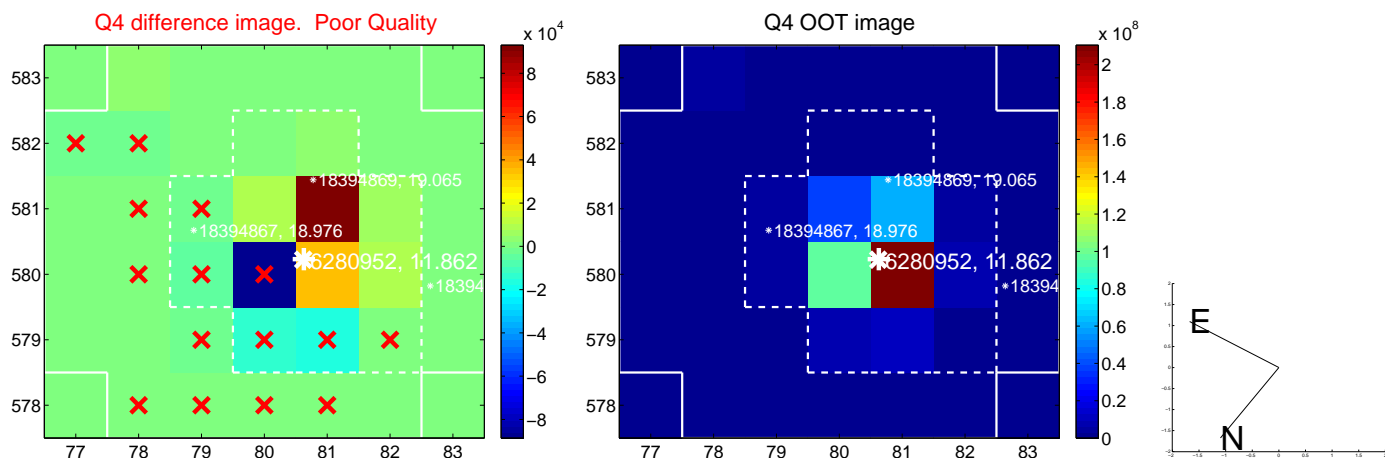
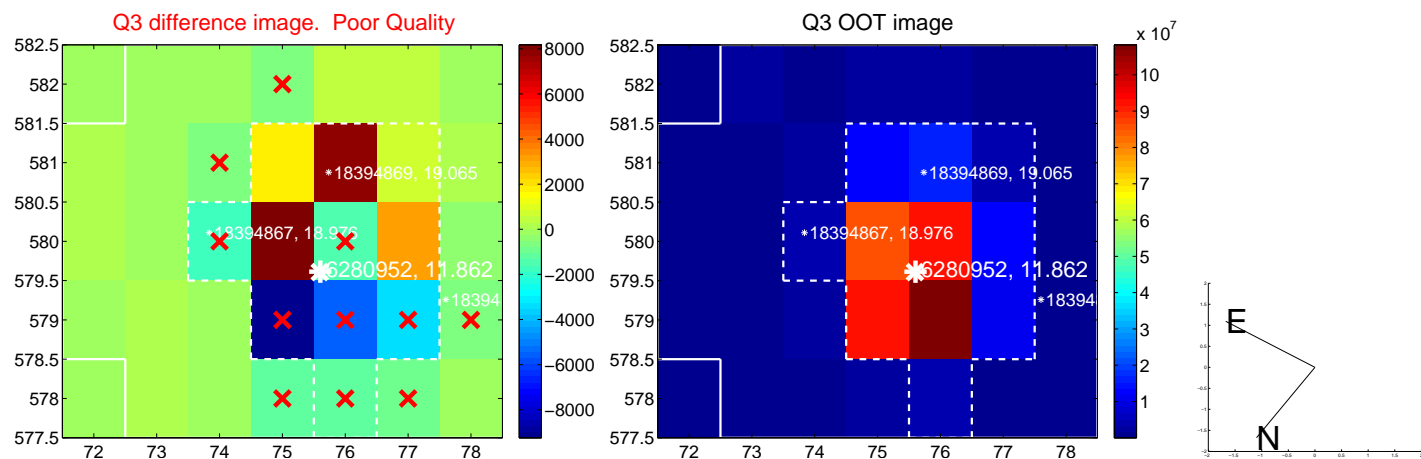
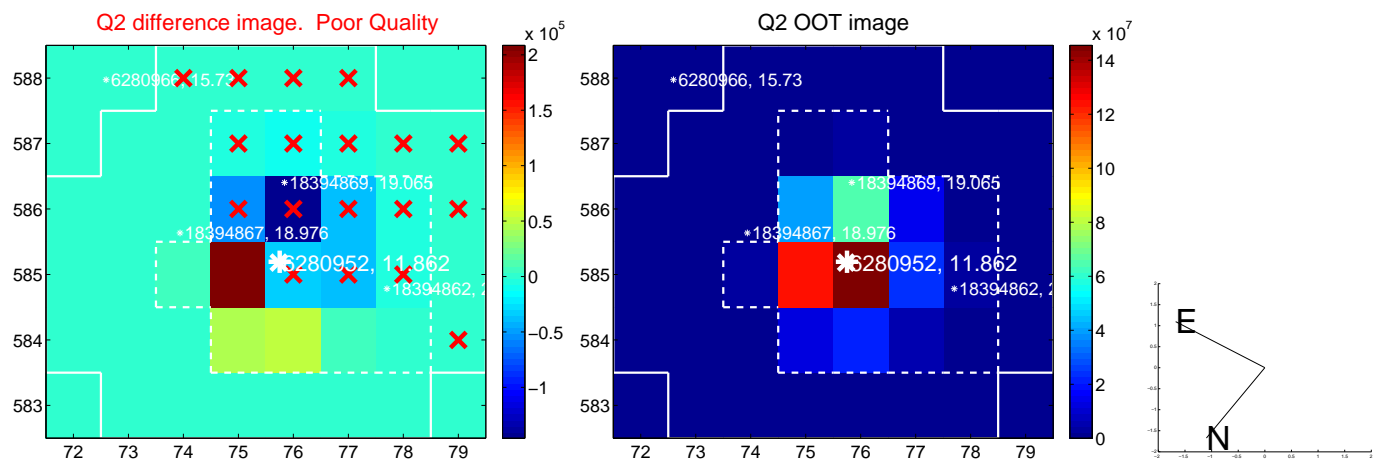
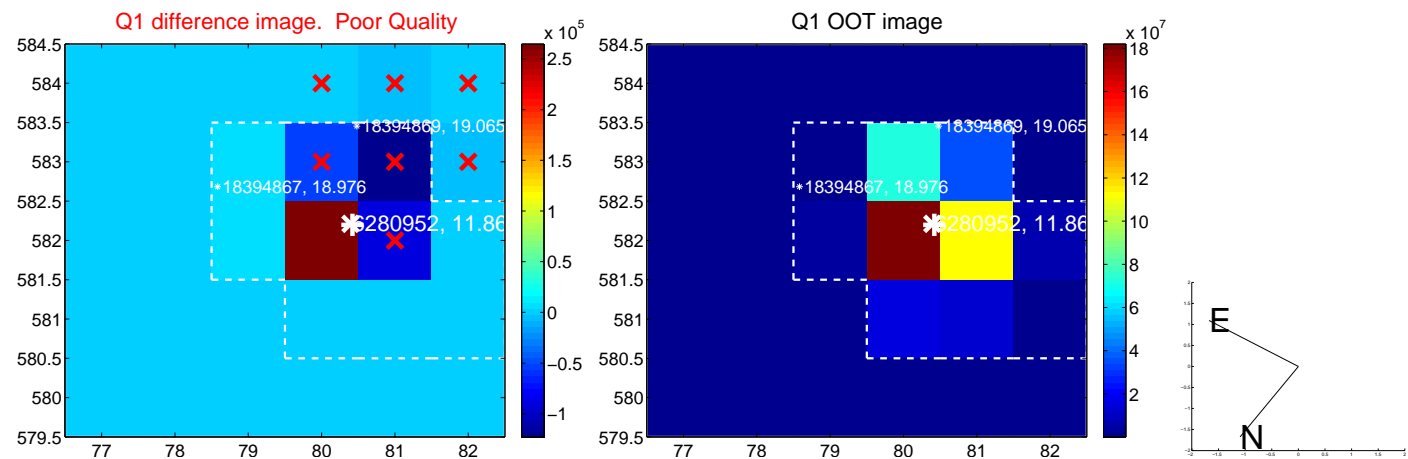
