

KIC 007032456

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})
007032456-01	OBS	No	0.566758	131.844770	24.3	3.594	8.9	4.6	0.76	5507	0.40	3037.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007032456-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_UNRESOLVED_OFFSET—EPHEM_MATCH

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.

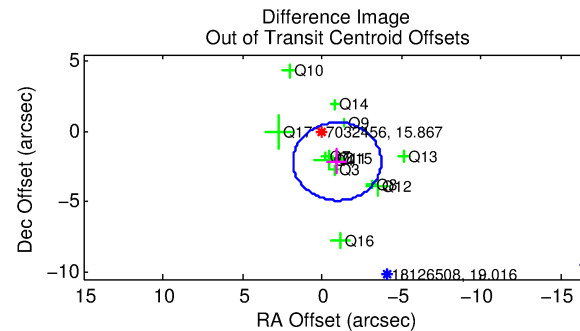
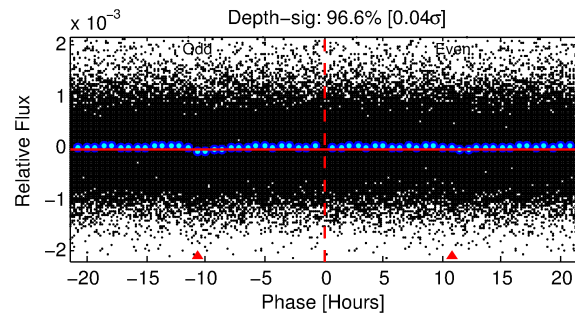
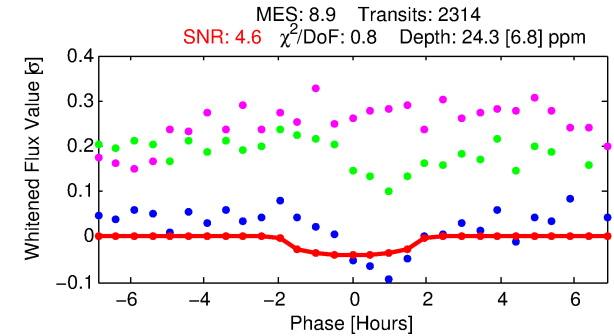
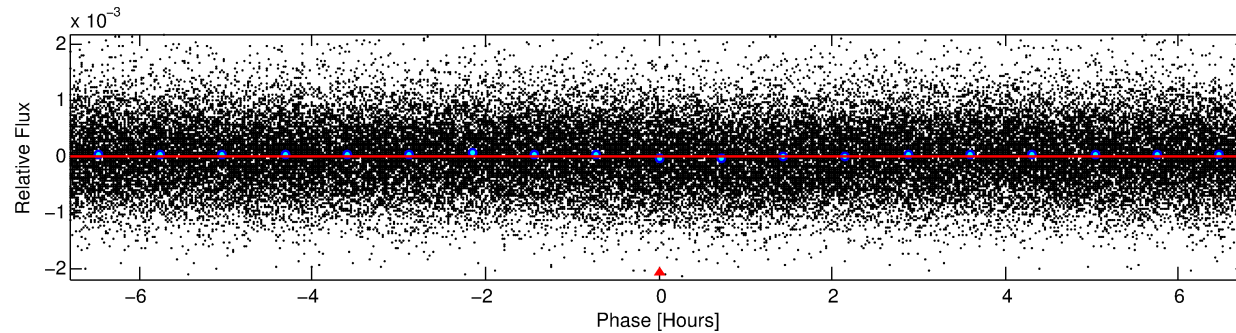
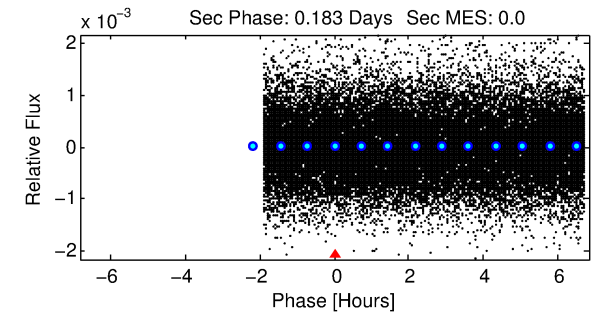
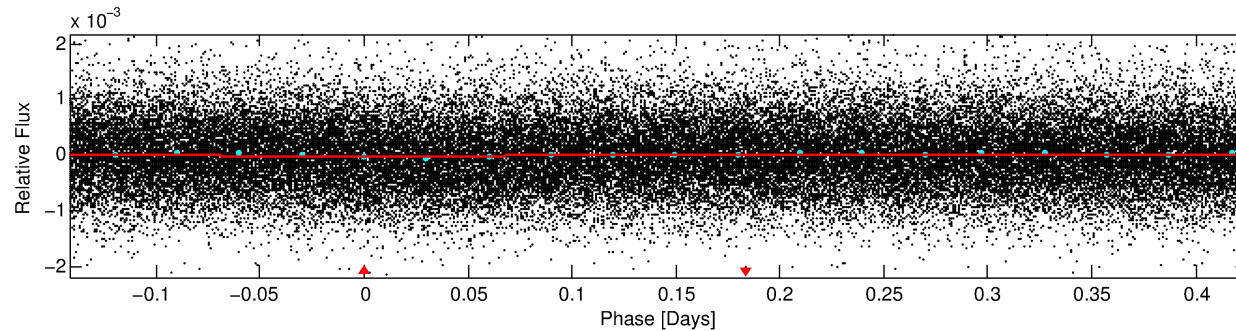
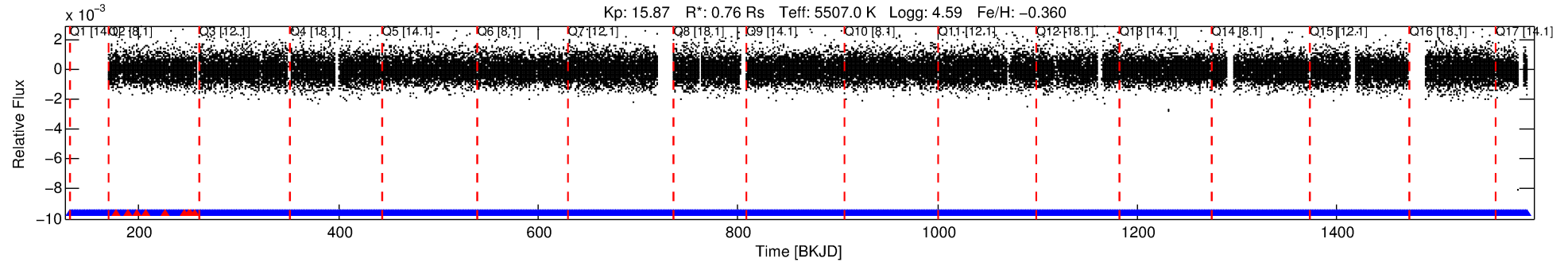
Ephemeris Match Information For 007032456-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007032456-01	7032456	RR-Lyr-pri	7198959	1:1	772.3	182	-68	7.86	15.87	25971.00	Direct-PRF	0	1.96	23.74

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7032456 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56676 [0.00002] d
Epoch = 131.8448 [0.0096] BKJD
Rp/R* = 0.0048 [0.0075]
a/R* = 1.20 [2.43]
b = 0.71 [4.86]
Seff = 3037.86 [780.87]
Teff = 1893 [122] K
Rp = 0.40 [0.63] Re
a = 0.0125 [0.0020] AU
Ag = N/A
Teffp = N/A

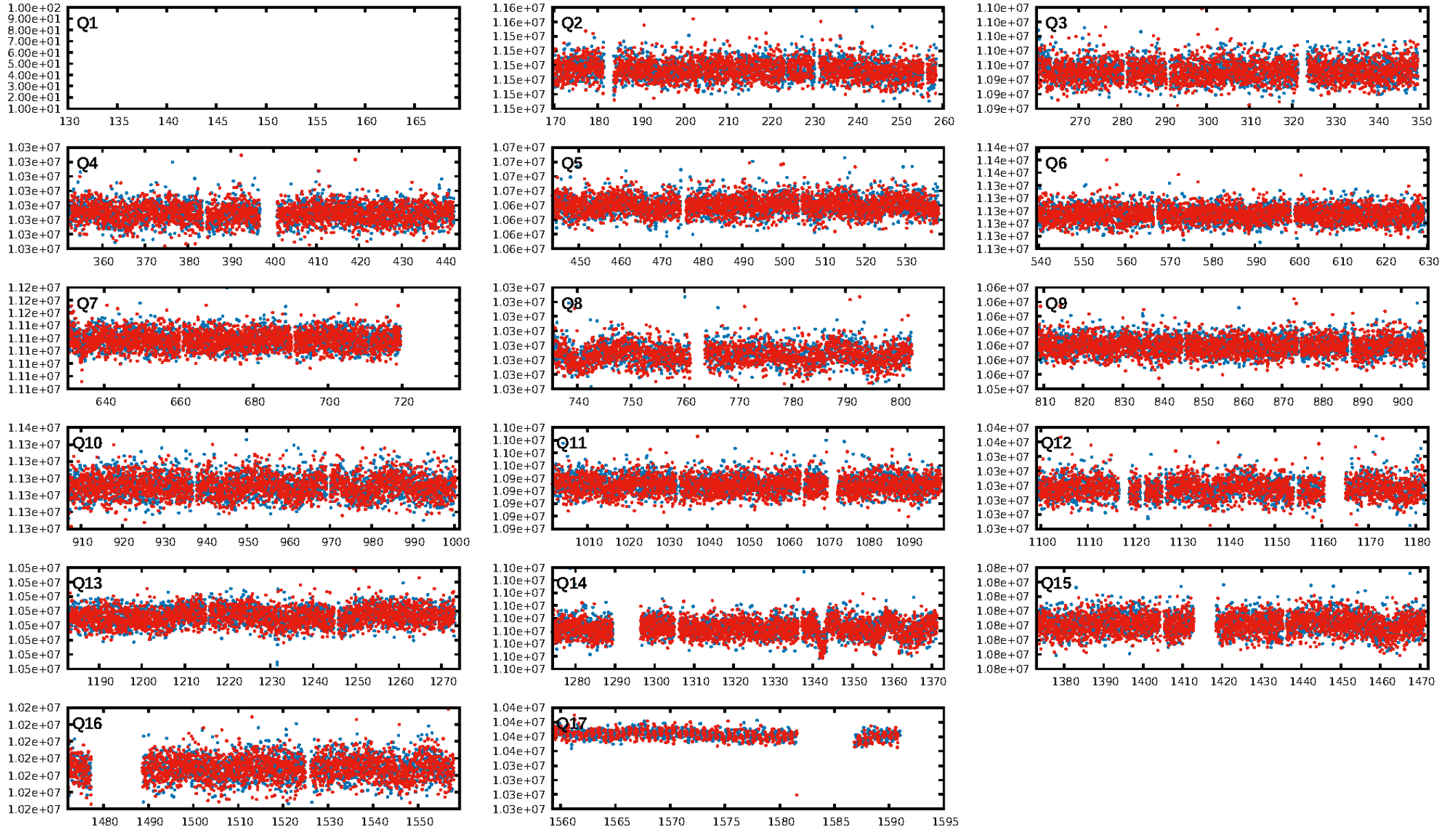
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.84e-15
RollingBand-fgt: 1.00 [2258/2267]
GhostDiagnostic-chr: 0.5289
Centroid-sig: 40.0%
Centroid-so: 2.966 arcsec [0.88σ]
OotOffset-rm: 2.344 arcsec [2.53σ]
KicOffset-rm: 2.338 arcsec [2.73σ]
OotOffset-st: 2/4/4/3 [13]
KicOffset-st: 2/4/4/3 [13]
DiffImageQuality-fgm: 0.00 [0/13]
DiffImageOverlap-fno: 1.00 [16/16]

