

KIC 005526545

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})
005526545-01	OBS	No	0.606202	132.071922	33.5	5.255	11.7	13.5	1.57	7447	1.05	25470.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005526545-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

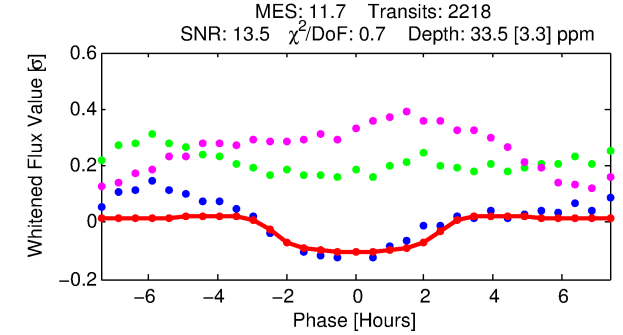
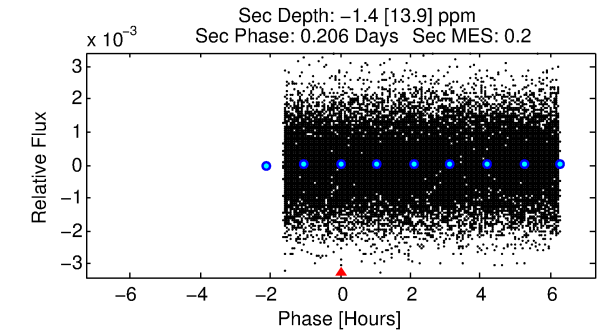
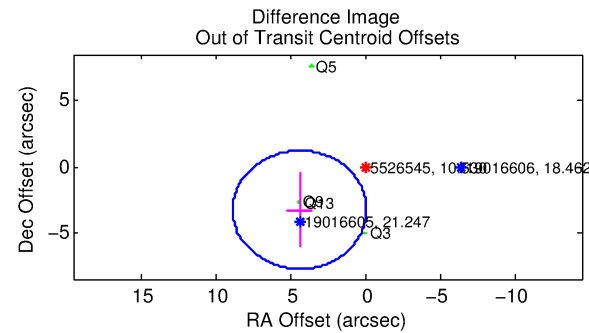
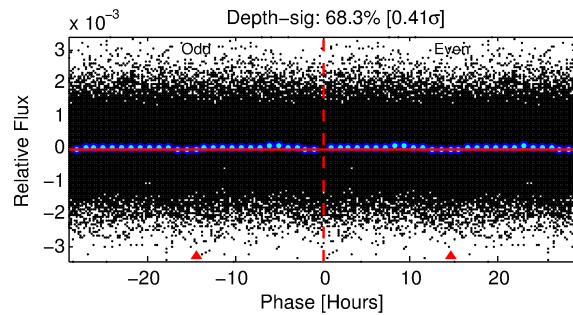
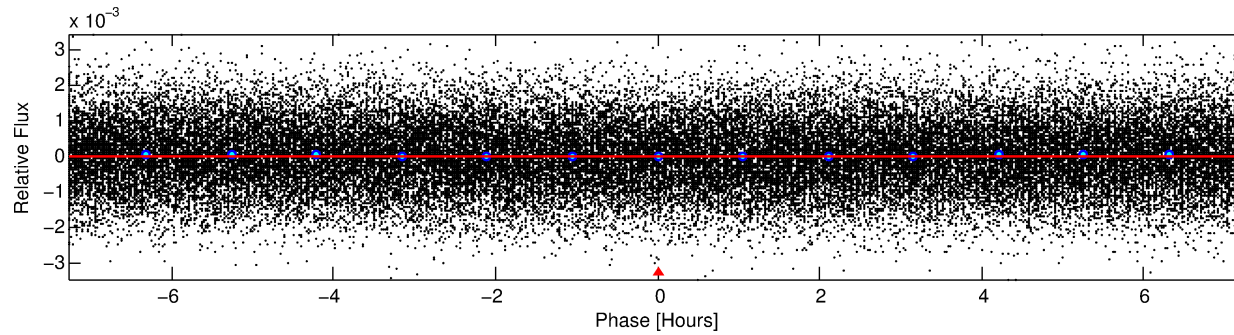
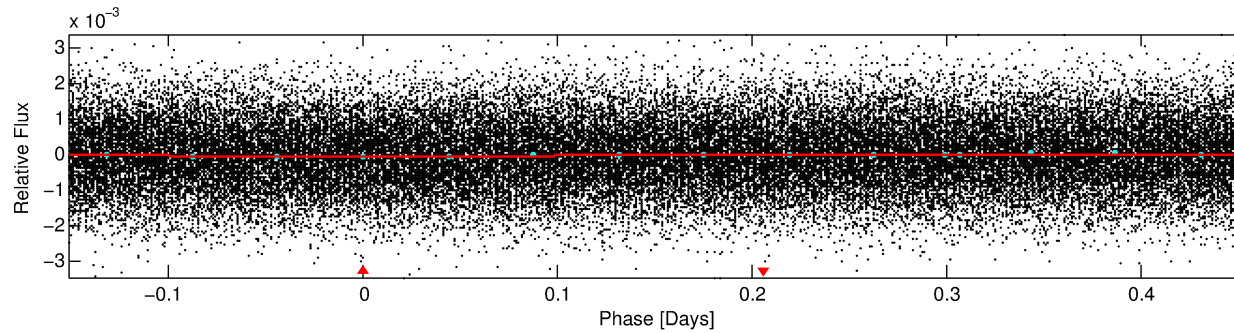
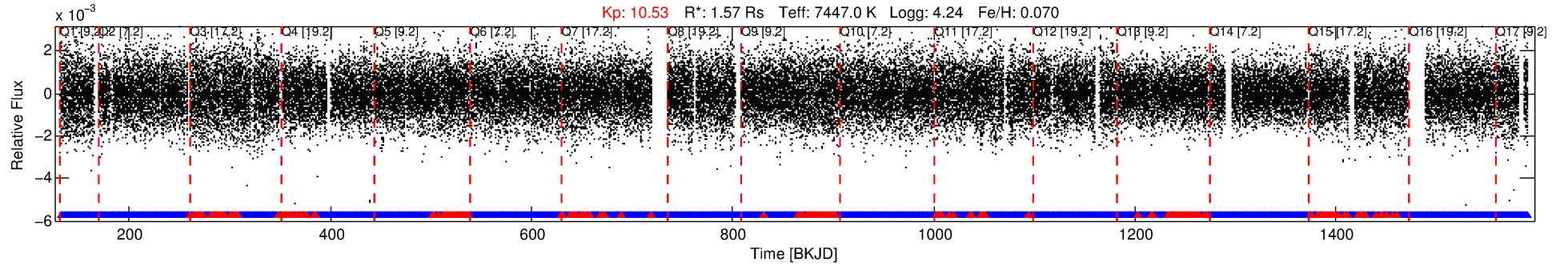
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005526545-01

No Significant Match Found

DV One-Page Summary

KIC: 5526545 Candidate: 1 of 1 Period: 0.606 d



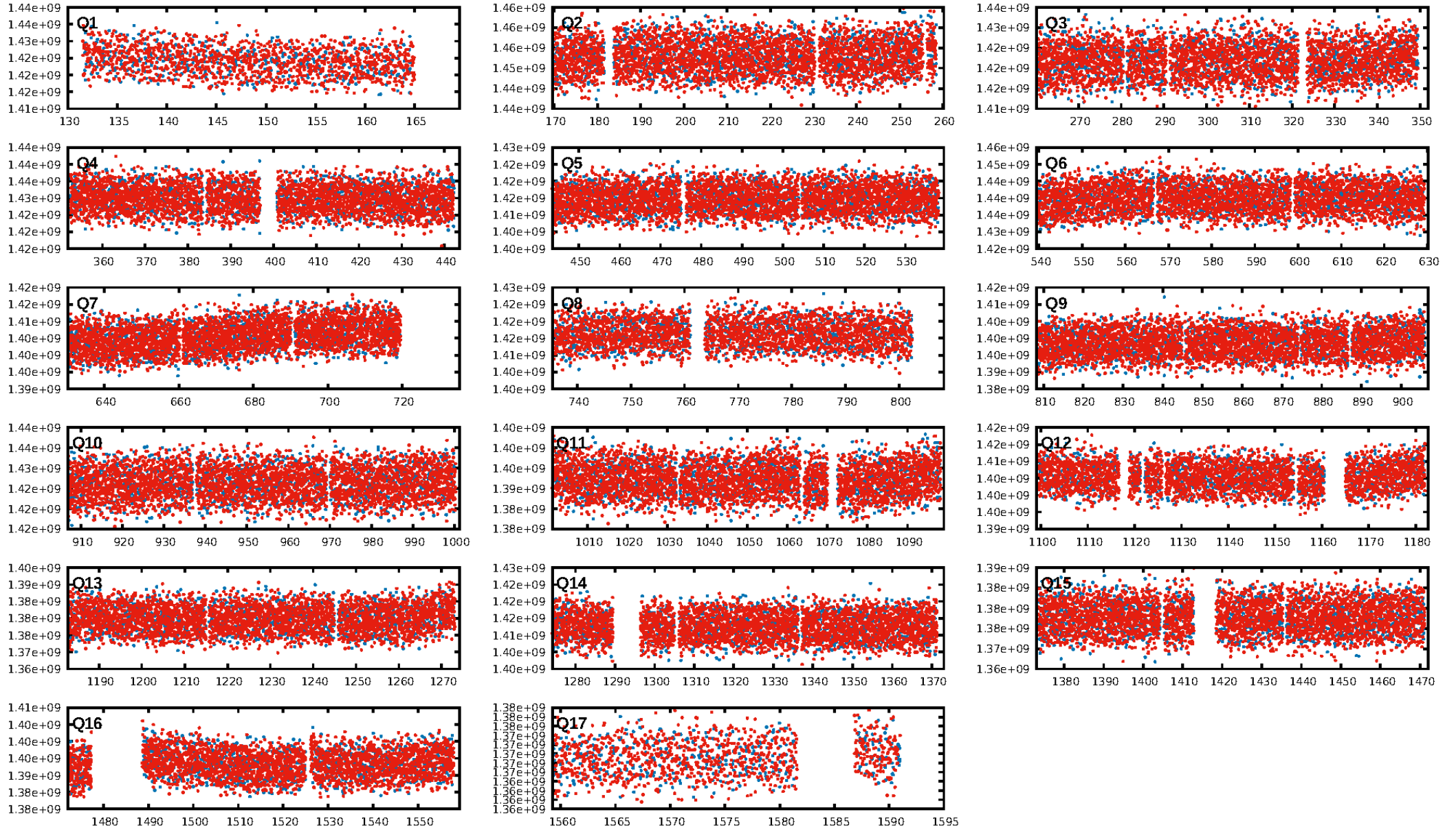
DV Fit Results:

Period = 0.60620 [0.00001] d
Epoch = 132.0719 [0.0047] BKJD
Rp/R* = 0.0061 [0.0048]
a/R* = 1.03 [0.27]
b = 0.90 [1.09]
Seff = 25470.80 [11434.41]
Teq = 3221 [362] K
Rp = 1.05 [0.90] Re
a = 0.0163 [0.0048] AU
Ag = N/A
Teffp = N/A

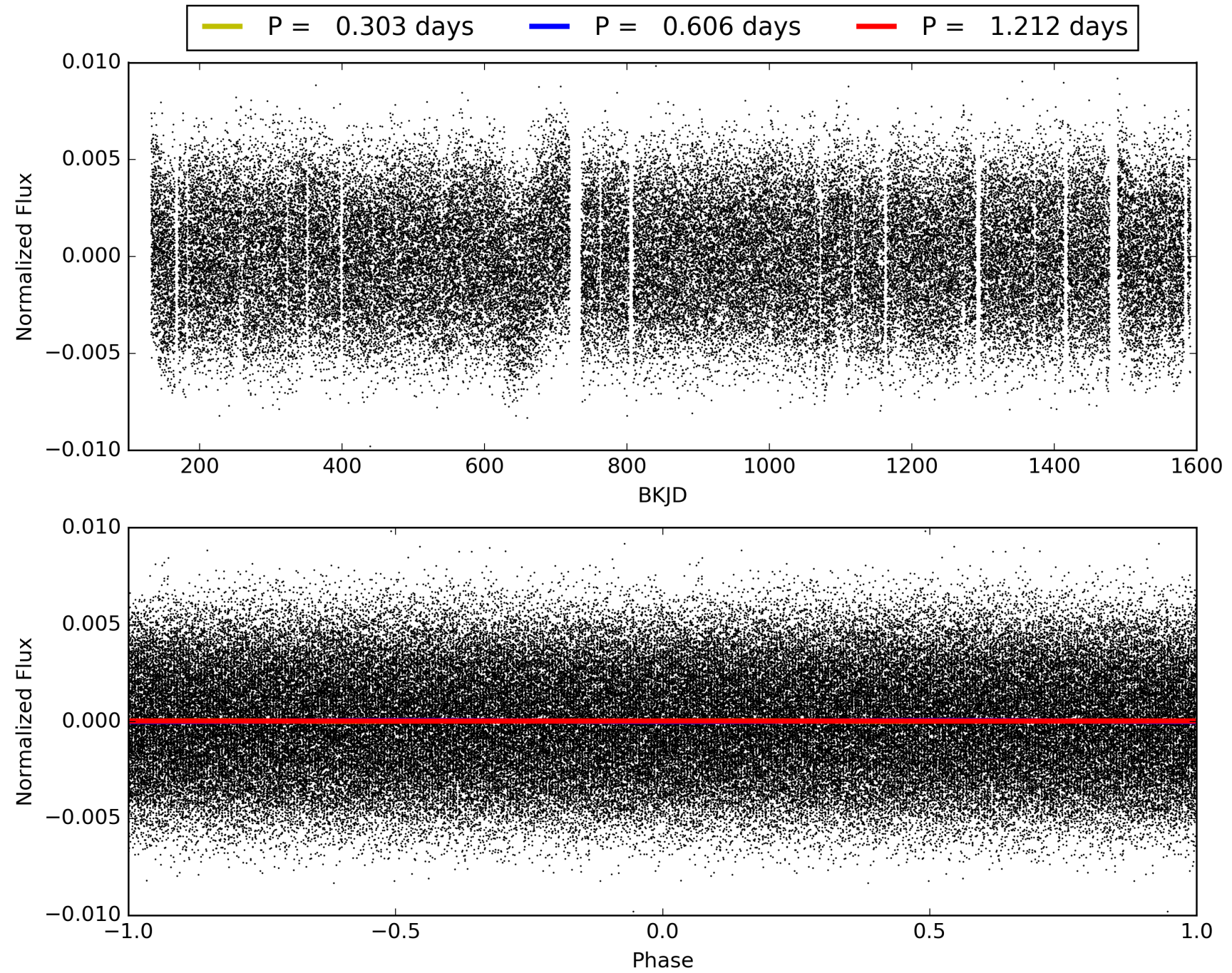
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.87 [1852/2118]
GhostDiagnostic-chr: 1.402
Centroid-sig: 0.2%
Centroid-so: 0.811 arcsec [2.76 σ]
OotOffset-rm: 5.458 arcsec [3.66 σ]
KicOffset-rm: 4.414 arcsec [3.90 σ]
OotOffset-st: 0/1/0/3 [4]
KicOffset-st: 0/1/0/3 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005526545-01, PDC Light Curves