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.312 ± 3.437	0.09	0.173 ± 0.770	0.259 ± 4.102
PRF-fit source offset from KIC position	0.279 ± 3.974	0.07	0.068 ± 0.759	0.271 ± 4.093
photometric centroid source offset	0.70 ± 0.37	1.87	-0.49 ± 0.39	0.50 ± 0.35

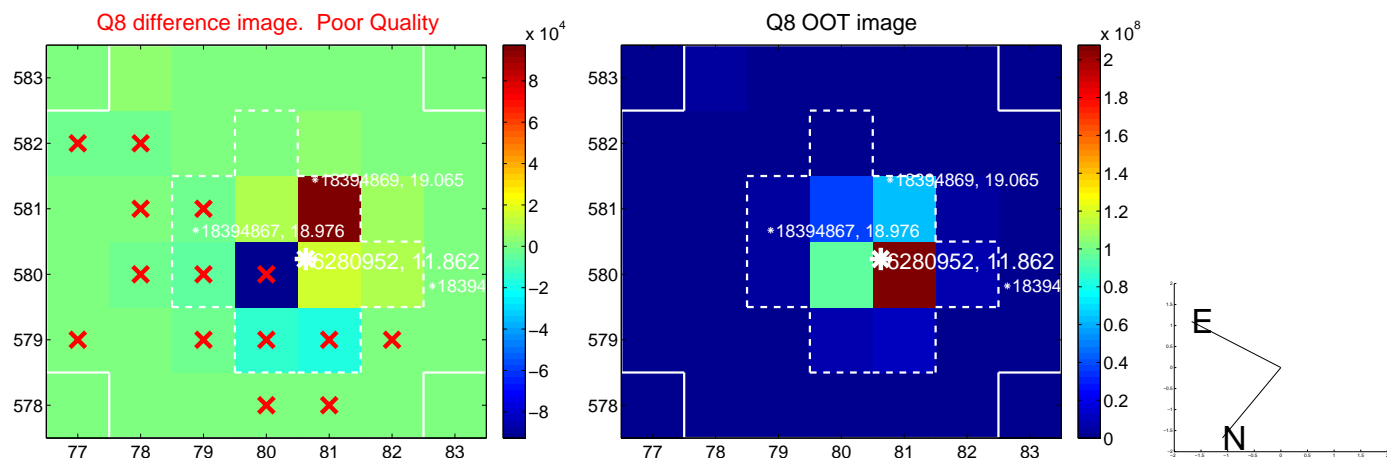
