

KIC 008257115

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})
008257115-01	OBS	No	0.698102	131.528309	30.6	1.220	7.8	8.4	1.55	6712	1.00	14561.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008257115-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

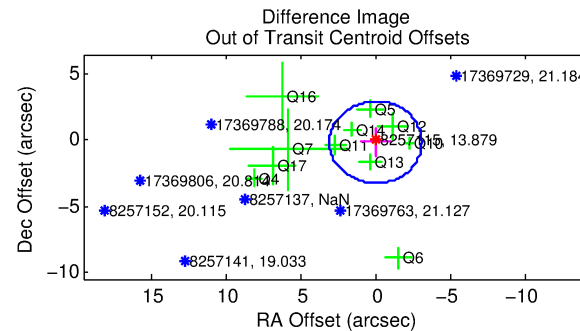
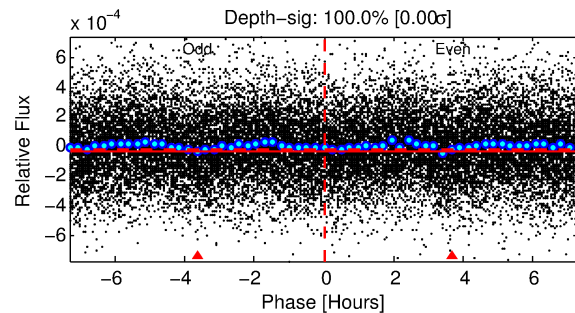
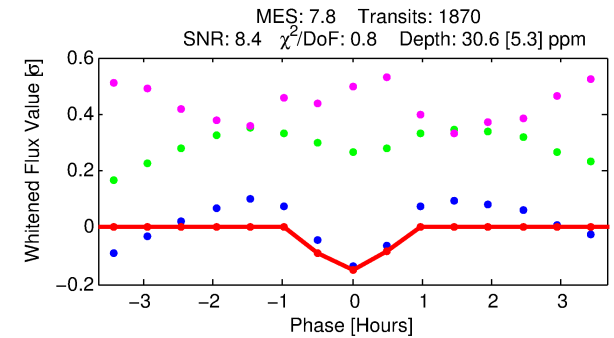
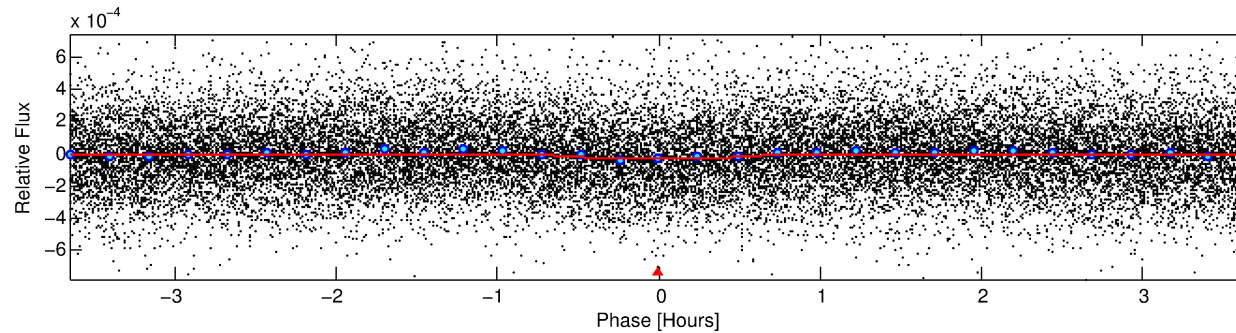
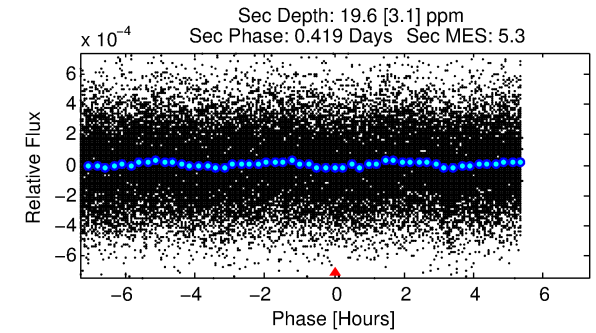
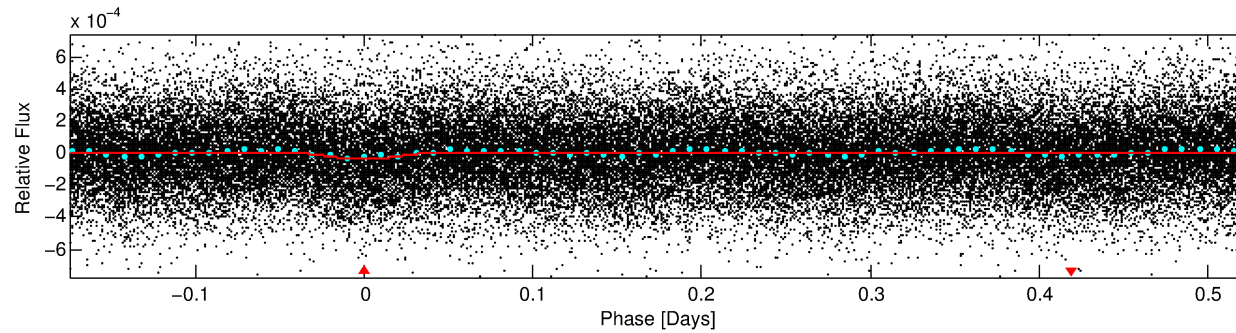
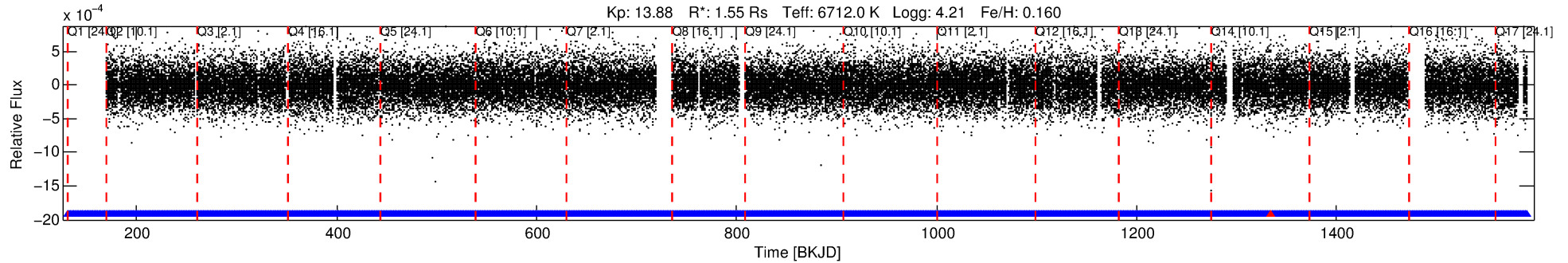
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008257115-01

No Significant Match Found

DV One-Page Summary

KIC: 8257115 Candidate: 1 of 1 Period: 0.698 d



DV Fit Results:

Period = 0.69810 [0.00001] d
Epoch = 131.5283 [0.0024] BKJD
Rp/R* = 0.0059 [0.0017]
a/R* = 2.17 [2.83]
b = 0.90 [0.35]
Seff = 14561.85 [6131.10]
Teff = 2801 [295] K
Rp = 1.00 [0.45] Re
a = 0.0173 [0.0047] AU
Ag = 3.20 [2.30] [0.96σ]
Teffp = 5792 [919] K [3.10σ]

