

KIC 005806800

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})
005806800-01	OBS	7741.01	125.289129	252.089208	251.4	4.028	8.7	9.2	0.97	5881	1.79	4.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005806800-01	OBS	FP	0.00	0	0	1	0	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.

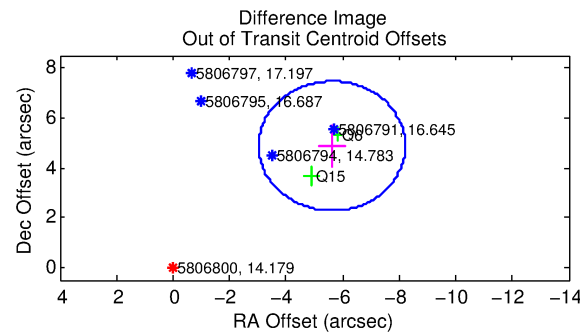
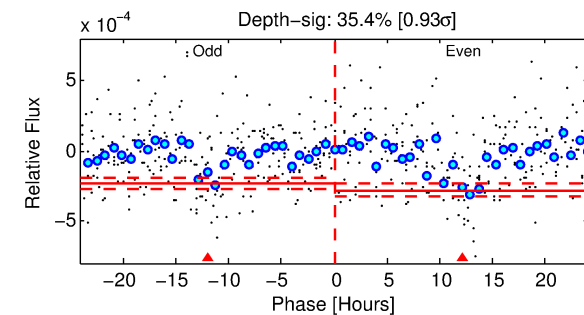
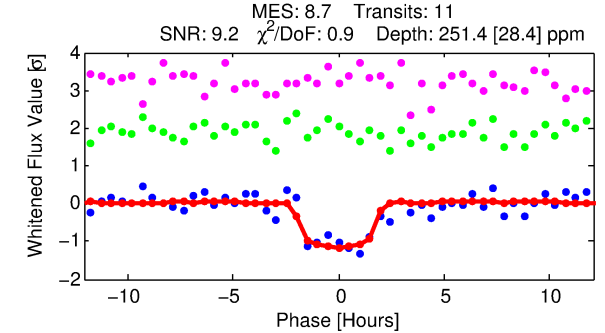
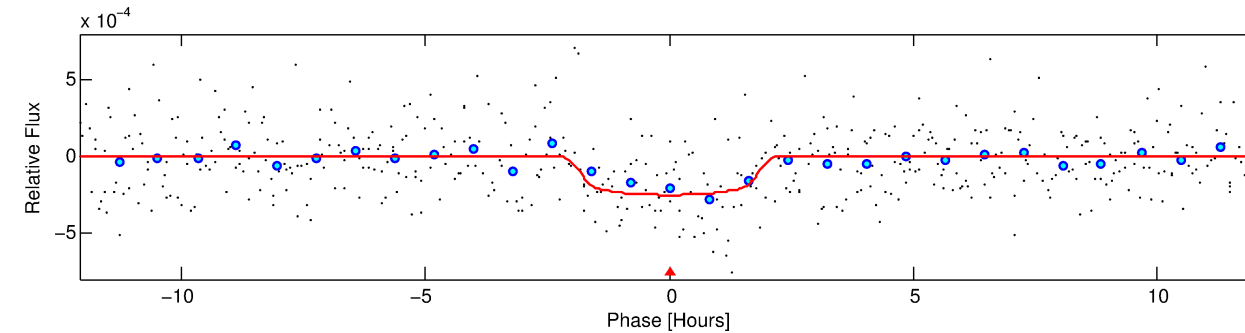
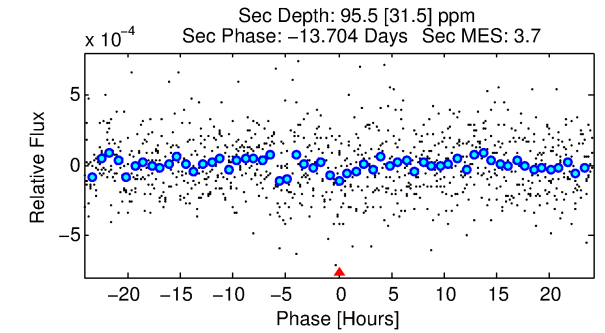
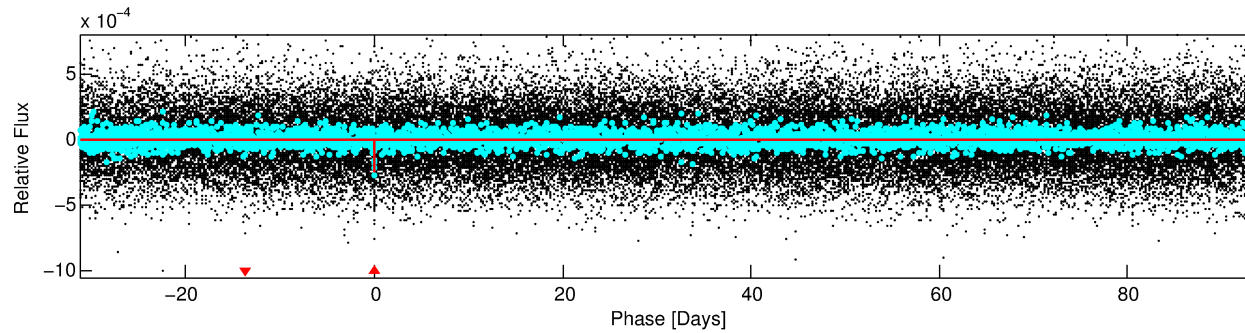
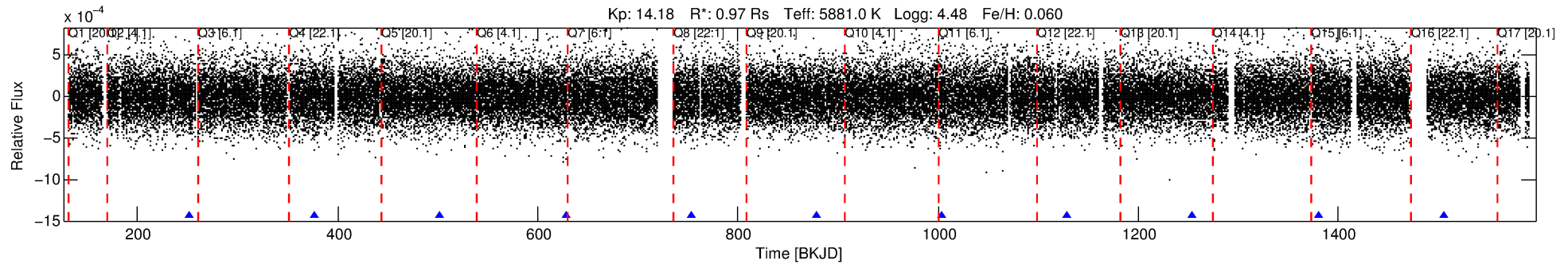
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005806800-01

No Significant Match Found

DV One-Page Summary

KIC: 5806800 Candidate: 1 of 1 Period: 125.289 d



DV Fit Results:

Period = 125.28913 [0.00164] d
Epoch = 252.0892 [0.0099] BKJD
Rp/R* = 0.0169 [0.0100]
a/R* = 122.71 [346.71]
b = 0.88 [0.76]
Seff = 4.11 [0.95]
Teq = 363 [21] K
Rp = 1.79 [1.10] Re
a = 0.4970 [0.0714] AU
Ag = 4035.09 [5046.11] [0.80σ]
Teffp = 4473 [1378] K [2.98σ]

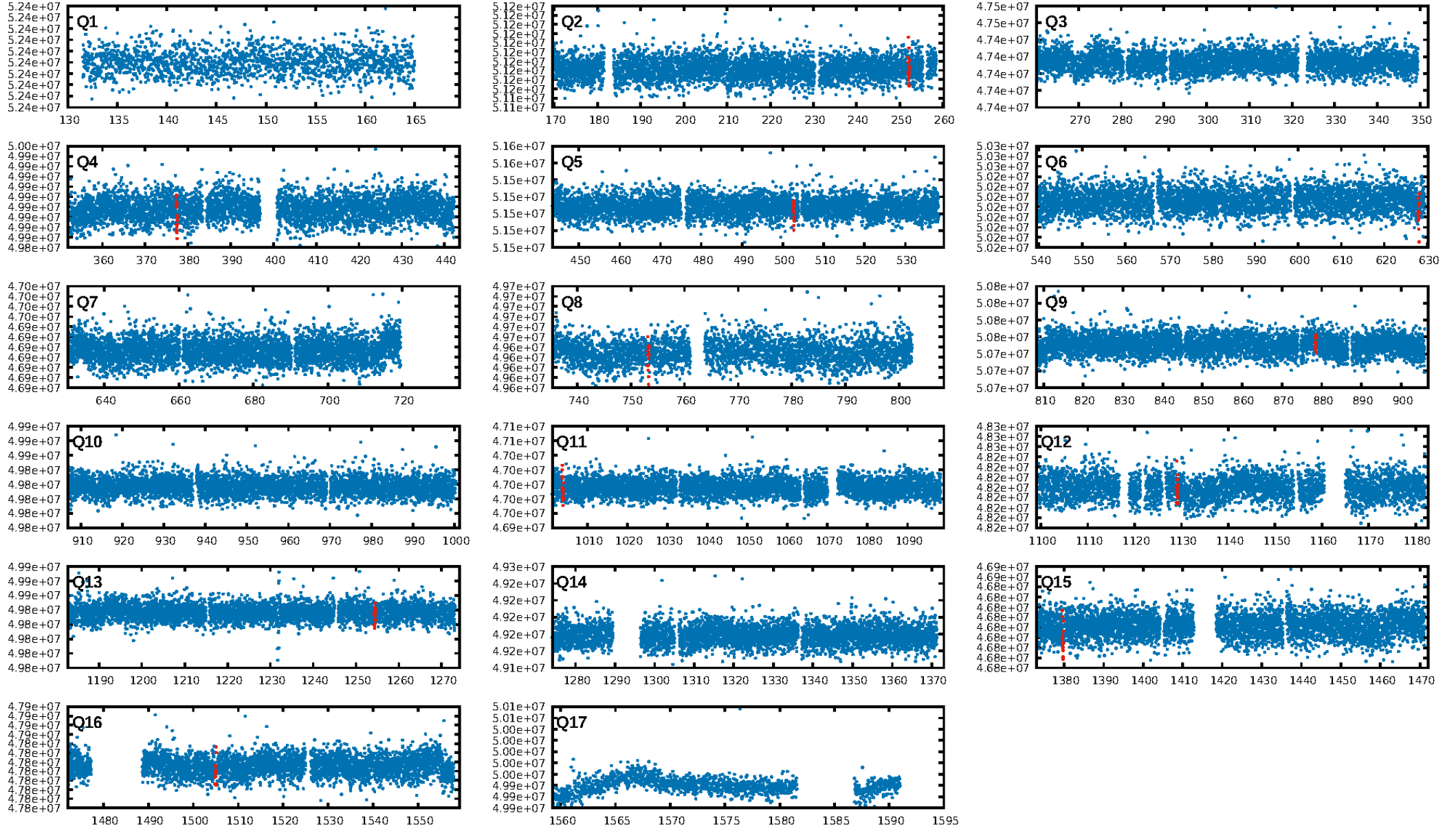
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 12.6%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 9.78e-18
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: -0.05141
Centroid-sig: 0.0%
Centroid-so: 20.272 arcsec [14.00σ]
OotOffset-rm: 7.435 arcsec [8.60σ]
KicOffset-rm: 7.526 arcsec [10.49σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [11/11]