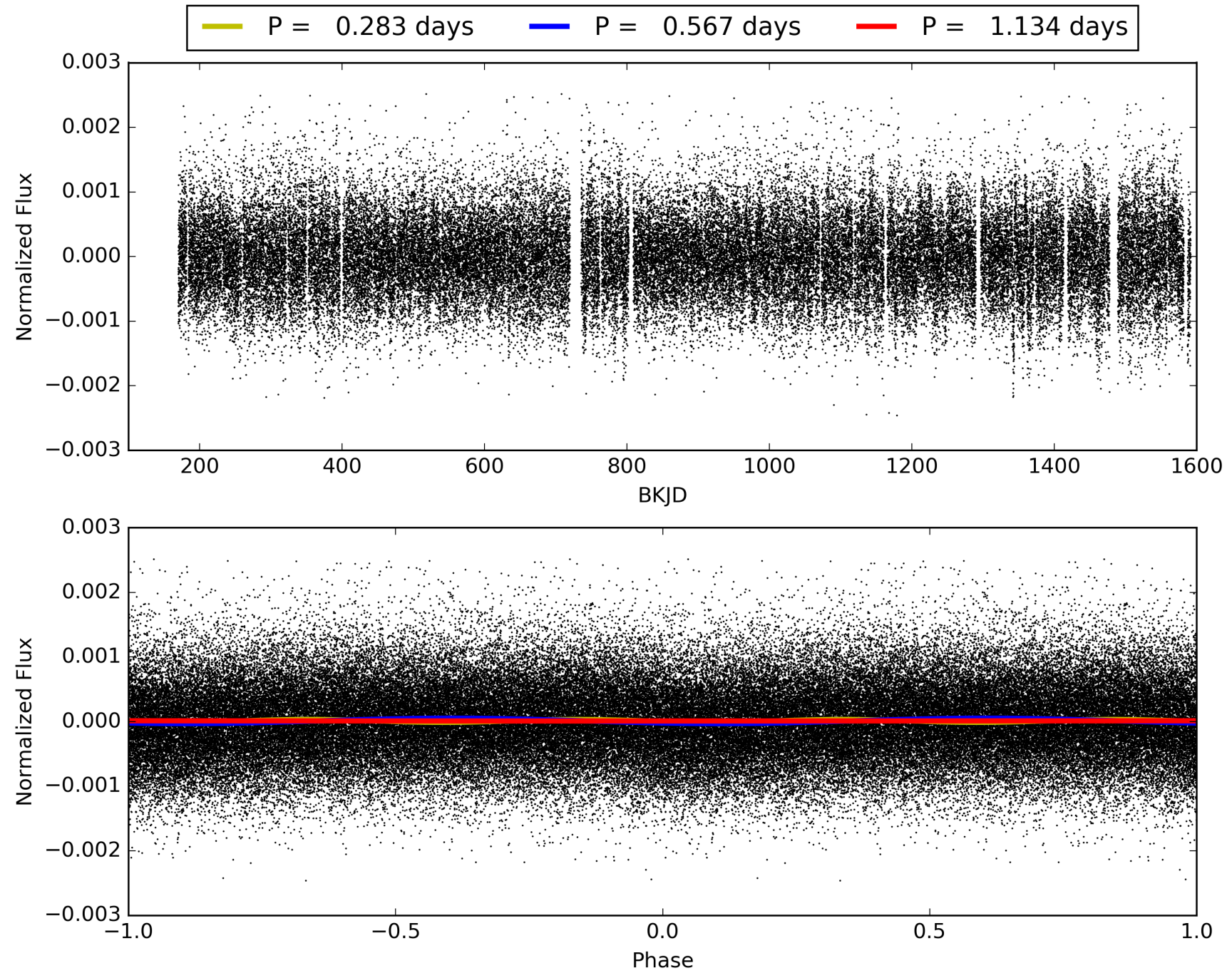
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:55:46 Z