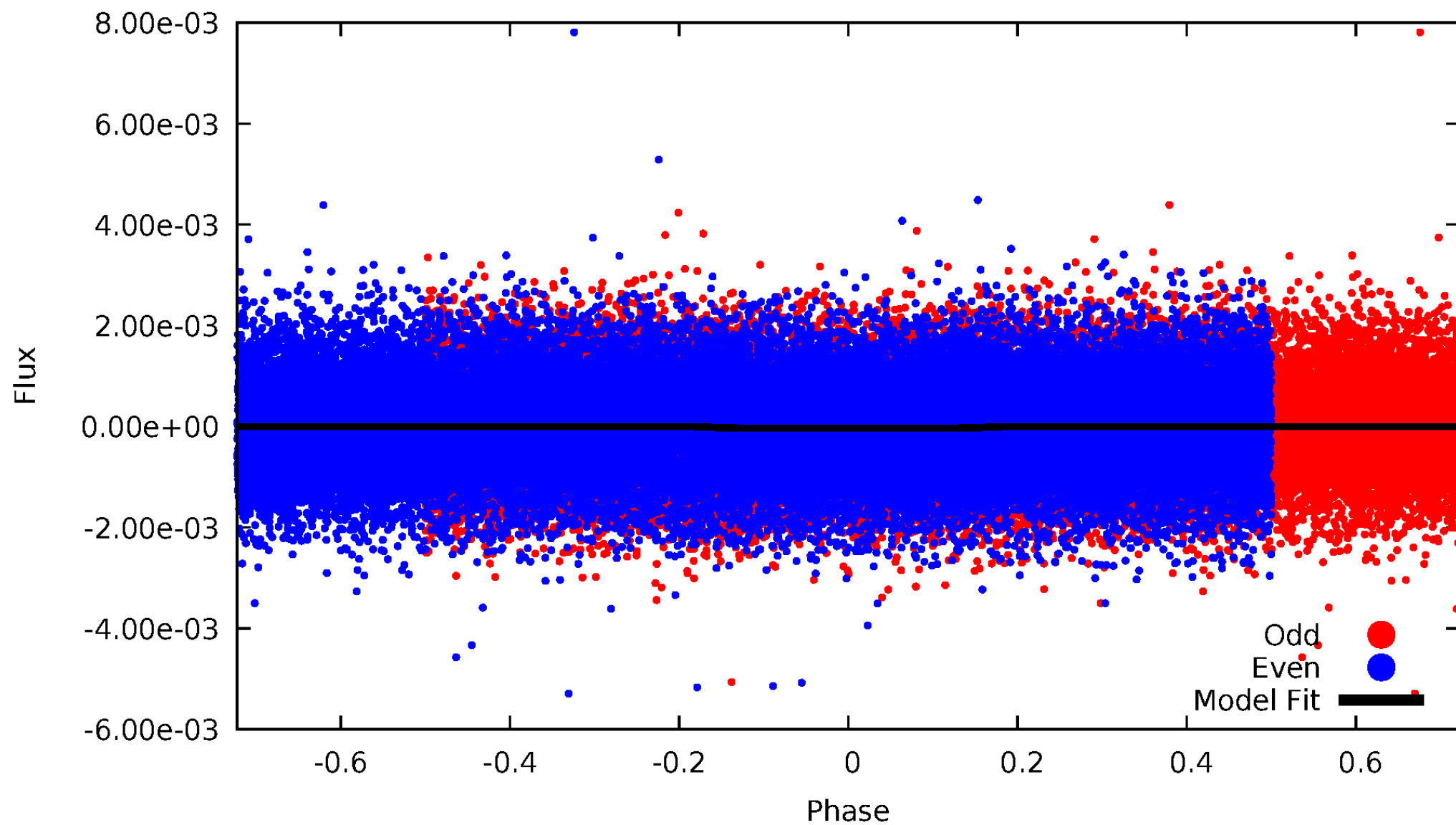


TCE 005526545-01



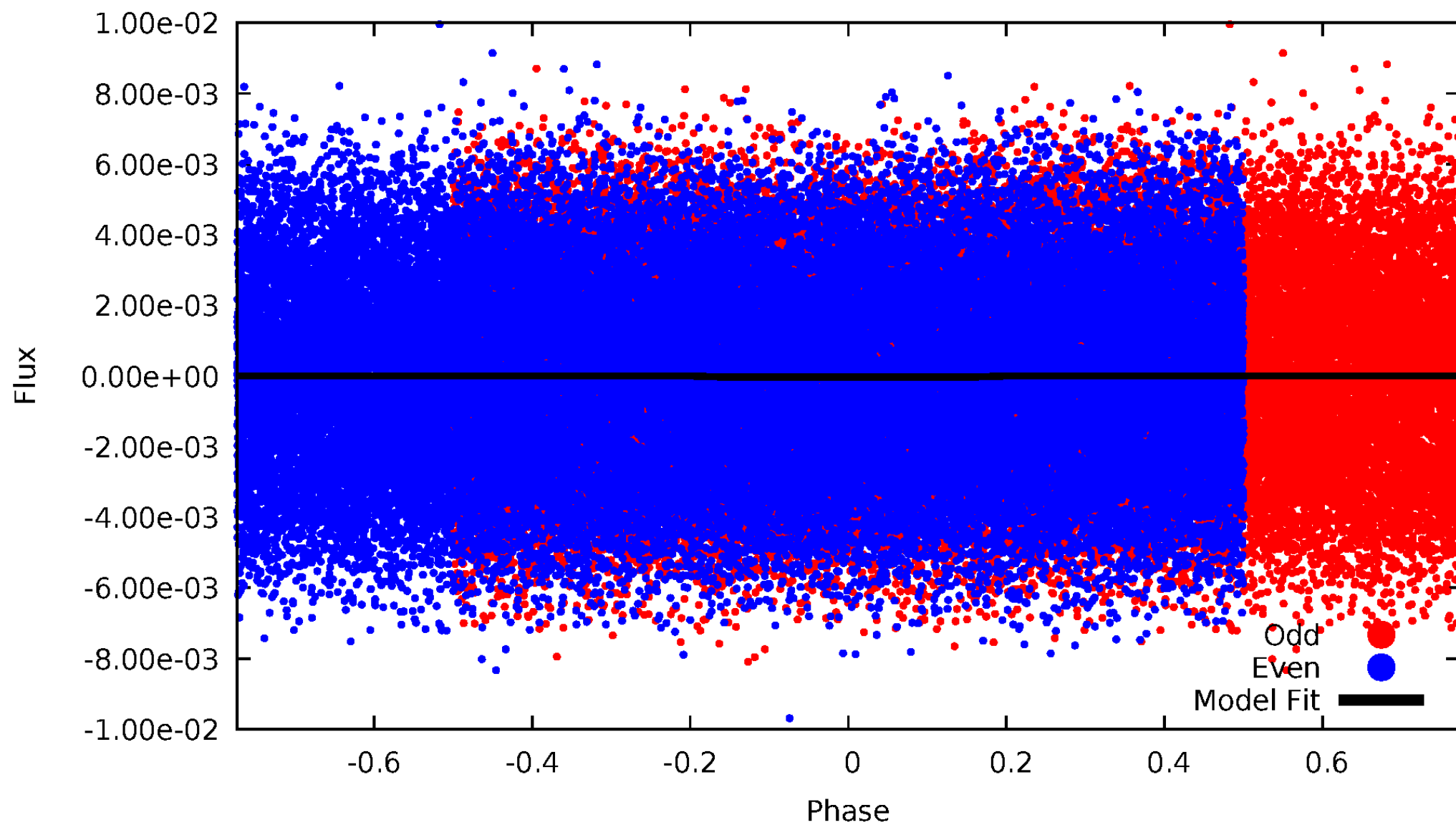
DV Odd/Even

TCE 005526545-01

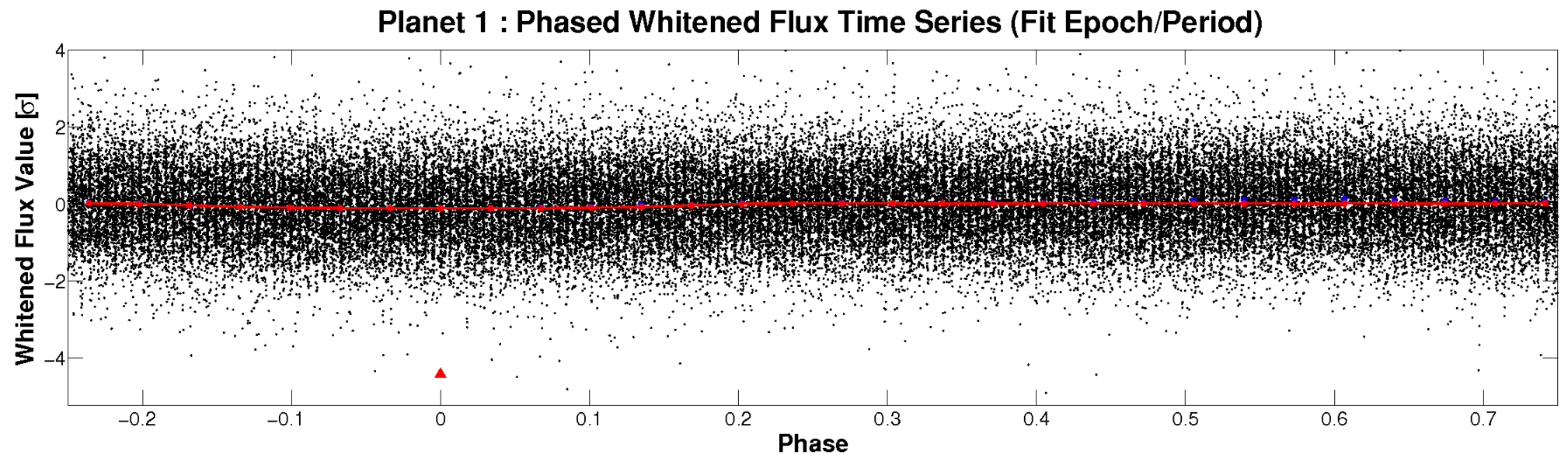
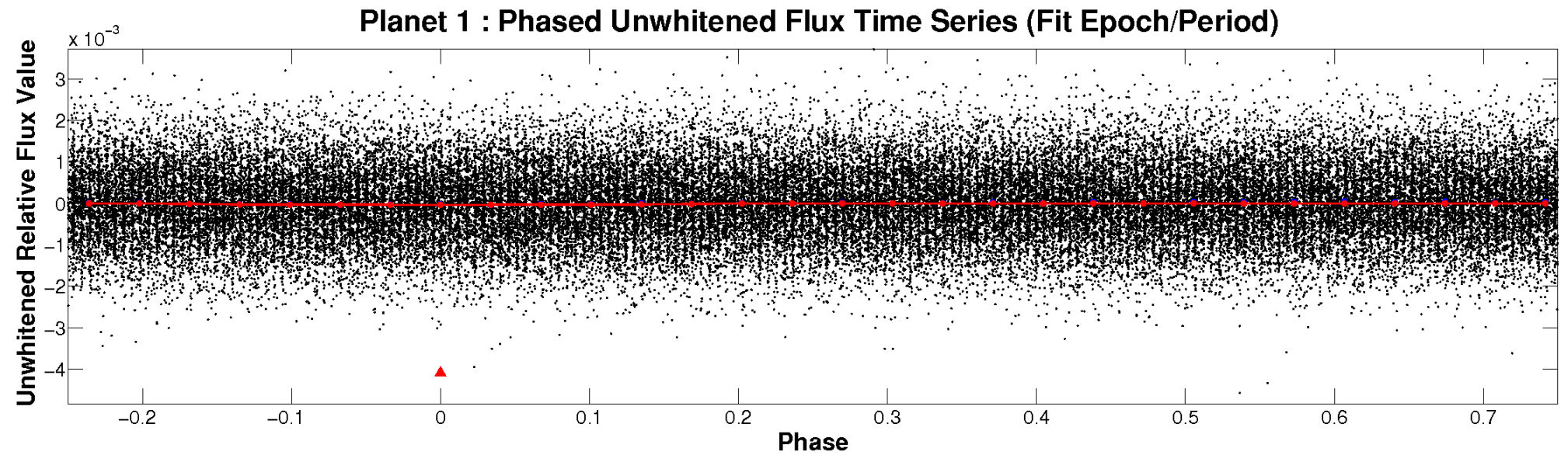


