

KIC 007435286

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})
007435286-01	OBS	No	1.207183	131.833603	18.7	5.110	8.5	7.9	2.08	6740	1.07	13862.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007435286-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

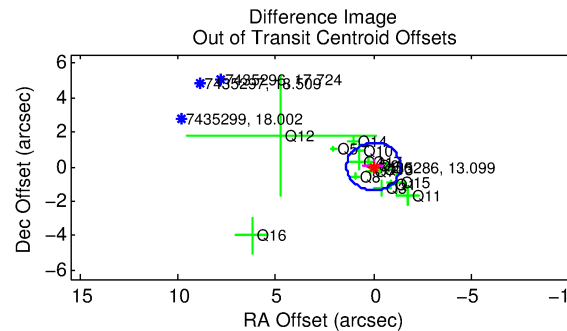
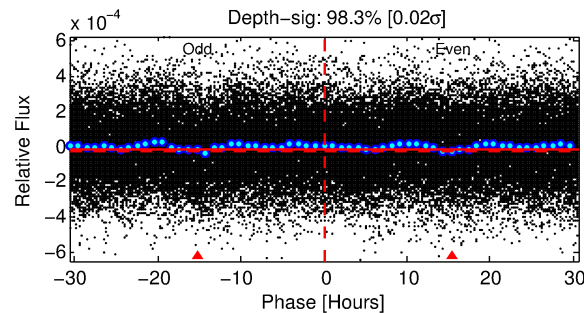
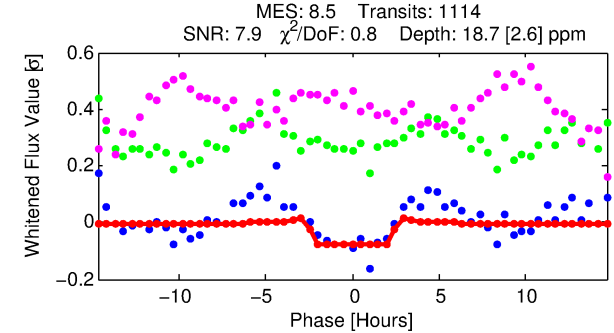
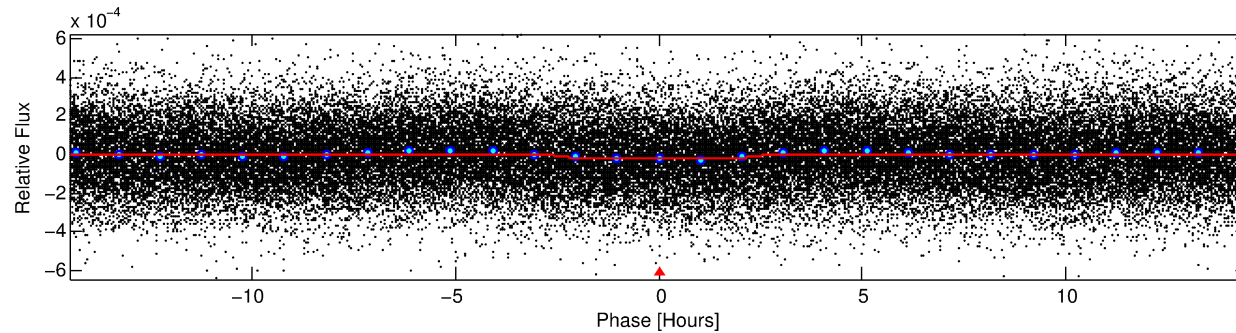
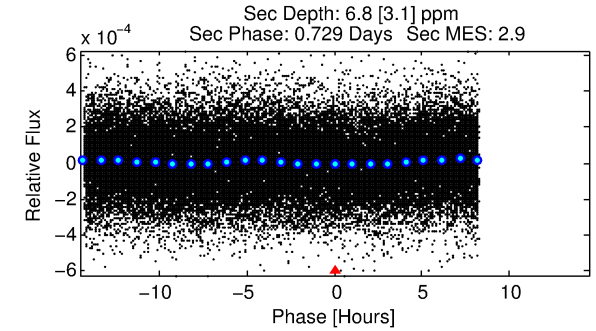
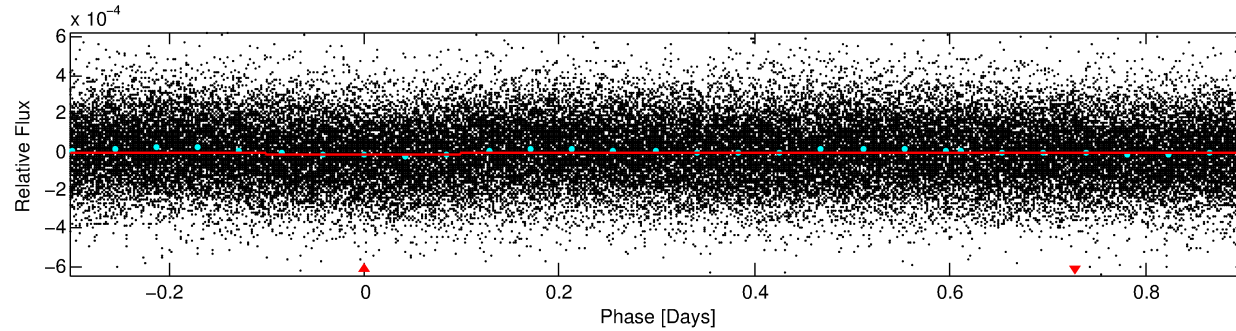
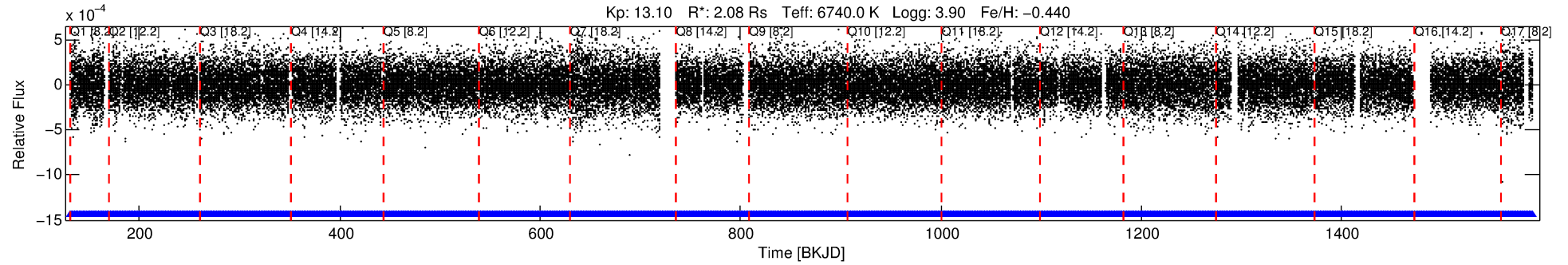
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007435286-01

No Significant Match Found

DV One-Page Summary

KIC: 7435286 Candidate: 1 of 1 Period: 1.207 d



DV Fit Results:

Period = 1.20718 [0.00002] d
Epoch = 131.8336 [0.0051] BKJD
Rp/R* = 0.0047 [0.0016]
a/R* = 1.18 [0.71]
b = 0.93 [0.32]
Seff = 13862.72 [9576.27]
Teq = 2767 [478] K
Rp = 1.07 [0.58] Re
a = 0.0240 [0.0100] AU
Ag = 1.88 [2.00] [0.44σ]
Teffp = 5011 [1044] K [1.96σ]

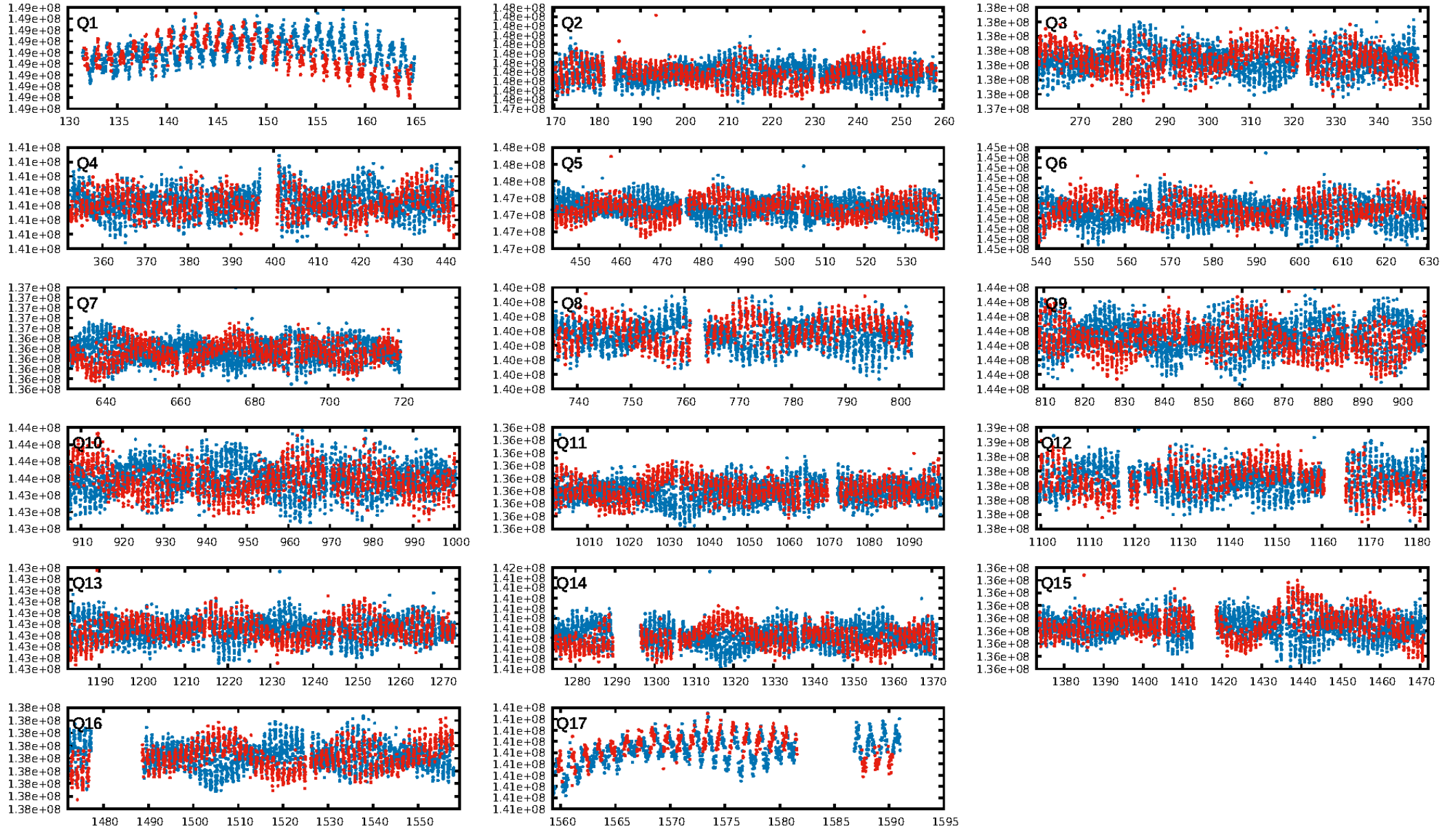
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.26e-14
RollingBand-fgt: 1.00 [1064/1064]
GhostDiagnostic-chr: -5.769
Centroid-sig: 0.1%
Centroid-so: 1.940 arcsec [2.16σ]
OotOffset-rm: 0.009 arcsec [0.02σ]
KicOffset-rm: 0.100 arcsec [0.21σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 1.00 [17/17]