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

TCE 007032456-01, PDC Light Curves

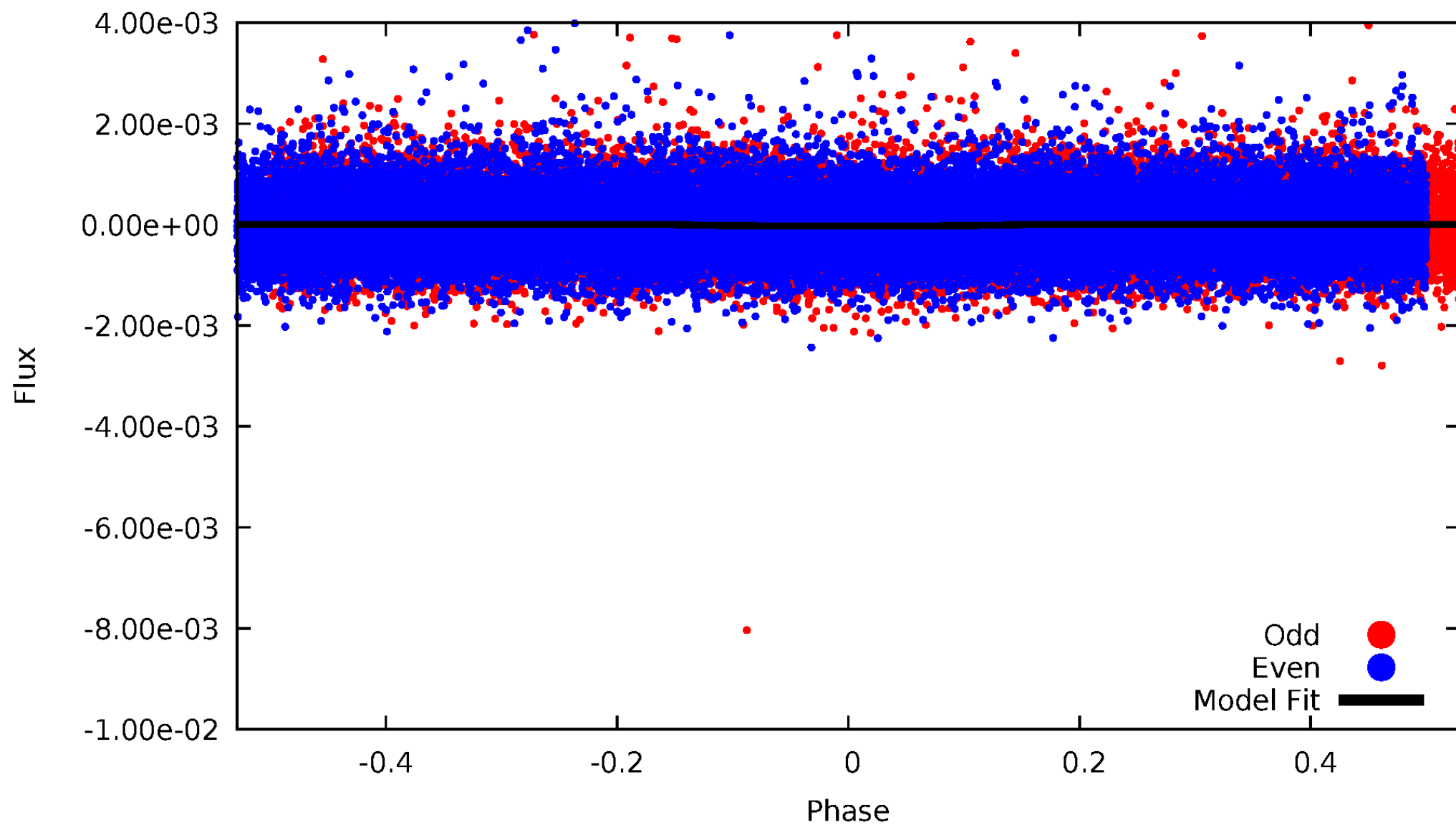


TCE 007032456-01



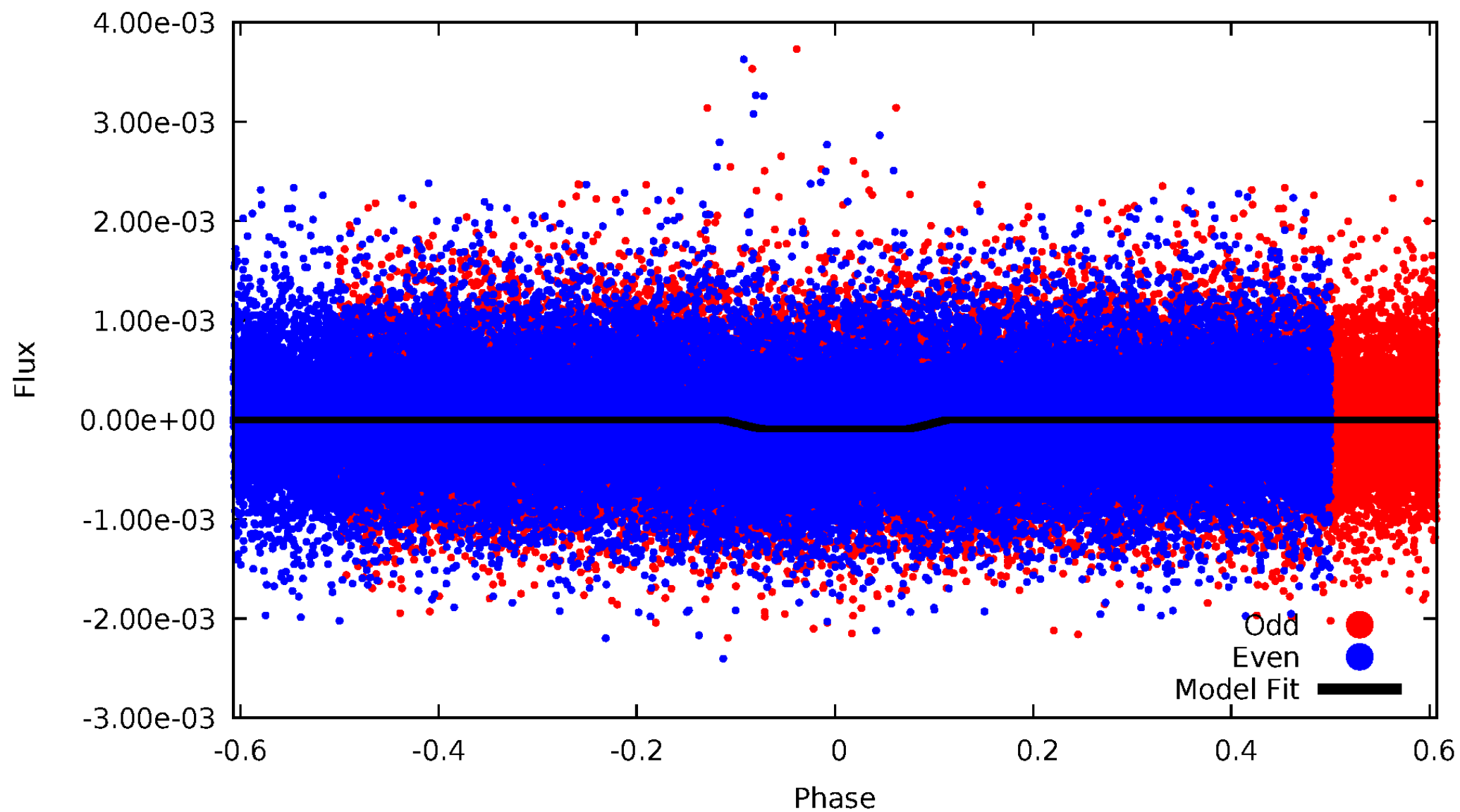
DV Odd/Even

TCE 007032456-01



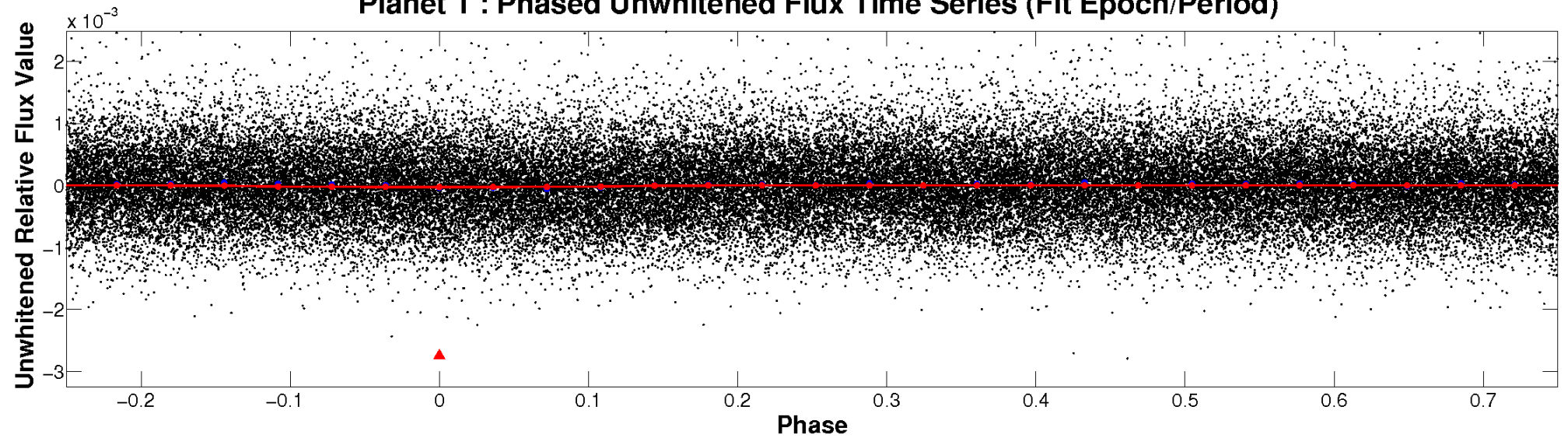
ALT Odd/Even

TCE 007032456-01

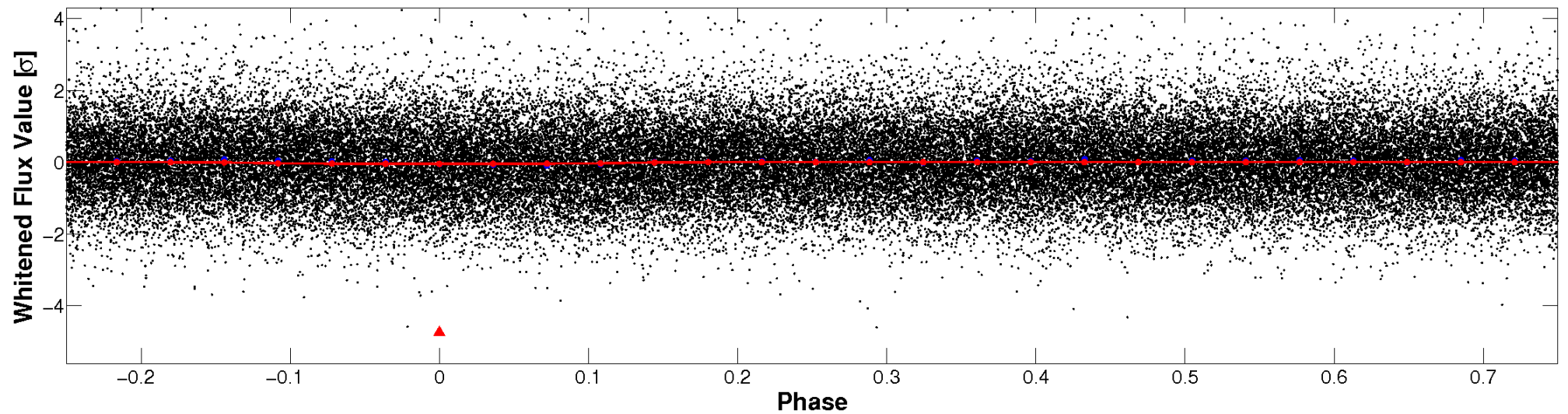


Non-Whitened Vs. Whitened Light Curve

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

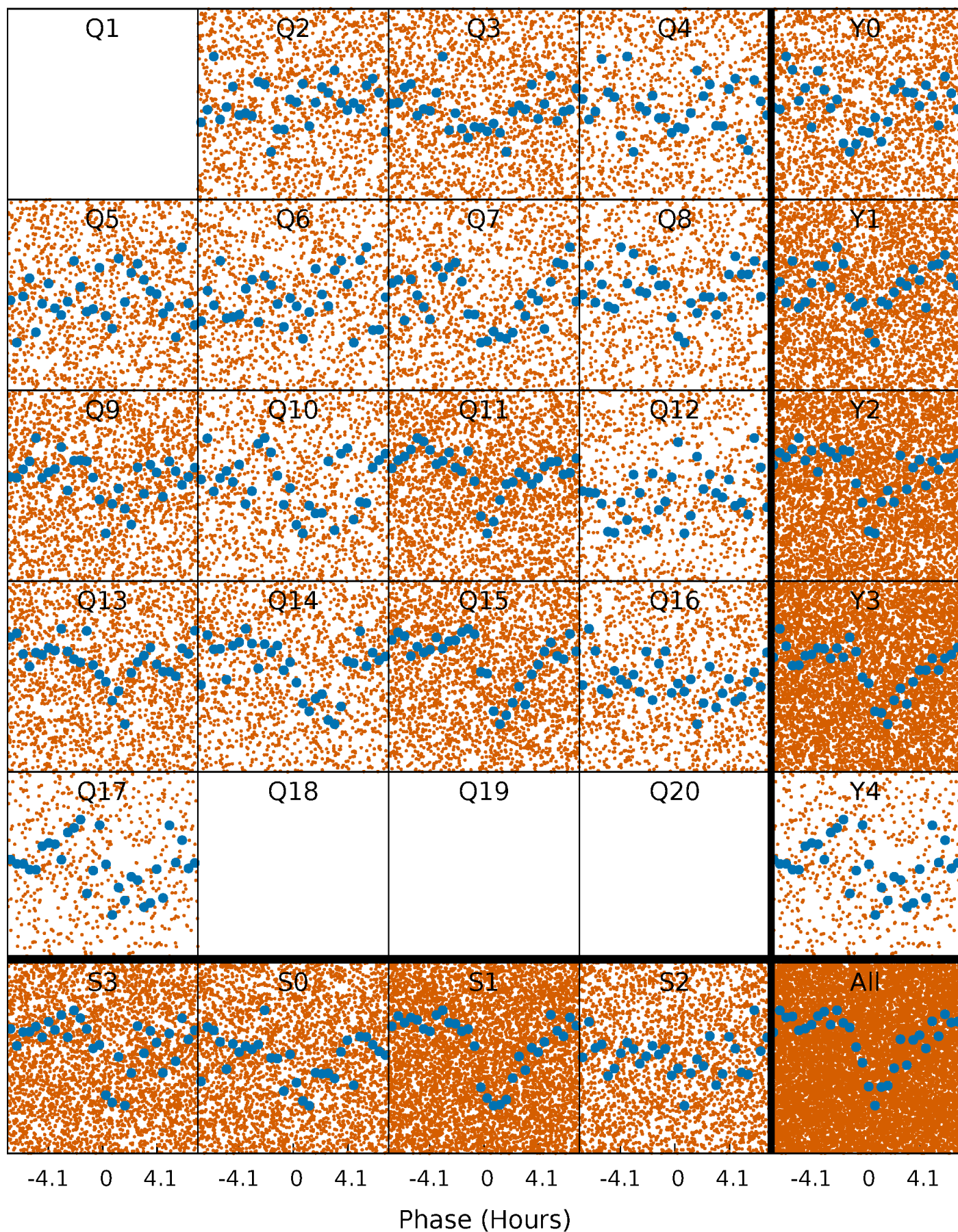


