

KIC 007988962

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})
007988962-01	OBS	No	0.604444	131.680797	21.7	3.661	7.6	3.0	1.02	6126	0.49	6335.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007988962-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

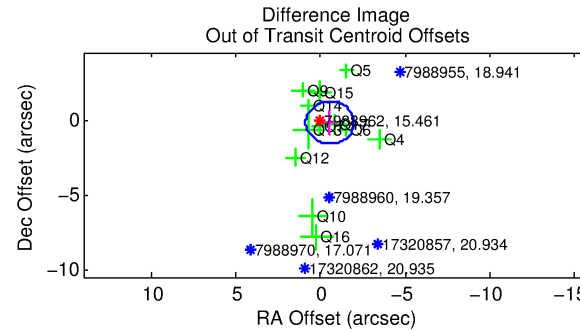
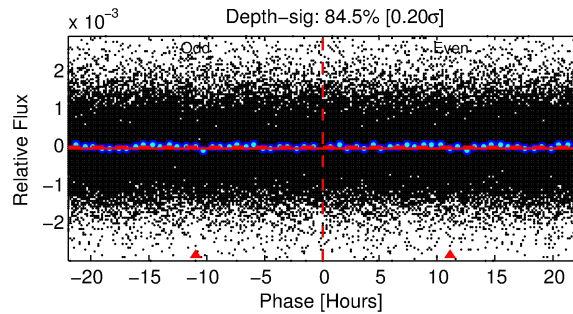
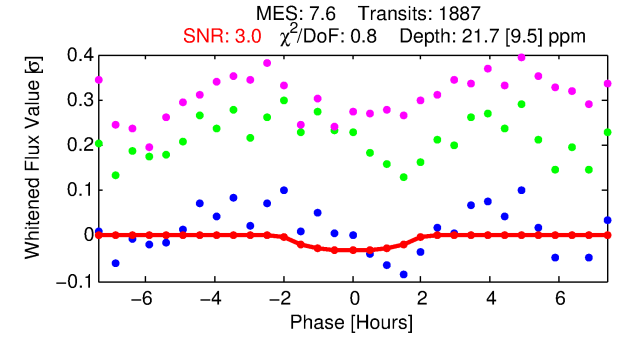
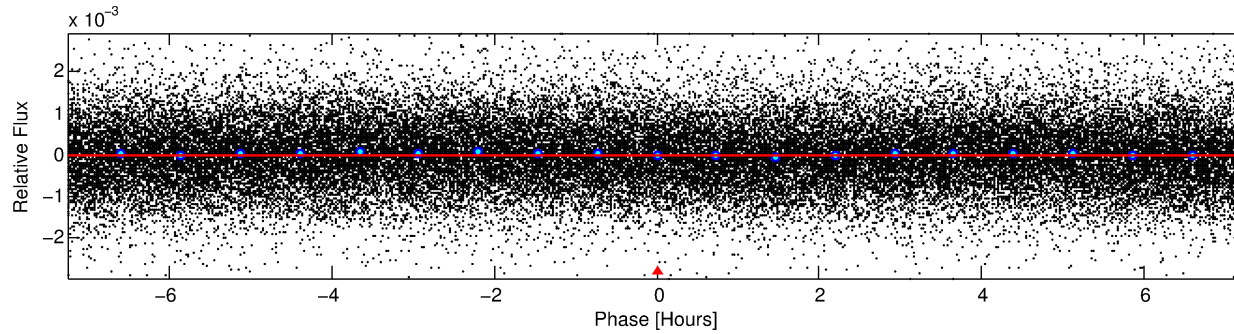
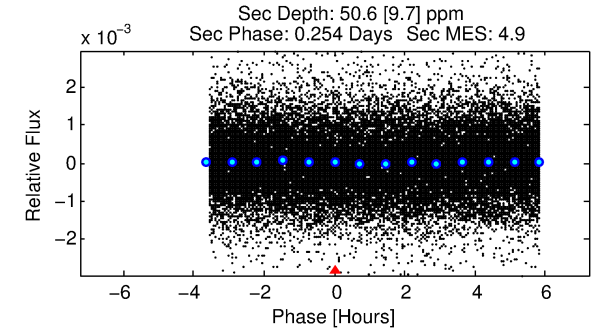
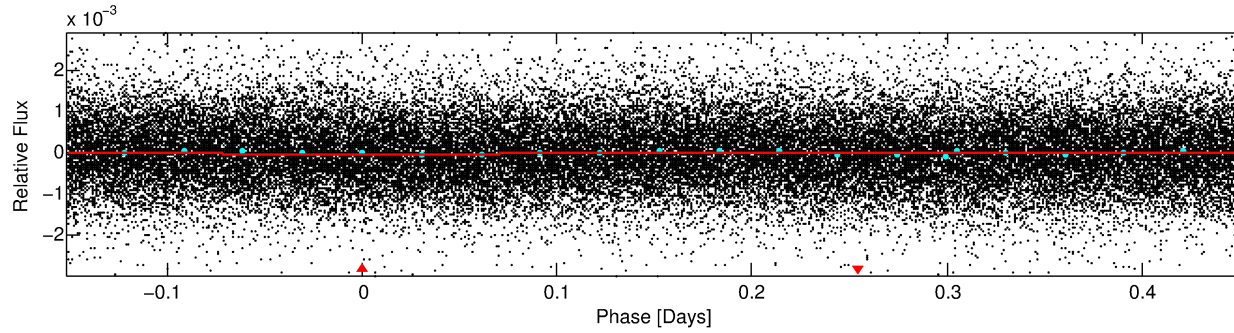
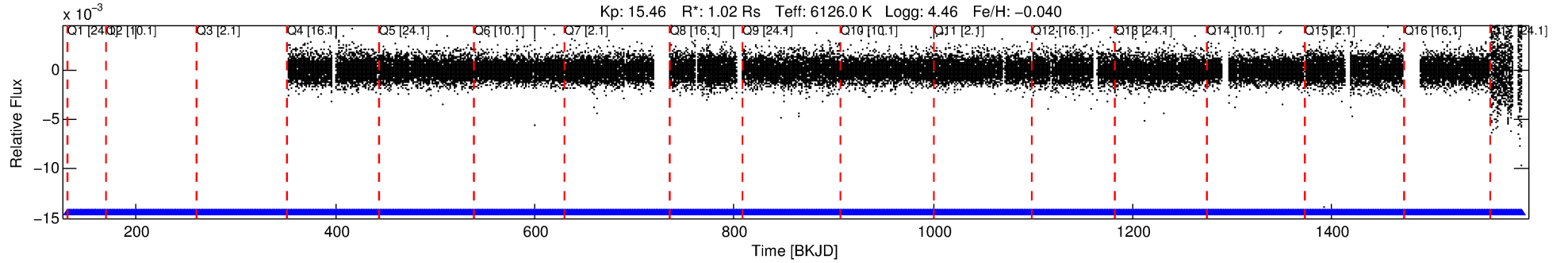
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007988962-01

No Significant Match Found

DV One-Page Summary

KIC: 7988962 Candidate: 1 of 1 Period: 0.604 d



DV Fit Results:

Period = 0.60444 [0.00003] d
Epoch = 131.6808 [0.0145] BKJD
Rp/R* = 0.0044 [0.0110]
a/R* = 1.33 [6.97]
b = 0.48 [19.53]
Seff = 6335.95 [2709.36]
Teq = 2275 [243] K
Rp = 0.49 [1.23] Re
a = 0.0144 [0.0039] AU
Ag = 24.26 [122.04] [0.19σ]
Teffp = 7806 [9792] K [0.56σ]

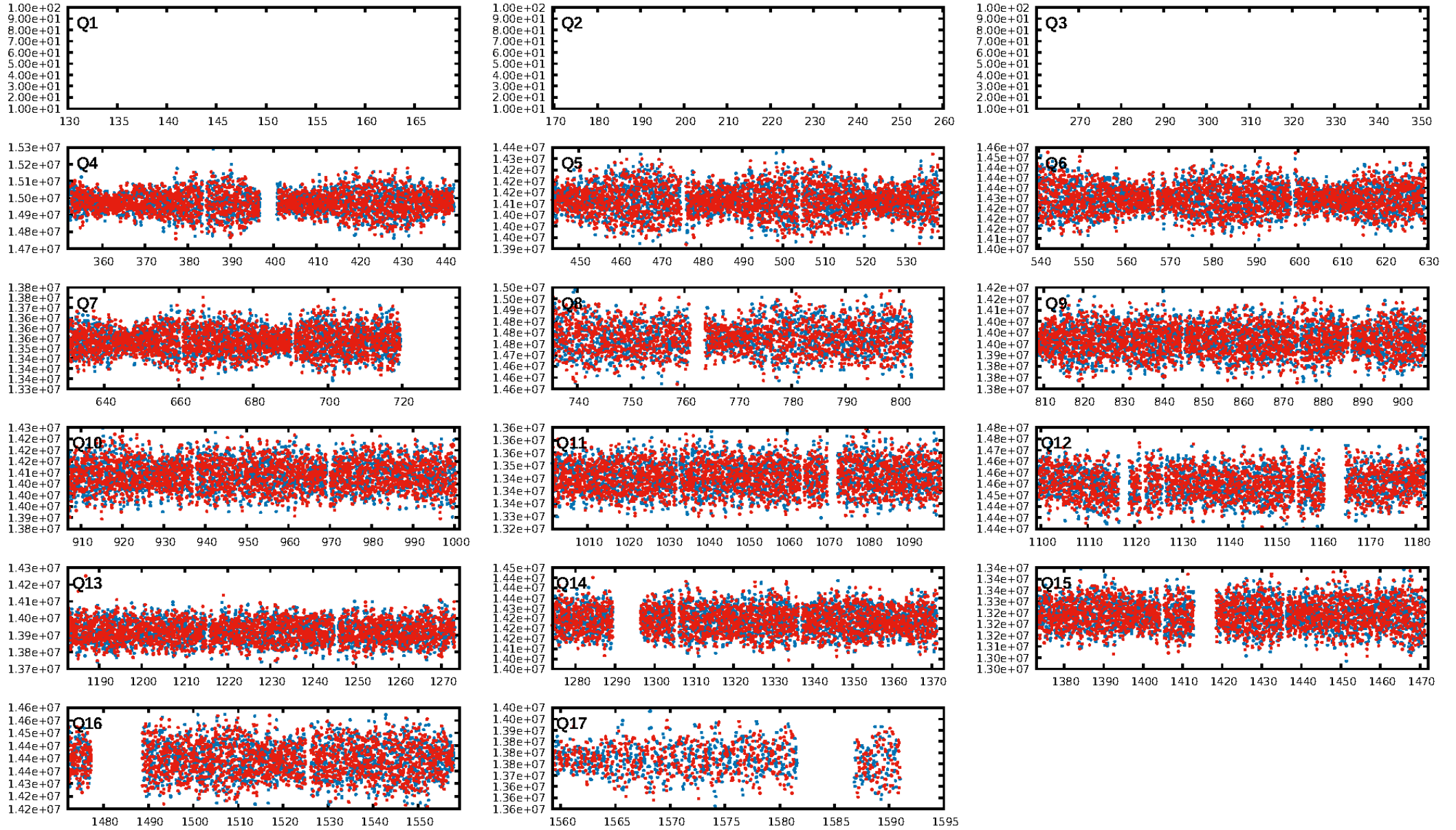
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.16e-11
RollingBand-fgt: 1.00 [1843/1843]
GhostDiagnostic-chr: 0.2875
Centroid-sig: 17.3%
Centroid-so: 3.443 arcsec [1.01σ]
OotOffset-rm: 0.563 arcsec [1.19σ]
OotOffset-st: 3/2/3/4 [12]
KicOffset-rm: 0.303 arcsec [0.61σ]
KicOffset-st: 3/2/3/4 [12]
DiffImageQuality-fgm: 0.33 [4/12]
DiffImageOverlap-fno: 1.00 [14/14]