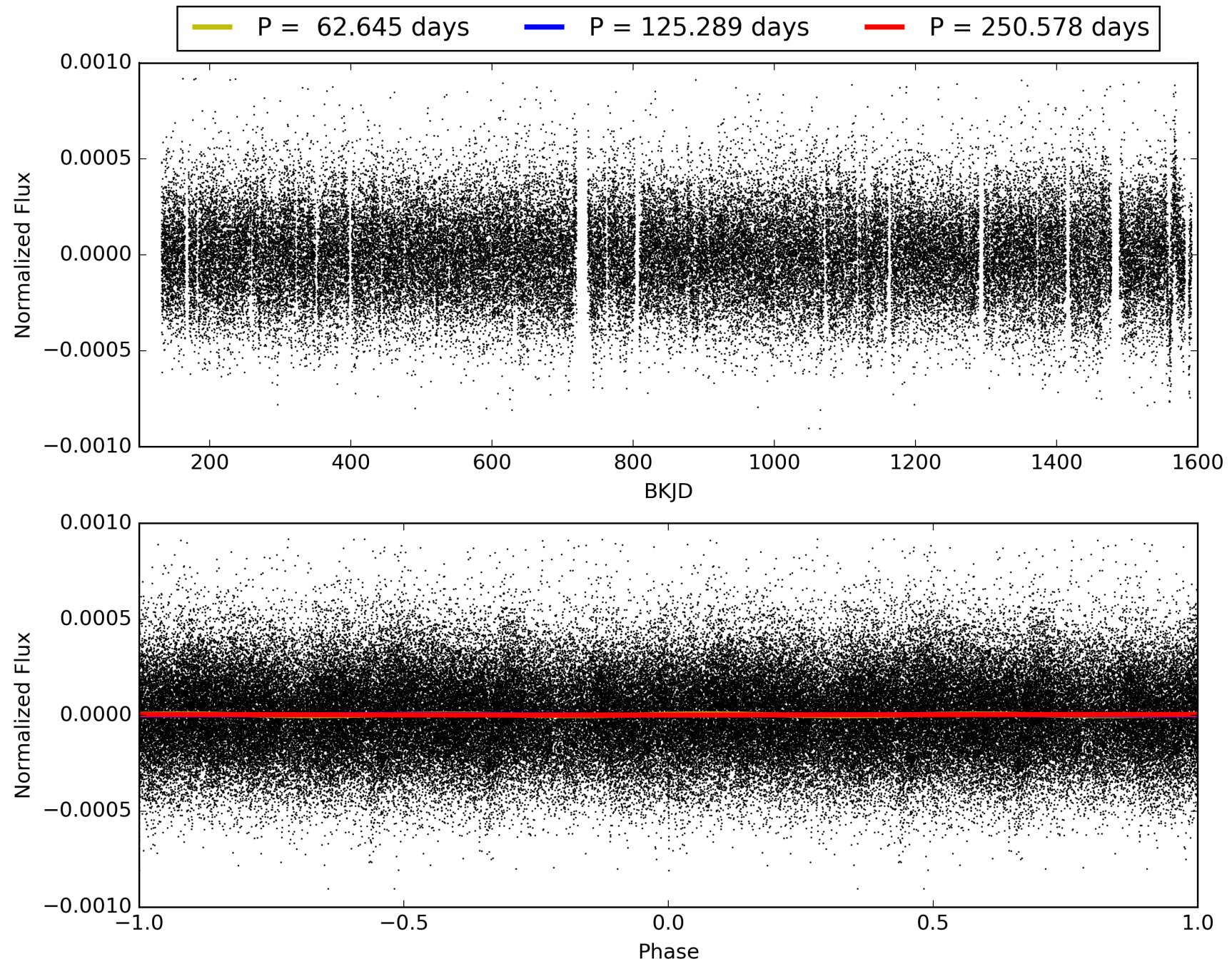
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:30:30 Z