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



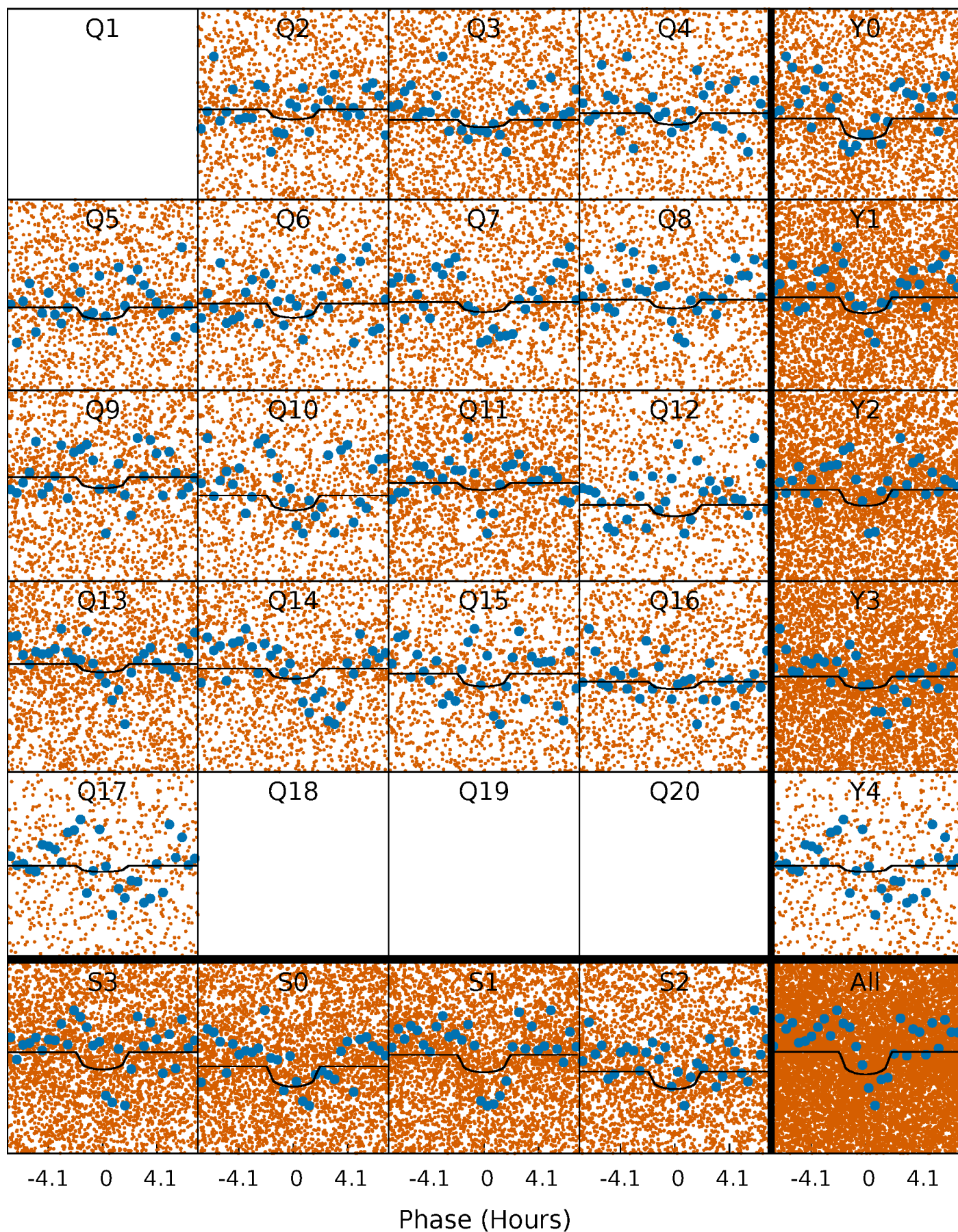
PDC Quarter-Phased Transit Curves

TCE 007032456-01 P= 0.566758 Days $T_0=131.844770$ (BKJD)



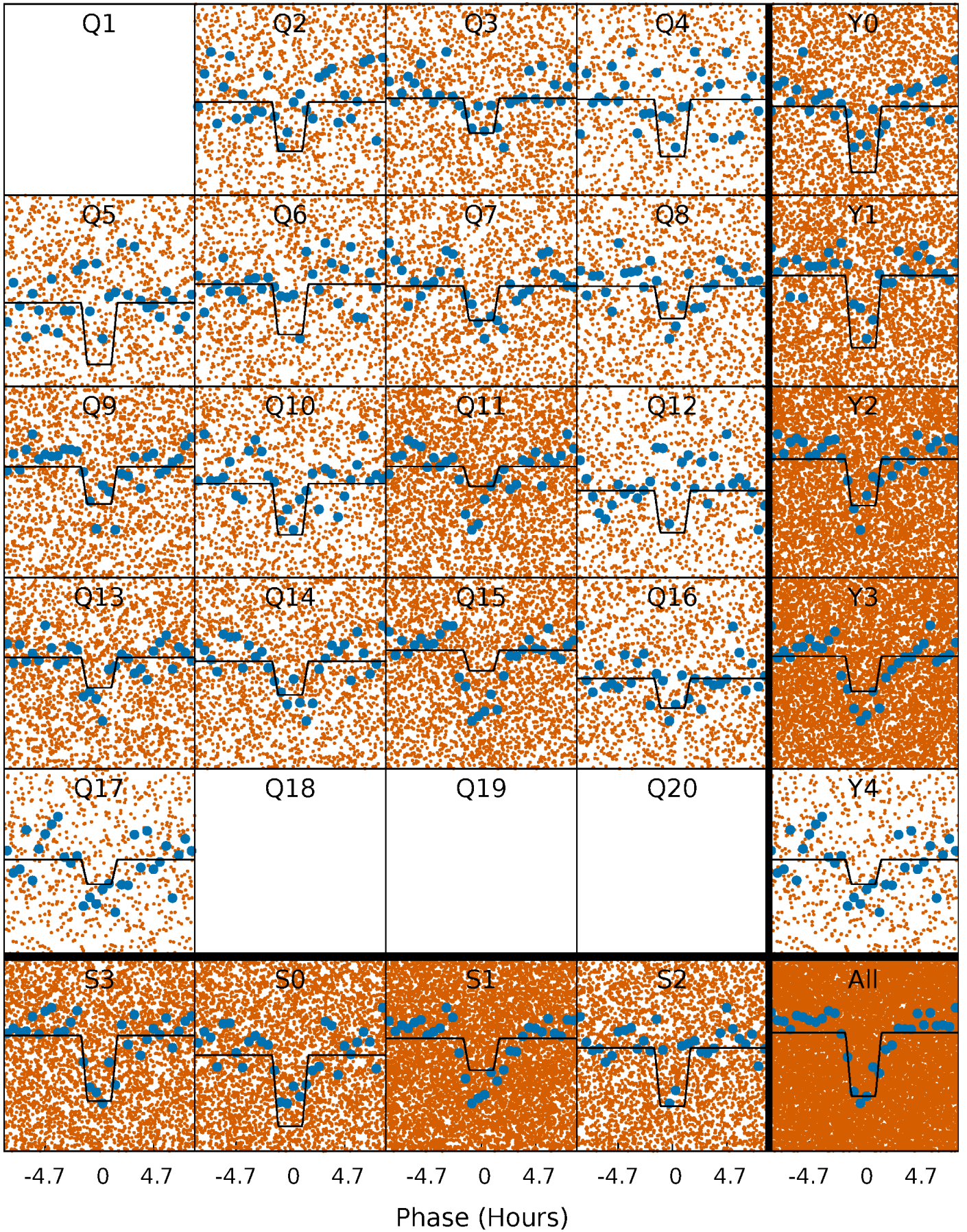
DV Quarter-Phased Transit Curves

TCE 007032456-01 P= 0.566758 Days $T_0=131.844770$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

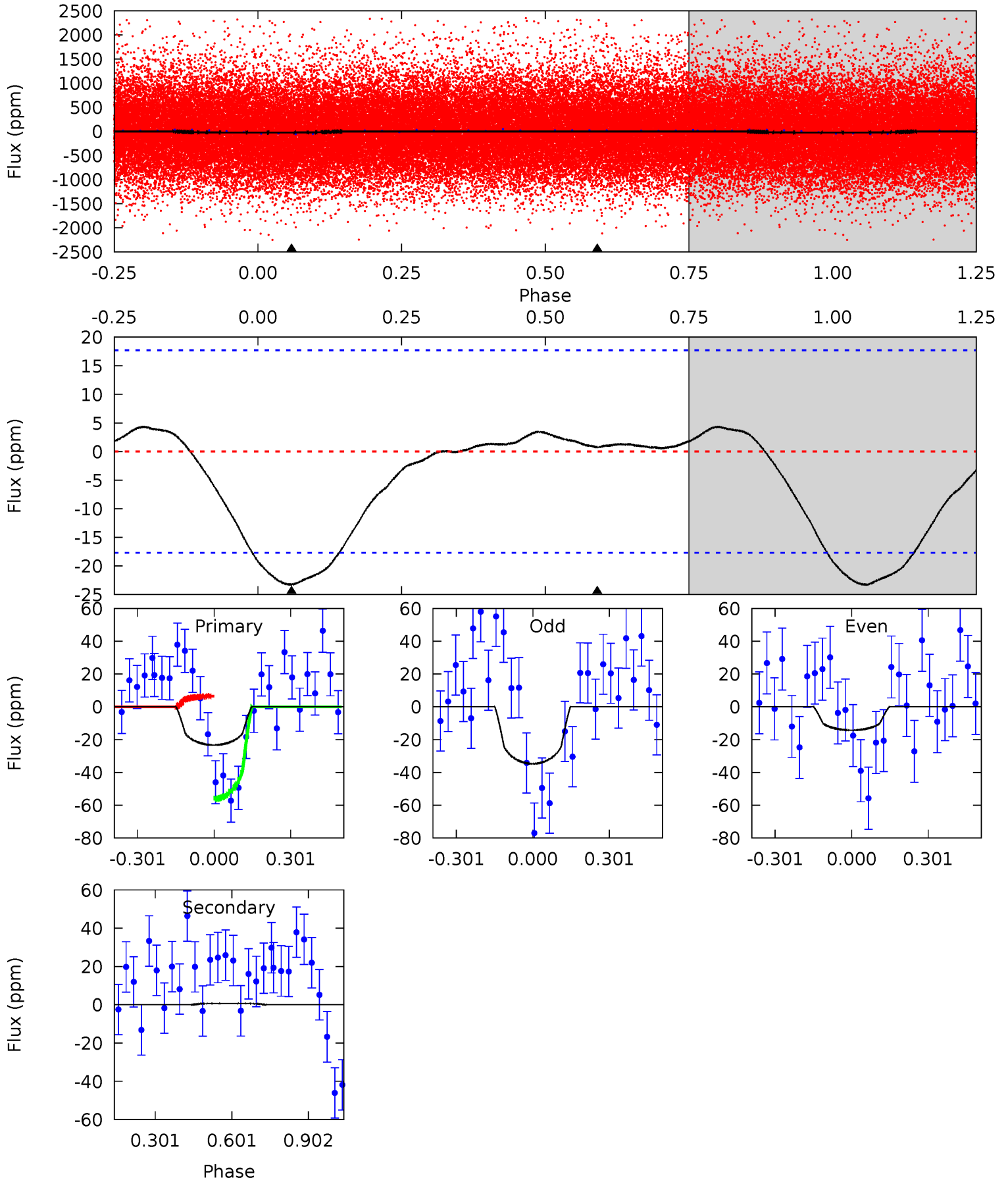
TCE 007032456-01 P= 0.566801 Days $T_0=131.816678$ (BKJD)



