

KIC 011415556

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})
011415556-01	OBS	No	0.589342	132.045971	32.5	3.795	7.9	4.8	2.22	7694	1.31	57161.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011415556-01	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.

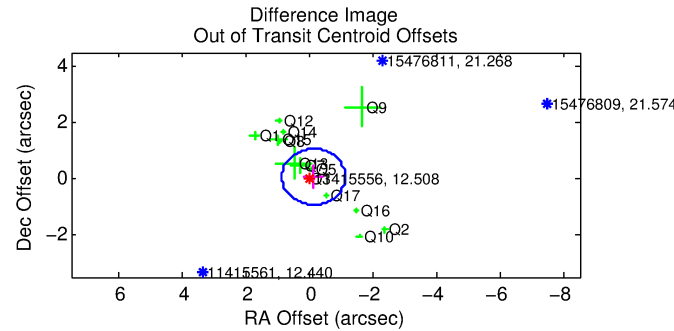
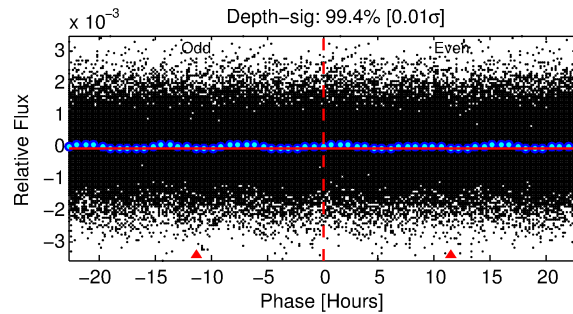
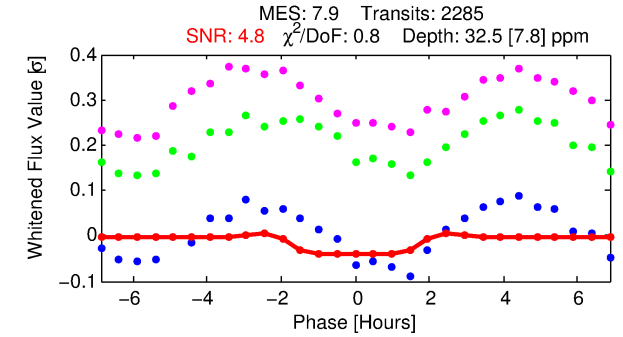
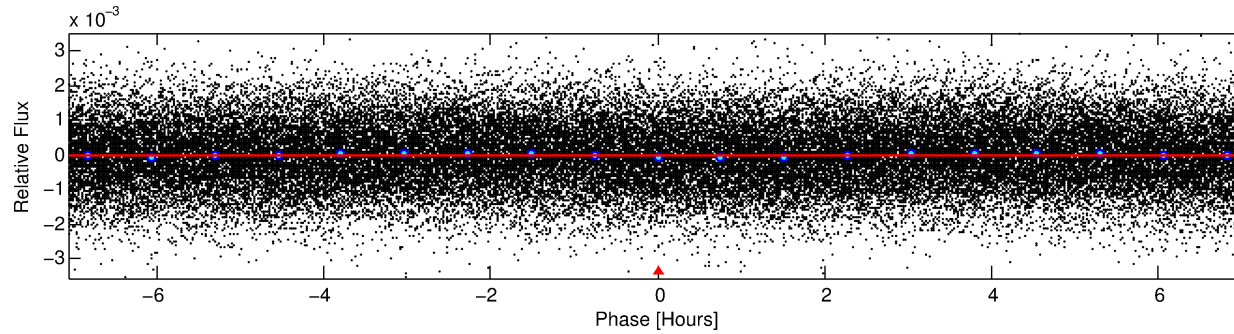
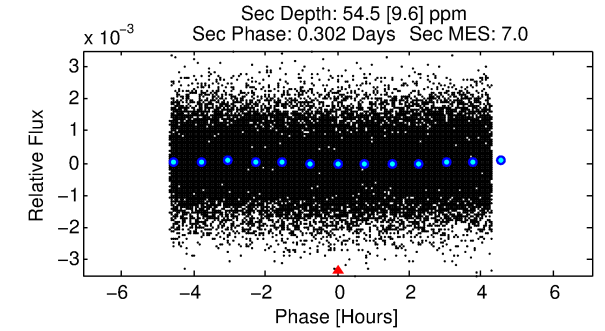
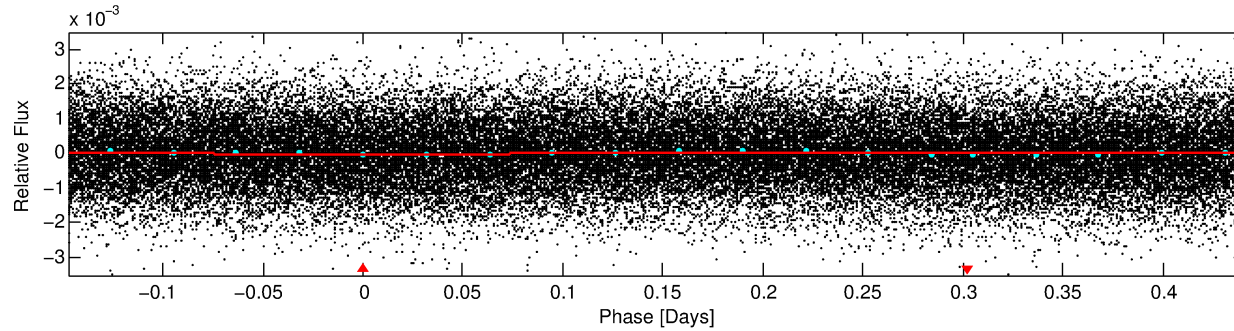
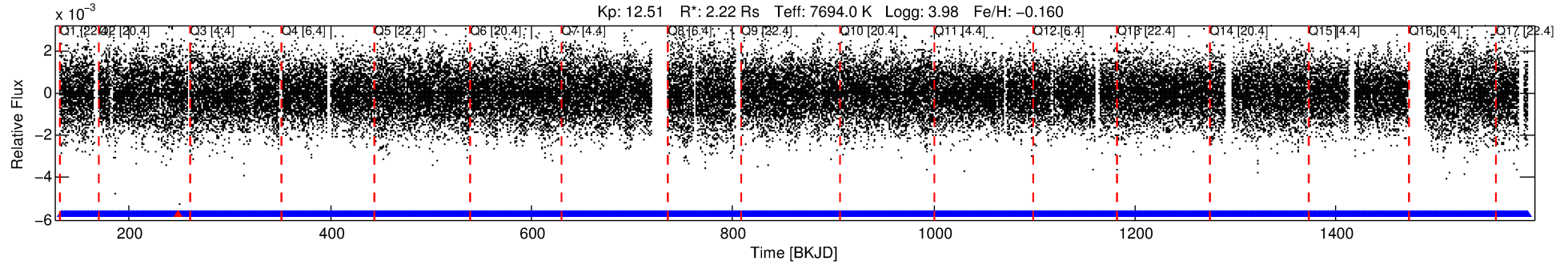
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011415556-01

No Significant Match Found

DV One-Page Summary

KIC: 11415556 Candidate: 1 of 1 Period: 0.589 d



DV Fit Results:

Period = 0.58934 [0.00002] d
Epoch = 132.0460 [0.0086] BKJD
Rp/R* = 0.0054 [0.0075]
a/R* = 1.26 [3.58]
b = 0.52 [10.76]
Seff = 57161.42 [16163.17]
Teq = 3943 [279] K
Rp = 1.31 [1.83] Re
a = 0.0165 [0.0031] AU
Ag = 4.72 [13.10] [0.28σ]
Teffp = 8983 [6210] K [0.81σ]

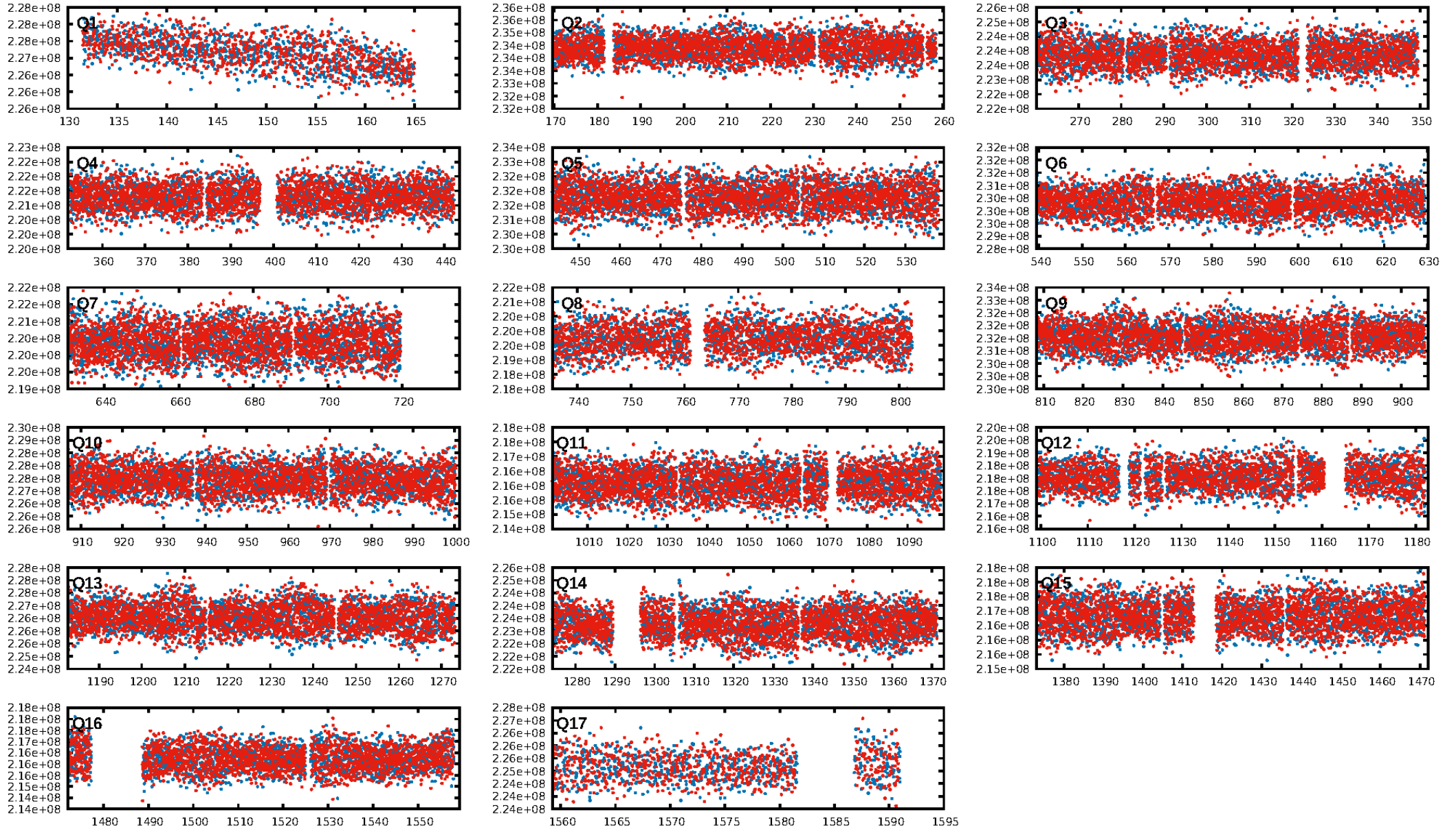
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.05e-11
RollingBand-fgt: 1.00 [2181/2182]
GhostDiagnostic-chr: 1.584
Centroid-sig: 9.3%
Centroid-so: 0.917 arcsec [2.28σ]
OotOffset-rm: 0.141 arcsec [0.42σ]
OotOffset-st: 3/3/3/5 [14]
KicOffset-rm: 0.115 arcsec [0.32σ]
KicOffset-st: 3/3/3/5 [14]
DiffImageQuality-fgm: 0.43 [6/14]
DiffImageOverlap-fno: 1.00 [17/17]