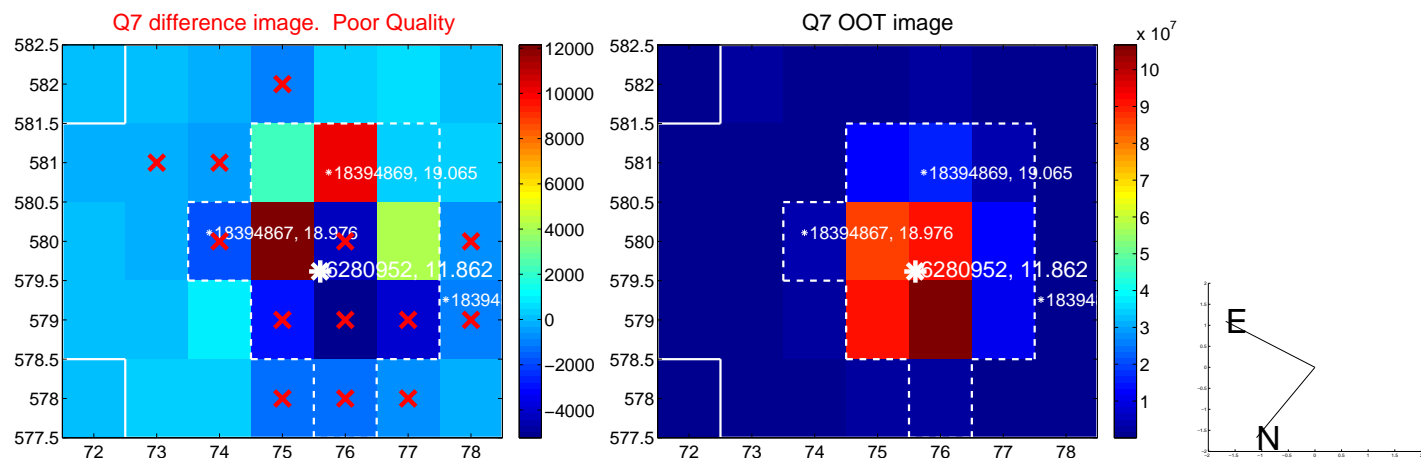
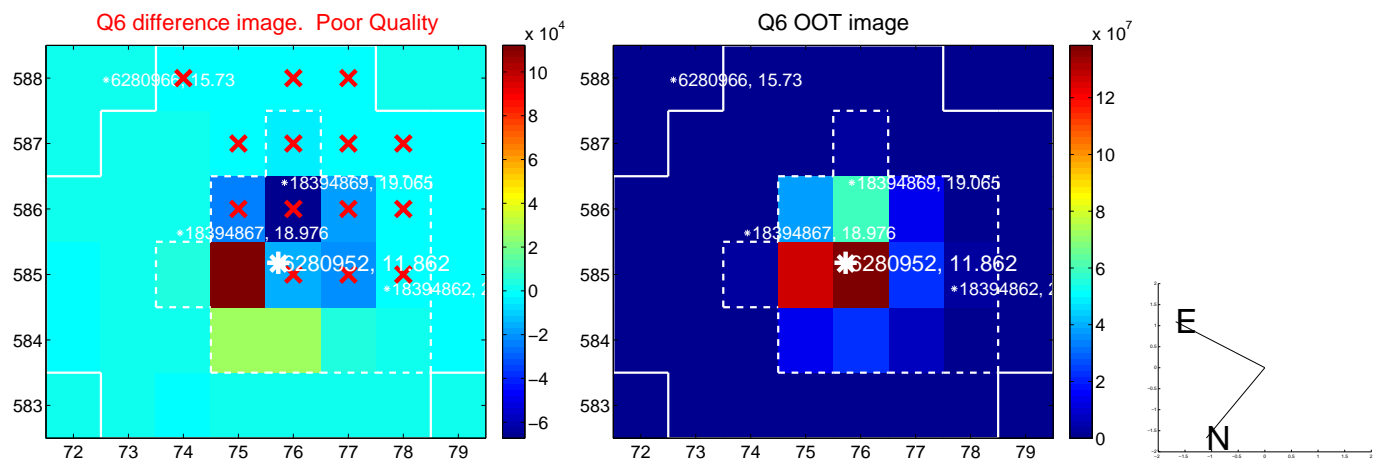
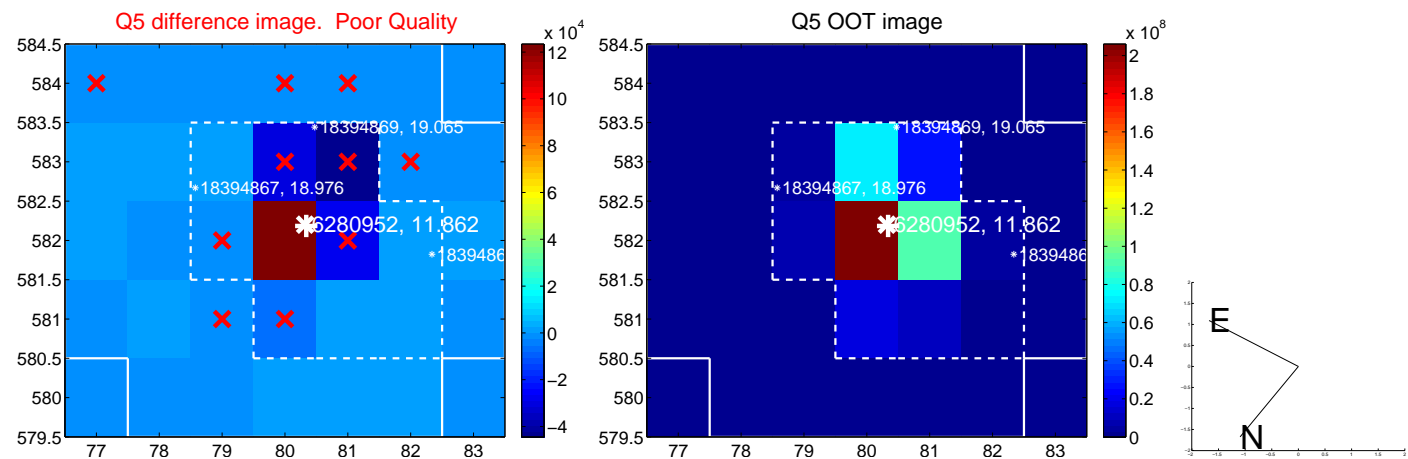


