

KIC 003546753

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})
003546753-01	OBS	No	1.130676	131.648079	45.7	5.330	9.7	8.3	0.84	5362	0.66	1191.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003546753-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

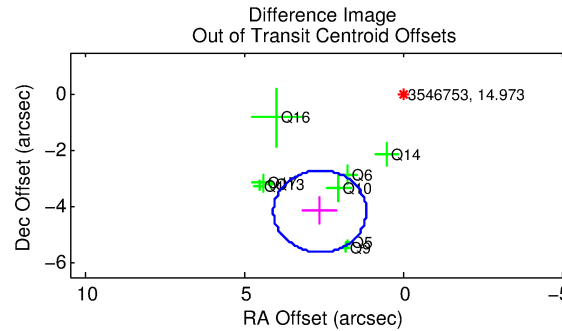
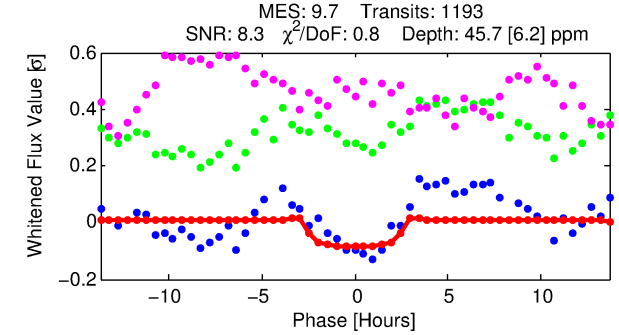
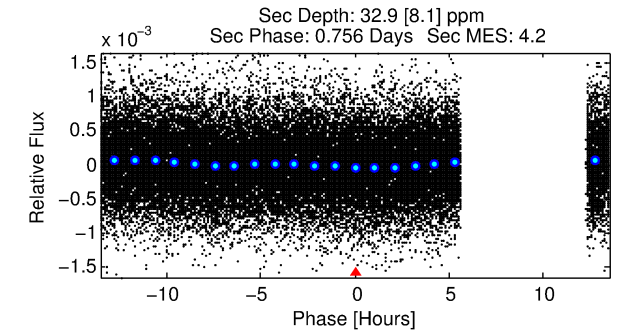
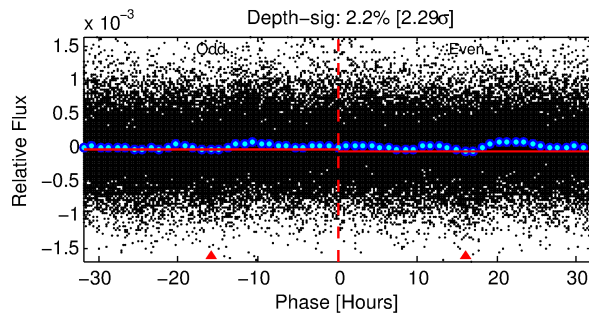
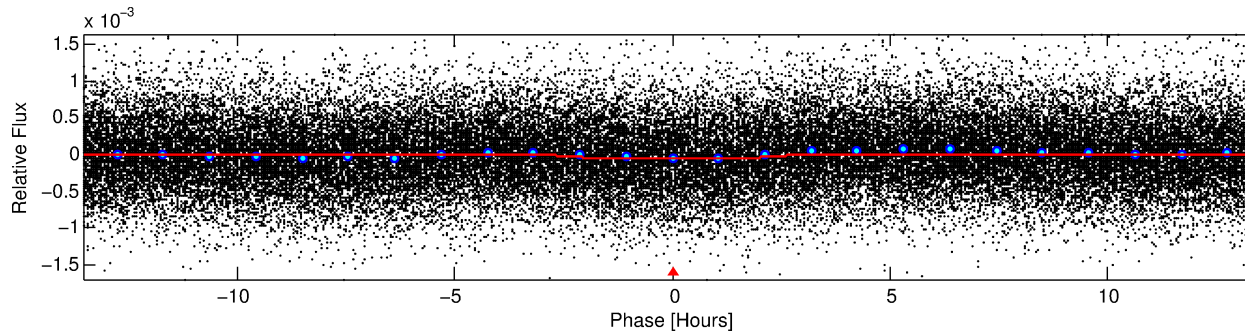
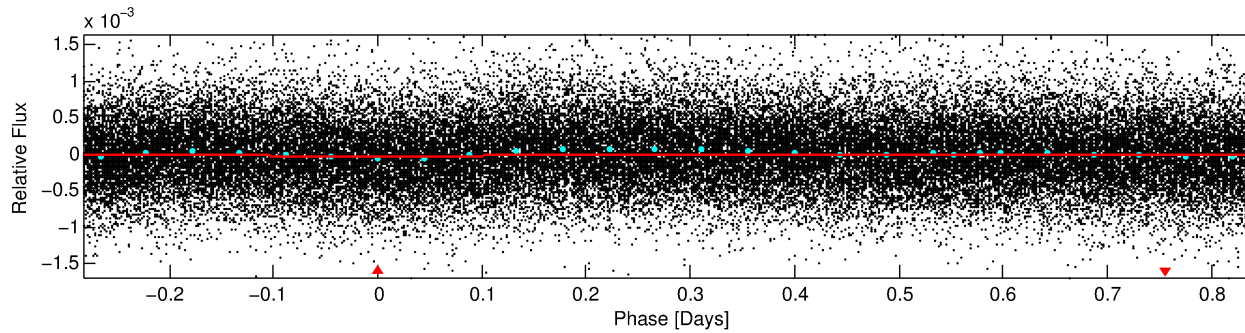
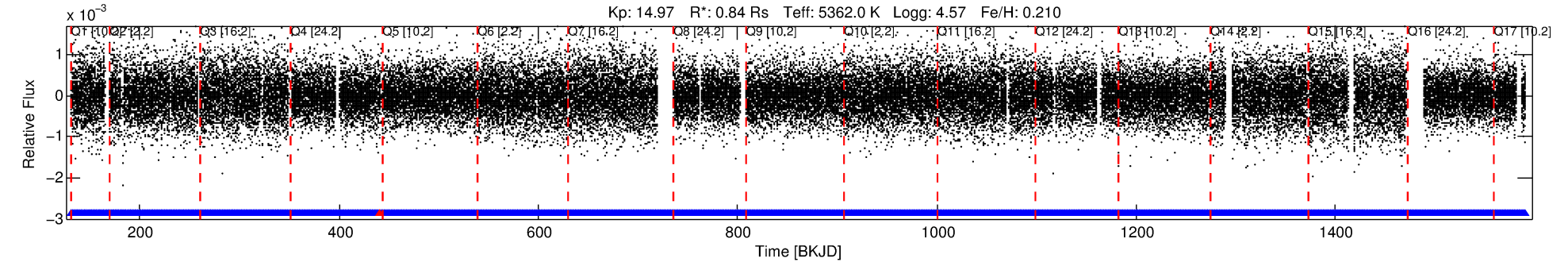
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003546753-01

No Significant Match Found

DV One-Page Summary

KIC: 3546753 Candidate: 1 of 1 Period: 1.131 d



DV Fit Results:

Period = 1.13068 [0.00002] d
Epoch = 131.6481 [0.0064] BKJD
Rp/R* = 0.0072 [0.0051]
a/R* = 1.25 [1.33]
b = 0.86 [0.92]
Seff = 1191.95 [324.68]
Teff = 1498 [102] K
Rp = 0.66 [0.49] Re
a = 0.0209 [0.0035] AU
Ag = 18.26 [26.86] [0.64σ]
Teffp = 4788 [1743] K [1.88σ]

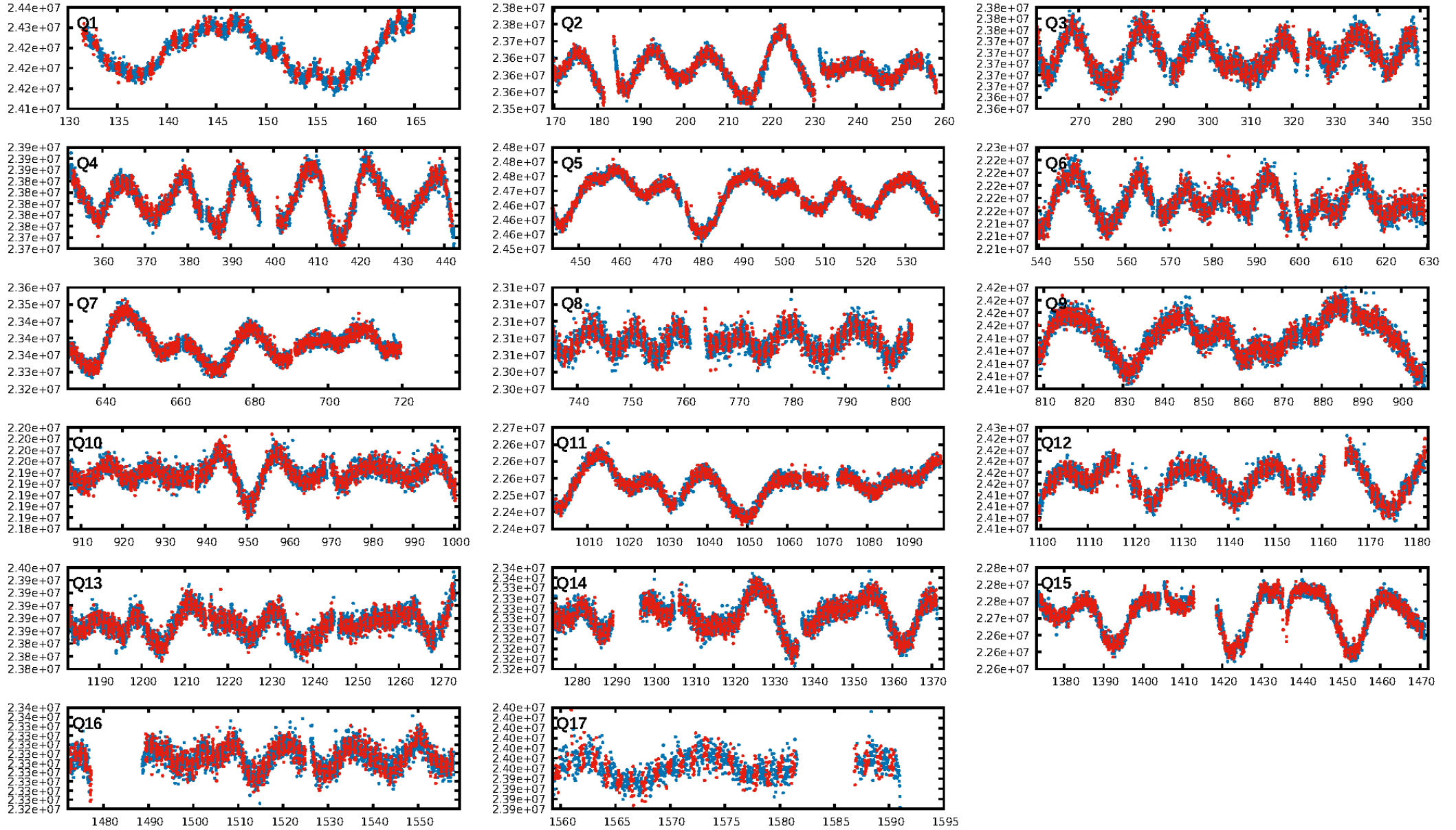
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.62e-17
RollingBand-fgt: 1.00 [1138/1139]
GhostDiagnostic-chr: -0.1064
Centroid-sig: 0.0%
Centroid-so: 4.856 arcsec [3.99σ]
OotOffset-rm: 4.928 arcsec [10.14σ]
KicOffset-rm: 4.473 arcsec [12.39σ]
OotOffset-st: 3/0/1/5 [9]
KicOffset-st: 3/0/1/5 [9]
DiffImageQuality-fgm: 0.78 [7/9]
DiffImageOverlap-fno: 1.00 [17/17]