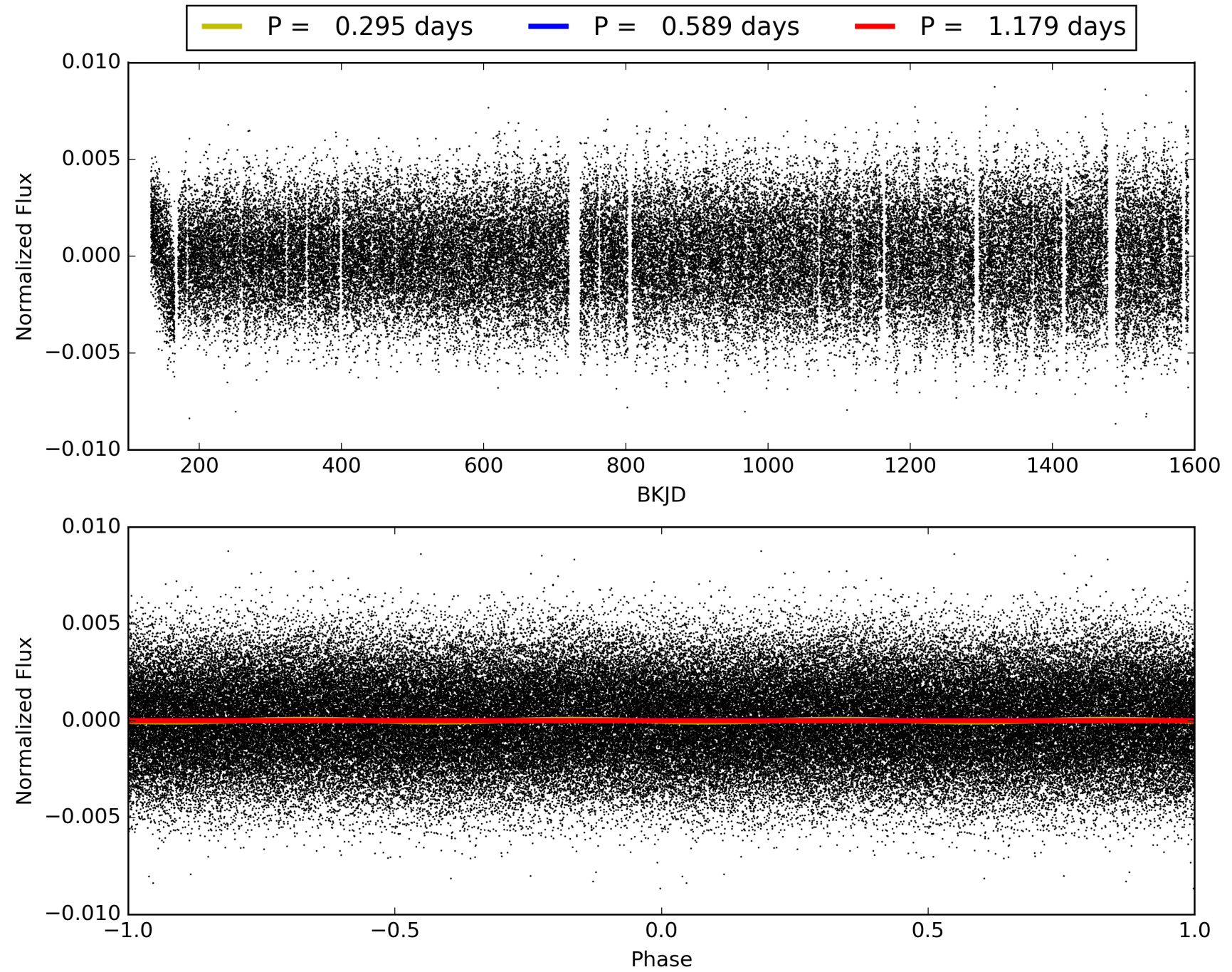
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:06:42 Z