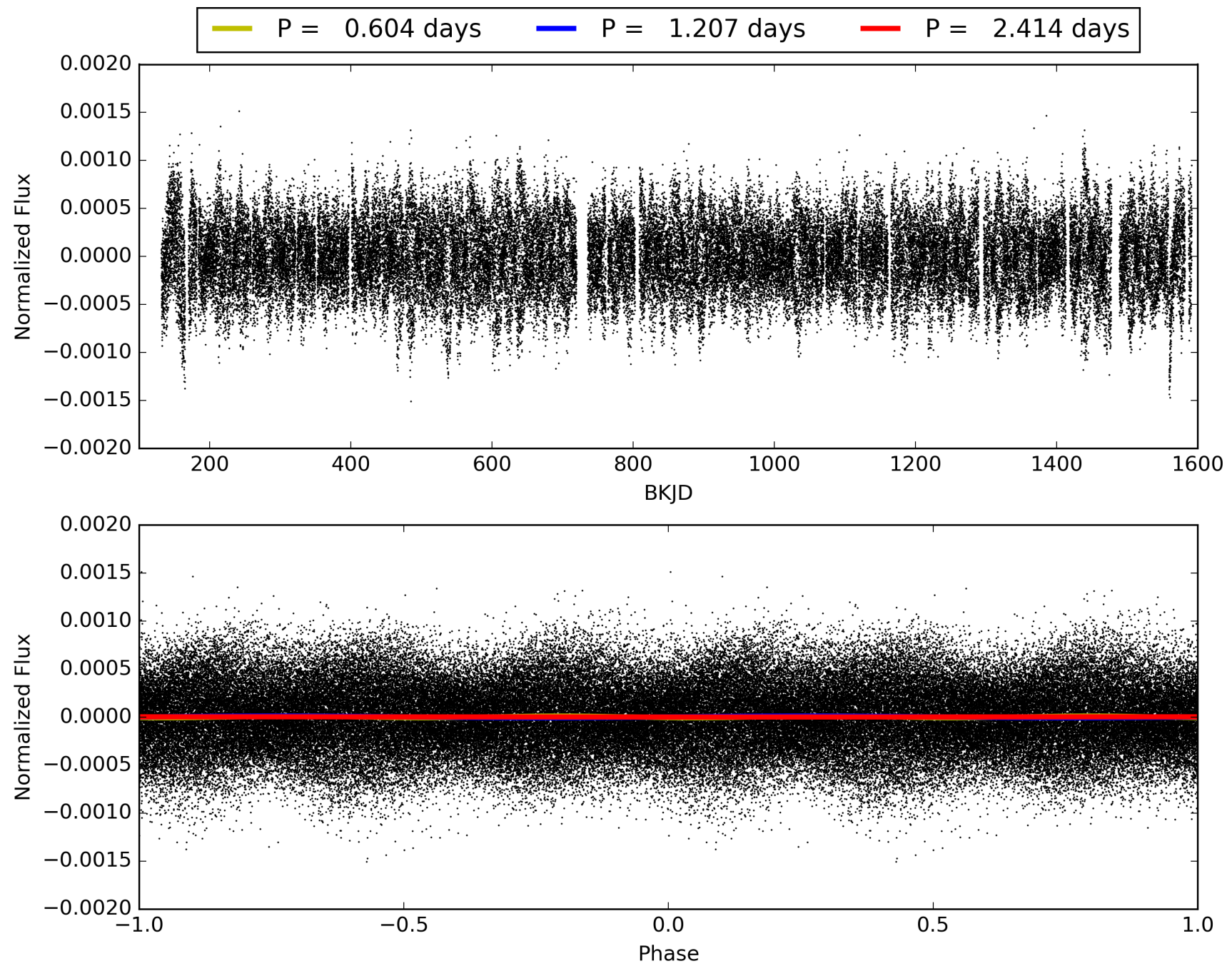
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:17:47 Z