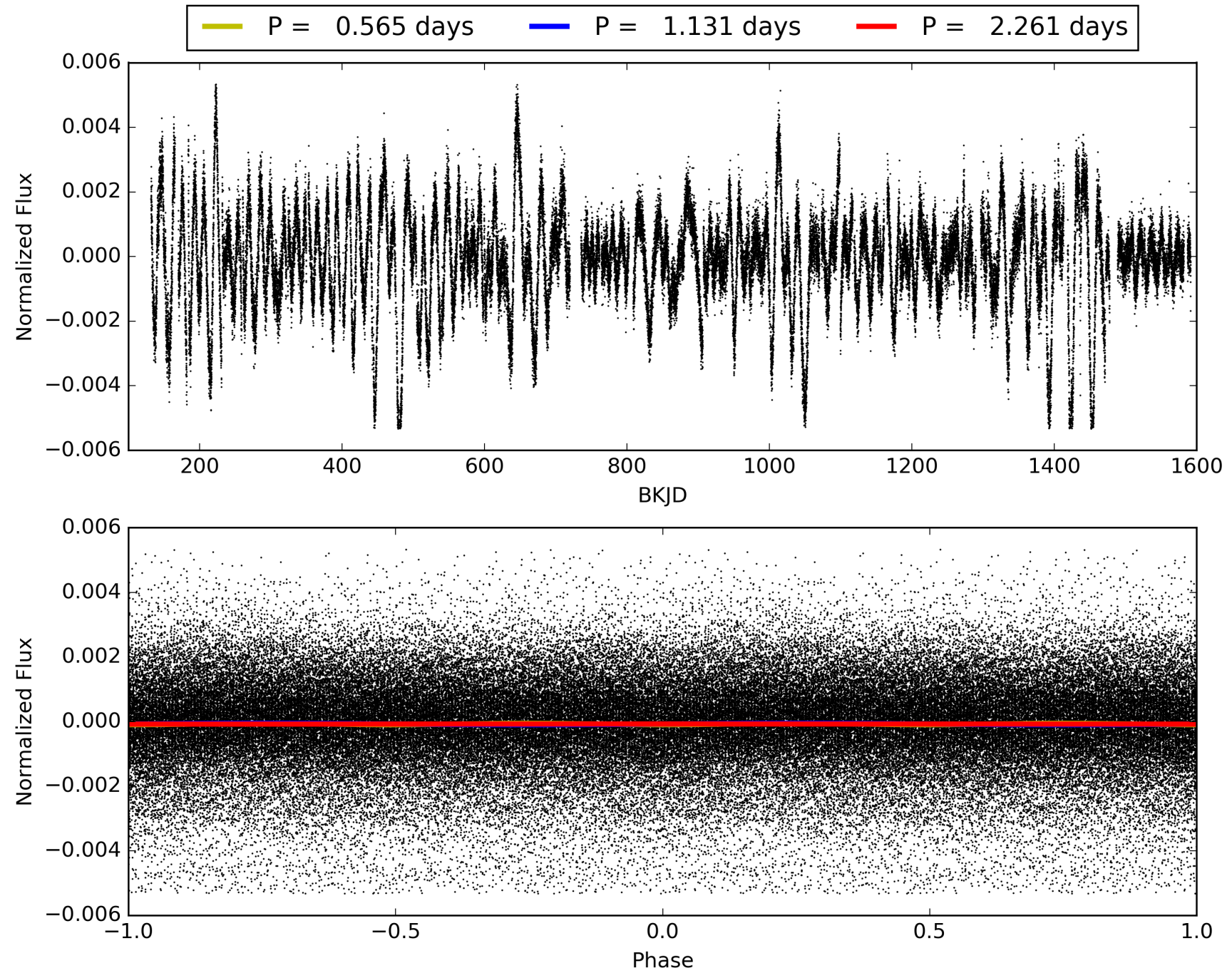
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:49:45 Z