ALT Odd/Even

TCE 005526545-01

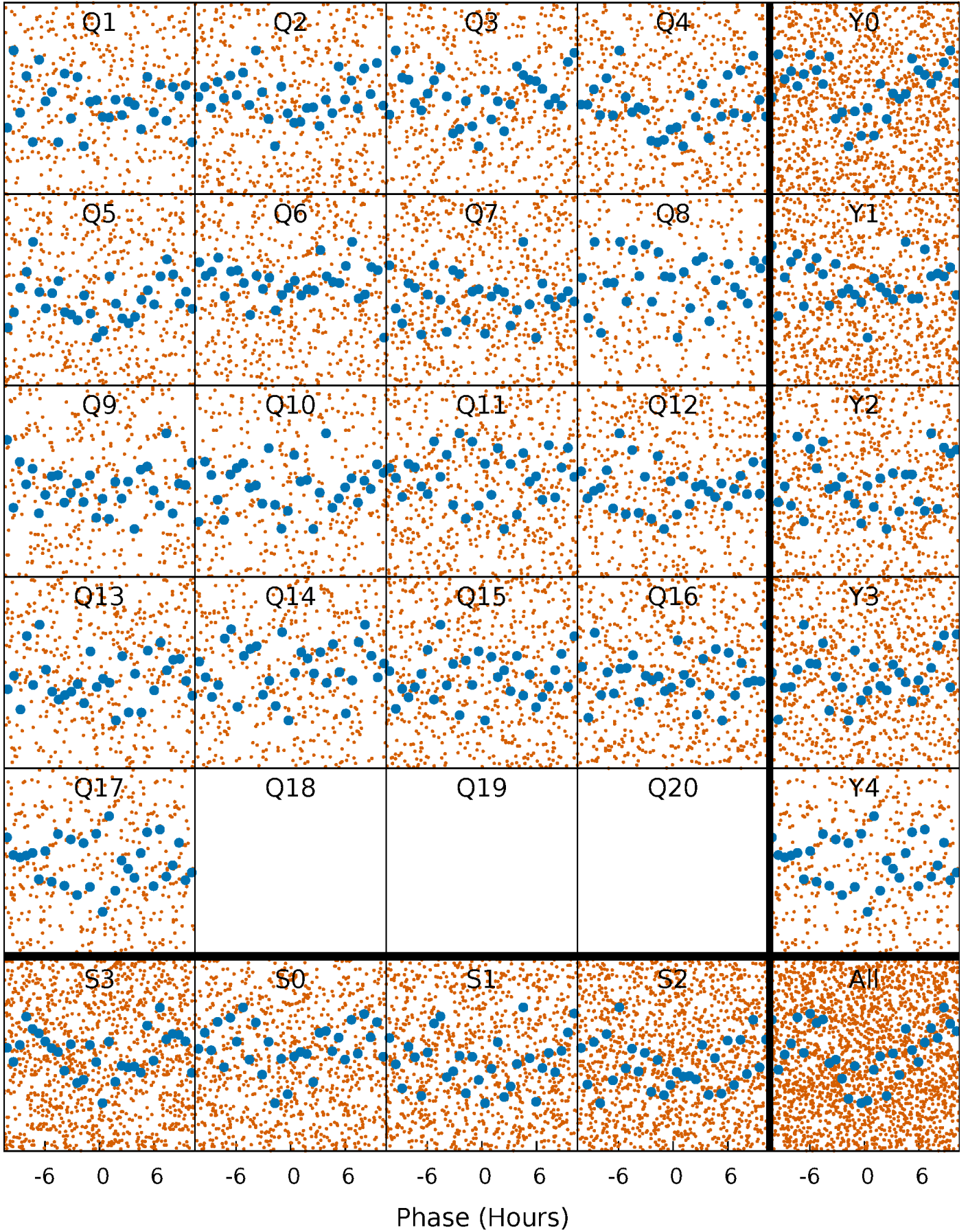


Non-Whitened Vs. Whitened Light Curve



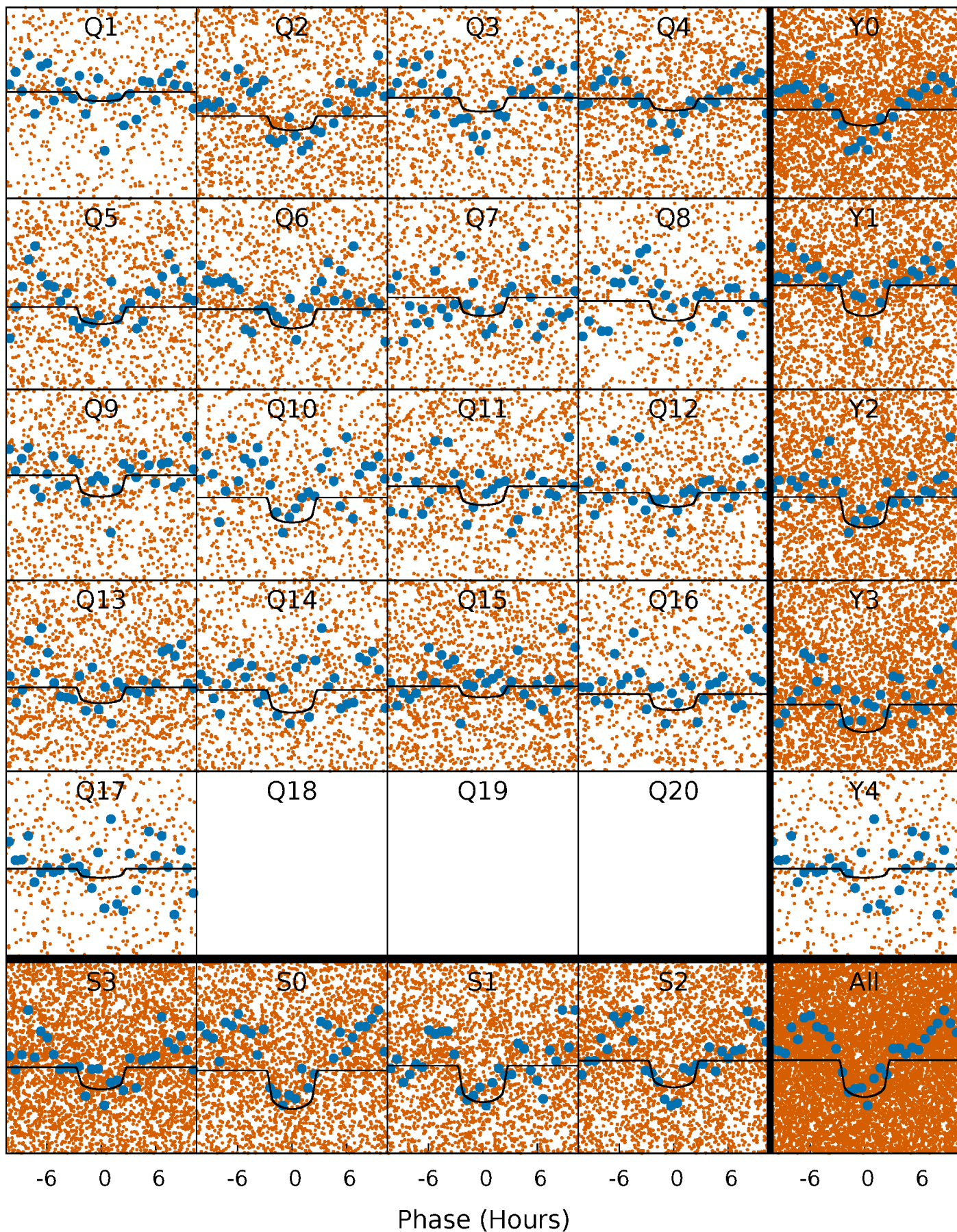
PDC Quarter-Phased Transit Curves

TCE 005526545-01 P= 0.606202 Days $T_0=132.071922$ (BKJD)



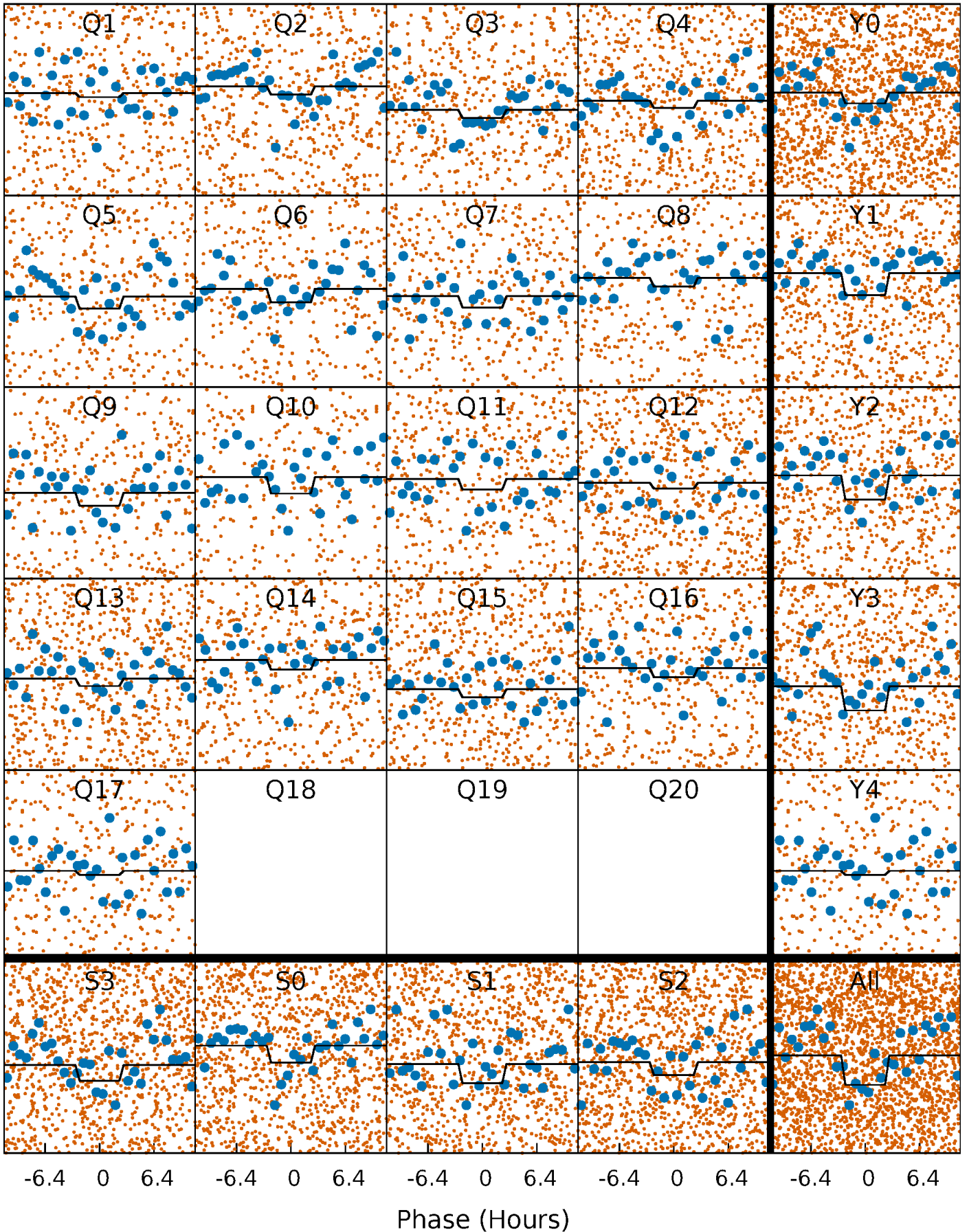
DV Quarter-Phased Transit Curves

TCE 005526545-01 P= 0.606202 Days $T_0=132.071922$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