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

TCE 007435286-01, PDC Light Curves

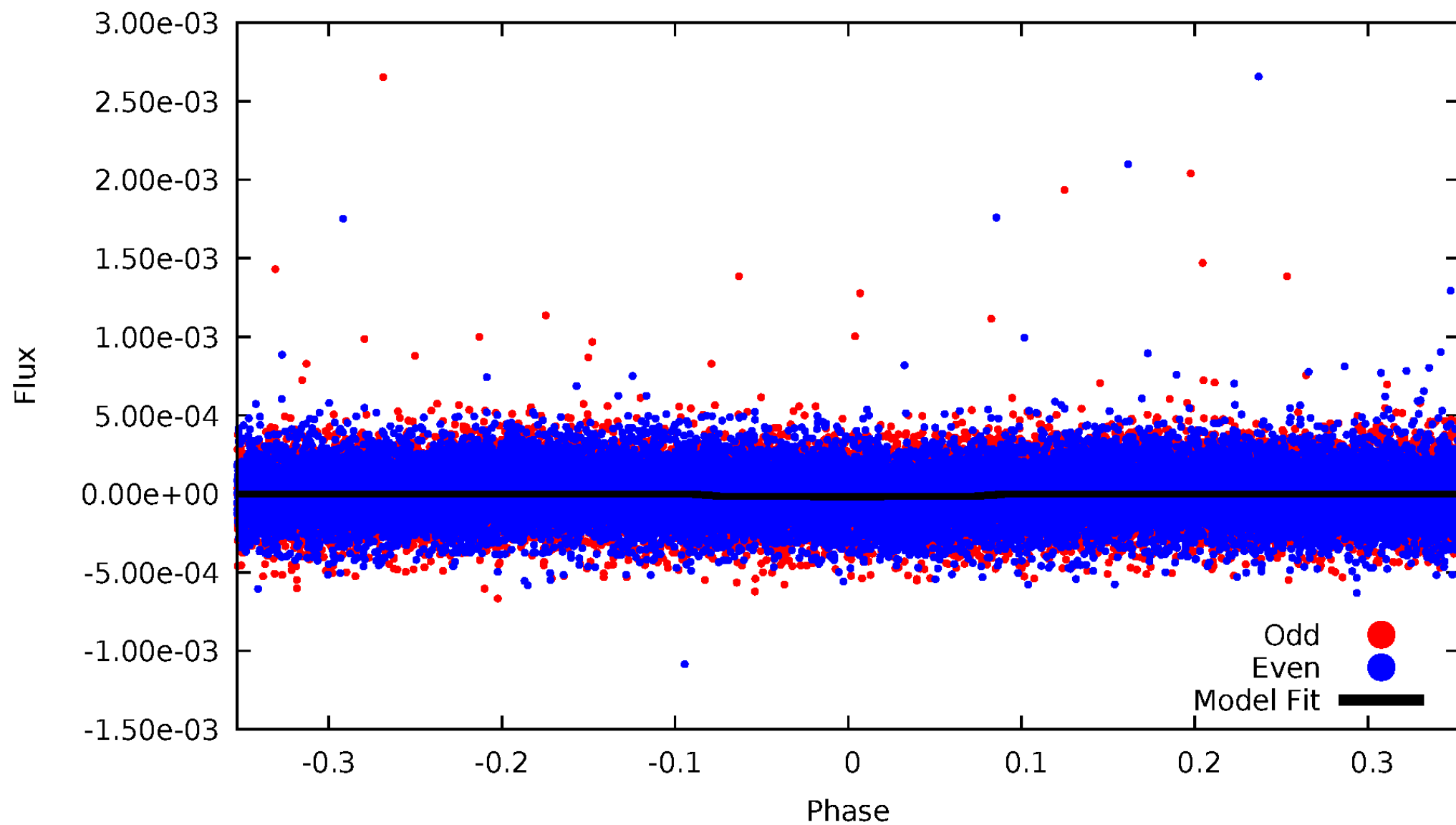


TCE 007435286-01



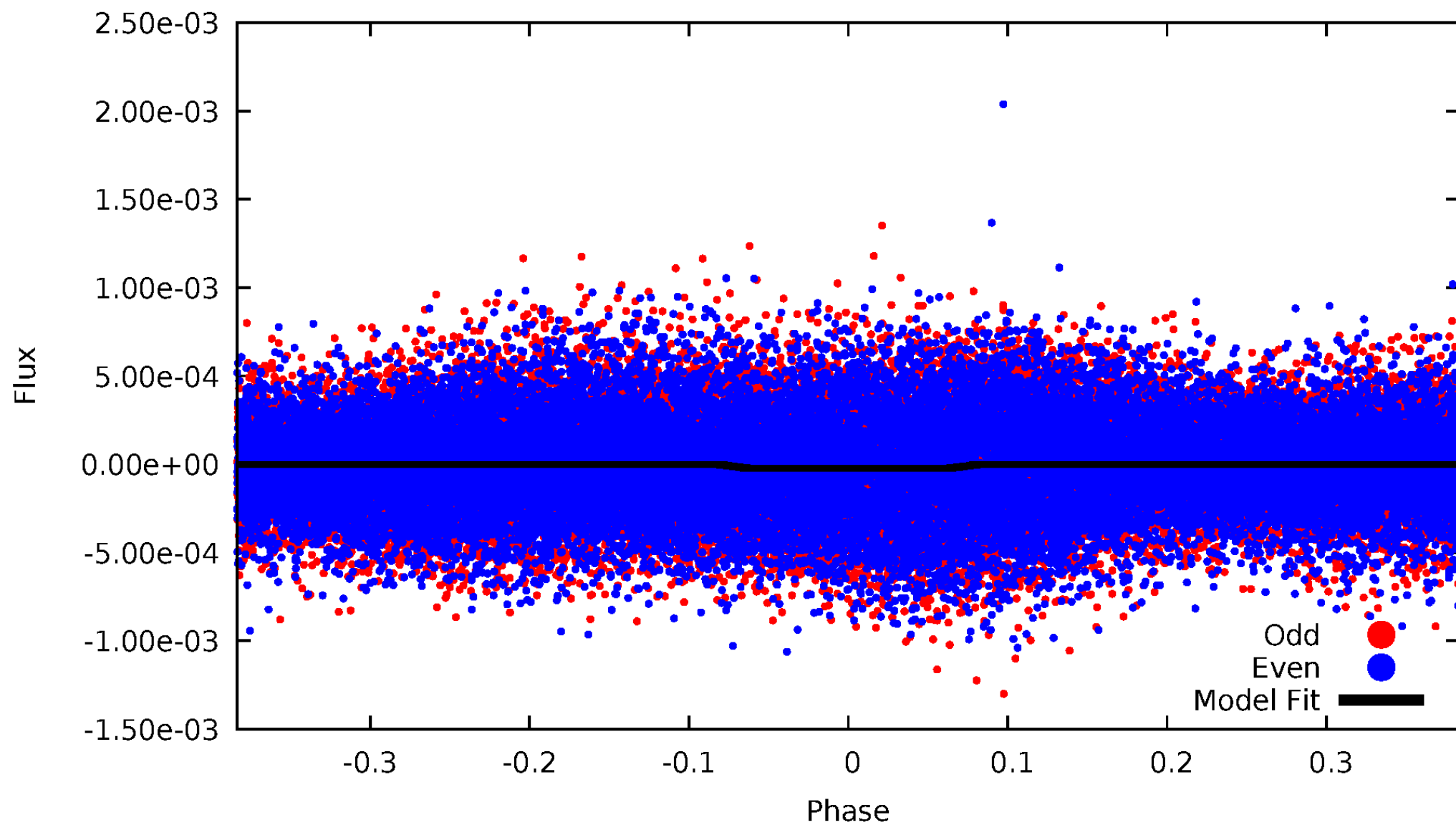
DV Odd/Even

TCE 007435286-01

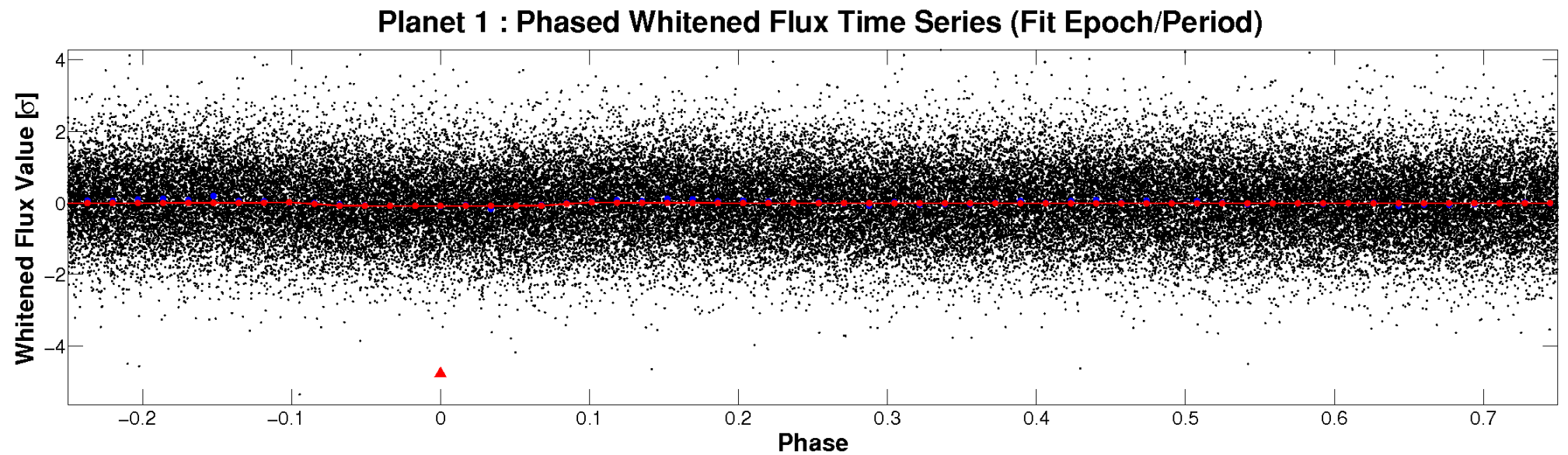
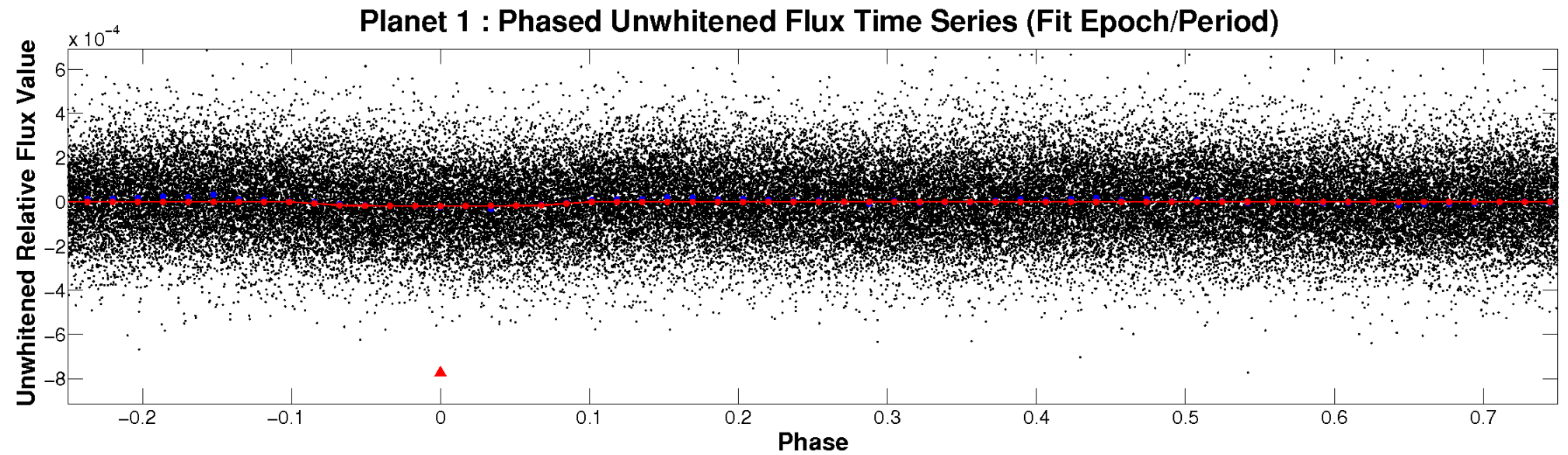