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

TCE 011415556-01, PDC Light Curves

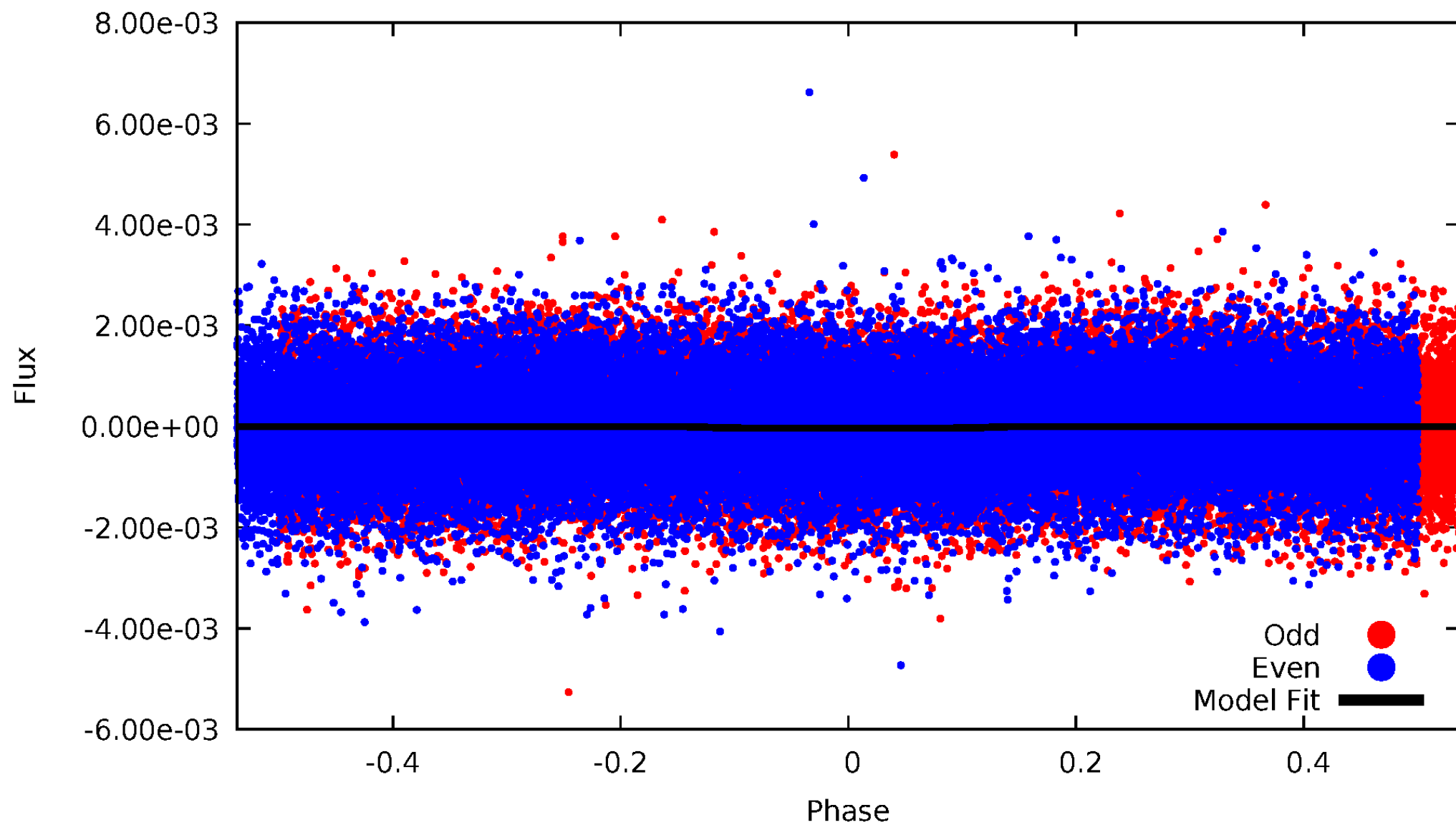


TCE 011415556-01



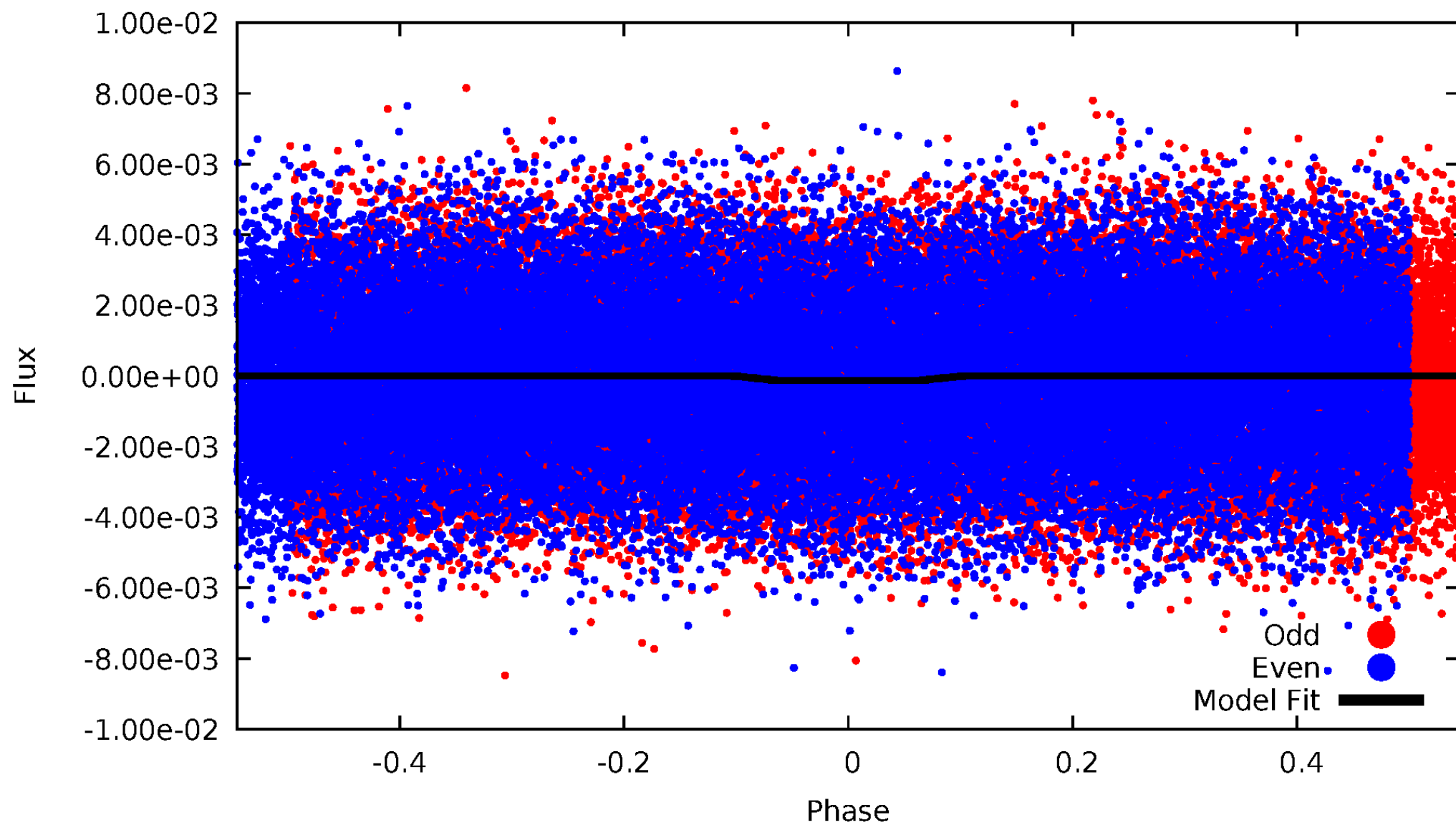
DV Odd/Even

TCE 011415556-01

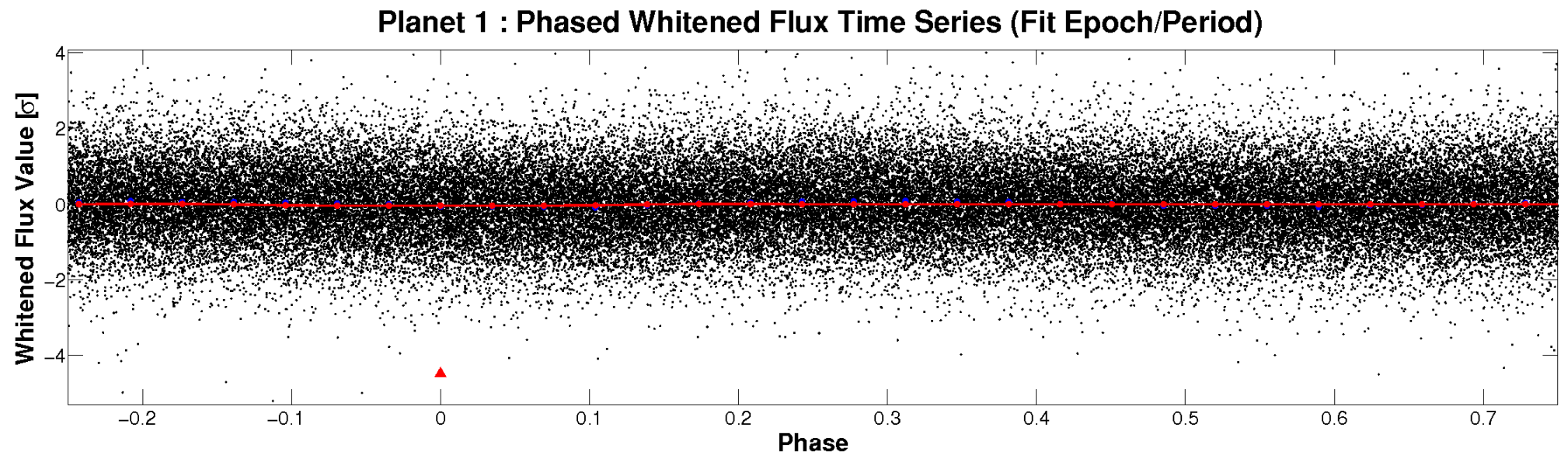
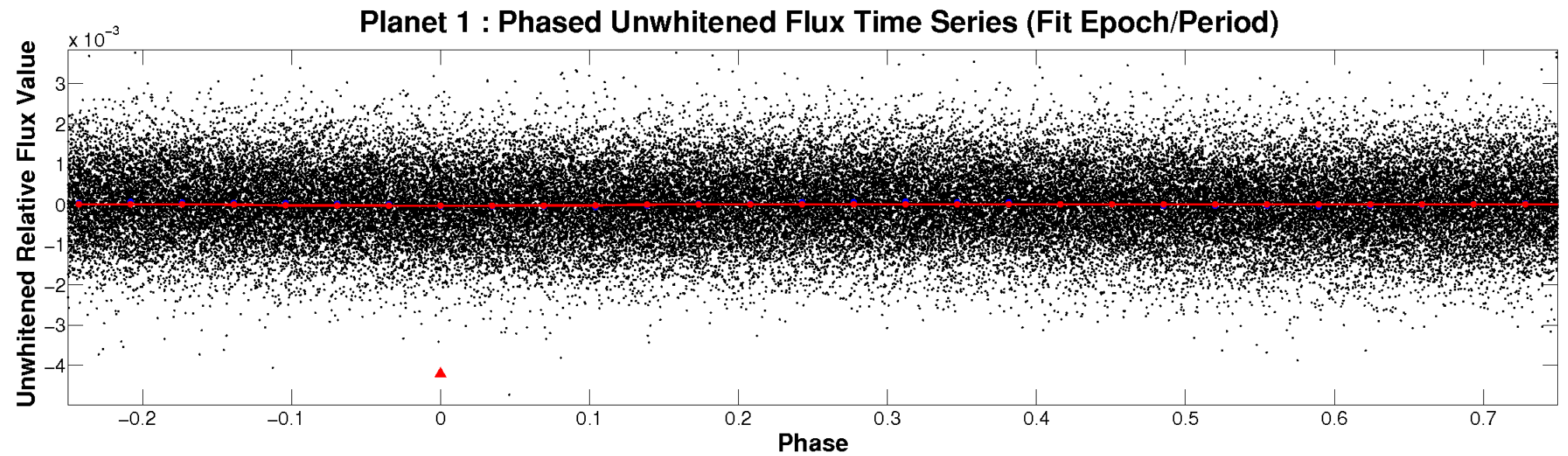