DV Model-Shift Uniqueness Test

007032456-01, P = 0.566758 Days, E = 131.844770 Days

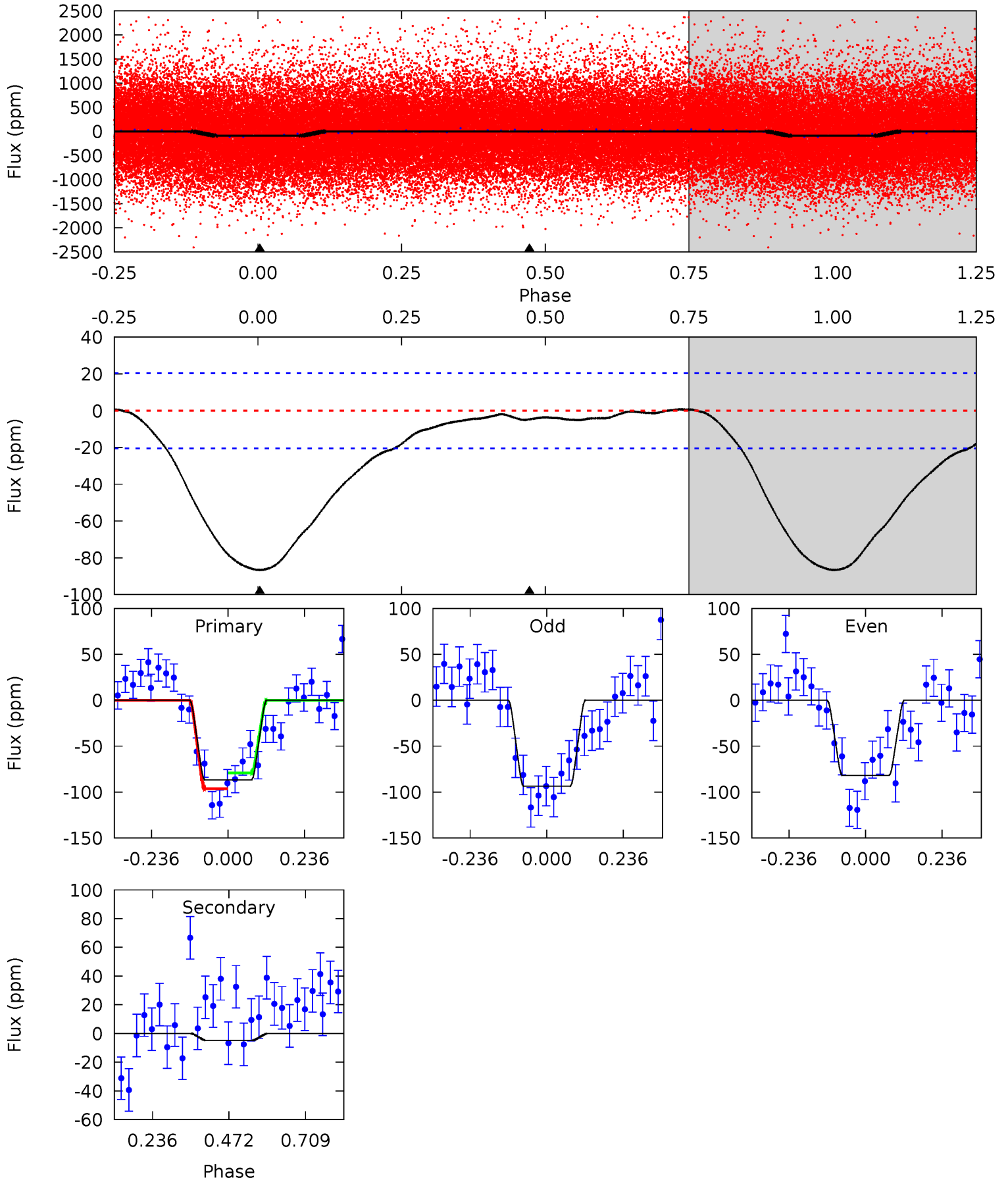
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.70	-0.18	0	0	4.33	1.04	0.42	5.70	5.70	-0.18	-0.18	2.47	0.81	0.16	6.02



Alt Model-Shift Uniqueness Test

007032456-01, P = 0.566801 Days, E = 131.816678 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	1.01	0	0	4.38	1.18	1.75	18.6	18.6	1.01	1.01	1.25	0.98	0.01	1.86



Stellar Parameters For KIC 007032456

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5507^{+165}_{-165}	$4.587^{+0.040}_{-0.120}$	$-0.360^{+0.300}_{-0.300}$	$0.760^{+0.152}_{-0.065}$	$0.815^{+0.098}_{-0.080}$	$2.611^{+0.549}_{-0.935}$
	+3%/-3%	+1%/-3%	+83%/-83%	+20%/-9%	+12%/-10%	+21%/-36%
Source	PHO1	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 007032456-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	1 ± 4	$0.60^{+0.55}_{-0.38}$	2681^{+131}_{-111}	-2996^{+6251}_{-944}	$-0.068^{+1.063}_{-1.754}$
Alt.	-5 ± 5	$0.88^{+0.62}_{-0.51}$	2682^{+135}_{-112}	2626^{+1426}_{-5551}	$0.435^{+2.426}_{-0.434}$

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 $A_{obs} \gg 1.0$

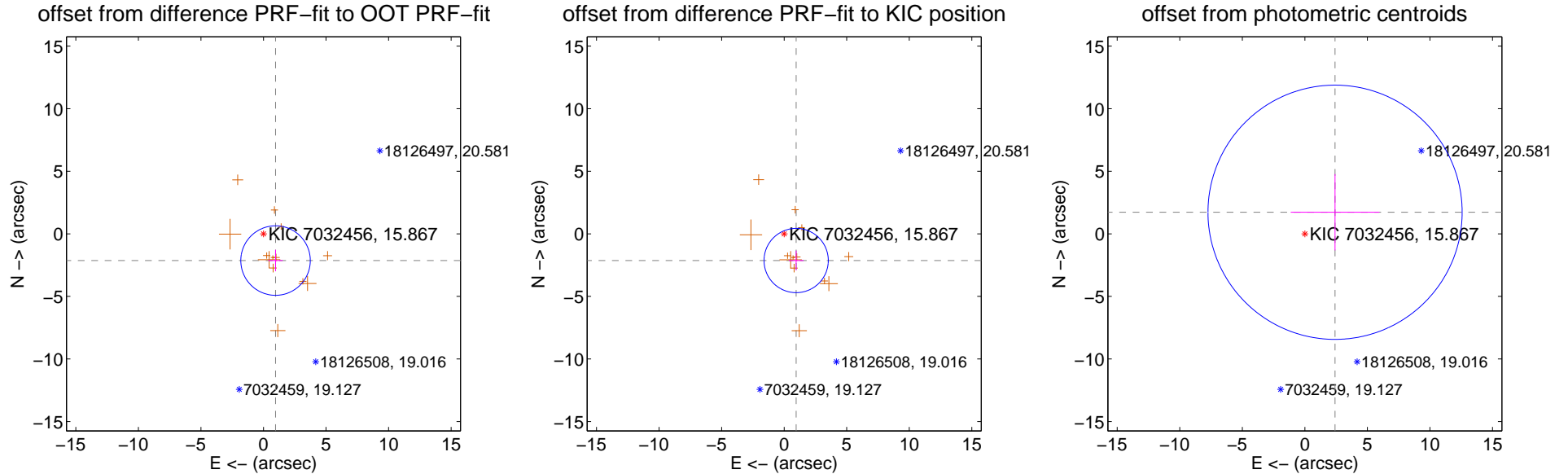
DV Centroid Data

Supplemental centroid analysis for 007032456-01. Kepler magnitude: 15.87. Transit SNR 4.57

There are 0 quarters with good PRF difference image offsets

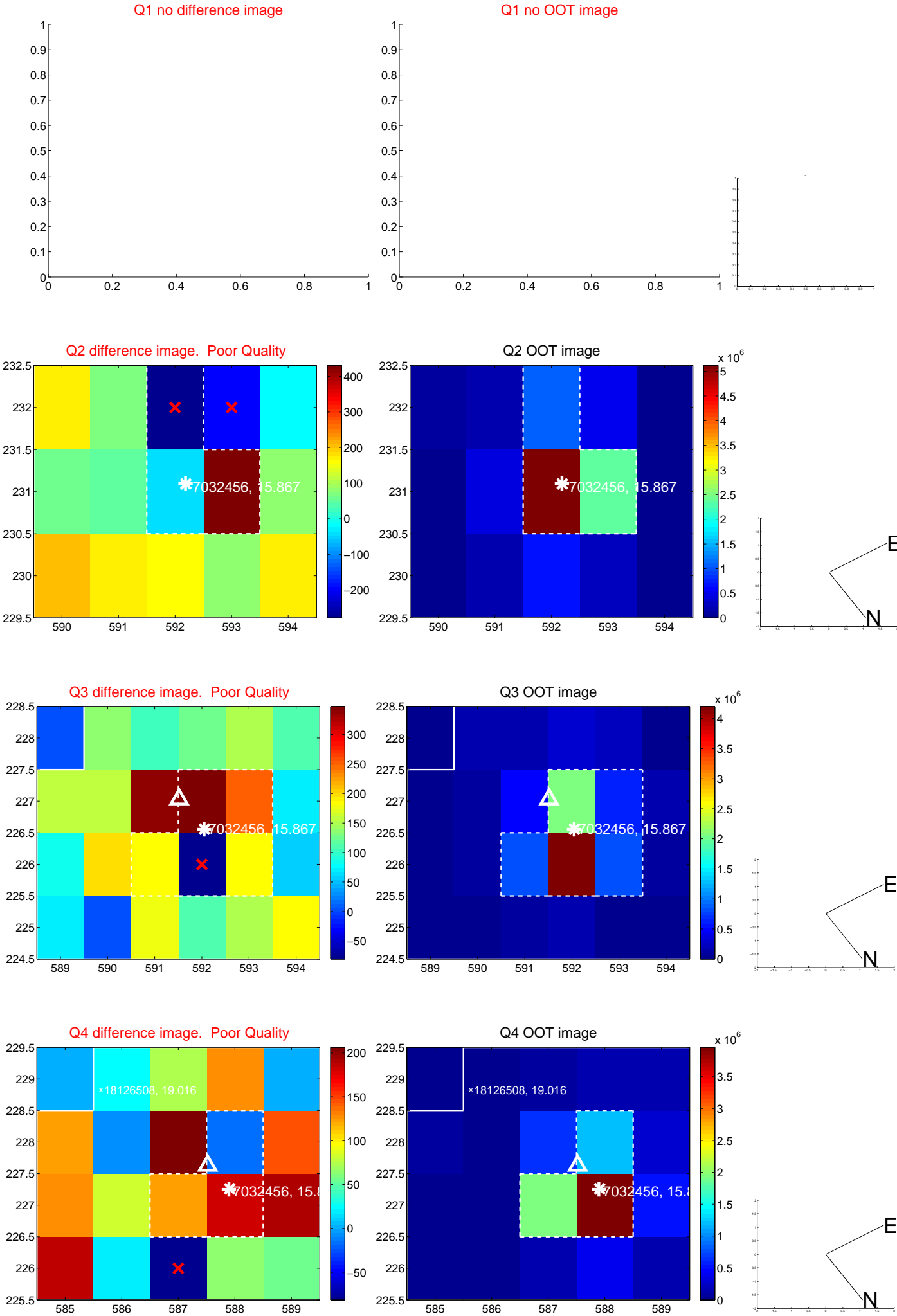
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.344 ± 0.926	2.53	-0.964 ± 0.574	-2.136 ± 0.856
PRF-fit source offset from KIC position	2.338 ± 0.856	2.73	-0.959 ± 0.584	-2.133 ± 0.788
photometric centroid source offset	2.97 ± 3.39	0.88	-2.41 ± 3.55	1.72 ± 3.05