ALT Odd/Even

TCE 007435286-01

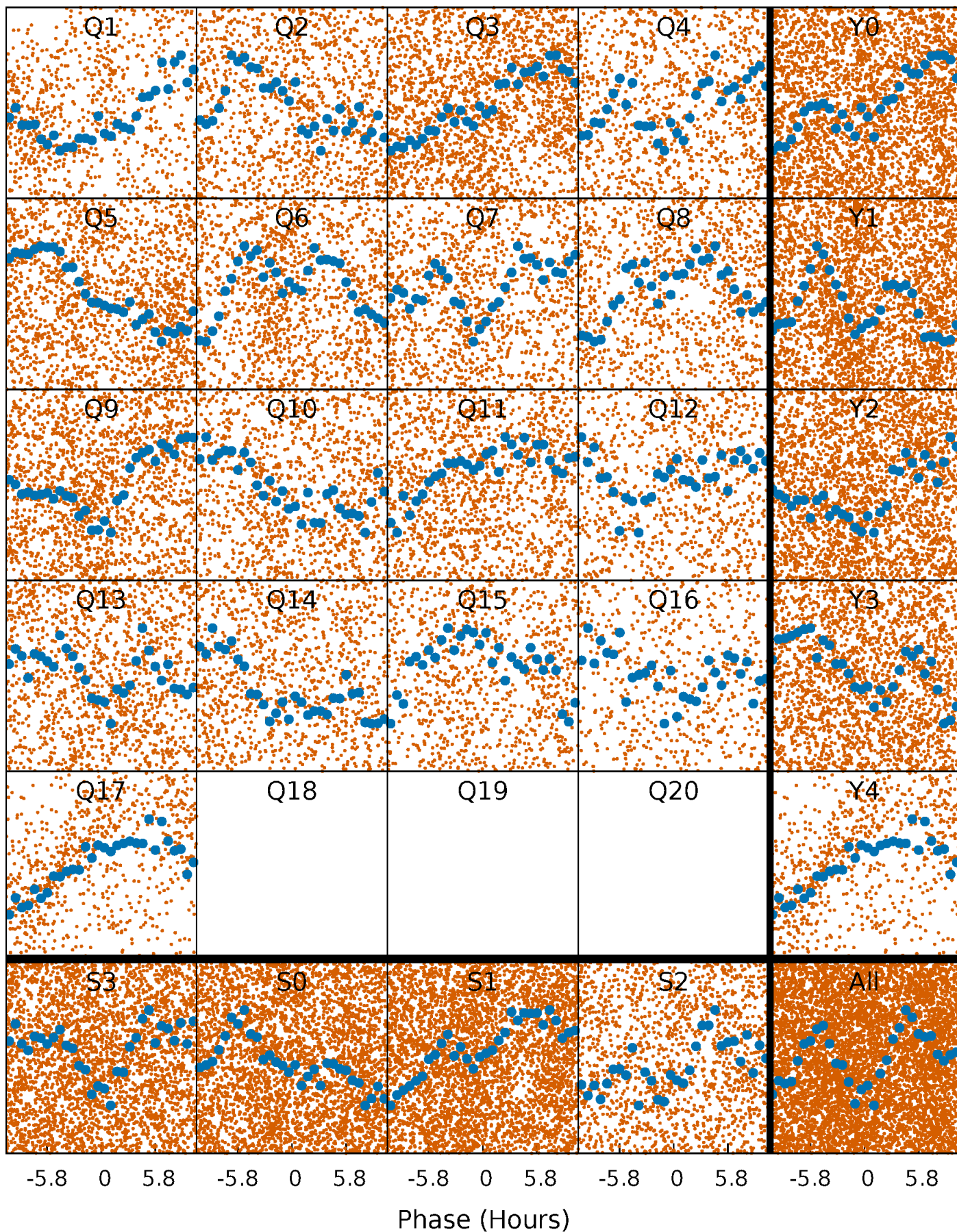


Non-Whitened Vs. Whitened Light Curve



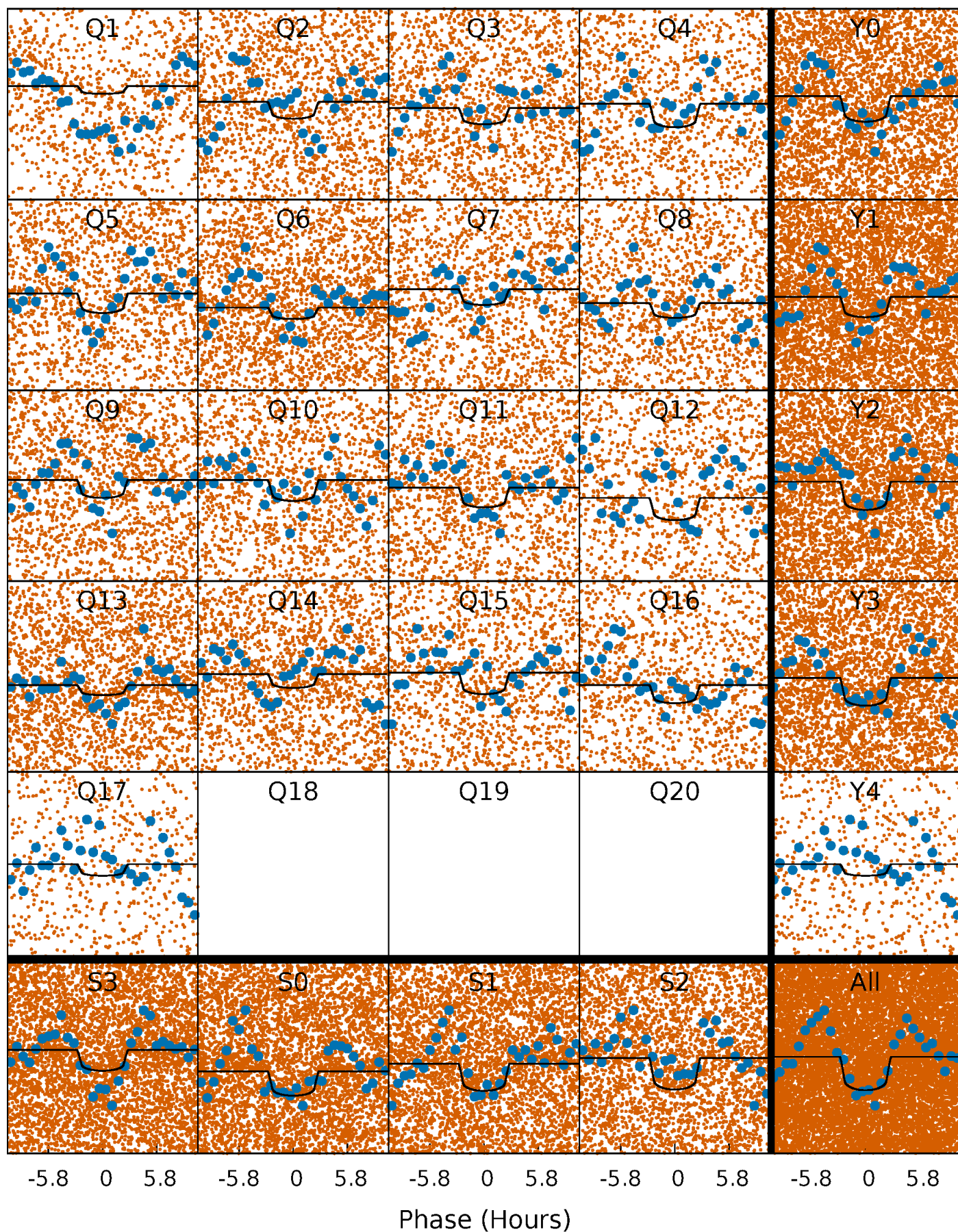
PDC Quarter-Phased Transit Curves

TCE 007435286-01 P= 1.207183 Days $T_0=131.833603$ (BKJD)



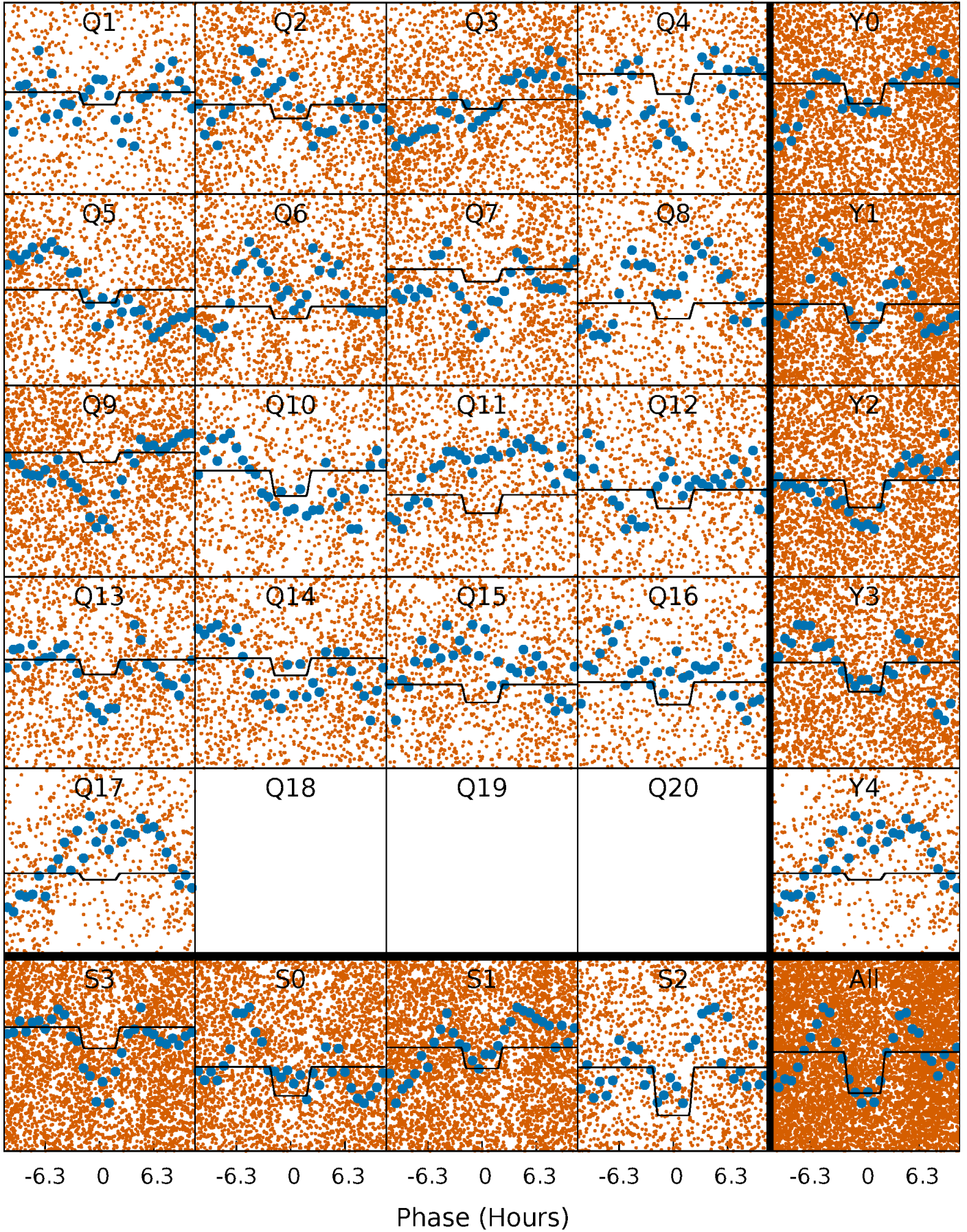
DV Quarter-Phased Transit Curves

TCE 007435286-01 P= 1.207183 Days $T_0=131.833603$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