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

TCE 003546753-01, PDC Light Curves

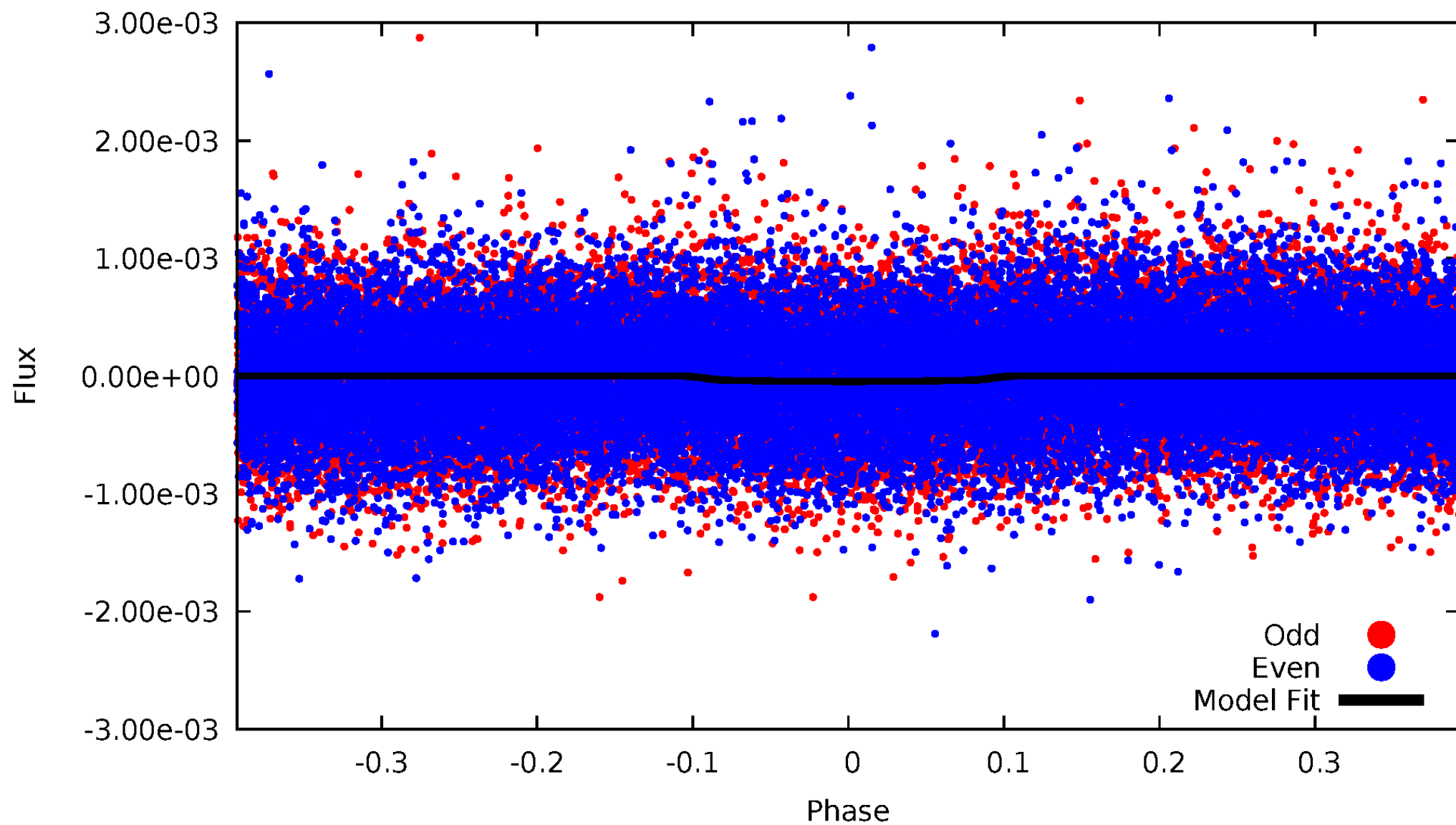


TCE 003546753-01



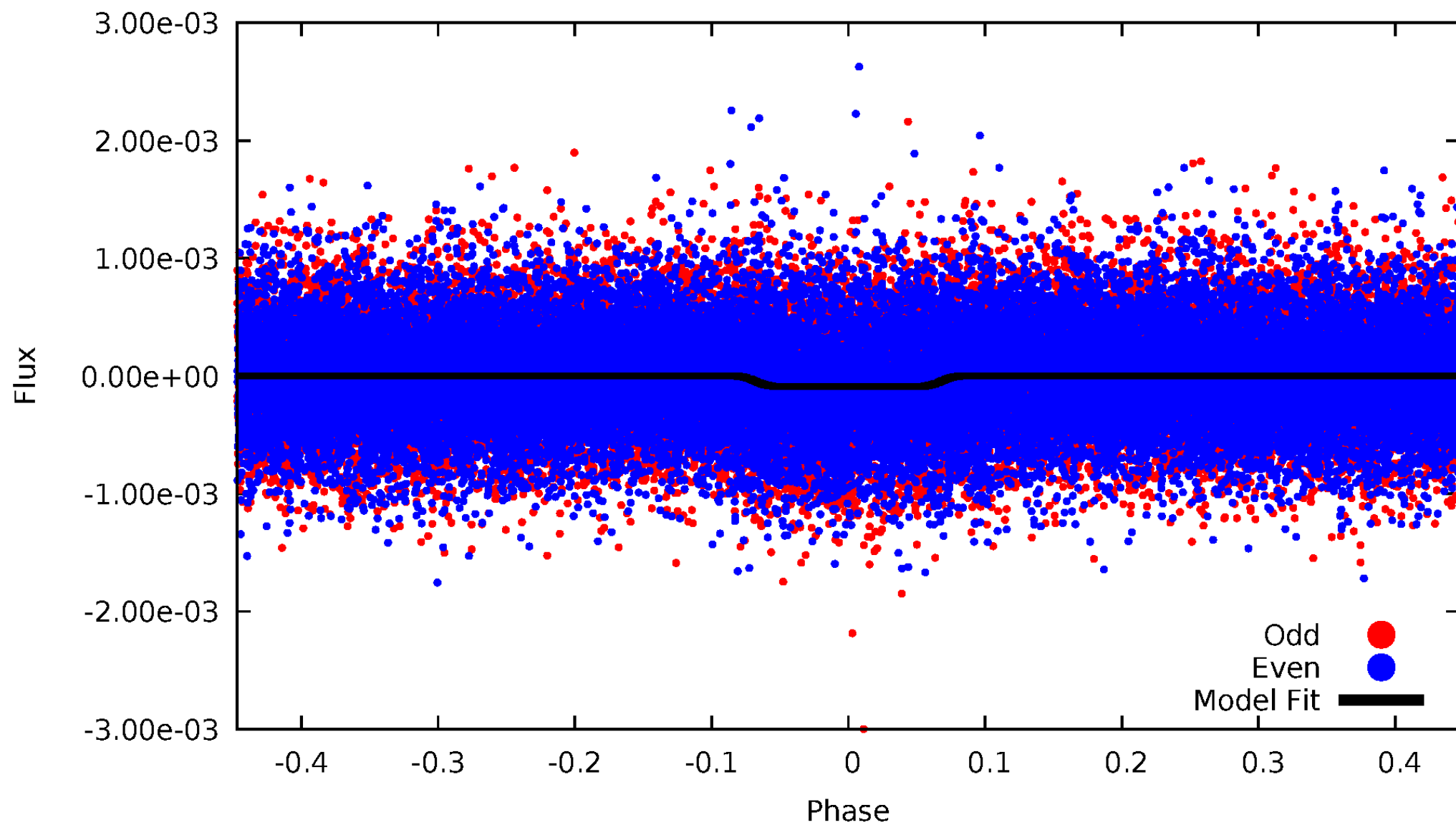
DV Odd/Even

TCE 003546753-01



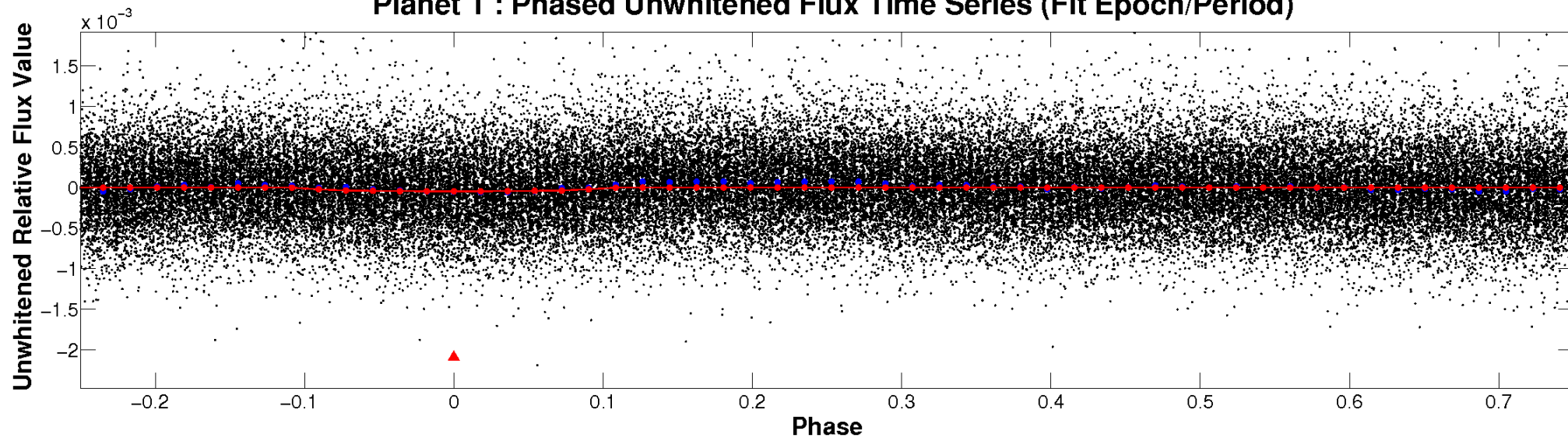
ALT Odd/Even

TCE 003546753-01

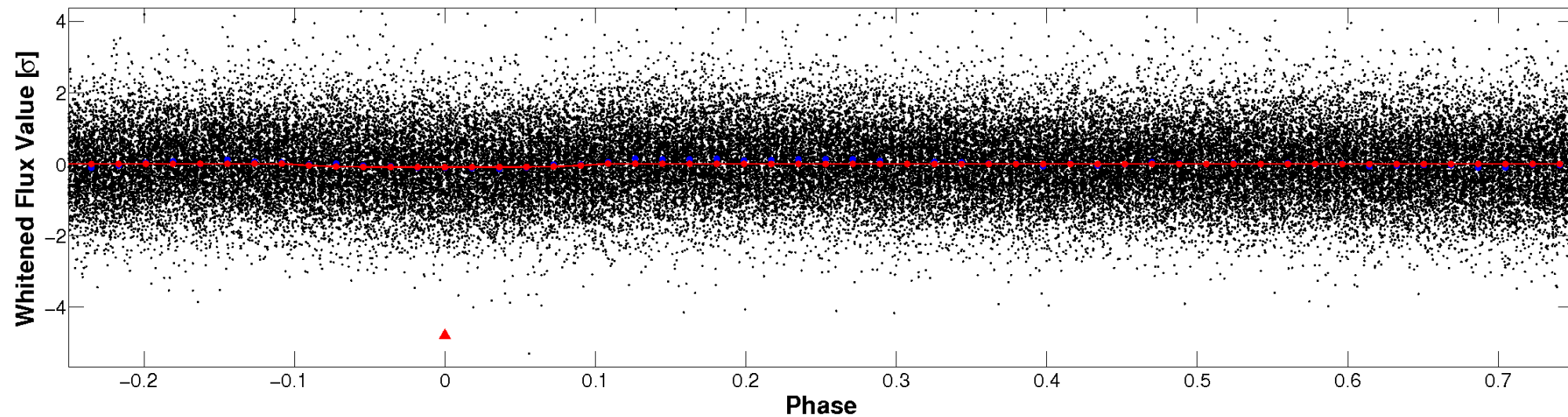


Non-Whitened Vs. Whitened Light Curve

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

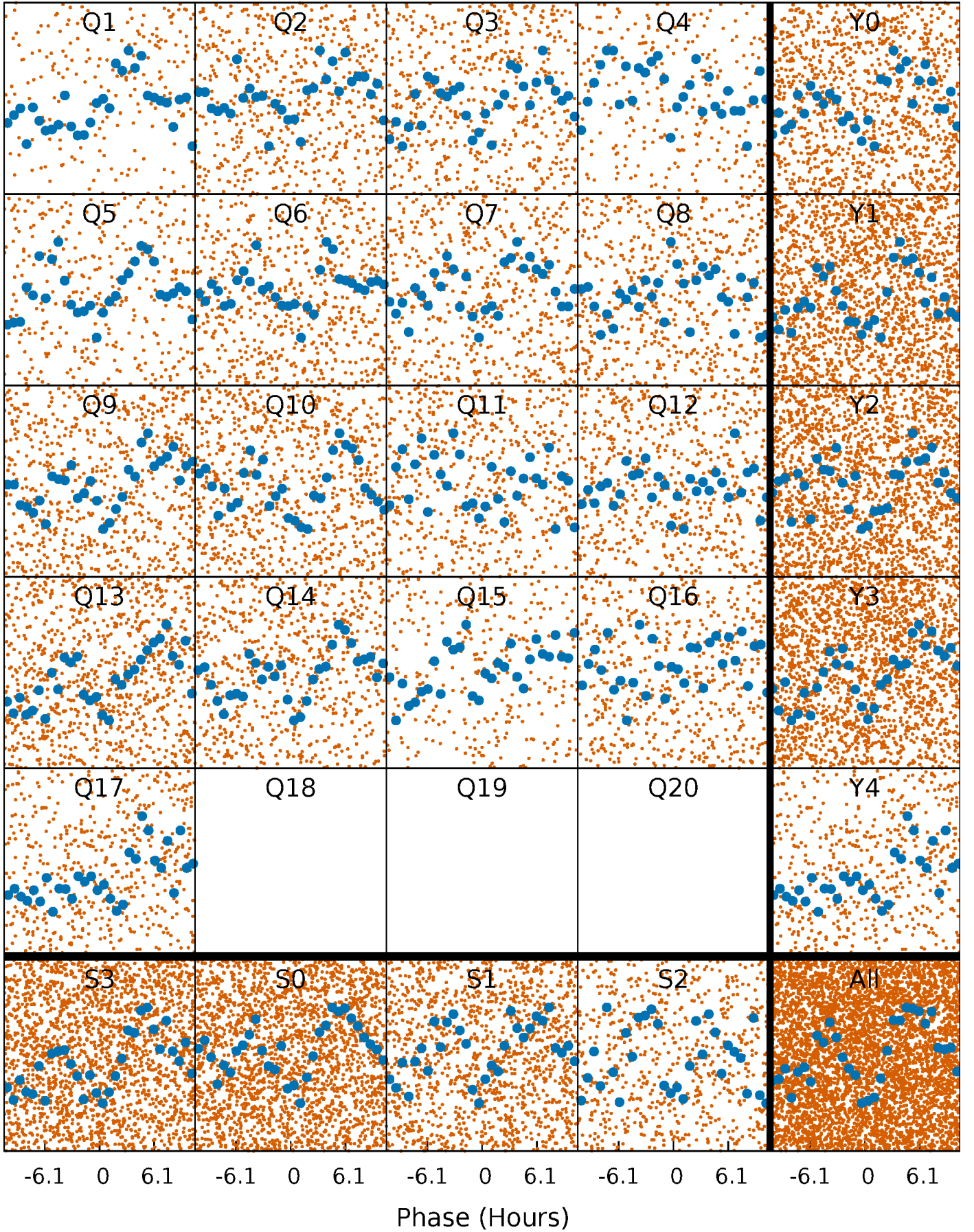


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



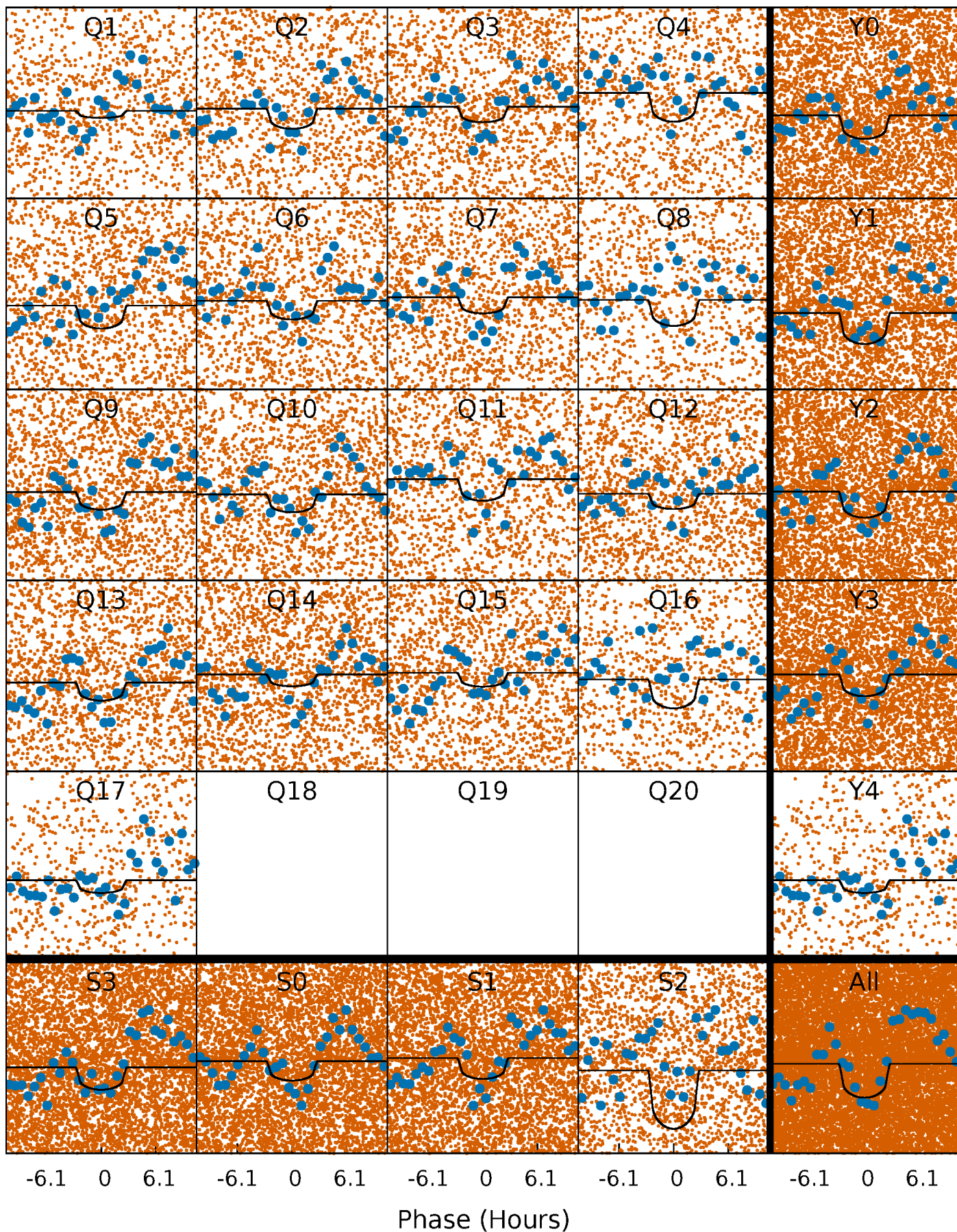
PDC Quarter-Phased Transit Curves

TCE 003546753-01 P= 1.130676 Days $T_0=131.648079$ (BKJD)