ALT Odd/Even

TCE 011415556-01

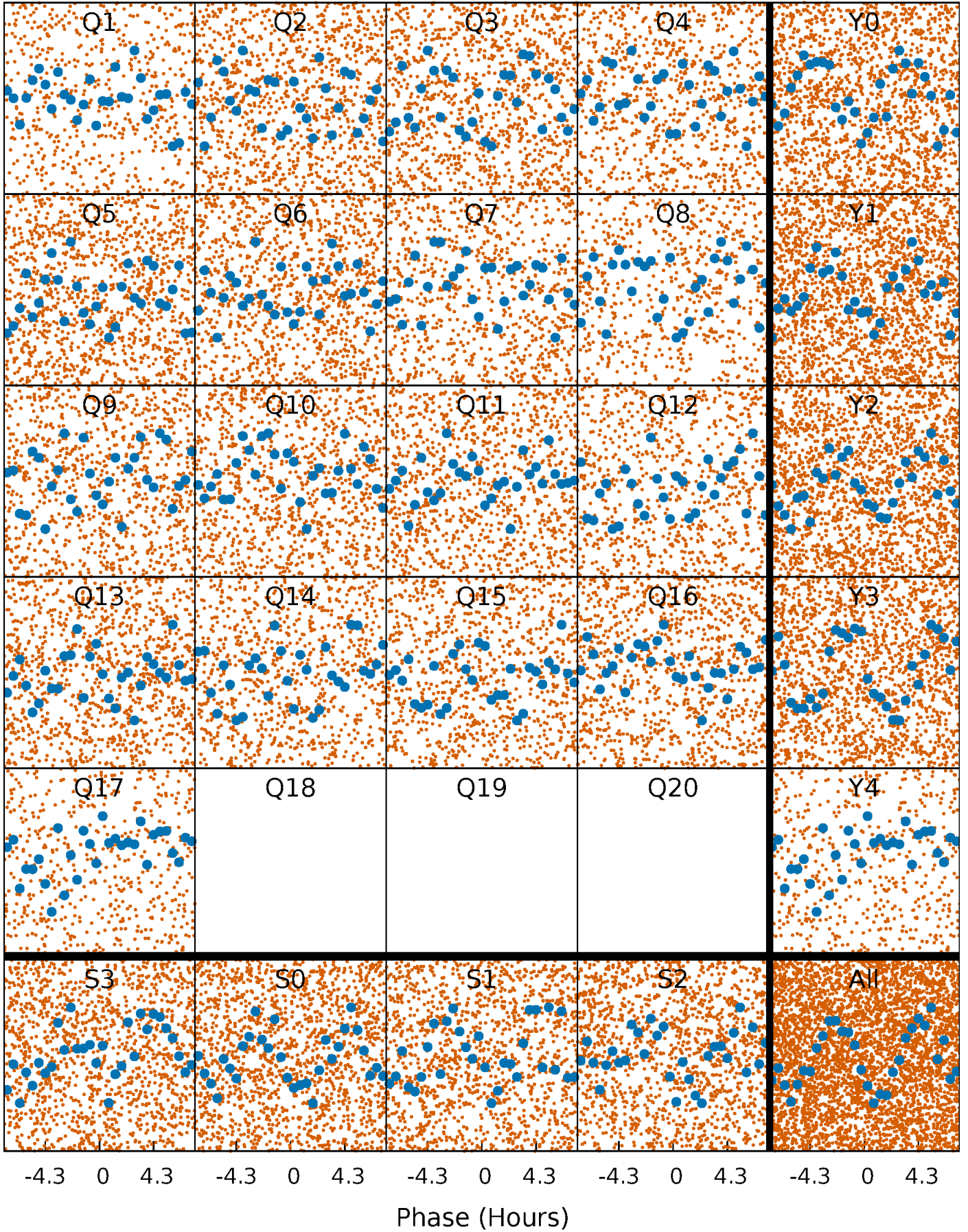


Non-Whitened Vs. Whitened Light Curve



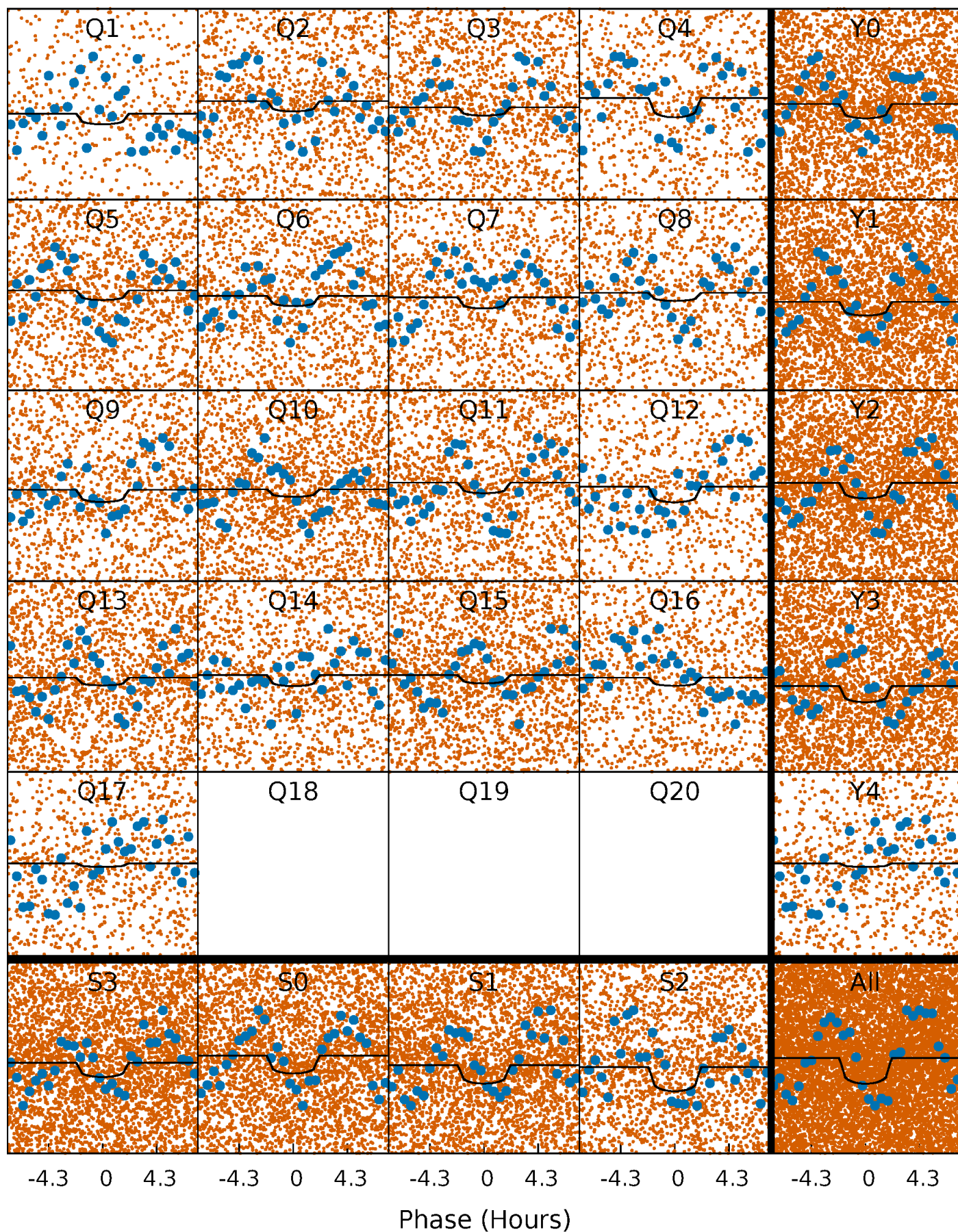
PDC Quarter-Phased Transit Curves

TCE 011415556-01 P= 0.589342 Days $T_0=132.045971$ (BKJD)



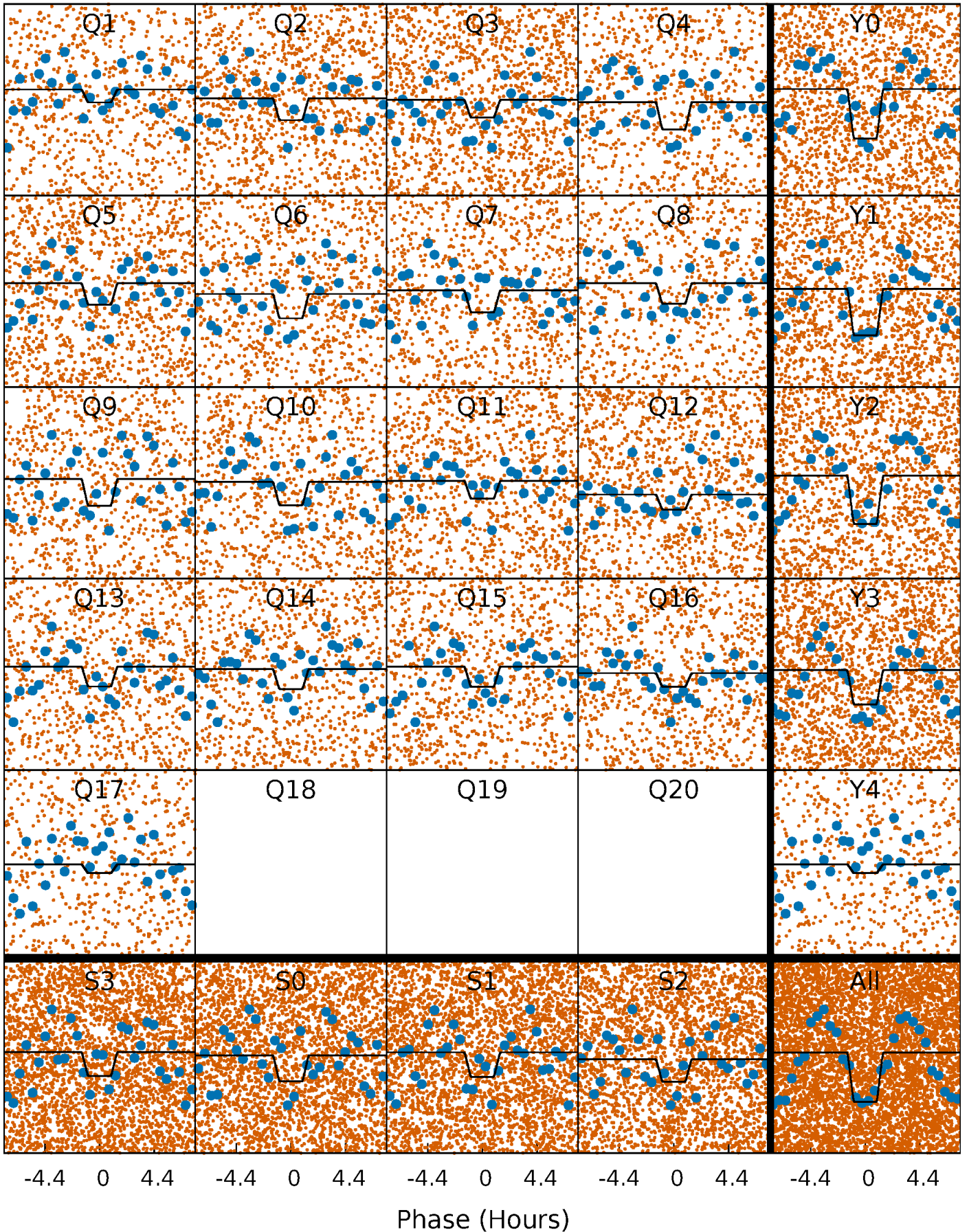
DV Quarter-Phased Transit Curves

TCE 011415556-01 P= 0.589342 Days $T_0=132.045971$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