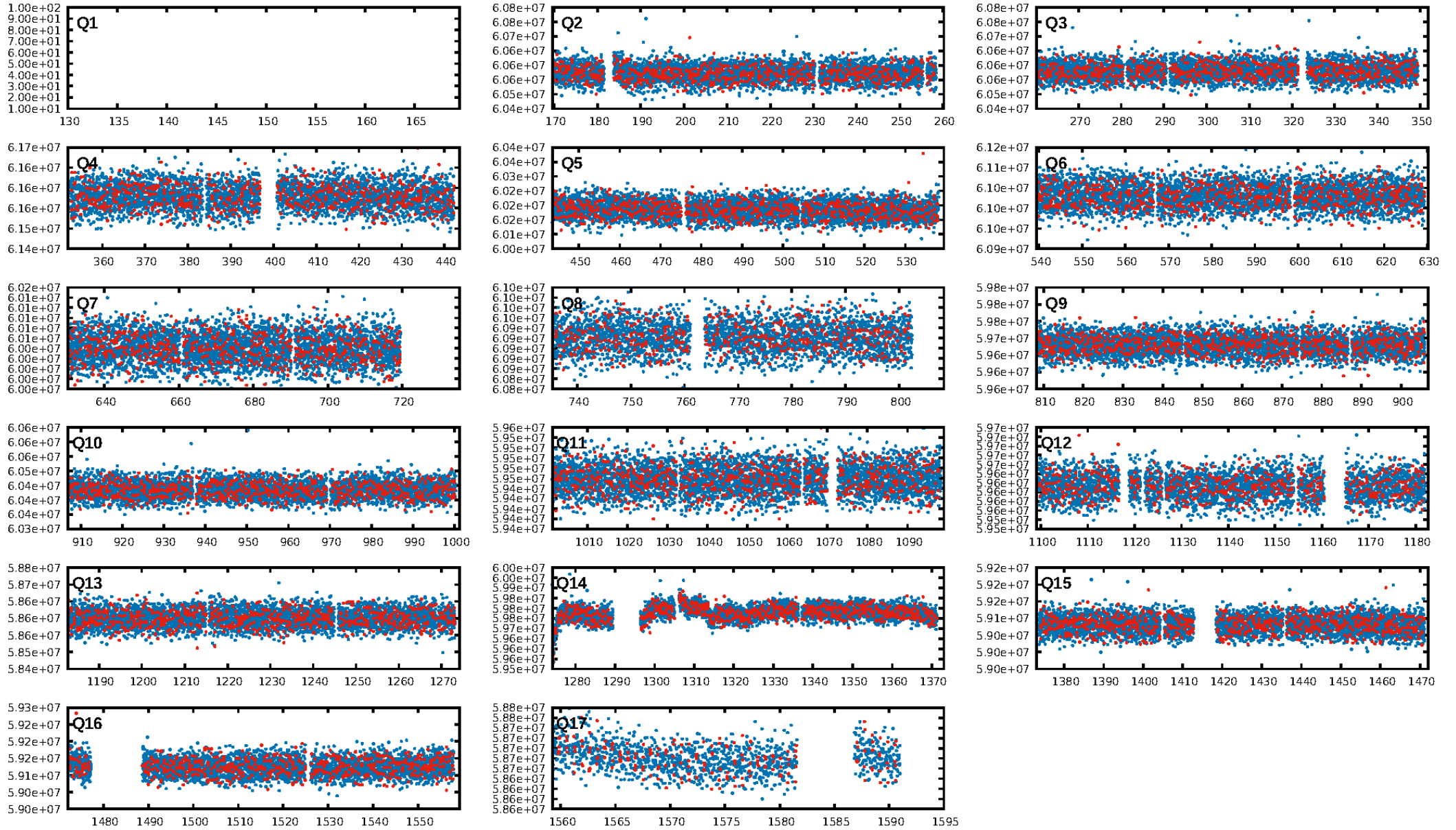
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.65e-13
RollingBand-fgt: 1.00 [1831/1832]
GhostDiagnostic-chr: -6.696
Centroid-sig: 4.1%
Centroid-so: 3.217 arcsec [2.04σ]
OotOffset-rm: 0.156 arcsec [0.15σ]
KicOffset-rm: 0.066 arcsec [0.07σ]
OotOffset-st: 3/2/3/3 [11]
KicOffset-st: 3/2/3/3 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 1.00 [16/16]

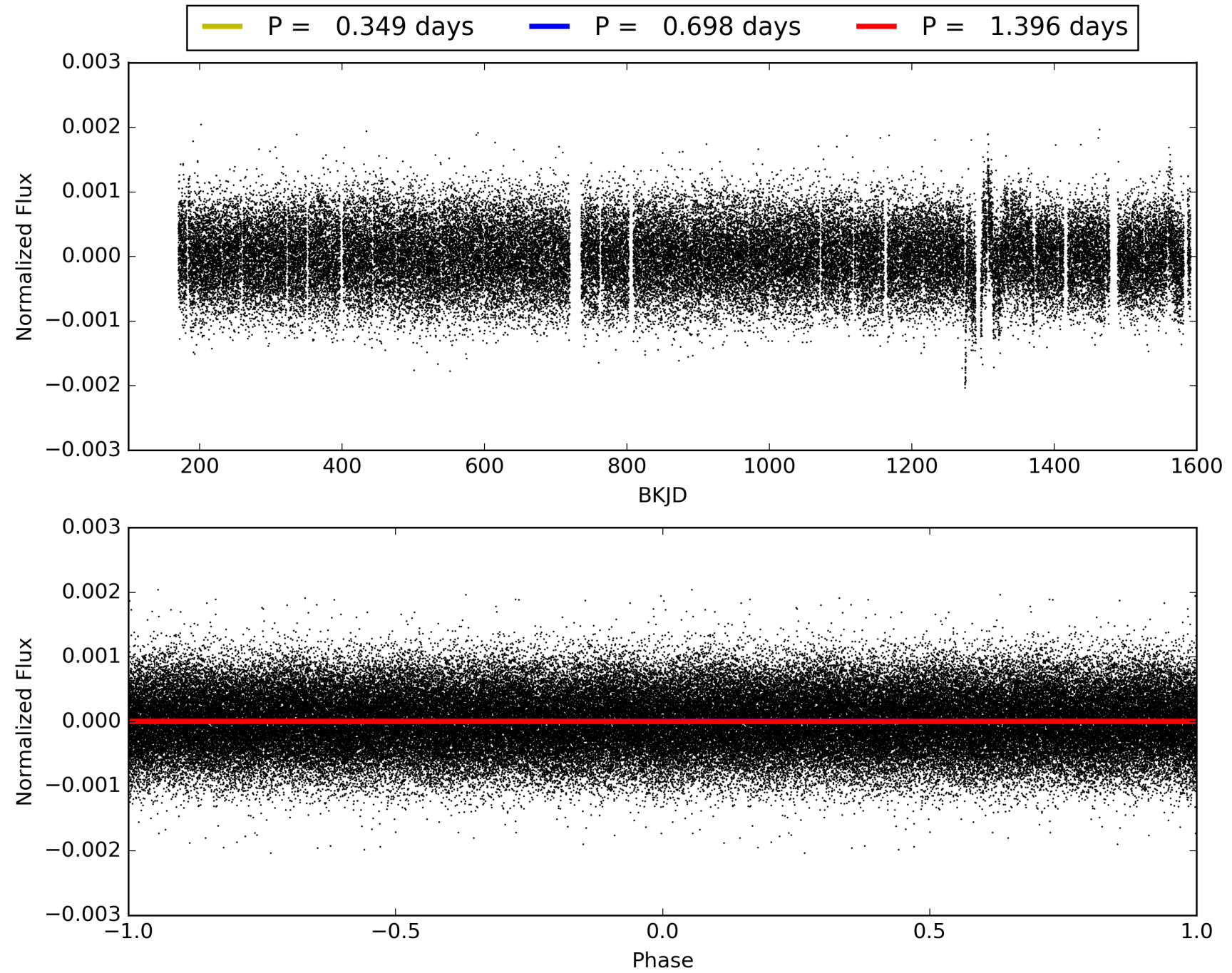
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:07:20 Z