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

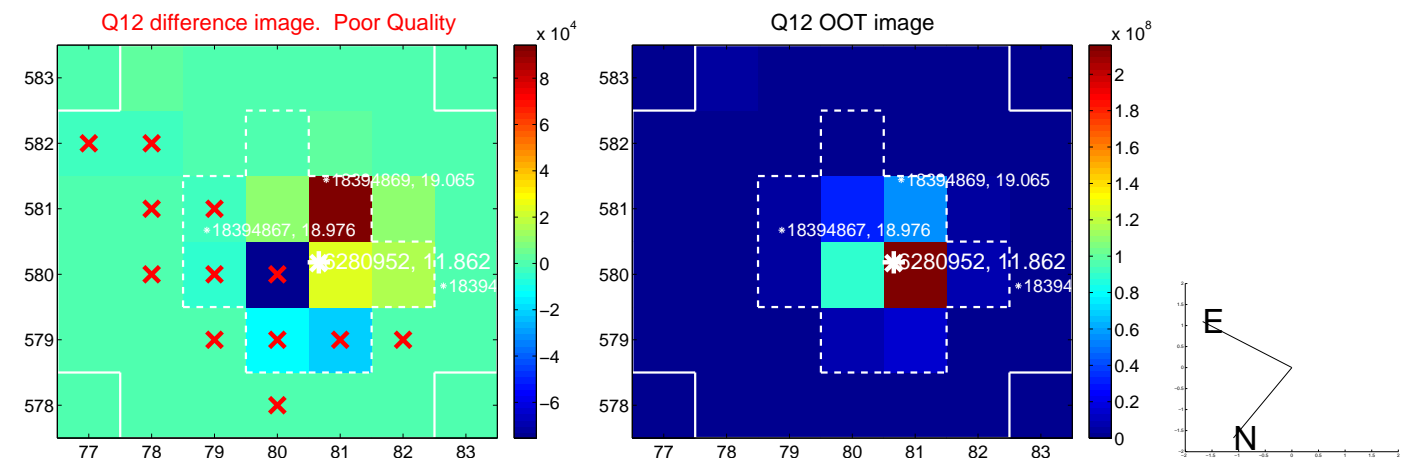
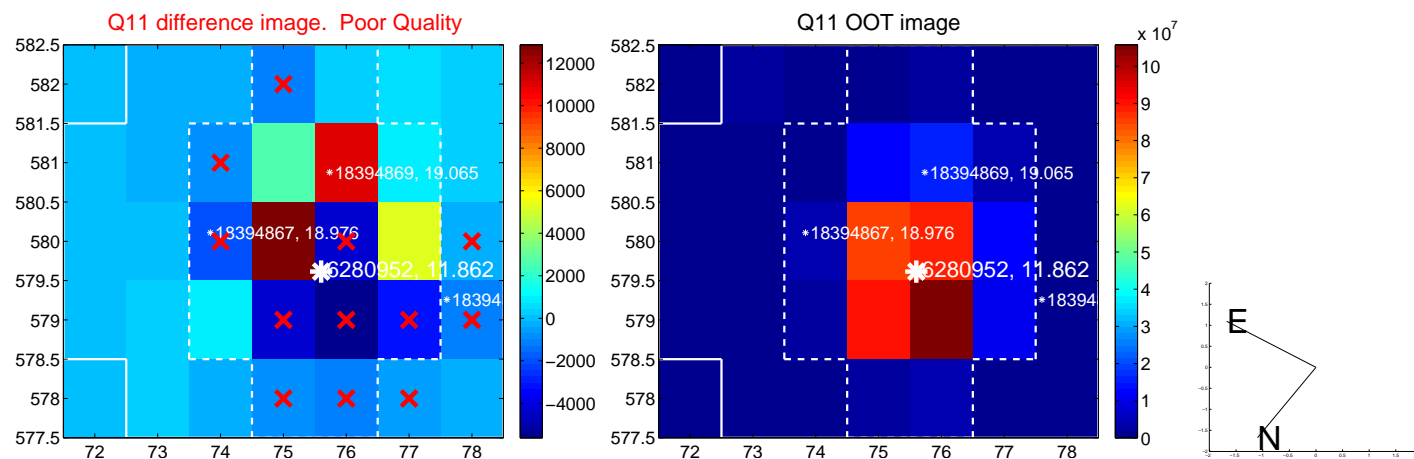
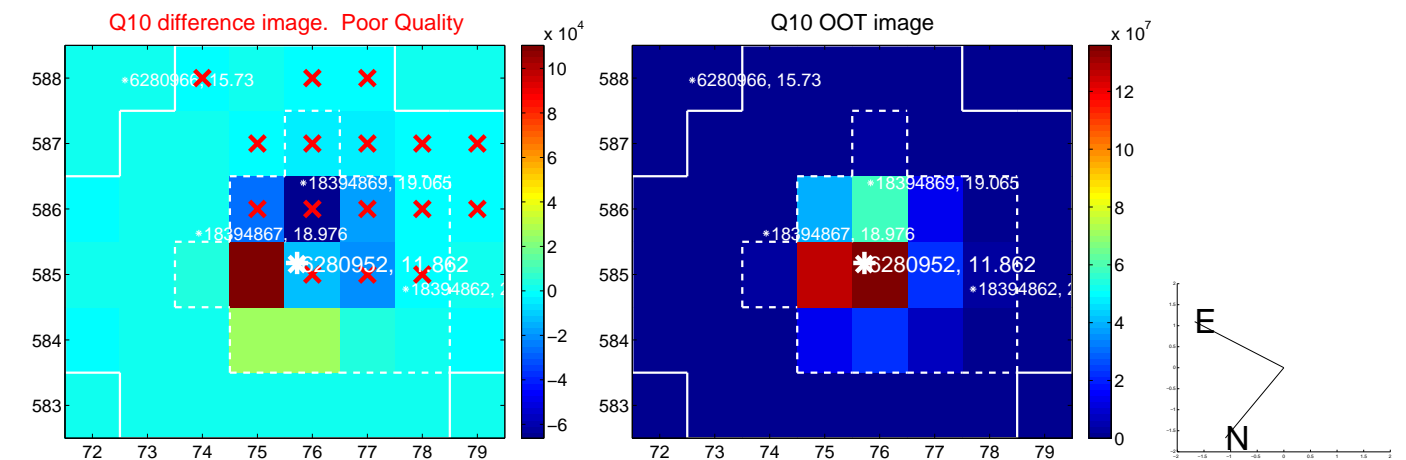