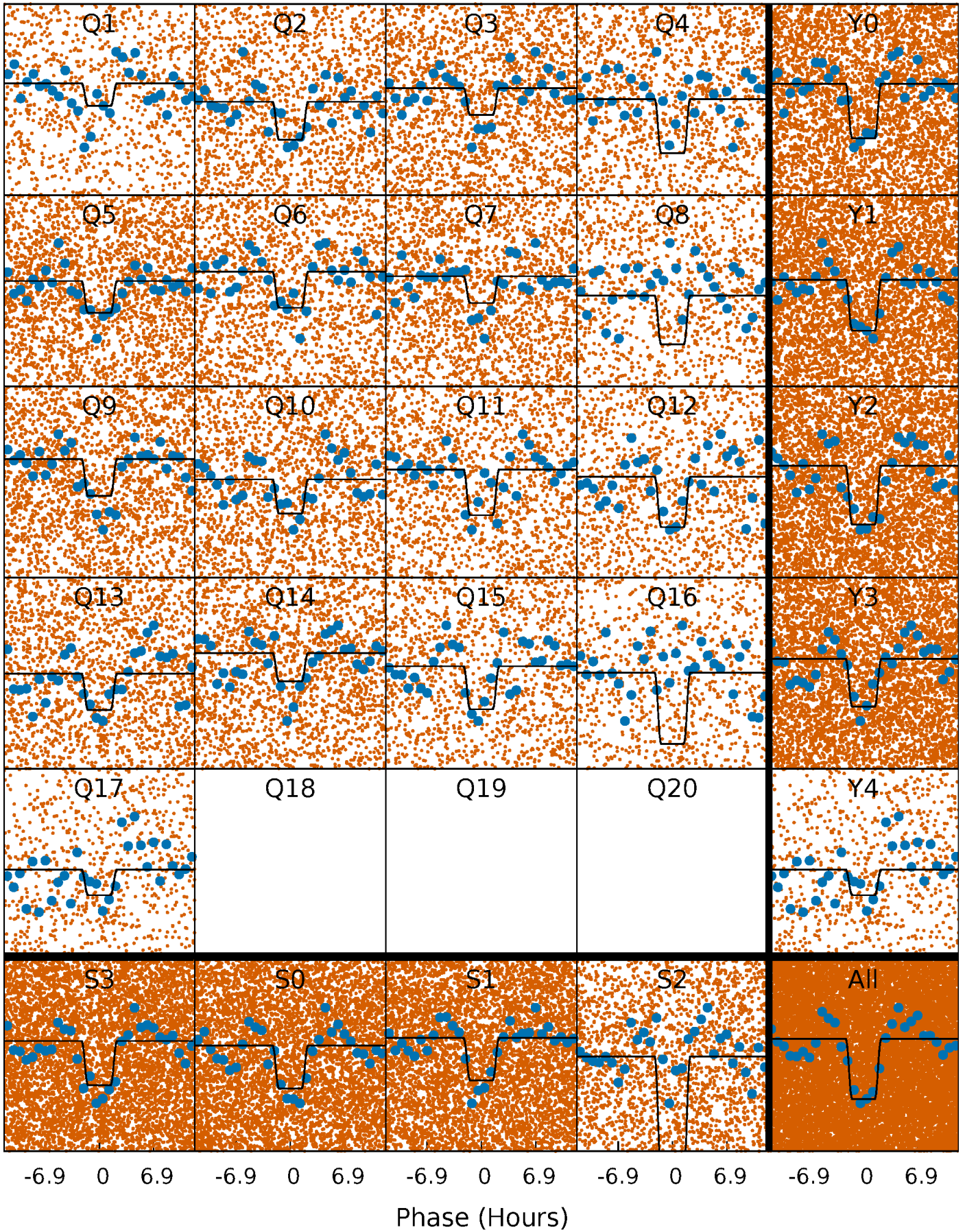
DV Quarter-Phased Transit Curves

TCE 003546753-01 P= 1.130676 Days $T_0=131.648079$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

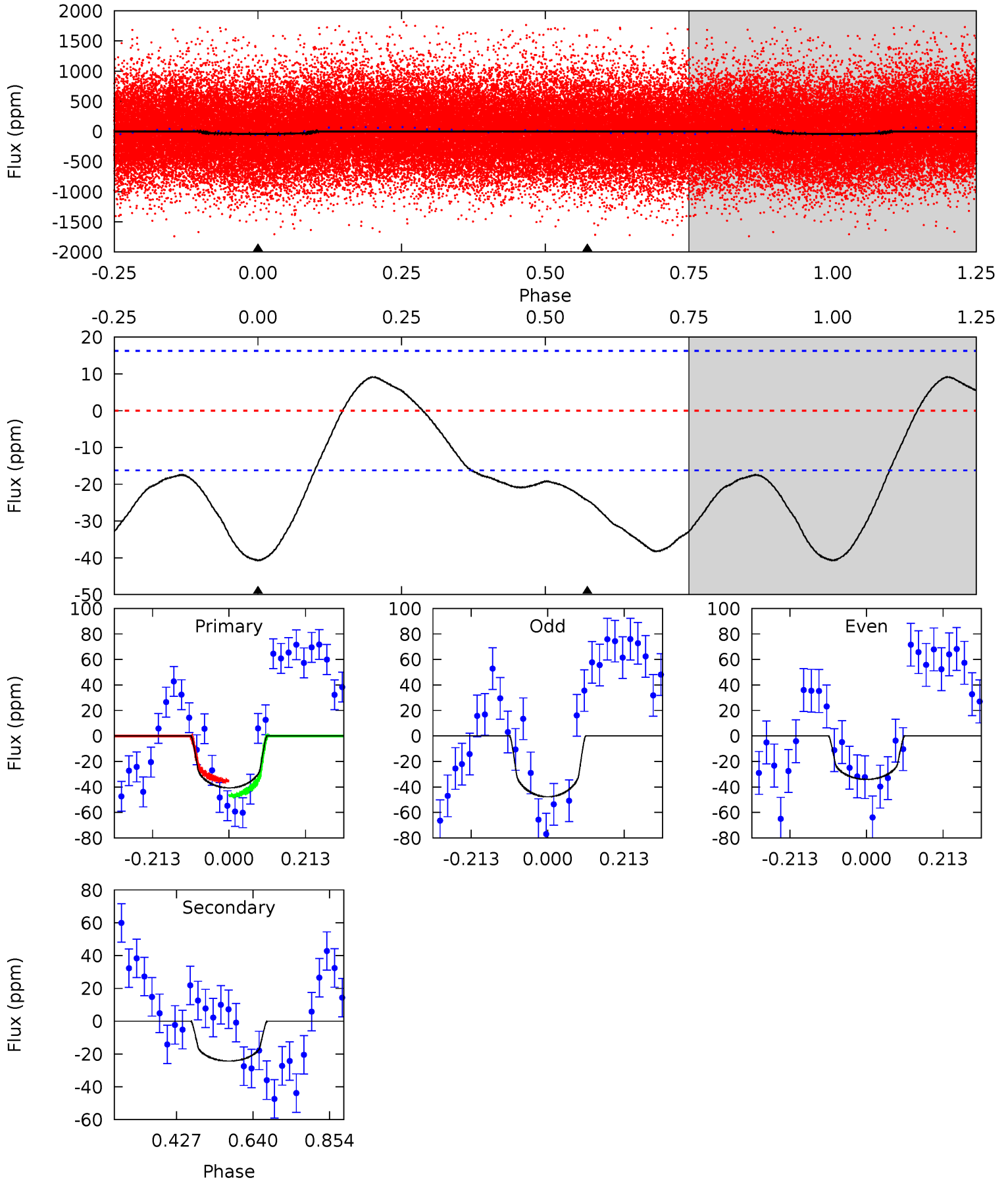
TCE 003546753-01 P= 1.130703 Days $T_0=131.645024$ (BKJD)



DV Model-Shift Uniqueness Test

003546753-01, P = 1.130676 Days, E = 130.517403 Days

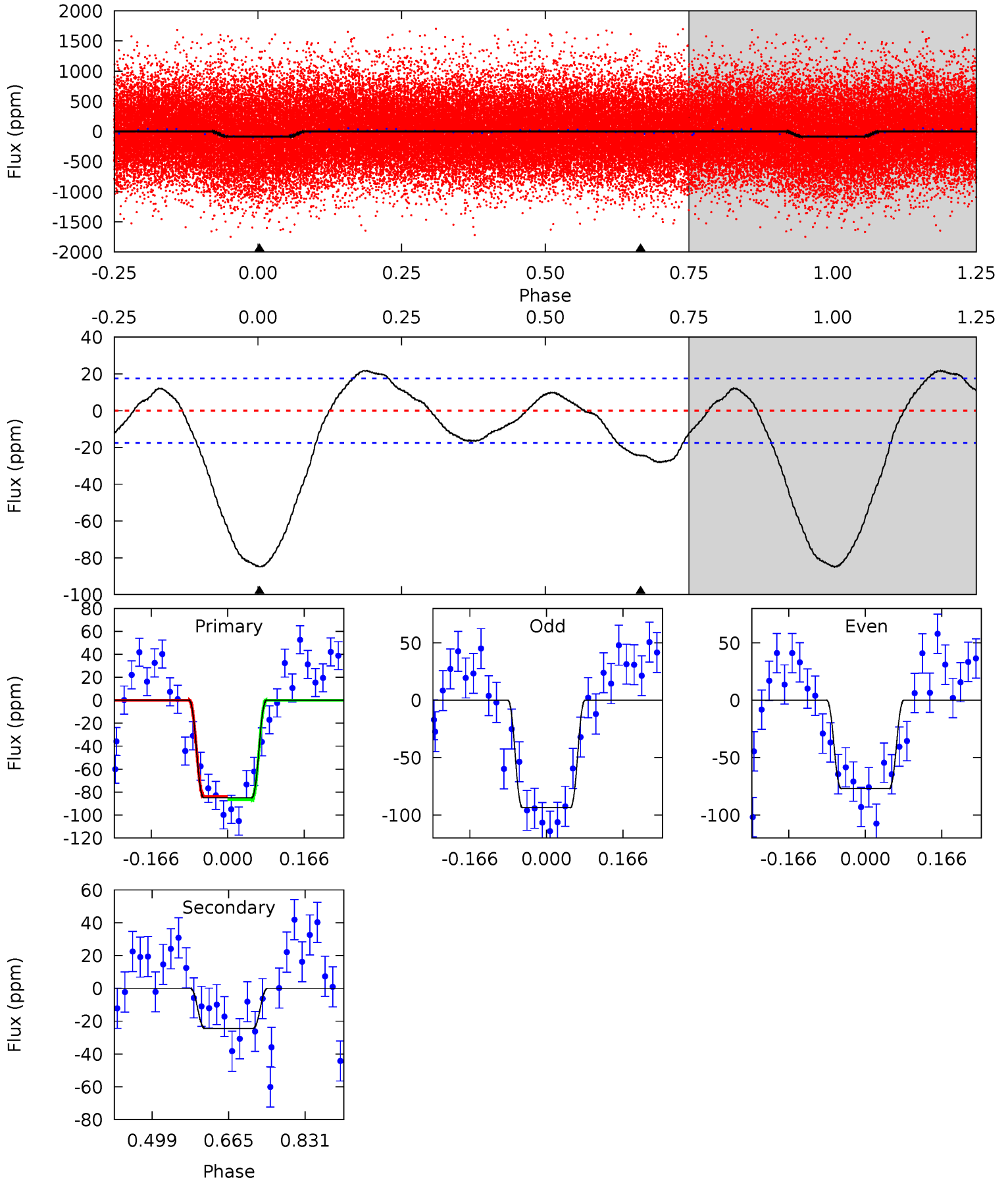
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	6.60	0	0	4.40	1.24	1.90	11.0	11.0	6.60	6.60	1.84	1.02	0.18	1.56