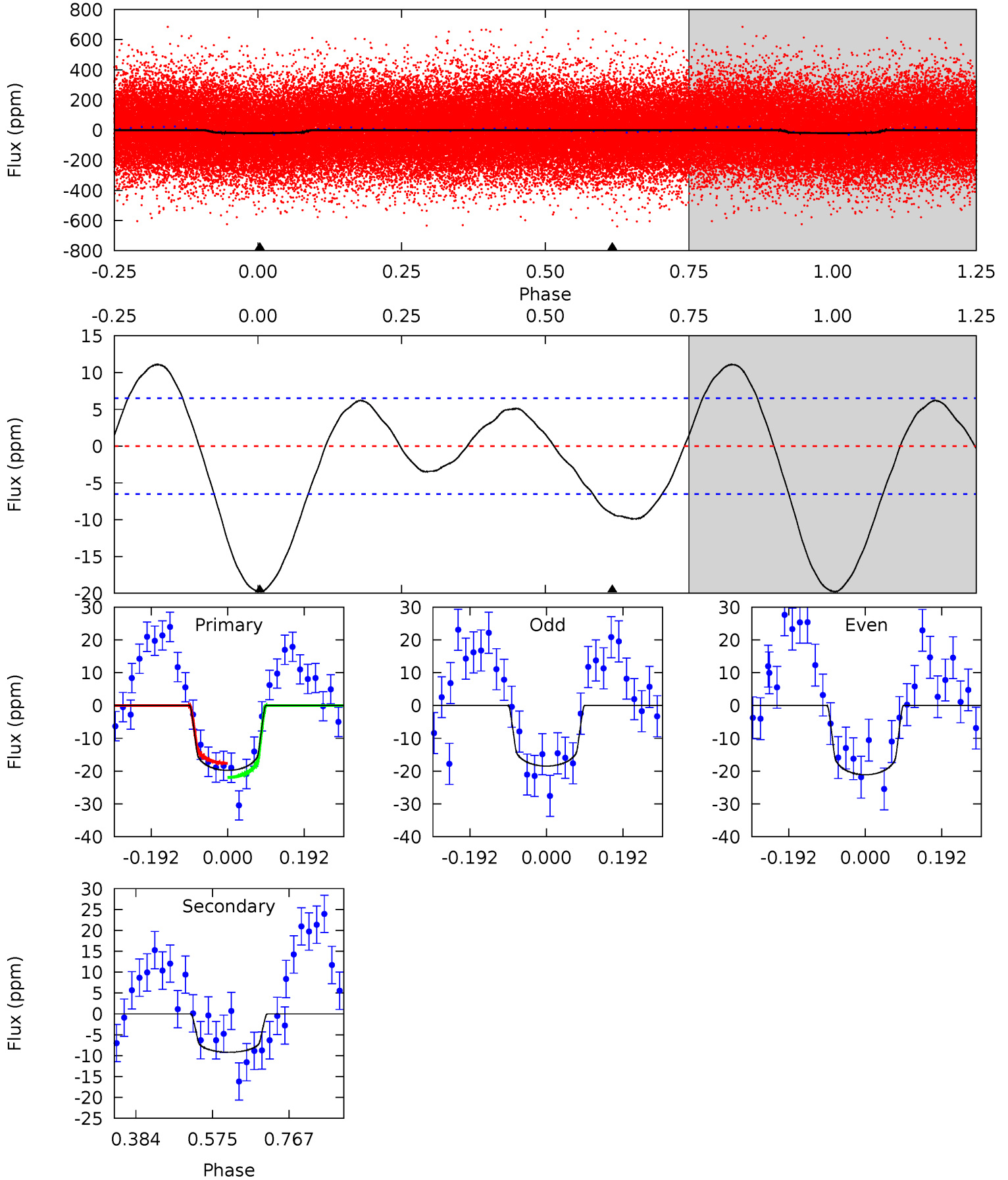
TCE 007435286-01 P= 1.207220 Days $T_0=131.809476$ (BKJD)



DV Model-Shift Uniqueness Test

007435286-01, P = 1.207183 Days, E = 130.626420 Days

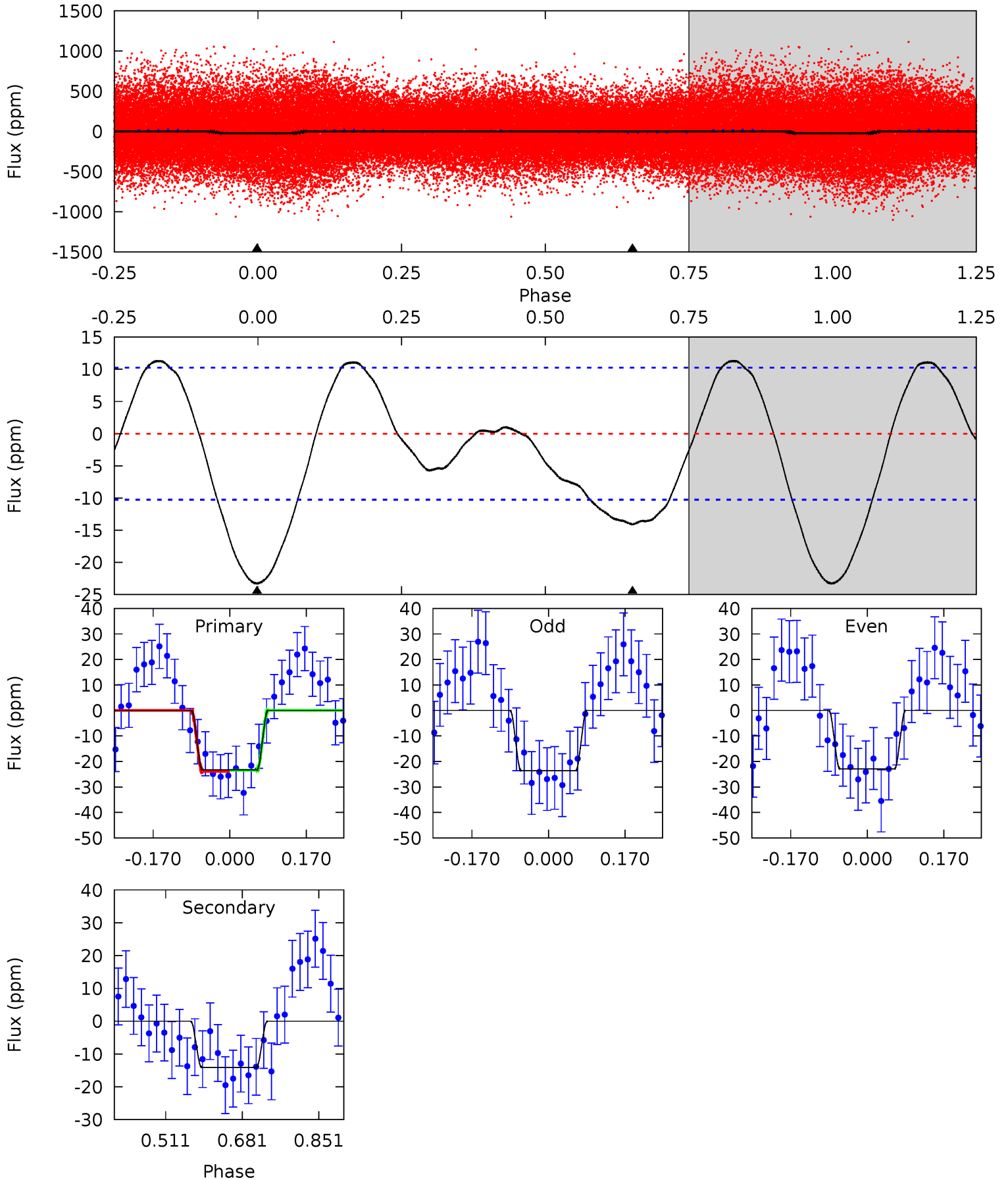
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	6.25	0	0	4.43	1.31	2.06	13.4	13.4	6.25	6.25	0.90	1.08	0.36	1.50



Alt Model-Shift Uniqueness Test

007435286-01, P = 1.207220 Days, E = 130.602256 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	6.10	0	0	4.45	1.37	2.04	10.1	10.1	6.10	6.10	0.15	1.06	0.33	0.11



Stellar Parameters For KIC 007435286

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6740^{+214}_{-262}	$3.904^{+0.398}_{-0.133}$	$-0.440^{+0.300}_{-0.300}$	$2.075^{+0.473}_{-0.879}$	$1.259^{+0.195}_{-0.238}$	$0.199^{+0.687}_{-0.079}$
	+3%/-4%	+10%/-3%	+68%/-68%	+23%/-42%	+15%/-19%	+346%/-40%
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 007435286-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 1	$0.96^{+0.44}_{-0.38}$	3788^{+285}_{-423}	5324^{+1530}_{-750}	$3.145^{+5.203}_{-1.669}$
Alt.	-14 ± 2	$0.97^{+0.45}_{-0.37}$	3794^{+305}_{-426}	5942^{+1682}_{-913}	$4.848^{+7.848}_{-2.677}$

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 $A_{obs} \gg 1.0$

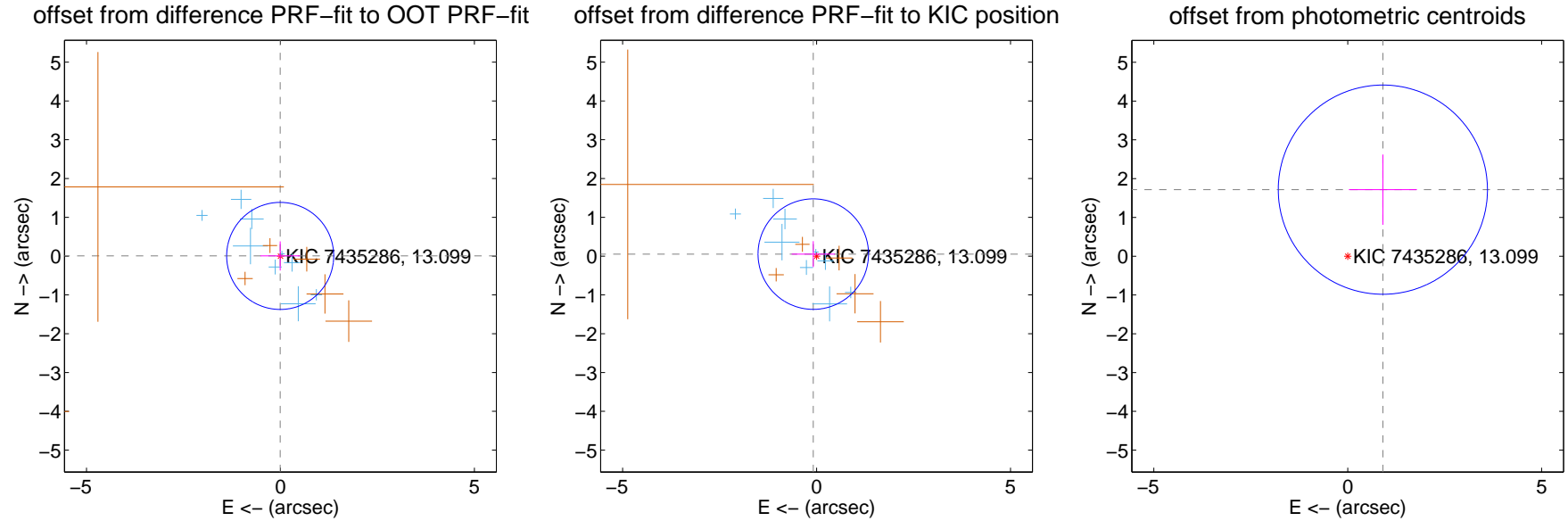
DV Centroid Data

Supplemental centroid analysis for 007435286-01. Kepler magnitude: 13.10. Transit SNR 7.88