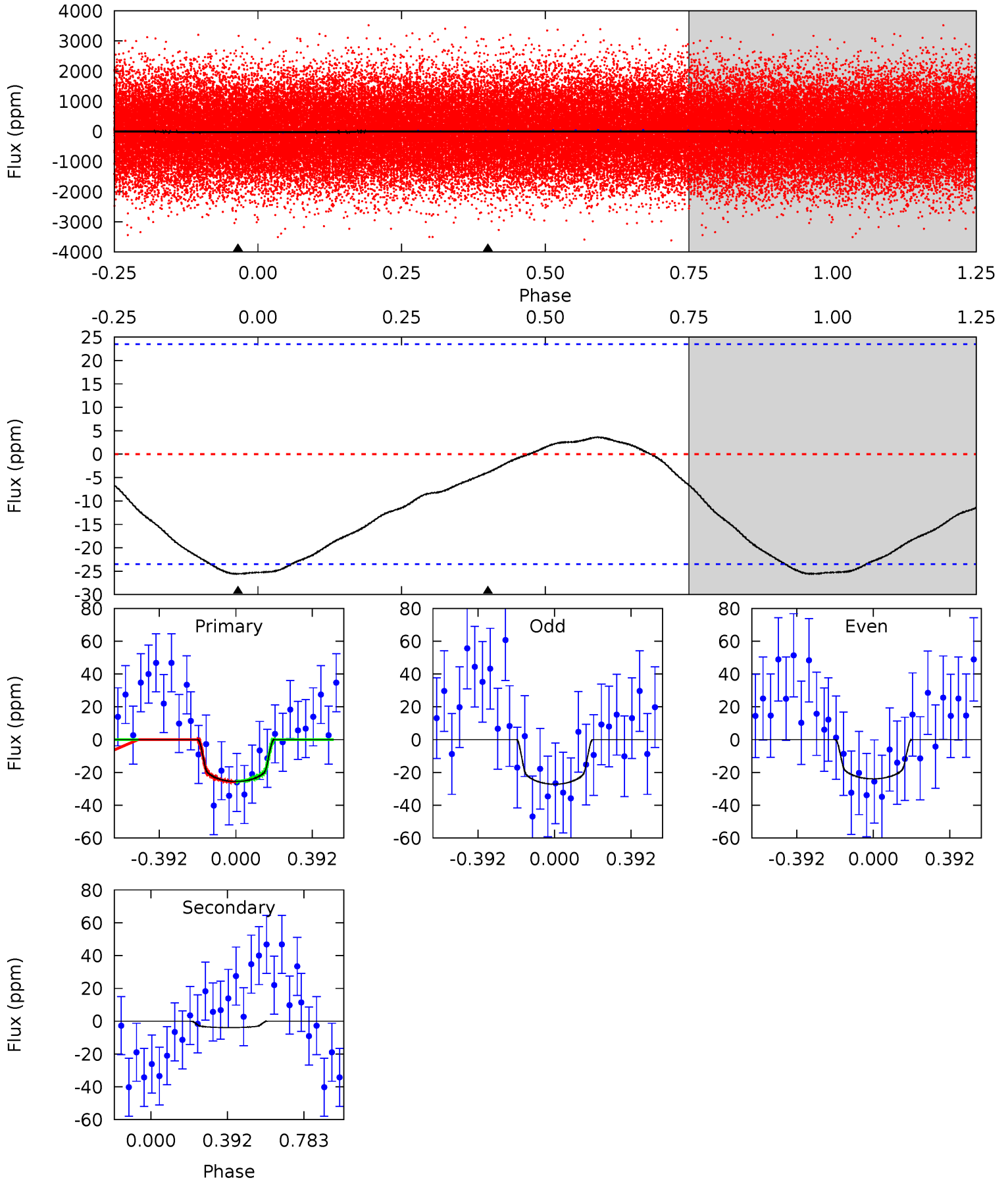
TCE 005526545-01 P= 0.606193 Days $T_0=132.088320$ (BKJD)



DV Model-Shift Uniqueness Test

005526545-01, P = 0.606202 Days, E = 131.465720 Days

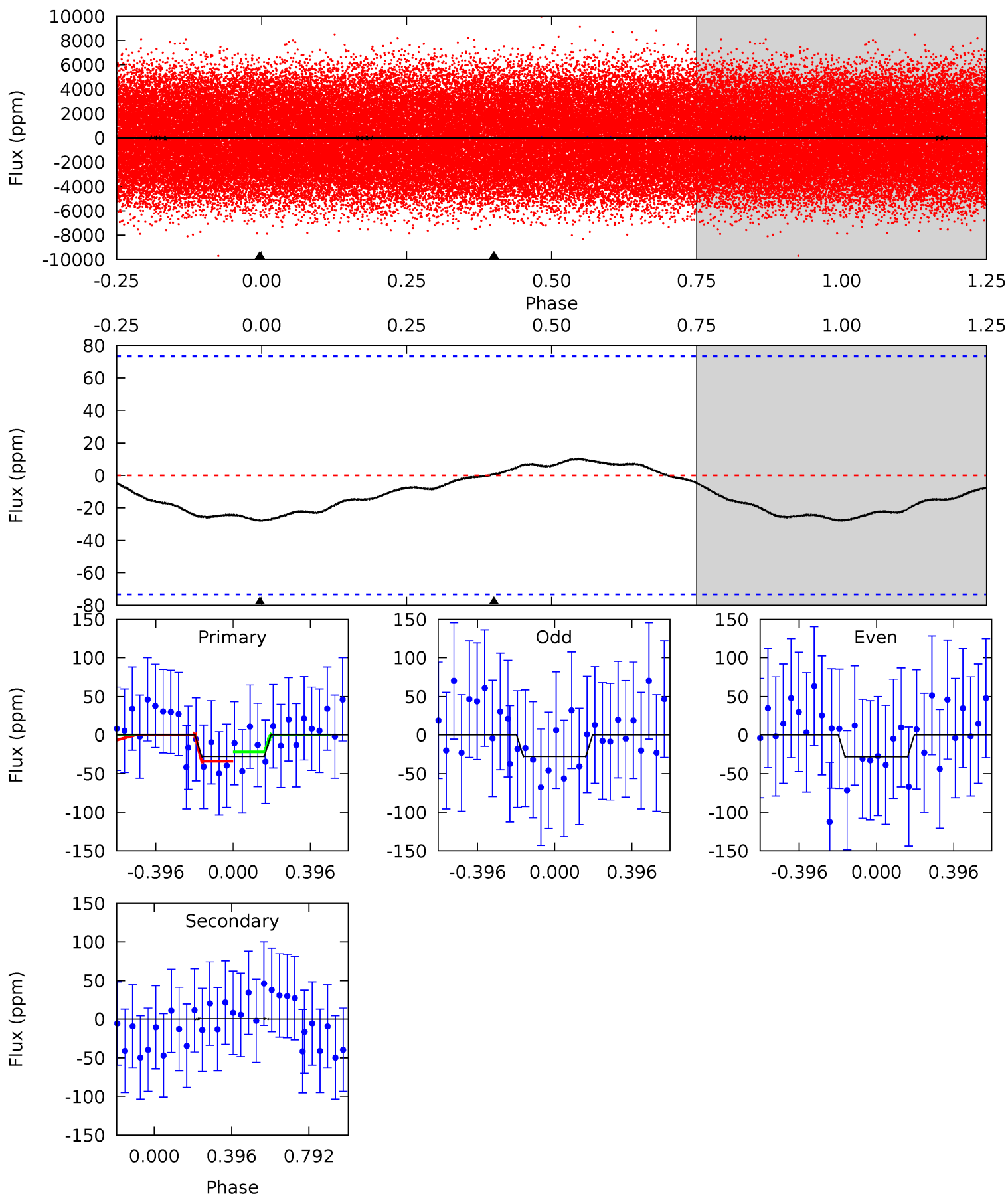
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.64	0.71	0	0	4.27	0.86	0.40	4.64	4.64	0.71	0.71	0.30	0.88	0.12	0.04



Alt Model-Shift Uniqueness Test

005526545-01, P = 0.606193 Days, E = 131.482127 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.63	-0.04	0	0	4.27	0.85	0.19	1.63	1.63	-0.04	-0.04	0.02	0.82	0.27	0.35



Stellar Parameters For KIC 005526545

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7447^{+206}_{-335}	$4.244^{+0.073}_{-0.218}$	$0.070^{+0.200}_{-0.350}$	$1.567^{+0.562}_{-0.201}$	$1.573^{+0.214}_{-0.214}$	$0.576^{+0.184}_{-0.309}$
	+3%/-4%	+2%/-5%	+286%/-500%	+36%/-13%	+14%/-14%	+32%/-54%
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 005526545-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 6	$1.20^{+0.79}_{-0.70}$	4559^{+329}_{-265}	-2861^{+8738}_{-1491}	$0.268^{+1.816}_{-0.401}$
Alt.	1 ± 17	$1.08^{+0.84}_{-0.66}$	4574^{+387}_{-282}	-4247^{+10775}_{-3139}	$-0.082^{+3.255}_{-3.314}$