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

TCE 008257115-01, PDC Light Curves

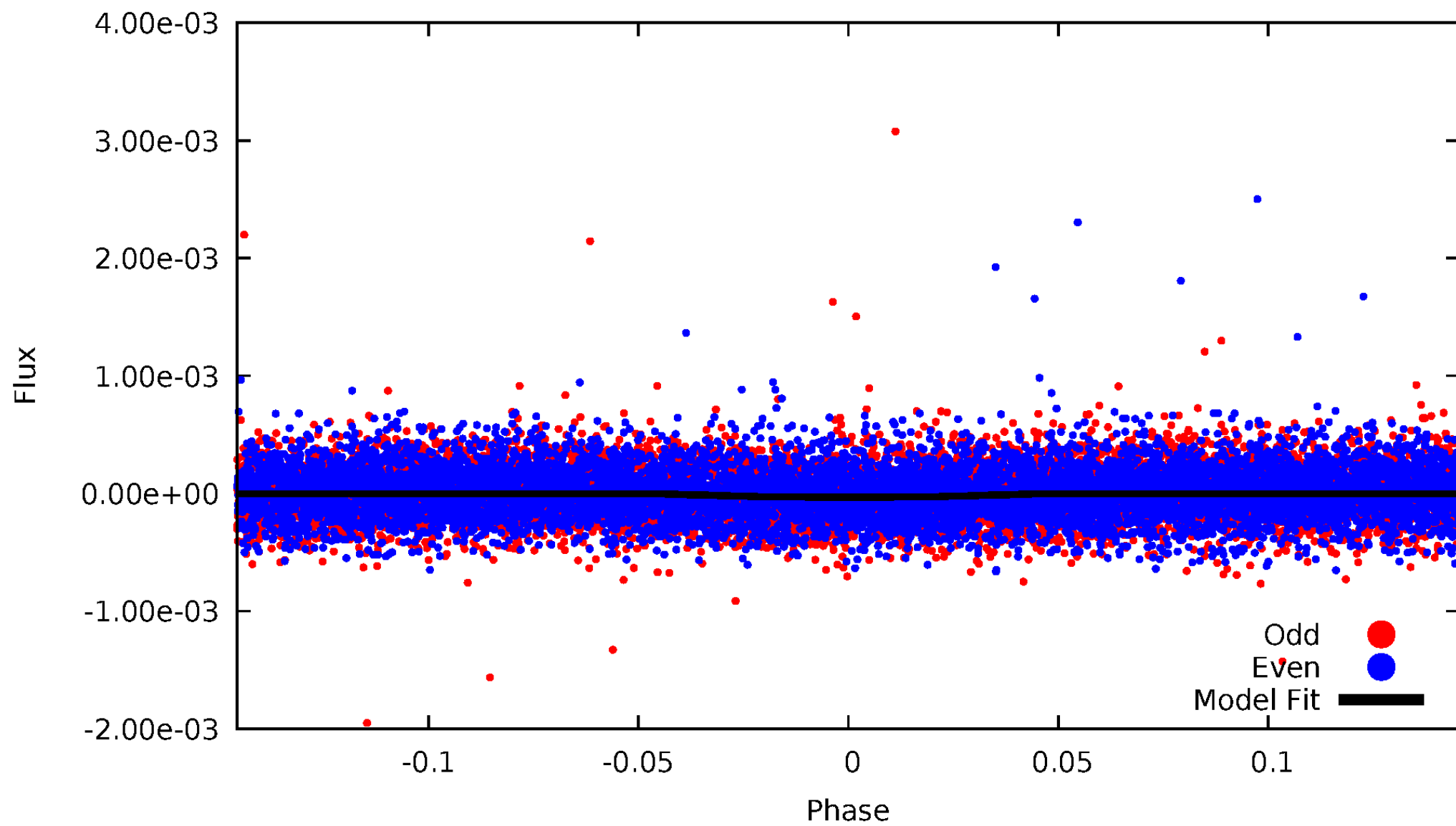


TCE 008257115-01



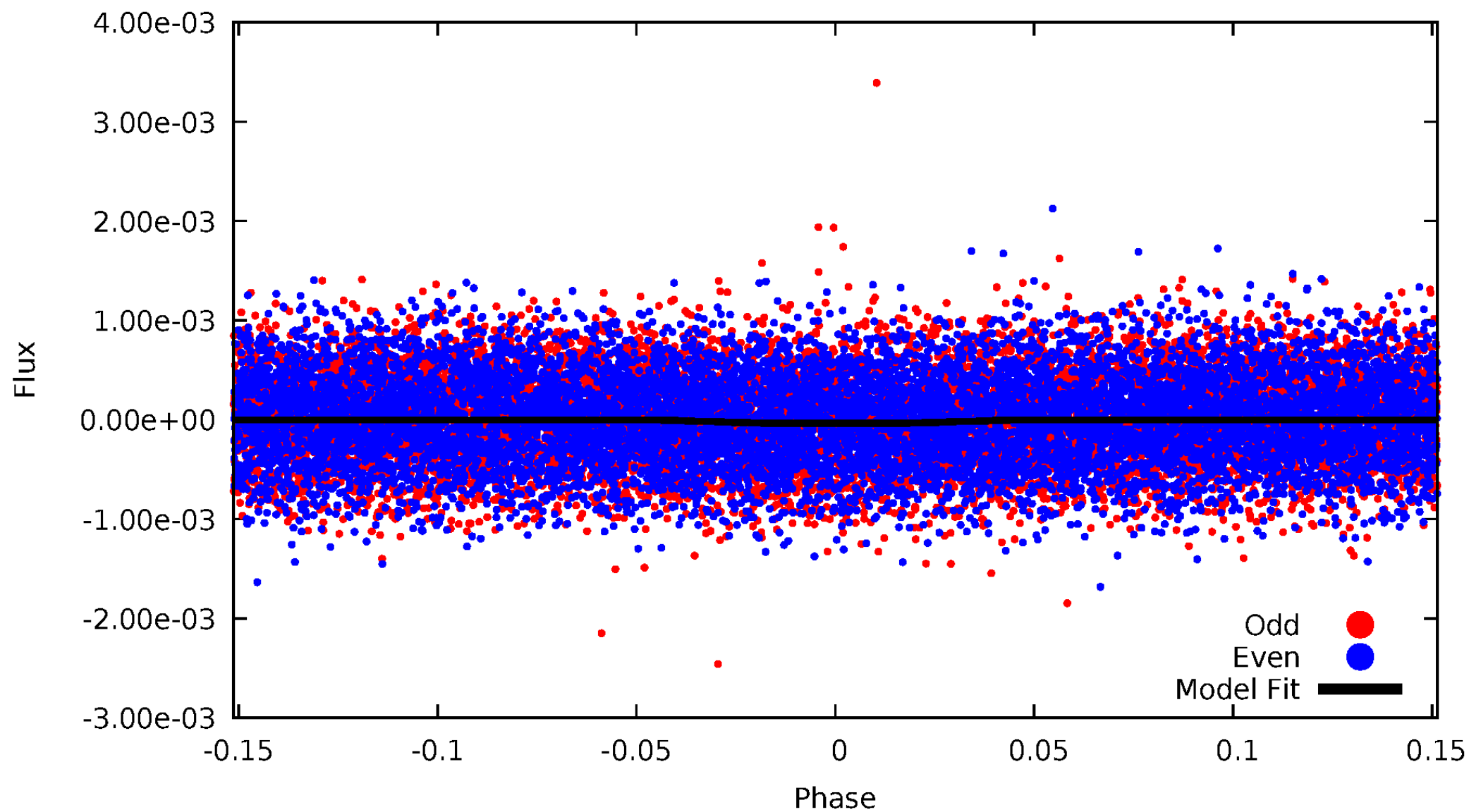
DV Odd/Even

TCE 008257115-01

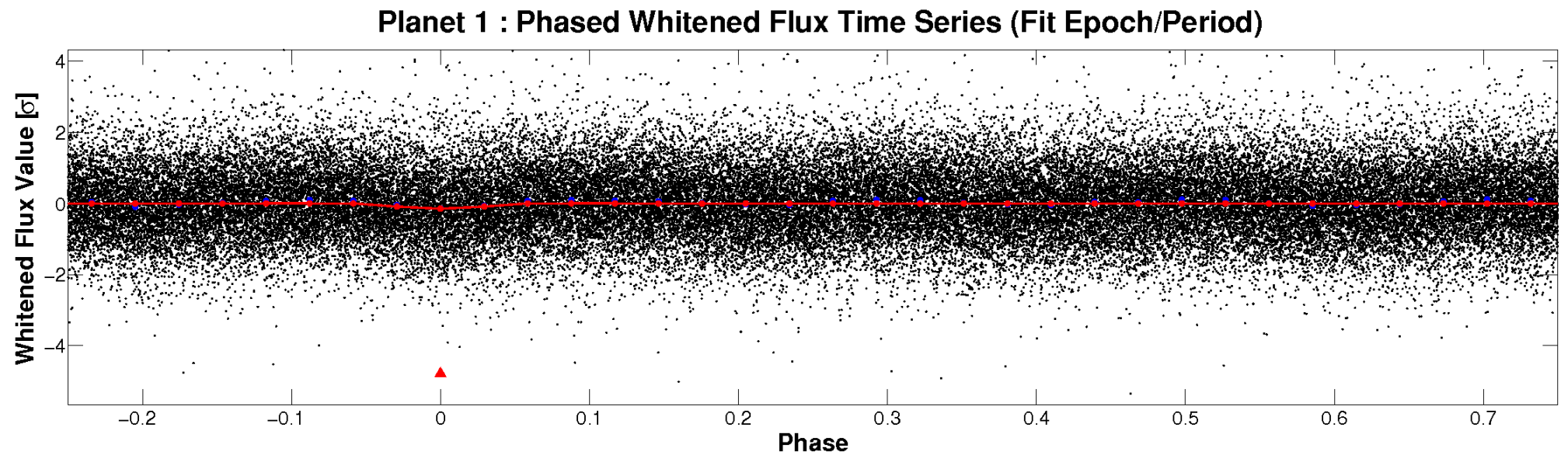
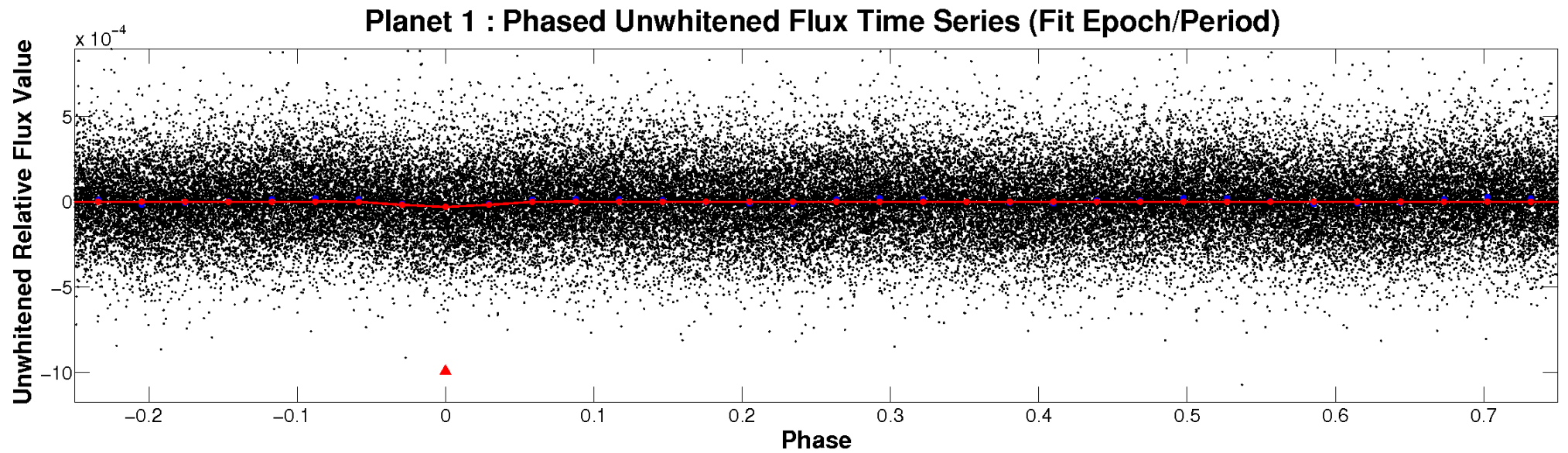