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

TCE 005806800-01, PDC Light Curves

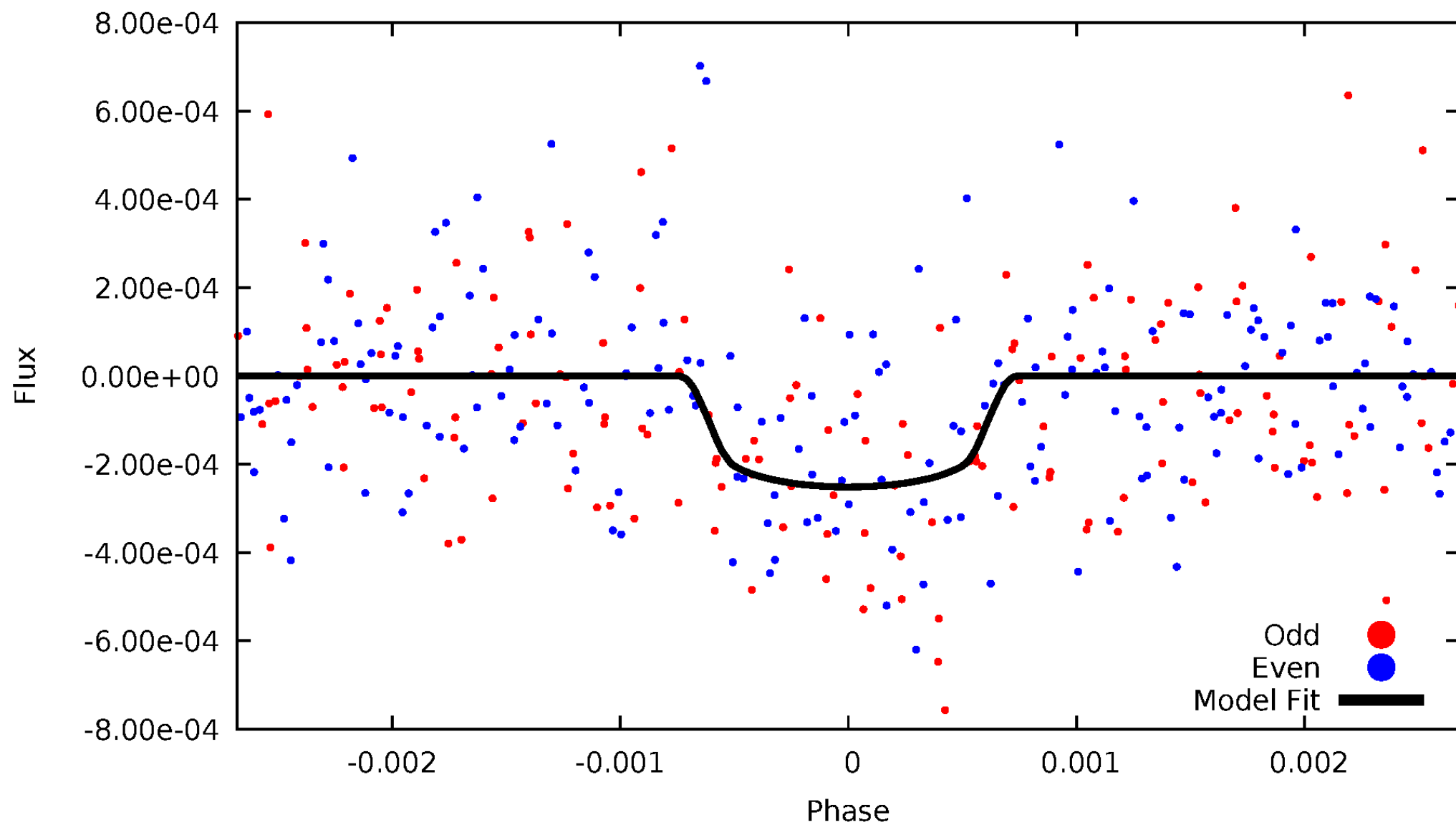


TCE 005806800-01



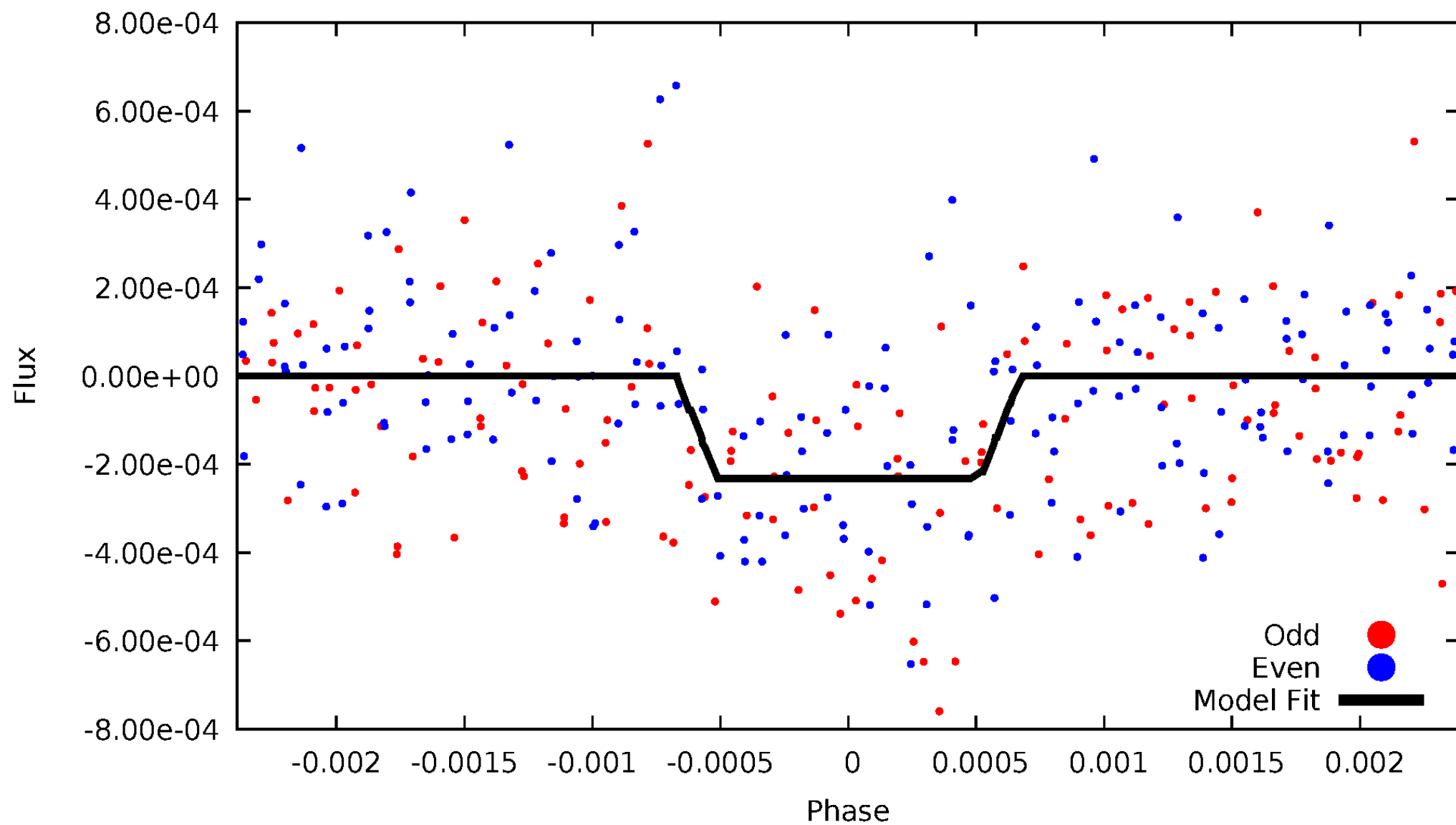
DV Odd/Even

TCE 005806800-01



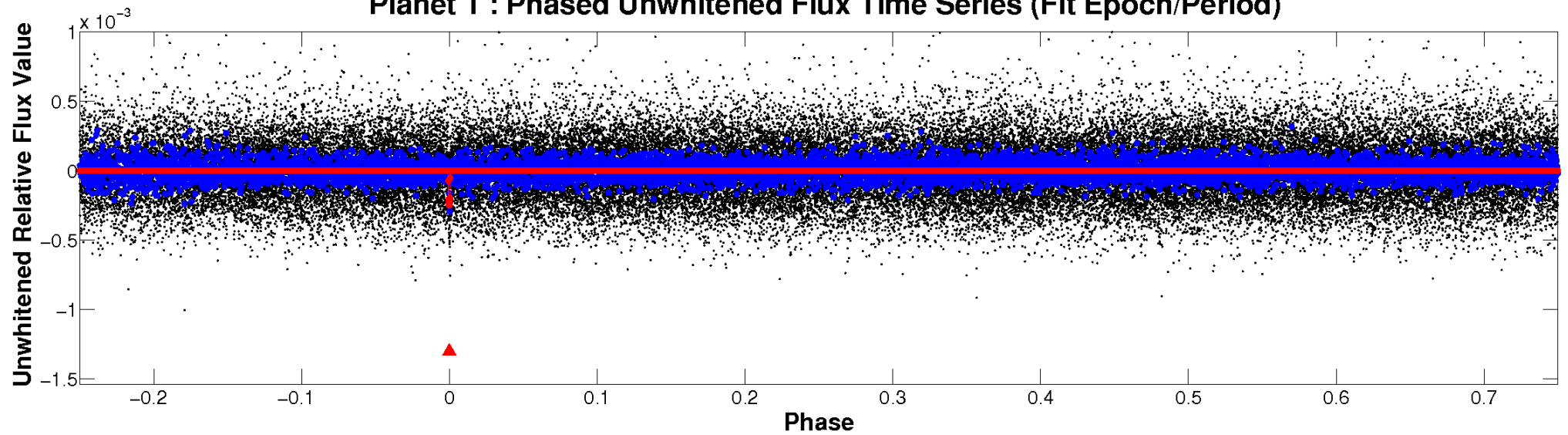
ALT Odd/Even

TCE 005806800-01

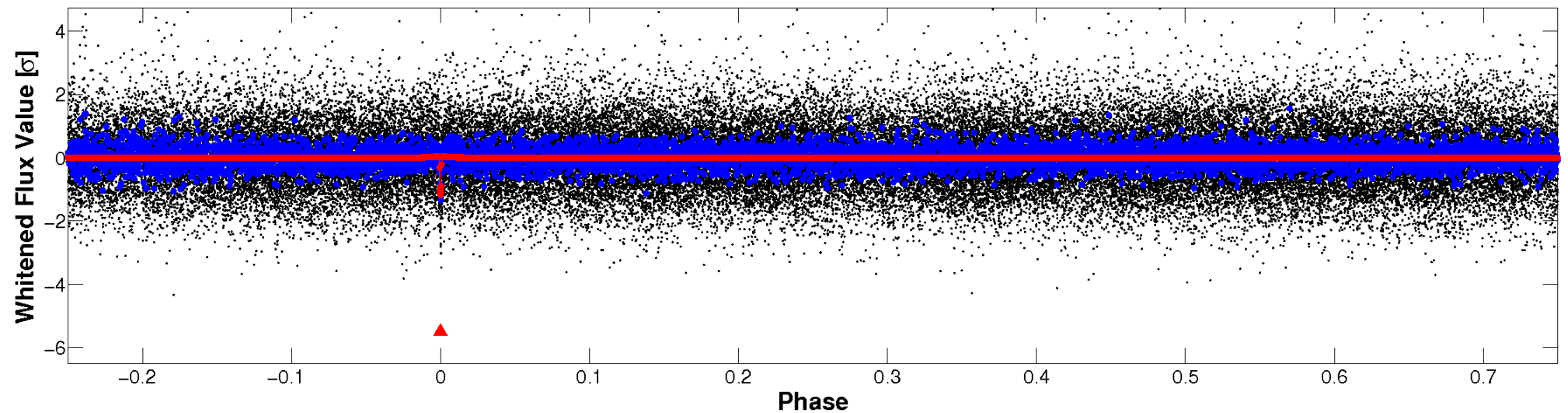


Non-Whitened Vs. Whitened Light Curve

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

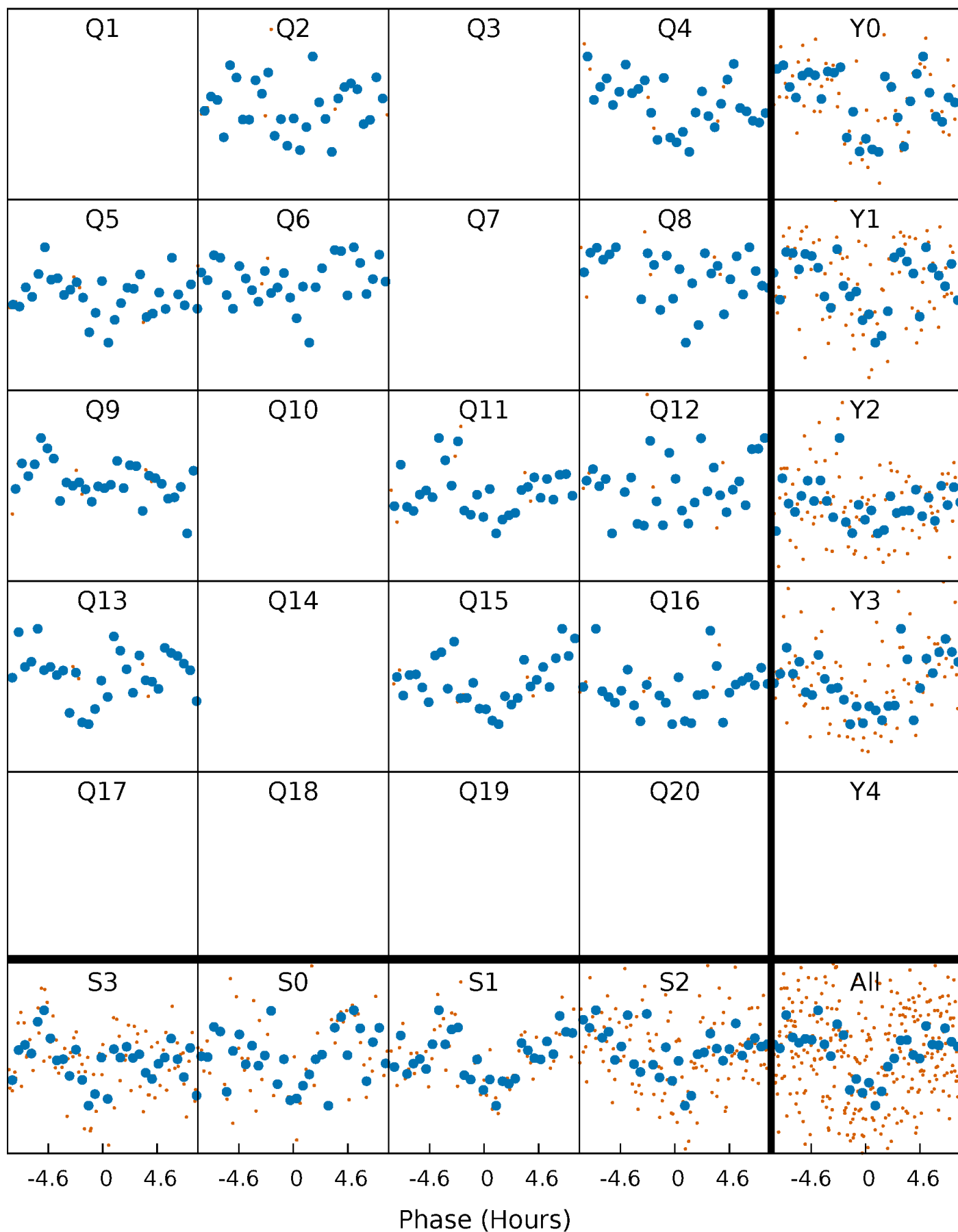


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 005806800-01 P=125.289129 Days $T_0=252.089209$ (BKJD)