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 $A_{\text{obs}} \gg 1.0$

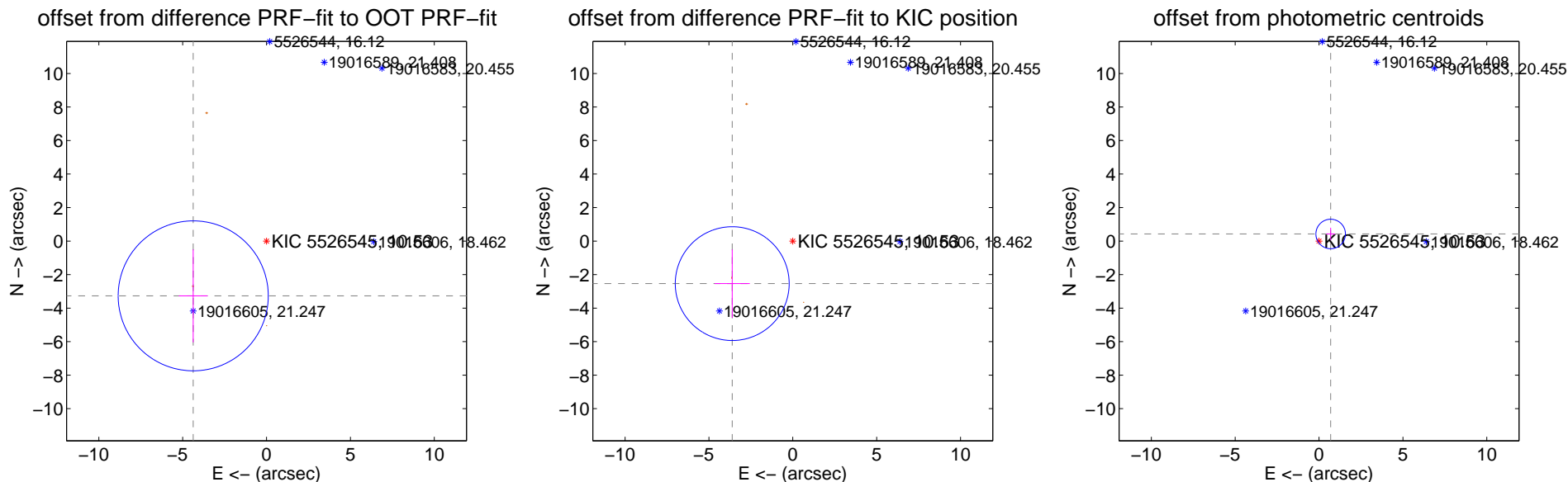
DV Centroid Data

Supplemental centroid analysis for 005526545-01. **Kepler magnitude: 10.53.** Transit SNR 13.55

There are 0 quarters with good PRF difference image offsets

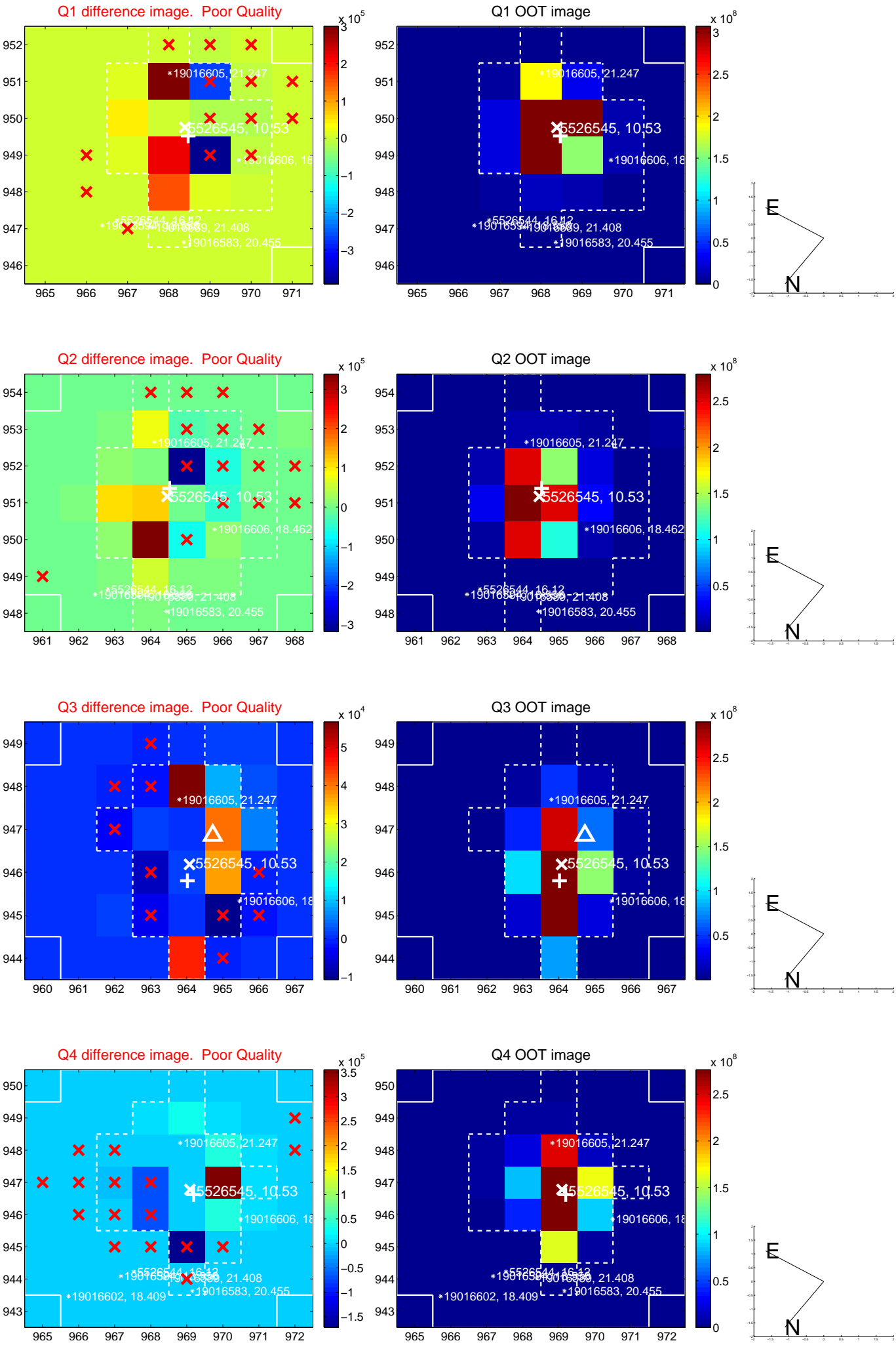
The direct PRF centroid is offset from the target star catalog position by about 0.88 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.458 ± 1.491	3.66	4.372 ± 0.862	-3.267 ± 2.776
PRF-fit source offset from KIC position	4.414 ± 1.132	3.90	3.612 ± 1.048	-2.538 ± 2.037
photometric centroid source offset	0.81 ± 0.29	2.76	-0.69 ± 0.26	0.42 ± 0.37