ALT Odd/Even

TCE 008257115-01

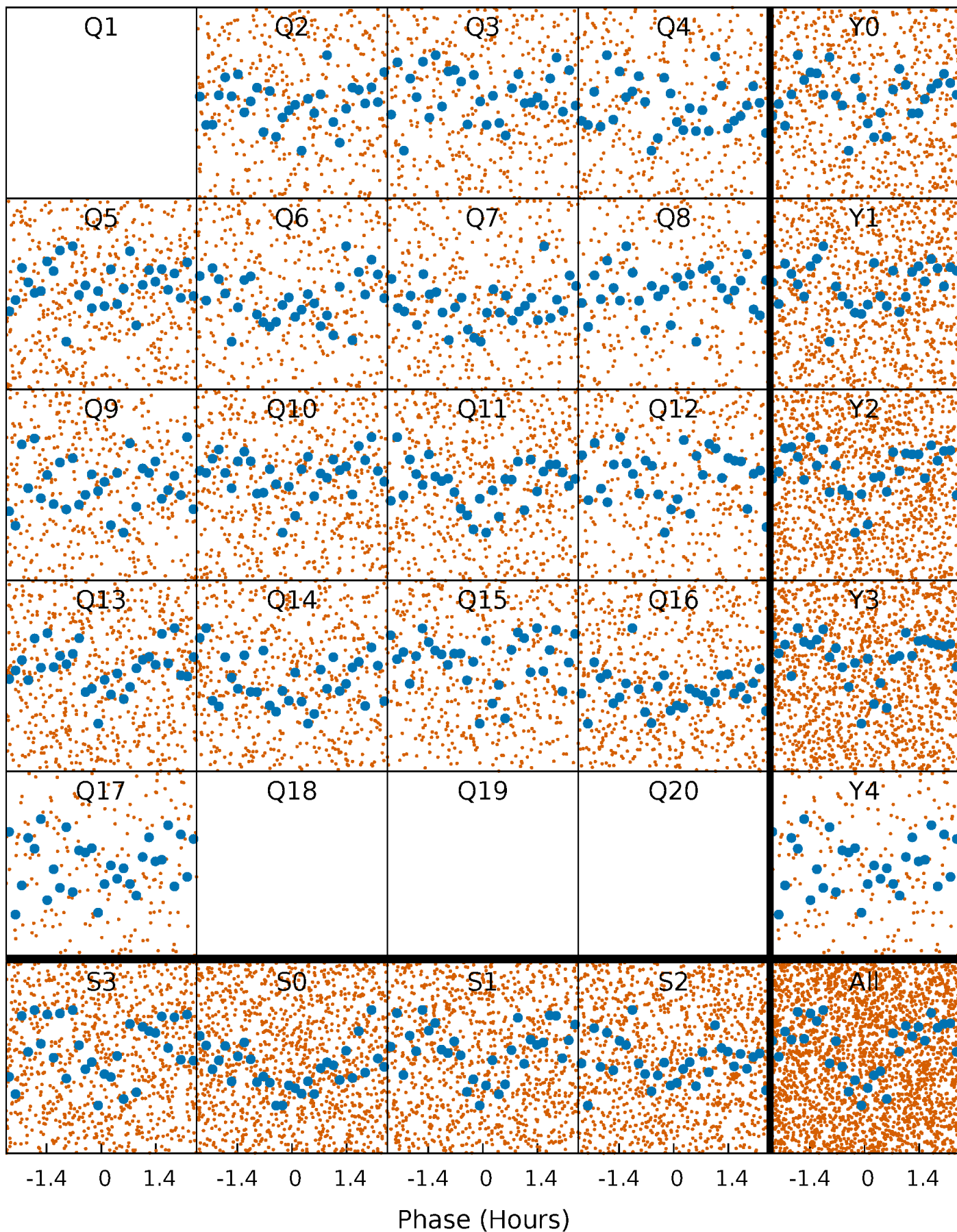


Non-Whitened Vs. Whitened Light Curve



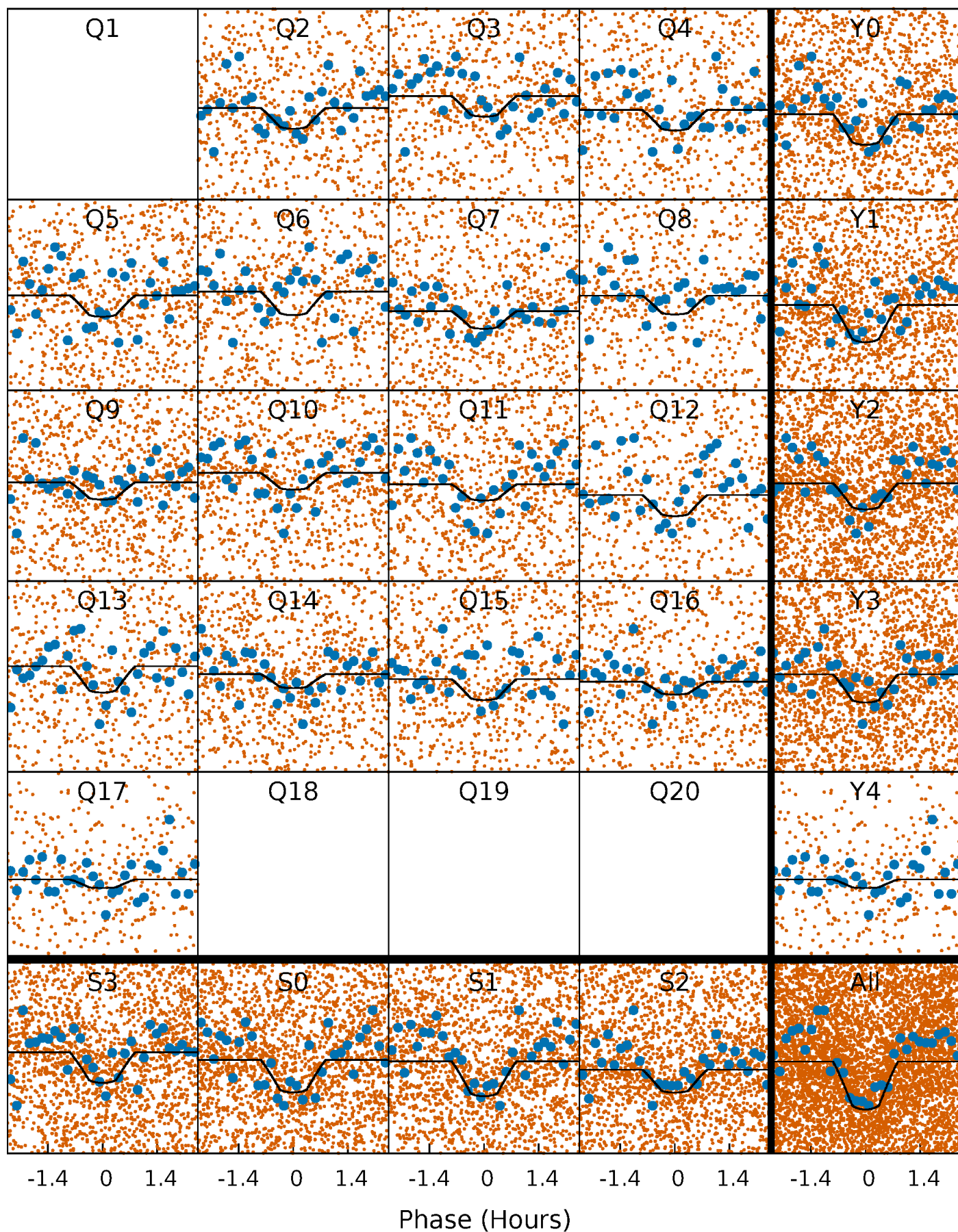
PDC Quarter-Phased Transit Curves

TCE 008257115-01 P= 0.698102 Days $T_0=131.528309$ (BKJD)