There are 9 quarters with good PRF difference image offsets

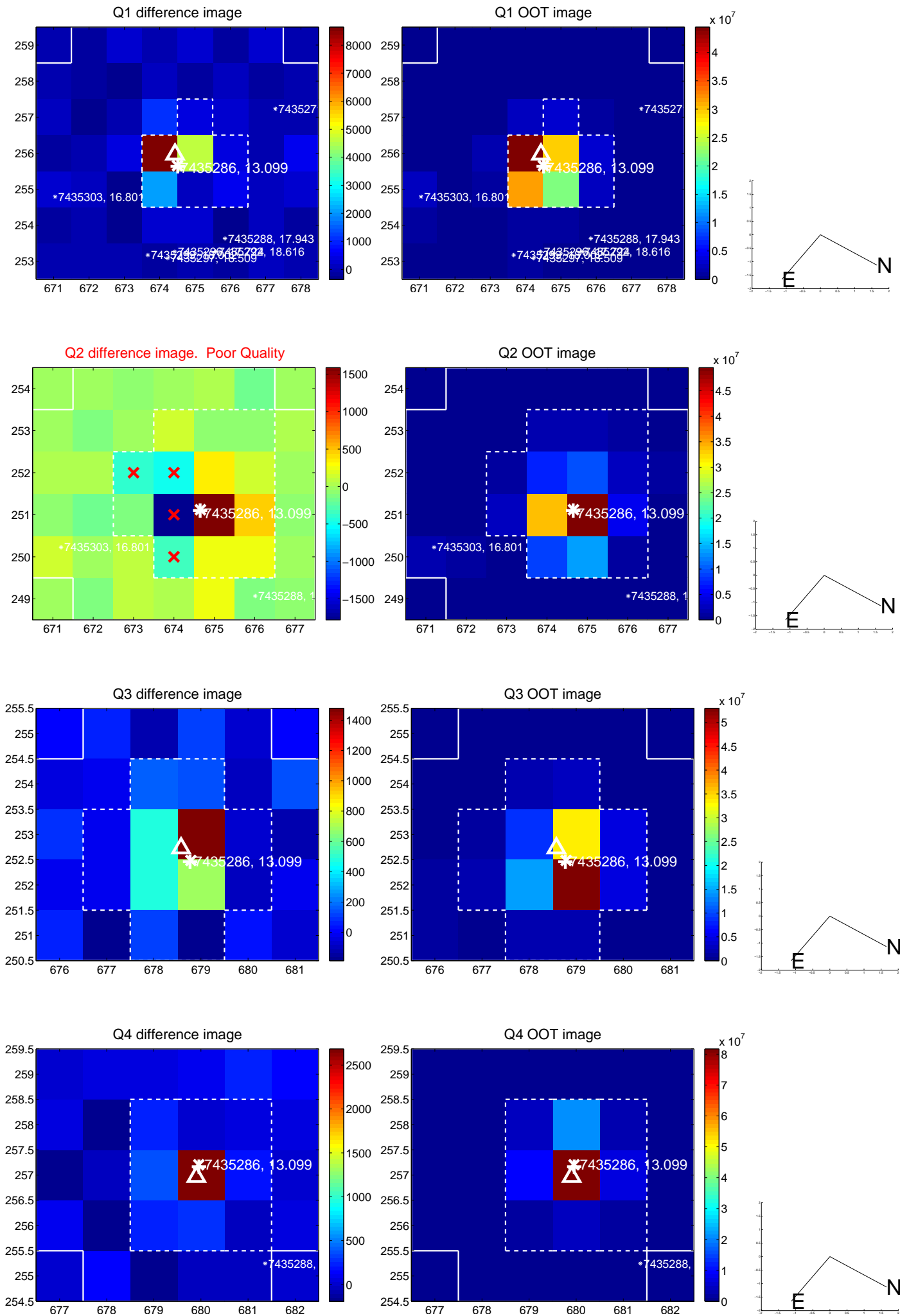
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.009 ± 0.460	0.02	0.007 ± 0.511	0.006 ± 0.375
PRF-fit source offset from KIC position	0.100 ± 0.475	0.21	0.085 ± 0.557	0.052 ± 0.335
photometric centroid source offset	1.94 ± 0.90	2.16	-0.91 ± 0.88	1.72 ± 0.91