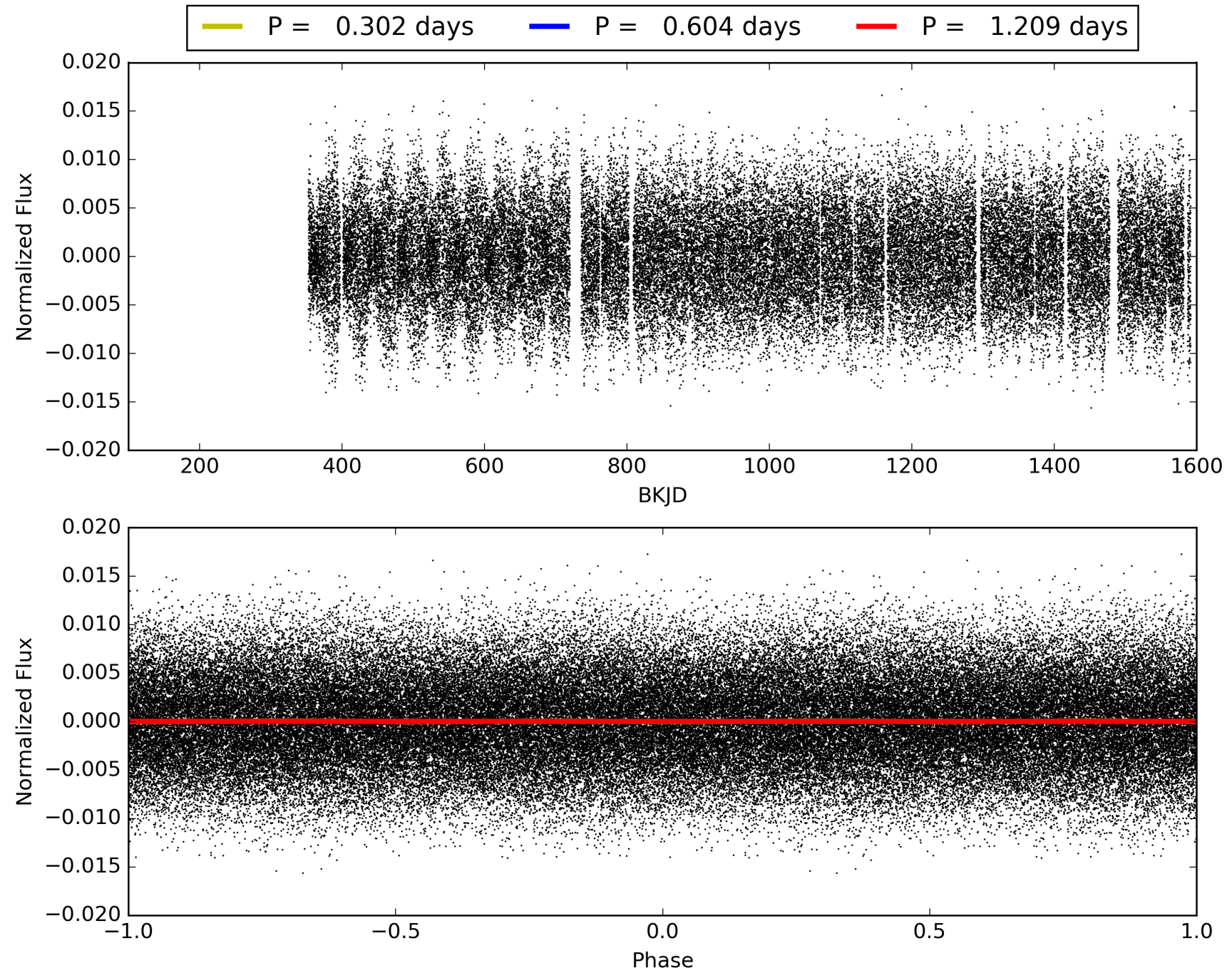
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:32:45 Z