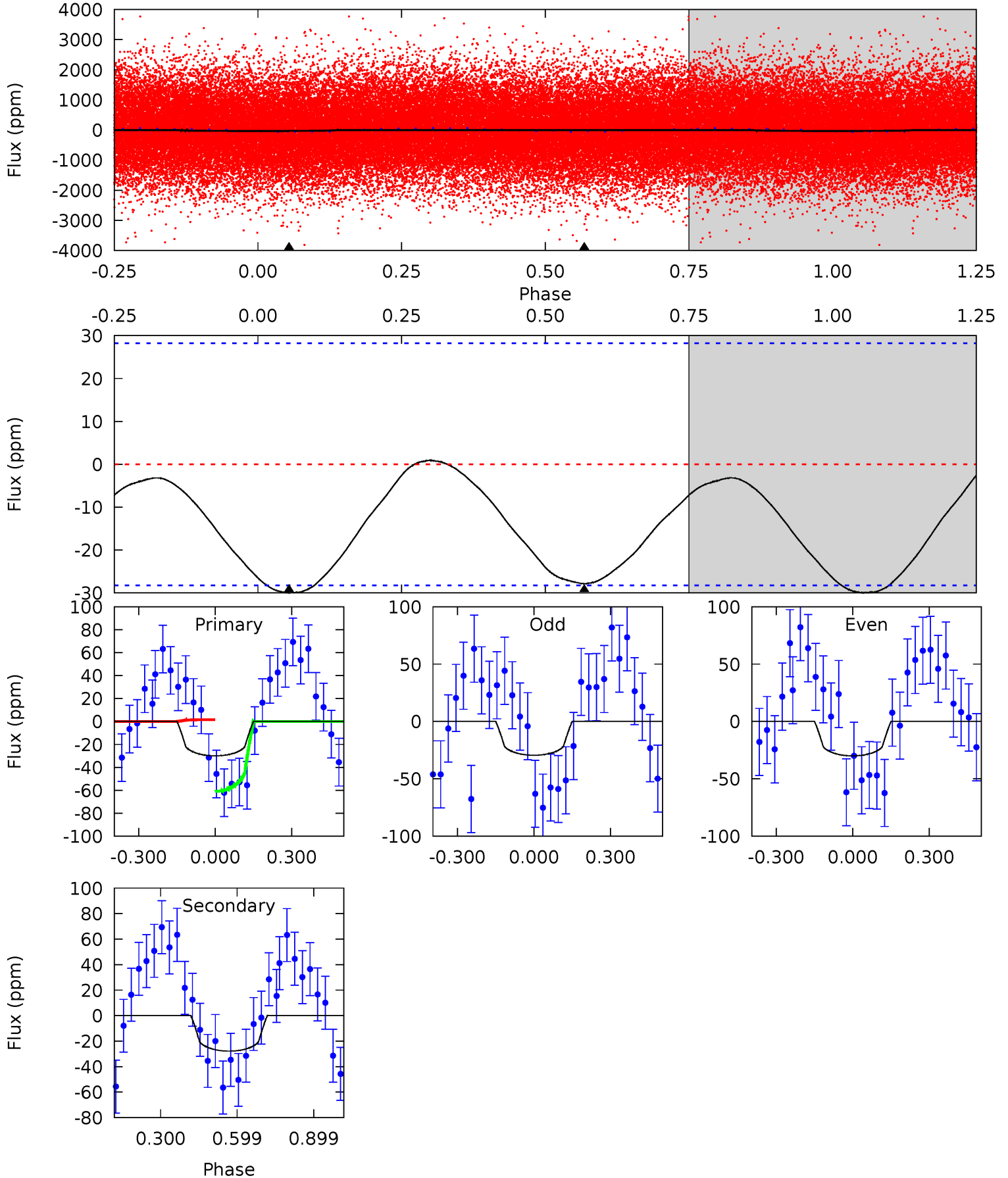
TCE 011415556-01 P= 0.589397 Days $T_0=132.018969$ (BKJD)



DV Model-Shift Uniqueness Test

011415556-01, P = 0.589342 Days, E = 131.456629 Days

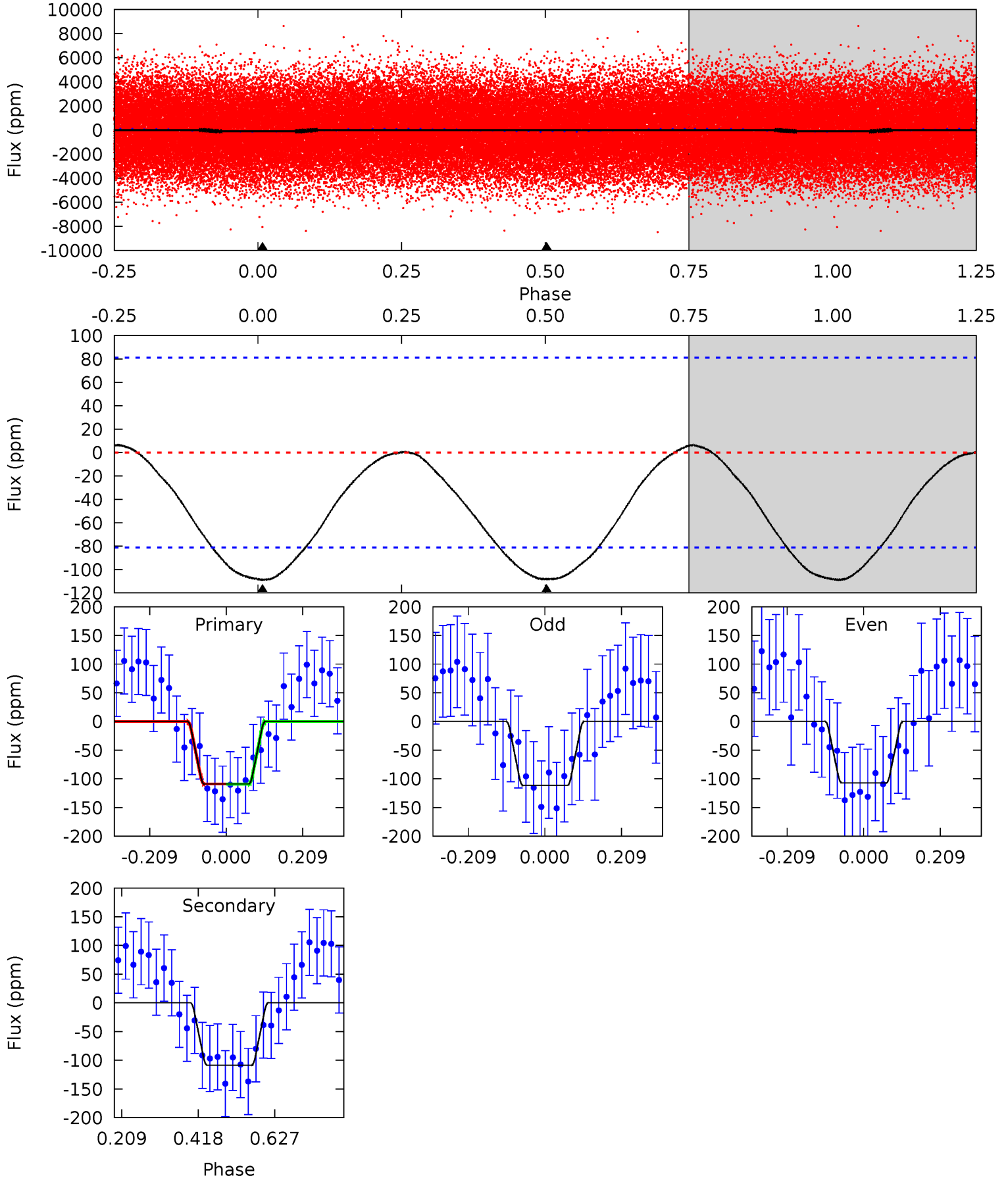
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.60	4.27	0	0	4.33	1.04	0.29	4.60	4.60	4.27	4.27	0.04	0.96	0.03	4.57



Alt Model-Shift Uniqueness Test

011415556-01, P = 0.589397 Days, E = 131.429572 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	5.89	0	0	4.41	1.26	0.18	5.92	5.92	5.89	5.89	0.12	1.02	0.06	0.00



Stellar Parameters For KIC 011415556

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7694^{+76}_{-84}	$3.979^{+0.156}_{-0.104}$	$-0.160^{+0.150}_{-0.150}$	$2.224^{+0.360}_{-0.480}$	$1.718^{+0.155}_{-0.186}$	$0.220^{+0.174}_{-0.070}$
	+1%/-1%	+4%/-3%	+94%/-94%	+16%/-22%	+9%/-11%	+79%/-32%
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 011415556-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-28 ± 7	$1.87^{+1.59}_{-1.22}$	5508^{+236}_{-294}	5737^{+5999}_{-2517}	$1.162^{+7.447}_{-0.825}$
Alt.	-109 ± 18	$2.80^{+1.85}_{-1.56}$	5496^{+241}_{-275}	6803^{+5819}_{-1804}	$2.040^{+8.793}_{-1.287}$

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 $A_{obs} \gg 1.0$

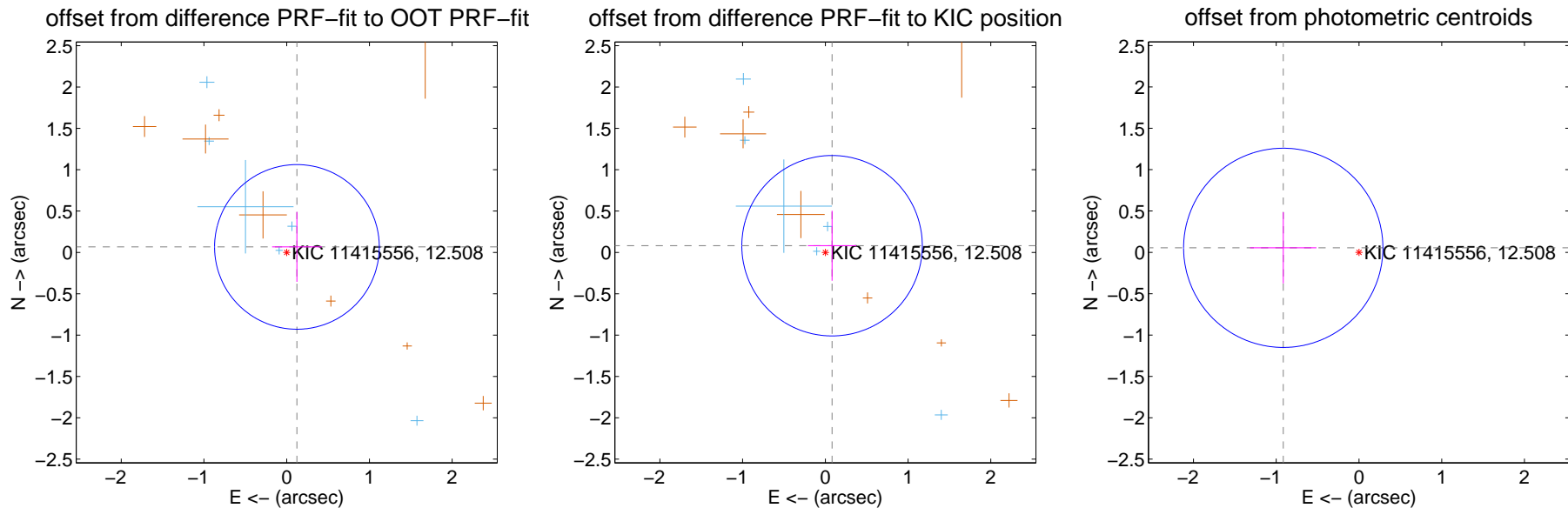
DV Centroid Data

Supplemental centroid analysis for 011415556-01. Kepler magnitude: 12.51. Transit SNR 4.83