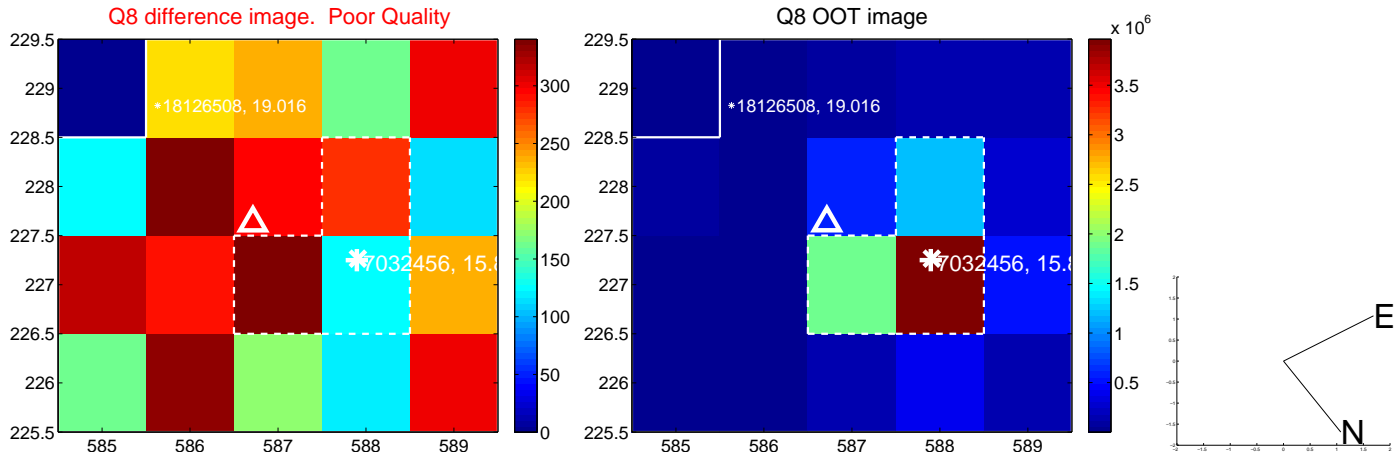
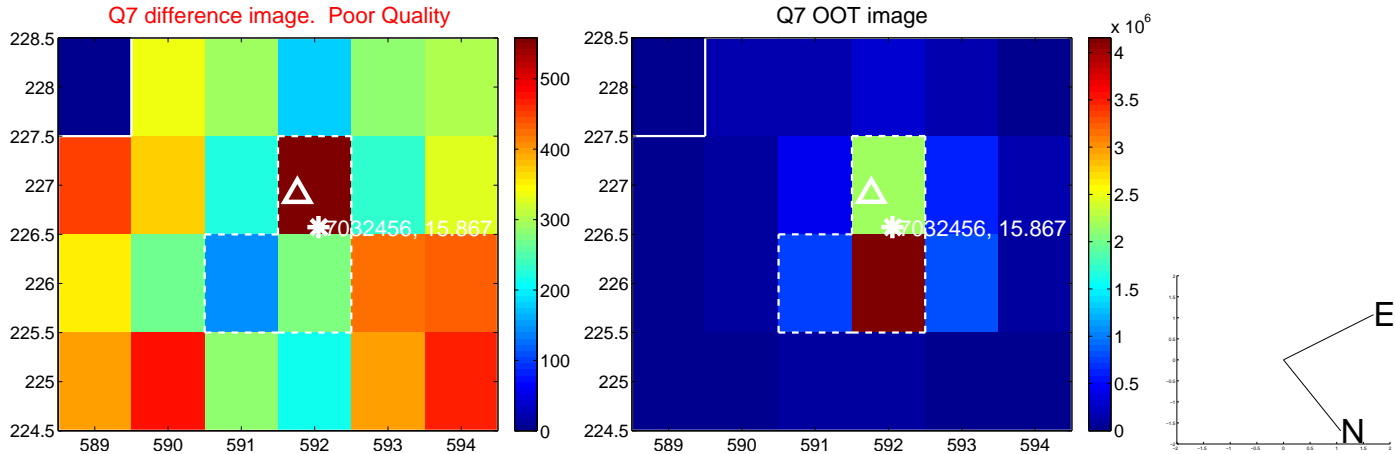
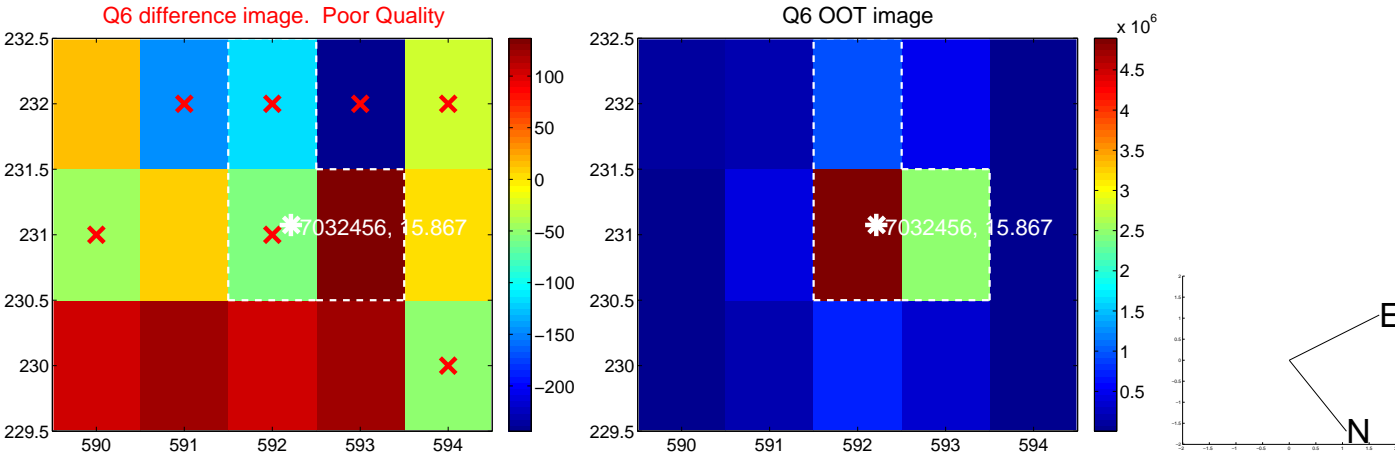
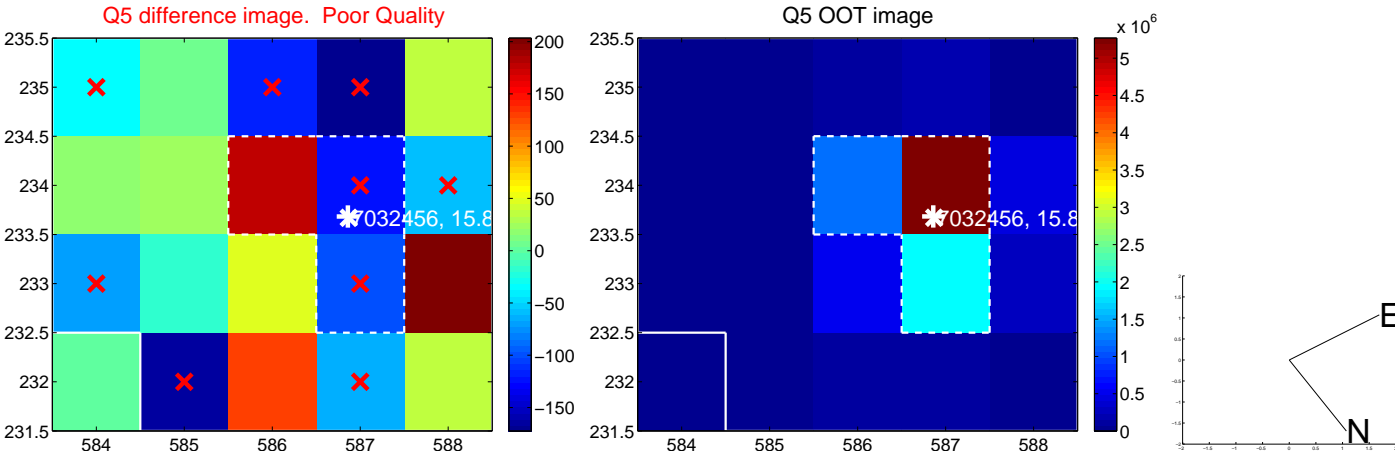