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

TCE 007988962-01, PDC Light Curves

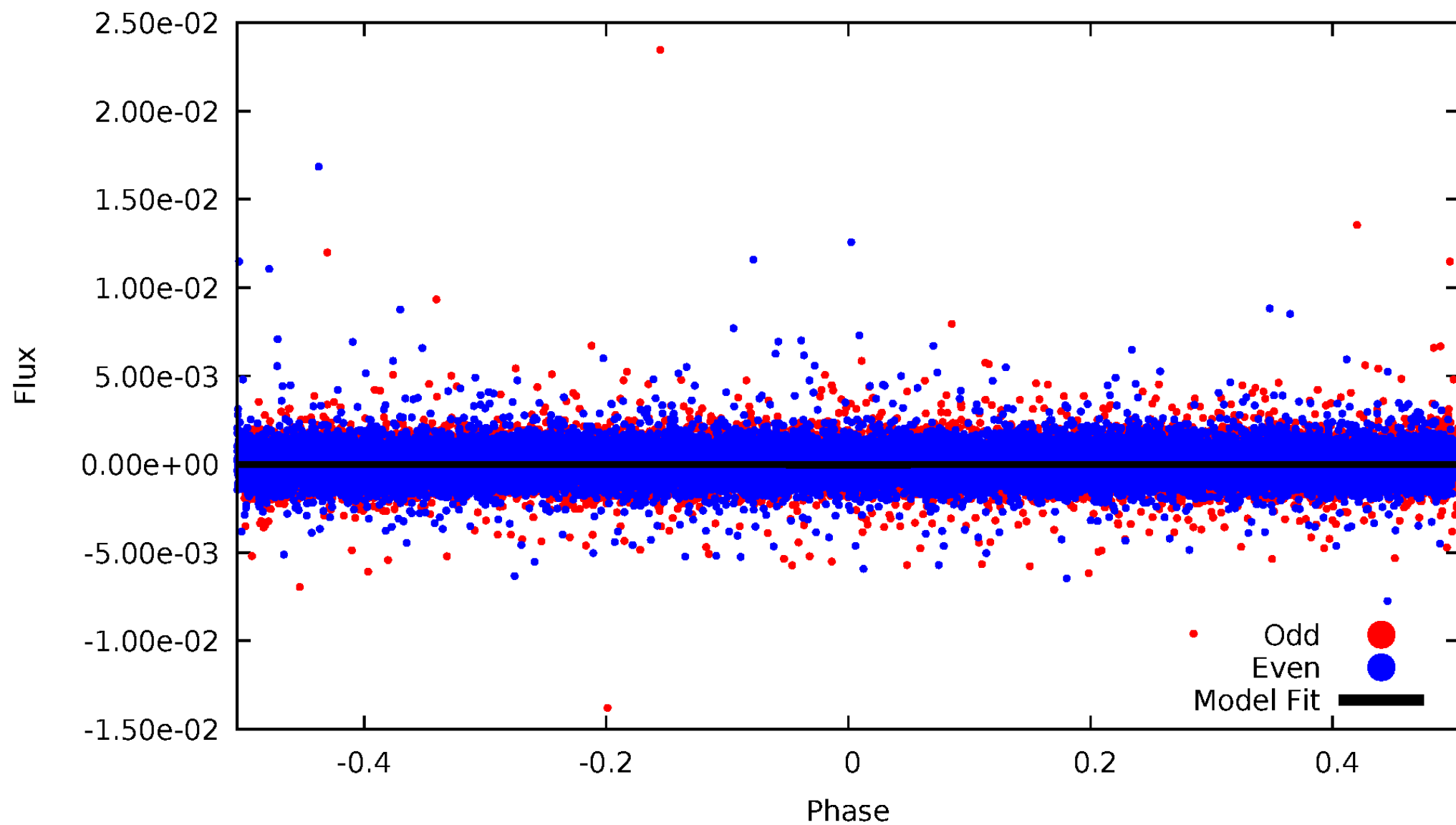


TCE 007988962-01



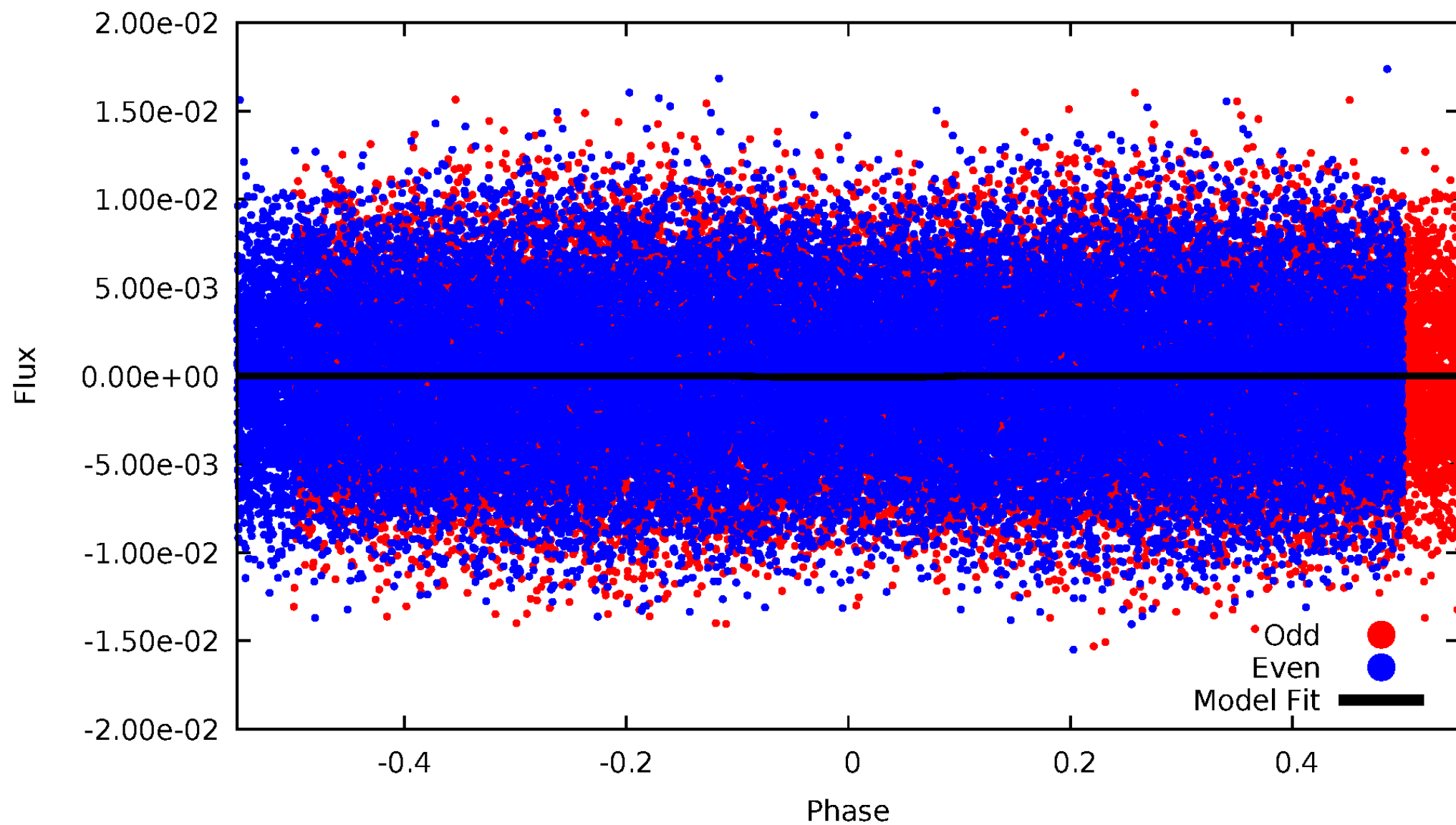
DV Odd/Even

TCE 007988962-01

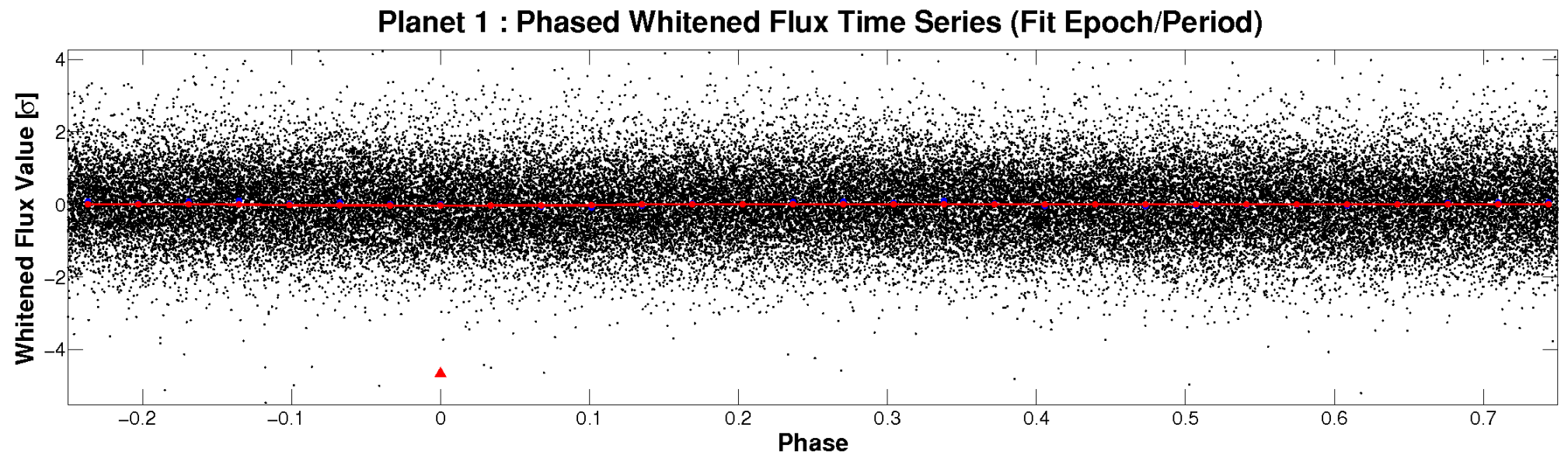
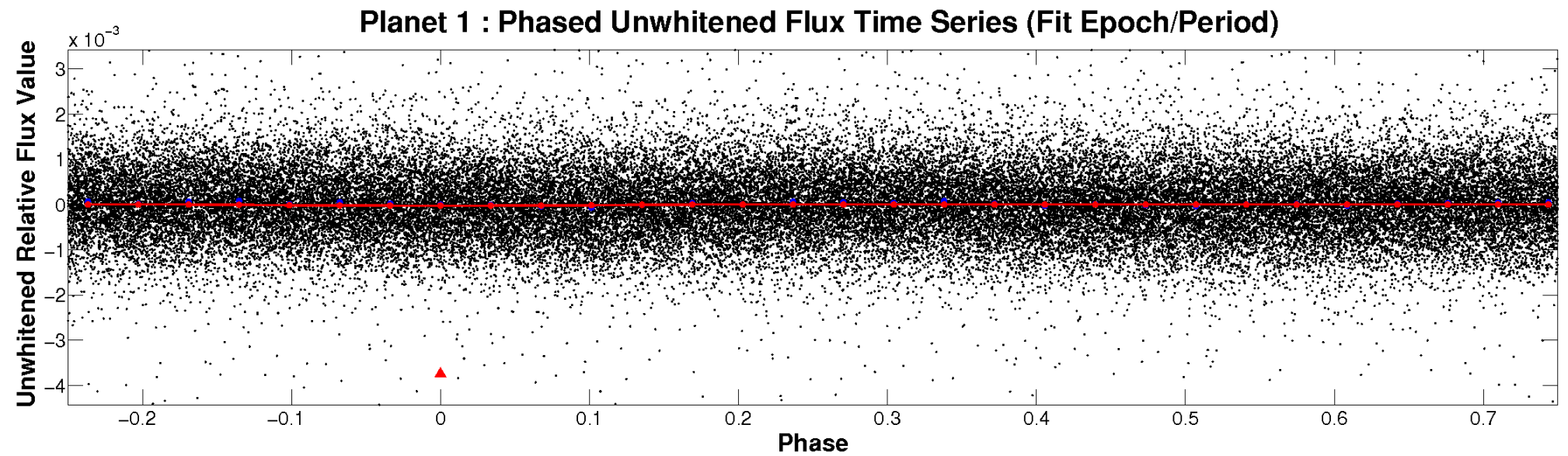