There are 6 quarters with good PRF difference image offsets

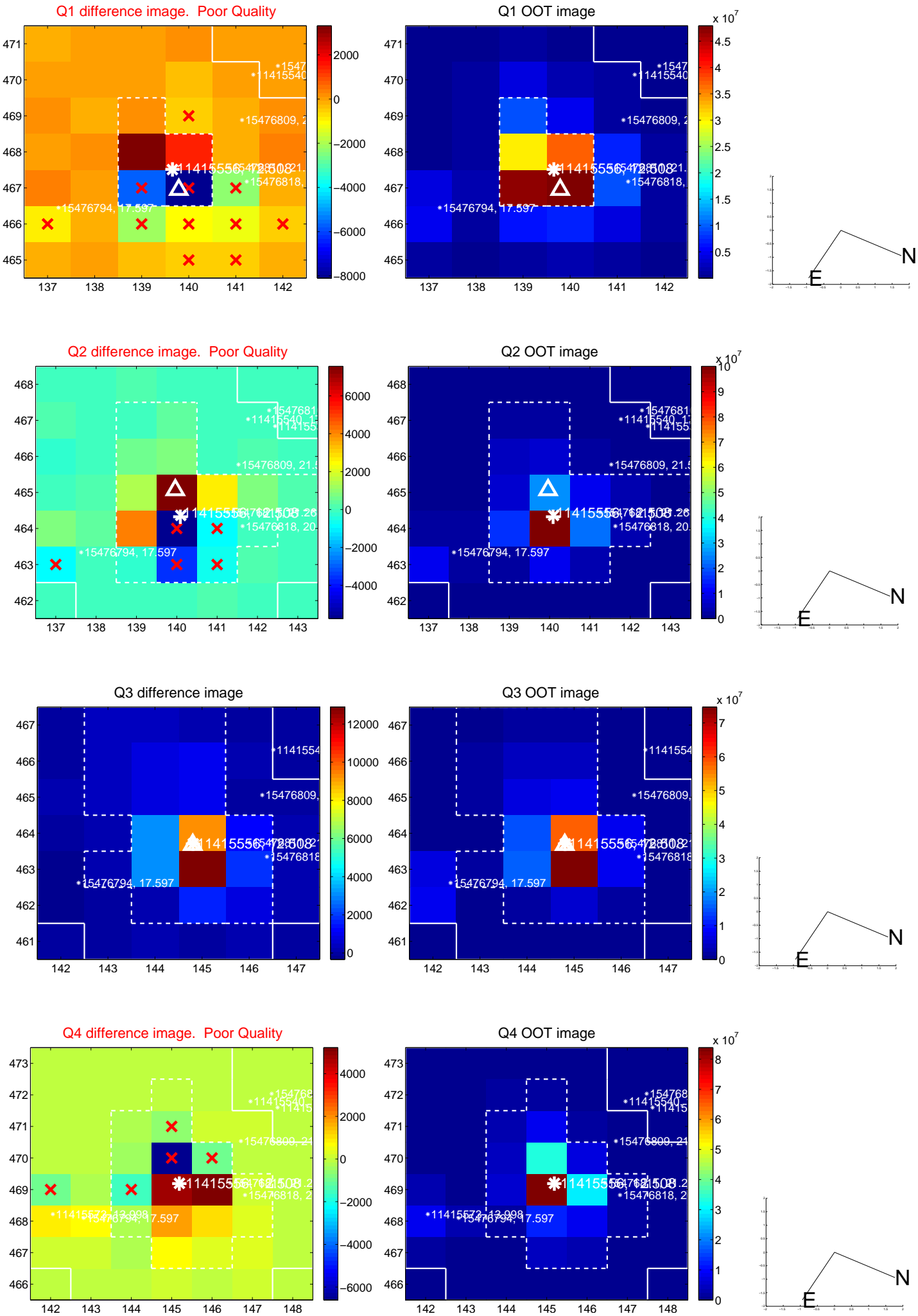
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.141 ± 0.332	0.42	-0.124 ± 0.301	0.067 ± 0.423
PRF-fit source offset from KIC position	0.115 ± 0.364	0.32	-0.081 ± 0.293	0.081 ± 0.423
photometric centroid source offset	0.92 ± 0.40	2.28	0.92 ± 0.40	0.05 ± 0.43

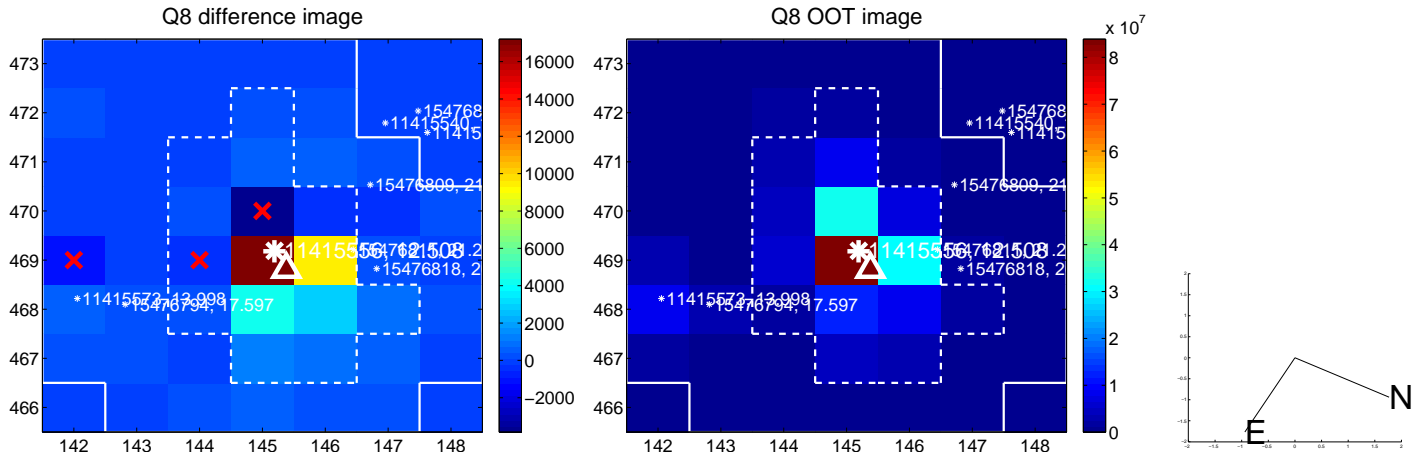
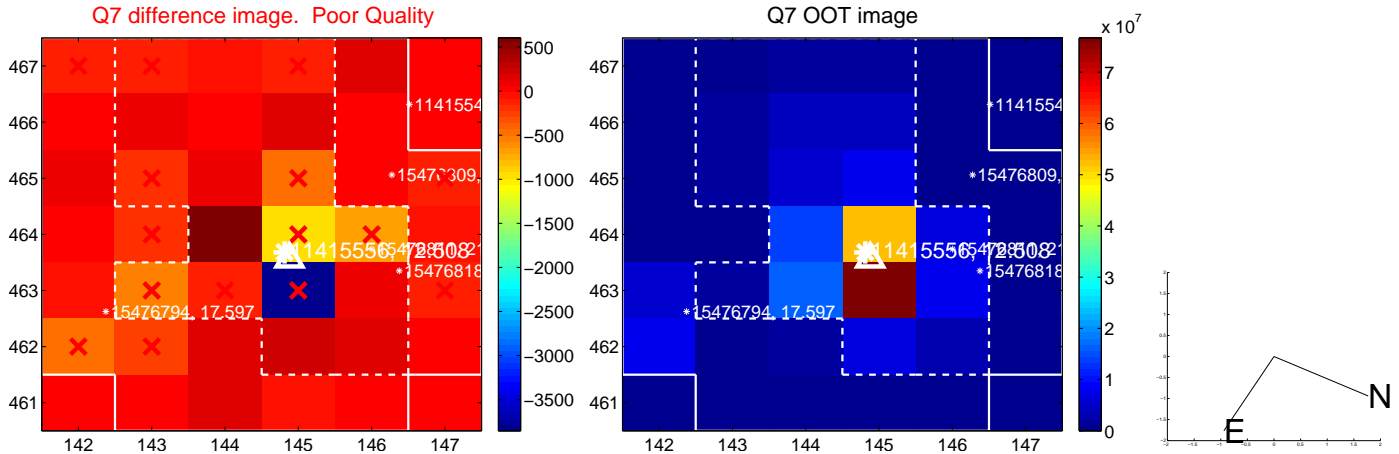
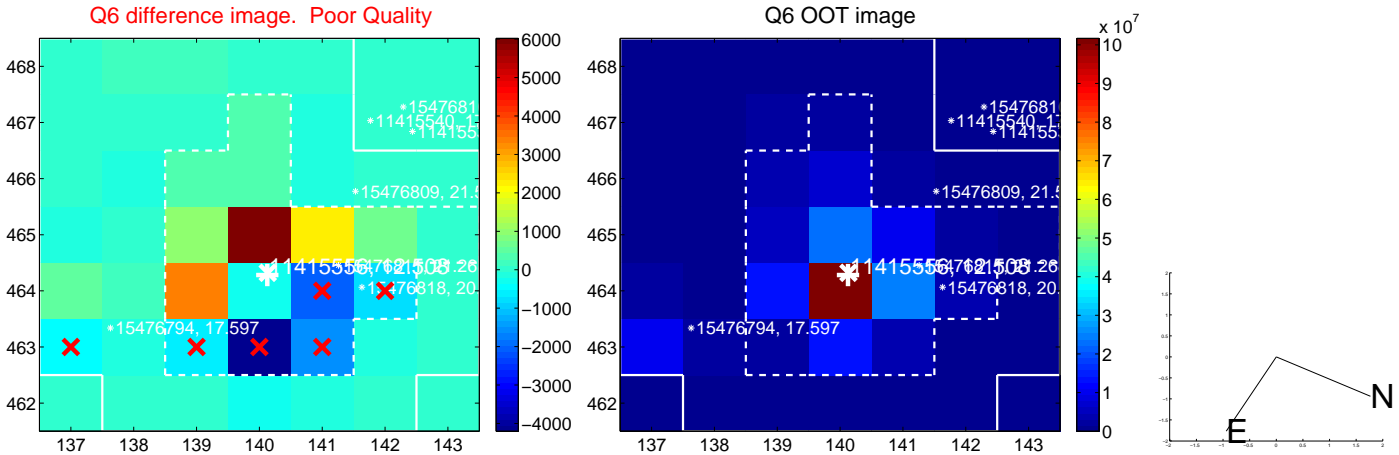
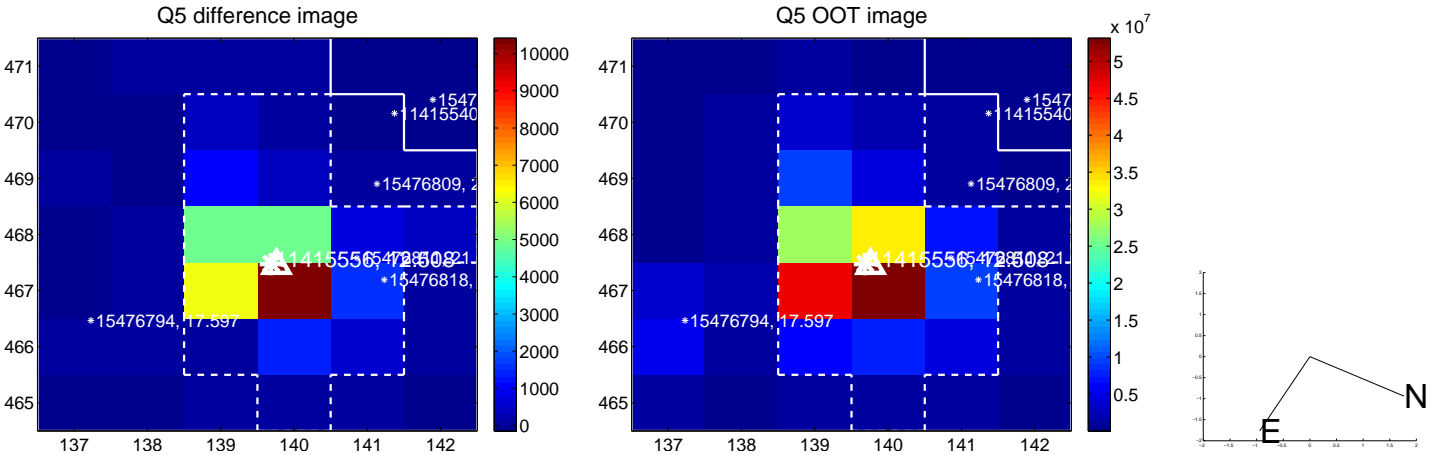