Alt Model-Shift Uniqueness Test

003546753-01, P = 1.130703 Days, E = 130.514321 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.6	6.20	0	0	4.46	1.38	3.22	21.6	21.6	6.20	6.20	2.11	1.03	0.20	0.38



Stellar Parameters For KIC 003546753

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5362^{+144}_{-160}	$4.570^{+0.024}_{-0.136}$	$0.210^{+0.200}_{-0.300}$	$0.839^{+0.161}_{-0.054}$	$0.954^{+0.055}_{-0.103}$	$2.277^{+0.301}_{-0.891}$
	+3%/-3%	+1%/-3%	+95%/-143%	+19%/-6%	+6%/-11%	+13%/-39%
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 003546753-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 \pm 4	$0.74^{+0.46}_{-0.44}$	2128^{+108}_{-75}	4436^{+2276}_{-742}	11^{+56}_{-7}
Alt.	-24 \pm 4	$0.88^{+0.55}_{-0.44}$	2131^{+105}_{-78}	4069^{+1358}_{-628}	$7.236^{+21.298}_{-4.420}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

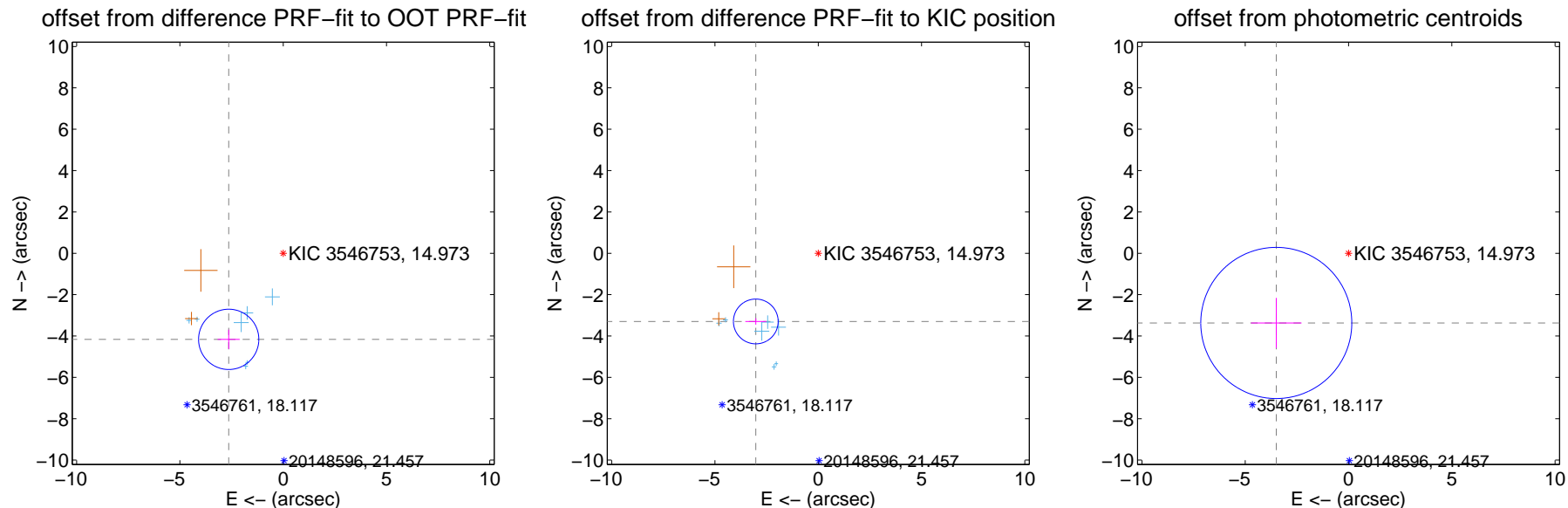
DV Centroid Data

Supplemental centroid analysis for 003546753-01. Kepler magnitude: 14.97. Transit SNR 8.30

There are 7 quarters with good PRF difference image offsets

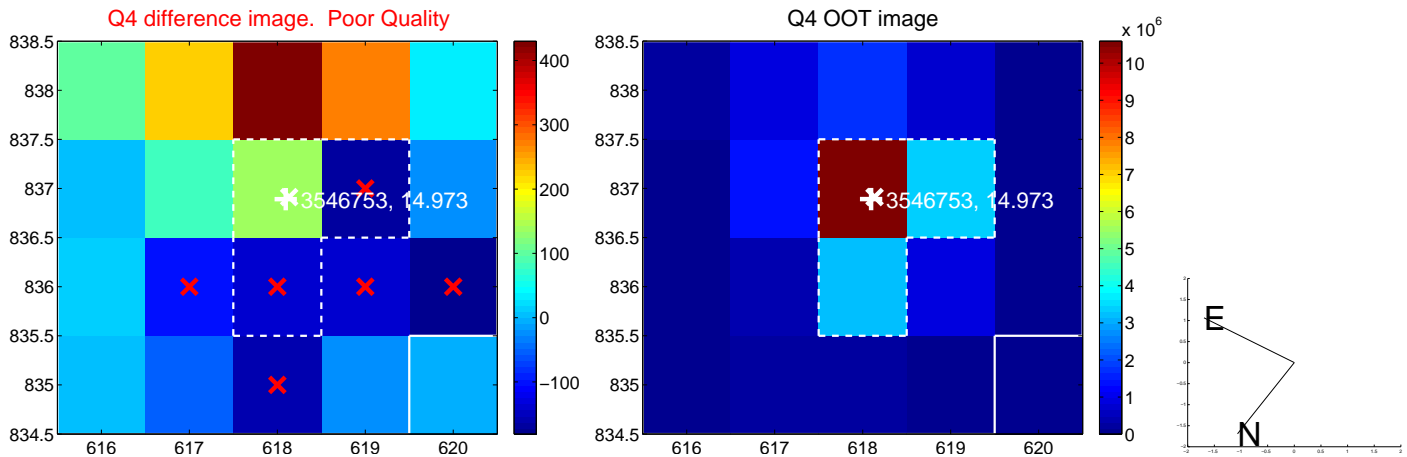
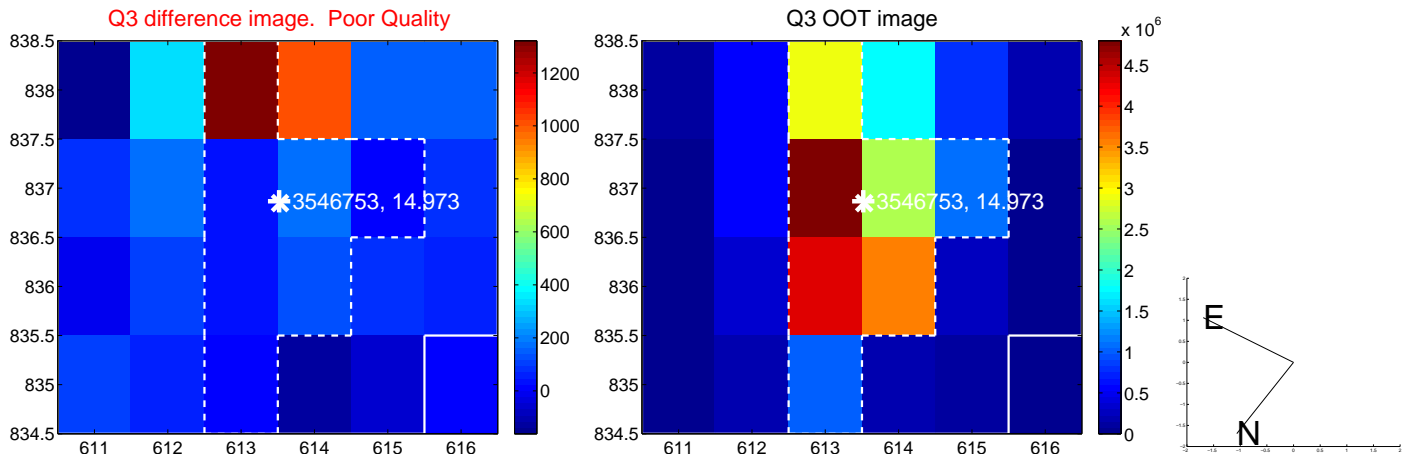
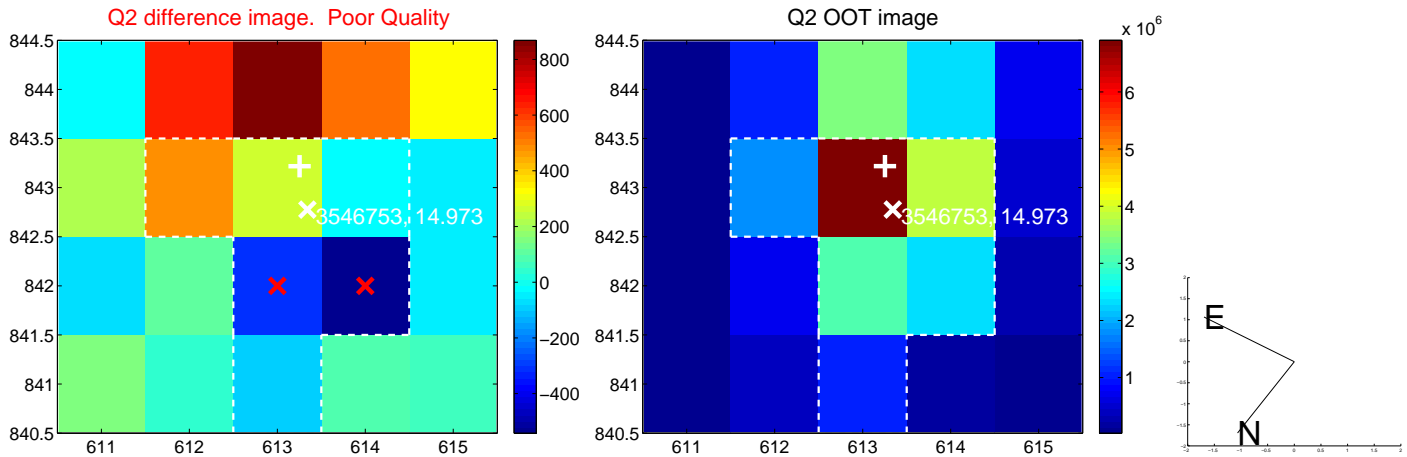
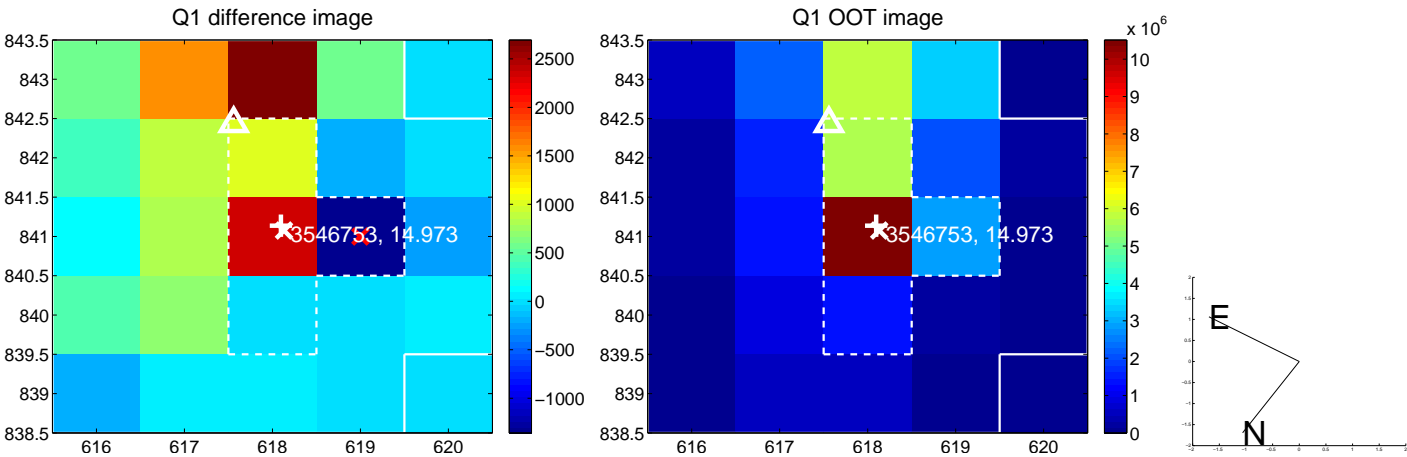
The direct PRF centroid is offset from the target star catalog position by about 0.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.928 ± 0.486	10.14	2.638 ± 0.535	-4.163 ± 0.465
PRF-fit source offset from KIC position	4.473 ± 0.361	12.39	3.024 ± 0.506	-3.297 ± 0.157
photometric centroid source offset	4.86 ± 1.22	3.99	3.50 ± 1.22	-3.37 ± 1.21