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

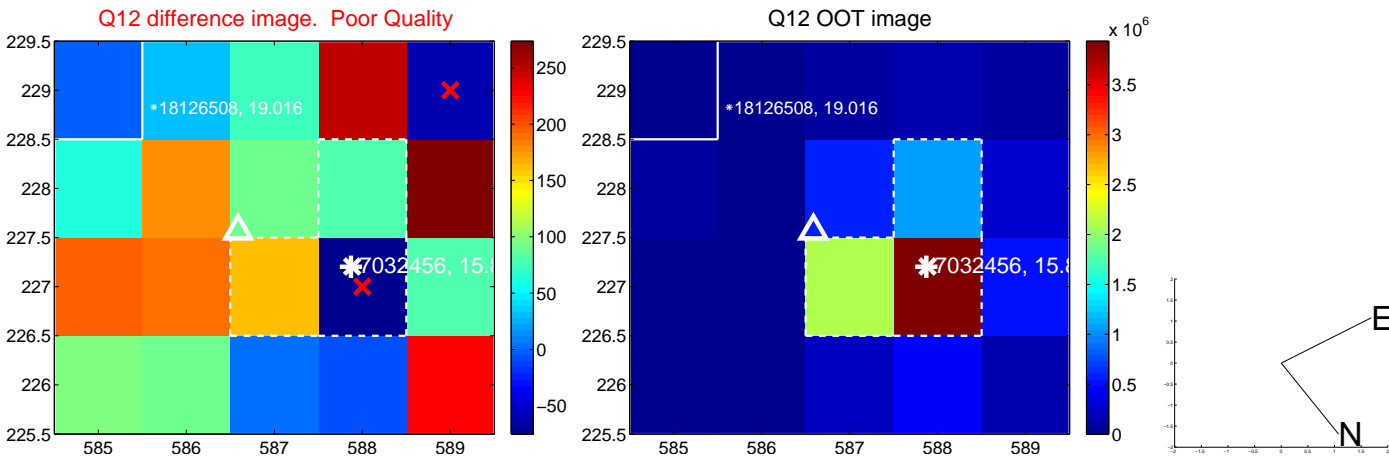
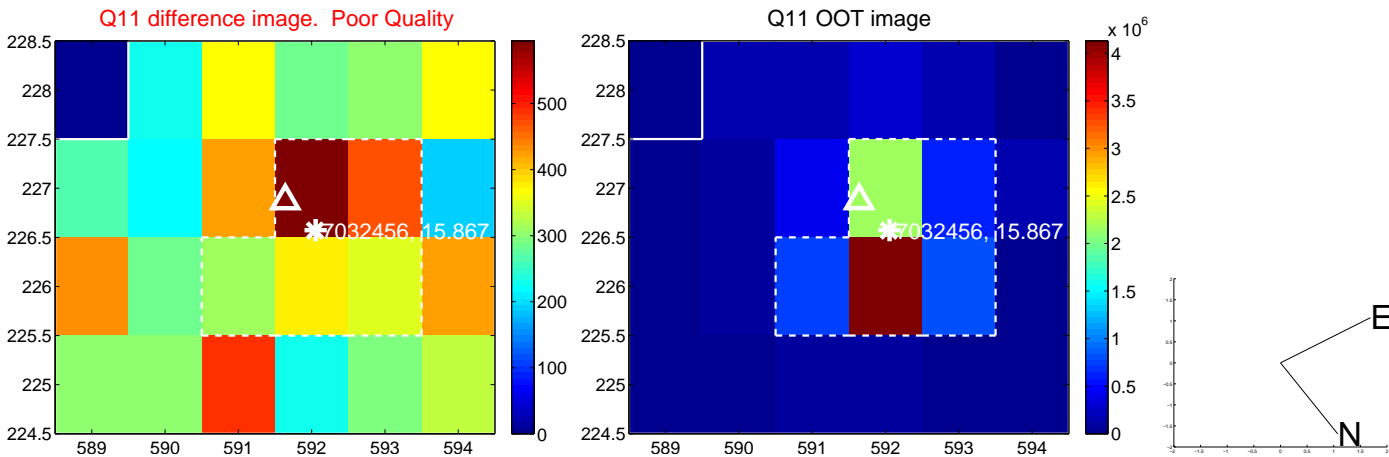
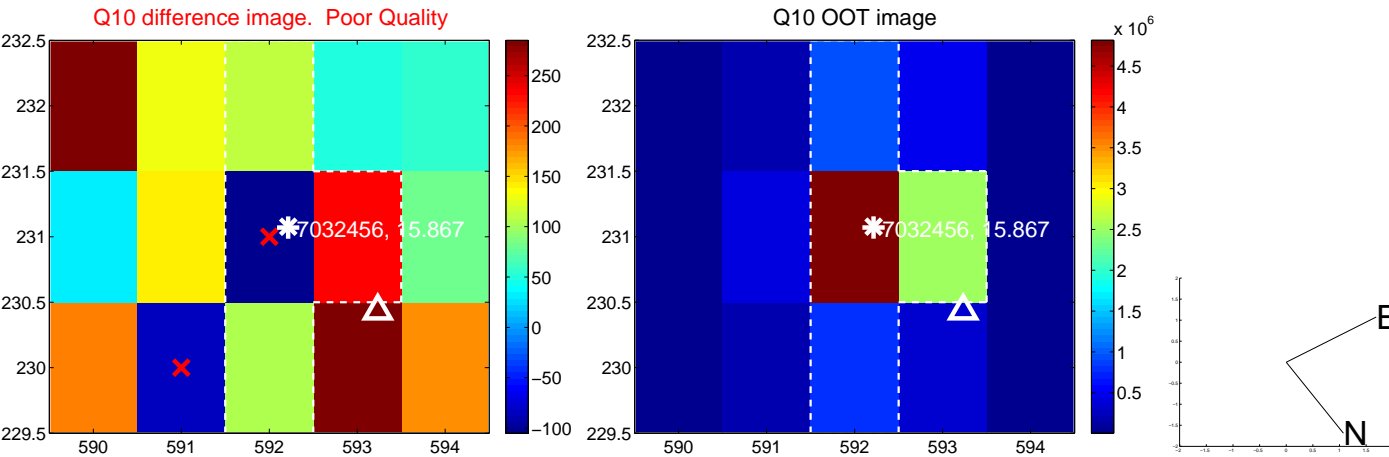
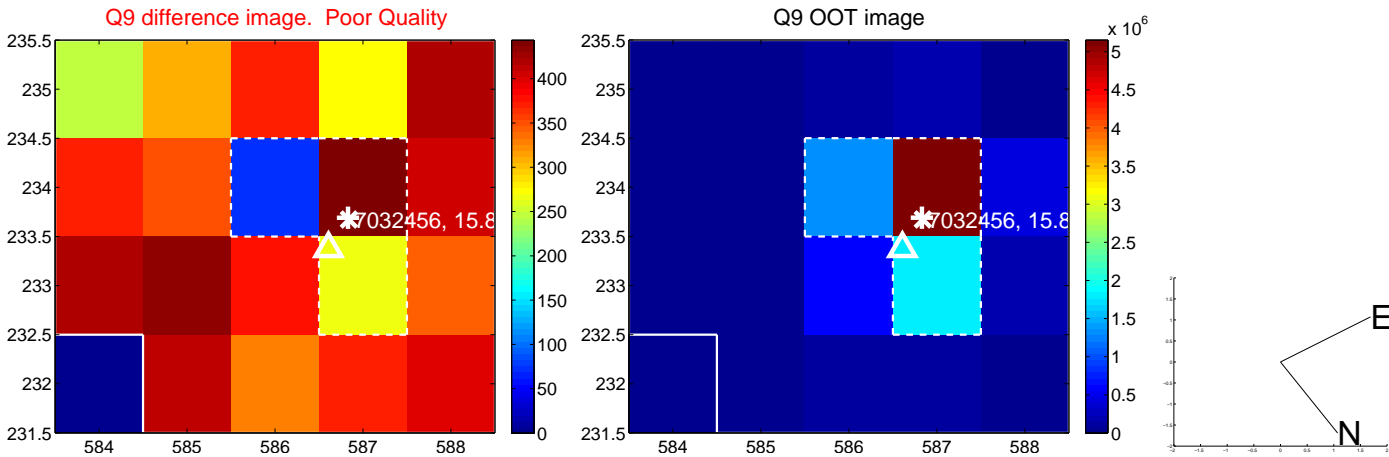
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