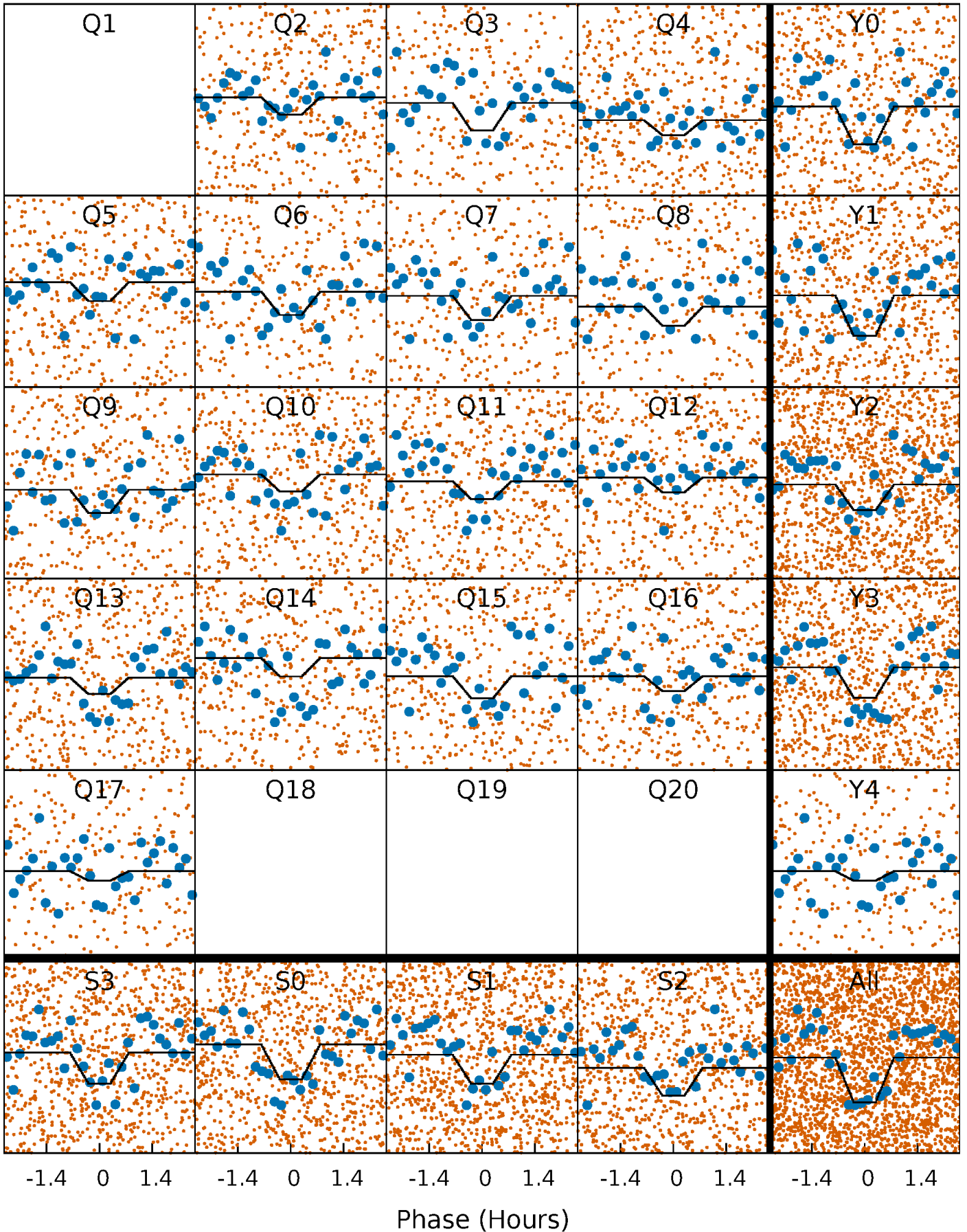
DV Quarter-Phased Transit Curves

TCE 008257115-01 P= 0.698102 Days $T_0=131.528309$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

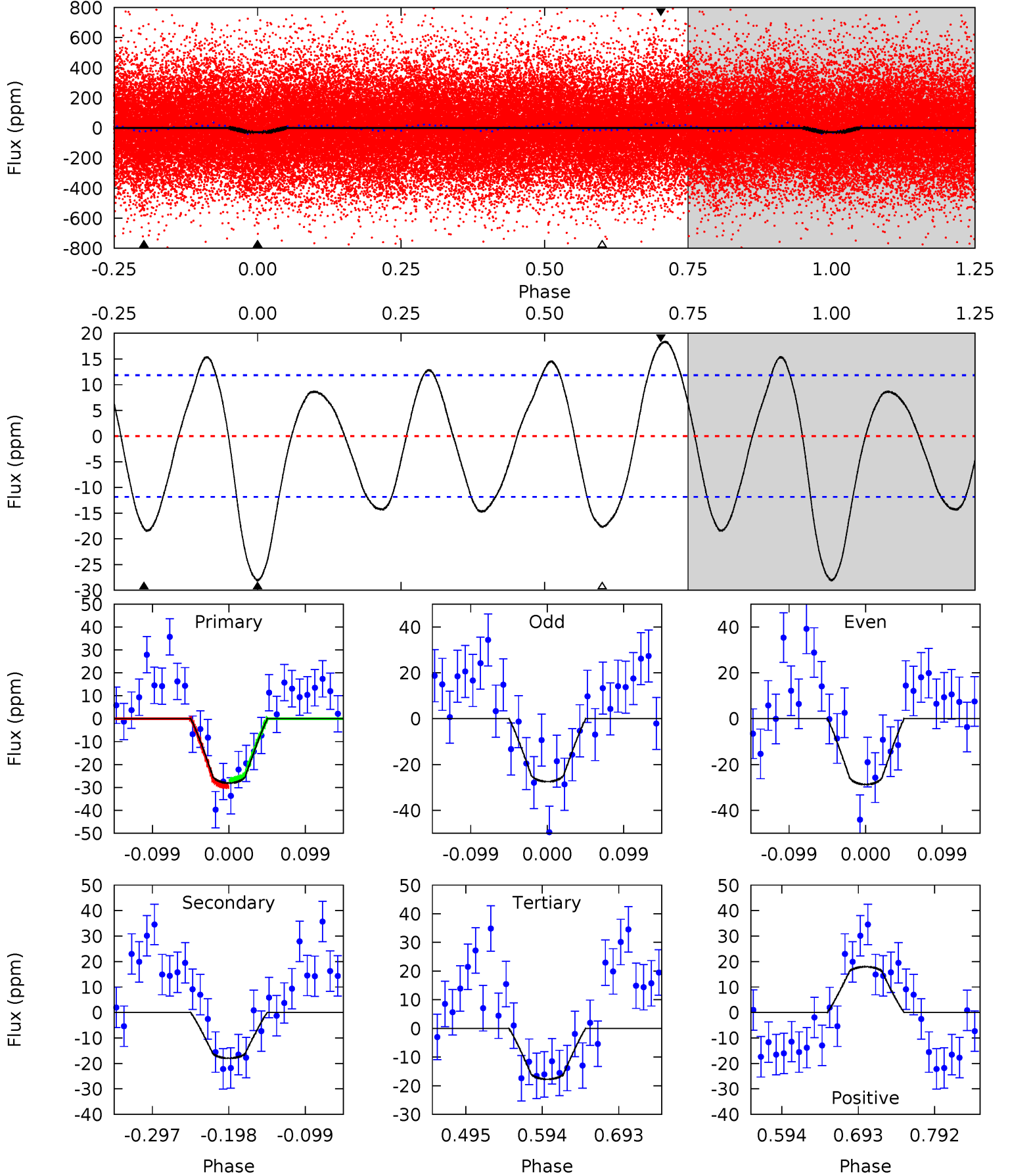
TCE 008257115-01 P= 0.698103 Days $T_0=131.528243$ (BKJD)



DV Model-Shift Uniqueness Test

008257115-01, $P = 0.698102$ Days, $E = 131.528309$ Days

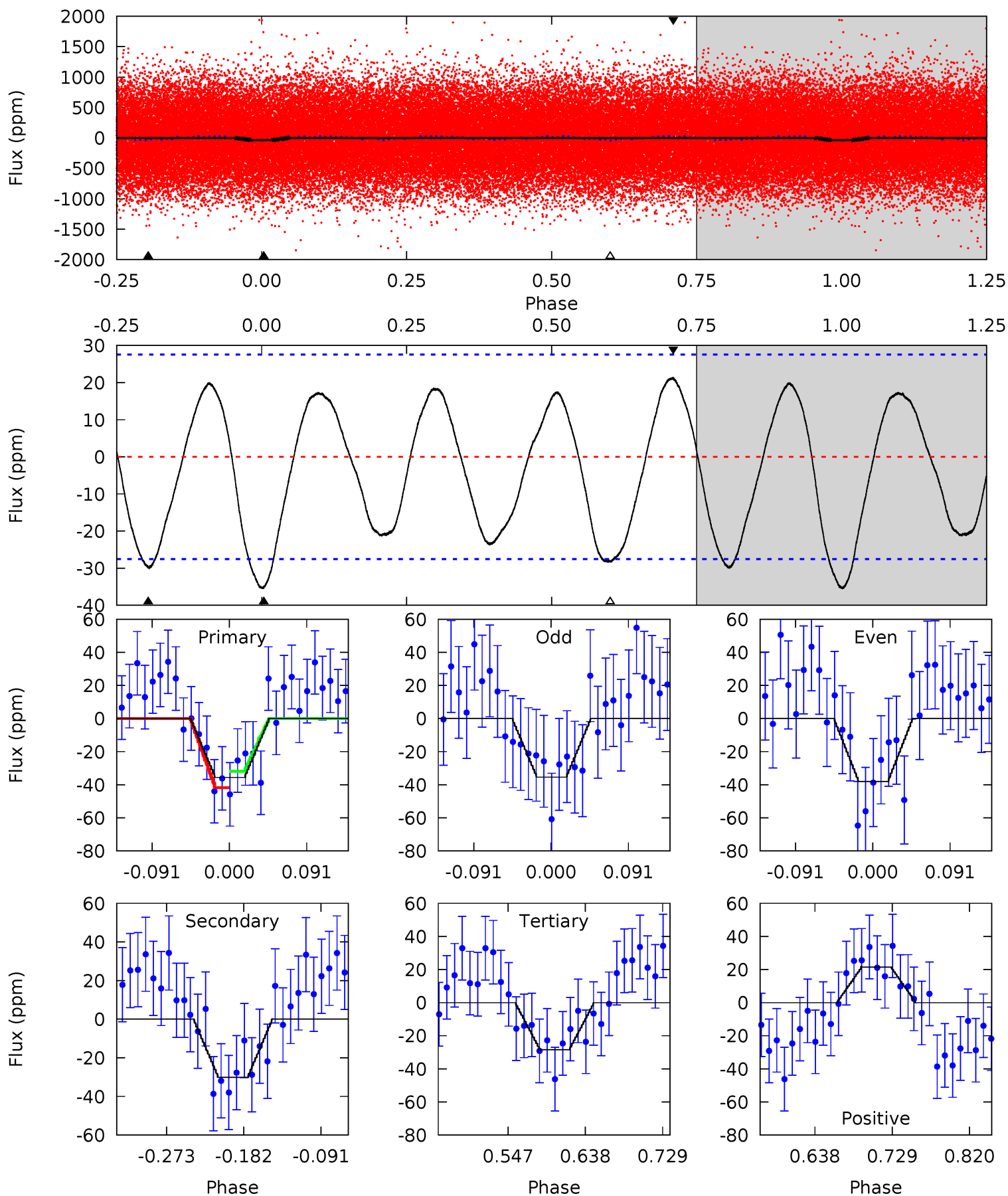
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	6.93	6.84	6.93	4.57	1.65	4.14	4.01	3.92	0.08	-0.01	0.24	0.74	0.40	0.49