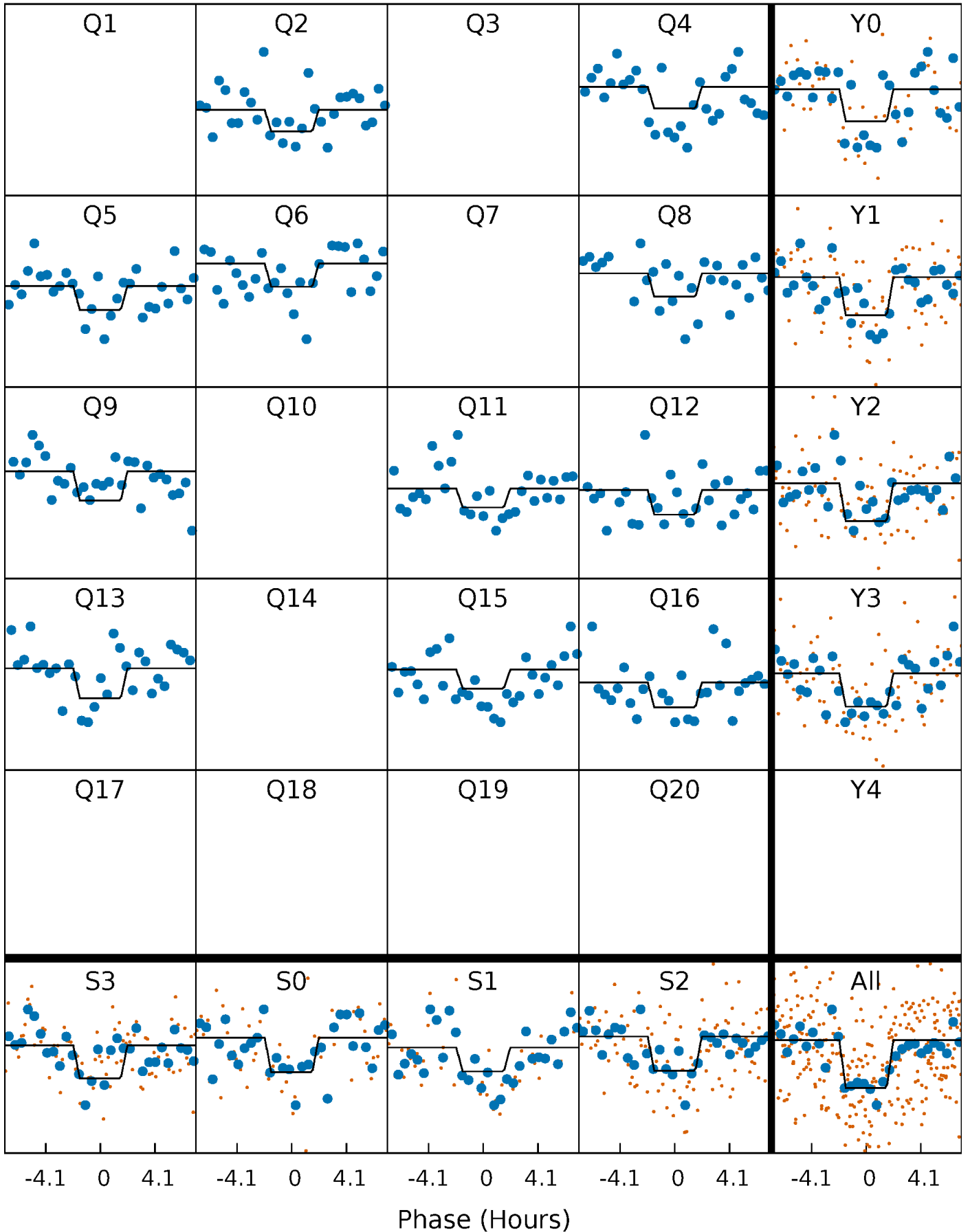
DV Quarter-Phased Transit Curves

TCE 005806800-01 P=125.289129 Days $T_0=252.089209$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

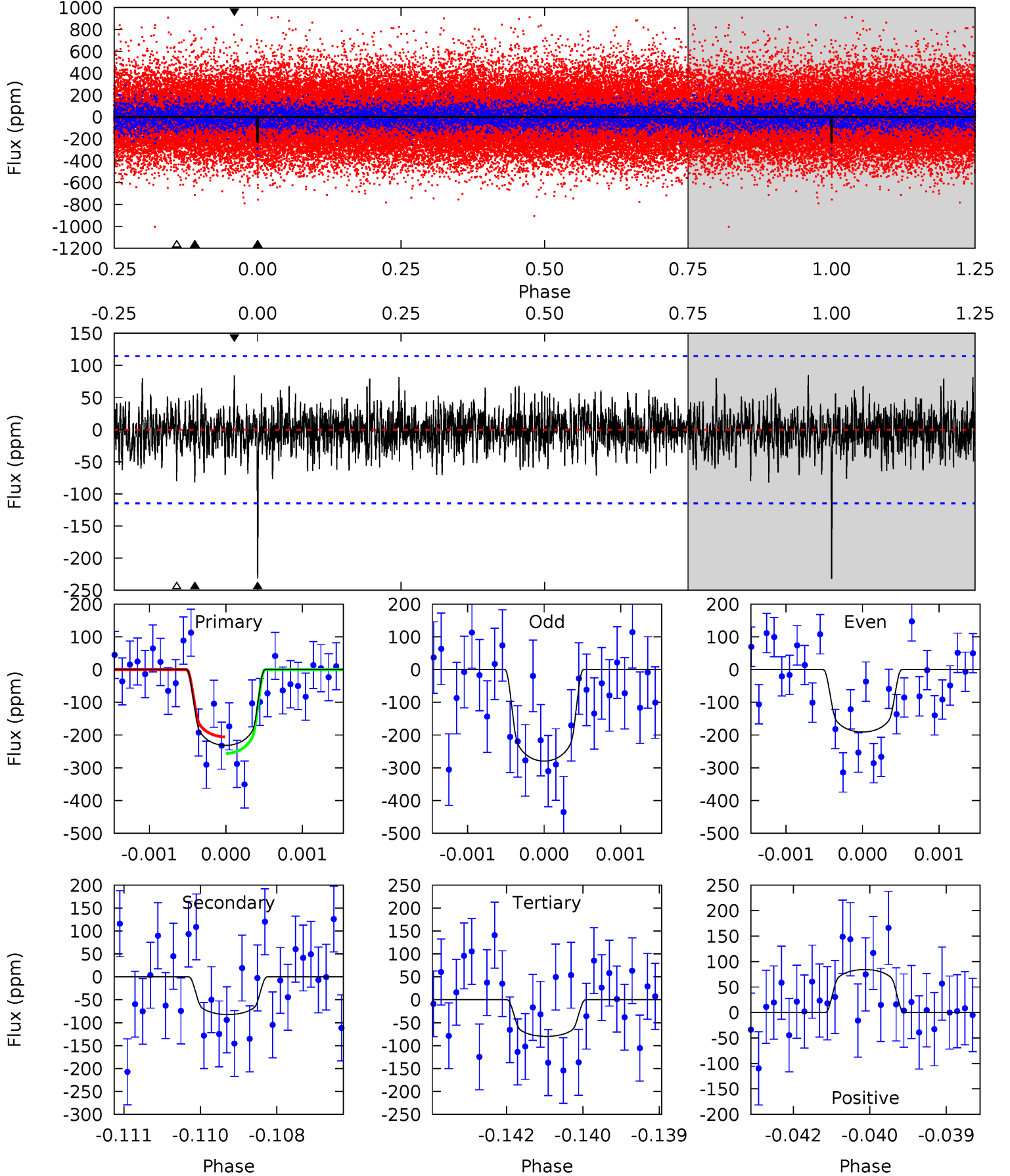
TCE 005806800-01 P=125.287265 Days $T_0=252.103342$ (BKJD)