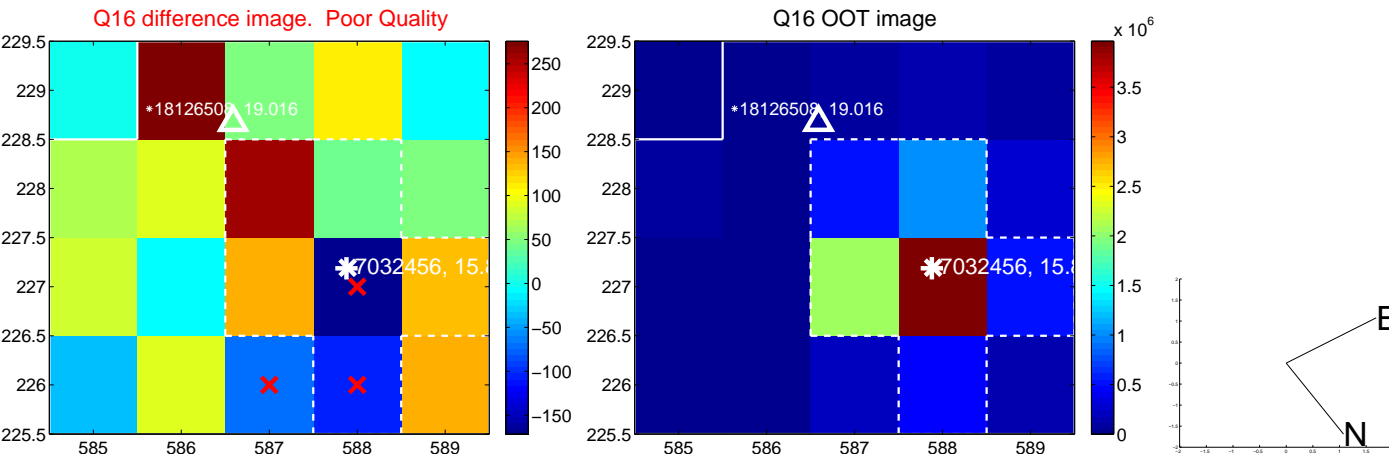
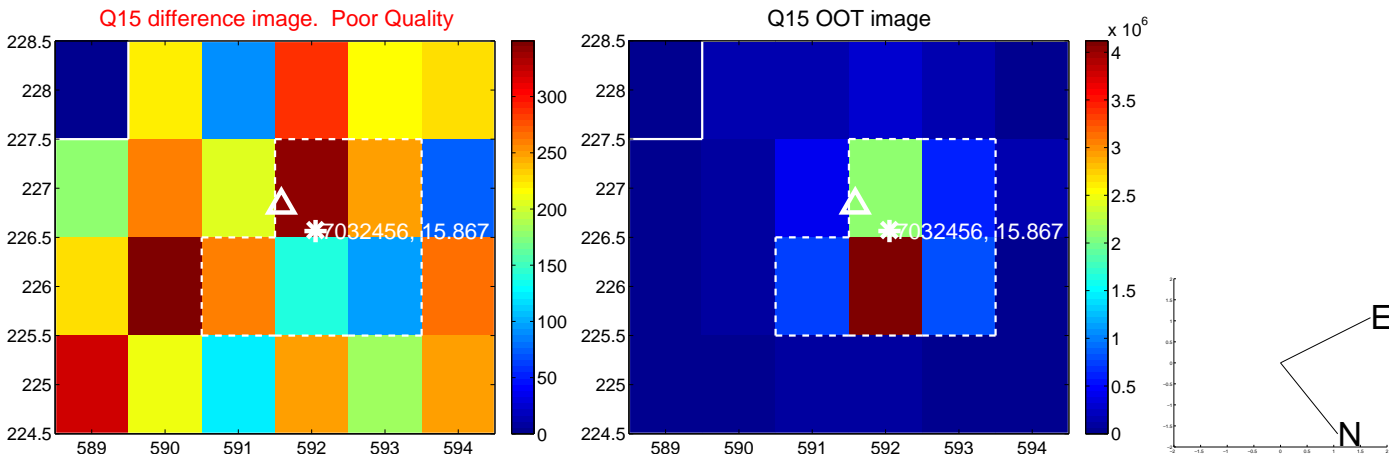
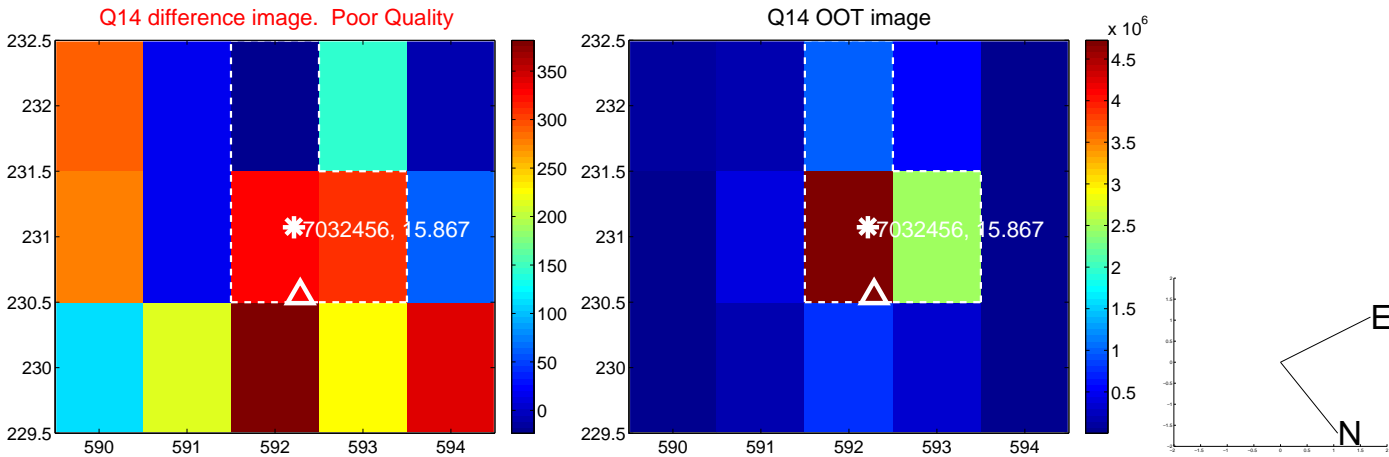
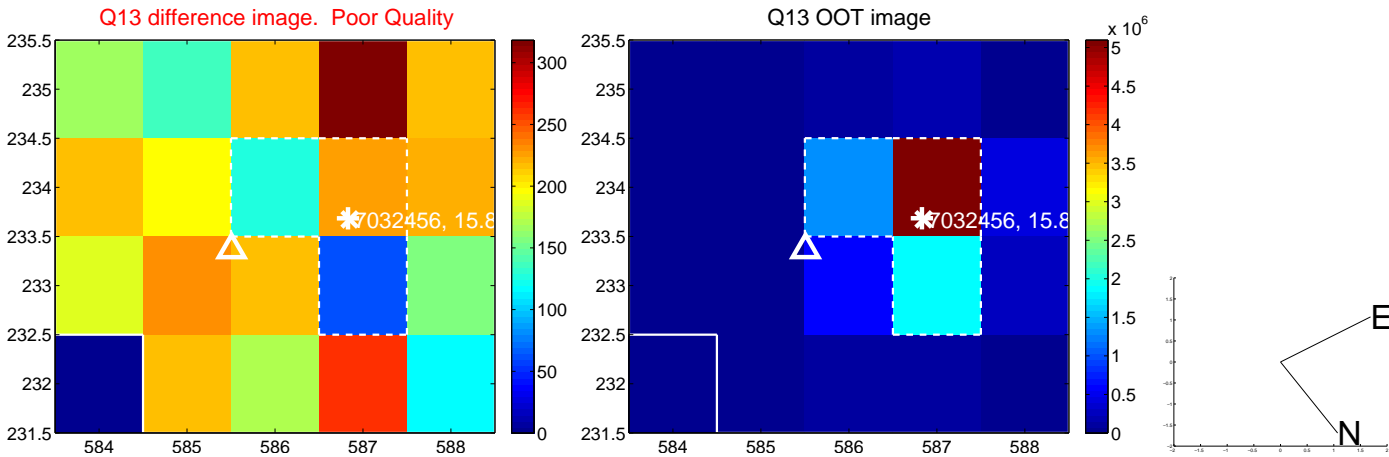
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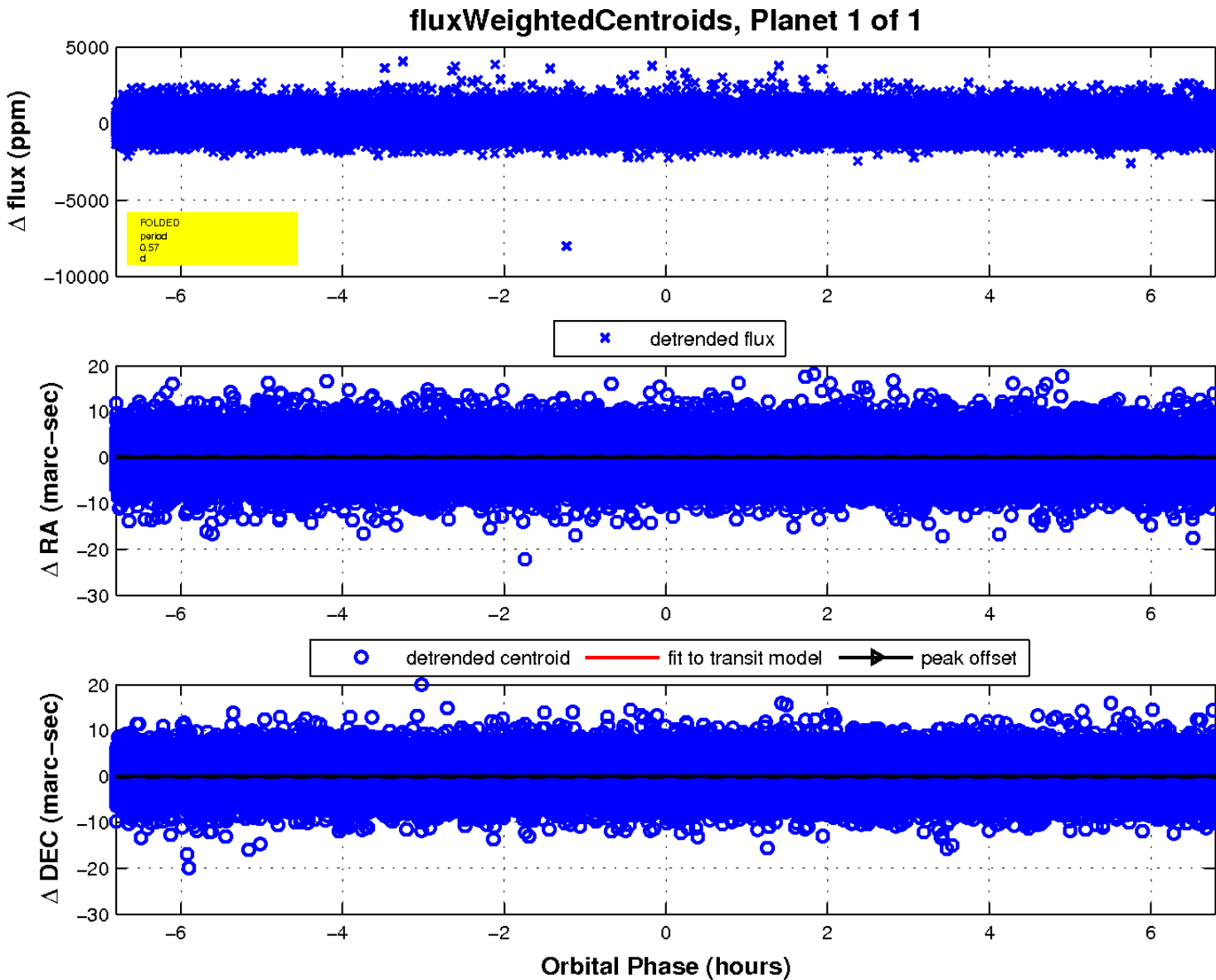
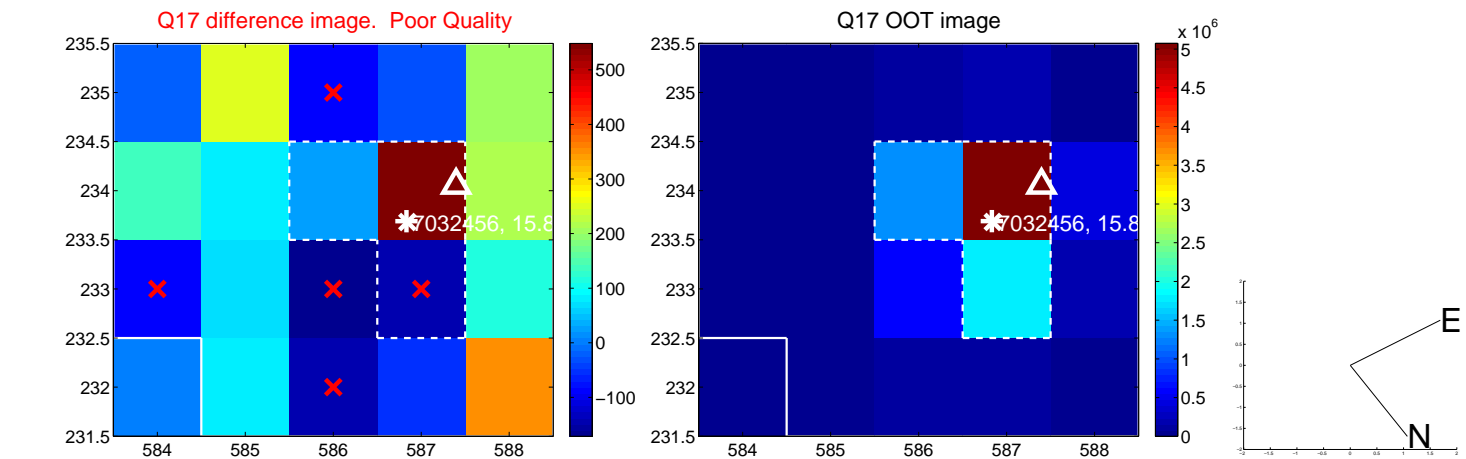
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UKIRT Image

Declination