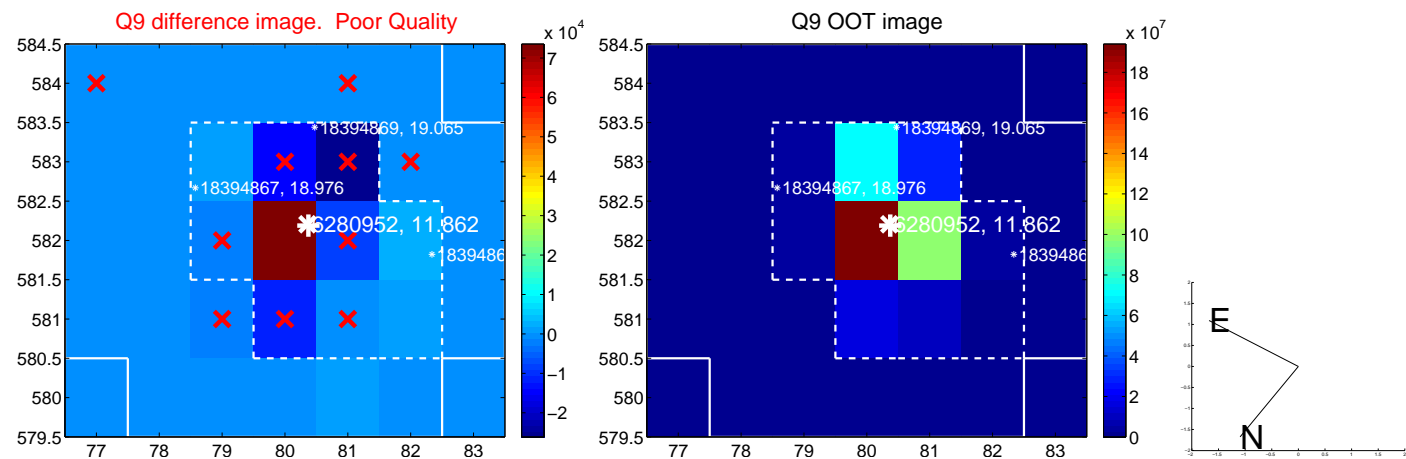
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



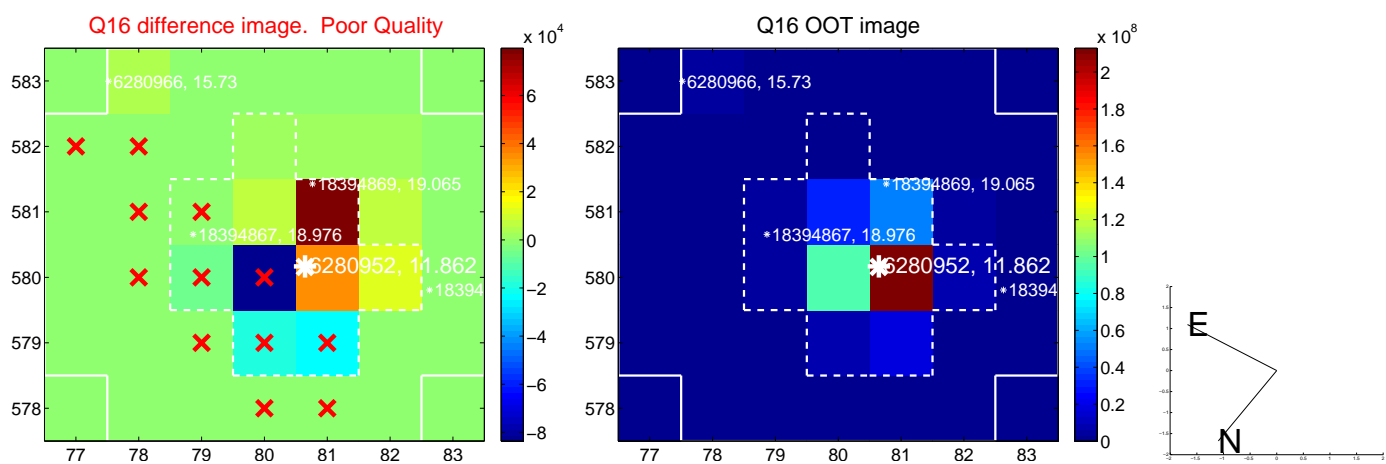