DV Model-Shift Uniqueness Test

005806800-01, P = 125.289129 Days, E = 126.800080 Days

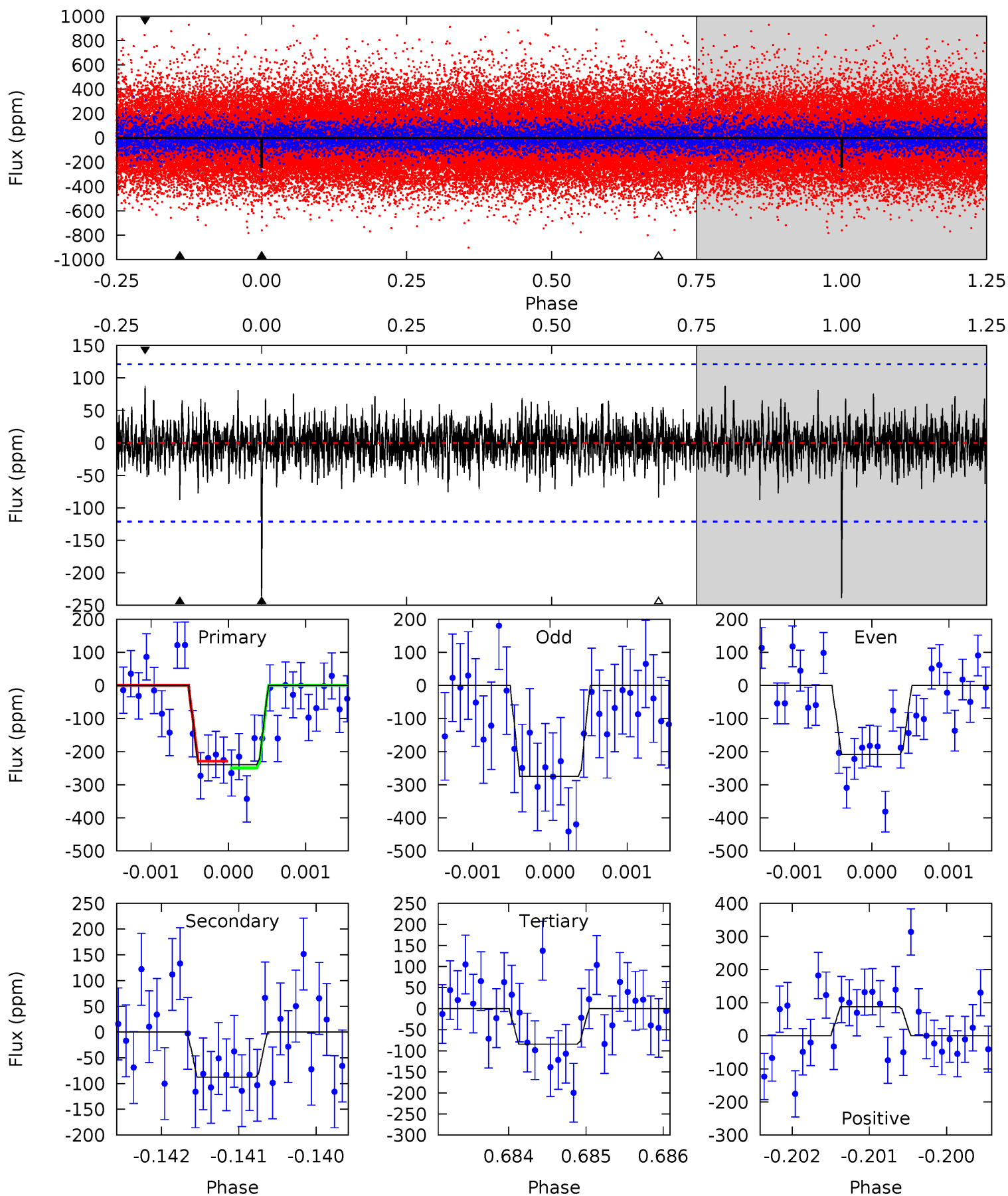
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	3.87	3.76	3.97	5.39	3.19	1.09	7.14	6.93	0.11	-0.10	2.08	1.17	0.27	1.18



Alt Model-Shift Uniqueness Test

005806800-01, P = 125.287265 Days, E = 126.816077 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	3.91	3.76	3.92	5.40	3.21	0.99	6.92	6.76	0.15	-0.01	1.47	1.08	0.27	0.45



Stellar Parameters For KIC 005806800

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5881^{+70}_{-88}	$4.480^{+0.030}_{-0.128}$	$0.060^{+0.150}_{-0.150}$	$0.973^{+0.153}_{-0.055}$	$1.044^{+0.059}_{-0.074}$	$1.594^{+0.188}_{-0.575}$
	+1%/-1%	+1%/-3%	+250%/-250%	+16%/-6%	+6%/-7%	+12%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005806800-01 / KOI 7741.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-82 ± 21	$1.95^{+1.02}_{-1.00}$	512^{+19}_{-13}	4417^{+1587}_{-694}	2932^{+9633}_{-1778}
Alt.	-88 ± 22	$1.82^{+0.97}_{-0.99}$	512^{+21}_{-14}	4549^{+2109}_{-732}	3445^{+13694}_{-2114}

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 $A_{obs} \gg 1.0$

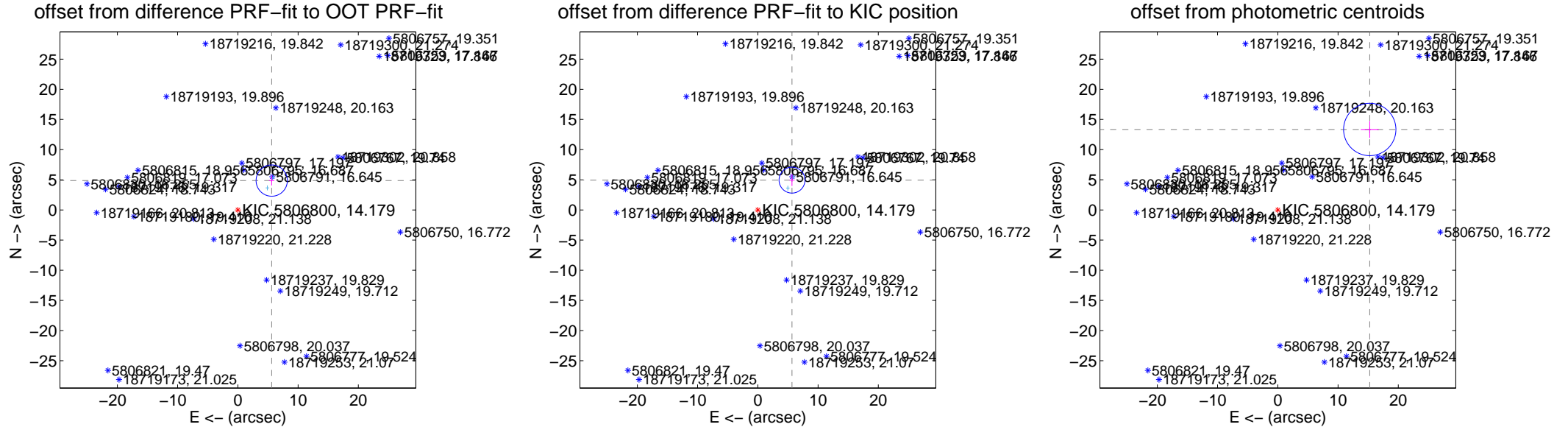
DV Centroid Data

Supplemental centroid analysis for 005806800-01. Kepler magnitude: 14.18. Transit SNR 9.16