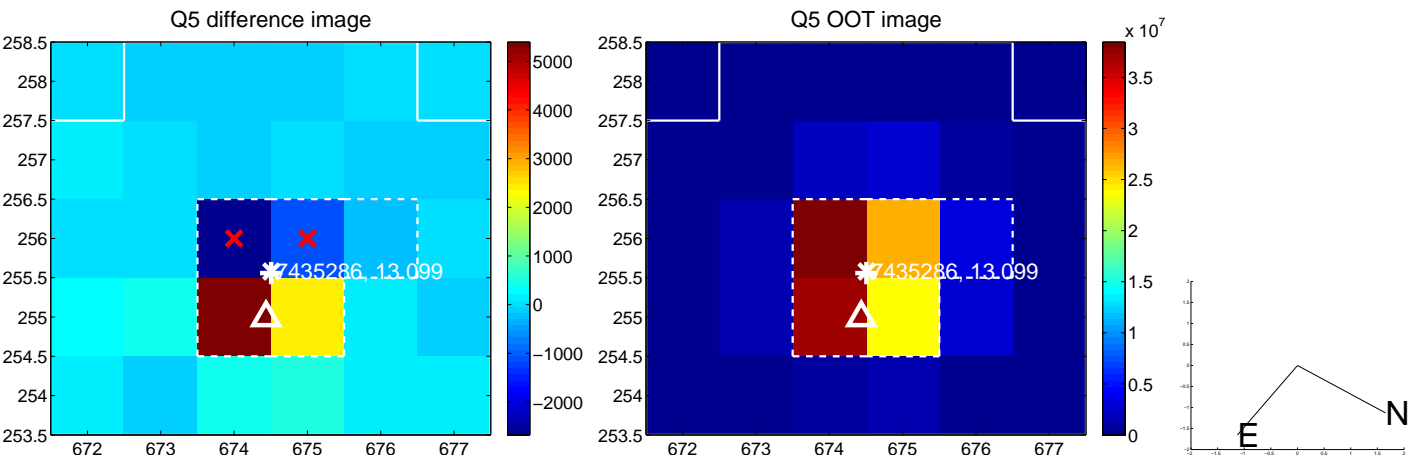


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

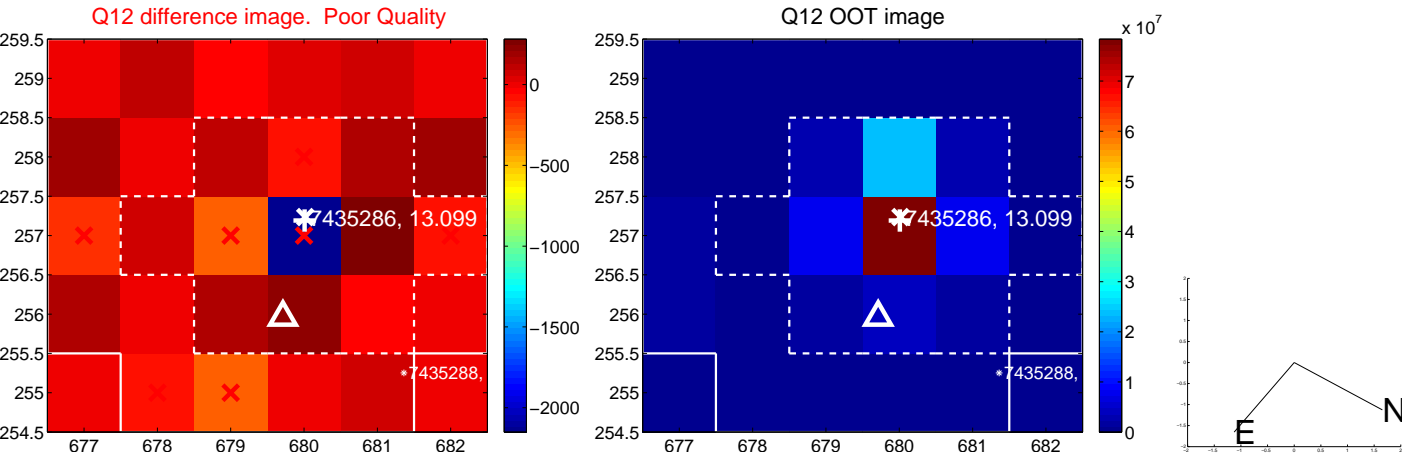
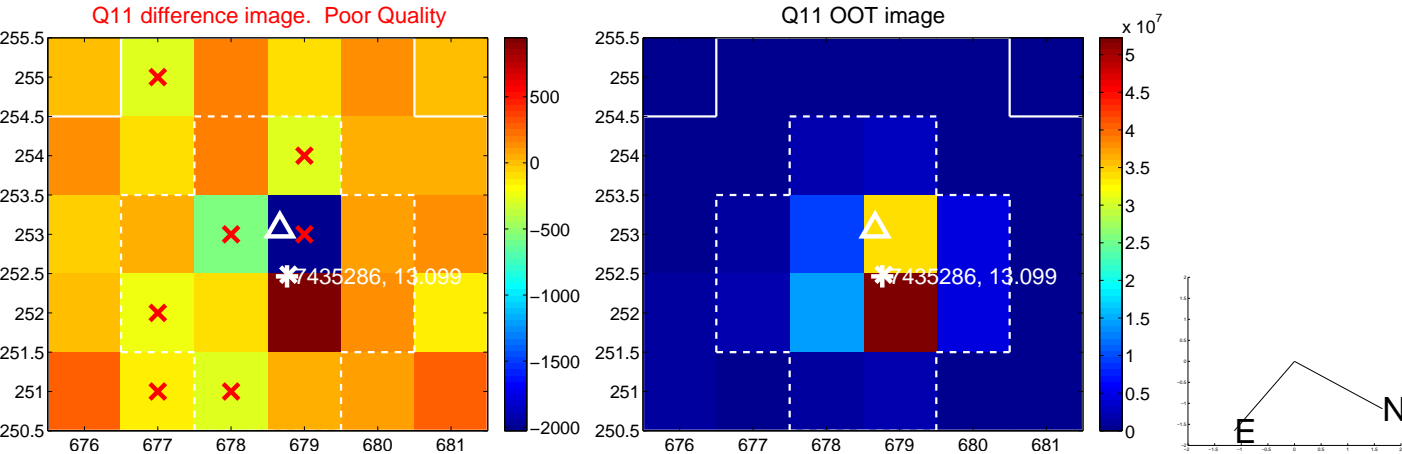
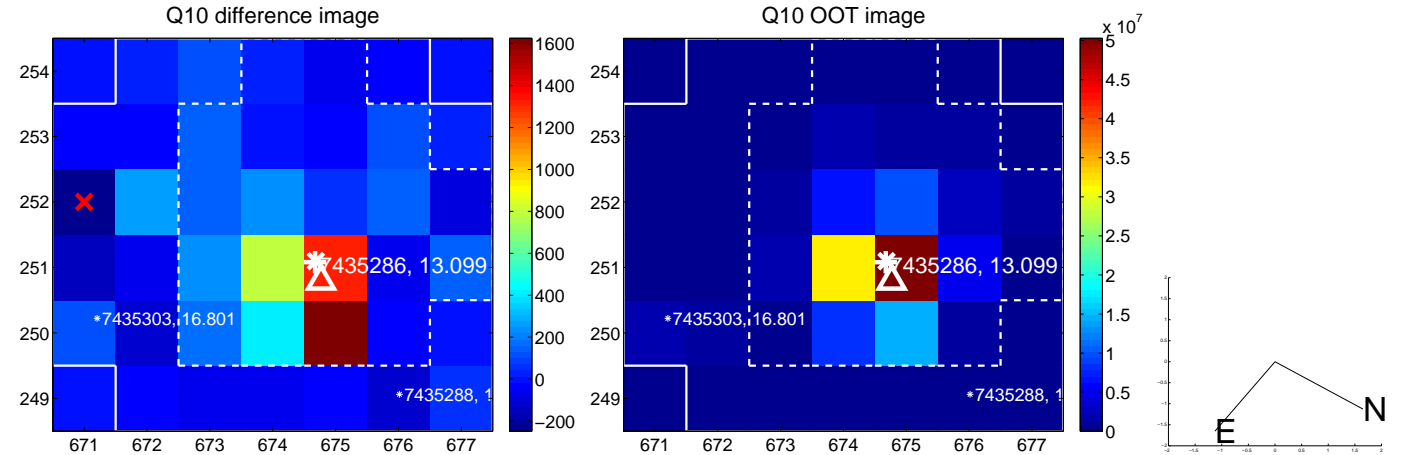
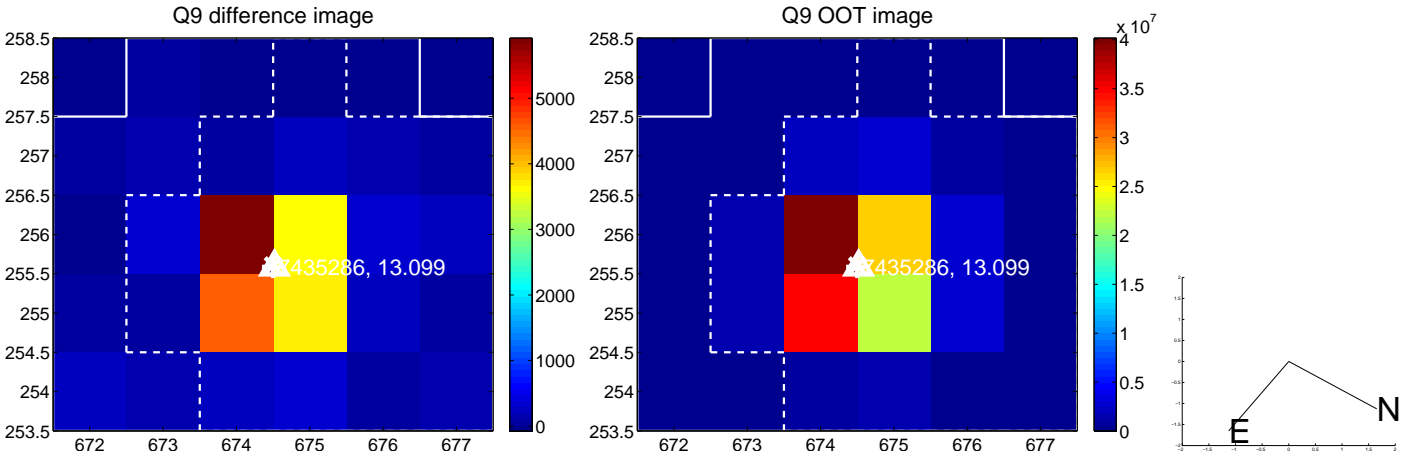
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



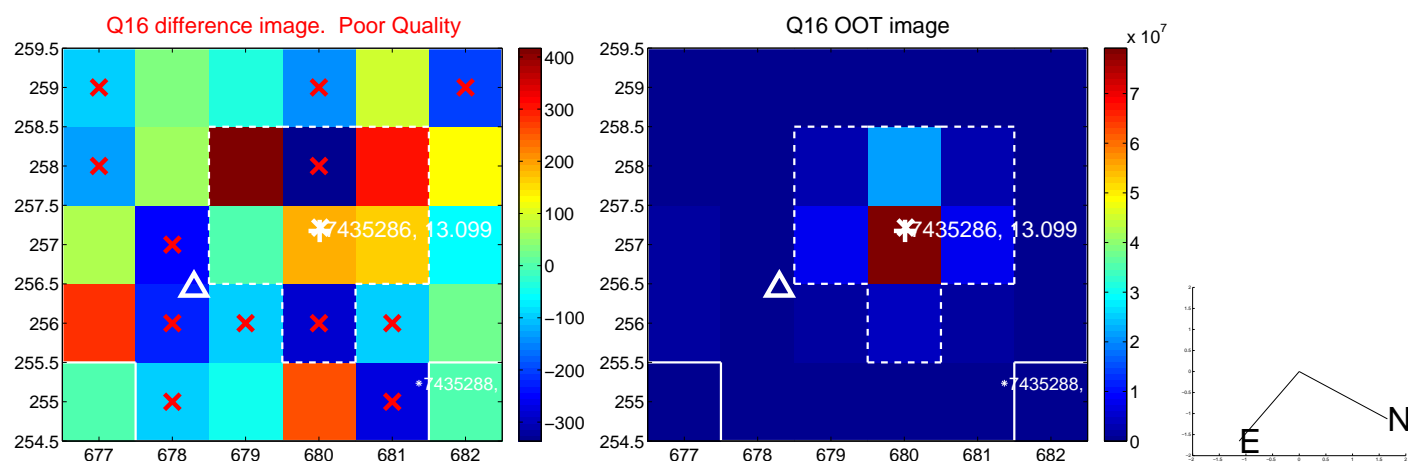
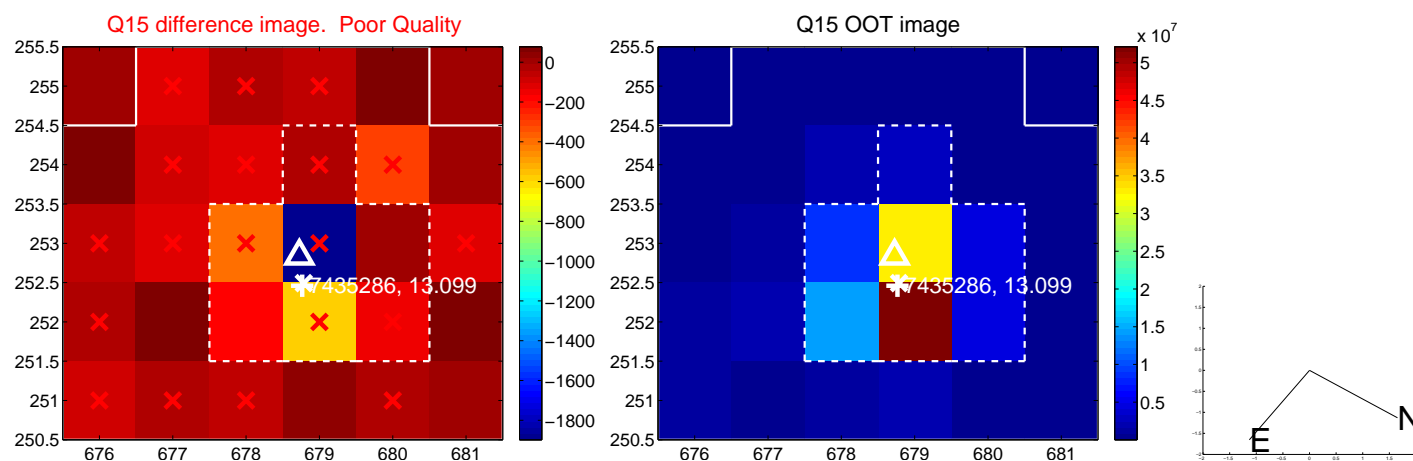
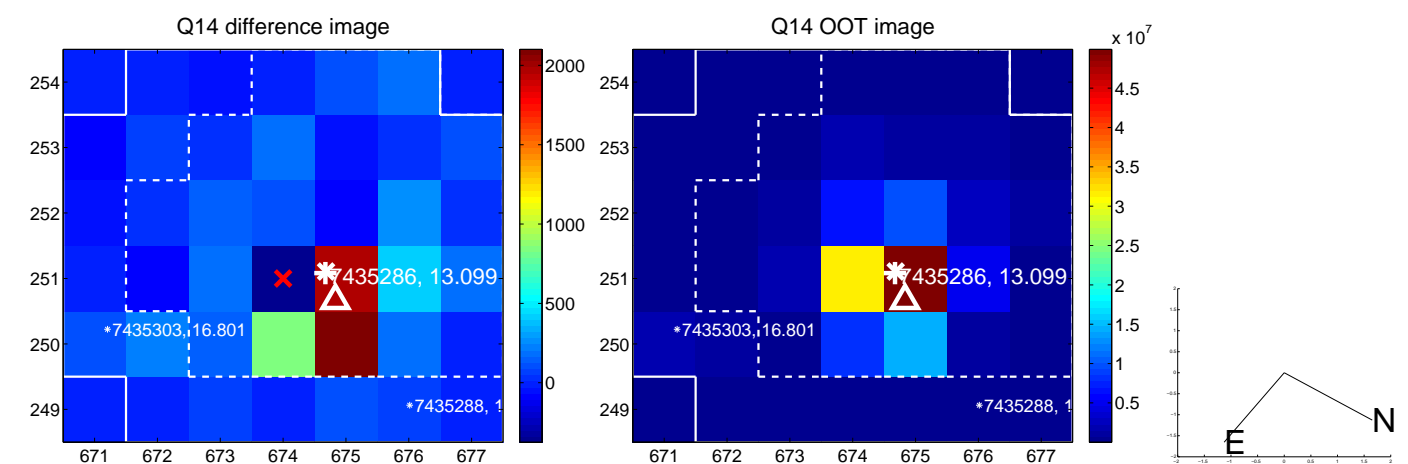
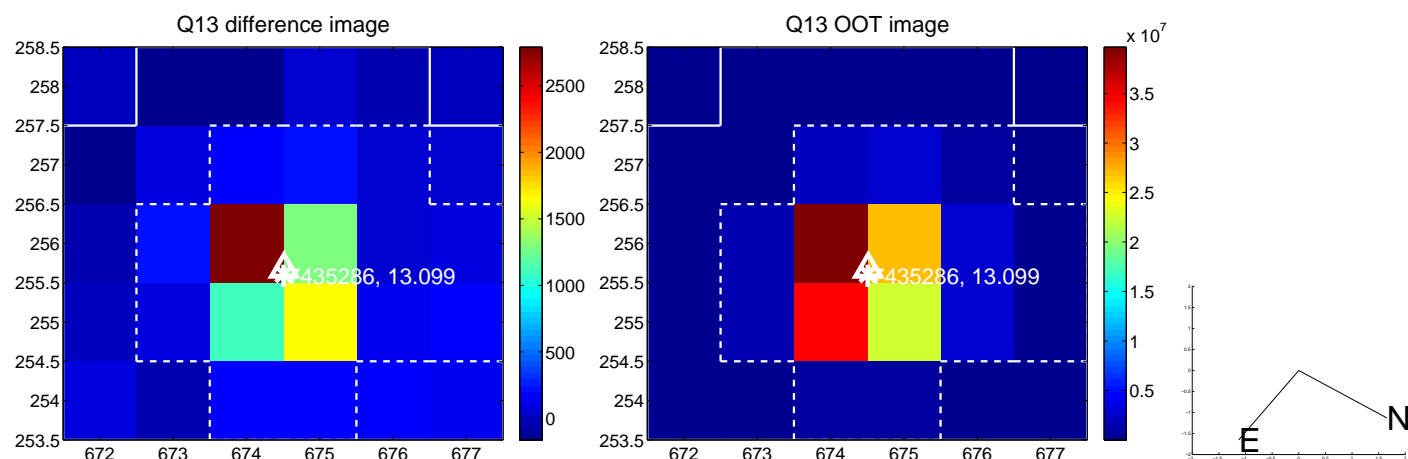
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