ALT Odd/Even

TCE 007988962-01

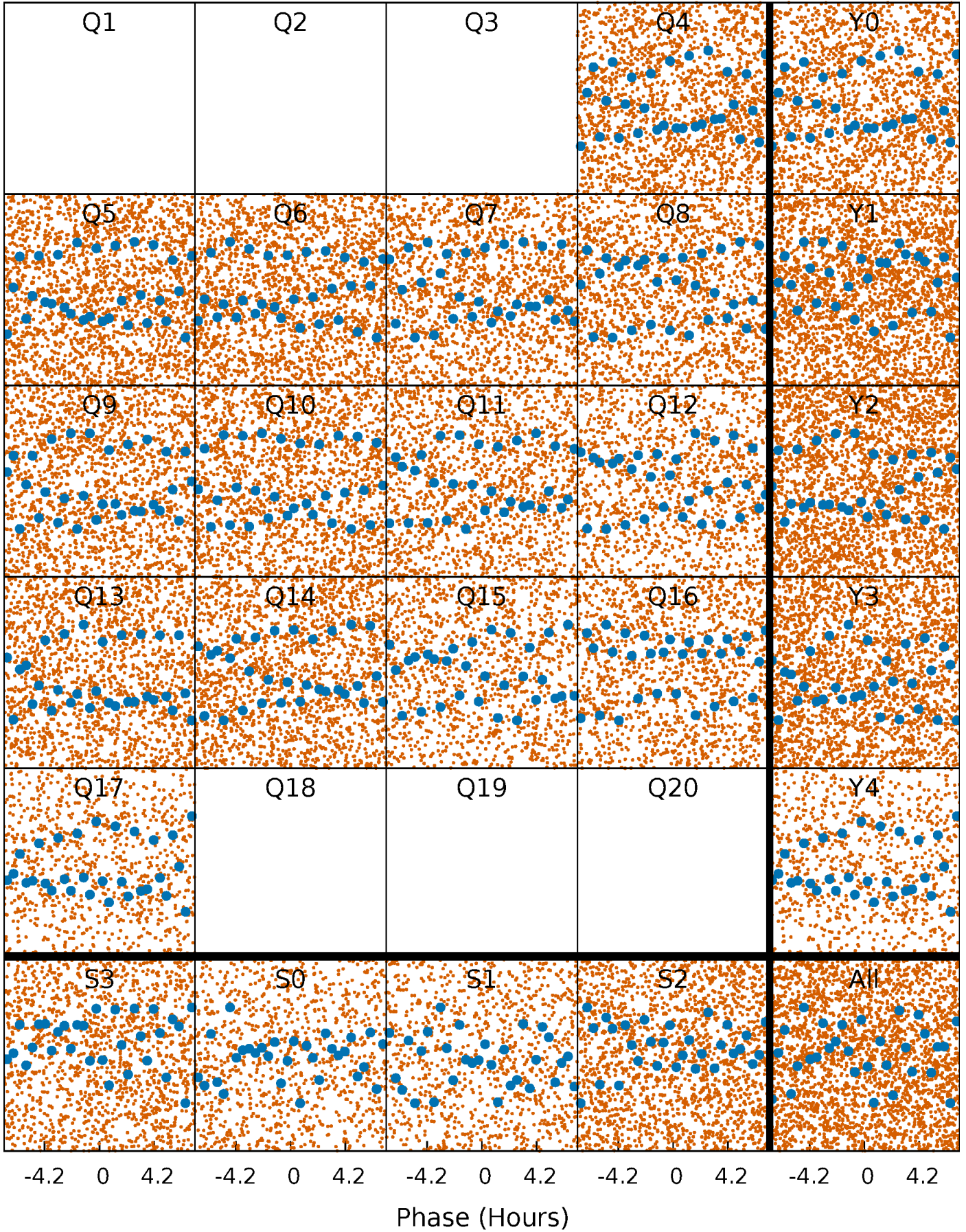


Non-Whitened Vs. Whitened Light Curve



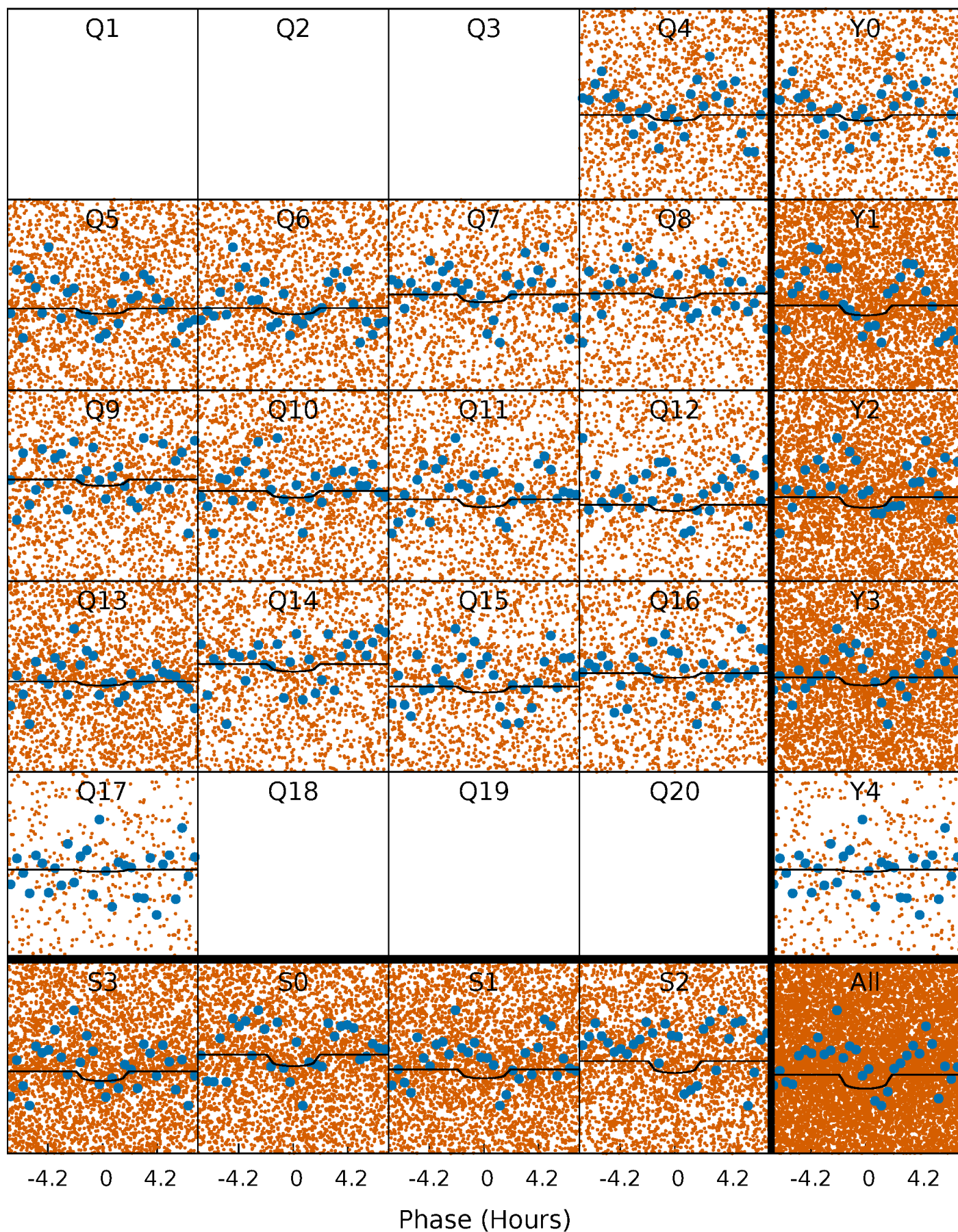
PDC Quarter-Phased Transit Curves

TCE 007988962-01 P= 0.604444 Days $T_0=131.680797$ (BKJD)



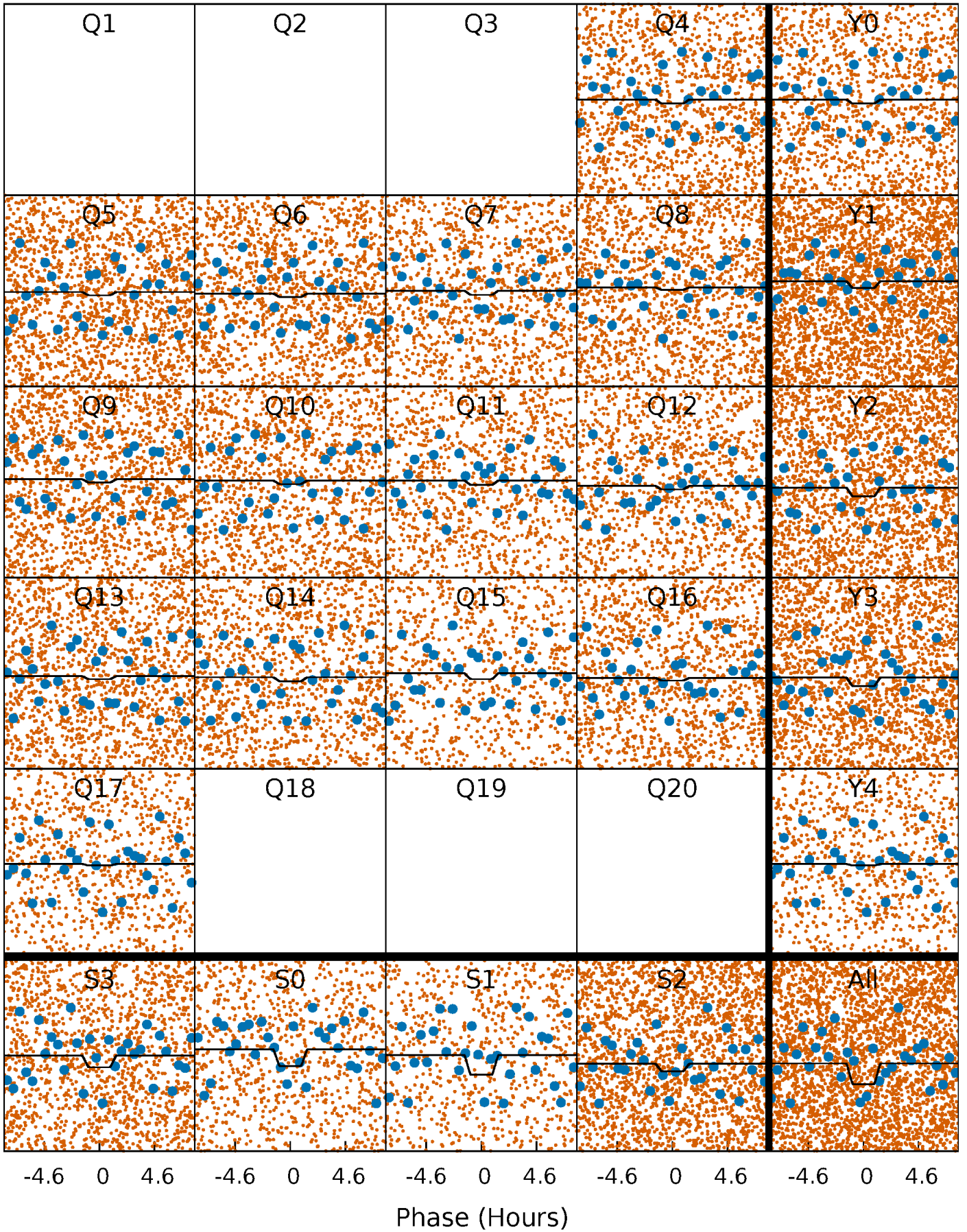
DV Quarter-Phased Transit Curves

TCE 007988962-01 P= 0.604444 Days $T_0=131.680797$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

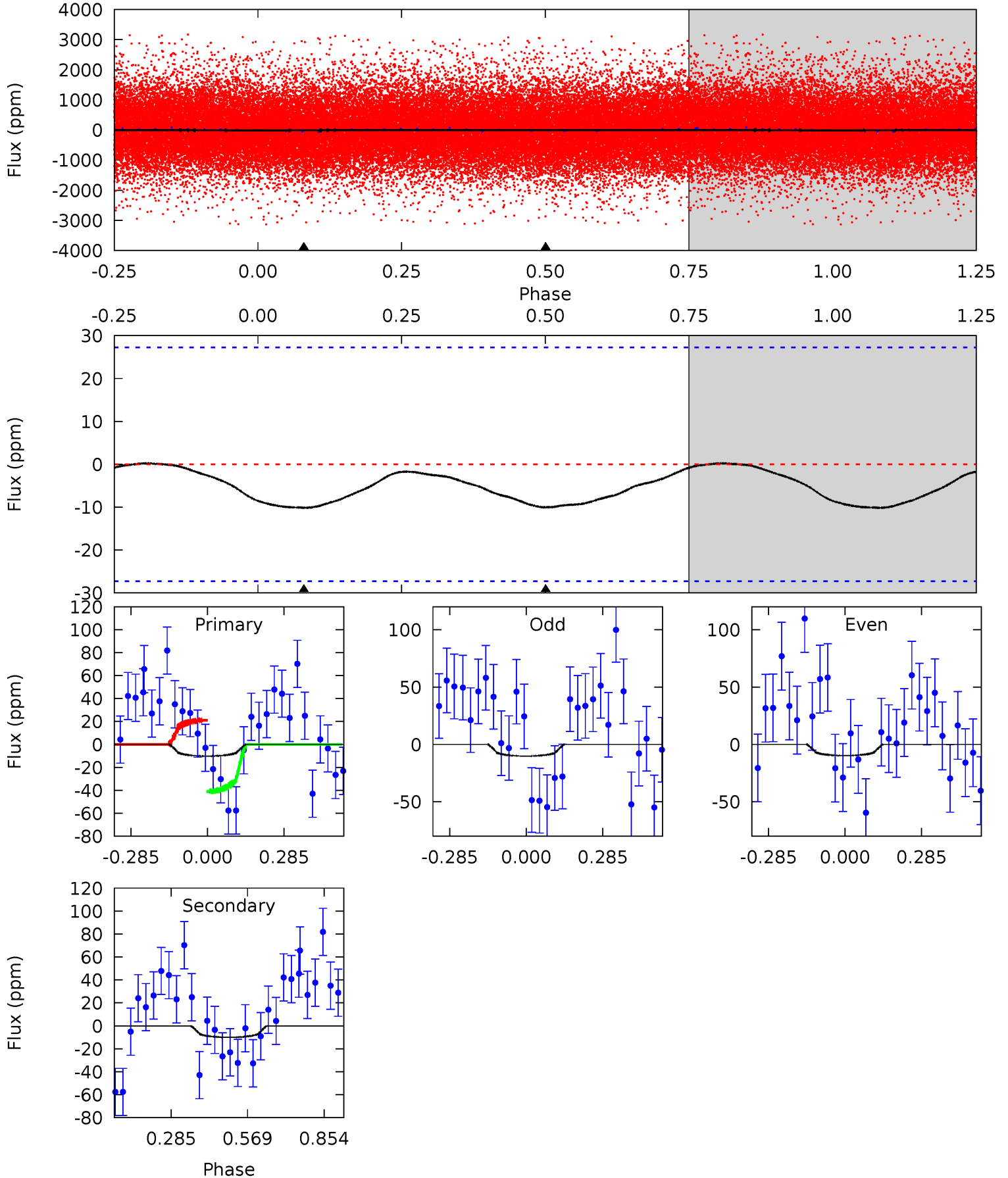
TCE 007988962-01 P= 0.604492 Days $T_0=131.648820$ (BKJD)