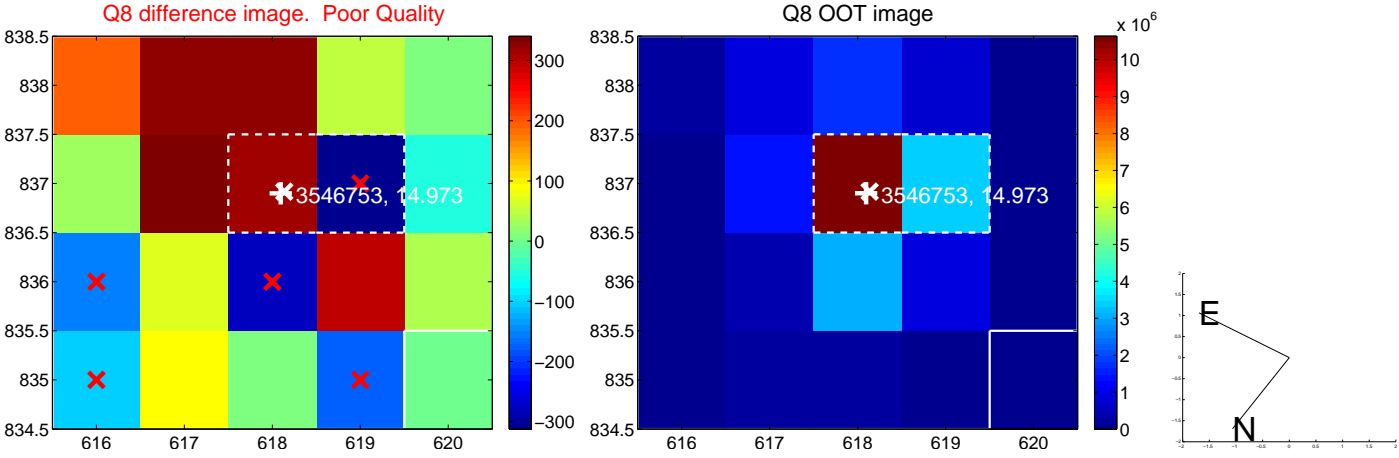
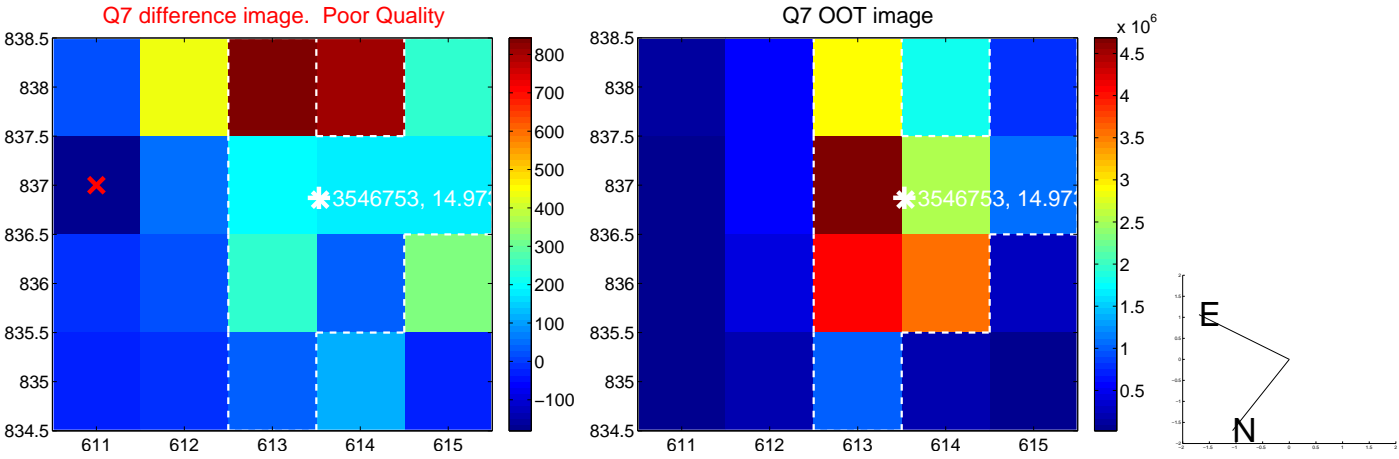
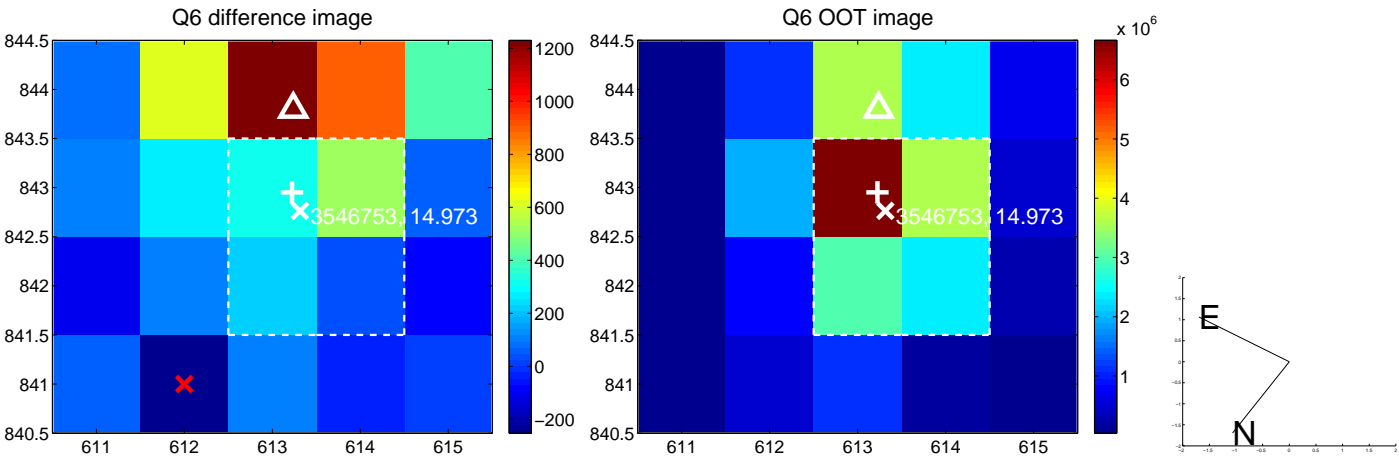
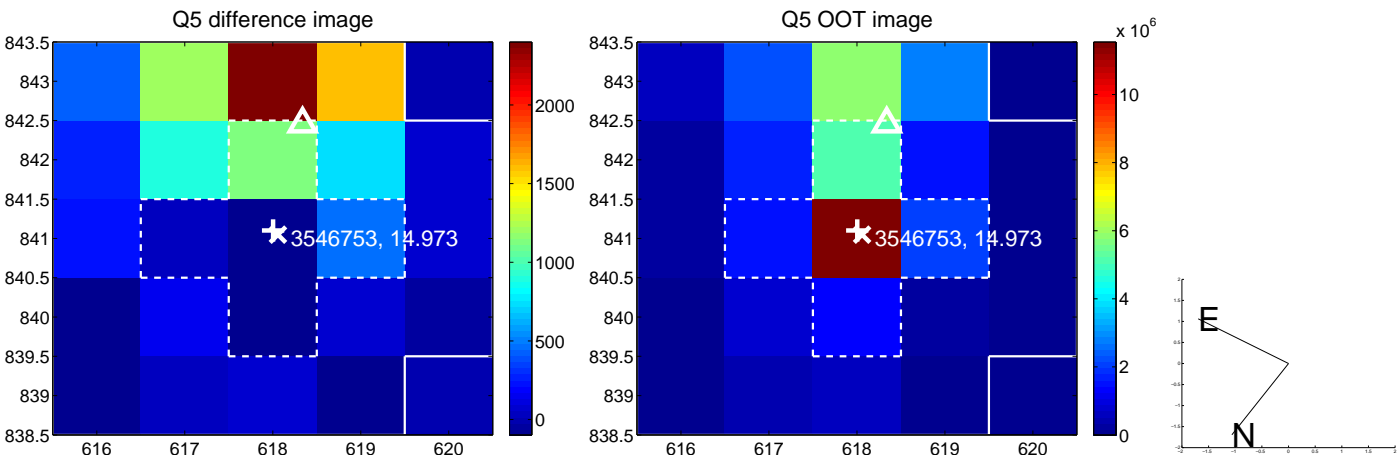