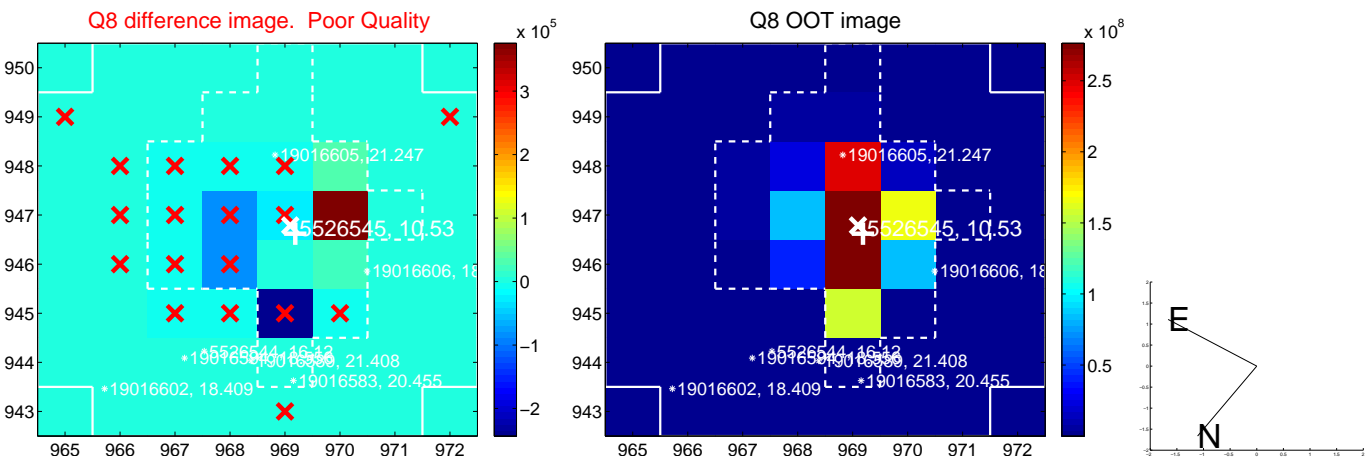
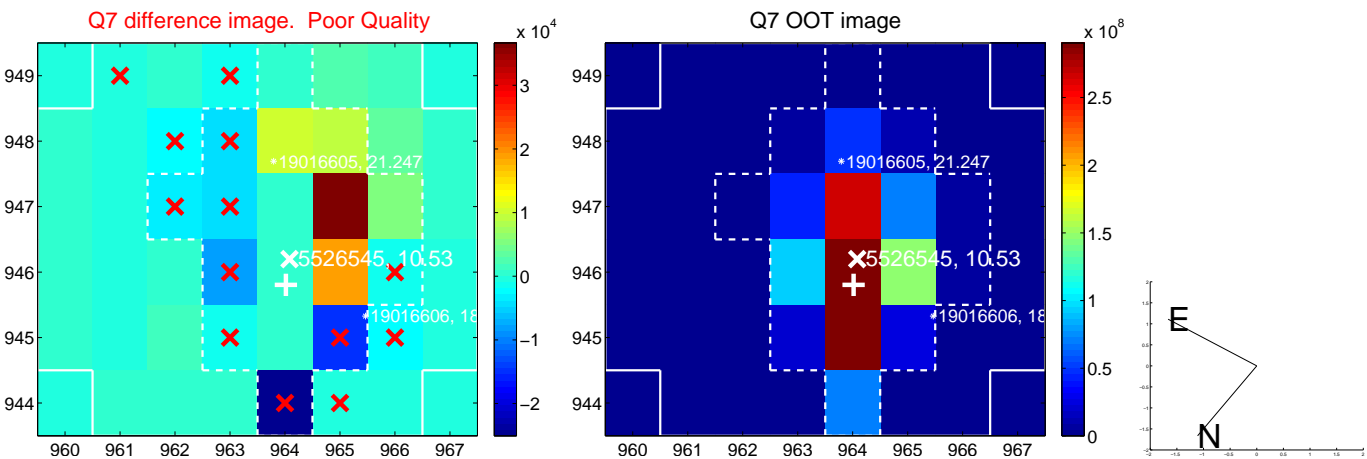
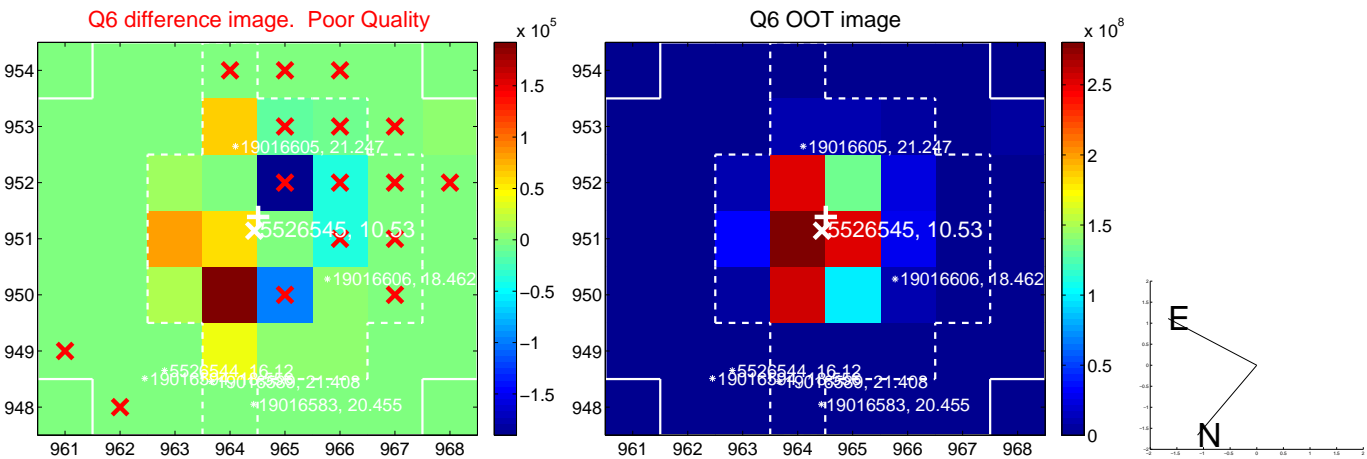
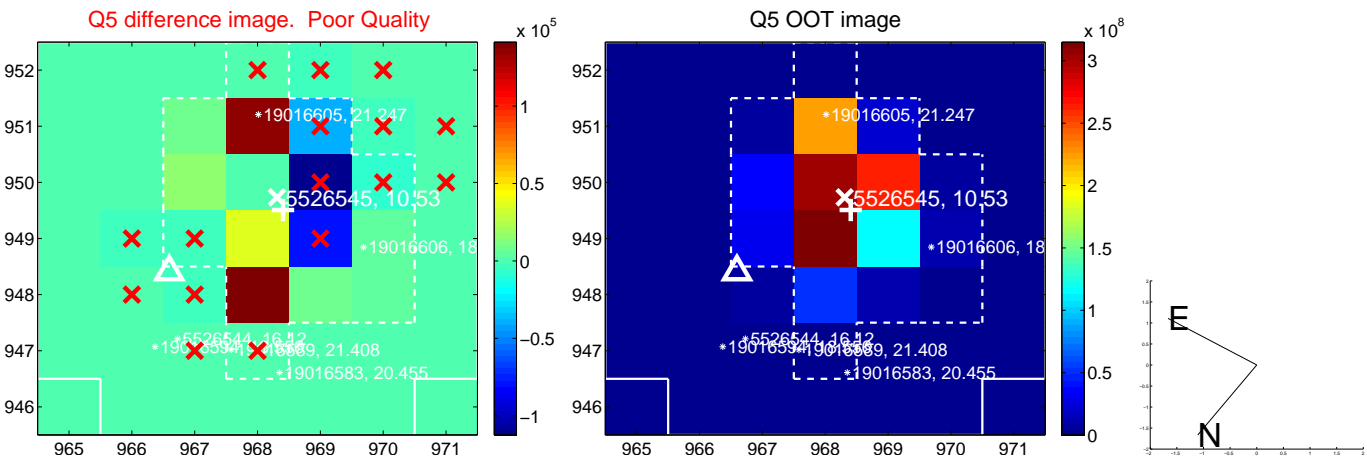


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

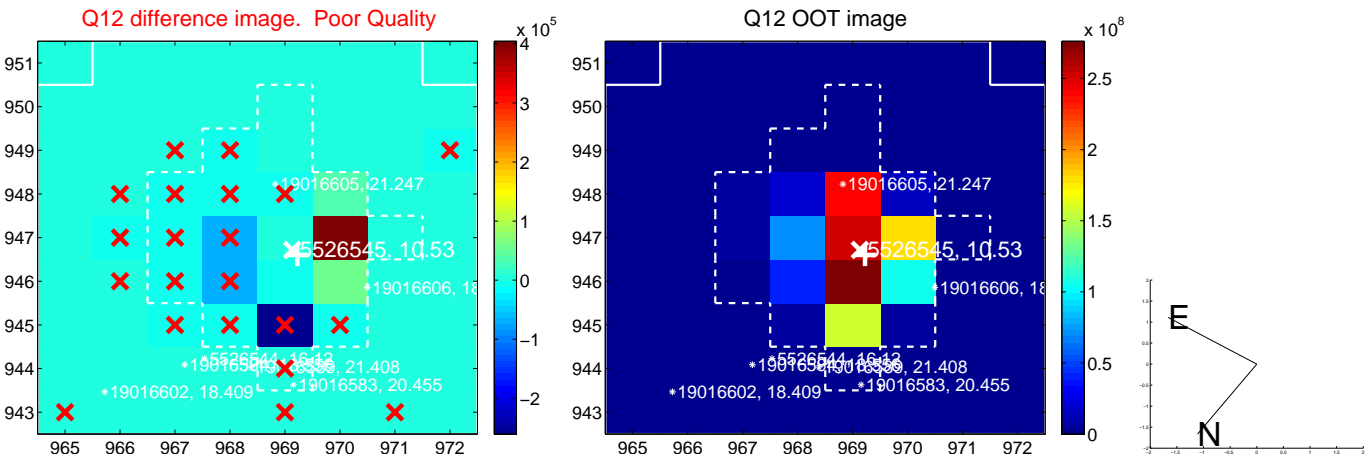
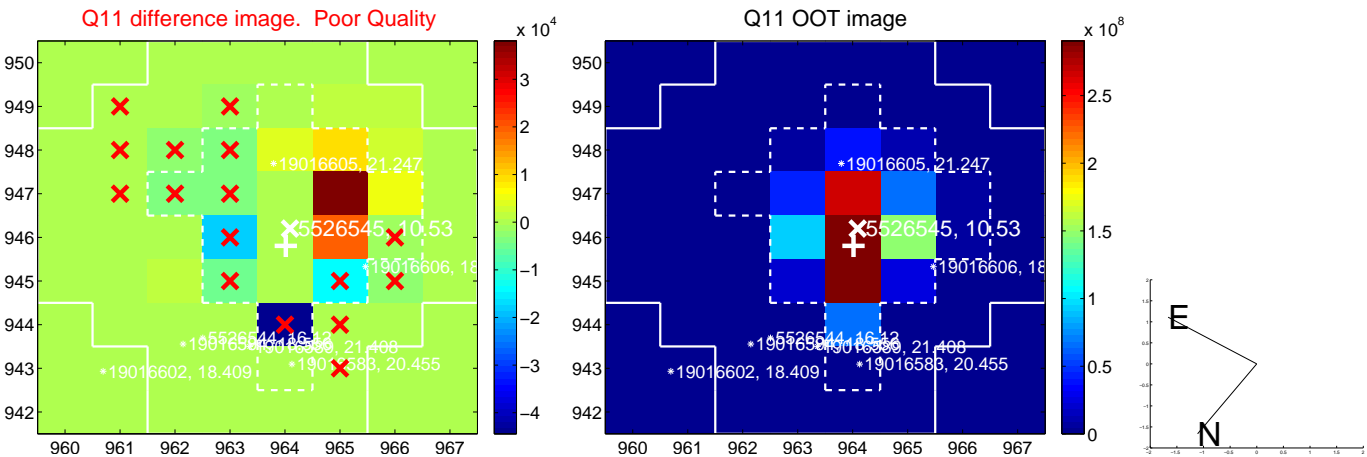
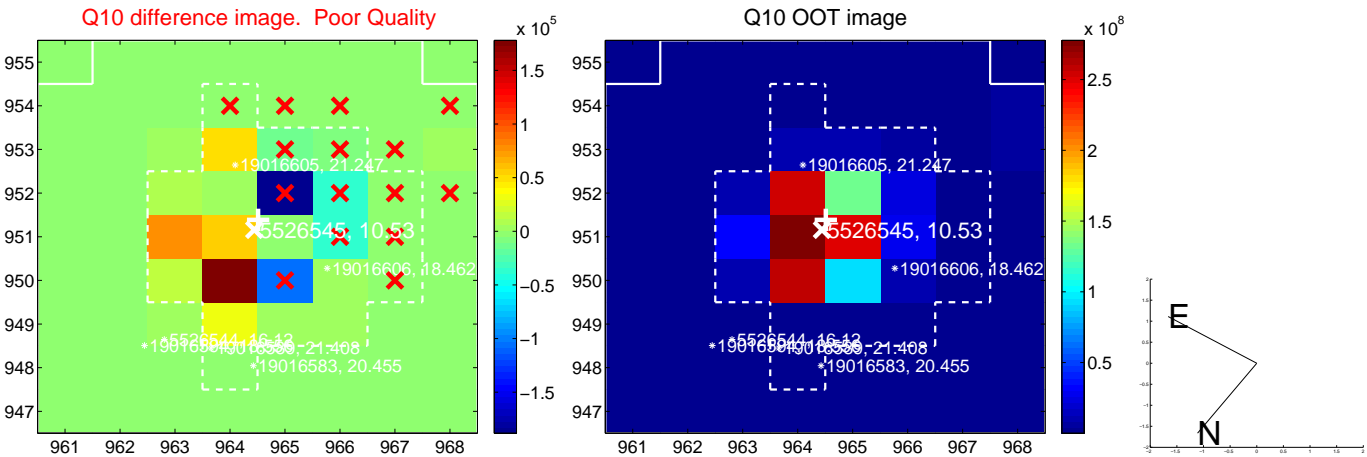
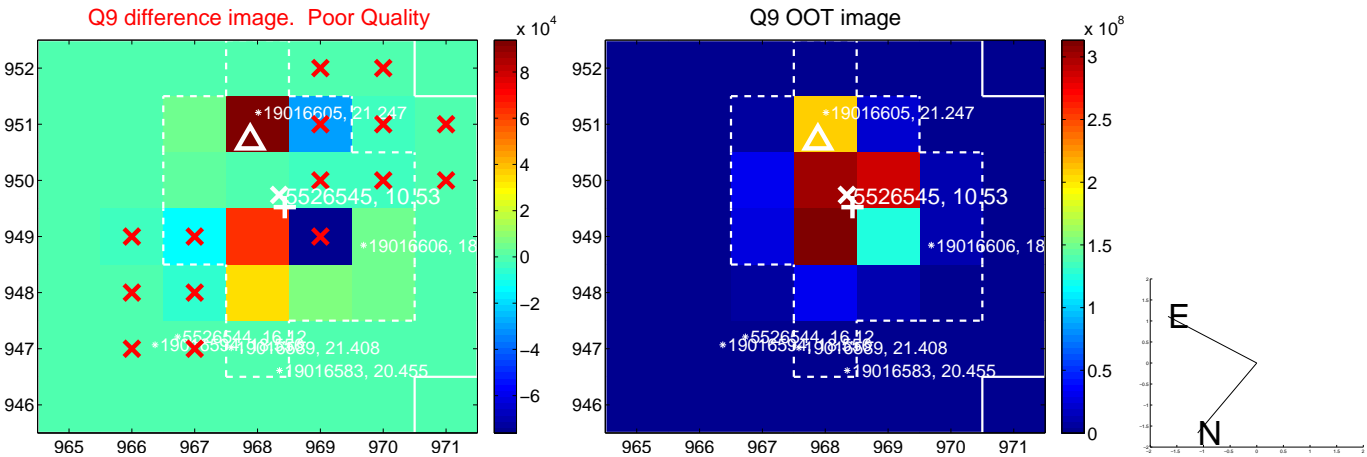
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