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

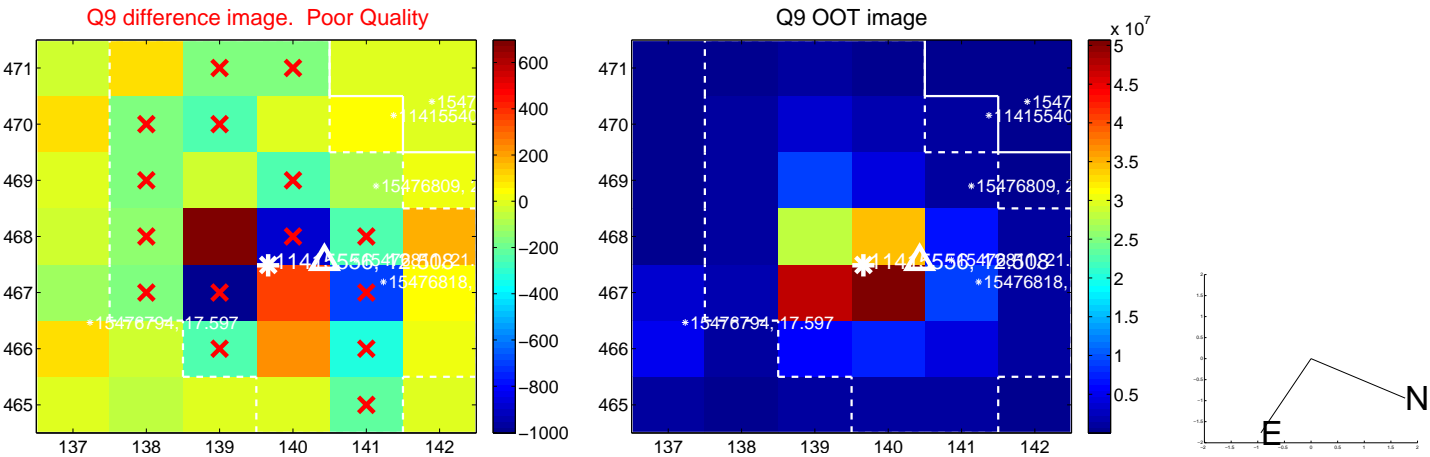
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



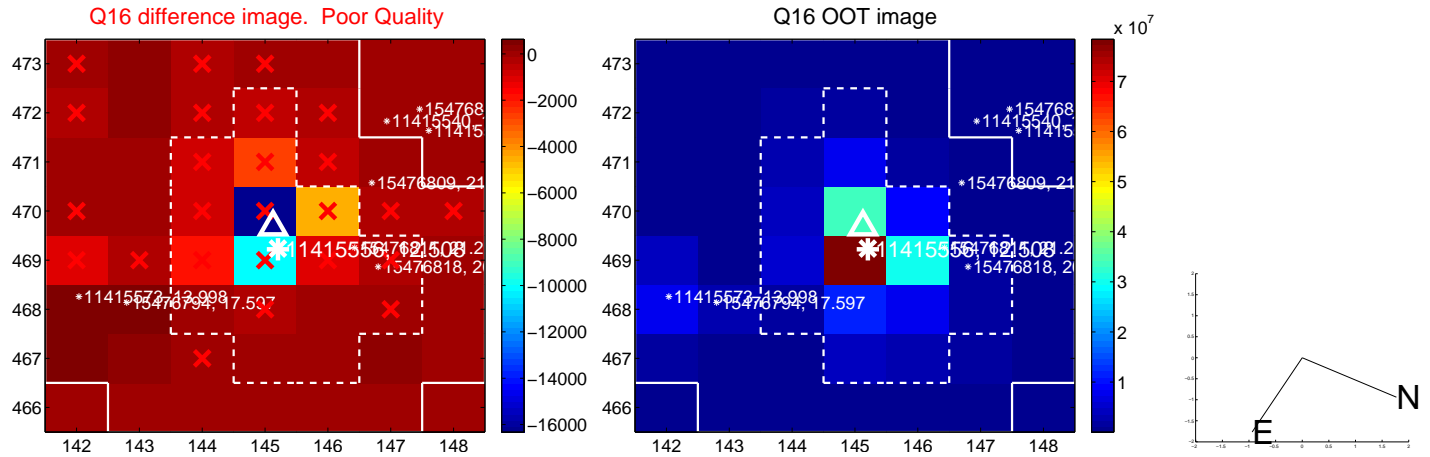
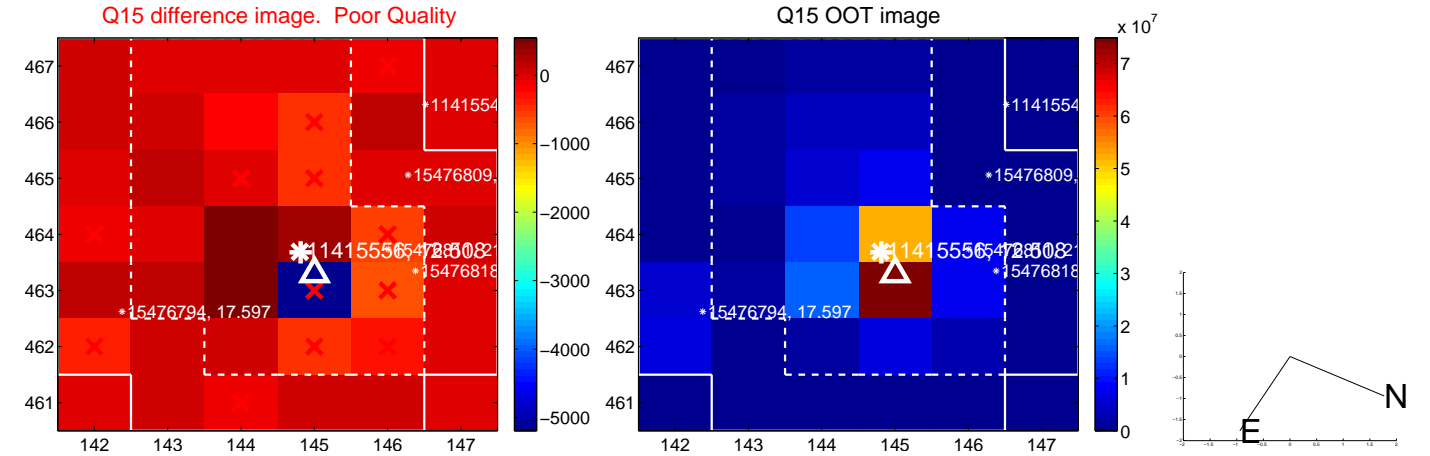
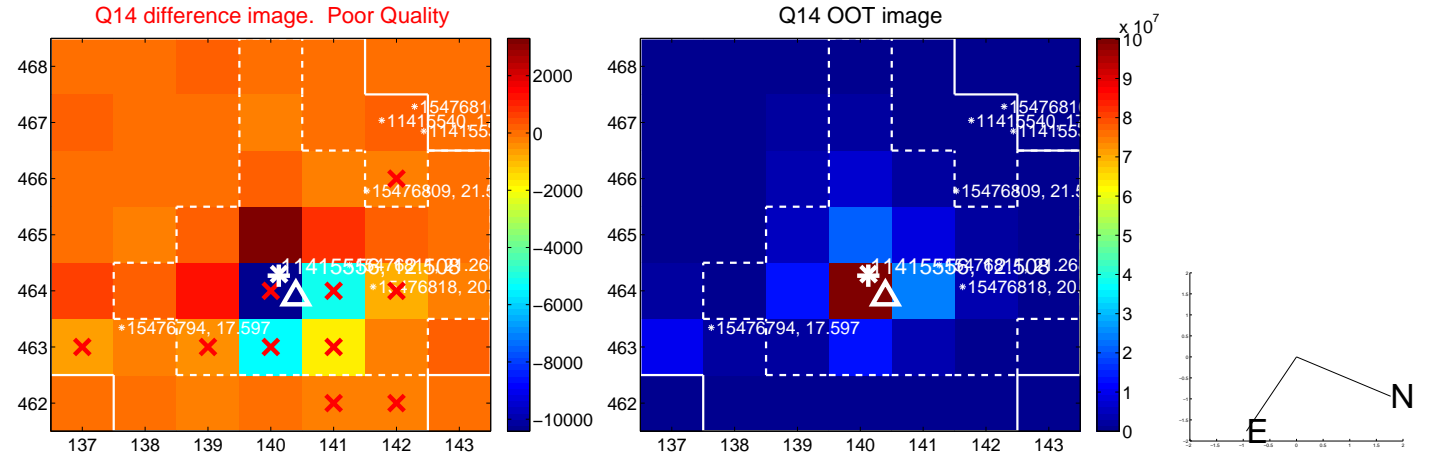
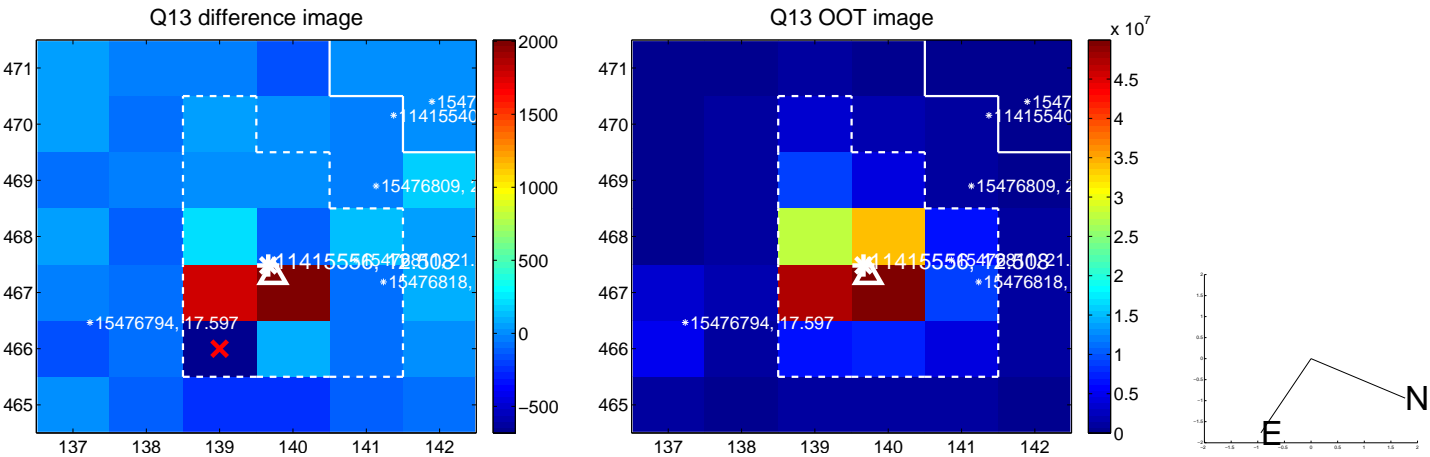
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