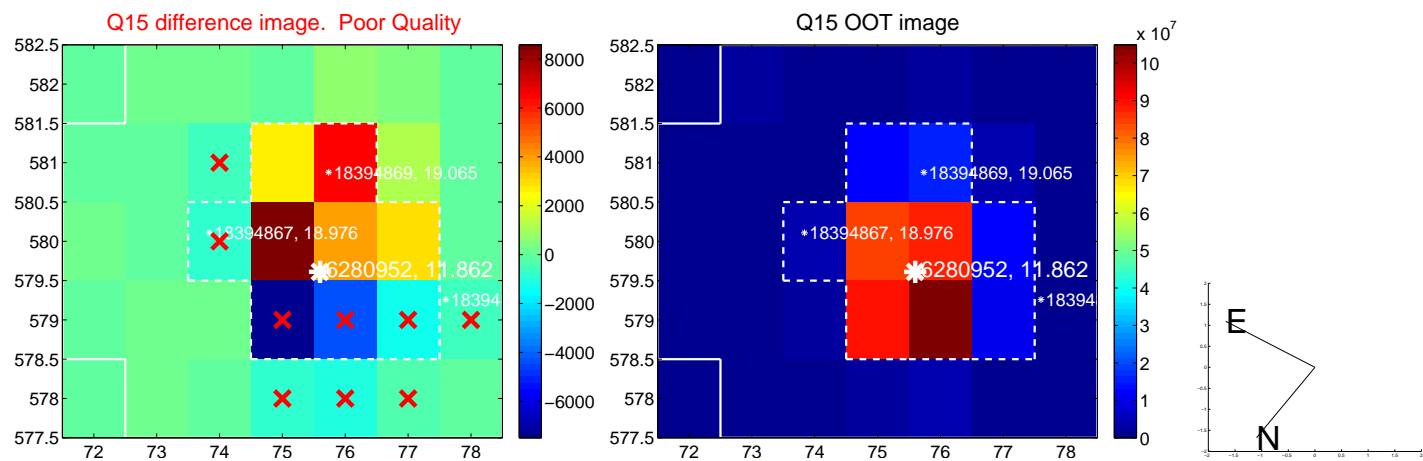
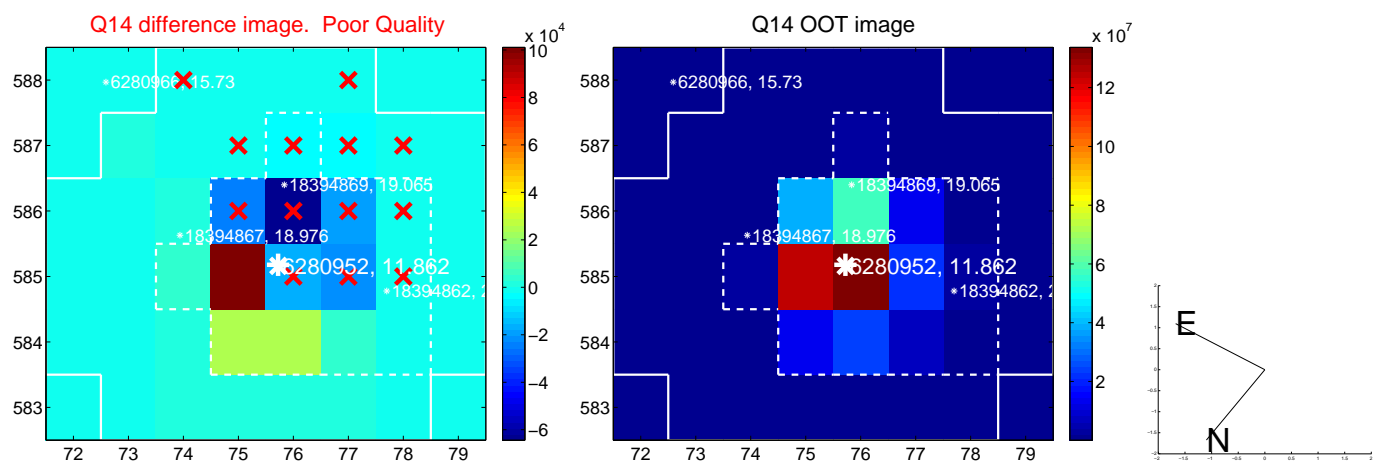
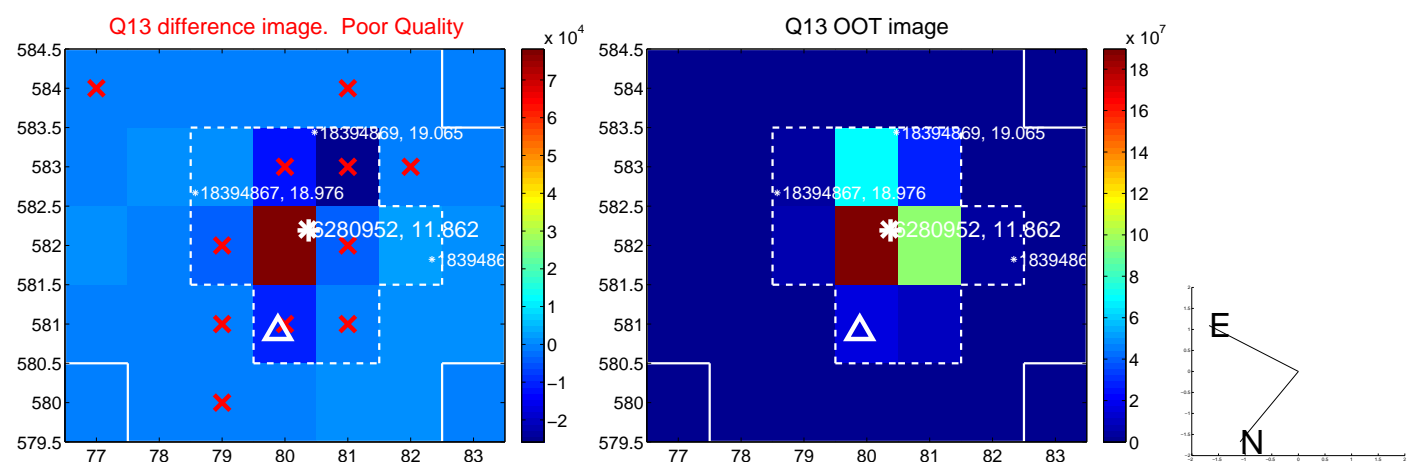
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