There are 2 quarters with good PRF difference image offsets

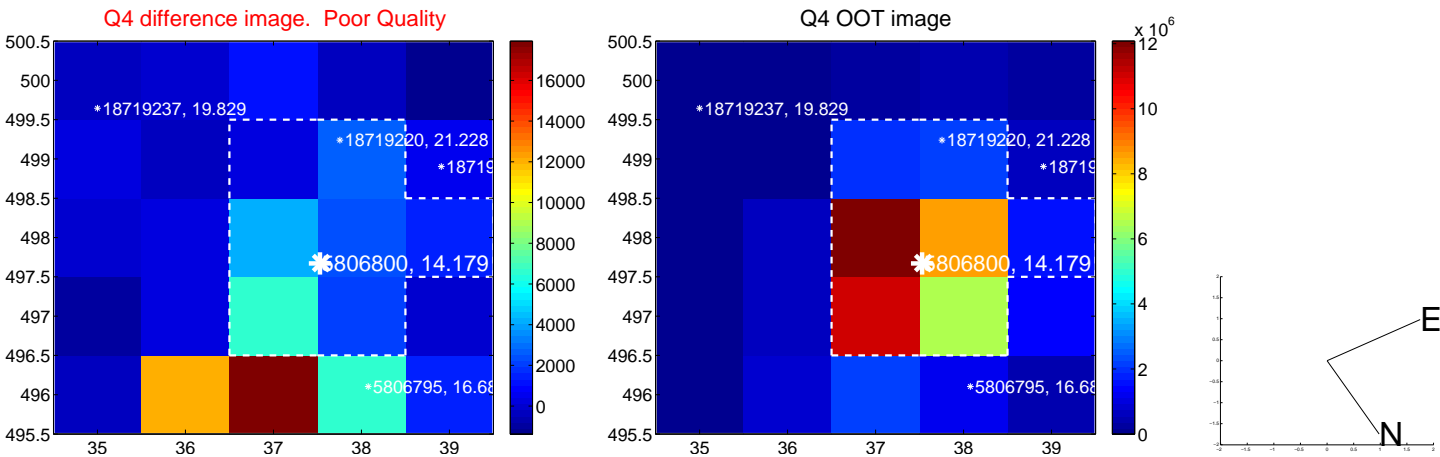
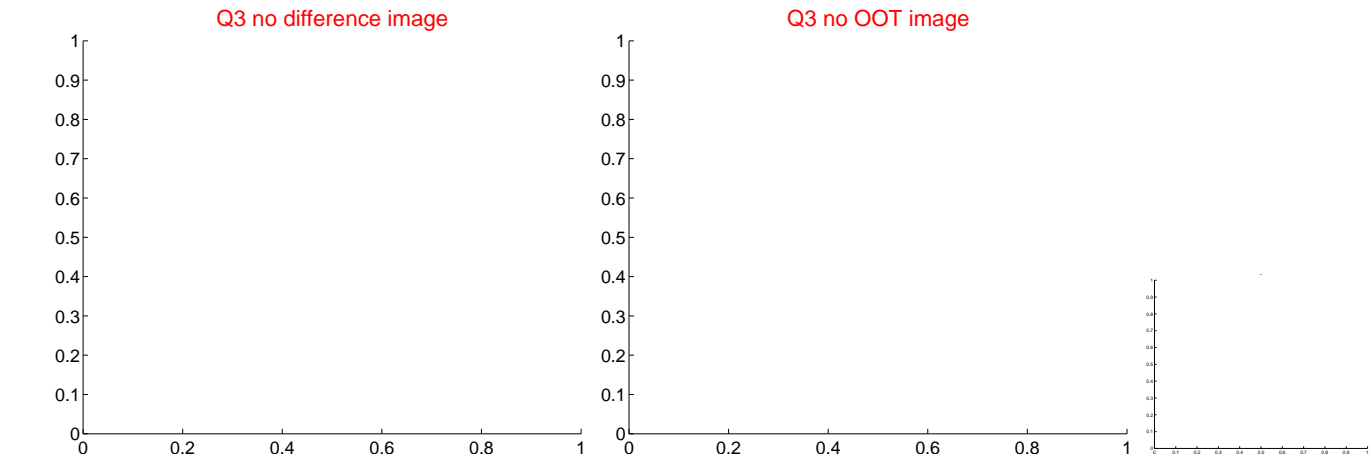
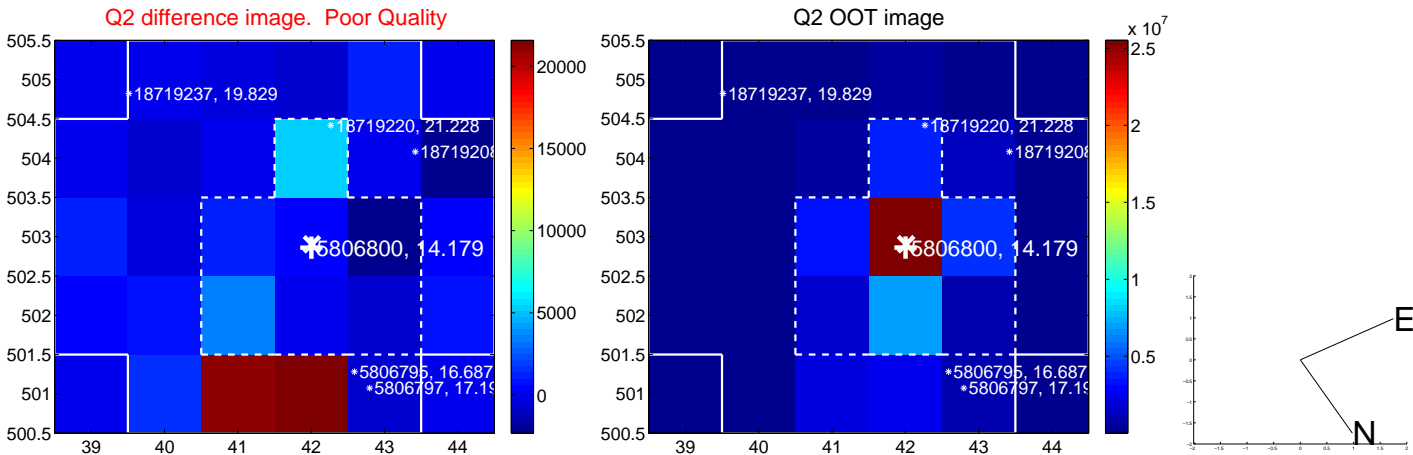
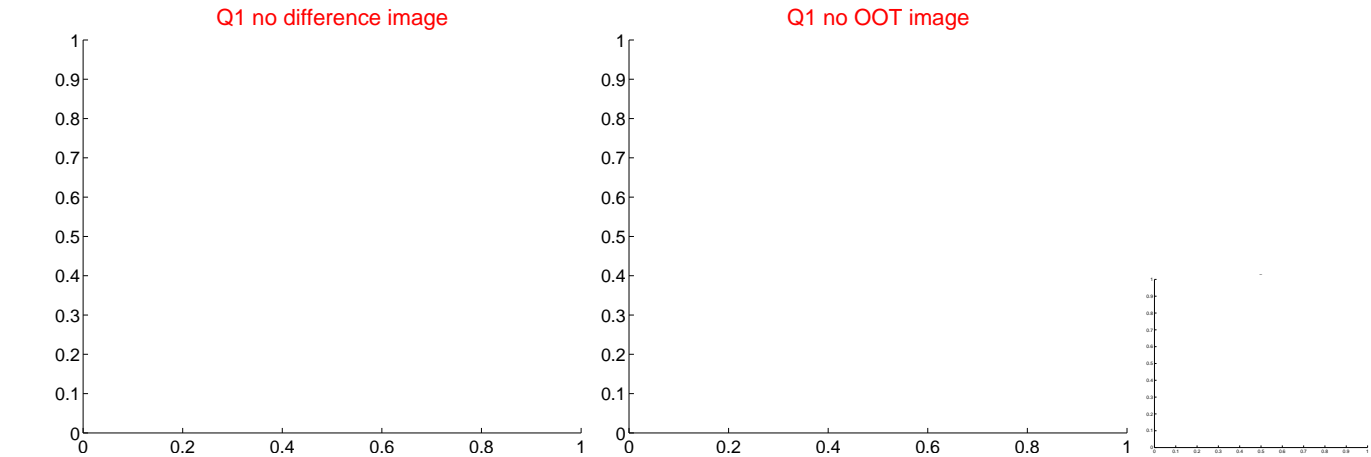
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.435 \pm 0.865	8.60	-5.619 \pm 0.443	4.869 \pm 0.814
PRF-fit source offset from KIC position	7.526 \pm 0.717	10.49	-5.673 \pm 0.430	4.946 \pm 0.974
photometric centroid source offset	20.27 \pm 1.45	14.00	-15.26 \pm 1.49	13.34 \pm 1.39

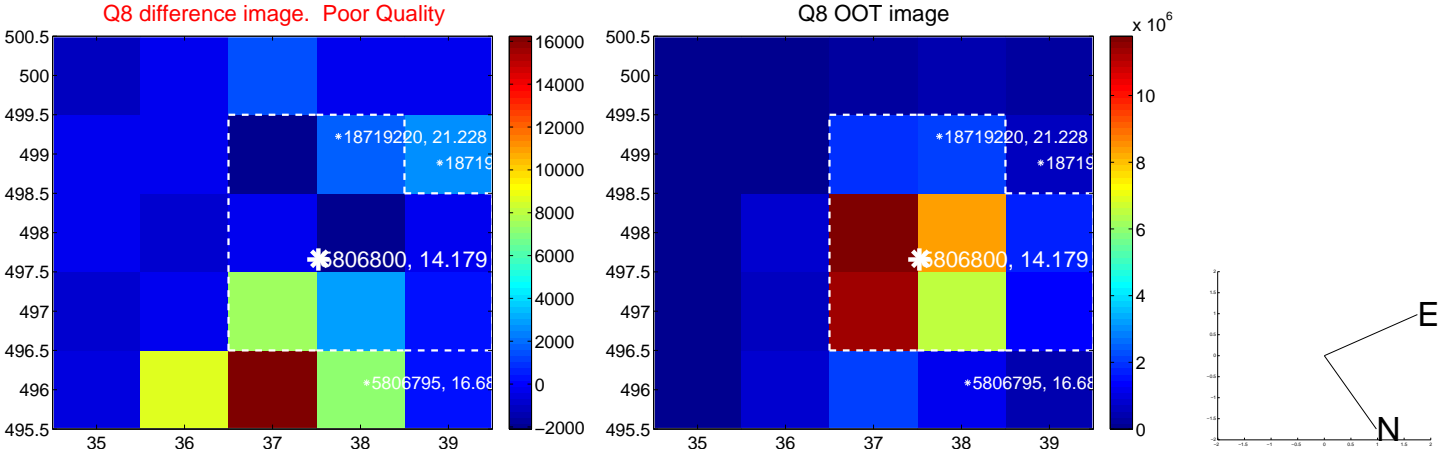
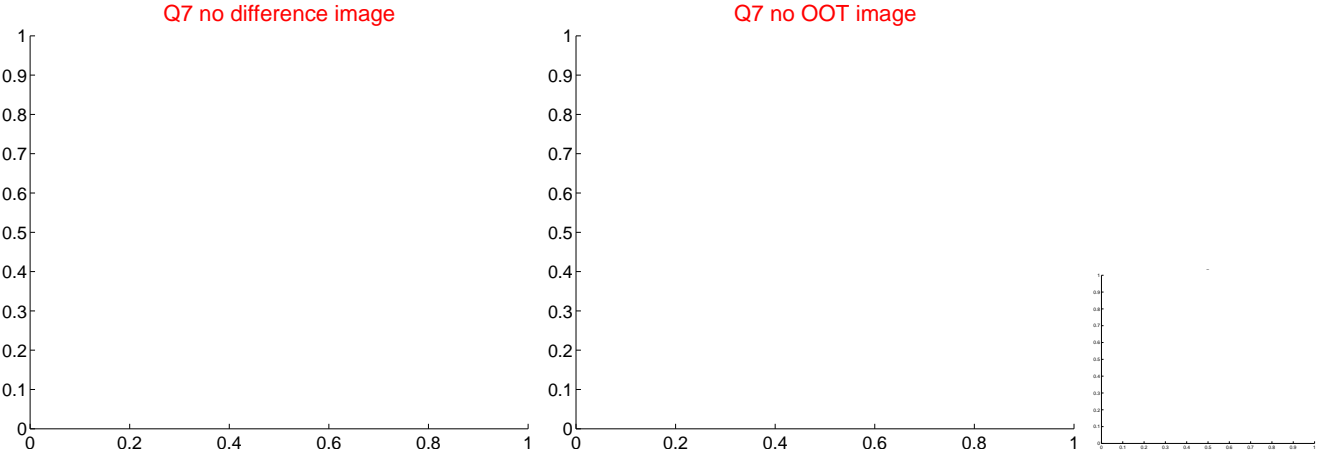
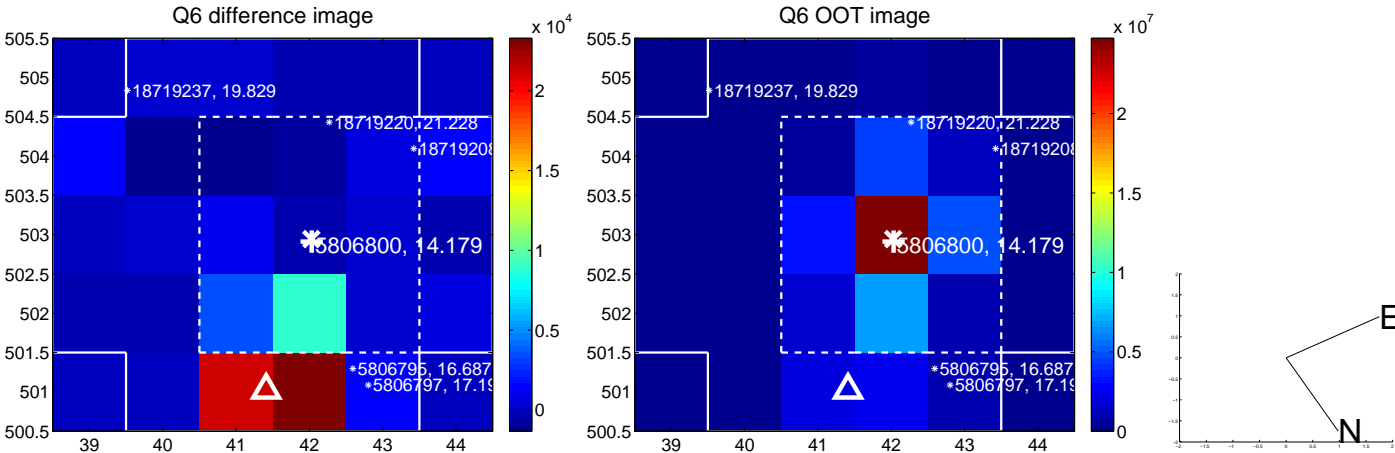
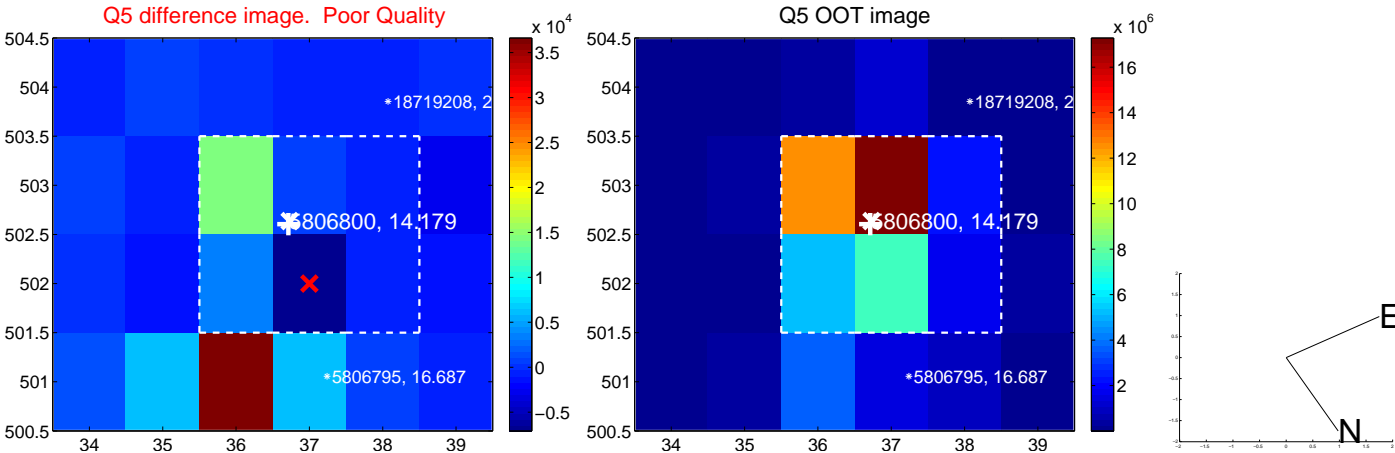