Alt Model-Shift Uniqueness Test

008257115-01, P = 0.698103 Days, E = 131.528243 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.92	5.00	4.73	3.57	4.58	1.69	2.57	1.19	2.34	0.27	1.43	0.21	0.85	0.38	0.82



Stellar Parameters For KIC 008257115

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6712^{+162}_{-301}	$4.209^{+0.108}_{-0.201}$	$0.160^{+0.200}_{-0.350}$	$1.546^{+0.518}_{-0.279}$	$1.411^{+0.203}_{-0.223}$	$0.538^{+0.288}_{-0.284}$
	+2%/-4%	+3%/-5%	+125%/-219%	+34%/-18%	+14%/-16%	+54%/-53%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008257115-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18 ± 3	$1.02^{+0.33}_{-0.30}$	3934^{+305}_{-259}	5446^{+1117}_{-690}	$2.750^{+2.984}_{-1.185}$
Alt.	-30 ± 6	$1.08^{+0.33}_{-0.34}$	3943^{+307}_{-256}	6099^{+1389}_{-760}	$4.159^{+4.639}_{-1.749}$

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 $A_{obs} \gg 1.0$

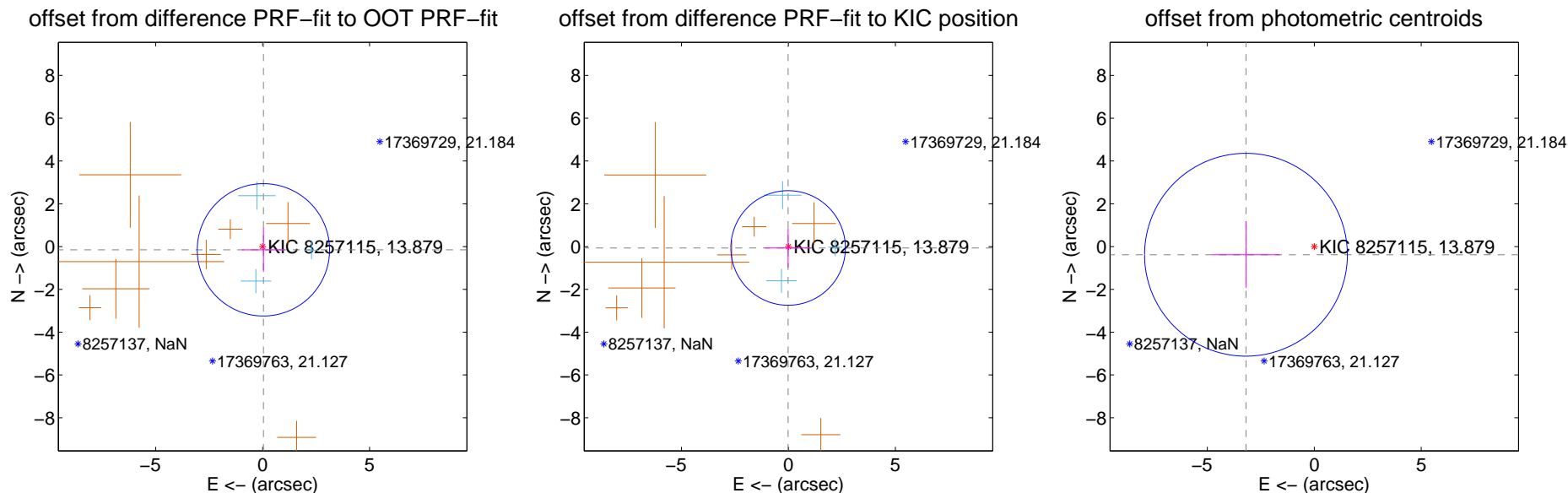
DV Centroid Data

Supplemental centroid analysis for 008257115-01. Kepler magnitude: 13.88. Transit SNR 8.38

There are 3 quarters with good PRF difference image offsets

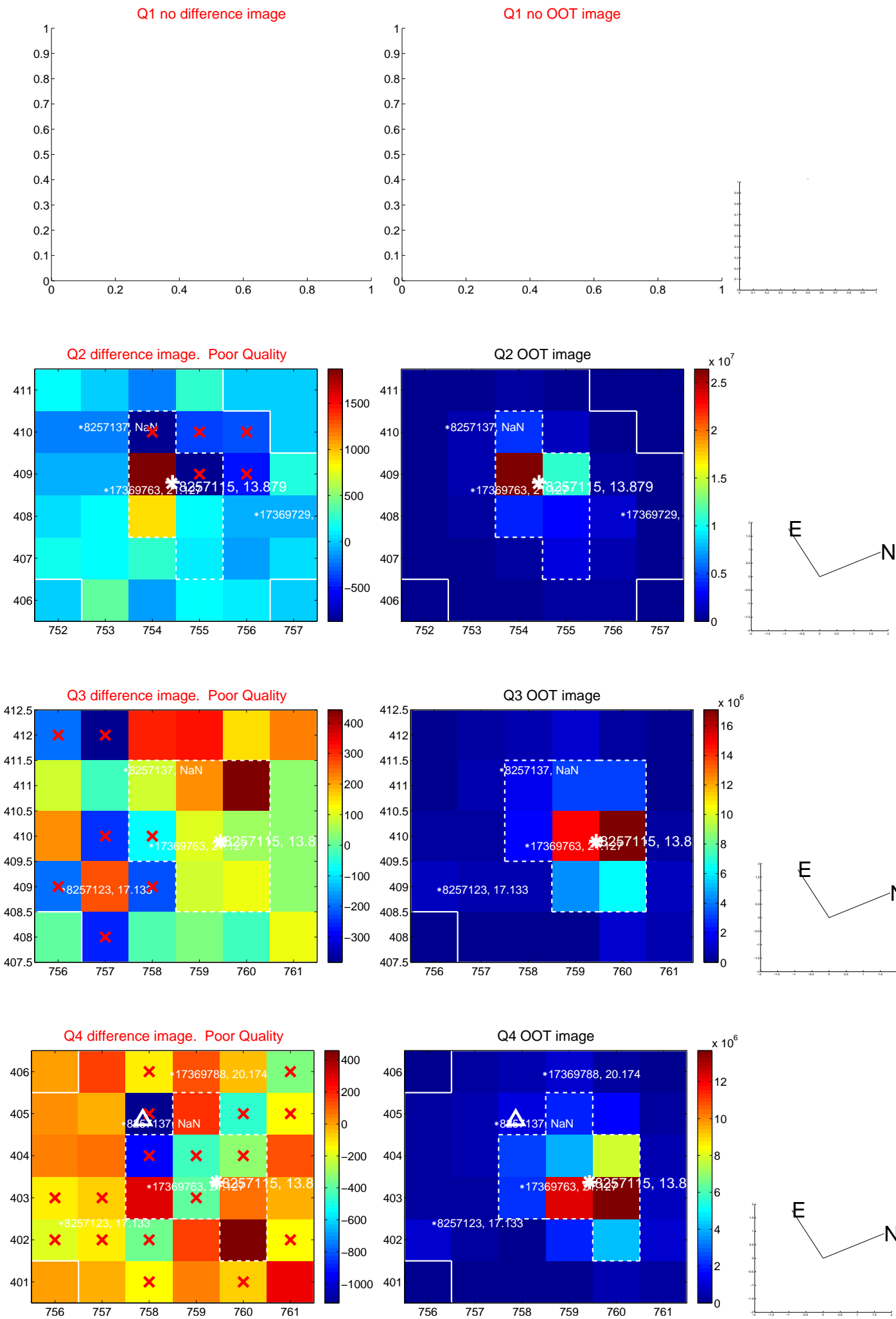
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.156 ± 1.031	0.15	-0.037 ± 1.008	-0.152 ± 1.029
PRF-fit source offset from KIC position	0.066 ± 0.893	0.07	0.015 ± 1.086	-0.064 ± 0.917
photometric centroid source offset	3.22 ± 1.58	2.04	3.19 ± 1.58	-0.38 ± 1.55