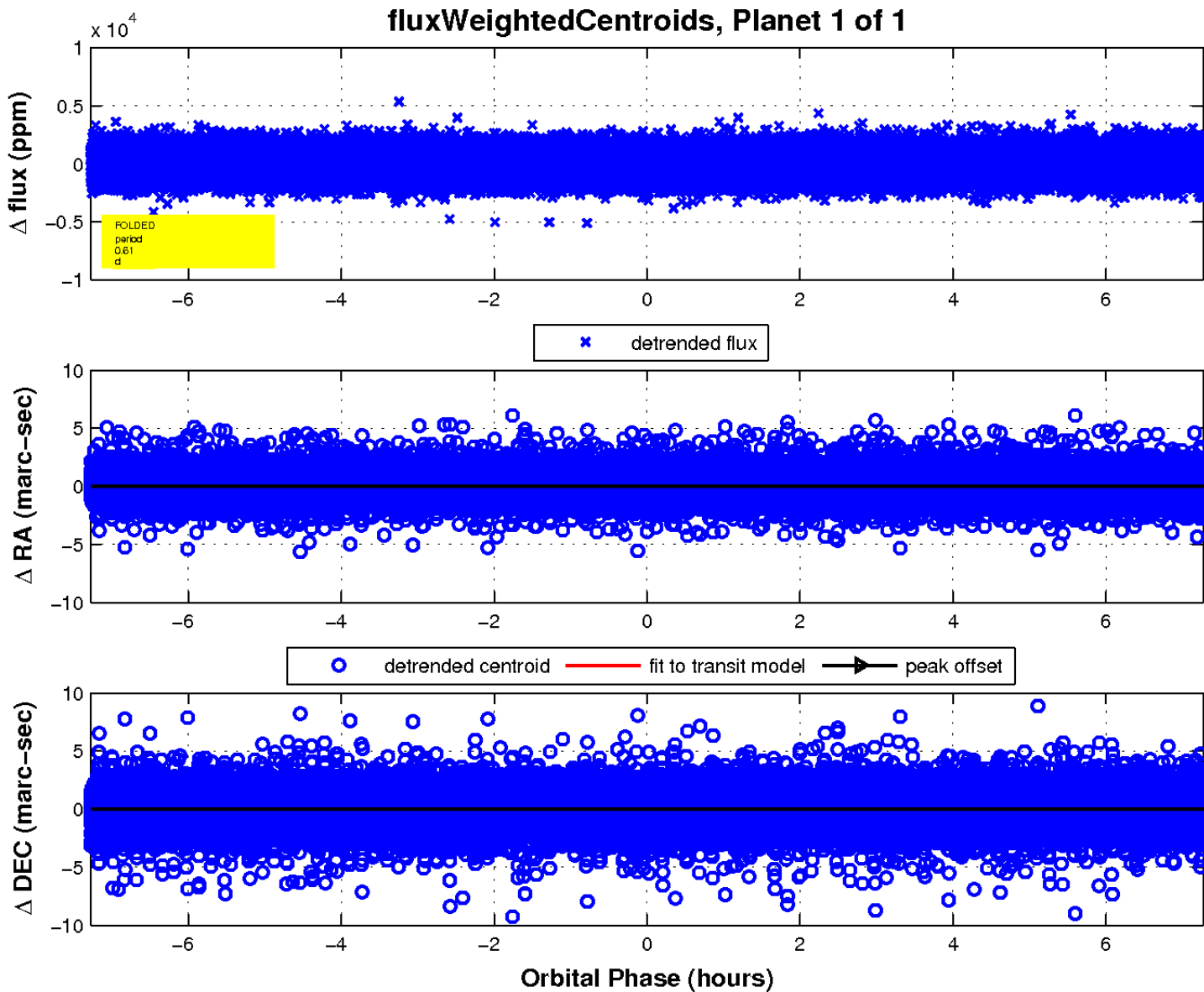
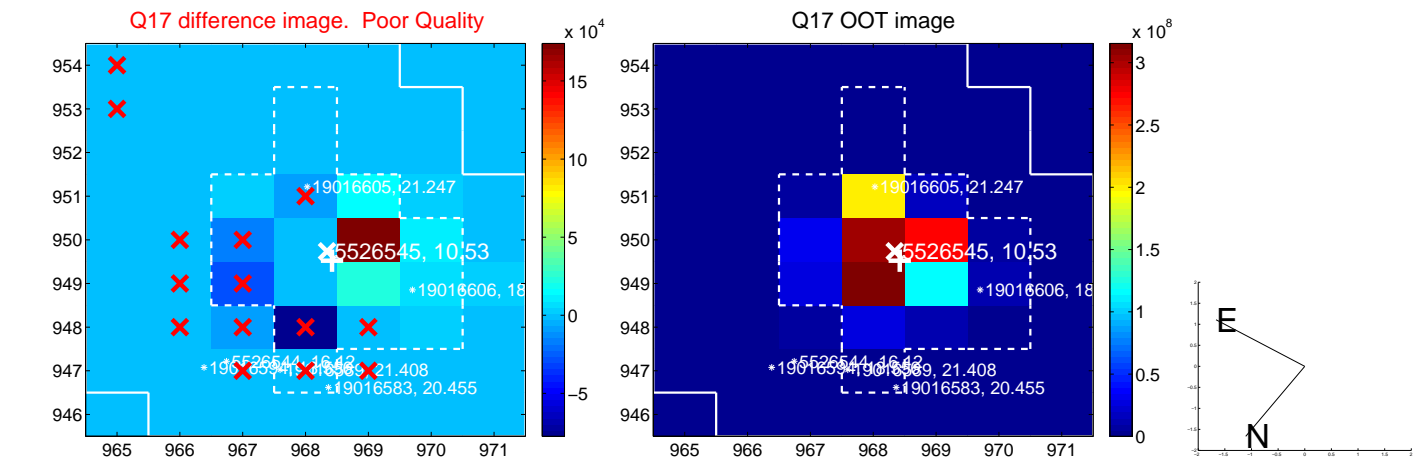
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