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

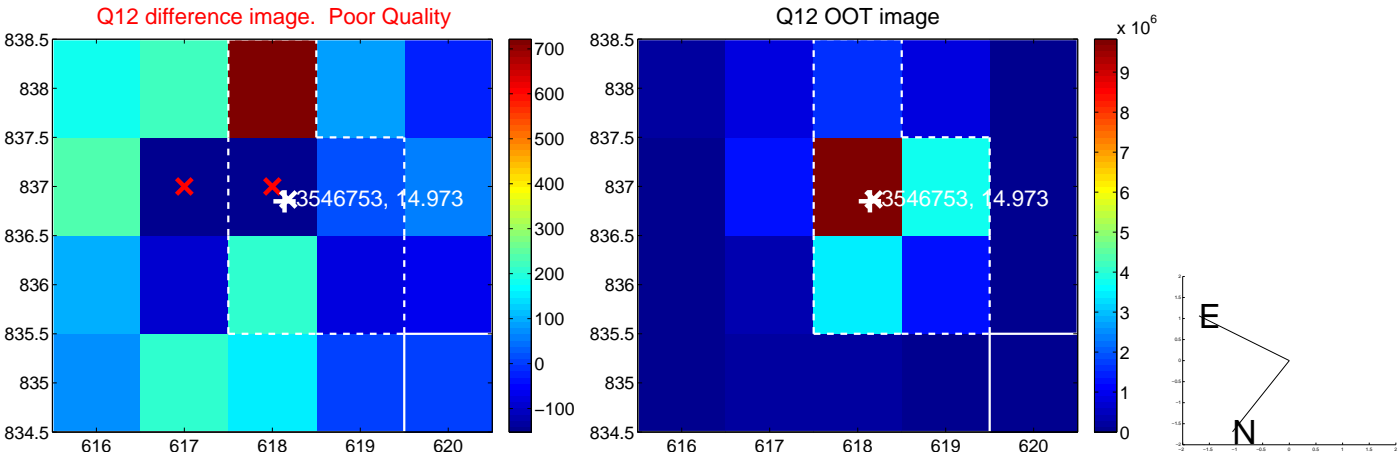
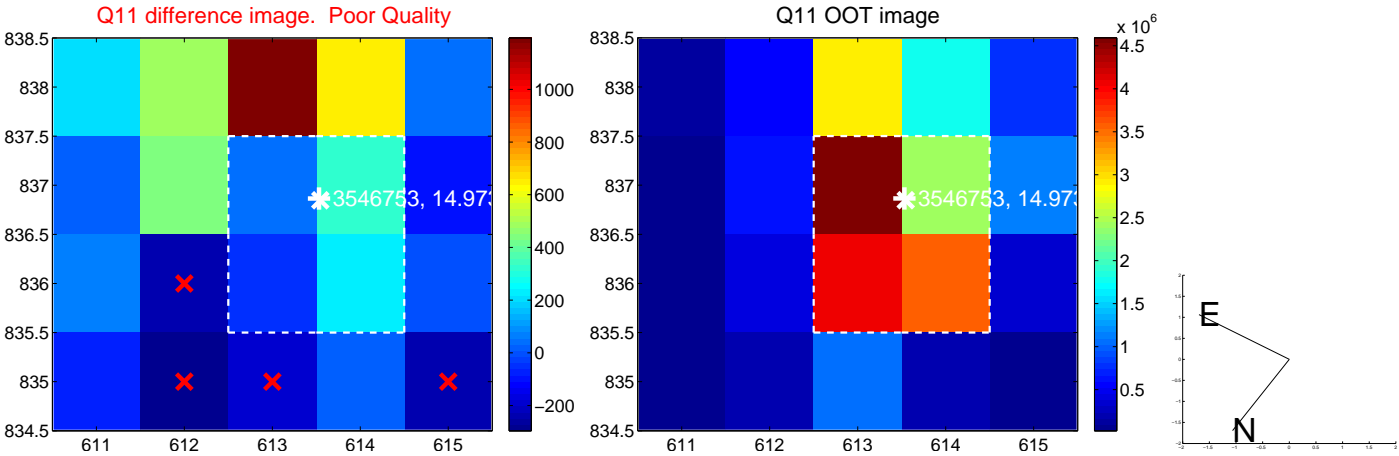
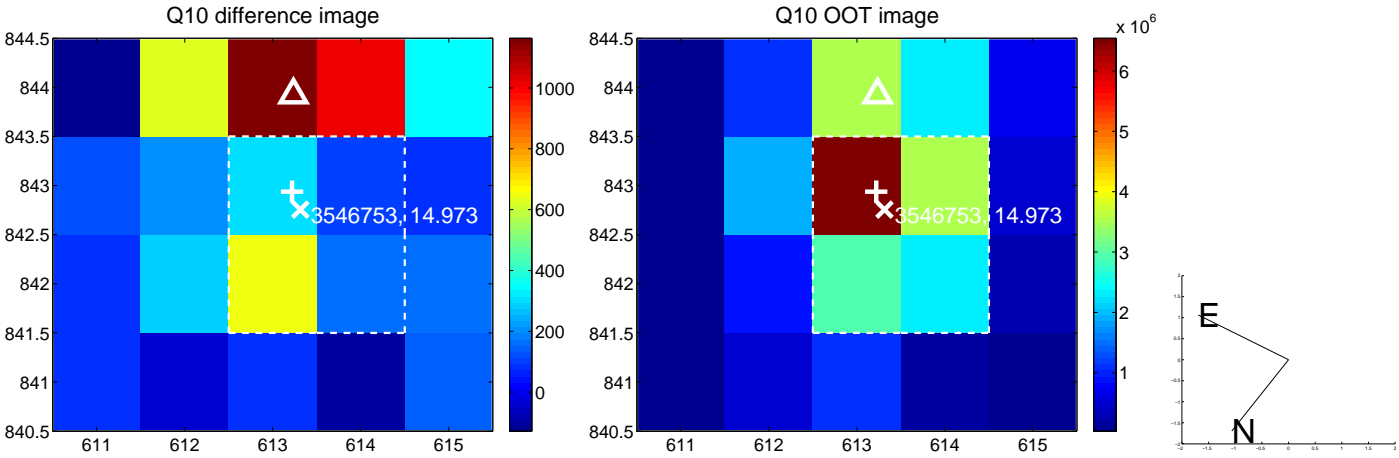
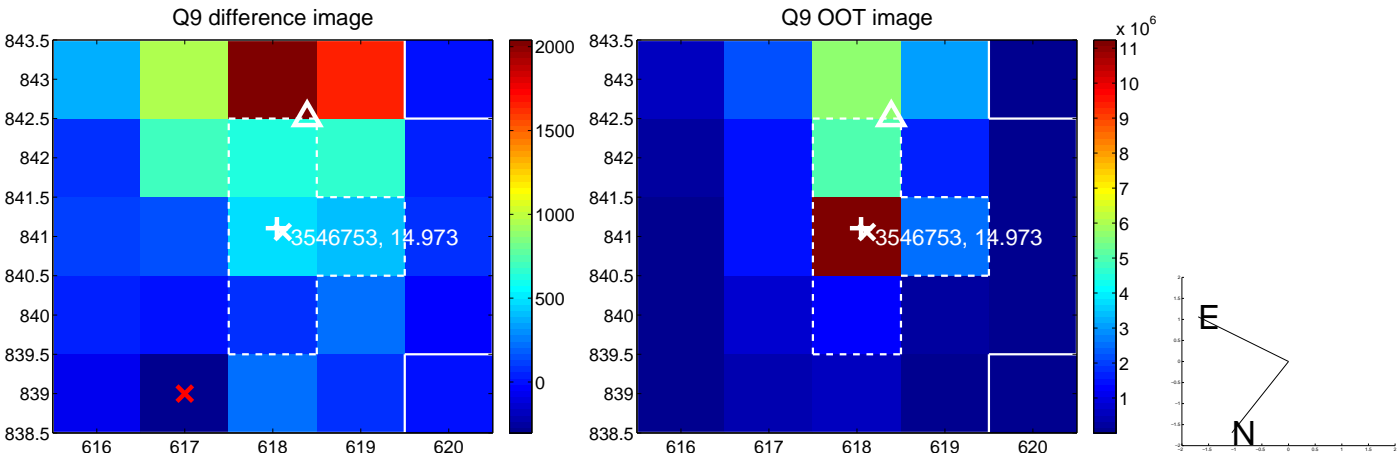
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