DV Model-Shift Uniqueness Test

007988962-01, P = 0.604444 Days, E = 131.680797 Days

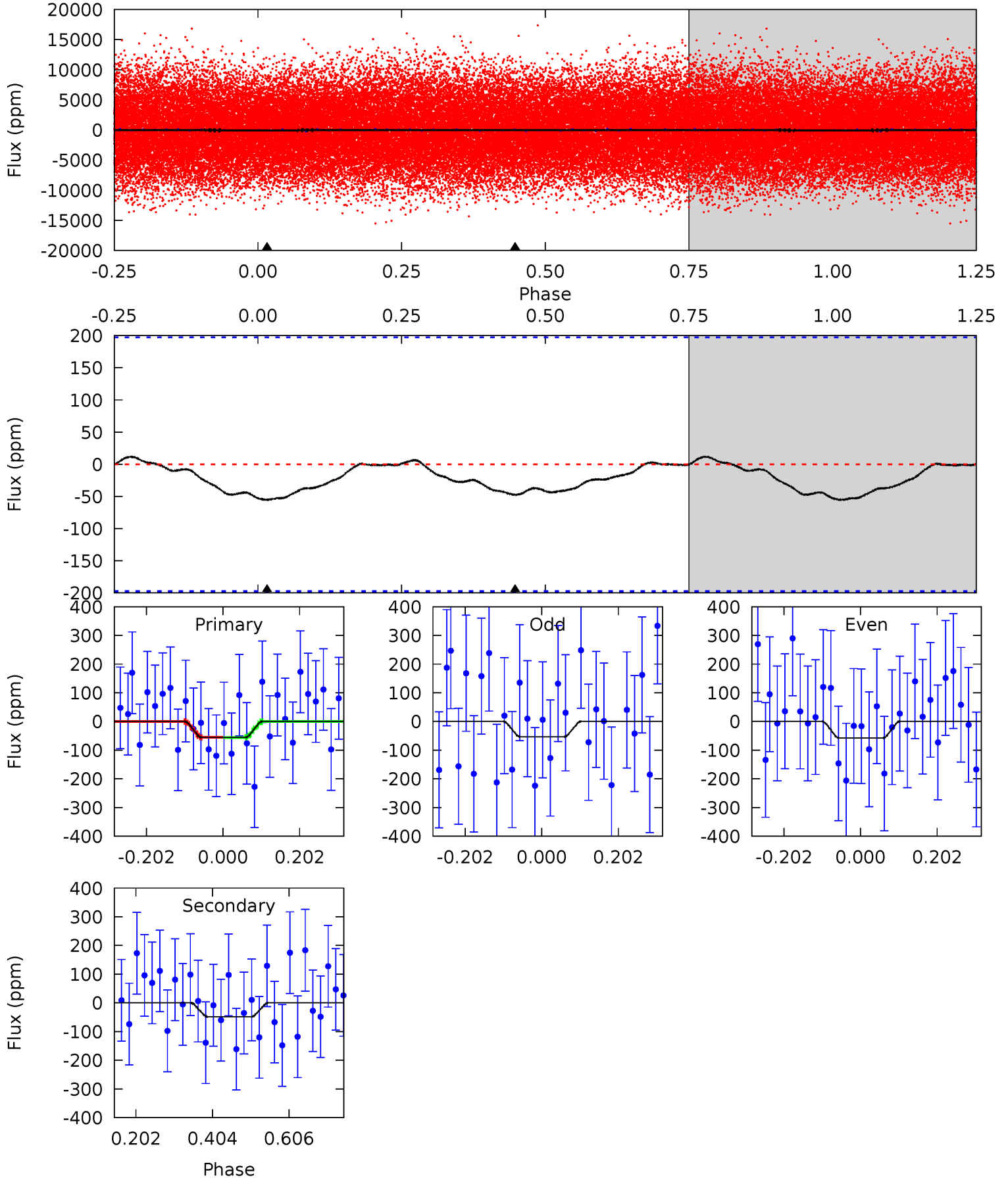
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.62	1.60	0	0	4.34	1.07	0.06	1.62	1.62	1.60	1.60	0.03	-0.14	0.02	1.61



Alt Model-Shift Uniqueness Test

007988962-01, P = 0.604492 Days, E = 131.648820 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.24	1.07	0	0	4.42	1.28	0.11	1.24	1.24	1.07	1.07	0.04	1.02	0.18	0.01



Stellar Parameters For KIC 007988962

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6126^{+193}_{-257}	$4.458^{+0.067}_{-0.216}$	$-0.040^{+0.250}_{-0.300}$	$1.021^{+0.324}_{-0.130}$	$1.090^{+0.151}_{-0.151}$	$1.442^{+0.422}_{-0.771}$
	+3%/-4%	+2%/-5%	+625%/-750%	+32%/-13%	+14%/-14%	+29%/-53%
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 007988962-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-10 ± 6	$1.04^{+1.11}_{-0.72}$	3233^{+252}_{-186}	3506^{+2689}_{-6529}	$0.792^{+7.594}_{-0.671}$
Alt.	-48 ± 45	$1.35^{+1.12}_{-0.85}$	3246^{+278}_{-189}	4529^{+3027}_{-7422}	$2.351^{+15.308}_{-2.146}$

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 $A_{obs} \gg 1.0$

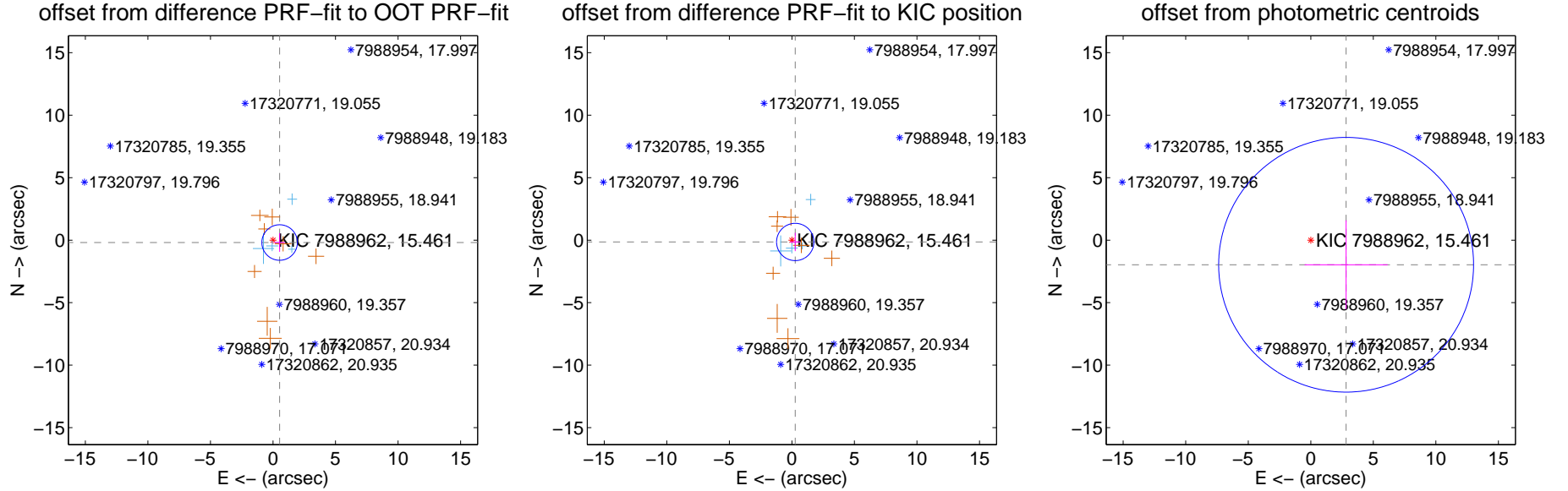
DV Centroid Data

Supplemental centroid analysis for 007988962-01. Kepler magnitude: 15.46. Transit SNR 3.04