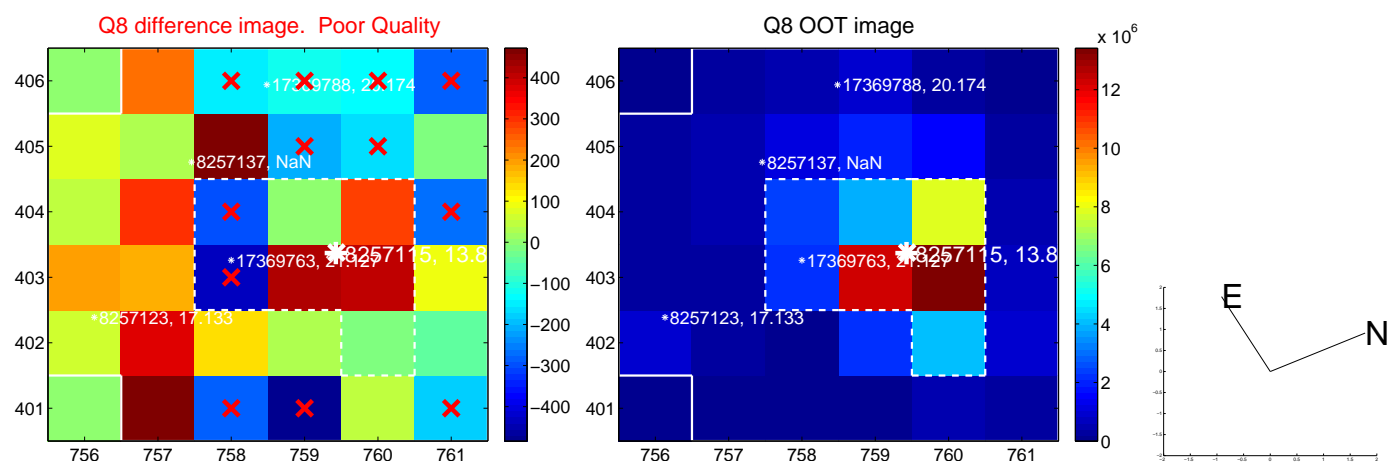
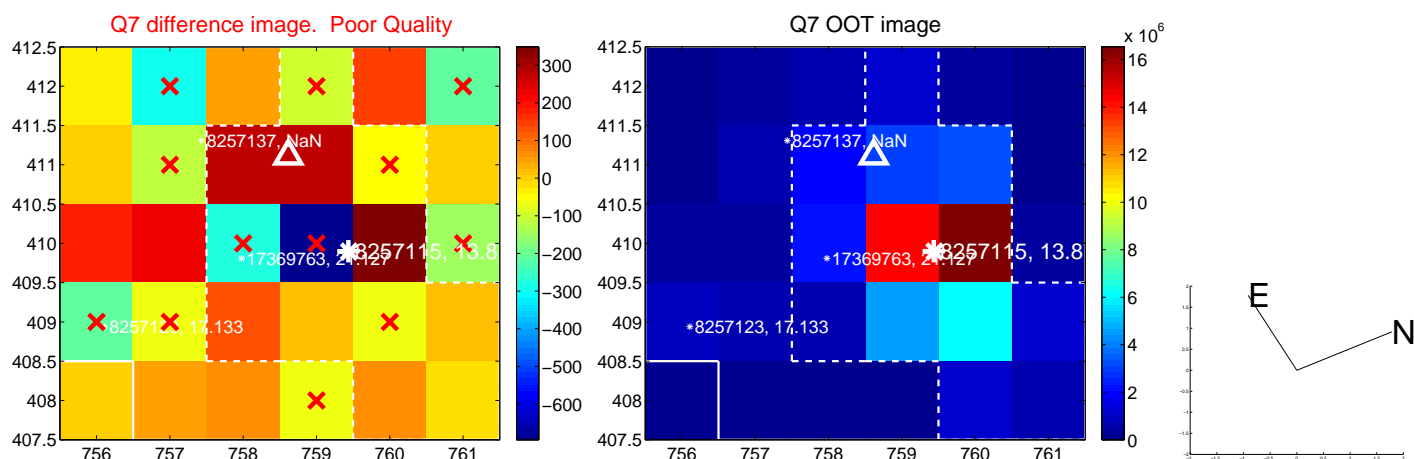
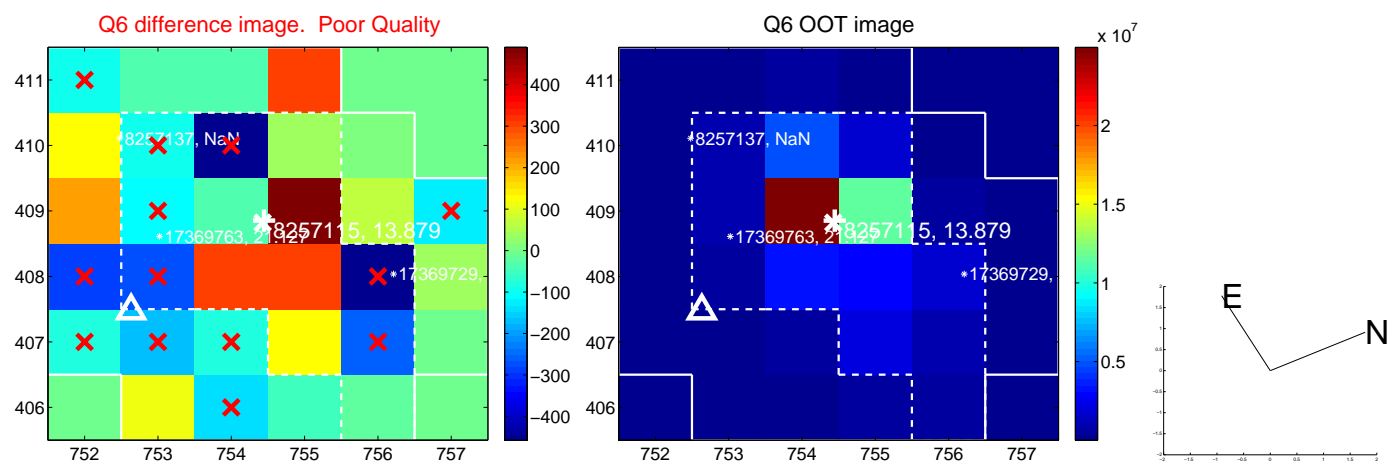
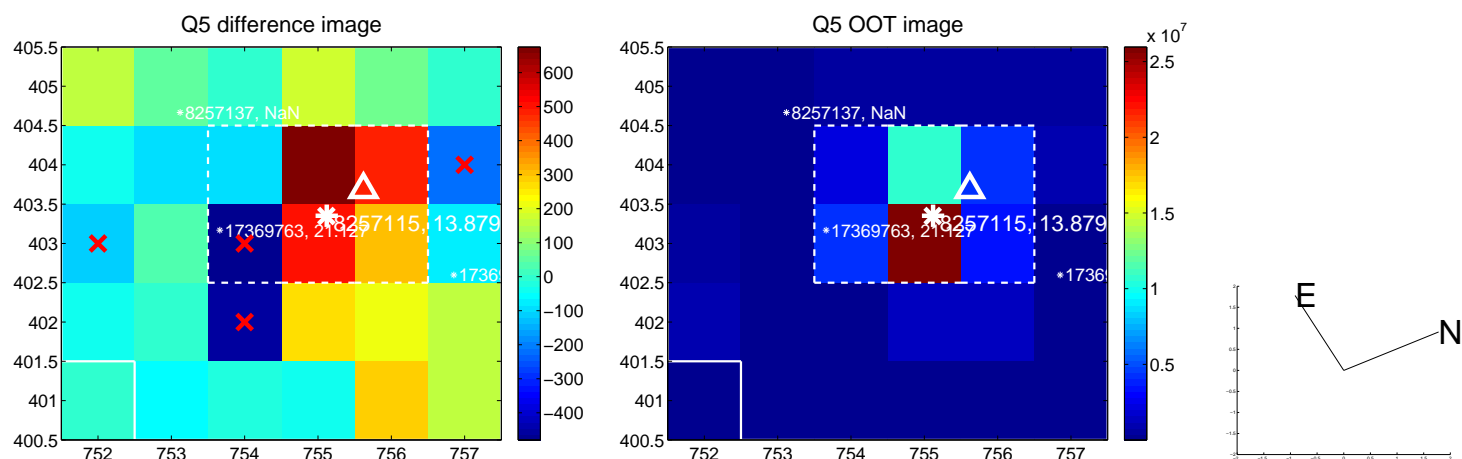


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

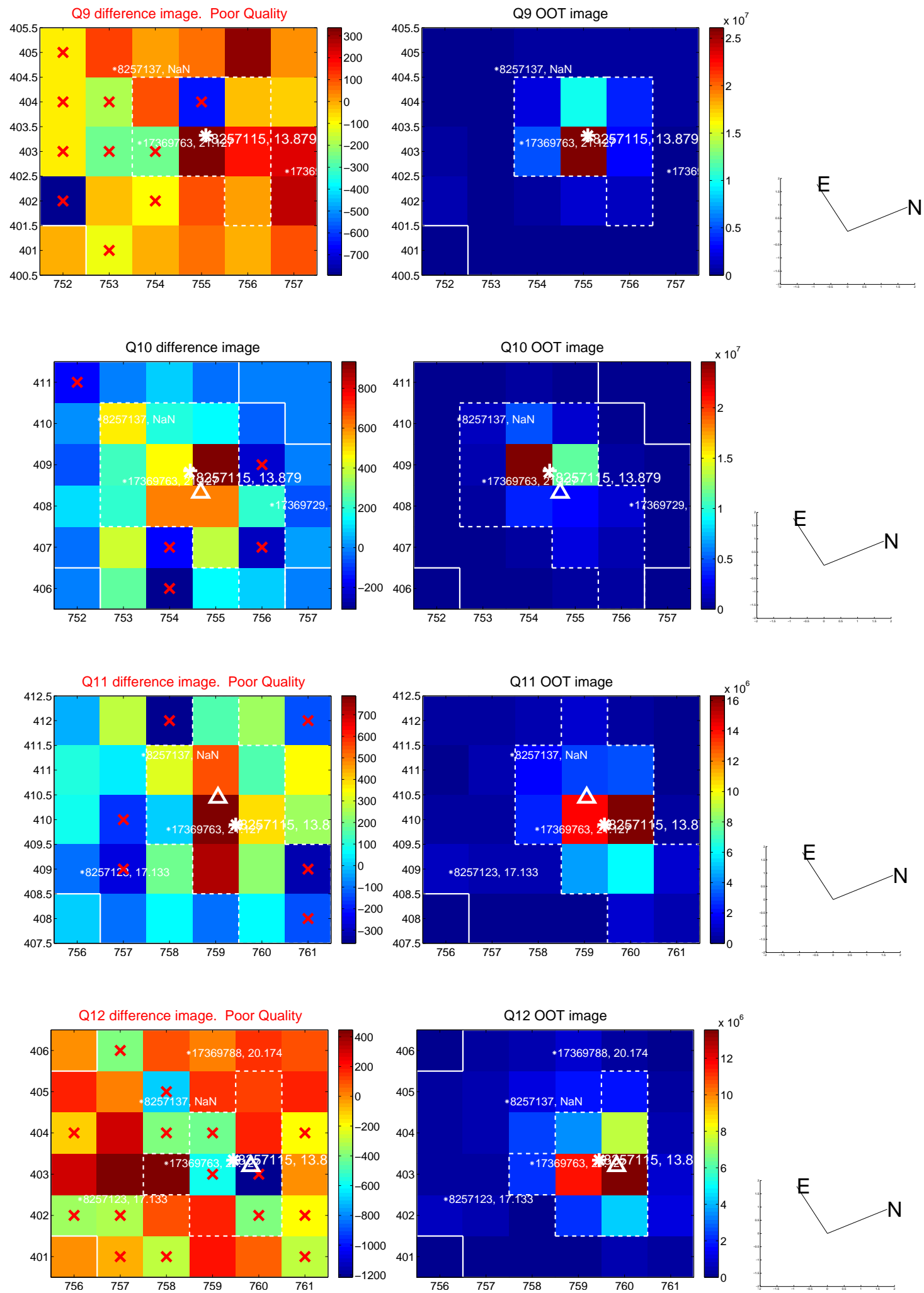
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