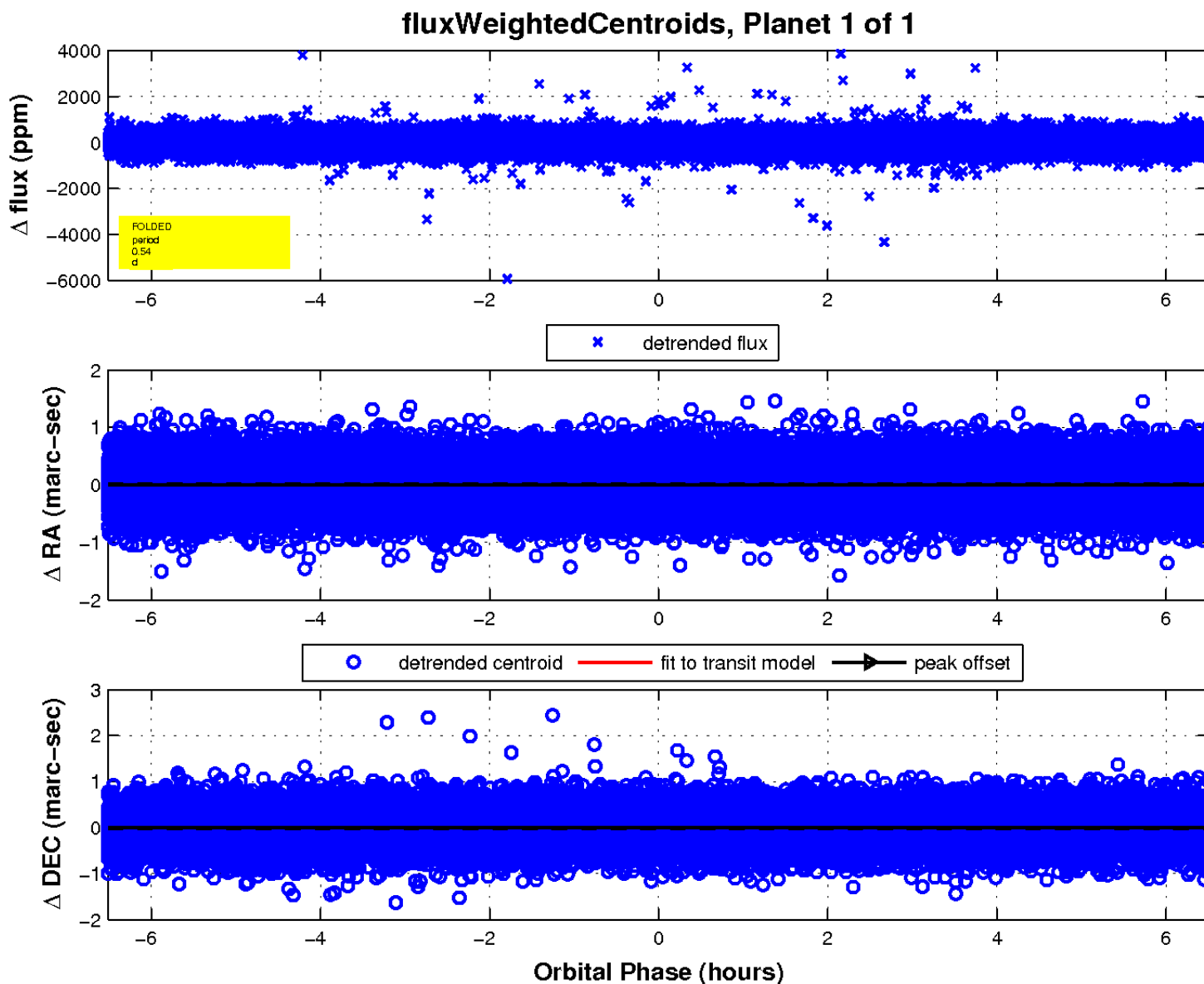
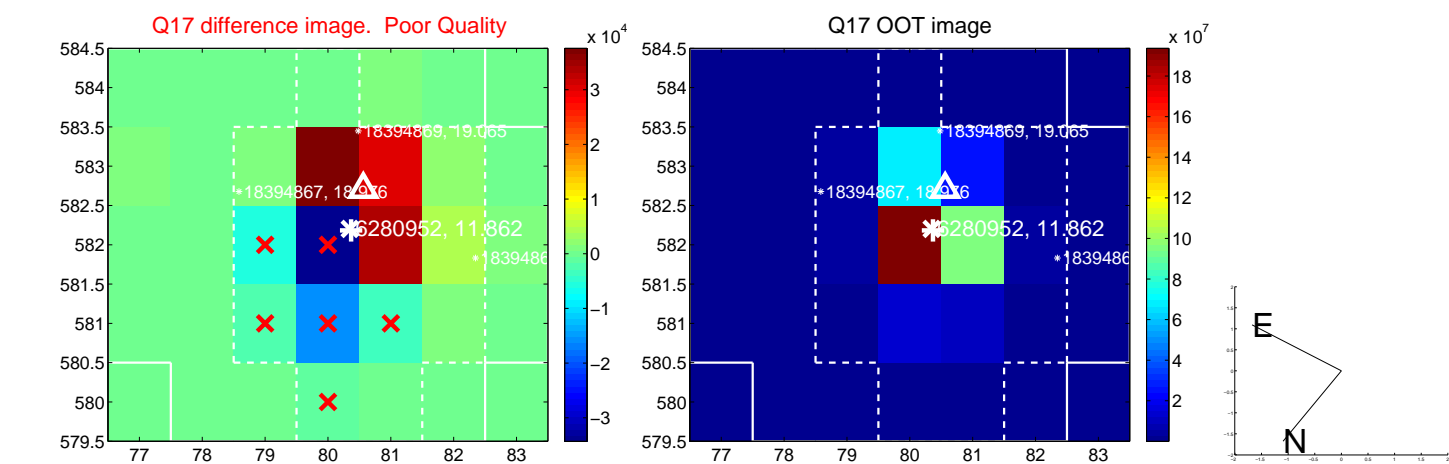
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