There are 4 quarters with good PRF difference image offsets

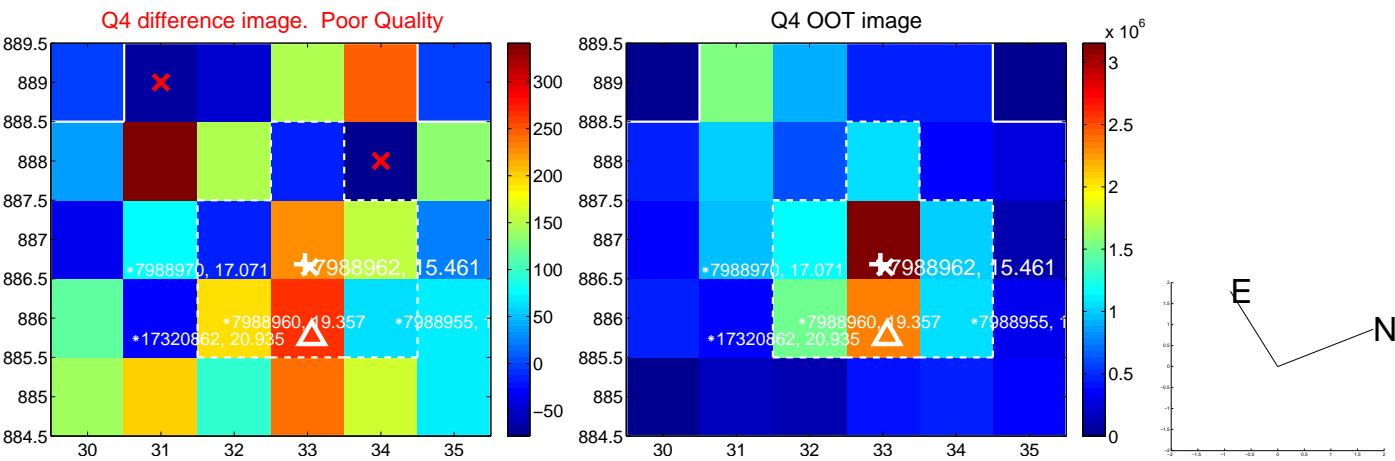
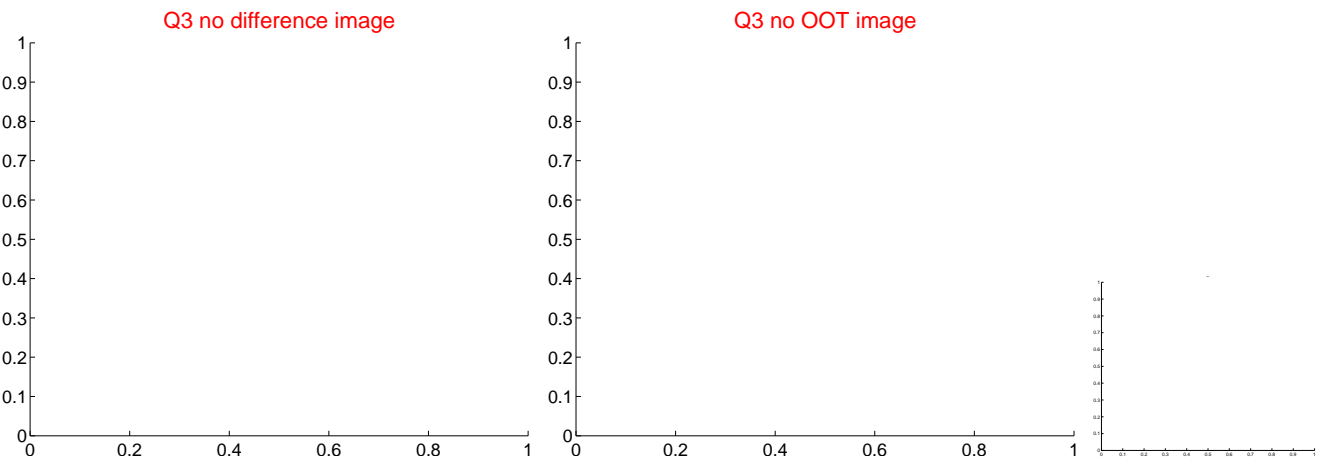
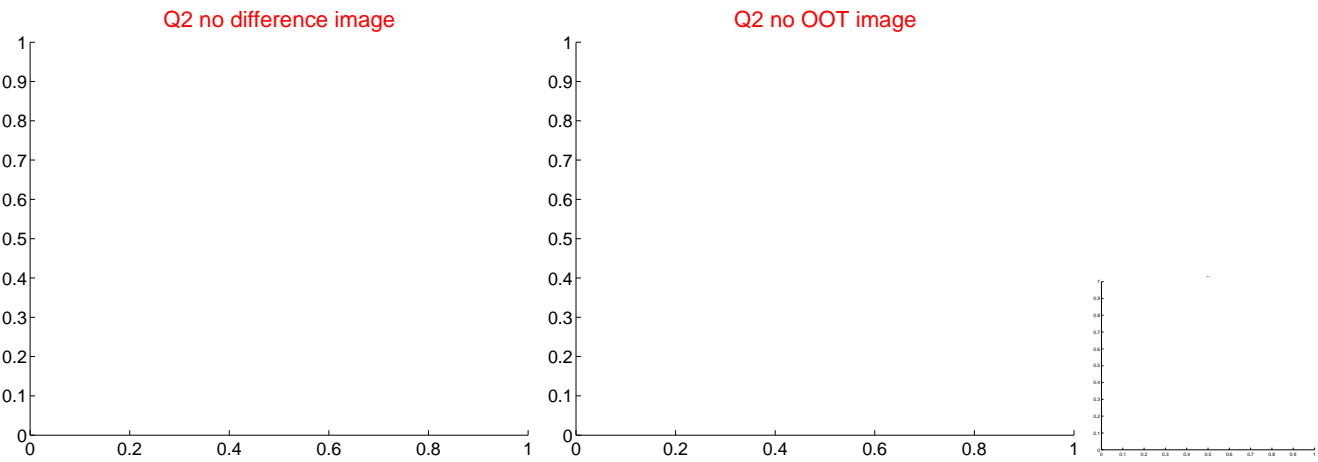
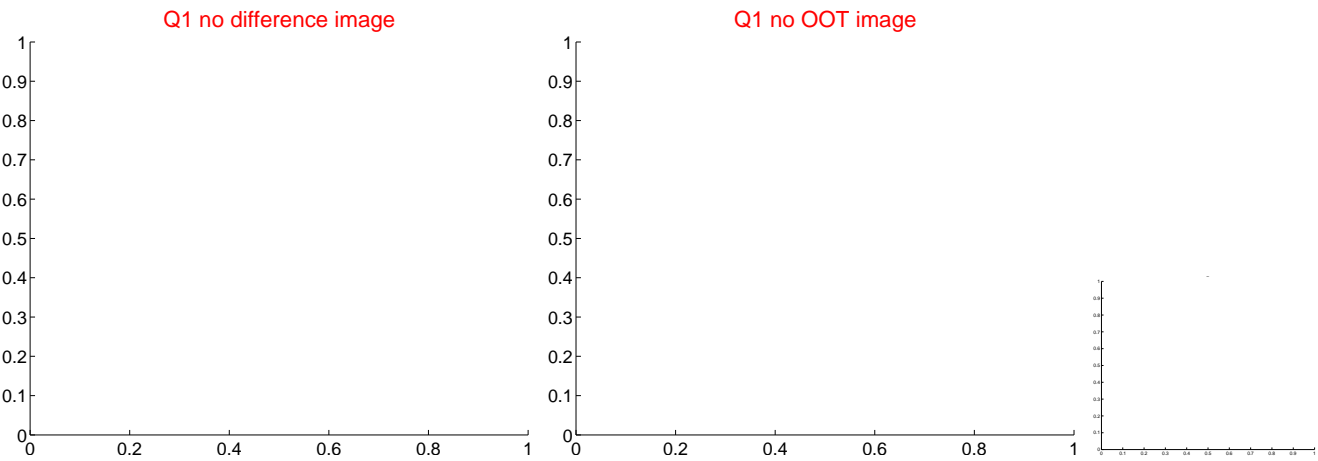
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.563 ± 0.474	1.19	-0.531 ± 0.427	-0.189 ± 0.747
PRF-fit source offset from KIC position	0.303 ± 0.497	0.61	-0.267 ± 0.400	-0.144 ± 0.738
photometric centroid source offset	3.44 ± 3.40	1.01	-2.82 ± 3.32	-1.97 ± 3.55