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

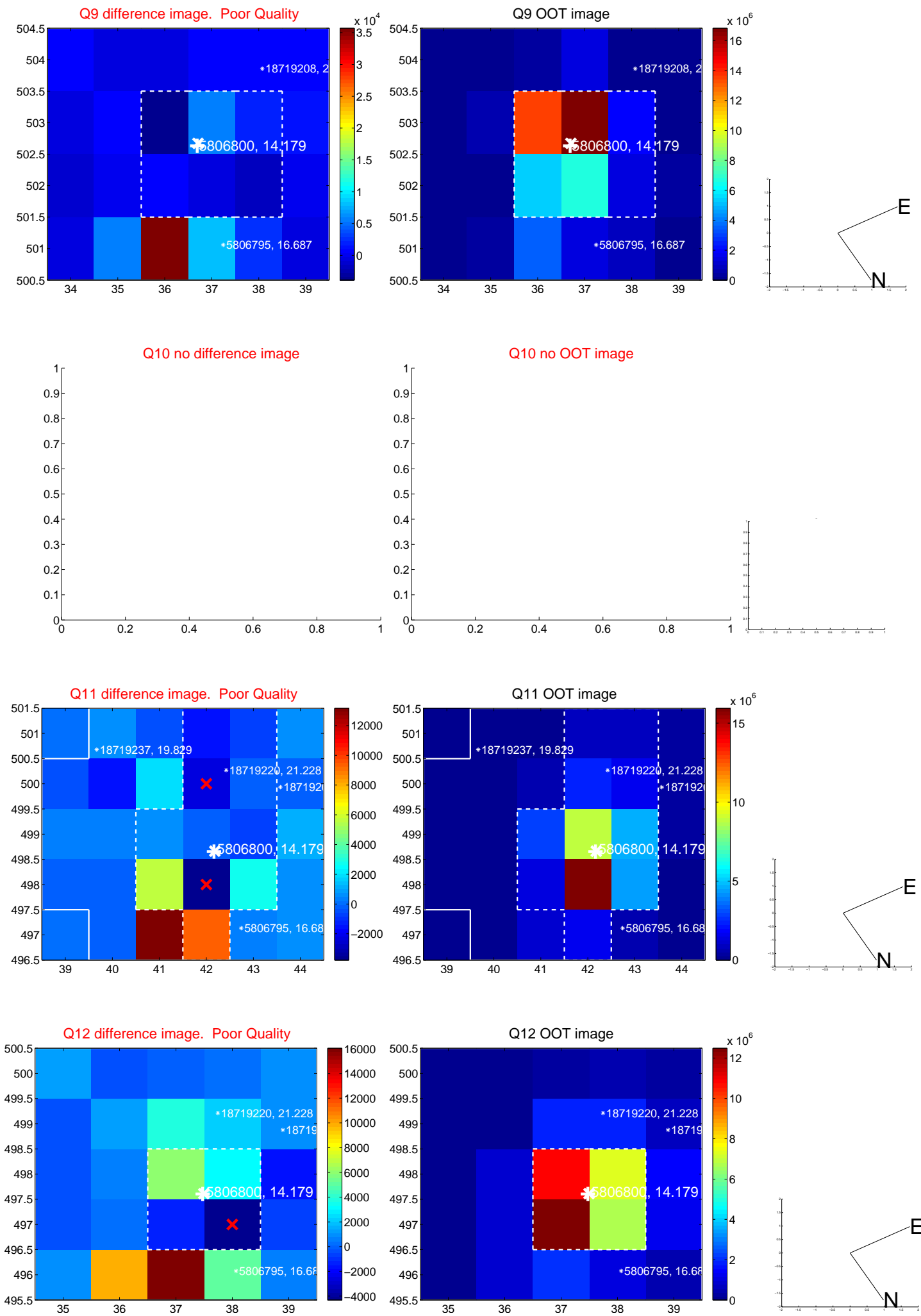
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