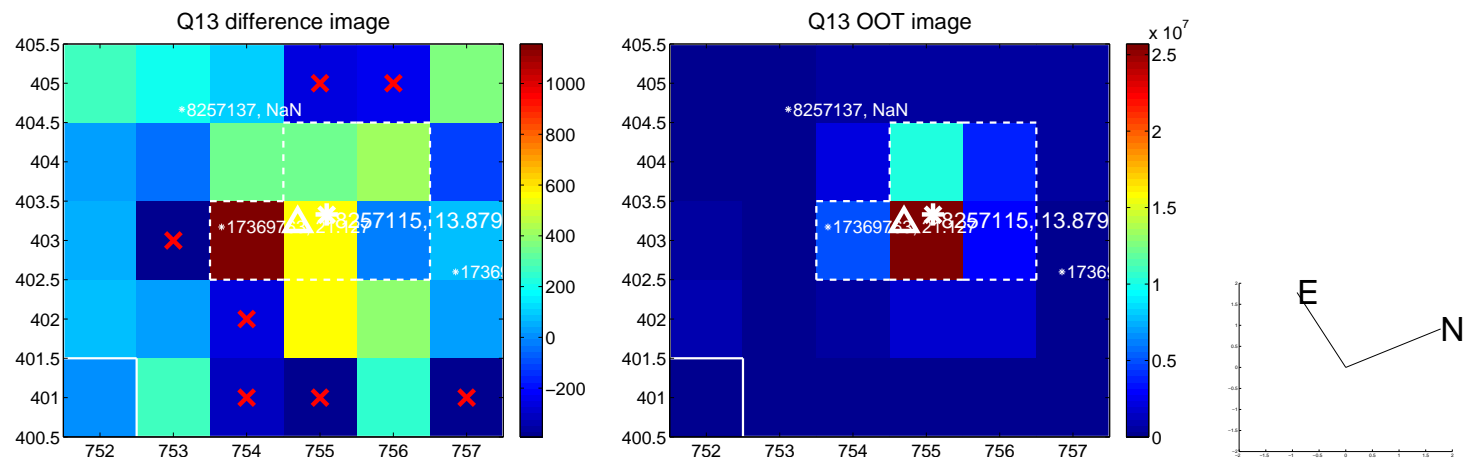
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



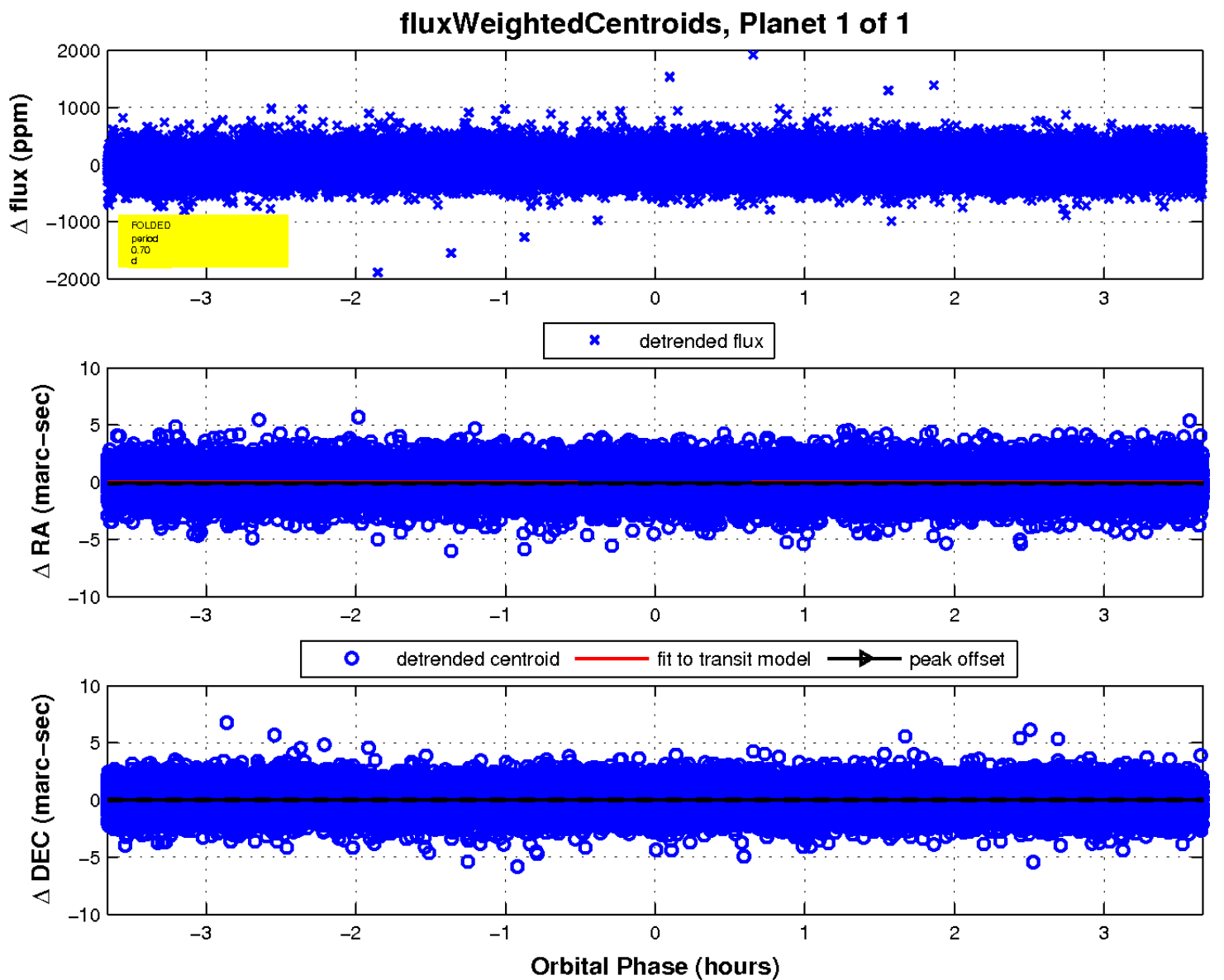
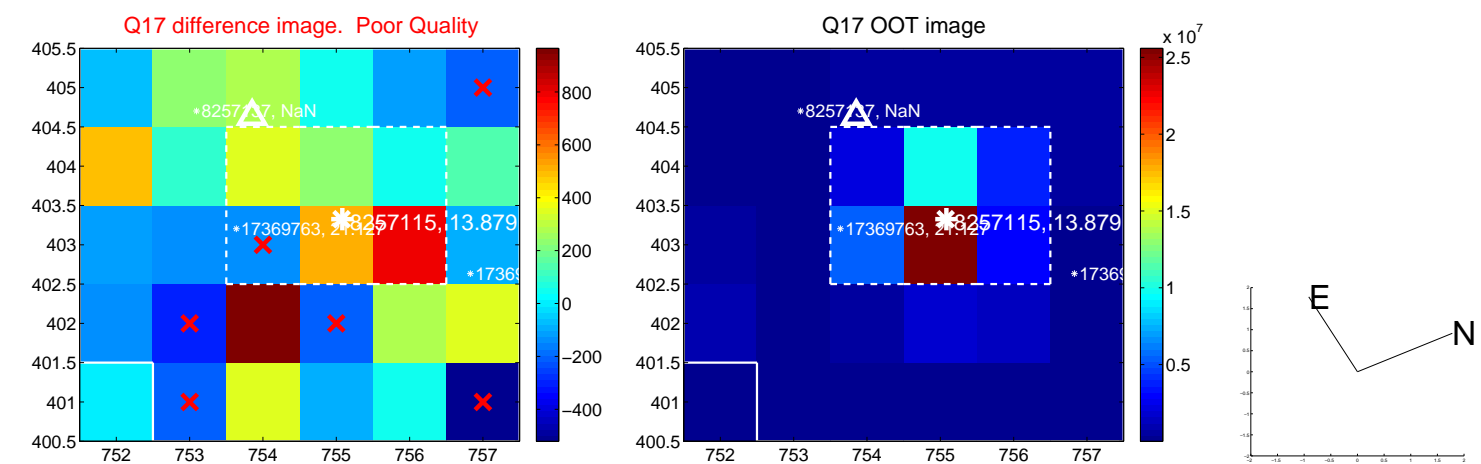
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UKIRT Image

Declination