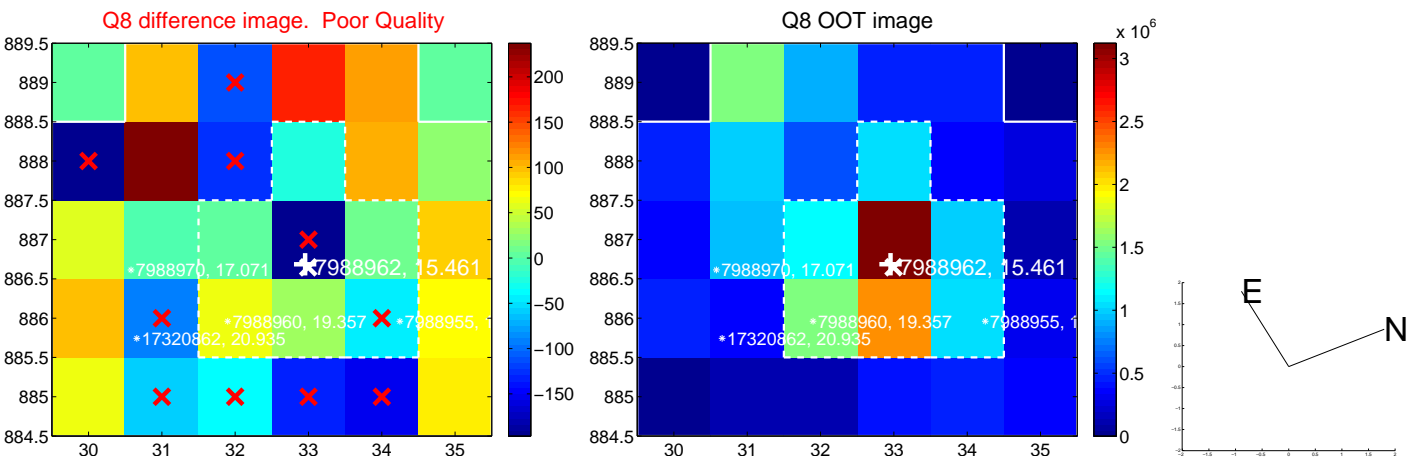
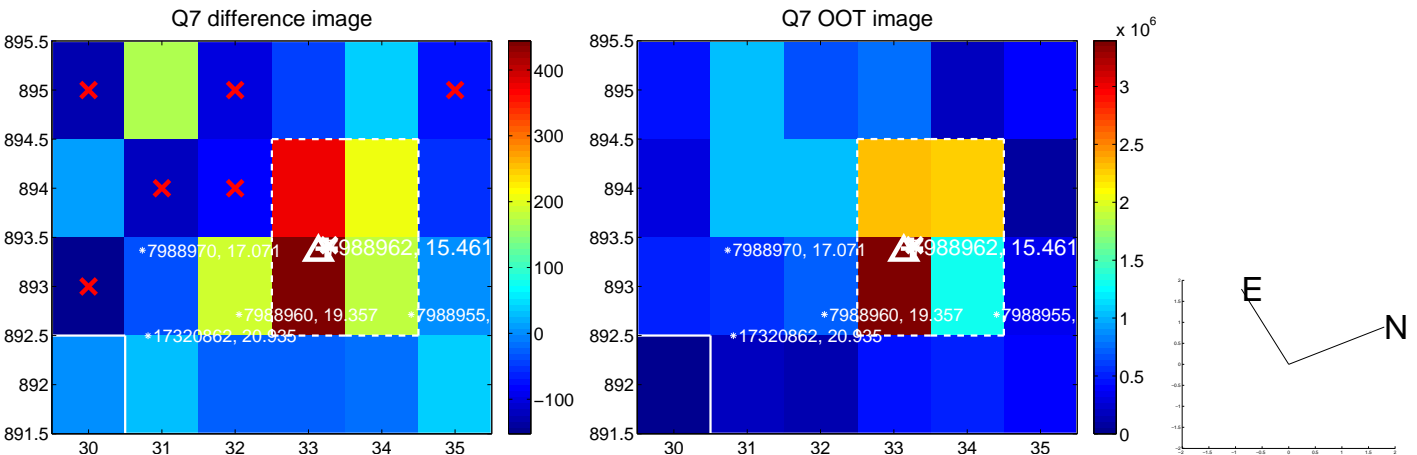
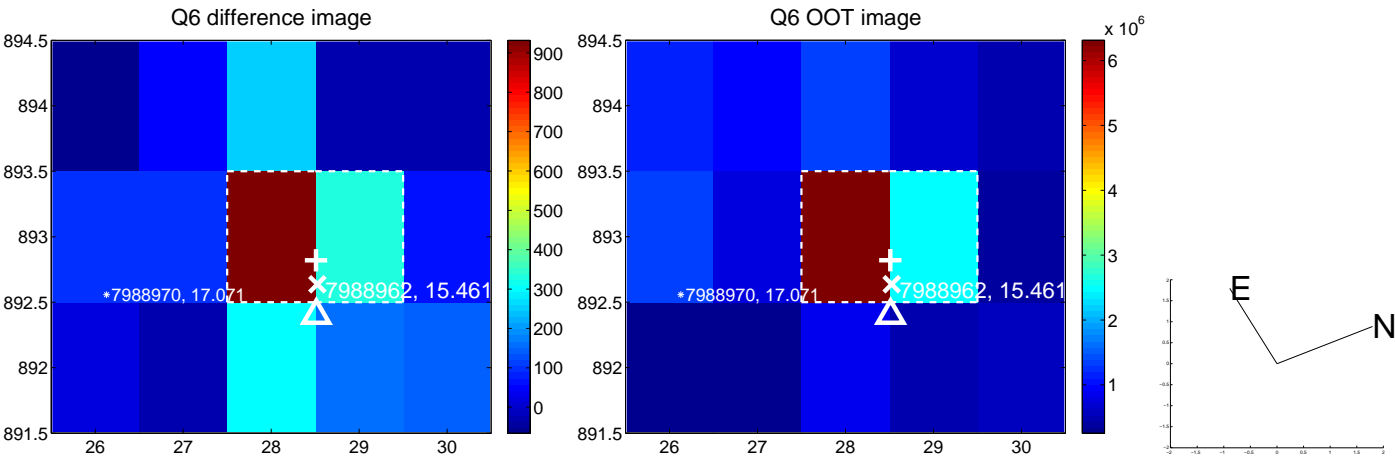
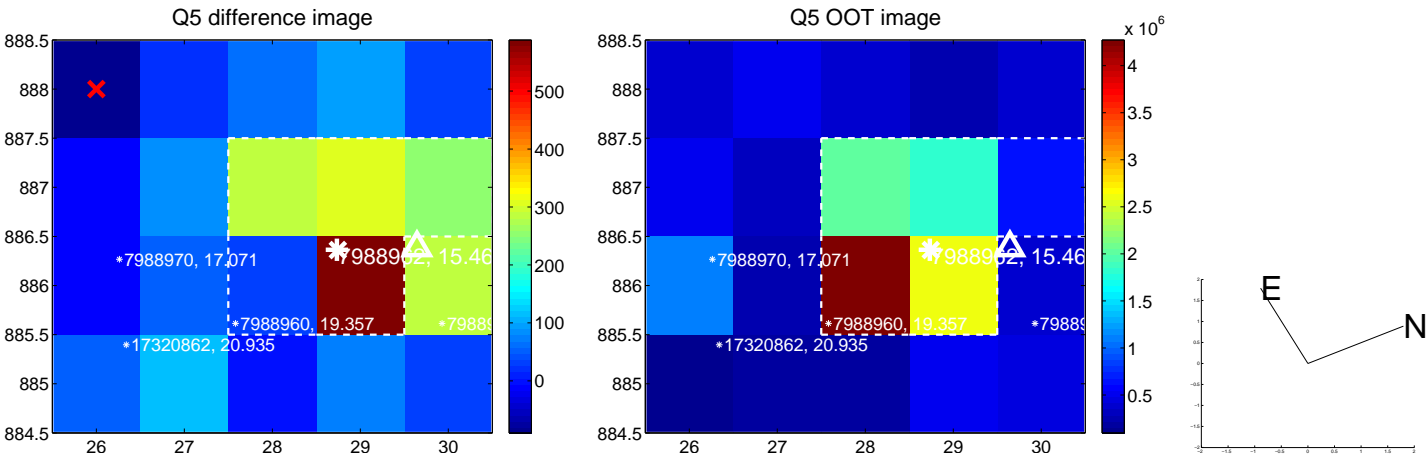


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

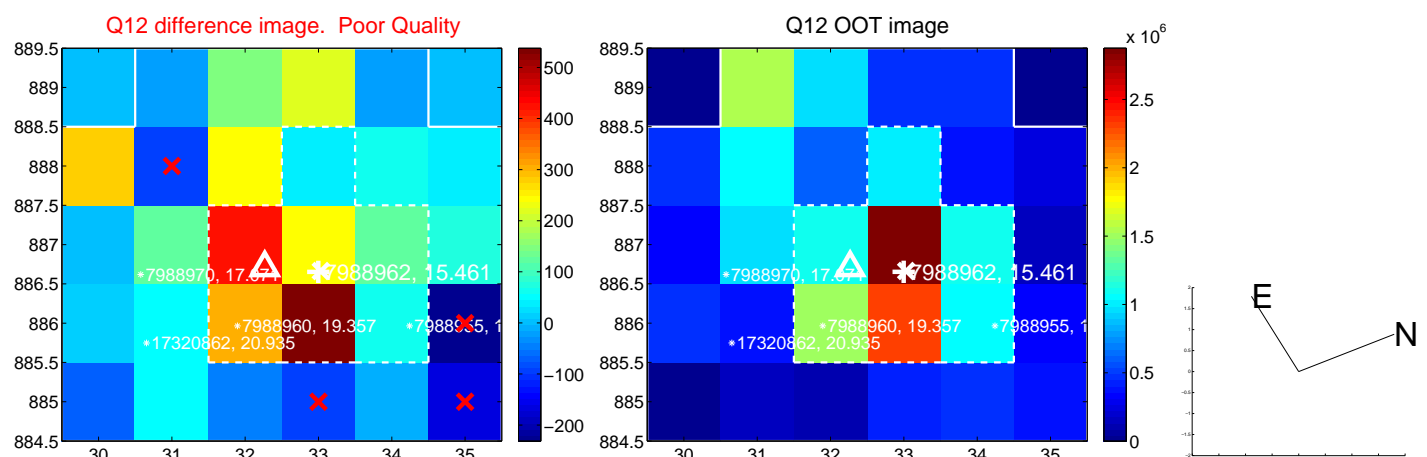
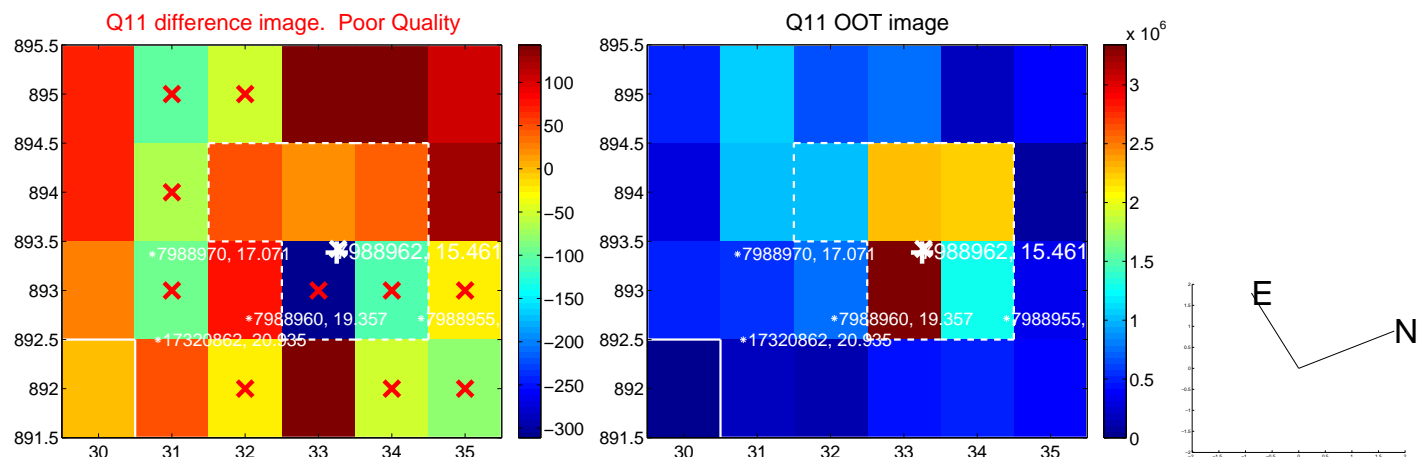
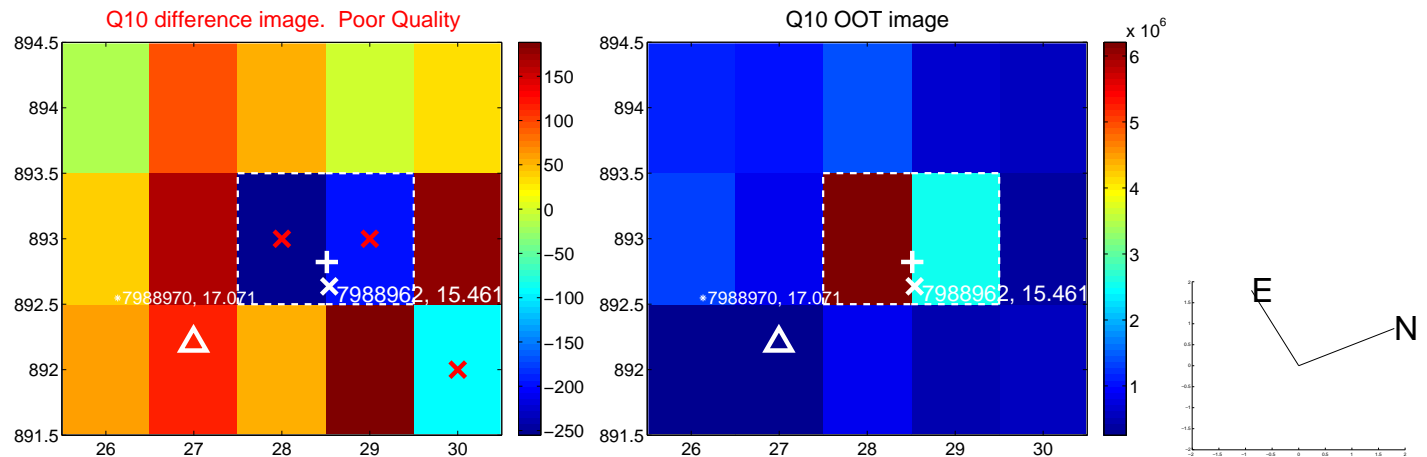
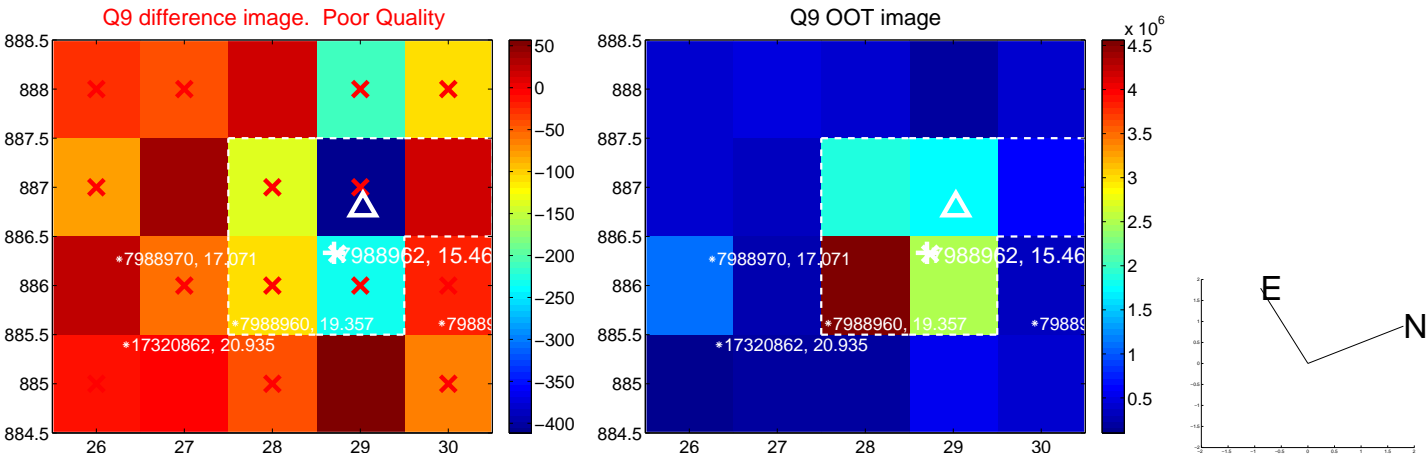
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