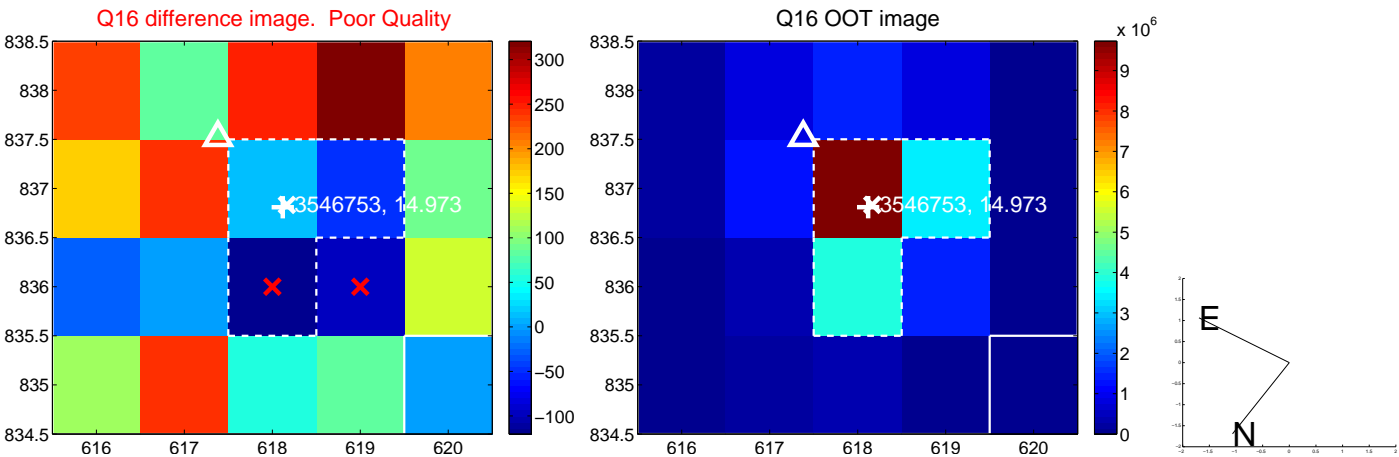
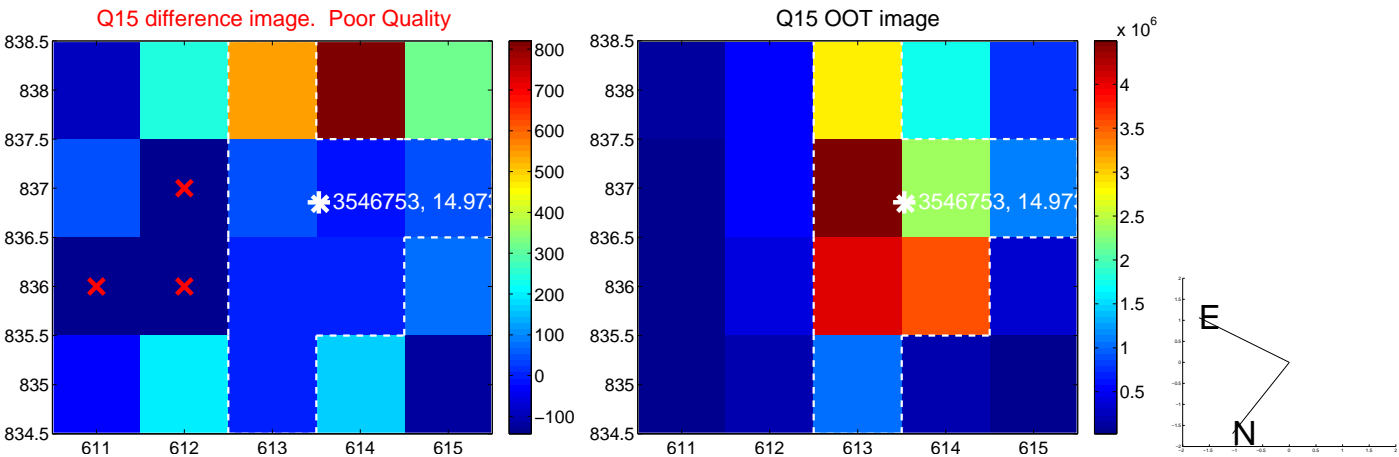
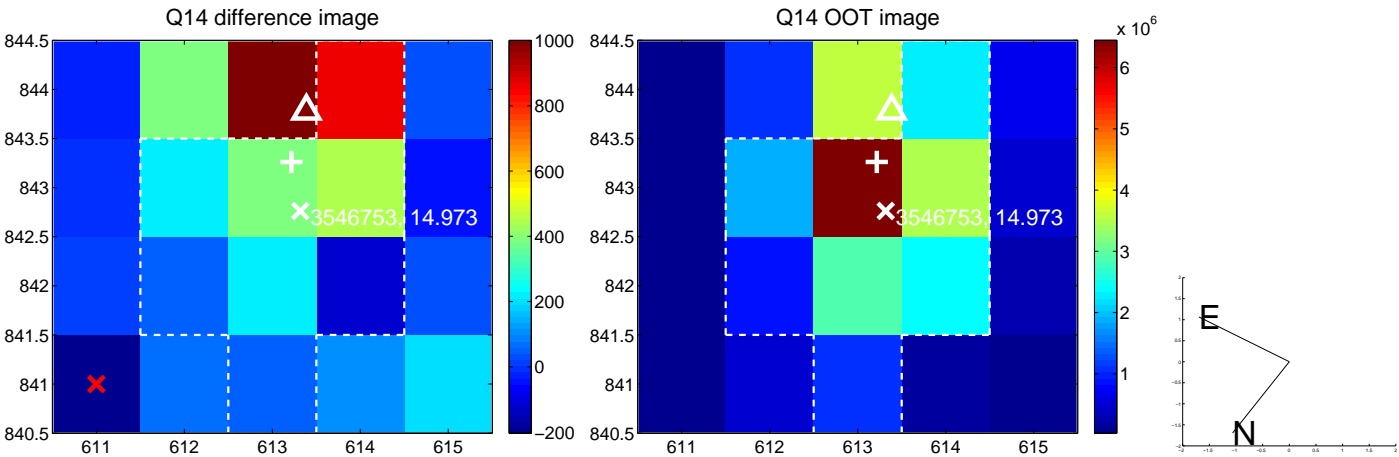
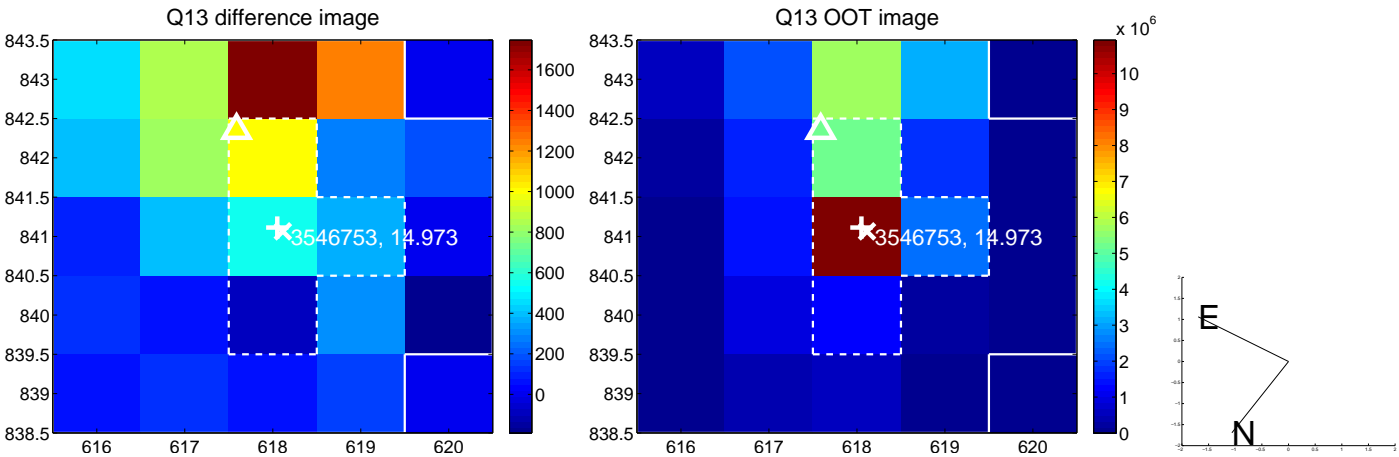
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



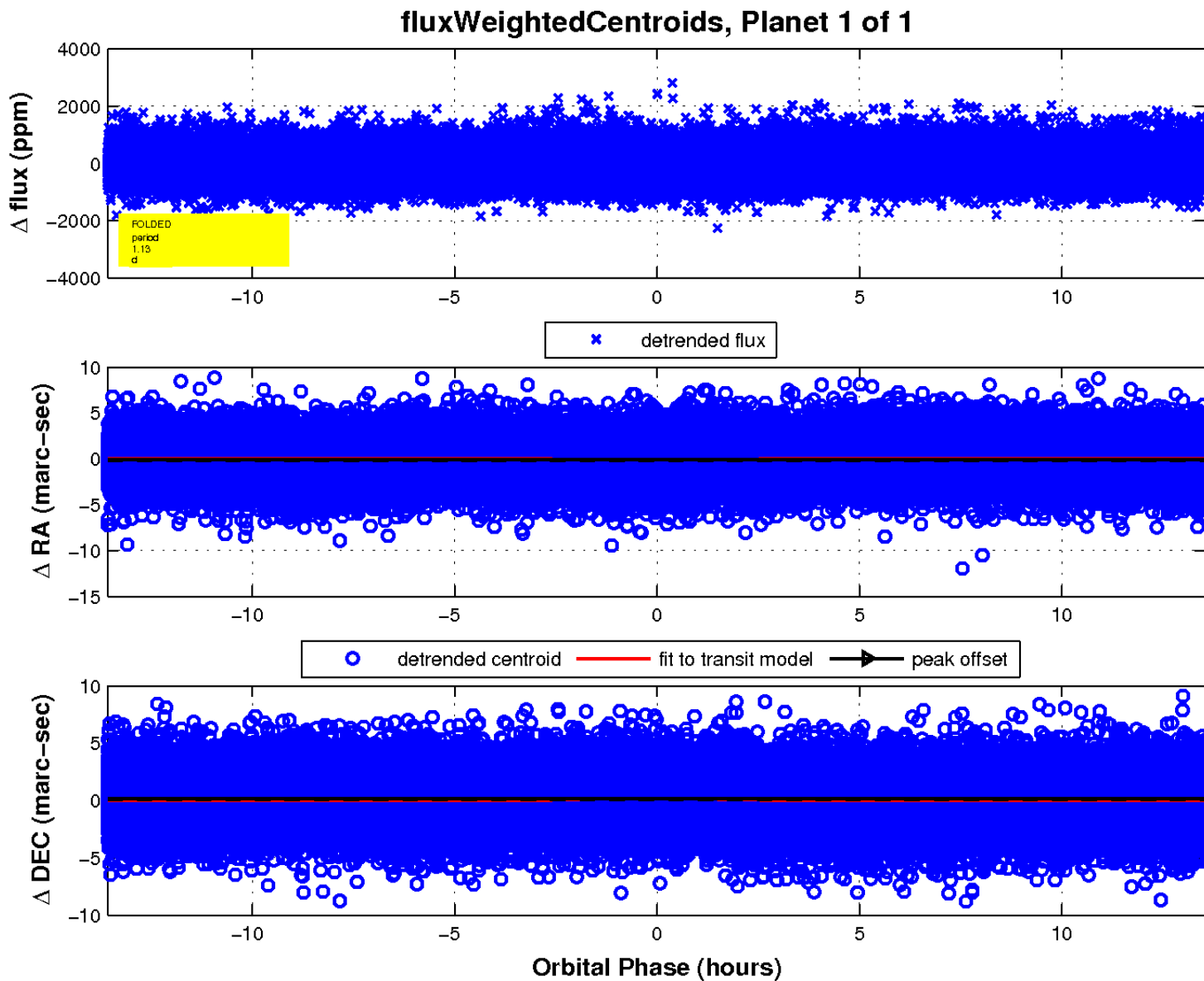
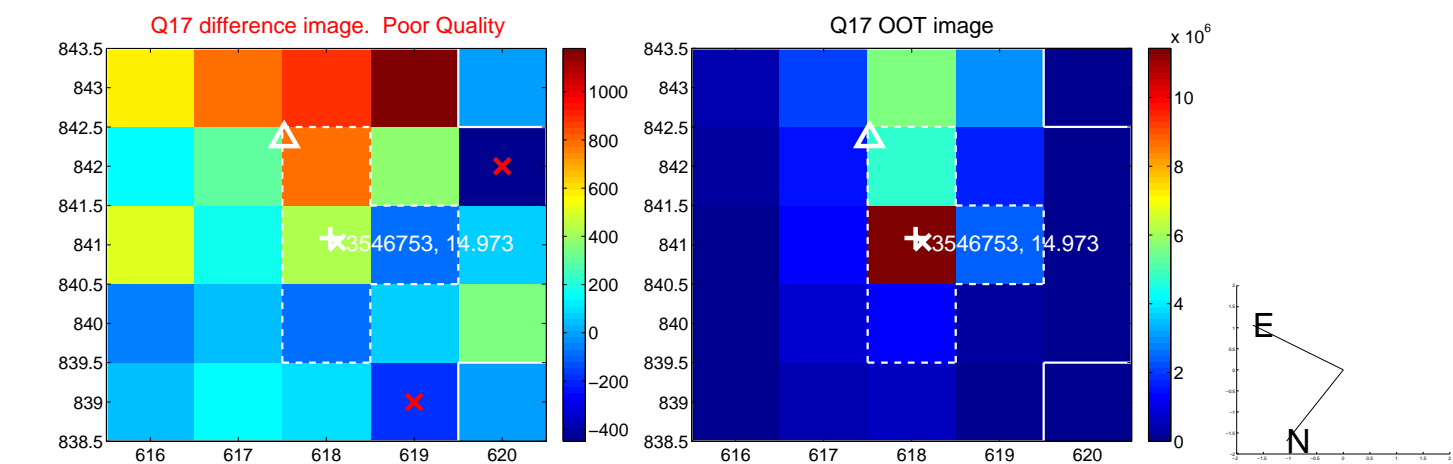
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UKIRT Image