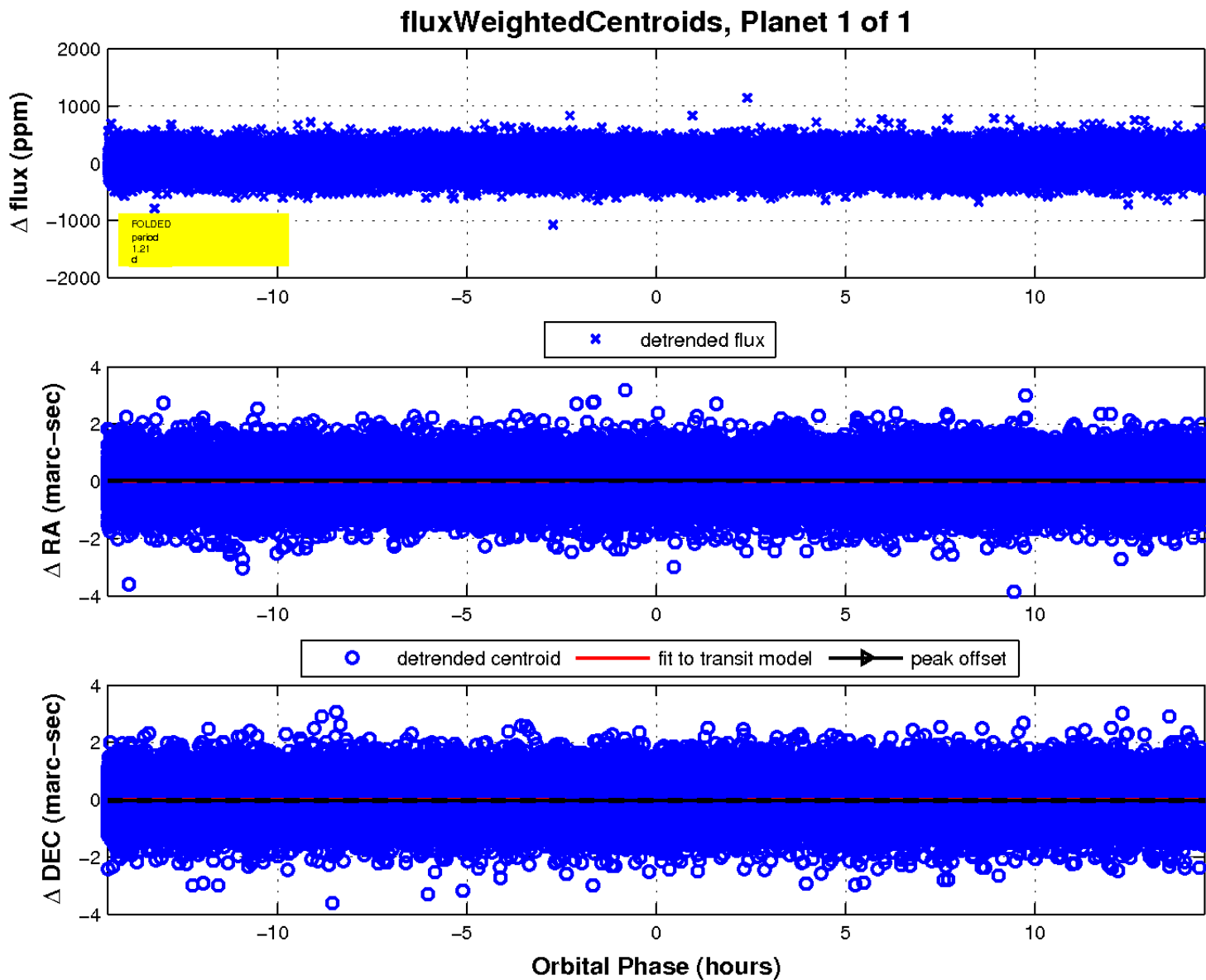
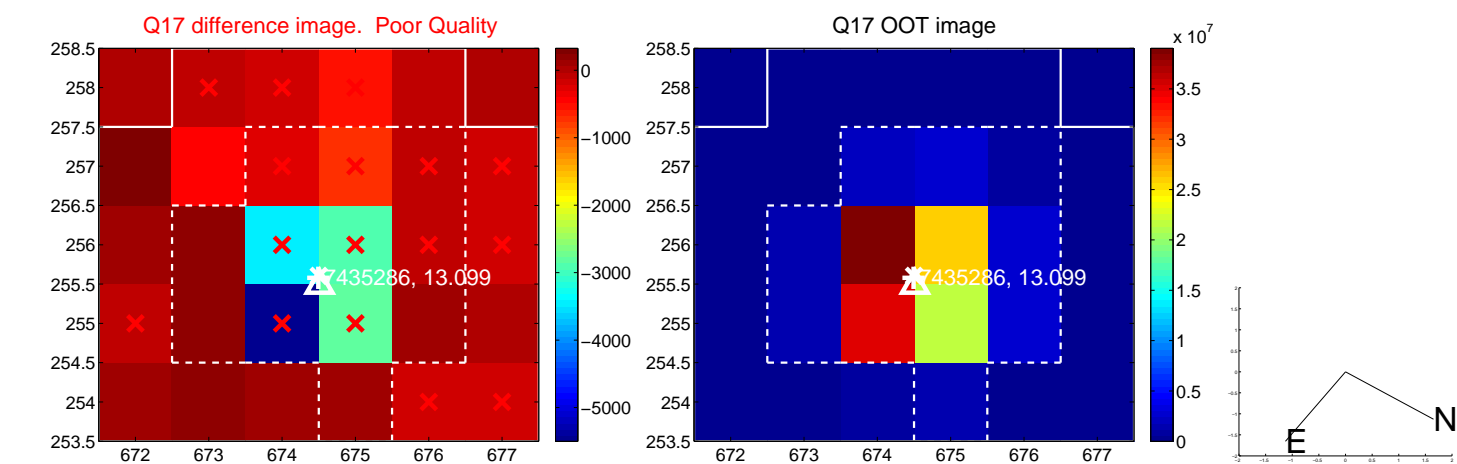
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UKIRT Image