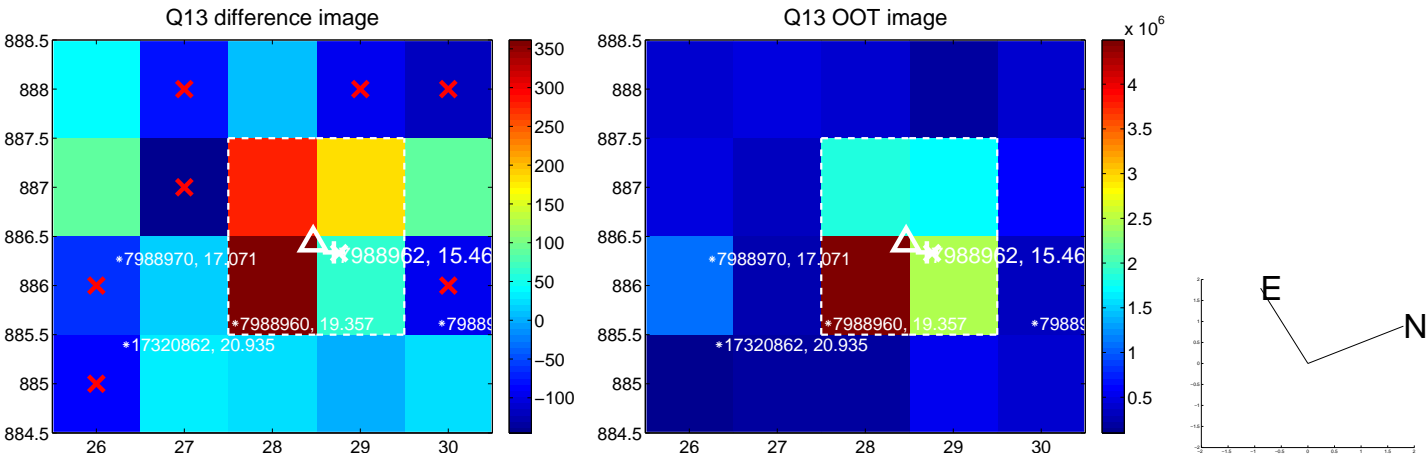
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



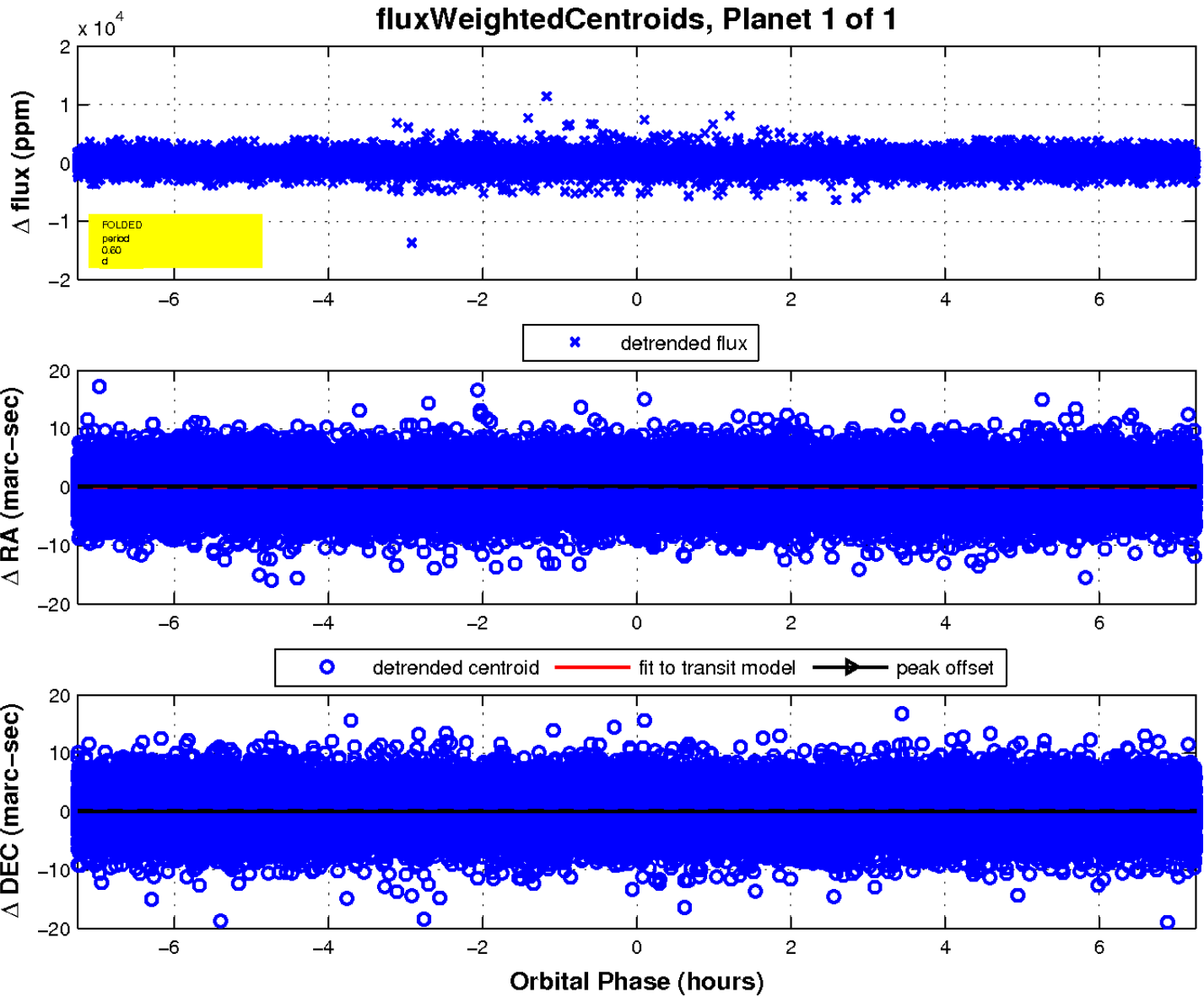
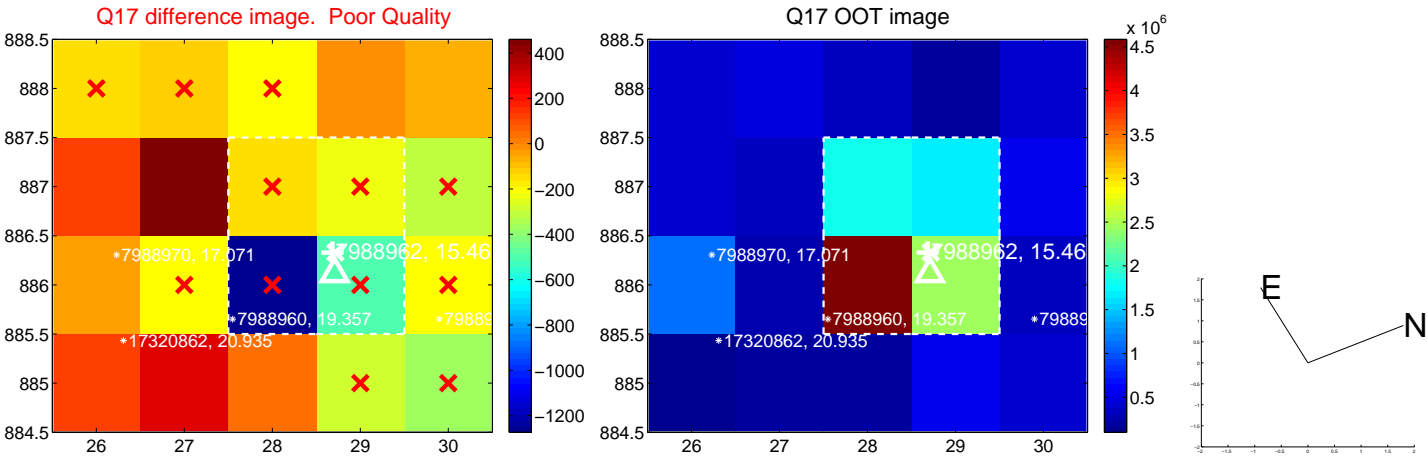
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UKIRT Image

Declination