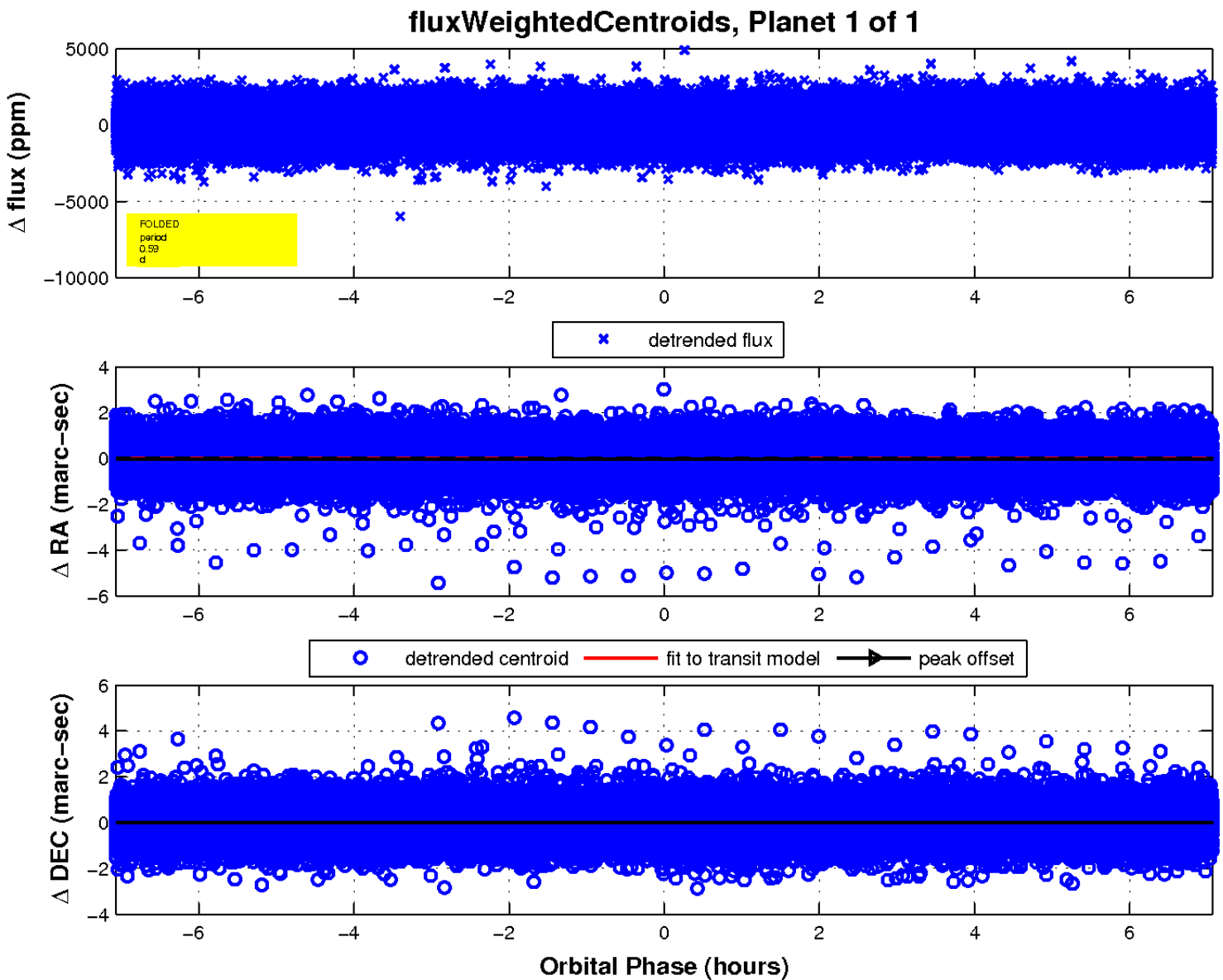
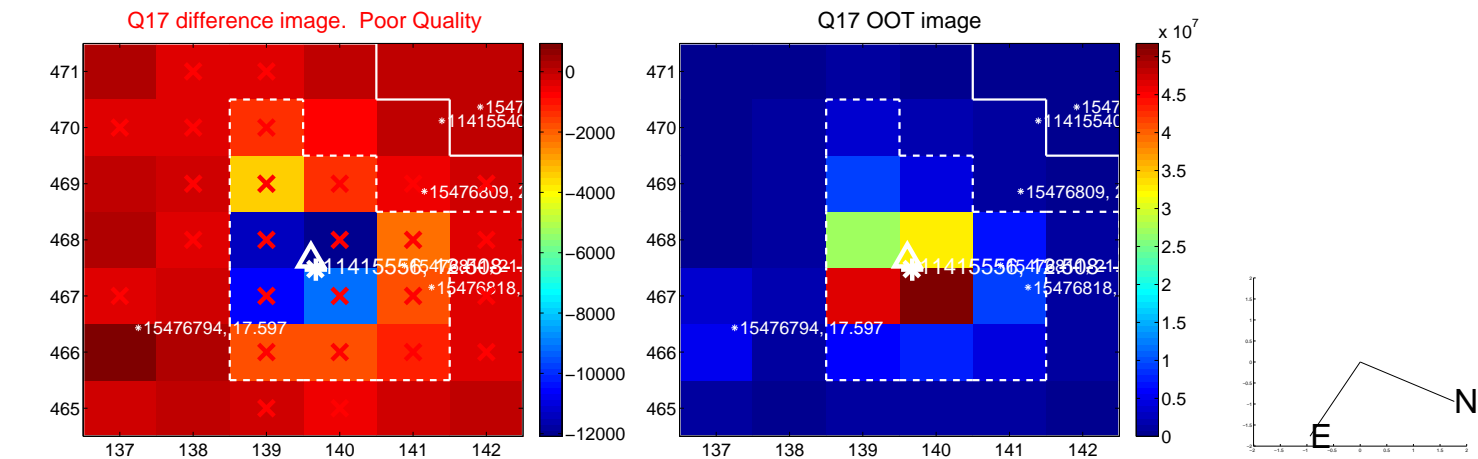
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UKIRT Image

Declination