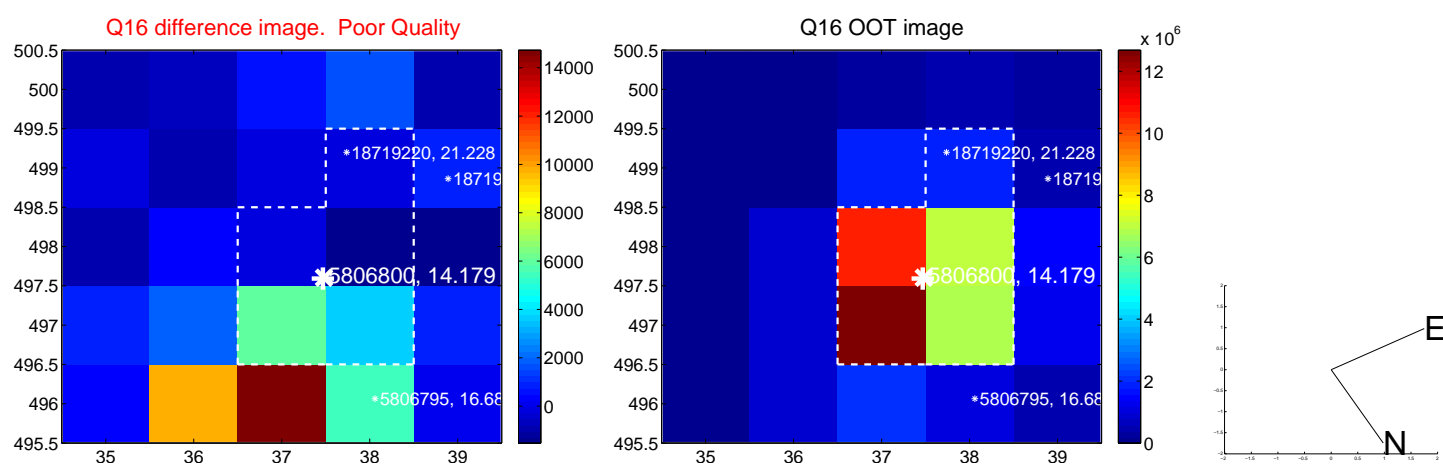
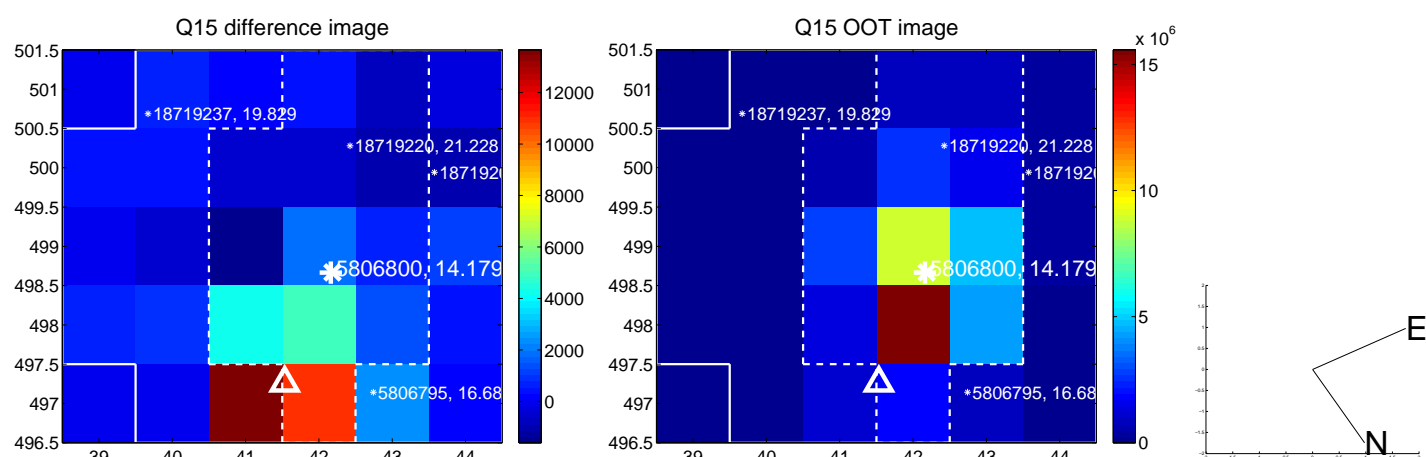
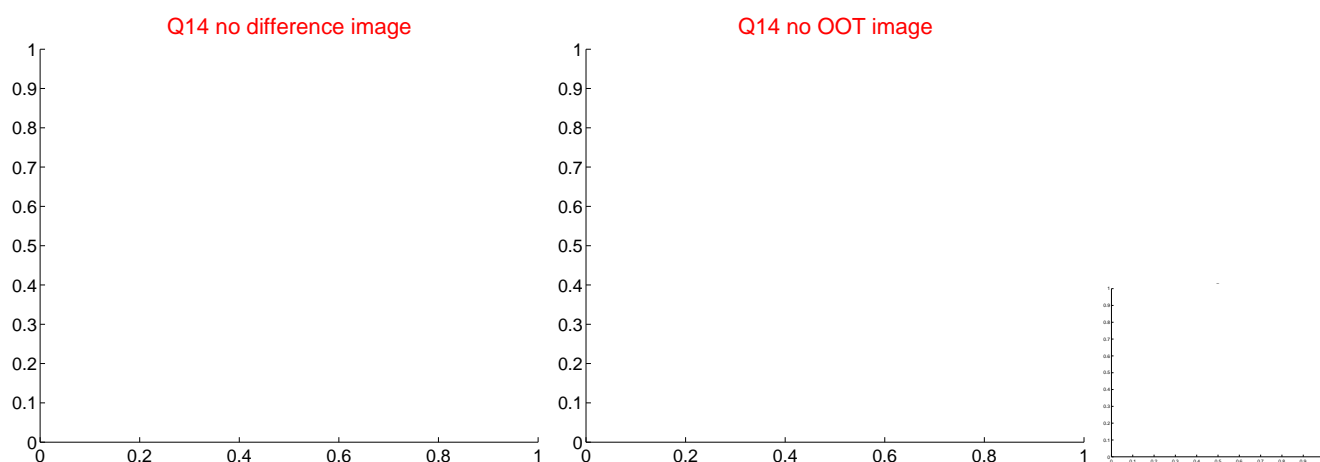
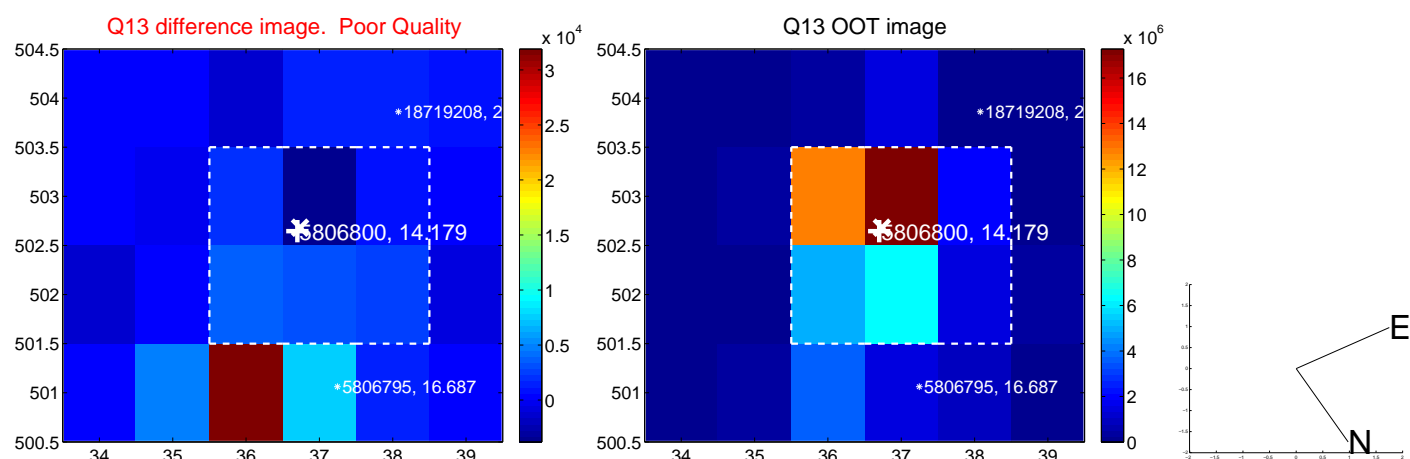
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



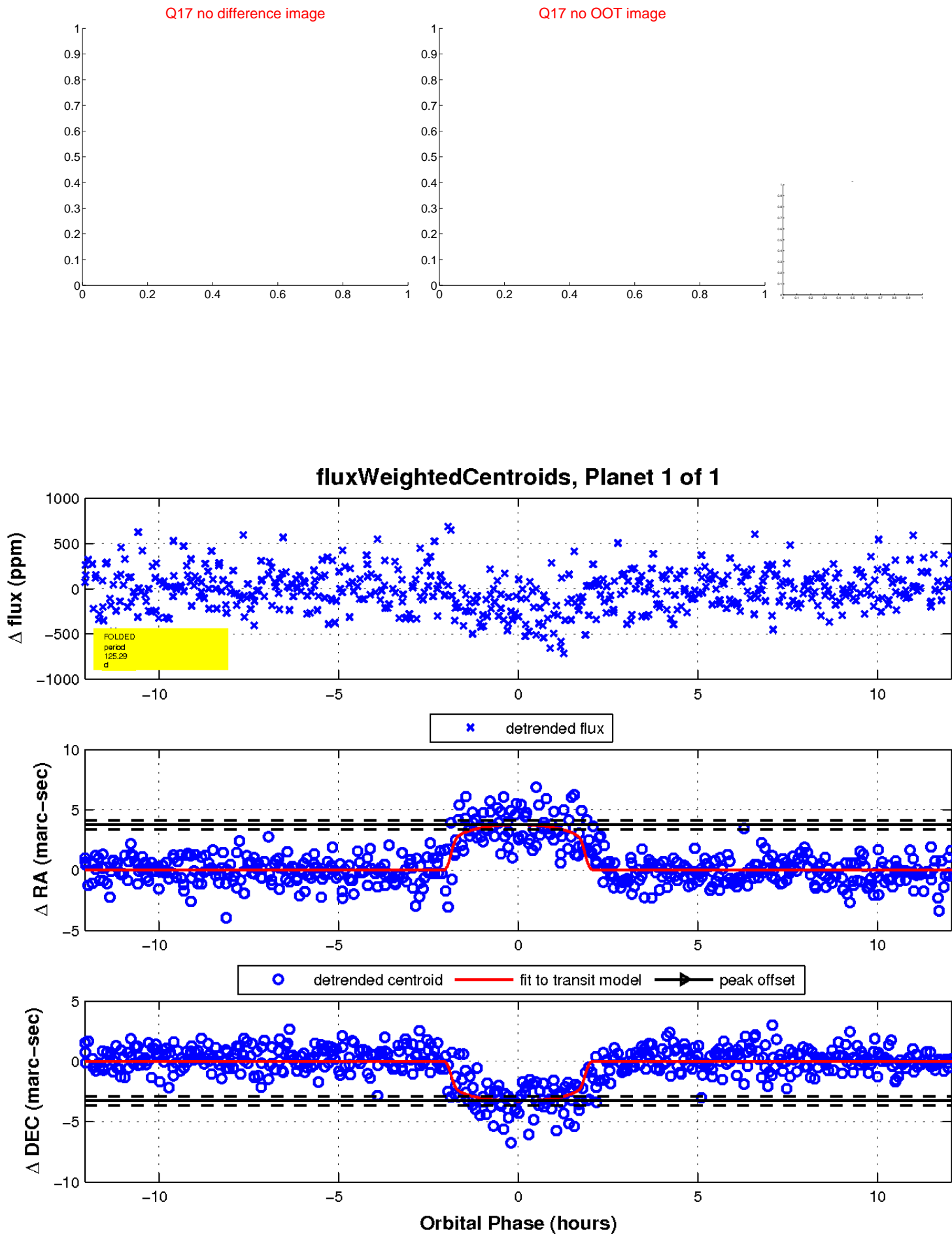
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UKIRT Image

Declination

